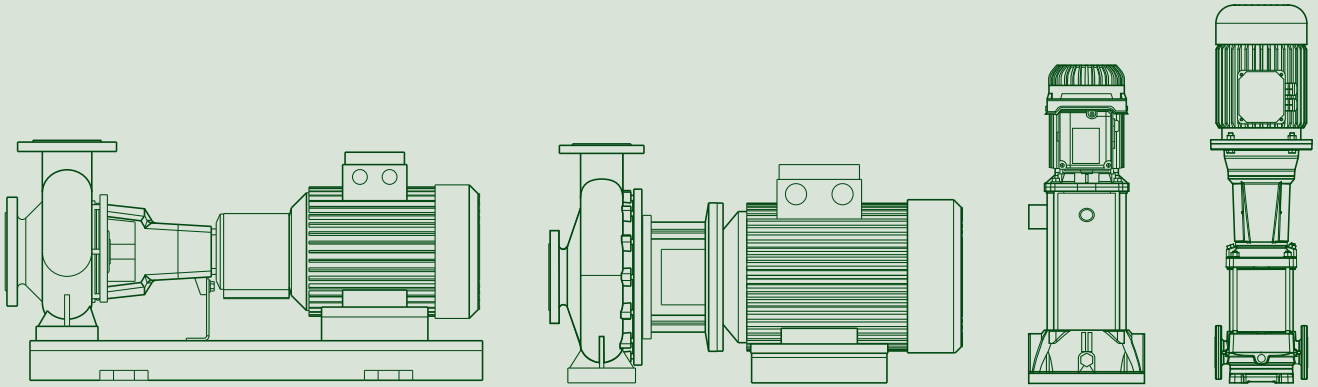


CENTRIFUGAL PUMPS



TECHNICAL CATALOGUE



THE INTERNATIONAL CERTIFICATION NETWORK

CERTIFICATE

IQNet and its partner
CISQ/IMQ-CSQ
hereby certify that the organization

DWT HOLDING SPA
VIA MARCO POLO 14 - 35035 MESTRINO (PD)
BRENDOLA (VI) - CASTELLO DI GODEGO (TV) - BIENTINA (PI) -
SAN GERMANO DEI BERICI (VI) - GESSATE (MI) -
PRC CHINA

for the following field of activities
*Design, production, sale and assistance of components and electronic controls for pumps,
electropumps, and pump sets for cold and hot water for civil, industrial and agricultural use*
Refer to quality manual for details of applications to ISO 9001:2008 requirements

has implemented and maintains a
Quality Management System
which fulfills the requirements of the following standard

ISO 9001:2008

Issued on: 2013 - 09 - 23

Expiry date: 2015 - 06 - 15

Registration Number: IT - 824



Michael Drechsel
Michael Drechsel
President of IQNet



Ing. Claudio Provetti
Ing. Claudio Provetti
President of CISQ

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All. 1 di 1
Ann. 1 of 1



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ALLEGATO CERTIFICATO n. **9101.COGE**
ANNEX CERTIFICATE

(*) Unità Operative:
(*) Operative Units:

DAB PUMPS SPA
VIA BONANNO PISANO 1 - 56031 BIENTINA (PI)

TESLA SRL
VIA DEL LAVORO 3 - 36040 SAN GERMANO DEI BERICI (VI)

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VIA BERGAMO 2 - 20090 GESSATE (MI)

DAB PUMPS QINGDAO CO. LTD.
40 KAITUO ROAD, QINGDAO DEVELOPMENT ZONE - SHANGDONG PROVINCE, PRC CHINA

| DATE: | PRIMA CERTIFICAZIONE FIRST CERTIFICATION | EMISSIONE CORRENTE CURRENT ISSUE | SCADENZA EXPIRY |
|-------|---|-------------------------------------|--------------------|
| | 1995-07-17 | 2013-09-23 | 2015-06-15 |

Spavetti
IMO S.p.A. - VIA GURITILIANO, 43 - 20138 MILANO



EA 18, 19

ISO 9001:2008
La validità del certificato è subordinata a sorveglianza annuale e richiesta controllo del Sistema di Gestione con periodicità triennale.
The validity of the certificate is subjected to annual audit and a re-assessment of the entire Management System within three years.

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www.iqnet-certification.com

IQNet, the association of the world's first class certification bodies, is the largest provider of management system certification in the world.
IQNet is composed of more than 30 bodies and counts over 150 subsidiaries all over the globe.

CISQ è la Federazione Italiana di Organismi di Certificazione dei sistemi di gestione aziendale.
CISQ is the Italian Federation of management system Certification Bodies.



www.cisq.com



www.imq.it

CERTIFICATO N.
CERTIFICATE N. **9101.COGE**

SI CERTIFICA CHE IL SISTEMA QUALITÀ DI
WE HEREBY CERTIFY THAT THE QUALITY SYSTEM OPERATED BY
DWT HOLDING SPA
VIA MARCO POLO 14 - 35035 MESTRINO (PD)

UNITÀ OPERATIVE
OPERATIVE UNITS
DAB PUMPS
VIA MARCO POLO 14 - 35035 MESTRINO (PD)
DAB PUMPS
VIA EINAUDI 2 - 36040 BRENDOLA (VI)
DAB PUMPS
VIA E. FERMI 6-8-10 - 31030 CASTELLO DI GODEGO (TV)

Vedere gli Allegati per le altre Unità Operative (n° 1 pagina)
View the Annexes for the other Operative Units (n° 1 page)

E' CONFORME ALLA NORMA
IS IN COMPLIANCE WITH THE STANDARD
ISO 9001:2008

PER LE SEGUENTI ATTIVITÀ
FOR THE FOLLOWING ACTIVITIES

Progettazione, produzione, vendita e assistenza di componenti e controlli elettronici per pompe,
elettropompe e gruppi di pompaggio per acqua fredda e calda ad uso civile, industriale ed agricolo
*Design, production, sale and assistance of components and electronic controls for pumps,
electropumps, and pump sets for cold and hot water for civil, industrial and agricultural use*

Riferirsi al manuale della qualità per l'applicabilità dei requisiti della norma ISO 9001:2008
Refer to quality manual for details of applications to ISO 9001:2008 requirements

IL PRESENTE CERTIFICATO E' SOGGETTO AL RISPETTO DEL
REGOLAMENTO PER LA CERTIFICAZIONE DEI SISTEMI DI GESTIONE
THE USE AND THE VALIDITY OF THE CERTIFICATE SHALL SATISFY THE
REQUIREMENTS OF THE RULES FOR CERTIFICATION OF MANAGEMENT SYSTEMS

| DATE: | PRIMA CERTIFICAZIONE FIRST CERTIFICATION | EMISSIONE CORRENTE CURRENT ISSUE | SCADENZA EXPIRY |
|-------|---|-------------------------------------|--------------------|
| | 1995-07-17 | 2013-09-23 | 2015-06-15 |

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EA 18, 19

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CISQ is the Italian Federation of management system Certification Bodies.



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TECHNICAL DATA

Operating range:

from 8 to 45 l/m with head up to 53 metres.

Pumped liquid:

clean, free of solids and abrasives, non-viscous, non-crystallised and chemically neutral, with properties similar to water.

Liquid temperature range:

from 0 °C to +35 °C for domestic use (EN 60335-2-41).

from -10°C to +80°C for other uses.

Maximum ambient temperature: +40°C

Maximum operating pressure: 10 bar (1000 kPa).

Protection class: IP 44

Protection class at the terminal board: IP 55

Insulation class: F

Standard voltage: single-phase 220-240 V / 50 Hz three-phase 230-400 V / 50 Hz.

Installation: fixed, horizontal position.

APPLICATIONS

Self-priming pump with side liquid channel and star-shaped impeller; excellent suction capabilities even in unfavourable operating conditions, such as the presence of air bubbles, or lack of continuity of the liquid at the suction.

Used in domestic, agricultural civil and industrial installations.

CONSTRUCTION FEATURES OF THE PUMP

Cast iron pump body with brass wear disk.

Motor support and impeller fully made of brass to avoid the risk of blockage.

Carbon/ceramic mechanical seal.

Stainless steel motor shaft.

CONSTRUCTION FEATURES OF THE MOTOR

Closed asynchronous type, external ventilation cooling.

Rotor running on permanently lubricated ball bearings, oversized to ensure low noise and durability.

Built-in thermal and current overload protection in the single-phase version.

For the protection of the three-phase motor, we recommend the use of remote overload cut-outs, in compliance with current local regulations.

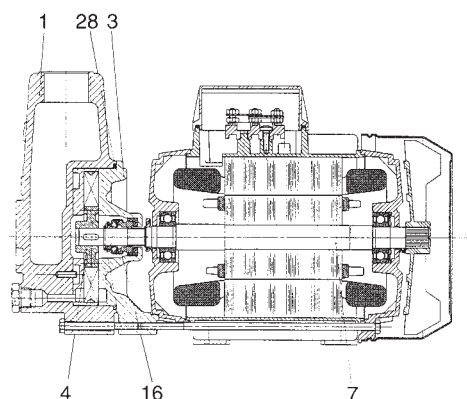
Permanently connected capacitor in the single-phase version.

Construction according to CEI 2-3 and CEI 61-69 (EN 60335-2-41).

MATERIALS

| No. | PARTS* | MATERIALS |
|-----|------------------|--|
| 1 | PUMP BODY | CAST IRON 250 ISO UNI 185 WITH BRASS PRESSURE RING PCu ZN 40 PB2 UNI 5705/65 |
| 3 | SUPPORT | BRASS PCu Zn 40 Pb2 UNI 5705/65 |
| 4 | IMPELLER | BRASS PCu Zn 40 Pb2 UNI 5705/65 |
| 7 | SHAFT WITH ROTOR | AISI 303 STAINLESS STEEL X12 CrNiS 13 UNI 6900/71 |
| 16 | MECHANICAL SEAL | CARBON / CERAMIC |
| 28 | OR RING | VITON |

* In contact with the liquid



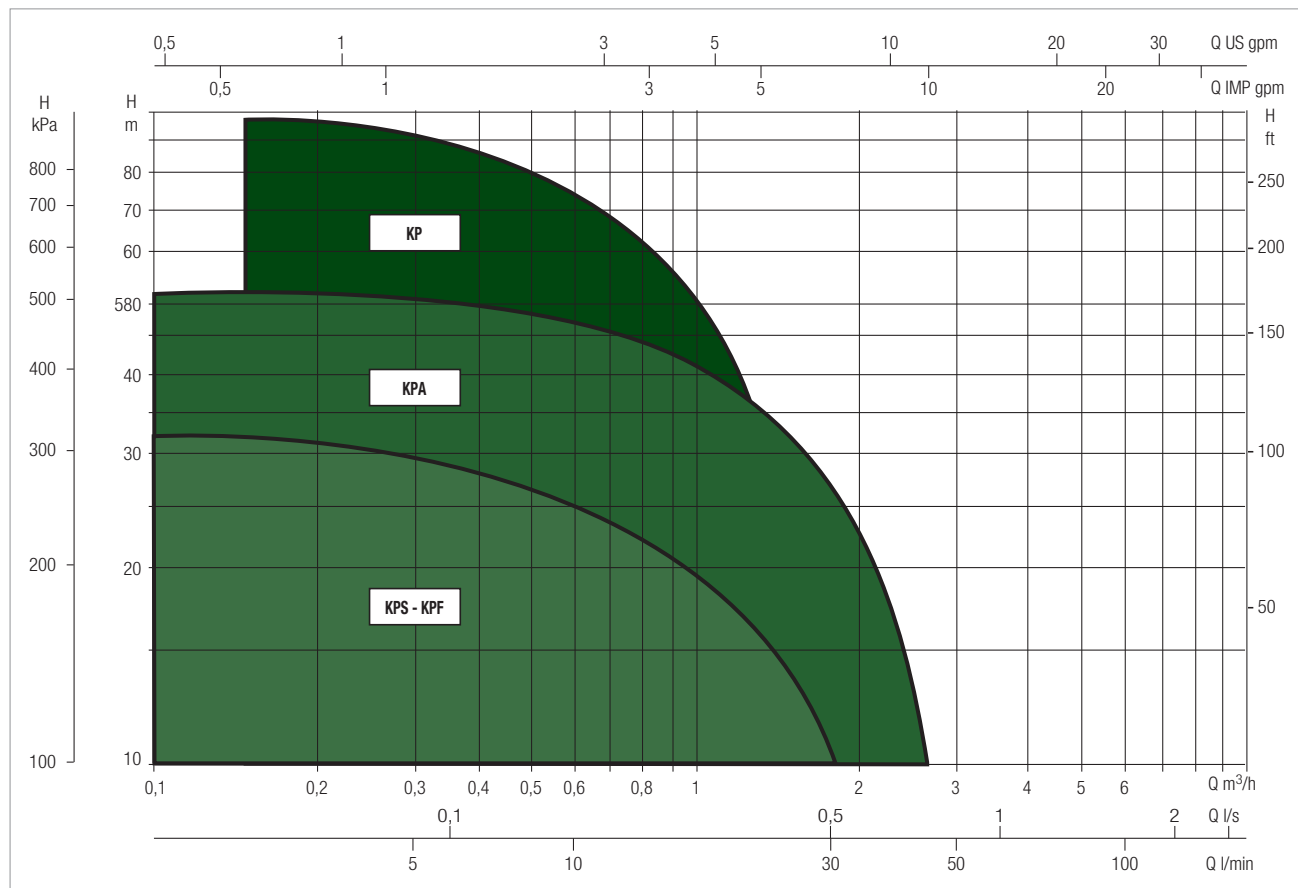
KPA - KPS / KPF - KP RANGE

PERIPHERAL ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE



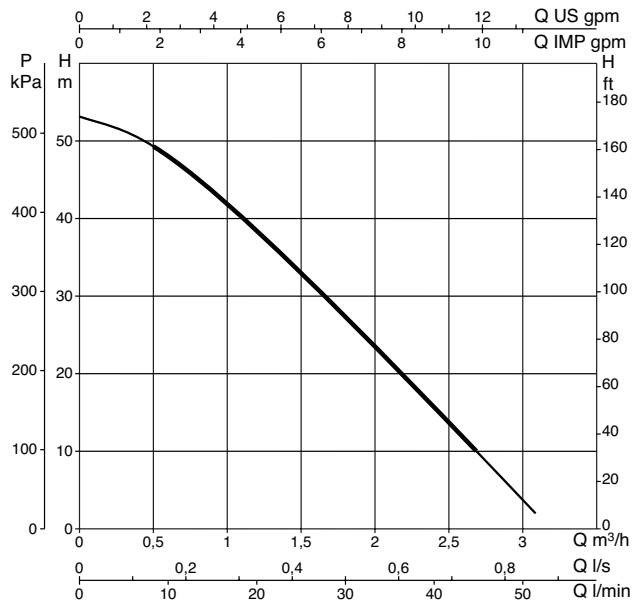
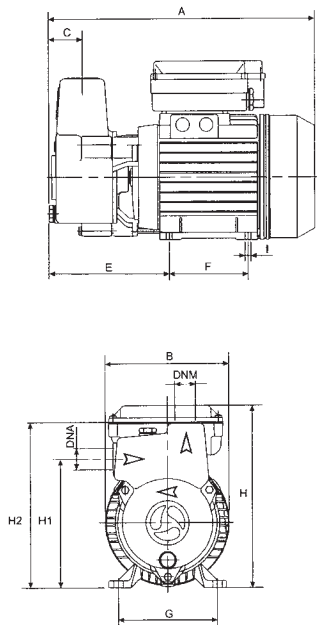
SELECTION TABLE

| MODEL | Q= | 0 | 0.3 | 0.6 | 0.9 | 1.2 | 1.8 | 2.4 |
|-------------|-------|----|-----|-----|-----|-----|-----|-----|
| | m³/h | | | | | | | |
| KPA 40/20 M | Q= | 0 | 5 | 10 | 15 | 20 | 30 | 40 |
| | l/min | | | | | | | |
| KPA 40/20 M | H (m) | 53 | 51 | 48 | 43 | 38 | 27 | 16 |
| KPA 40/20 T | H (m) | 53 | 51 | 48 | 43 | 38 | 27 | 16 |

KPA - SELF-PRIMING PERIPHERAL ELECTRIC PUMPS FOR THE SUPPLY OF WATER IN DOMESTIC ENVIRONMENTS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use (EN 60335-2-41). From -10 °C to +80 °C for other uses.

Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | POWER INPUT 50 Hz | P1 MAX kW | ELECTRICAL DATA | | | | | | |
|-------------|----------------------|--------------|-----------------|----|-----------|--------------|-------|-----------|-----|
| | | | P2 NOMINAL | | In A | I st. A | 1/min | CAPACITOR | |
| | | | kW | HP | | | | µF | Vc |
| KPA 40/20 M | 1x 230V ~ | 1.1 | 0.75 | 1 | 5.1 | 17.3 | 2800 | 20 | 450 |
| KPA 40/20 T | 1x 220 - 240V ~ | 1 | 0.75 | 1 | 3,5 - 2,1 | 24,3 - 14,07 | 2860 | — | — |

| MODEL | A | B | C | E | F | G | I Ø | H | H1 | H2 | DNA GAS | DNM GAS | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|-----------|-----|-----|----|-----|----|-----|-----|-----|-----|-----|------------|------------|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | | | | L/A | L/B | H | | |
| KPA 40/20 | 301 | 142 | 38 | 136 | 90 | 112 | 7 | 206 | 146 | 187 | 1" | 1" | 406 | 267 | 402 | 0.044 | 12.40 |

KPS / KPF

PERIPHERAL ELECTRIC PUMPS



KPS



KPF



KP 38

TECHNICAL DATA

Operating range:

from 5 to 50 l/m with head up to 84 metres.

Pumped liquid: clean, free of solids and abrasives, non-viscous, non-aggressive, non-crystallised and chemically neutral.

Liquid temperature range:

from 0 °C to +35 °C for domestic use.

from -10°C to +50°C for other uses.

Maximum ambient temperature: +40°C

Maximum operating pressure: 10 bar (6 bar for KPS-KPF 30/16).

Installation: fixed, horizontal position.

Motor protection class: IP 44

Protection class at the terminal board:

IP 55 for KP38/18 and for KPF 45/20;

IP44 for KPF/S 30/16

Insulation class: F

Standard voltage: single-phase 1 x 230 V / 50 Hz

three-phase: 3 x 230-400 V / 50 Hz.

Special executions on requests: alternative voltages and frequencies.

APPLICATIONS

Peripheral centrifugal pump with compact dimensions. Capable of generating high heads and suitable for domestic installations, water supply systems, small gardening applications, draining and filling cisterns, and for light industrial uses, such as feeding pressurized boilers (anti-condensation).

CONSTRUCTION FEATURES OF THE PUMP

Brass pump body and motor support for KP 60/6 and KP 60/12. Pump body with radial suction for KP and KPS; front suction for KPF. Cast iron support with brass wear disc for KPS 30/16 and KP 38/18. KPS 30/16 is available on request with bronze pump body and support. Brass impeller. Carbon / ceramic mechanical seal.

CONSTRUCTION FEATURES OF THE MOTOR

Closed asynchronous type, external ventilation cooling. Rotor running on permanently lubricated ball bearings, oversized to ensure low noise and durability. Standard built-in thermo-amperometric protection. Capacitor permanently fitted on single phase versions. For the protection of the three-phase motor, we recommend the use of remote overload cut-outs, in compliance with current local regulations. Construction according to CEI 2-3 and CEI 61-69 (EN 60335-2-41).

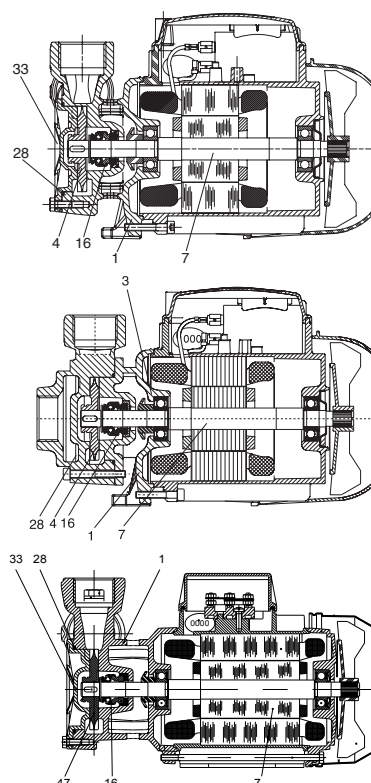
MATERIALS

| No. | PARTS* KPS | MATERIALS |
|-----|------------------|--|
| 1 | PUMP BODY | CAST IRON 200 UNI ISO 185 |
| 4 | IMPELLER | BRASS PCU ZN 40 PB2 UNI 5705/65 |
| 7 | SHAFT WITH ROTOR | AISI 416 STAINLESS STEEL X12 CRS 13 UNI 6900/71 |
| 16 | MECHANICAL SEAL | CARBON / CERAMIC |
| 28 | OR RING | NBR |
| 33 | COVER | BRASS PCU ZN 40 PB2 UNI 5705/65 |

| No. | PARTS* KPF | MATERIALS |
|-----|------------------|--|
| 1 | PUMP BODY | G20 EN-GJL-250 UNI EN 1561 |
| 3 | MOT. SUPP. PUMP | G20 EN-GJL-250 UNI EN 1561 |
| 4 | IMPELLER | BRASS PCU ZN 40 PB2 UNI 5705/65 |
| 7 | SHAFT WITH ROTOR | AISI 416 STAINLESS STEEL X12 CRS 13 UNI 6900/71 |
| 16 | MECHANICAL SEAL | CARBON / CERAMIC |
| 28 | OR RING | NBR |

| No. | PARTS* KP 38 | MATERIALS |
|-----|------------------|--|
| 1 | PUMP BODY | CAST IRON 200 UNI ISO 185 |
| 4 | IMPELLER | BRASS PCU ZN 40 PB2 UNI 5705/65 |
| 7 | SHAFT WITH ROTOR | AISI 416 STAINLESS STEEL X12 CRS 13 UNI 6900/71 |
| 16 | MECHANICAL SEAL | CARBON / CERAMIC |
| 28 | OR RING | NBR |
| 33 | COVER | BRASS PCu Zn 40 Pb2 UNI 5705/65 |

* In contact with the liquid



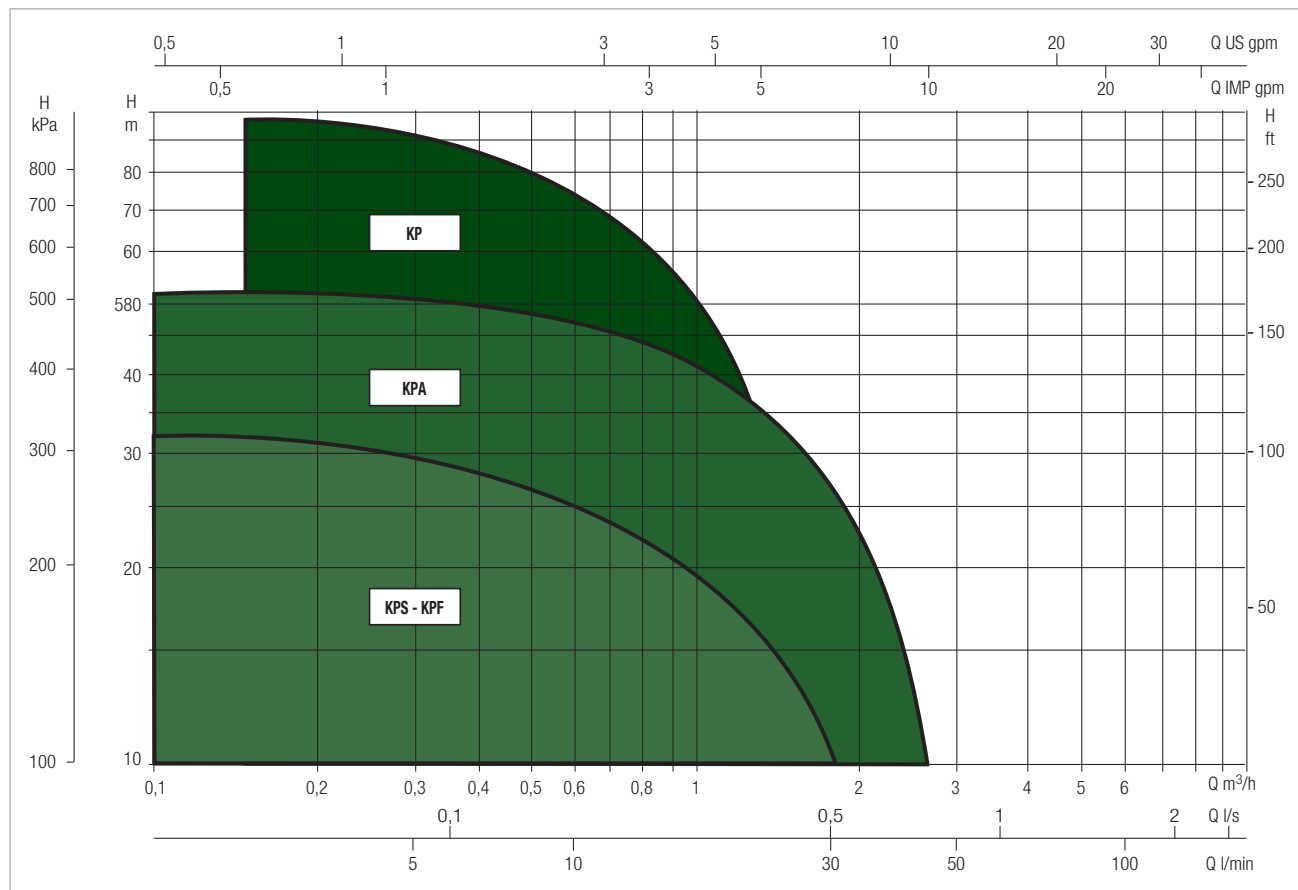
KPA - KPS / KPF - KP RANGE

PERIPHERAL ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE



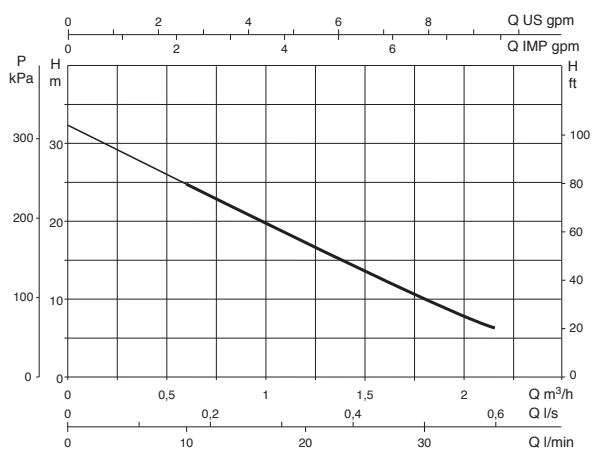
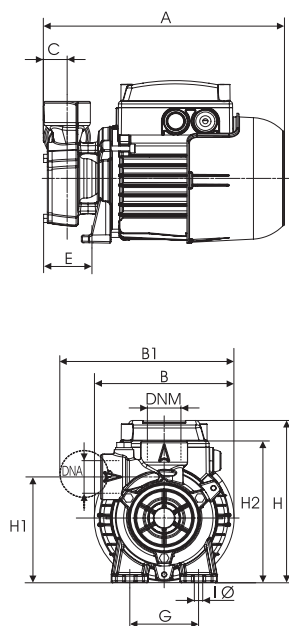
SELECTION TABLE

| MODEL | Q= | 0 | 0.3 | 0.6 | 0.9 | 1.2 | 1.8 | 2.4 |
|-------------|----------|------|-----|-----|-----|------|------|------|
| | Q= | 0 | 5 | 10 | 15 | 20 | 30 | 40 |
| KPF 30/16 M | H (m) | 32.5 | 31 | 25 | 22 | 17.5 | 10 | |
| KPF 30/16 T | | 32.5 | 31 | 25 | 22 | 17.5 | 10 | |
| KPS 30/16 M | | 32.5 | 31 | 25 | 22 | 17.5 | 10 | |
| KPS 30/16 T | | 32.5 | 31 | 25 | 22 | 17.5 | 10 | |
| KP 38/18 M | | 54 | 50 | 46 | 41 | 36 | 27.5 | 17.5 |
| KP 38/18 T | | 54 | 50 | 46 | 41 | 36 | 27.5 | 17.5 |
| KPF 45/20 M | | 84 | 76 | 68 | 62 | 56 | 38 | 24 |
| KPF 45/20 T | | 84 | 76 | 68 | 62 | 56 | 38 | 24 |

KPS - PERIPHERAL ELECTRIC PUMPS FOR THE SUPPLY OF WATER IN DOMESTIC ENVIRONMENTS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use. From -10 °C to +50°C for other uses.

Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

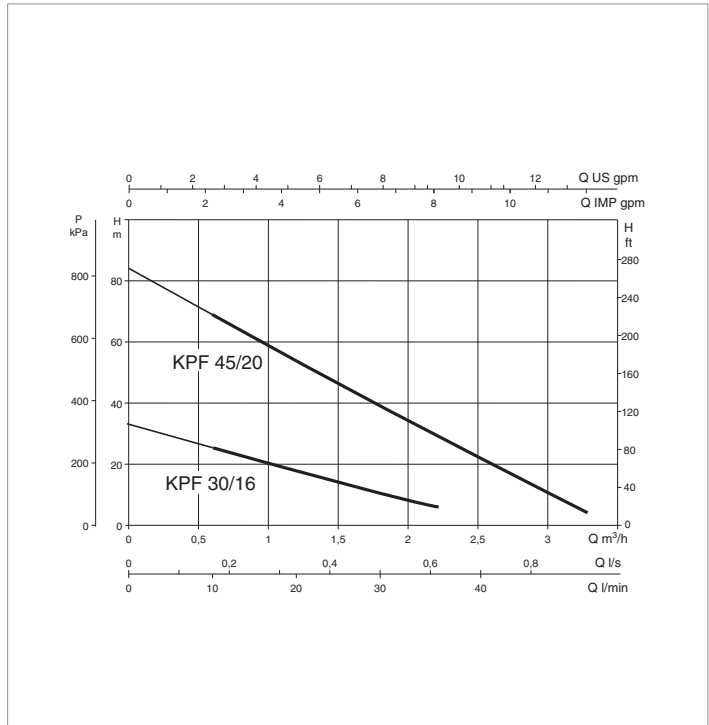
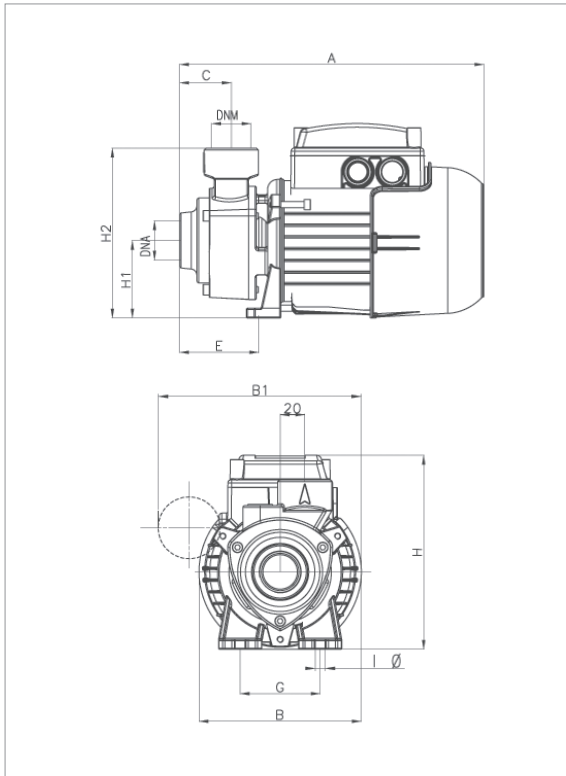
| MODEL | POWER INPUT 50 Hz | P1 MAX kW | ELECTRICAL DATA | | | | |
|----------------------------|----------------------|--------------|-----------------|-----|-----------|-----------|-----|
| | | | P2 NOMINAL | | In A | CAPACITOR | |
| | | | kW | HP | | µF | Vc |
| KPS 30/16 M | 1 x 230 V ~ | 0.47 | 0.37 | 0.5 | 2 | 8 | 450 |
| KPS 30/16 T | 3 x 230 - 400 V ~ | 0.47 | 0.37 | 0.5 | 1,4 - 0.8 | — | — |
| KPS 30/16 M-P ¹ | 1 x 230 V ~ | 0.47 | 0.37 | 0.5 | 2 | 8 | 450 |

| MODEL | A | B | B1 | C | E | F | G | I Ø | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|-----------|-----|-----|-----|----|----|---|----|-----|-----|-----|-----|------|------|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | | | | | L/A | L/B | H | | |
| KPS 30/16 | 228 | 132 | 165 | 22 | 46 | — | 65 | 8 | 158 | 103 | 138 | 1" G | 1" G | 259 | 164 | 197 | 0.008 | 5.4 |

KPF - PERIPHERAL ELECTRIC PUMPS FOR THE SUPPLY OF WATER IN DOMESTIC ENVIRONMENTS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use. From -10 °C to +50°C for other uses.

Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

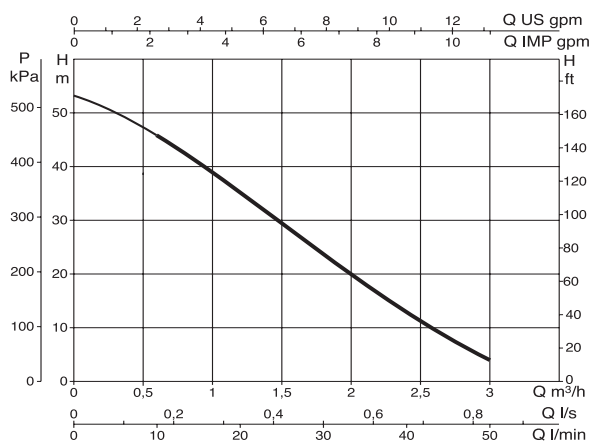
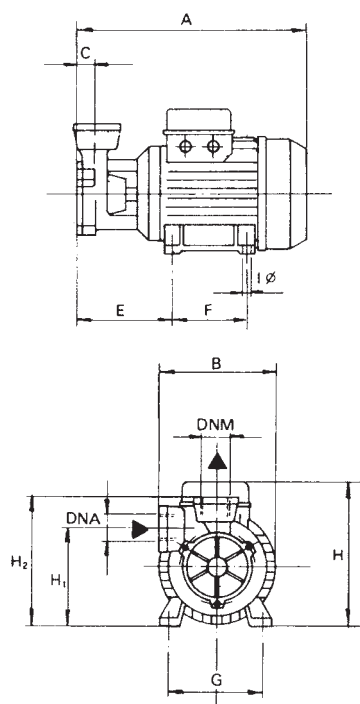
| MODEL | POWER INPUT 50 Hz | P1 MAX kW | ELECTRICAL DATA | | | | |
|-------------|----------------------|--------------|-----------------|------|-------------|-----------|-----|
| | | | P2 NOMINAL | | In A | CAPACITOR | |
| | | | kW | HP | | µF | Vc |
| KPF 30/16 M | 1 x 230 V ~ | 0.53 | 0.37 | 0.5 | 2.37 | 8 | 450 |
| KPF 30/16 T | 3 x 230 - 400 V ~ | 0.47 | 0.37 | 0.5 | 1,45 - 0.82 | — | — |
| KPF 45/20 M | 1 x 230 V ~ | 1.5 | 1 | 1.34 | 5.9 | 25 | 450 |
| KPF 45/20 T | 3 x 230 - 400 V ~ | 1.4 | 1 | 1.34 | — | — | — |

| MODEL | A | B | B1 | C | E | F | G | I Ø | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|-----------|-----|-----|-----|----|----|---|-----|-----|-----|----|-----|------|------|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | | | | | L/A | L/B | H | | |
| KPF 30/16 | 247 | 132 | 165 | 42 | 64 | — | 65 | 8 | 158 | 63 | 138 | 1" G | 1" G | 262 | 140 | 180 | 0.0083 | 5.3 |
| KPF 45/20 | 315 | 155 | — | 55 | 95 | — | 112 | 7 | 188 | 78 | 163 | 1" G | 1" G | 325 | 165 | 198 | 0.014 | 12 |

KP 38/18 - PERIPHERAL ELECTRIC PUMPS FOR THE SUPPLY OF WATER IN DOMESTIC ENVIRONMENTS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use. From -10 °C to +50°C for other uses.

Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | | |
|------------|----------------------|--------------|------------|-----|-----------|-----------|-----|
| | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | CAPACITOR | |
| | | | kW | HP | | µF | Vc |
| KP 38/18 M | 1 x 230V ~ | 0.89 | 0.6 | 0.8 | 4 | 12.5 | 450 |
| KP 38/18 T | 3 x 230 - 400 V ~ | 0.86 | 0.6 | 0.8 | 2,9 - 1.7 | — | — |

| MODEL | A | B | B1 | C | E | F | G | I Ø | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|----------|-----|-----|----|----|-----|----|-----|-----|-----|-----|-----|------|------|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | | | | | L/A | L/B | H | | |
| KP 38/18 | 255 | 130 | — | 26 | 106 | 80 | 100 | 7 | 186 | 108 | 153 | 1" G | 1" G | 271 | 176 | 209 | 0.01 | 7.5 |



TECHNICAL DATA

Operating range:

from 1 to 35 l/m with head up to 107 metres.

Pumped liquid: clean, free of solids and abrasives, non-viscous, non-aggressive, non-crystallised and chemically neutral, with properties similar to water.

Liquid temperature range:

from 0 °C to +35 °C for domestic use (EN 60335-2-41).

from -10 °C to +80 °C for other uses.

Maximum ambient temperature: +40°C

Maximum operating pressure: 12 bar (1200 kPa)

Installation: fixed, horizontal position.

Motor protection class: IP 44

Protection class at the terminal board: IP 55

Insulation class: F

Standard voltage: single-phase 1 x 230 V / 50 Hz

three-phase: 3 x 230-400 V / 50 Hz.

Special executions on requests: alternative voltages and frequencies.

APPLICATIONS

Peripheral centrifugal pump with compact dimensions. Capable of generating high heads and suitable for domestic installations, water supply systems, small gardening applications, draining and filling cisterns, and for light industrial uses, such as feeding pressurized boilers (anti-condensation).

CONSTRUCTION FEATURES OF THE PUMP

Brass pump body and motor support for KP 60/6 and KP 60/12.

Side suction pump body.

Brass impeller.

Carbon/ceramic mechanical seal.

CONSTRUCTION FEATURES OF THE MOTOR

Closed asynchronous type, external ventilation cooling.

Rotor running on permanently lubricated ball bearings, oversized to ensure low noise and durability.

Standard built-in thermo-amperometric protection. Capacitor permanently fitted on single phase versions.

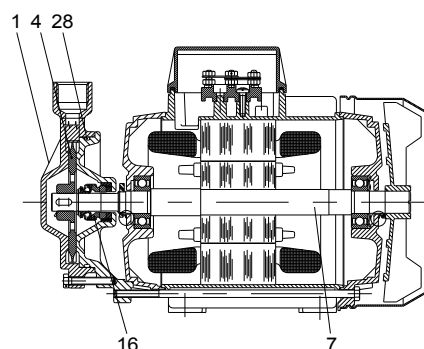
For the protection of the three-phase motor, we recommend the use of remote overload cut-outs, in compliance with current local regulations.

Construction according to CEI 2-3 and CEI 61-69 (EN 60335-2-41).

MATERIALS

| No. | PARTS* | MATERIALS |
|-----|------------------|--|
| 1 | PUMP BODY | BRASS PCU ZN 40 PB2 UNI 5705/65 |
| 3 | SUPPORT | BRASS PCU ZN 40 PB2 UNI 5705/65 |
| 4 | IMPELLER | BRASS PCU ZN 40 PB2 UNI 5705/65 |
| 7 | SHAFT WITH ROTOR | AISI 416 STAINLESS STEEL X12 CRS 13 UNI 6900/71 |
| 16 | MECHANICAL SEAL | CARBON / CERAMIC |
| 28 | OR RING | VITON |

* In contact with the liquid



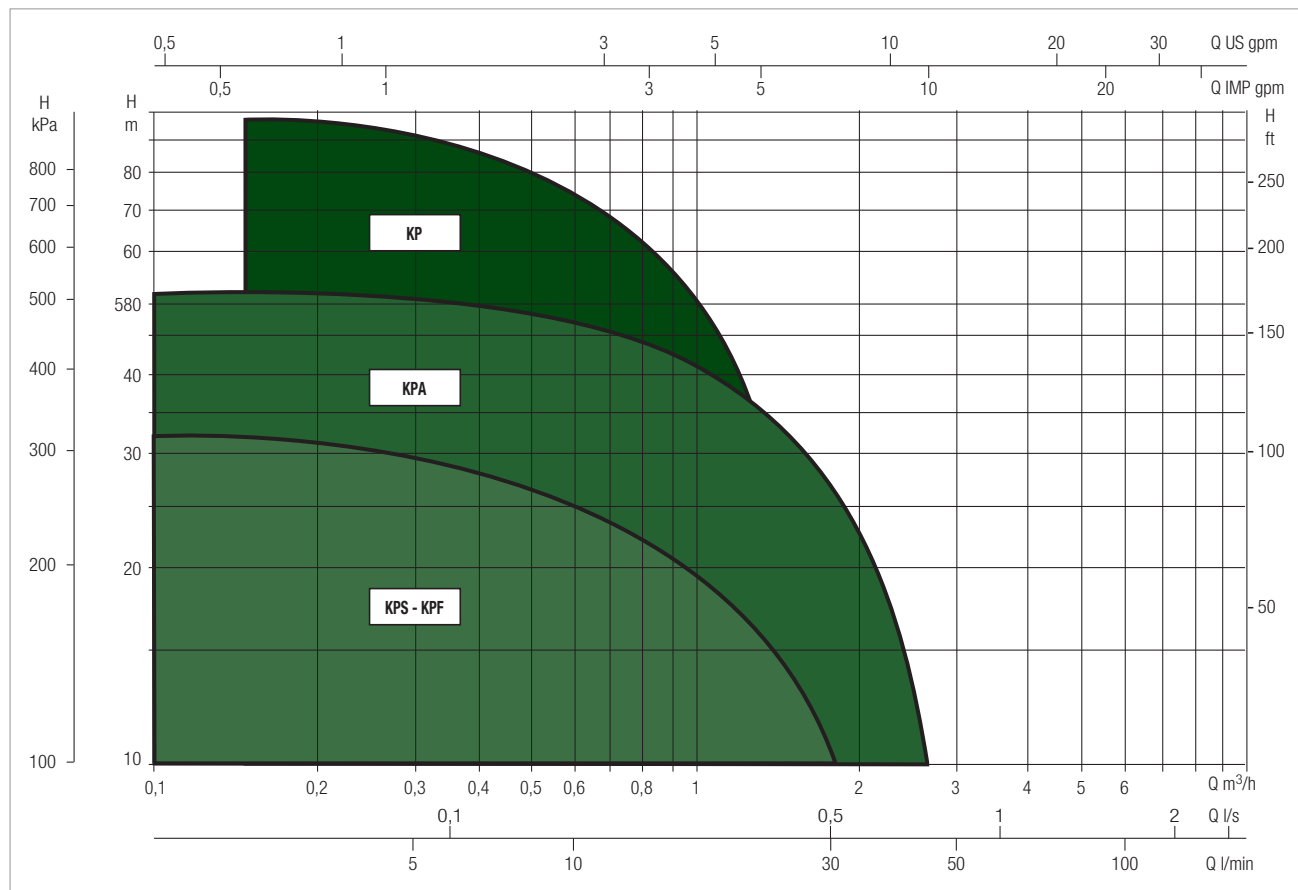
KPA - KPS / KPF - KP RANGE

PERIPHERAL ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE



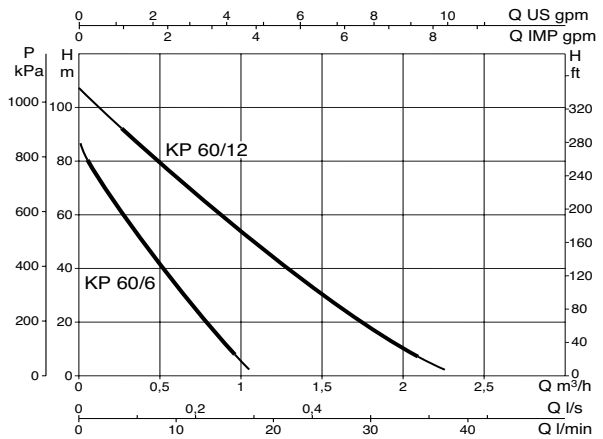
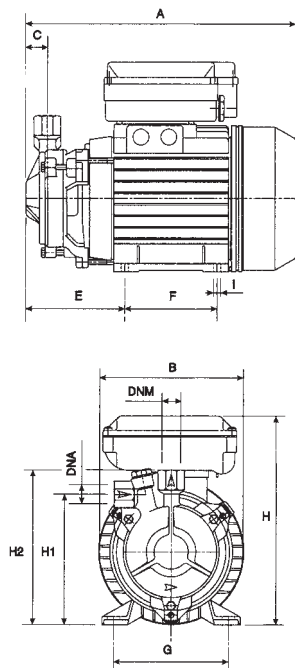
SELECTION TABLE

| MODEL | Q= | 0 | 0.3 | 0.6 | 0.9 | 1.2 | 1.8 | 2.4 |
|------------|----------|-----|-----|-----|-----|-----|-----|-----|
| | Q= | 0 | 5 | 10 | 15 | 20 | 30 | 40 |
| KP 60/6 M | H (m) | 87 | 57 | 33 | 13 | | | |
| KP 60/6 T | | 87 | 57 | 33 | 13 | | | |
| KP 60/12 M | | 107 | 91 | 74 | 58 | 43 | 17 | |
| KP 60/12 T | | 107 | 91 | 74 | 58 | 43 | 17 | |

KP 60 - PERIPHERAL ELECTRIC PUMPS FOR THE SUPPLY OF WATER IN DOMESTIC ENVIRONMENTS

Liquid temperature range: from 0 °C to +35 °C for domestic use (EN 60335-2-41). From -10 °C to +80 °C for other uses.

Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | POWER INPUT 50 Hz | P1 MAX kW | ELECTRICAL DATA | | | | |
|------------|----------------------|--------------|-----------------|-----|-----------|-----------|-----|
| | | | P2 NOMINAL | | In A | CAPACITOR | |
| | | | kW | HP | | µF | Vc |
| KP 60/6 M | 1 x 230 V ~ | 0.54 | 0.37 | 0.5 | 2.4 | 10 | 450 |
| KP 60/6 T | 3 x 230 - 400 V ~ | 0.52 | 0.37 | 0.5 | 1,8 - 1 | — | — |
| KP 60/12 M | 1 x 230 V ~ | 1.15 | 0.75 | 1 | 5.2 | 20 | 450 |
| KP 60/12 T | 3 x 230 - 400 V ~ | 1.12 | 0.75 | 1 | 3,8 - 2.2 | — | — |

| MODEL | A | B | C | E | F | G | I Ø | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|------------|-----|-----|----|----|----|-----|-----|-----|-----|-----|--------|--------|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | | | | L/A | L/B | H | | |
| KP 60/6 M | 262 | 142 | 21 | 96 | 90 | 112 | 7 | 204 | 127 | 151 | 1/2" G | 1/2" G | 406 | 267 | 402 | 0.043 | 8.2 |
| KP 60/6 T | 262 | 142 | 21 | 96 | 90 | 112 | 7 | 173 | 127 | 151 | 1/2" G | 1/2" G | 406 | 267 | 402 | 0.043 | 7.9 |
| KP 60/12 M | 262 | 142 | 20 | 96 | 90 | 112 | 7 | 204 | 126 | 161 | 3/4" G | 3/4" G | 406 | 267 | 402 | 0.043 | 10.1 |
| KP 60/12 T | 262 | 142 | 20 | 96 | 90 | 112 | 7 | 173 | 126 | 161 | 3/4" G | 3/4" G | 406 | 267 | 402 | 0.043 | 9.9 |

K SINGLE-IMPELLER

SINGLE-IMPELLER ELECTRIC PUMPS



TECHNICAL DATA

Operating range:

from 1,8 to 96 m³/h, with head up to 62 metres.

Pumped liquid: clean, free of solids and abrasives, non-viscous, non-aggressive, non-crystallised and chemically neutral, with properties similar to water.

Liquid temperature range:

K 20/41, K 30/70, K 30/100, K 36/100

K 12/200, K 36/200, K 40/200 :

from -10 °C to +50 °C

Remainder of the range:

from -15 °C to +110 °C

Maximum ambient temperature: +40°C

Maximum operating pressure:

K 20/41, K 30/70, K 30/100, K 36/100, K 12/200, K 14/400 : 6 bar (600 kPa)

K 36/200, K 40/200, K 55/200, K 11/500, K 18/500, K 28/500 : 8 bar (800 kPa)

K 40/400, K 50/400, K 30/800, K 40/800, K 50/800,

K 20/1200, K 25/1200, K 35/1200

: 10 bar (1000 kPa)

Protection class:

IP 44 (IP 55 for 2,2 - 3 - 4 - 5,5 - 7,5 - 9,2 - 11 kW motors)

Protection class at the terminal board: IP 55

Insulation class:

F

Standard voltage:

single-phase 220-240 V / 50 Hz

three-phase 230-400 V / 50 Hz up to 4 kW included - 400 V Δ 50 Hz from 5,5 kW

Installation: horizontal or vertical position, provided that the motor is always above the pump.

Special executions on requests: alternative voltages and frequencies.

APPLICATIONS

Single-impeller centrifugal pump suitable for domestic, civil, industrial and agricultural systems, and for decanting, mixing and irrigation uses.

CONSTRUCTION FEATURES OF THE PUMP

Pump body and motor support in cast iron.

Technopolymer or cast iron impeller, as per the TECHNICAL DATA table.

Carbon/ceramic mechanical seal.

CONSTRUCTION FEATURES OF THE MOTOR

Closed asynchronous type, external ventilation cooling.

Rotor running on ball bearings, oversized to ensure low noise and durability.

Standard built-in thermo-amperometric protection. Capacitor permanently fitted on single phase versions.

For the protection of the three-phase motor, we recommend the use of remote overload cut-outs, in compliance with current local regulations.

Construction according to CEI 2-3.

IE2 motors as standard, from 0,75 kW to 5,5 kW - IE3 ≥ 7,5 kW

K SINGLE-IMPELLER

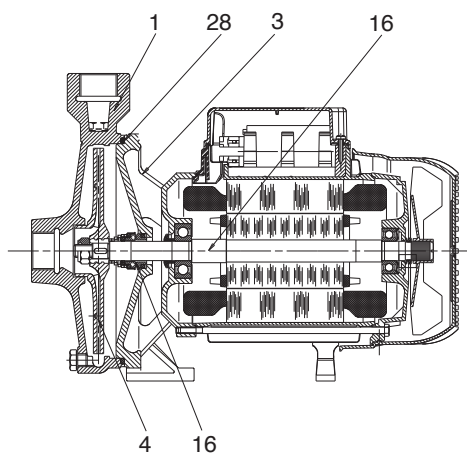
SINGLE-IMPELLER ELECTRIC PUMPS

MATERIALS

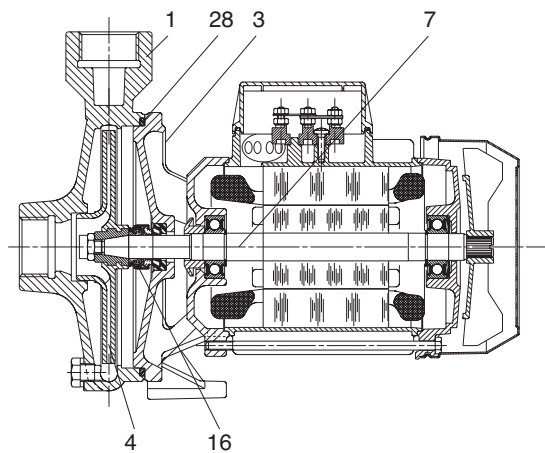
| No. | PARTS* | MATERIALS | MODELS |
|-----|------------------|---|--|
| 1 | PUMP BODY | CAST IRON 200 UNI ISO 185 | |
| 3 | SUPPORT | CAST IRON 200 UNI ISO 185 | |
| 4 | IMPELLER | TECHNOPOLYMER A | 20/41; K 30/70; K 30/100; K 36/100; K 12/200; K 36/200; K 40/200; |
| | | TECHNOPOLYMER B | K 55/200 |
| | | CAST IRON 200 UNI ISO 185 | K 14/400; K 11/500; K 18/500; K 28/500; K 40/400; K 50/400; K 30/800; K 40/800; K 50/800; K 20/1200; K 25/1200; K 35/1200; |
| 7 | SHAFT WITH ROTOR | AISI 416 STAINLESS STEEL X12CRS13 UNI 6900/71 | K 20/41; K 30/70; K 12/200 |
| | | AISI 303 STAINLESS STEEL X10CRN15 1089 UNI 6900/71 | K 30/100; K 36/100; K 36/200; K 40/200; K 55/200; K14/400; K 11/500; K 18/500; K 28/500 |
| | | AISI 304 STAINLESS STEEL X5CRNI 1810 UNI 6900/71 | K 40/400; K 50/400; K 30/800; K 40/800; K 50/800; K 20/1200; K 25/1200; K 35/1200; |
| 16 | MECHANICAL SEAL | CARBON / CERAMIC | |
| 28 | OR RING | NBR RUBBER | |
| | | EPDM RUBBER | K 36/200; K 40/200; K 55/200; K 14/400; K 11/500; K 18/500; K 28/500; K 30/800; K 40/800; K 50/800; K 20/1200; K 25/1200; K 35/1200; |

* In contact with the liquid

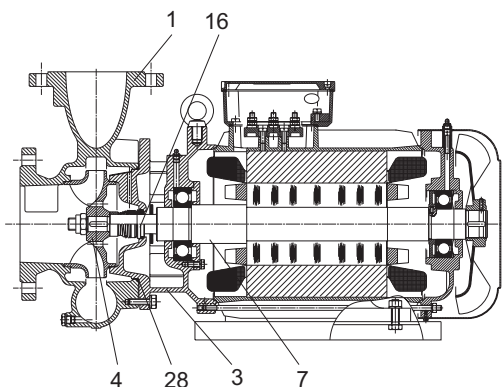
K 20/41 - K 30/70 - K 12/200



K 30/100 - K 36/100



K 36/200 - K 40/200 - K 55/200
K 14/400 - K 11/500 - K 18/500
K 28/500 - K 40/400 - K 50/400
K 30/800 - K 40/800 - K 50/800
K 20/1200 - K 25/1200 - K 35/1200



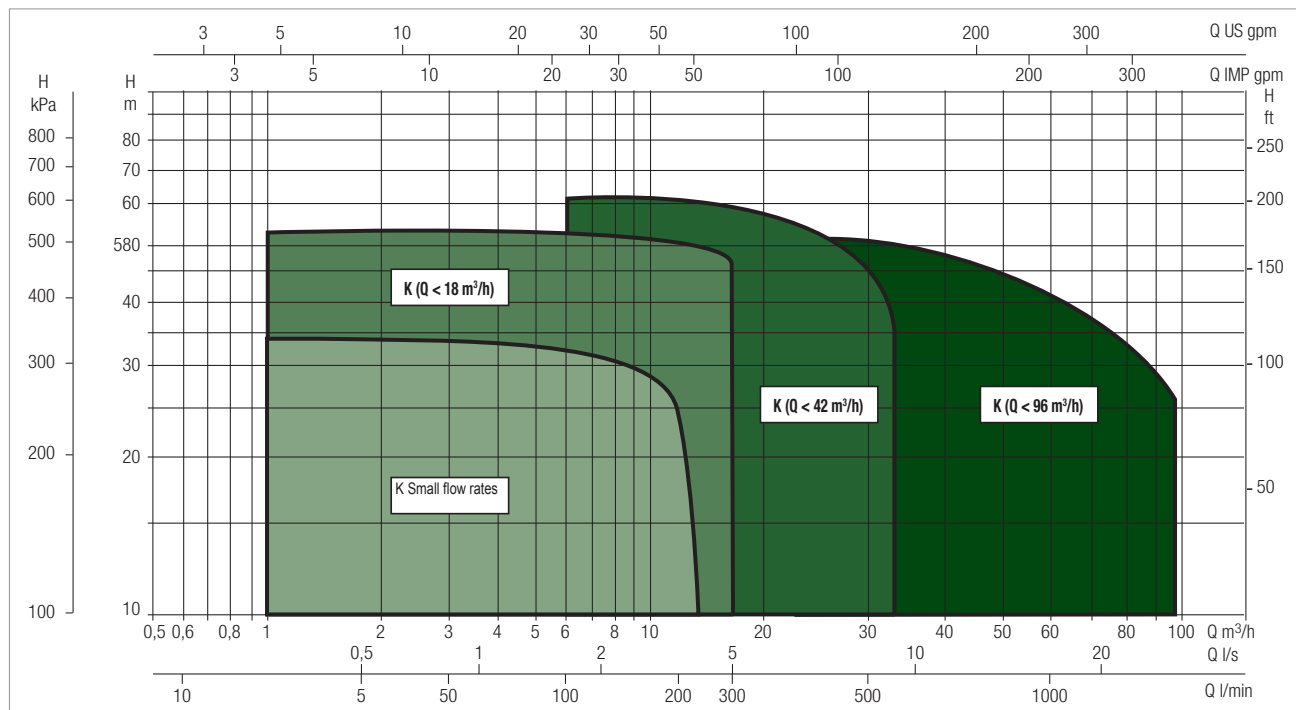
K SINGLE-IMPELLER RANGE

ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE

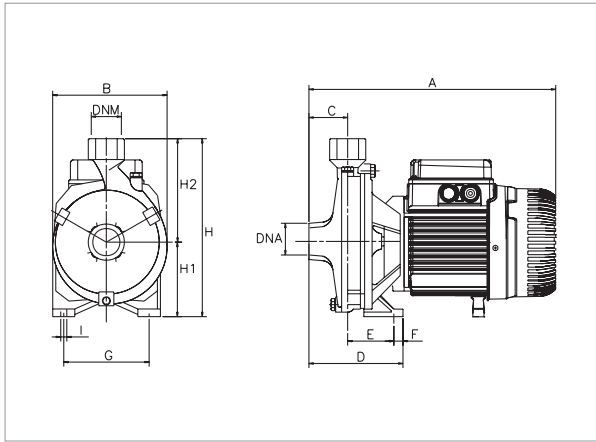


SELECTION TABLE

| MODEL | Q= | 0 | 1.8 | 2.4 | 3.6 | 4.8 | 6 | 7.2 | 9 | 9.6 | 10.8 | 12 | 15 | 18 | 24 | 30 | 36 | 42 | 60 | 72 | 84 | 96 |
|--------------|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | m³/h Q= | 0 | 30 | 40 | 60 | 80 | 100 | 120 | 150 | 160 | 180 | 200 | 250 | 300 | 400 | 500 | 600 | 700 | 1000 | 1200 | 1400 | 1600 |
| K 20/41 M-T | H (m) | 22 | 20.3 | 19.4 | 16.9 | 13.6 | 8.3 | | | | | | | | | | | | | | | |
| K 30/70 M-T | | 31.8 | 29.5 | 28.9 | 27 | 24.2 | 19.8 | 13.5 | | | | | | | | | | | | | | |
| K 30/100 M-T | | 29.2 | | 29 | 28.8 | 28 | 26.8 | 25.3 | 22.5 | 21.5 | 18.5 | | | | | | | | | | | |
| K 36/100 M-T | | 34.9 | | 34.8 | 34.6 | 34 | 33 | 32 | 29.8 | 29 | 26.5 | | | | | | | | | | | |
| K 12/200 M-T | | 18.7 | 18.2 | 18 | 17.9 | 17.7 | 17.4 | 17 | 16.1 | 15.8 | 14.9 | 14 | 11.2 | 7.7 | | | | | | | | |
| K 36/200 T | | 36.6 | | | | 36 | 35.5 | 35 | 34 | 33.3 | 32.5 | 31.5 | 28 | 23.5 | | | | | | | | |
| K 40/200 T | | 41.3 | | | | 41 | 40.5 | 40 | 39 | 38.8 | 38 | 37 | 33.5 | 29 | | | | | | | | |
| K 55/200 T | | 54 | | | | 54 | 53.9 | 53.2 | 53 | 52 | 51.5 | 48.5 | 45 | | | | | | | | | |
| K 14/400 M-T | | 19 | | | | | | | | | | 18.8 | 18.5 | 18 | 16.3 | 13.8 | 10 | | | | | |
| K 11/500 T | | 25.1 | | | | | | | | | | 26 | 25.6 | 25.2 | 22.9 | 18.7 | 13.7 | 7.7 | | | | |
| K 18/500 T | | 30.9 | | | | | | | | | | 32 | 31.8 | 30 | 28.5 | 25 | 19.3 | 13.1 | | | | |
| K 28/500 T | | 35.4 | | | | | | | | | | 36.6 | 36.1 | 35.6 | 33.2 | 30.1 | 24.7 | 18.1 | | | | |
| K 40/400 T | | 50.5 | | | | | | | | | | 49 | 48 | 45 | 37 | 24 | | | | | | |
| K 50/400 T | | 62 | | | | | | | | | | 61 | 60 | 59 | 54.5 | 46 | | | | | | |
| K 30/800 T | | 44 | | | | | | | | | | | | | 42 | 40 | 38 | 35 | 21.5 | | | |
| K 40/800 T | | 51.5 | | | | | | | | | | | | | 50 | 48 | 47 | 43.5 | 32.5 | 21 | | |
| K 50/800 T | | 58 | | | | | | | | | | | | | 56.5 | 55 | 53.5 | 51 | 41 | 31 | | |
| K 20/1200 T | | 37.5 | | | | | | | | | | | | | 36.5 | 36 | 35 | 34 | 30 | 26 | 21 | 15 |
| K 25/1200 T | | 40.7 | | | | | | | | | | | | | 39 | 38.5 | 38 | 37 | 33.5 | 30 | 25 | 18 |
| K 35/1200 T | | 45 | | | | | | | | | | | | | | | 43 | 42.5 | 38.5 | 35 | 31.5 | 27 |

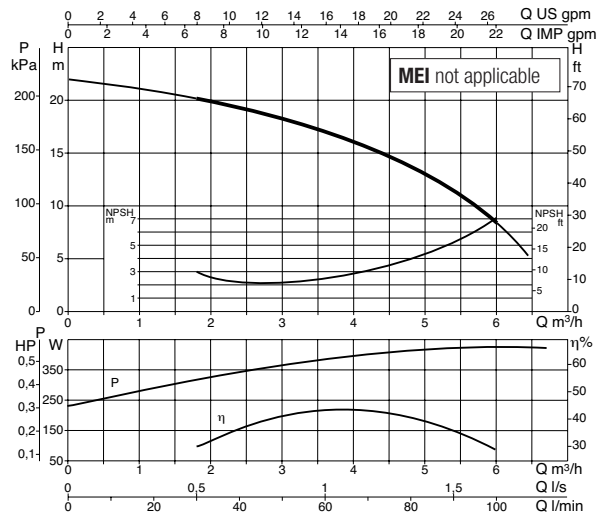
K 20/41 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

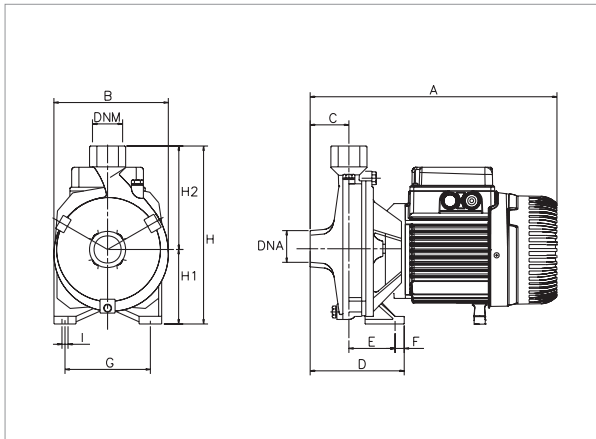


| MODEL | POWER INPUT 50 Hz | P1 MAX kW | ELECTRICAL DATA | | | | | | | |
|-----------|----------------------|--------------|-----------------|-----|---------|---------------|------------|------------------|-----------|-----|
| | | | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. | CAPACITOR | |
| | | | kW | HP | | | | | μF | Vc |
| K 20/41 M | 1x220-240 V ~ | 0.65 | 0.37 | 0.5 | 3 | – | 8.5 | 2800 | 10 | 450 |
| K 20/41 T | 3x230-400 V ~ | 0.64 | 0.37 | 0.5 | 2.3-1.3 | – | 8.6-5 | 2800 | – | – |

| MODEL | A | B | C | D | E | F | G | ØI | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m ³) | WEIGHT kg |
|---------|-----|-----|----|-----|----|----|-----|----|-----|----|-----|------|------|--------------------|-----|-----|-----------------------------|--------------|
| | | | | | | | | | | | | | | L/A | L/B | H | | |
| K 20/41 | 275 | 160 | 50 | 100 | 50 | 15 | 110 | 9 | 205 | 85 | 120 | 1" G | 1" G | 332 | 202 | 257 | 0.024 | 10 |

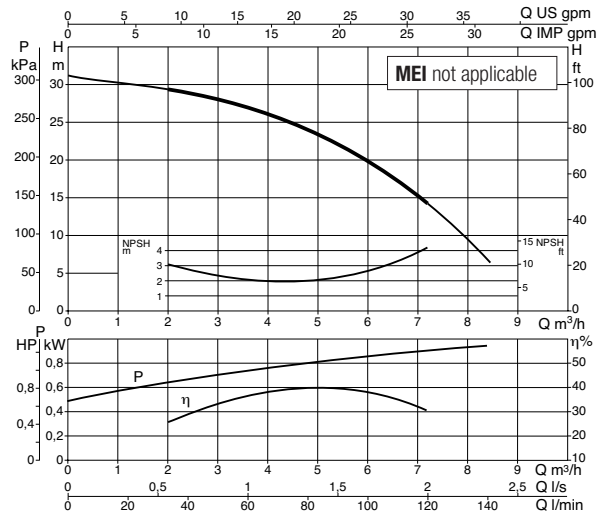
K 30/70 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

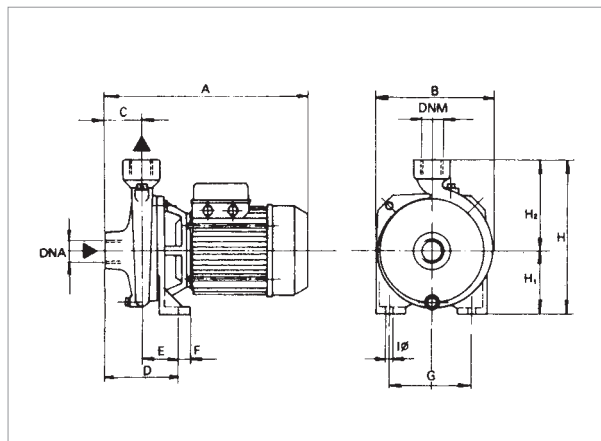


| MODEL | POWER INPUT 50 Hz | P1 MAX kW | ELECTRICAL DATA | | | | | | | |
|-----------|----------------------|--------------|-----------------|----|---------|---------------|------------|------------------|-----------|-----|
| | | | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. | CAPACITOR | |
| | | | kW | HP | | | | | μF | Vc |
| K 30/70 M | 1x220-240 V ~ | 1.3 | 0.75 | 1 | 6 | – | 15.8 | 2800 | 20 | 450 |
| K 30/70 T | 3x230-400 V ~ | 1.2 | 0.75 | 1 | 4.3-2.5 | IE2 | 22.1-12.8 | 2820 | – | – |

| MODEL | A | B | C | D | E | F | G | ØI | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m ³) | WEIGHT kg |
|---------|-----|-----|----|-----|----|----|-----|----|-----|-----|-----|------|------|--------------------|-----|-----|-----------------------------|--------------|
| | | | | | | | | | | | | | | L/A | L/B | H | | |
| K 30/70 | 330 | 185 | 50 | 108 | 58 | 15 | 140 | 9 | 235 | 100 | 135 | 1" G | 1" G | 386 | 226 | 272 | 0.024 | 13.9 |

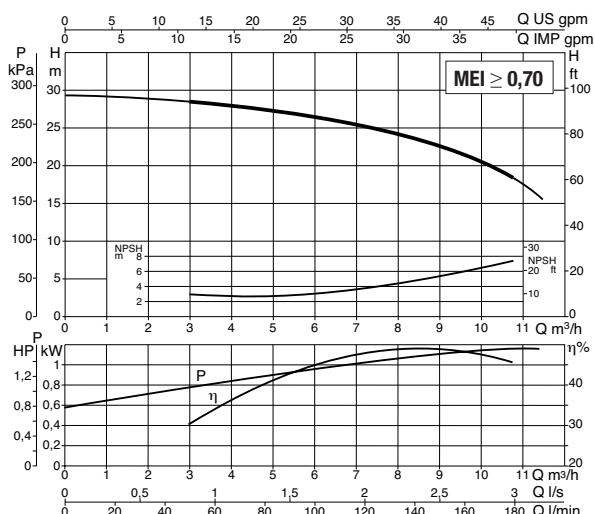
K 30/100 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

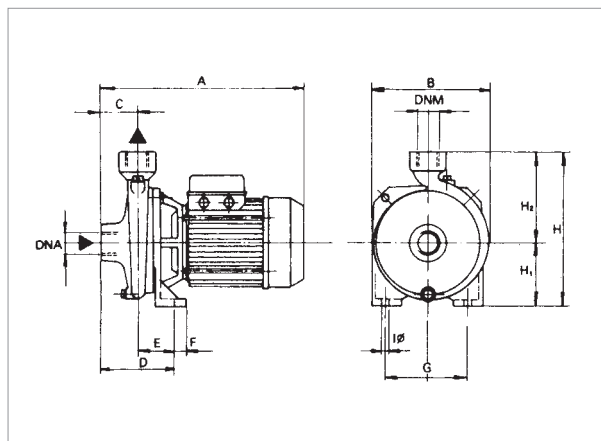


| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | ELECTRICAL DATA | | | | | CAPACITOR | |
|------------|----------------------|--------------|------------|-----|-----------------|---------------|------------|------------------|--|-----------|-----|
| | | | kW | HP | In A | MOTOR TYPE | I st. A | rpm n. 1/min. | | μF | Vc |
| K 30/100 M | 1x220-240 V ~ | 1.6 | 1.1 | 1.5 | 7.1 | — | 33 | 2800 | | 31.5 | 450 |
| K 30/100 T | 3x230-400 V ~ | 1.63 | 1.1 | 1.5 | 6.9-3.9 | IE2 | 21 | 2860 | | — | — |

| MODEL | A | B | C | D | E | F | G | ØI | H | H1 | H2 | DNa | DNM | PACKING DIMENSIONS | | | VOLUME (m ³) | WEIGHT kg |
|----------|-----|-----|----|-----|----|----|-----|----|-----|-----|-----|----------|------|--------------------|-----|-----|-----------------------------|--------------|
| | | | | | | | | | | | | | | L/A | L/B | H | | |
| K 30/100 | 333 | 200 | 50 | 114 | 64 | 15 | 140 | 9 | 255 | 105 | 150 | 1 1/2" G | 1" G | 427 | 246 | 307 | 0.032 | 18.5 |

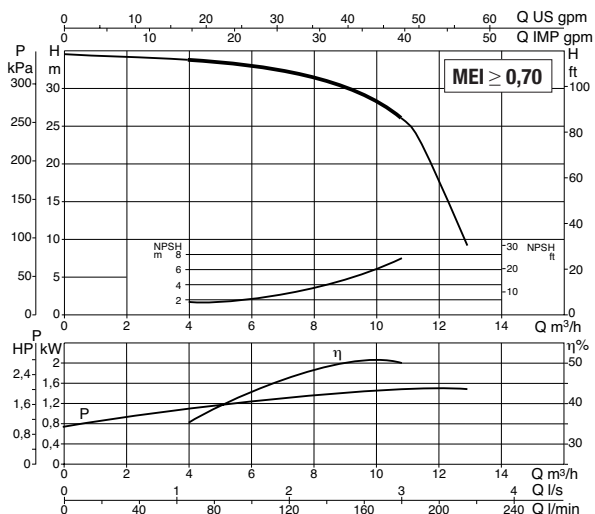
K 36/100 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

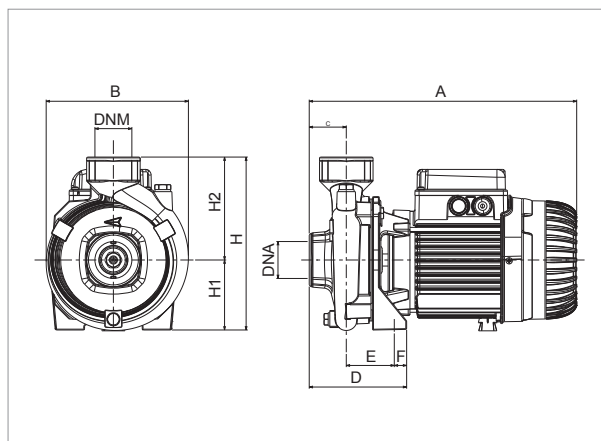


| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | ELECTRICAL DATA | | | | | CAPACITOR | |
|------------|----------------------|--------------|------------|-----|-----------------|---------------|------------|------------------|--|-----------|-----|
| | | | kW | HP | In A | MOTOR TYPE | I st. A | rpm n. 1/min. | | μF | Vc |
| K 36/100 M | 1x220-240 V ~ | 2.1 | 1.85 | 2.5 | 8.8 | — | 45 | 2850 | | 40 | 450 |
| K 36/100 T | 3x230-400 V ~ | 2 | 1.85 | 2.5 | 6.9-4 | IE2 | 22 | 2870 | | — | — |

| MODEL | A | B | C | D | E | F | G | ØI | H | H1 | H2 | DNa | DNM | PACKING DIMENSIONS | | | VOLUME (m ³) | WEIGHT kg |
|----------|-----|-----|----|-----|----|----|-----|----|-----|-----|-----|----------|------|--------------------|-----|-----|-----------------------------|--------------|
| | | | | | | | | | | | | | | L/A | L/B | H | | |
| K 36/100 | 333 | 200 | 50 | 114 | 64 | 15 | 140 | 9 | 255 | 105 | 150 | 1 1/2" G | 1" G | 427 | 246 | 307 | 0.032 | 23.3 |

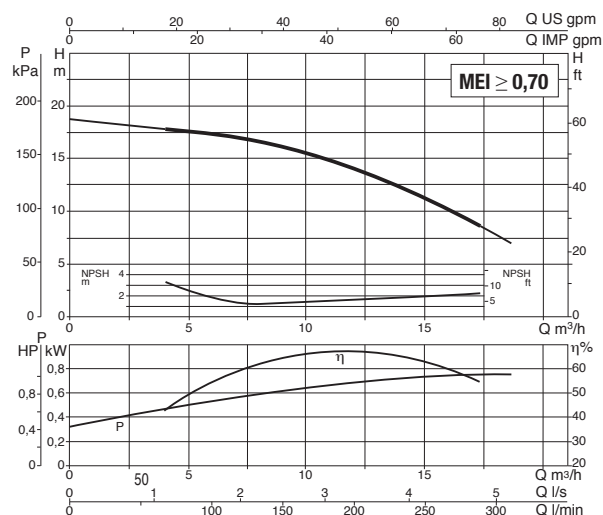
K 12/200 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

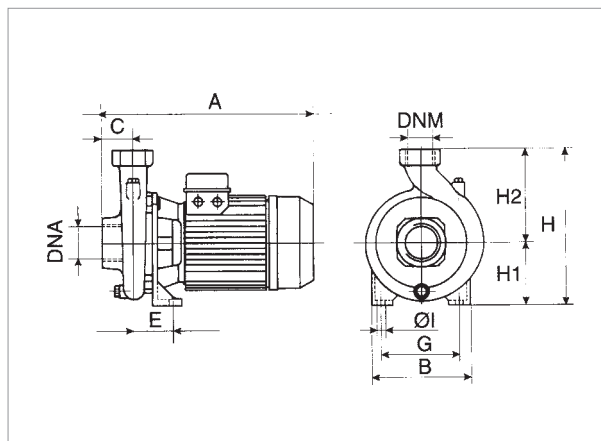


| MODEL | POWER INPUT 50 Hz | P1 MAX kW | ELECTRICAL DATA | | | | | | | |
|------------|----------------------|--------------|-----------------|----|---------|---------------|------------|------------------|-----------|-----|
| | | | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. | CAPACITOR | |
| | | | kW | HP | | | | | μF | Vc |
| K 12/200 M | 1x220-240 V ~ | 1.1 | 0.75 | 1 | 5.2 | — | 18.5 | 2940 | 25 | 450 |
| K 12/200 T | 3x230-400 V ~ | 0.97 | 0.75 | 1 | 4-2.3 | IE2 | 22.1-12.8 | 2940 | — | — |

| MODEL | A | B | C | D | E | F | G | ØI | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|----------|-----|-----|----|-----|----|----|-----|-----|-----|----|-----|-------|-------|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | | | | | L/A | L/B | H | | |
| K 12/200 | 325 | 173 | 45 | 118 | 58 | 15 | 110 | 9.5 | 218 | 85 | 125 | 1 1/2 | 1 1/2 | 392 | 232 | 280 | 0,026 | 13.7 |

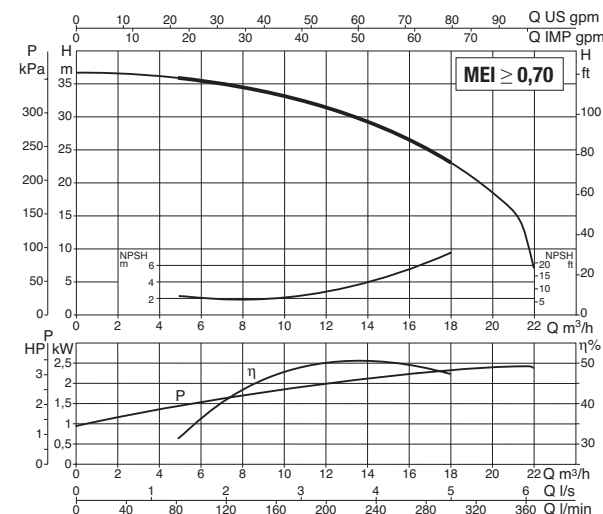
K 36/200 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

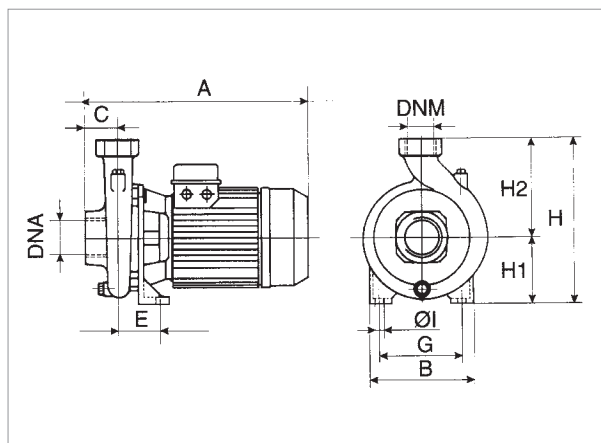


| MODEL | POWER INPUT 50 Hz | P1 MAX kW | ELECTRICAL DATA | | | | | | | |
|------------|----------------------|--------------|-----------------|----|---------|---------------|------------|------------------|--|--|
| | | | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. | | |
| | | | kW | HP | | | | | | |
| K 36/200 T | 3x230-400 V ~ | 3 | 2.2 | 3 | 9-5.2 | IE2 | 45-26 | 2860 | | |

| MODEL | A | B | C | E | G | ØI | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|------------|-----|-----|----|----|-----|----|-----|-----|-----|------|----------|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | | | L/A | L/B | H | | |
| K 36/200 T | 425 | 250 | 55 | 86 | 175 | 14 | 320 | 135 | 185 | 2" G | 1 1/4" G | 512 | 276 | 345 | 0.049 | 33.1 |

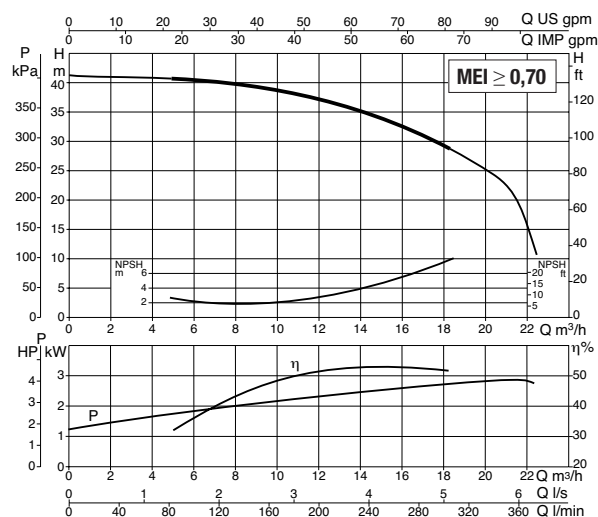
K 40/200 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

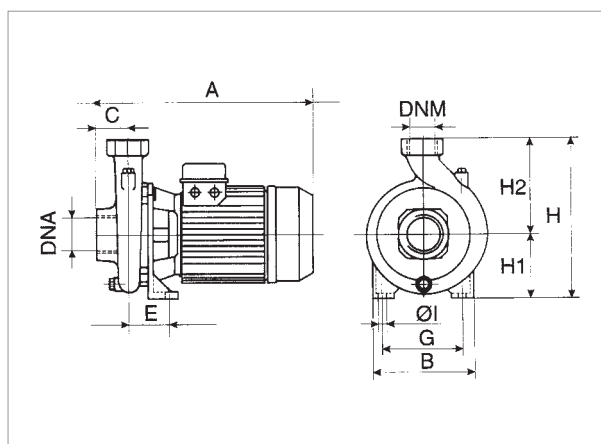


| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. |
|------------|----------------------|--------------|------------|----|----------|---------------|------------|------------------|
| | | | kW | HP | | | | |
| K 40/200 T | 3x230-400 V ~ | 3.5 | 3 | 4 | 11.1-6.4 | IE2 | 67.5-39 | 2830 |

| MODEL | A | B | C | E | G | ØI | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|----------|-----|-----|----|----|-----|----|-----|-----|-----|------|----------|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | | | L/A | L/B | H | | |
| K 40/200 | 425 | 250 | 55 | 86 | 175 | 14 | 320 | 135 | 185 | 2" G | 1 1/4" G | 512 | 276 | 345 | 0.049 | 34.9 |

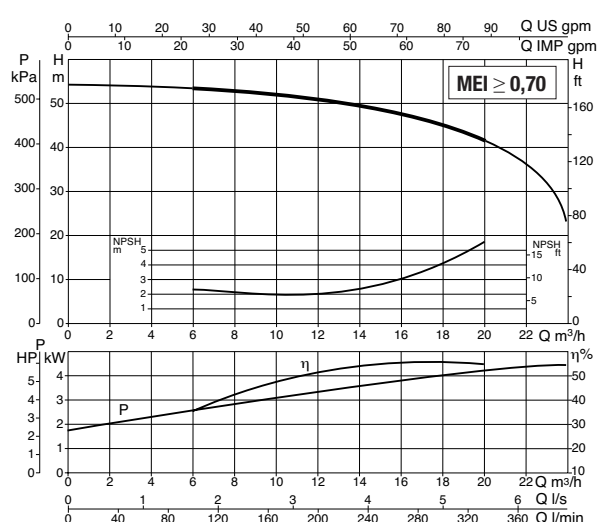
K 55/200 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

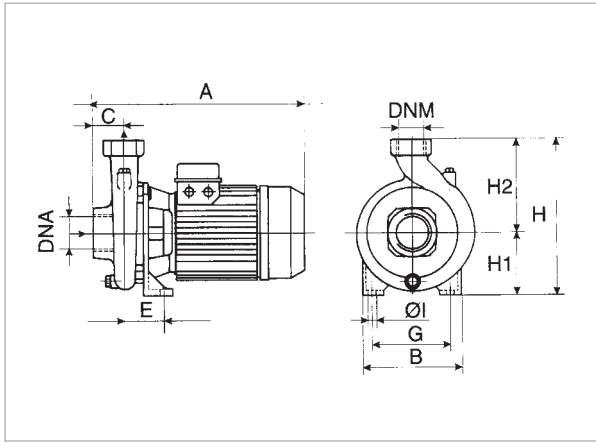


| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. |
|------------|----------------------|--------------|------------|-----|----------|---------------|------------|------------------|
| | | | kW | HP | | | | |
| K 55/200 T | 3x230-400 V ~ | 5.1 | 4 | 5.5 | 16.3-9.4 | IE2 | 104-60 | 2880 |

| MODEL | A | B | C | E | G | ØI | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|----------|-----|-----|----|----|-----|----|-----|-----|-----|------|----------|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | | | L/A | L/B | H | | |
| K 55/200 | 425 | 250 | 55 | 86 | 175 | 14 | 320 | 135 | 185 | 2" G | 1 1/4" G | 512 | 276 | 345 | 0.049 | 39 |

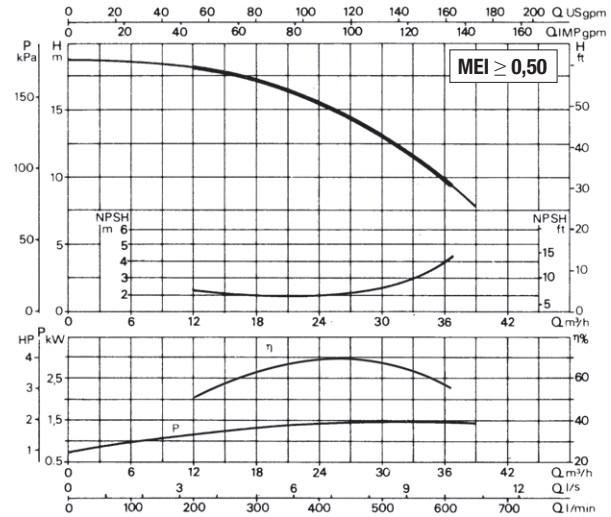
K 14/400 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

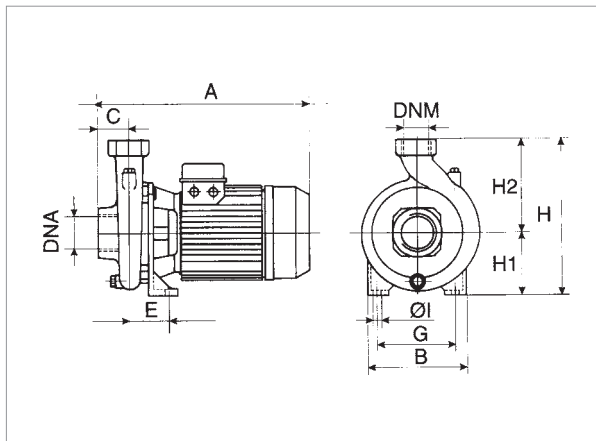


| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | ELECTRICAL DATA | | | | | CAPACITOR | |
|------------|----------------------|--------------|------------|-----|-----------------|---------------|------------|------------------|--|-----------|-----|
| | | | kW | HP | In A | MOTOR TYPE | I st. A | rpm n. 1/min. | | μF | Vc |
| | | | | | | | | | | | |
| K 14/400 M | 1x220-240 V ~ | 2.1 | 1.85 | 2.5 | 9.5 | — | 38 | 2850 | | 40 | 450 |
| K 14/400 T | 3x230-400 V ~ | 2.1 | 1.85 | 2.5 | 7-4 | IE2 | 37.5-21.7 | 2850 | | — | — |

| MODEL | A | B | C | E | G | ØI | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|------------|-----|-----|----|----|-----|----|-----|-----|-----|------|------|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | | | L/A | L/B | H | | |
| K 14/400 M | 430 | 200 | 62 | 74 | 120 | 11 | 270 | 105 | 165 | 2" G | 2" G | 427 | 246 | 307 | 0.032 | 24.5 |
| K 14/400 T | 358 | 200 | 62 | 74 | 120 | 11 | 270 | 105 | 165 | 2" G | 2" G | 427 | 246 | 307 | 0.032 | 22 |

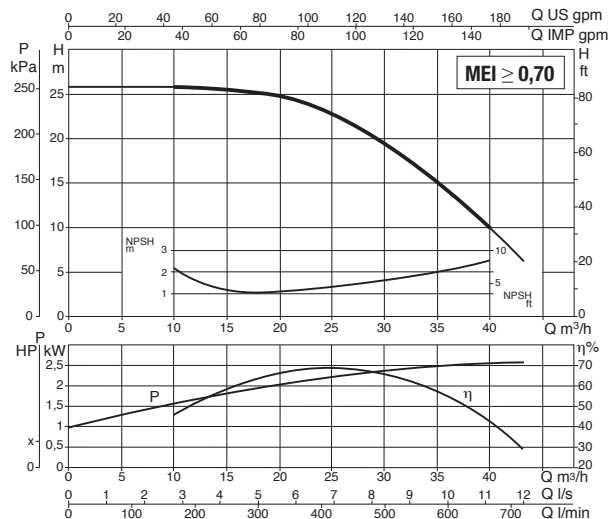
K 11/500 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

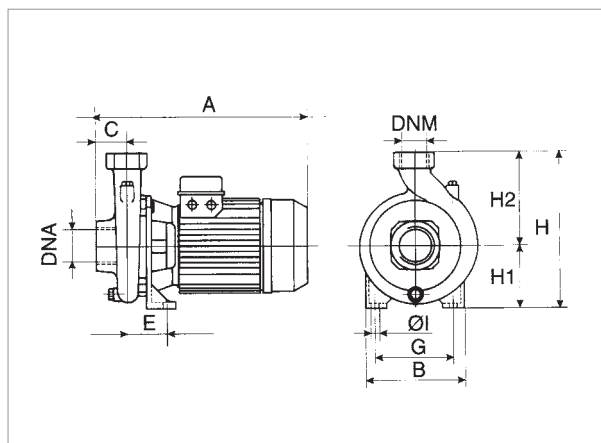


| MODEL | ELECTRICAL DATA | | | | | | | |
|------------|----------------------|--------------|------------|----|---------|---------------|------------|------------------|
| | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. |
| | | | kW | HP | | | | |
| K 11/500 T | 3x230-400 V ~ | 2.9 | 2.2 | 3 | 9.3-5.4 | IE2 | 45-26 | 2950 |

| MODEL | A | B | C | E | G | ØI | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|----------|-----|-----|----|-----|-----|----|-----|-----|-----|----------|------|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | | | L/A | L/B | H | | |
| K 11/500 | 440 | 240 | 62 | 100 | 155 | 14 | 312 | 132 | 180 | 2 1/2" G | 2" G | 512 | 286 | 345 | 0.049 | 34.2 |

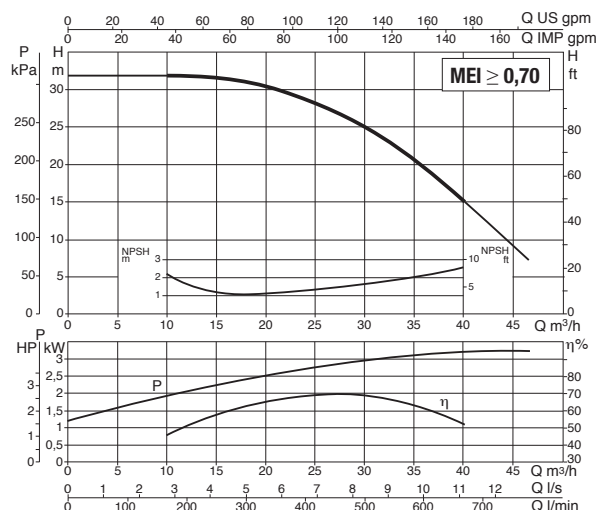
K 18/500 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

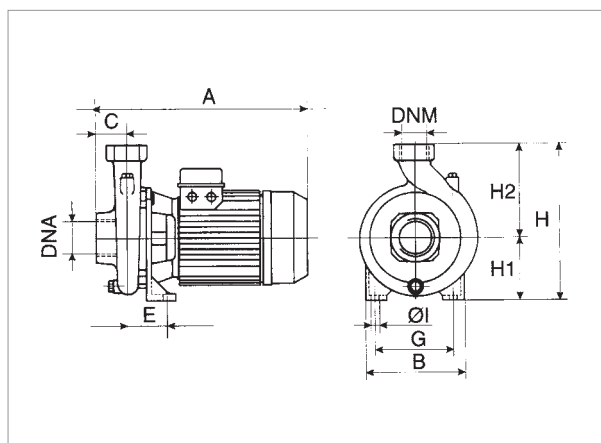


| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. |
|------------|----------------------|--------------|------------|----|---------|---------------|------------|------------------|
| | | | kW | HP | | | | |
| K 18/500 T | 3x230-400 V ~ | 3.8 | 3 | 4 | 13.7.5 | IE2 | 67.5-39 | 2950 |

| MODEL | A | B | C | E | G | ØI | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|----------|-----|-----|----|-----|-----|----|-----|-----|-----|----------|------|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | | | L/A | L/B | H | | |
| K 18/500 | 440 | 240 | 62 | 100 | 155 | 14 | 312 | 132 | 180 | 2 1/2" G | 2" G | 512 | 286 | 345 | 0.049 | 36.6 |

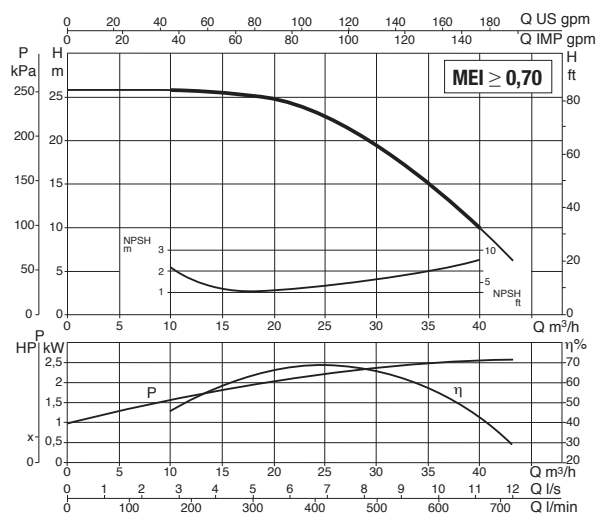
K 28/500 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

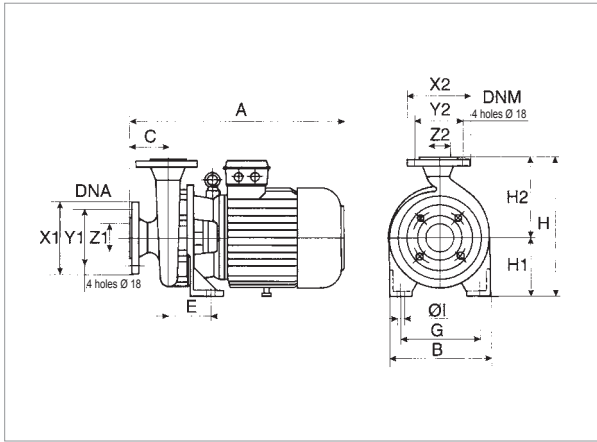


| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. | CAPACITOR | |
|------------|----------------------|--------------|------------|-----|---------|---------------|------------|------------------|-----------|----|
| | | | kW | HP | | | | | μF | Vc |
| K 28/500 T | 3x230-400 V ~ | 4.55 | 4 | 5.5 | 13.7-8 | IE2 | 104-60 | 2950 | - | - |

| MODEL | A | B | C | E | G | ØI | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|----------|-----|-----|----|-----|-----|----|-----|-----|-----|----------|------|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | | | L/A | L/B | H | | |
| K 28/500 | 440 | 240 | 62 | 100 | 155 | 14 | 312 | 132 | 180 | 2 1/2" G | 2" G | 512 | 286 | 345 | 0.049 | 40.6 |

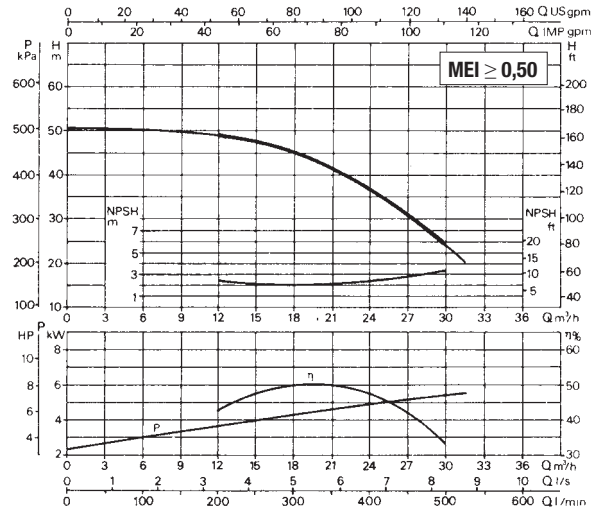
K 40/400 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



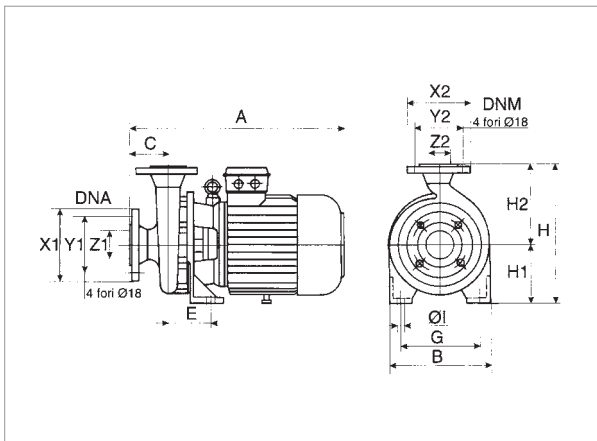
| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. |
|------------|----------------------|--------------|------------|-----|---------|---------------|------------|------------------|
| | | | kW | HP | | | | |
| K 40/400 T | 3 x 400 V ~ 1 | 7 | 5.5 | 7.5 | 11.5 | IE2 | 78 | 2900 |

| MODEL | A | B | C | E | G | Ø1 | H | H1 | H2 | DNA | | | DNM | | | PACKING DIMENSIONS | | | VOLUME (m ³) | WEIGHT kg |
|----------|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|----|-----|-----|----|--------------------|-----|-----|-----------------------------|--------------|
| | | | | | | | | | | x1 | y1 | z1 | x2 | y2 | z2 | L/A | L/B | H | | |
| K 40/400 | 560 | 273 | 100 | 110 | 212 | 14 | 360 | 160 | 200 | 185 | 145 | 65 | 165 | 125 | 50 | 680 | 330 | 572 | 0.128 | 79 |

¹ star start-up possible (A)

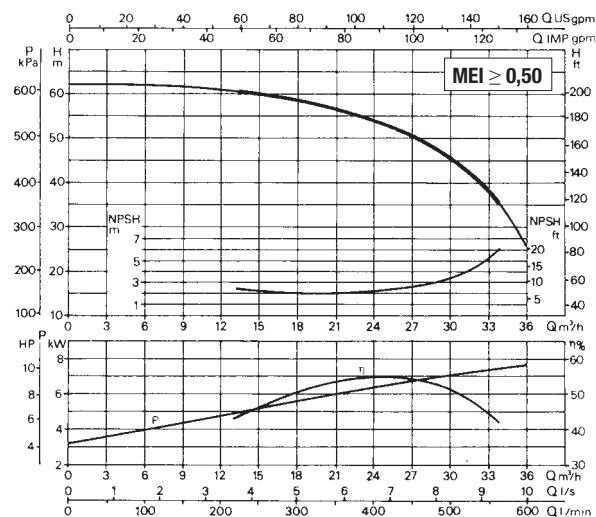
K 50/400 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



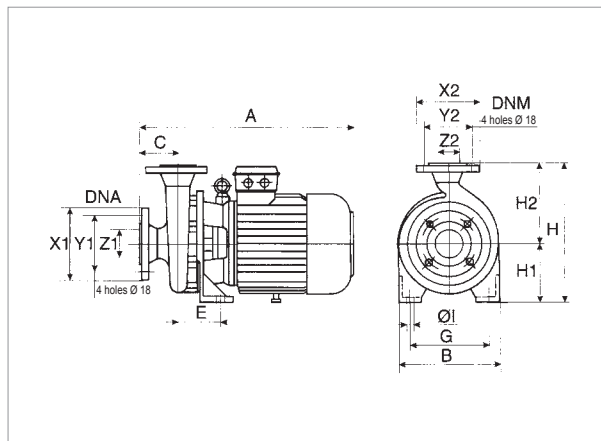
| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. |
|------------|----------------------|--------------|------------|----|---------|---------------|------------|------------------|
| | | | kW | HP | | | | |
| K 50/400 T | 3 x 400 V ~ 1 | 9 | 7.5 | 10 | 14.5 | IE3 | 112 | 2910 |

| MODEL | A | B | C | E | G | Ø1 | H | H1 | H2 | DNA | | | DNM | | | PACKING DIMENSIONS | | | VOLUME (m ³) | WEIGHT kg |
|----------|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|----|-----|-----|----|--------------------|-----|-----|-----------------------------|--------------|
| | | | | | | | | | | x1 | y1 | z1 | x2 | y2 | z2 | L/A | L/B | H | | |
| K 50/400 | 560 | 273 | 100 | 110 | 212 | 14 | 360 | 160 | 200 | 185 | 145 | 65 | 165 | 125 | 50 | 680 | 330 | 572 | 0.128 | 78.8 |

¹ star start-up possible (A)

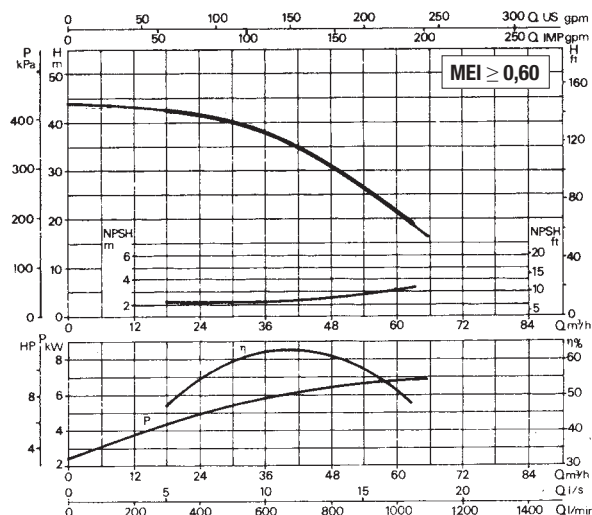
K 30/800 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



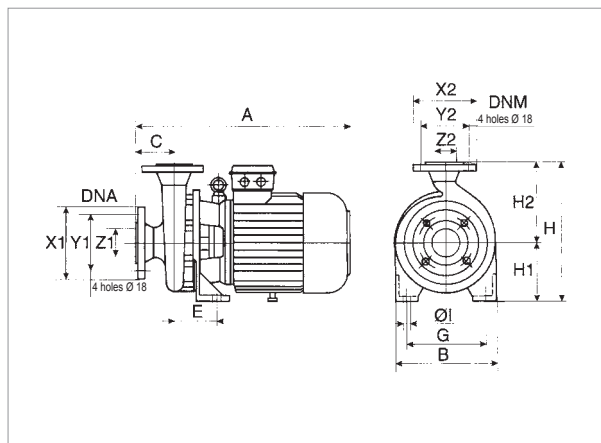
| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. |
|------------|----------------------|--------------|------------|----|---------|---------------|------------|------------------|
| | | | kW | HP | | | | |
| K 30/800 T | 3 x 400 V ~ 1 | 7.6 | 7.5 | 10 | 13.4 | IE3 | 112 | 2920 |

| MODEL | A | B | C | E | G | ØI | H | H1 | H2 | DNA | | | DNM | | | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|----------|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|----|-----|-----|----|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | x1 | y1 | z1 | x2 | y2 | z2 | L/A | L/B | H | | |
| K 30/800 | 600 | 273 | 100 | 110 | 212 | 14 | 385 | 160 | 225 | 200 | 160 | 80 | 185 | 145 | 65 | 680 | 330 | 572 | 0.128 | 90.2 |

¹ star start-up possible (Δ)

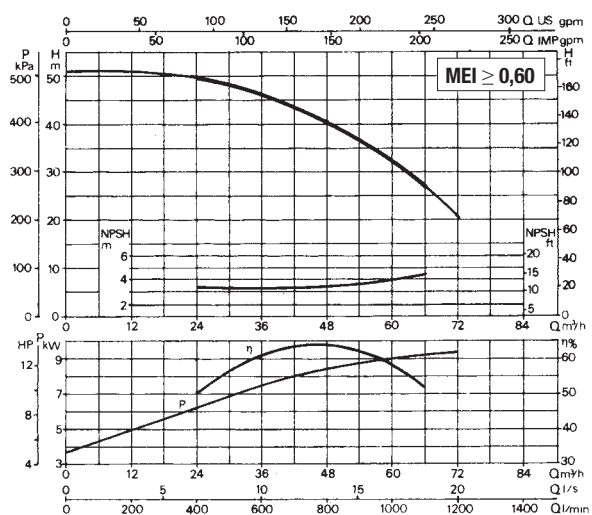
K 40/800 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



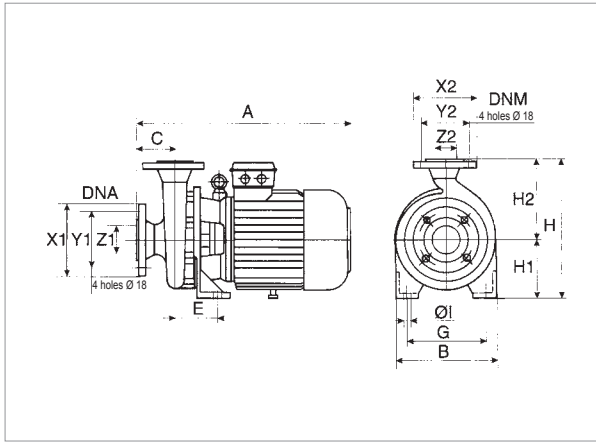
| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. |
|------------|----------------------|--------------|------------|------|---------|---------------|------------|------------------|
| | | | kW | HP | | | | |
| K 40/800 T | 3 x 400 V ~ 1 | 10.2 | 9.2 | 12.5 | 17.1 | IE3 | 135 | 2920 |

| MODEL | A | B | C | E | G | I | H | H1 | H2 | DNA | | | DNM | | | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|----------|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|----|-----|-----|----|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | x1 | y1 | z1 | x2 | y2 | z2 | L/A | L/B | H | | |
| K 40/800 | 600 | 273 | 100 | 110 | 212 | 14 | 385 | 160 | 225 | 200 | 160 | 80 | 185 | 145 | 65 | 680 | 330 | 572 | 0.128 | 95 |

¹ star start-up possible (Δ)

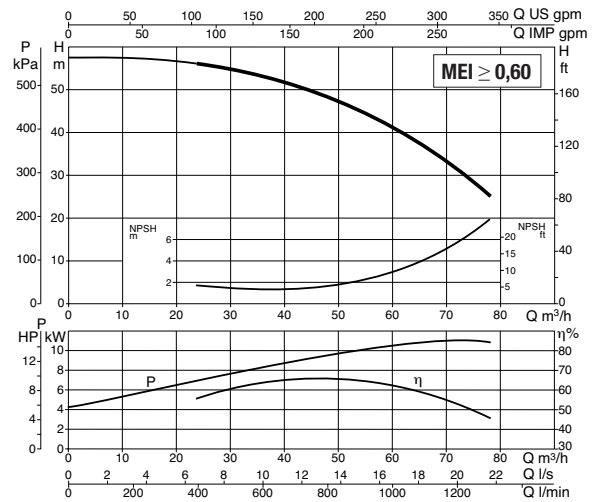
K 50/800 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



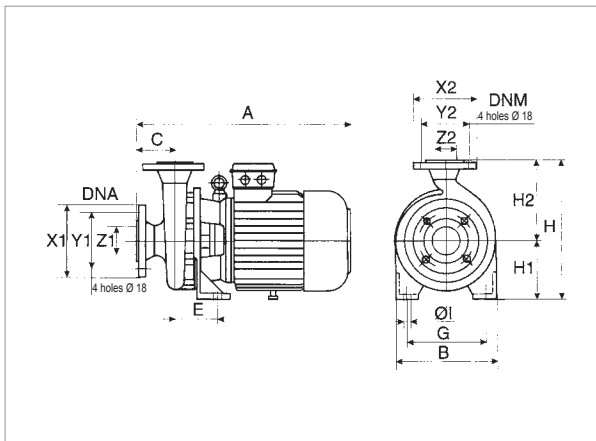
| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. |
|------------|----------------------|--------------|------------|----|---------|---------------|------------|------------------|
| | | | kW | HP | | | | |
| K 50/800 T | 3 x 400 V ~ 1 | 11.6 | 11 | 15 | 20 | IE3 | 193 | 2900 |

| MODEL | A | B | C | E | G | ØI | H | H1 | H2 | DNA | | | DNM | | | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|----------|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|----|-----|-----|----|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | x1 | y1 | z1 | x2 | y2 | z2 | L/A | L/B | H | | |
| K 50/800 | 600 | 273 | 100 | 110 | 212 | 14 | 385 | 160 | 225 | 200 | 160 | 80 | 185 | 145 | 65 | 680 | 330 | 572 | 0,128 | 104.3 |

¹ star start-up possible (Δ)

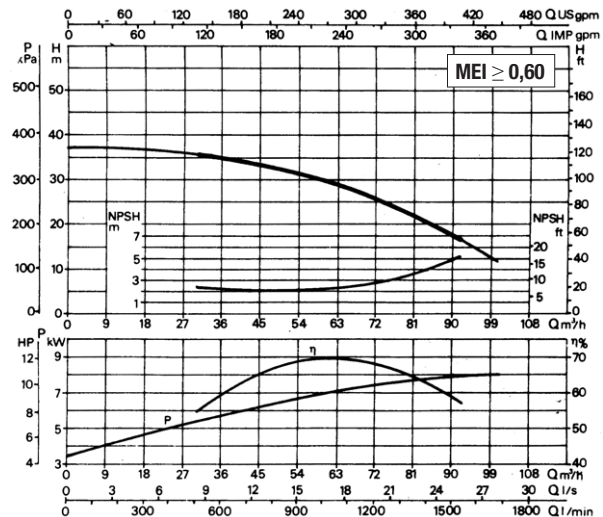
K 20/1200 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



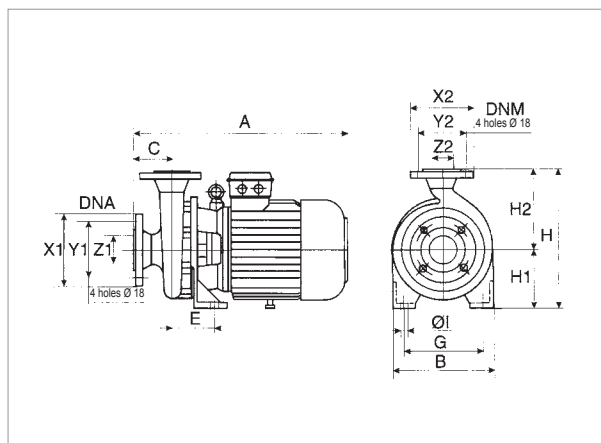
| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. |
|-------------|----------------------|--------------|------------|----|---------|---------------|------------|------------------|
| | | | kW | HP | | | | |
| K 20/1200 T | 3 x 400 V ~ 1 | 8.3 | 7.5 | 10 | 15 | IE3 | 112 | 2920 |

| MODEL | A | B | C | E | G | ØI | H | H1 | H2 | DNA | | | DNM | | | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|-----------|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|----|-----|-----|----|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | x1 | y1 | z1 | x2 | y2 | z2 | L/A | L/B | H | | |
| K 20/1200 | 600 | 273 | 100 | 110 | 212 | 14 | 385 | 160 | 225 | 200 | 160 | 80 | 185 | 145 | 65 | 680 | 330 | 572 | 0,128 | 88 |

¹ star start-up possible (Δ)

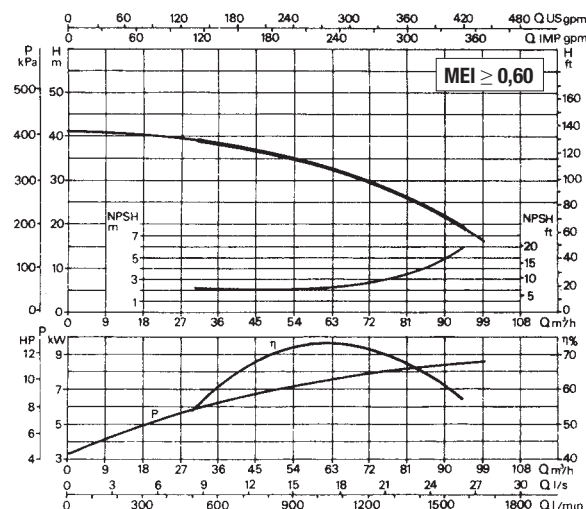
K 25/1200 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



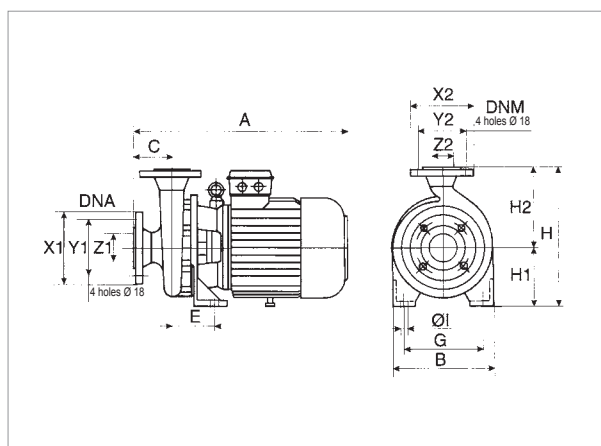
| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. |
|-------------|----------------------|--------------|------------|------|---------|---------------|------------|------------------|
| | | | kW | HP | | | | |
| K 25/1200 T | 3 x 400 V ~ 1 | 9.1 | 9.2 | 12.5 | 17.3 | IE3 | 135 | 2910 |

| MODEL | A | B | C | E | G | Ø1 | H | H1 | H2 | DNA | | | DNM | | | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|-----------|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|----|-----|-----|----|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | x1 | y1 | z1 | x2 | y2 | z2 | L/A | L/B | H | | |
| K 25/1200 | 600 | 273 | 100 | 110 | 212 | 14 | 385 | 160 | 225 | 200 | 160 | 80 | 185 | 145 | 65 | 680 | 330 | 572 | 0.128 | 94 |

¹ star start-up possible (Δ)

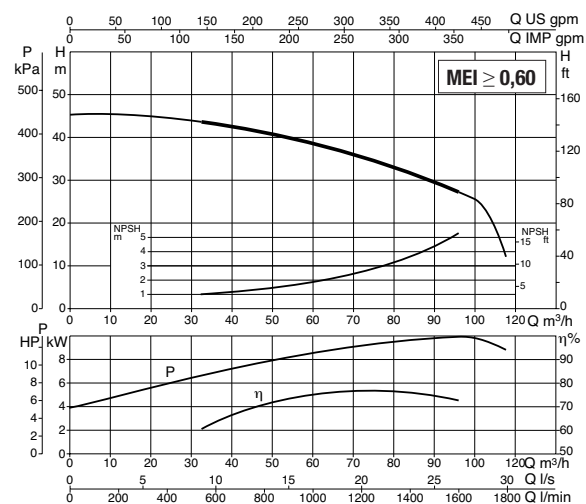
K 35/1200 - SINGLE-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



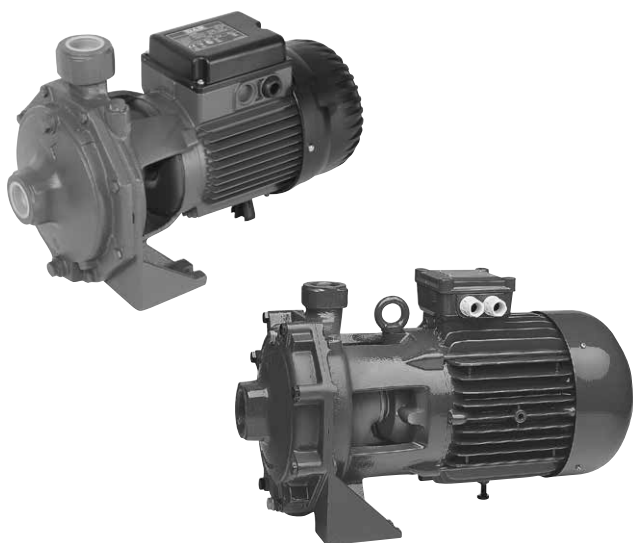
| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. |
|-------------|----------------------|--------------|------------|----|---------|---------------|------------|------------------|
| | | | kW | HP | | | | |
| K 35/1200 T | 3 x 400 V ~ 1 | 10.6 | 11 | 15 | 18.4 | IE3 | 193 | 2900 |

| MODEL | A | B | C | E | G | Ø1 | H | H1 | H2 | DNA | | | DNM | | | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|-----------|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|----|-----|-----|----|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | x1 | y1 | z1 | x2 | y2 | z2 | L/A | L/B | H | | |
| K 35/1200 | 600 | 273 | 100 | 110 | 212 | 14 | 385 | 160 | 225 | 200 | 160 | 80 | 185 | 145 | 65 | 680 | 330 | 572 | 0.128 | 100 |

¹ star start-up possible (Δ)

K TWIN-IMPELLER

TWIN-IMPELLER ELECTRIC PUMPS



TECHNICAL DATA

Operating range:

from 1,2 to 30 m³/h with head up to 97 metres.

Pumped liquid: clean, free of solids and abrasives, non-viscous, non-aggressive, non-crystallised and chemically neutral, with properties similar to water.

Liquid temperature range:

K 35/40, K 45/50,
K 35/100, K 40/100, K 55/100 :from -10 °C to +50 °C

K 55/50, K 66/100, K 90/100
K 70/300, K 80/300, K 70/400, K 80/400 :from -15 °C to +110 °C

Maximum ambient temperature: +40°C

Maximum operating pressure:

K 35/40, K 35/100, K 40/100 :6 bar (600 kPa)

K 45/50, K 55/50 :8 bar (800 kPa)

K 55/100, K 66/100 :10 bar (1000 kPa)

K 90/100, K 70/300, K 80/300, K 70/400, K 80/400 :12 bar (1200 kPa)

Protection class:

IP 55, IP 44 per K 35/40, K 45/50, K 55/50, K 35/100, K 40/100

Protection class at the terminal board: IP 55

Insulation class: F

Standard voltage:

single-phase 220-240 V / 50 Hz

three-phase 230-400 V / 50 Hz up to 4 kW included - 400 V Δ 50 Hz
from 5,5 kW

Installation: fixed, horizontal or vertical position, provided that the motor is always above the pump.

Special executions on requests: alternative voltages and frequencies.

APPLICATIONS

Twin-impeller centrifugal pump designed for the realisation of pressurization units in water systems and filling of pressure vessels.

Suitable for sprinkler systems and other general water supply uses.

CONSTRUCTION FEATURES OF THE PUMP

Pump body and motor support in cast iron.

Technopolymer impeller.

Carbon/ceramic mechanical seal.

CONSTRUCTION FEATURES OF THE MOTOR

Closed asynchronous type, external ventilation cooling.

Rotor running on permanently lubricated ball bearings, oversized to ensure low noise and durability.

Standard built-in thermo-amperometric protection. Capacitor permanently fitted on single phase versions.

For the protection of the three-phase motor, we recommend the use of remote overload cut-outs, in compliance with current local regulations.

Construction according to CEI 2-3.

IE2 motors as standard, from 0,75 kW to 5,5 kW - IE3 ≥ 7,5 kW

K TWIN-IMPELLER

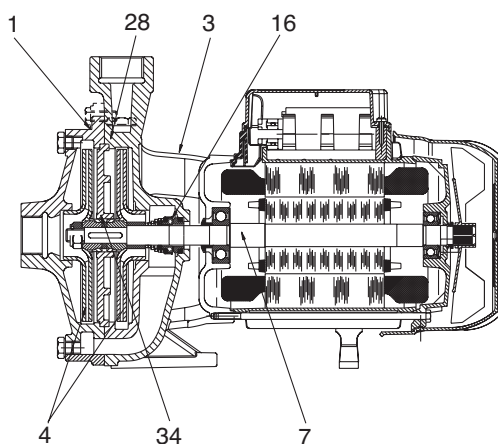
TWIN-IMPELLER ELECTRIC PUMPS

MATERIALS

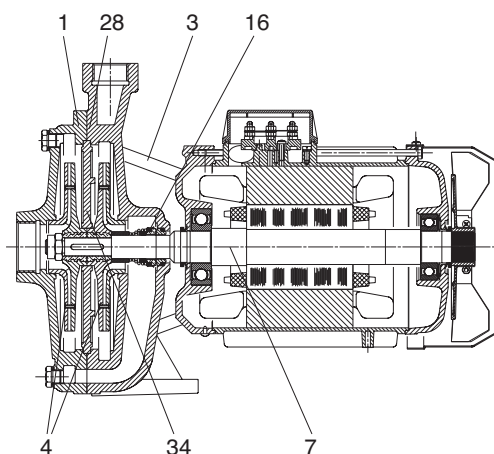
| No. | PARTS* | MATERIALS | MODELS |
|-----|-------------------|---|--|
| 1 | PUMP BODY | CAST IRON 200 UNI ISO 185 | |
| 3 | SUPPORT | CAST IRON 200 UNI ISO 185 | |
| 4 | IMPELLER | TECHNOPOLYMER A | K 35/40; K 45/50; K 35/100; K 40/100; K 55/100 |
| | | TECHNOPOLYMER B | K 55/50; K 66/100; K 90/100; K 70/300; K 80/300; K 70/400; K 80/400 |
| 7 | SHAFT WITH ROTOR | AISI 416 STAINLESS STEEL X12CRS13 UNI 6900/71 | K 35/40 |
| | | AISI 303 STAINLESS STEEL X10CRNIS 1089 UNI 6900/71 | K 45/50; K 55/50; K 35/100; K 40/100; K 55/100; K 66/100; K 90/100 |
| | | AISI 304 STAINLESS STEEL X5 1810 UNI 6900/71 | K 70/300; K 80/300; K 70/400; K 80/400 |
| 16 | MECHANICAL SEAL | CARBON / CERAMIC | |
| 28 | GASKET | NBR RUBBER | K 35/40; K 45/50; K 55/50; K 55/100; K 35/100; K 40/100 |
| | | GUARNITAL | K 66/100; K 90/100; K 70/300; K 80/300; K 70/400; K 80/400 |
| 34 | INTERMEDIATE DISC | CAST IRON 200 UNI ISO 185 | K 35/40; K 45/50; K 55/50; K 55/100; K 66/100; K 90/100; K 70/300; K 70/400; K 80/300; K 80/400 |

* In contact with the liquid

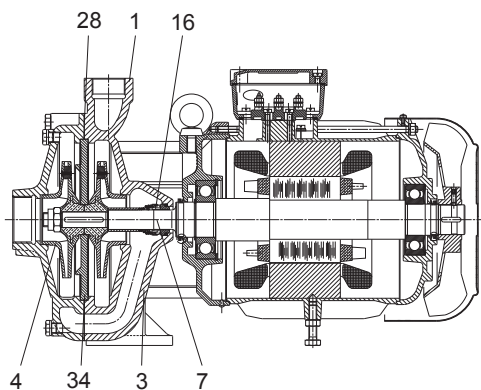
K 35/40



K 45/50 - K 55/50 - K 35/100 - K 40/100



K 55/100 - K 66/100 - K 90/100
K 70/300 - K 80/300
K 70/400 - K 80/400



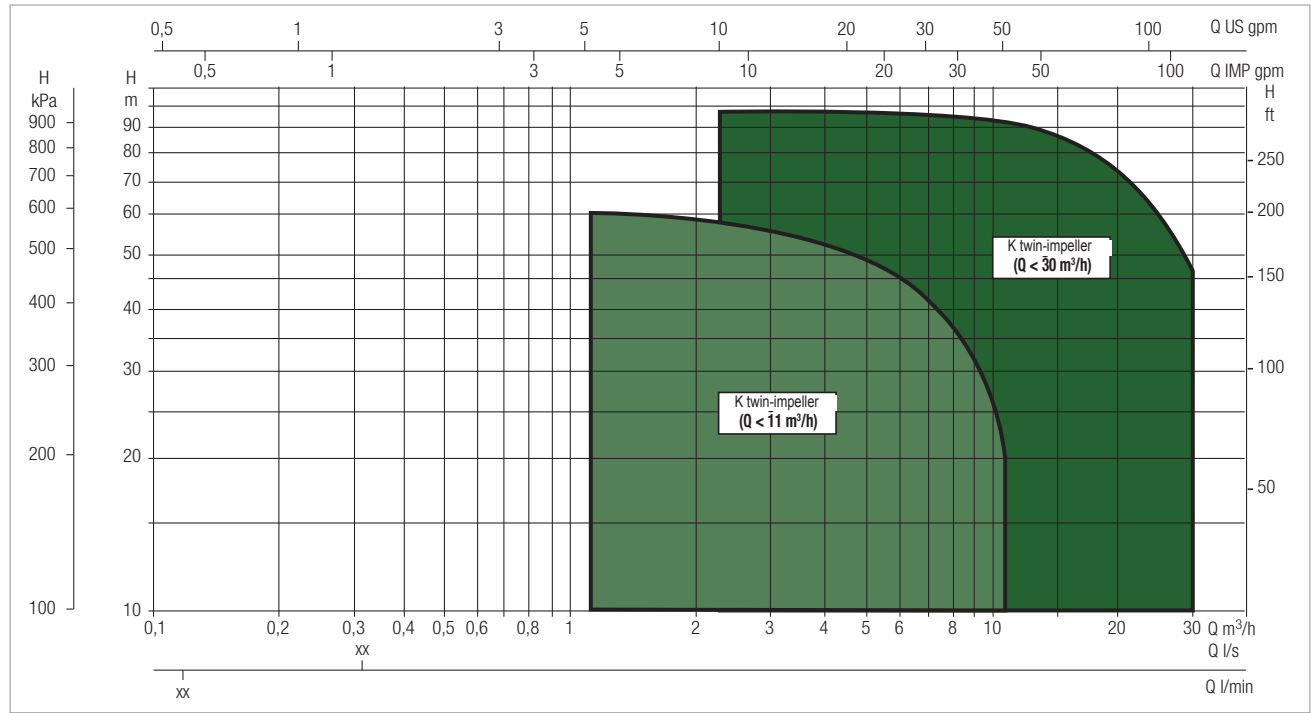
K TWIN-IMPELLER RANGE

ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE

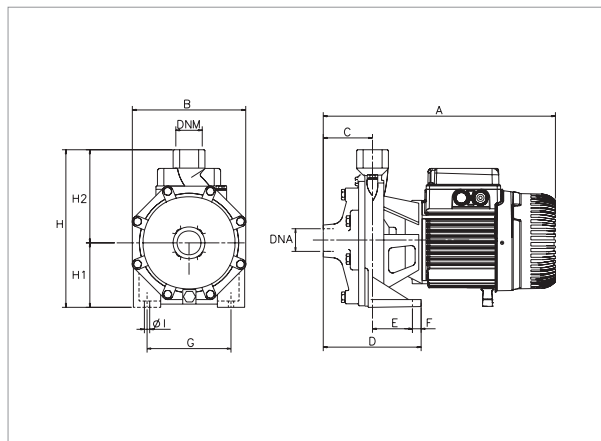


SELECTION TABLE

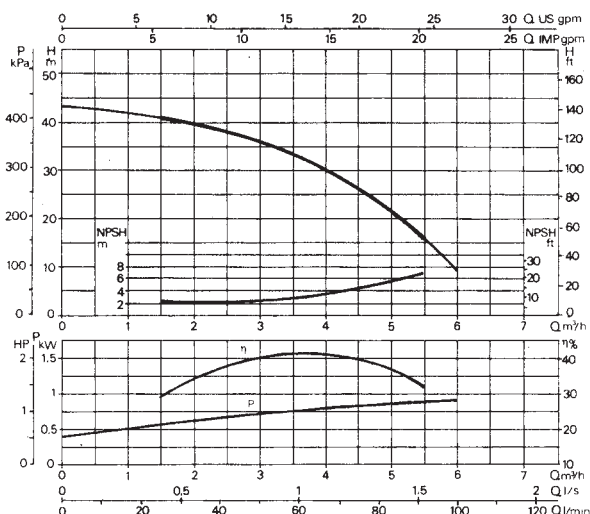
| MODEL | Q= | 0 | 1.2 | 1.8 | 2.4 | 3.6 | 4.8 | 6 | 7.2 | 9 | 9.6 | 10.8 | 12 | 15 | 18 | 24 | 30 |
|--------------|-------|------|------|------|------|------|------|------|------|------|------|------|------|-----|------|------|-----|
| | Q= | 0 | 20 | 30 | 40 | 60 | 80 | 100 | 120 | 150 | 160 | 180 | 200 | 250 | 300 | 400 | 500 |
| K 35/40 M-T | H (m) | 43.5 | 41.5 | 40 | 38 | 33 | 23.5 | | | | | | | | | | |
| K 45/50 M-T | | 51 | 49 | 47.5 | 46 | 42 | 37 | 30 | | | | | | | | | |
| K 55/50 M-T | | 62 | 60 | 58 | 57 | 52 | 45 | 34 | | | | | | | | | |
| K 35/100 M-T | | 38.5 | | | 37.5 | 36.5 | 35 | 32 | 28.5 | 18.5 | 17.5 | | | | | | |
| K 40/100 M-T | | 44 | | | 43.4 | 42.5 | 41 | 39 | 35.7 | 29 | 26 | 18.5 | | | | | |
| K 55/100 T | | 62 | | | 59.5 | 57 | 54.5 | 51 | 47 | 39 | 36 | | | | | | |
| K 66/100 T | | 73 | | | 70 | 67.5 | 64 | 60.5 | 57 | 49 | 47 | | | | | | |
| K 90/100 T | | 83.5 | | | 82 | 79.5 | 76.5 | 72.5 | 68 | 61 | 58 | | | | | | |
| K 70/300 T | | 76 | | | | | | 74 | 73 | 72 | 71.5 | 70 | 69 | 65 | 60.5 | 43.5 | |
| K 80/300 T | | 95 | | | | | | 93 | 92.2 | 91 | 90.5 | 90 | 89.5 | 87 | 82 | 68 | |
| K 70/400 T | | 86 | | | | | | | | 84 | 83.2 | 82.5 | 82 | 79 | 76 | 65 | 47 |
| K 80/400 T | | 97 | | | | | | | | | 95 | 94.5 | 94 | 92 | 89 | 80 | 64 |

K 35/40 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

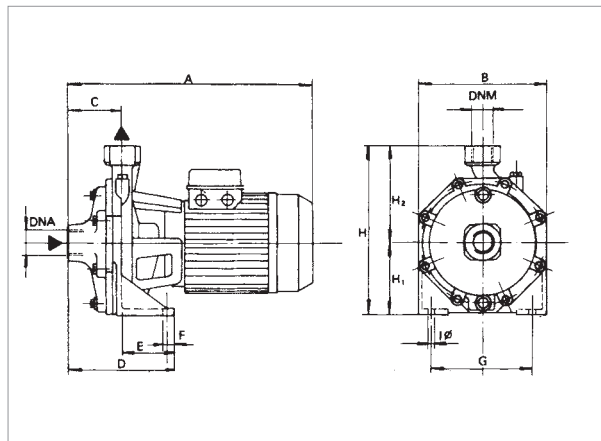


| MODEL | POWER INPUT 50 Hz | P1 MAX kW | ELECTRICAL DATA | | | | | | | |
|-----------|----------------------|--------------|-----------------|----|---------|---------------|------------|------------------|-----------|-----|
| | | | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. | CAPACITOR | |
| | | | kW | HP | | | | | μF | Vc |
| K 35/40 M | 1x220-240 V ~ | 1.2 | 0.75 | 1 | 5.5 | — | 18.5 | 2800 | 20 | 450 |
| K 35/40 T | 3x230-400 V ~ | 1.2 | 0.75 | 1 | 3.8-2.2 | IE2 | 22.14-12.8 | 2850 | — | — |

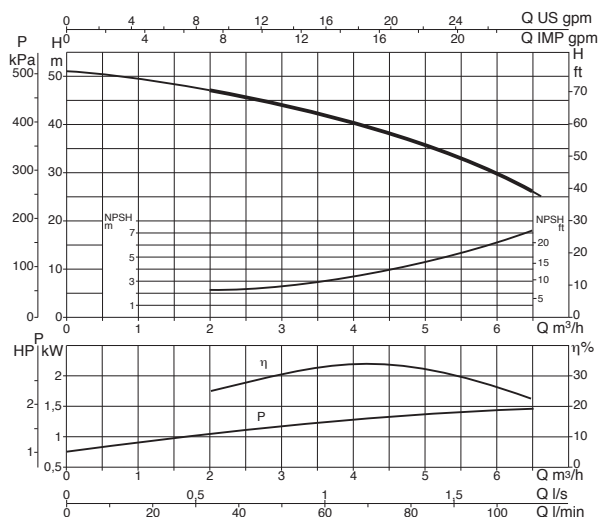
| MODEL | A | B | C | D | E | F | G | ØI | H | H1 | H2 | DNa | DNM | PACKING DIMENSIONS | | | VOLUME (m ³) | WEIGHT kg |
|---------|-----|-----|----|-----|----|----|-----|-----|-----|-----|-----|------|------|--------------------|-----|-----|-----------------------------|--------------|
| | | | | | | | | | | | | | | L/A | L/B | H | | |
| K 35/40 | 342 | 180 | 76 | 148 | 72 | 15 | 148 | 9.5 | 235 | 100 | 135 | 1" G | 1" G | 392 | 232 | 262 | 0.024 | 15.9 |

K 45/50 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

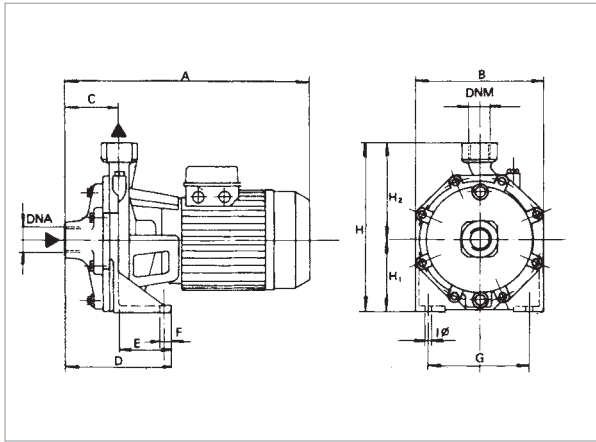


| MODEL | POWER INPUT 50 Hz | P1 MAX kW | ELECTRICAL DATA | | | | | | | |
|-----------|----------------------|--------------|-----------------|-----|---------|---------------|------------|------------------|-----------|-----|
| | | | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. | CAPACITOR | |
| | | | kW | HP | | | | | μF | Vc |
| K 45/50 M | 1x220-240 V ~ | 1.86 | 1.1 | 1.5 | 8.3 | — | 29.2 | 2800 | 31.5 | 450 |
| K 45/50 T | 3x230-400 V ~ | 1.96 | 1.1 | 1.5 | 7.2-4 | IE2 | 31.1-18 | 2850 | — | — |

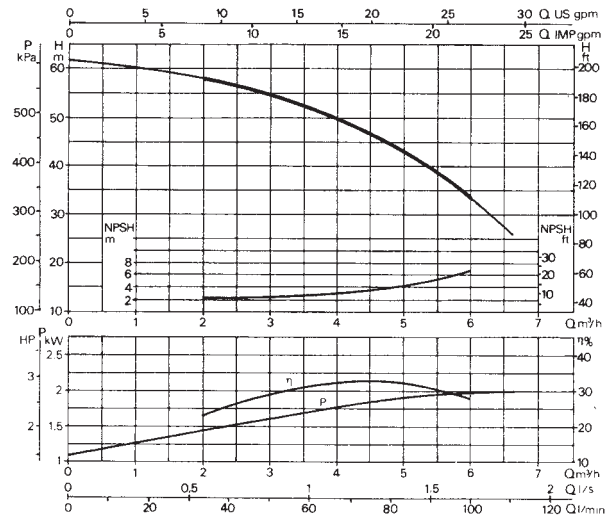
| MODEL | A | B | C | D | E | F | G | ØI | H | H1 | H2 | DNa | DNM | PACKING DIMENSIONS | | | VOLUME (m ³) | WEIGHT kg |
|---------|-----|-----|----|-----|----|----|-----|------|-----|-----|-----|----------|------|--------------------|-----|-----|-----------------------------|--------------|
| | | | | | | | | | | | | | | L/A | L/B | H | | |
| K 45/50 | 370 | 210 | 75 | 144 | 69 | 15 | 165 | 11.5 | 268 | 118 | 150 | 1 1/4" G | 1" G | 415 | 234 | 295 | 0.028 | 23.3 |

K 55/50 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -15 °C to +110 °C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

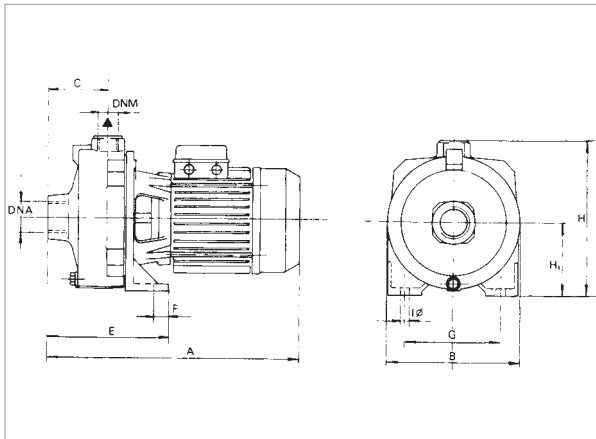


| MODEL | POWER INPUT 50 Hz | P1 MAX kW | ELECTRICAL DATA | | | | | | | |
|-----------|----------------------|--------------|-----------------|-----|---------|---------------|------------|------------------|-----------|-----|
| | | | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. | CAPACITOR | |
| | | | kW | HP | | | | | μF | Vc |
| K 55/50 M | 1x220-240 V ~ | 2.7 | 1.85 | 2.5 | 12.8 | — | 48 | 2850 | 40 | 450 |
| K 55/50 T | 3x230-400 V ~ | 2.5 | 1.85 | 2.5 | 8.4-4.8 | IE2 | 37.6-21.7 | 2850 | — | — |

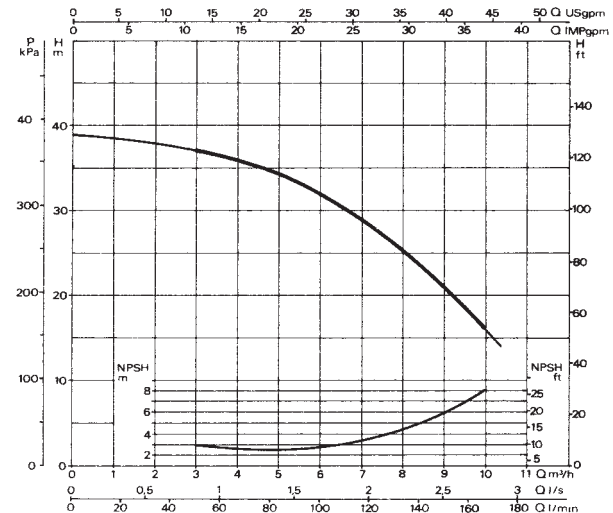
| MODEL | A | B | C | D | E | F | G | ØI | H | H1 | H2 | DNa | DNM | PACKING DIMENSIONS | | | VOLUME (m ³) | WEIGHT kg |
|---------|-----|-----|----|-----|----|----|-----|------|-----|-----|-----|----------|------|--------------------|-----|-----|-----------------------------|--------------|
| | | | | | | | | | | | | | | L/A | L/B | H | | |
| K 55/50 | 370 | 210 | 75 | 144 | 69 | 15 | 165 | 11.5 | 268 | 118 | 150 | 1 1/4" G | 1" G | 415 | 234 | 295 | 0.032 | 27.2 |

K 35/100 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

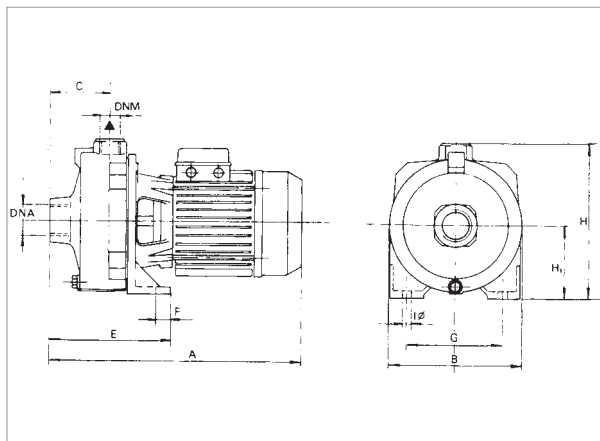


| MODEL | POWER INPUT 50 Hz | P1 MAX kW | ELECTRICAL DATA | | | | | | | |
|------------|----------------------|--------------|-----------------|-----|---------|---------------|------------|------------------|-----------|-----|
| | | | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. | CAPACITOR | |
| | | | kW | HP | | | | | μF | Vc |
| K 35/100 M | 1x220-240 V ~ | 1.56 | 1.1 | 1.5 | 7.1 | — | 33 | 2780 | 25 | 450 |
| K 35/100 T | 3x230-400 V ~ | 1.65 | 1.1 | 1.5 | 6.5-3.5 | IE2 | 21 | 2850 | — | — |

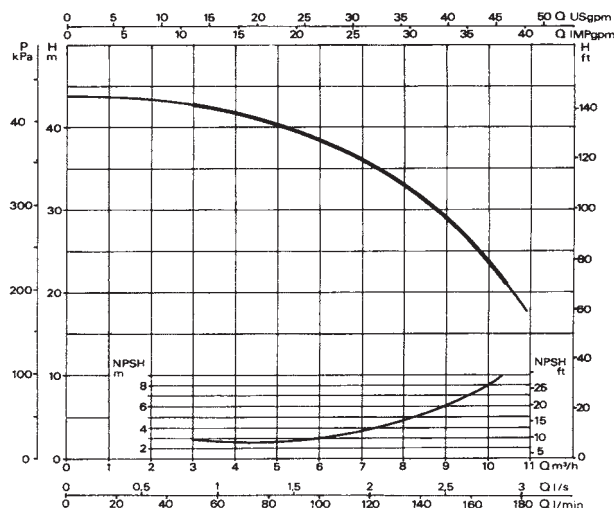
| MODEL | A | B | C | E | F | G | ØI | H | H1 | DNa | DNM | PACKING DIMENSIONS | | | VOLUME (m ³) | WEIGHT kg |
|----------|-----|-----|----|-----|----|-----|----|-----|-----|----------|------|--------------------|-----|-----|-----------------------------|--------------|
| | | | | | | | | | | | | L/A | L/B | H | | |
| K 35/100 | 387 | 205 | 88 | 169 | 20 | 145 | 11 | 233 | 108 | 1 1/2" G | 1" G | 415 | 234 | 295 | 0.028 | 22 |

K 40/100 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10°C to 50°C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

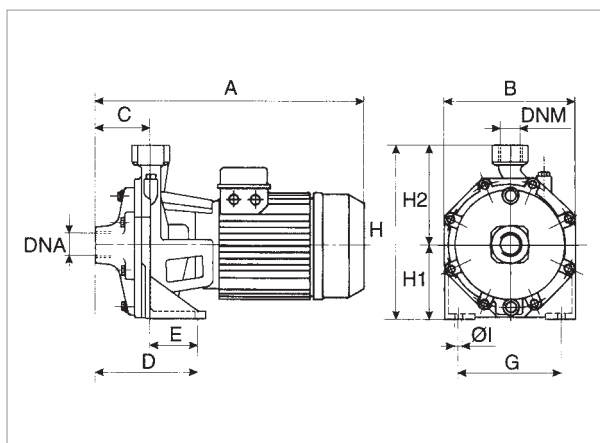


| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | ELECTRICAL DATA | | | | CAPACITOR | |
|------------|----------------------|--------------|------------|-----|-----------------|---------------|------------|------------------|-----------|-----|
| | | | kW | HP | In A | MOTOR TYPE | I st. A | rpm n. 1/min. | μF | Vc |
| K 40/100 M | 1x220-240 V ~ | 2 | 1.85 | 2.5 | 9 | — | 45 | 2850 | 40 | 450 |
| K 40/100 T | 3x230-400 V ~ | 2 | 1.85 | 2.5 | 7-4 | IE2 | 22 | 2850 | — | — |

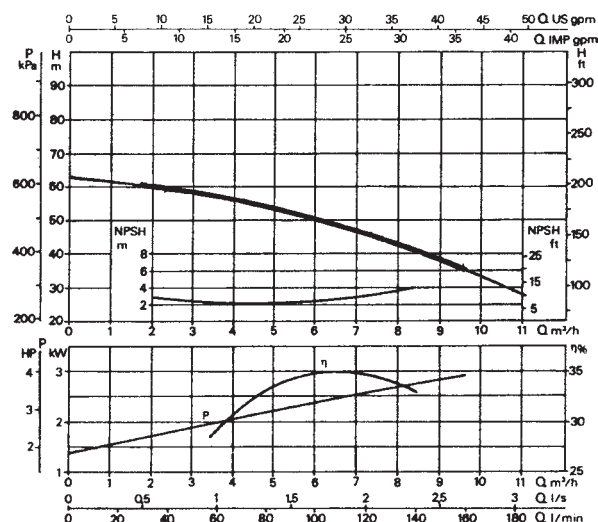
| MODEL | A | B | C | D | E | F | G | ØI | H | H1 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|------------|-----|-----|----|-----|----|----|-----|----|-----|-----|----------|------|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | | | | L/A | L/B | H | | |
| K 40/100 M | 461 | 205 | 88 | 179 | 20 | 20 | 145 | 11 | 233 | 108 | 1 1/2" G | 1" G | 510 | 234 | 285 | 0.034 | 25.9 |
| K 40/100 T | 387 | 205 | 88 | 179 | 20 | 20 | 145 | 11 | 233 | 108 | 1 1/2" G | 1" G | 415 | 234 | 295 | 0.028 | 22 |

K 55/100 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -10 °C to +50°C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

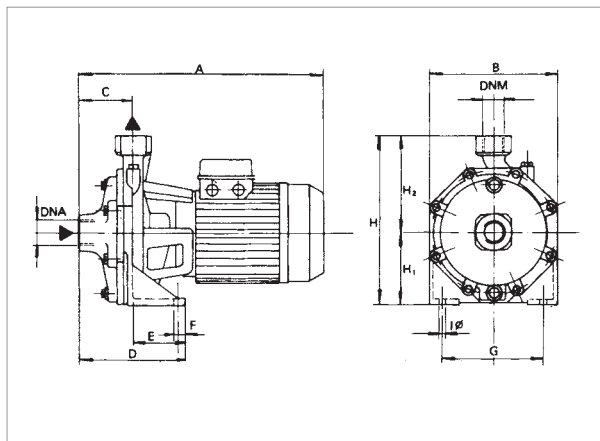


| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | ELECTRICAL DATA | | | |
|------------|----------------------|--------------|------------|----|-----------------|---------------|------------|------------------|
| | | | kW | HP | In A | MOTOR TYPE | I st. A | rpm n. 1/min. |
| K 55/100 T | 3x230-400 V ~ | 3.9 | 2.2 | 3 | 11.6-6.7 | IE2 | 67.5-39 | 2850 |

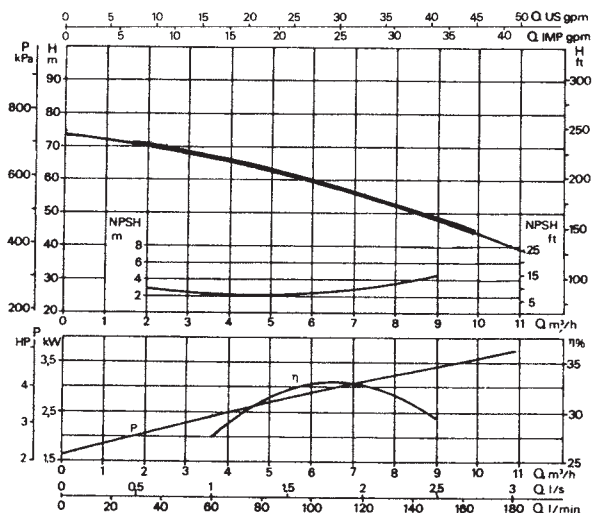
| MODEL | A | B | C | D | E | F | G | ØI | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|----------|-----|-----|----|-----|----|----|-----|----|-------|-----|-------|----------|------|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | | | | | L/A | L/B | H | | |
| K 55/100 | 450 | 256 | 88 | 160 | 72 | 18 | 200 | 14 | 312.5 | 140 | 172.5 | 1 1/2" G | 1" G | 500 | 274 | 333 | 0.045 | 38.1 |

K 66/100 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -15 °C to +110 °C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

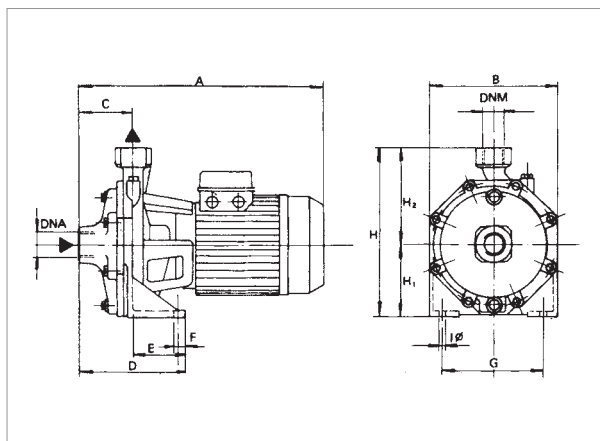


| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. |
|------------|----------------------|--------------|------------|----|----------|---------------|------------|------------------|
| | | | kW | HP | | | | |
| K 66/100 T | 3x230-400 V ~ | 4.7 | 3 | 4 | 14.6-8.4 | IE2 | 103.8-60 | 2900 |

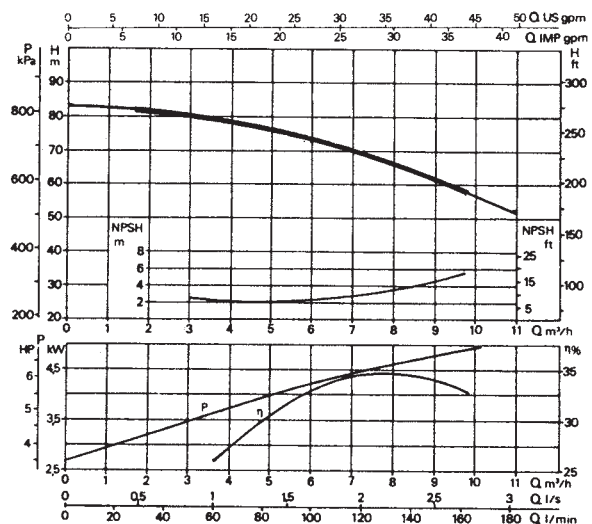
| MODEL | A | B | C | D | E | F | G | ØI | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m ³) | WEIGHT kg |
|----------|-----|-----|----|-----|----|----|-----|----|-------|-----|-------|----------|------|--------------------|-----|-----|-----------------------------|--------------|
| | | | | | | | | | | | | | | L/A | L/B | H | | |
| K 66/100 | 450 | 256 | 88 | 160 | 72 | 18 | 200 | 14 | 312.5 | 140 | 172.5 | 1 1/2" G | 1" G | 500 | 274 | 333 | 0.045 | 40.7 |

K 90/100 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -15°C to +110°C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

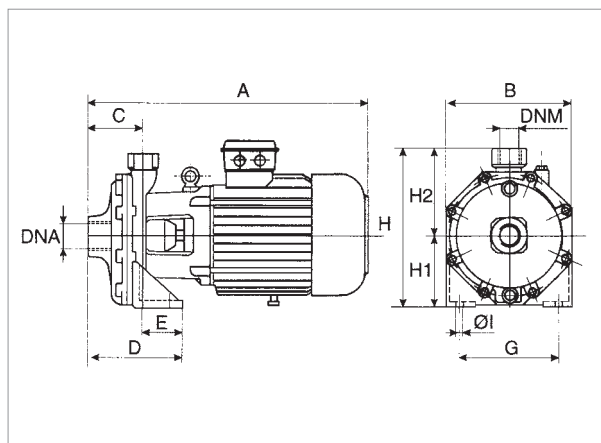


| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. |
|------------|----------------------|--------------|------------|-----|----------|---------------|------------|------------------|
| | | | kW | HP | | | | |
| K 90/100 T | 3x230-400 V ~ | 5.4 | 4 | 5.5 | 16.5-9.5 | IE2 | 103.8-60 | 2850 |

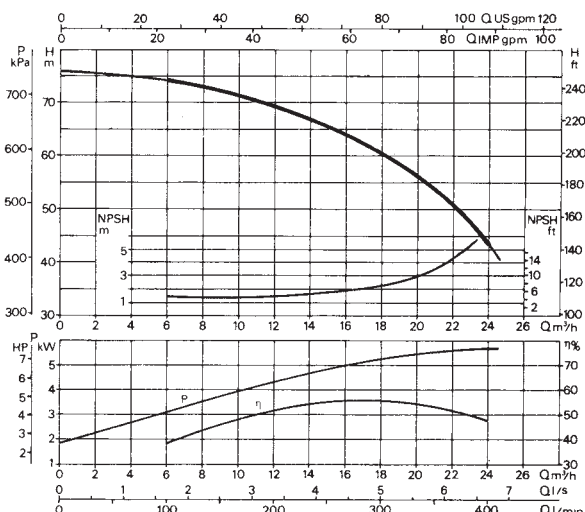
| MODEL | A | B | C | D | E | F | G | ØI | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m ³) | WEIGHT kg |
|----------|-----|-----|----|-----|----|----|-----|----|-------|-----|-------|----------|------|--------------------|-----|-----|-----------------------------|--------------|
| | | | | | | | | | | | | | | L/A | L/B | H | | |
| K 90/100 | 450 | 256 | 88 | 160 | 72 | 18 | 200 | 14 | 312.5 | 140 | 172.5 | 1 1/2" G | 1" G | 500 | 274 | 333 | 0.045 | 44 |

K 70/300 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -15 °C to +110 °C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



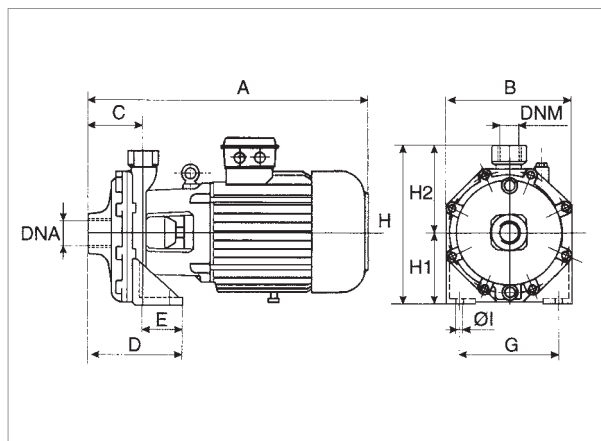
| MODEL | ELECTRICAL DATA | | | | | | | |
|------------|----------------------|--------------|------------|-----|---------|---------------|------------|------------------|
| | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. |
| | | | kW | HP | | | | |
| K 70/300 T | 3 x 230-400 V ~ 1 | 7.1 | 5.5 | 7.5 | 12.9 | IE2 | 77.9 | 2900 |

| MODEL | A | B | C | D | E | F | G | ØI | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m ³) | WEIGHT kg |
|----------|-----|-----|-----|-----|----|----|-----|----|-----|-----|-----|------|----------|--------------------|-----|-----|-----------------------------|--------------|
| | | | | | | | | | | | | | | L/A | L/B | H | | |
| K 70/300 | 595 | 270 | 122 | 182 | 60 | 20 | 210 | 14 | 340 | 160 | 180 | 2" G | 1 1/4" G | 680 | 330 | 470 | 0.106 | 72 |

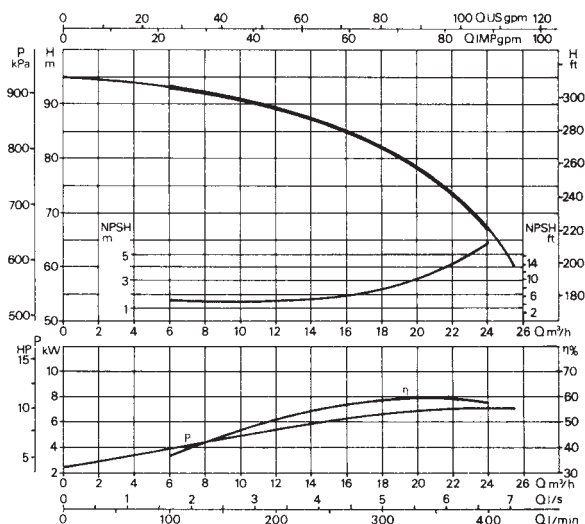
¹ star start-up possible (Δ)

K 80/300 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -15 °C to +110 °C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



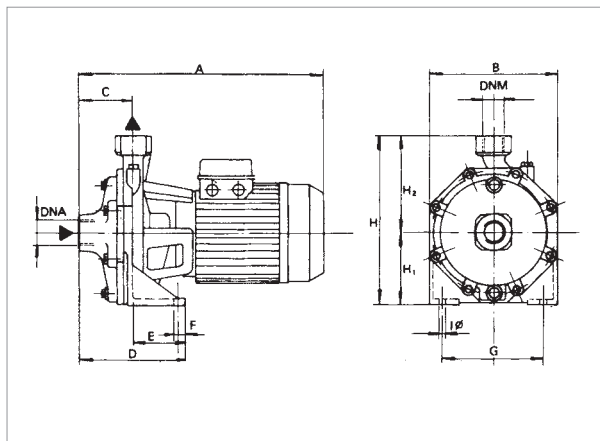
| MODEL | ELECTRICAL DATA | | | | | | | |
|------------|----------------------|--------------|------------|----|---------|---------------|------------|------------------|
| | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. |
| | | | kW | HP | | | | |
| K 80/300 T | 3 x 230-400 V ~ 1 | 9.10 | 7.5 | 10 | 15.20 | IE3 | 112 | 2910 |

| MODEL | A | B | C | D | E | F | G | ØI | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m ³) | WEIGHT kg |
|----------|-----|-----|-----|-----|----|----|-----|----|-----|-----|-----|------|----------|--------------------|-----|-----|-----------------------------|--------------|
| | | | | | | | | | | | | | | L/A | L/B | H | | |
| K 80/300 | 595 | 270 | 122 | 182 | 60 | 20 | 210 | 14 | 340 | 160 | 180 | 2" G | 1 1/4" G | 680 | 330 | 470 | 0.106 | 78.5 |

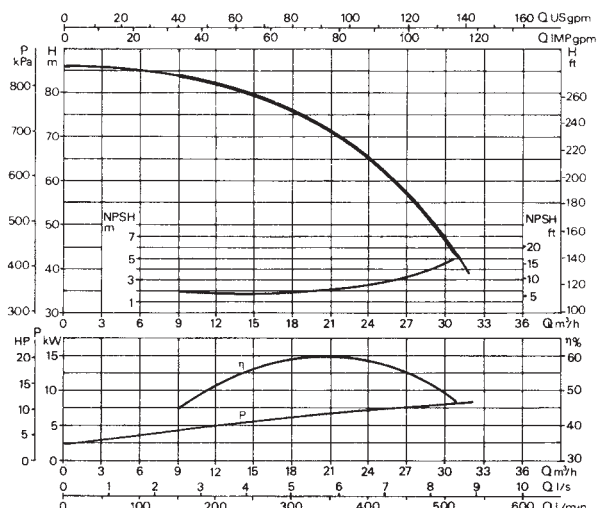
¹ star start-up possible (Δ)

K 70/400 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -15 °C to +110 °C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



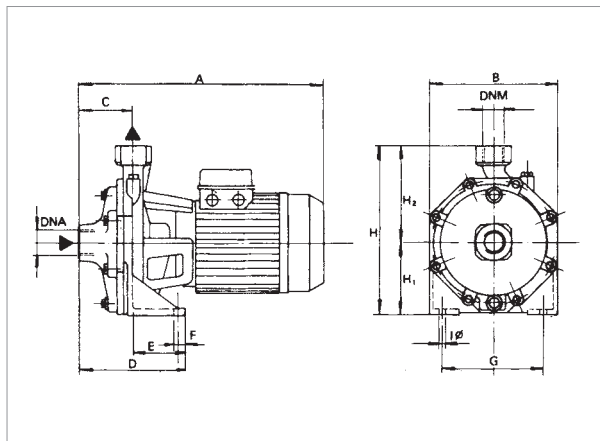
| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. |
|------------|----------------------|--------------|------------|------|---------|---------------|------------|------------------|
| | | | kW | HP | | | | |
| K 70/400 T | 3 x 230-400 V ~ 1 | 9.20 | 9.2 | 12.5 | 15.50 | IE3 | 135 | 2930 |

| MODEL | A | B | C | D | E | F | G | ØI | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m ³) | WEIGHT kg |
|----------|-----|-----|-----|-----|----|----|-----|----|-----|-----|-----|------|----------|--------------------|-----|-----|-----------------------------|--------------|
| | | | | | | | | | | | | | | L/A | L/B | H | | |
| K 70/400 | 635 | 270 | 122 | 182 | 60 | 20 | 210 | 14 | 340 | 160 | 180 | 2" G | 1 1/4" G | 680 | 330 | 470 | 0.106 | 74 |

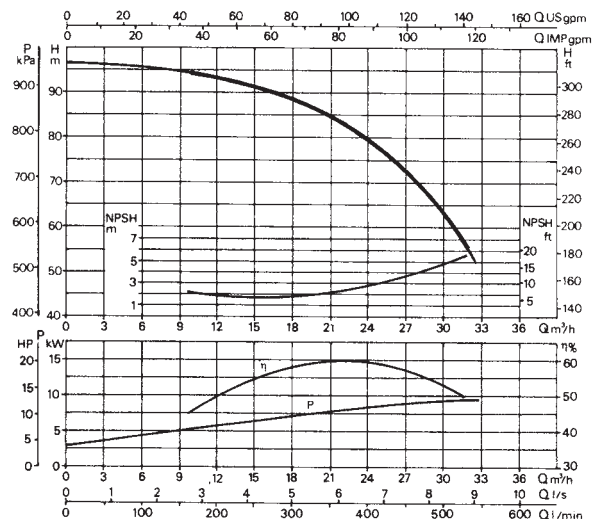
¹ star start-up possible (A)

K 80/400 - TWIN-IMPELLER CENTRIFUGAL ELECTRIC PUMPS FOR WATER SUPPLY IN DOMESTIC, CIVIL, AND INDUSTRIAL ENVIRONMENTS

Pumped liquid temperature range: from -15°C to +110°C - Maximum ambient temperature: +40°C



The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.



| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | rpm n. 1/min. |
|------------|----------------------|--------------|------------|----|---------|---------------|------------|------------------|
| | | | kW | HP | | | | |
| K 80/400 T | 3 x 230-400 V ~ 1 | 10.80 | 11 | 15 | 18.50 | IE3 | 193 | 2940 |

| MODEL | A | B | C | D | E | F | G | ØI | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m ³) | WEIGHT kg |
|----------|-----|-----|-----|-----|----|----|-----|----|-----|-----|-----|------|----------|--------------------|-----|-----|-----------------------------|--------------|
| | | | | | | | | | | | | | | L/A | L/B | H | | |
| K 80/400 | 635 | 270 | 122 | 182 | 60 | 20 | 210 | 14 | 340 | 160 | 180 | 2" G | 1 1/4" G | 680 | 330 | 470 | 0.106 | 78 |

¹ star start-up possible (A)

NKM-G / NKP-G

STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS



TECHNICAL DATA

Rotation speed: 1450 - 2900 1/min.

Operating range: from 1 to 460 m³/h with head of up to 96 metres.

Pumped liquid: clean, free of solids and abrasives, non-viscous, non-aggressive, non-crystallised and chemically neutral, with properties similar to water.

Pumped liquid temperature range: from -10°C to +140°C.

Maximum ambient temperature: +40 °C.

Maximum operating pressure: 16 bar - 1600 kPa (for DN 200 max 10 bar).

Flanging: PN 16 DIN 2533 - PN 10 DIN 2532 for DN 200

Protection class: IP55

Insulation class: F

Standard voltage: 230/400 V 50 Hz up to 2,2 kW included
400 V Δ 50 Hz above 2,2 kW

Installation: normally in horizontal or vertical position, provided that the motor is always above the pump.

Special executions on requests: pumps for liquids other than water.
Other voltages and/or frequencies.

APPLICATIONS

Standardised centrifugal monobloc electric pumps with coupling, designed for a wide range of applications, such as:

- Water supply.
- Hot water circulation for the heating system.
- Circulation of cold water for air conditioning and refrigeration systems.
- Transfer of liquids in agricultural, horticultural, and industrial environments.
- Installation of pumping assemblies.

CONSTRUCTION FEATURES OF THE PUMP

Cast iron single stage spiral body complying with DIN-EN 733 (formerly DIN 24255), cast iron support, flanges complying with DIN 2533, and DIN 2532 for DN 200. Cast iron impeller, closed and dynamically balanced, with compensation of the axial thrust through balancing holes, operation on interchangeable wear rings (on request). AISI 304 stainless steel pump shaft.

Seal device: standardised mechanical seal according to DIN 24960 in carbon/silicon carbide with EPDM OR rings.

CONSTRUCTION FEATURES OF THE MOTOR

Closed asynchronous type motor with external ventilation, B3/B5 construction, two poles for NKP and four poles for NKM. Rotor running on ball bearings, largely oversized to ensure low noise and durability. For the protection of the motor, we recommend the use of remote overload cut-outs, in compliance with current local regulations. For liquids with densities higher than water, motors with proportionally higher powers are required.

Construction according to the standard: CEI 2-3.

IE2 motors as standard from 0,75 kW - IE3 ≥ 7,5 kW (IE2 ≥ 7,5 kW only outside the EU)

NKM-G / NKP-G

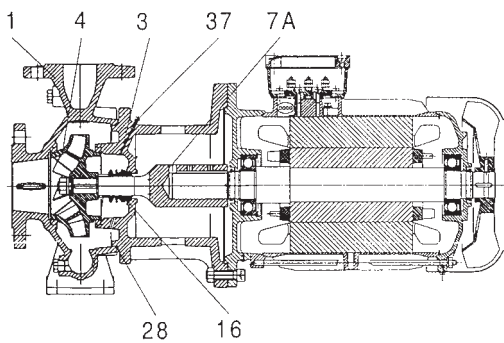
STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS

MATERIALS

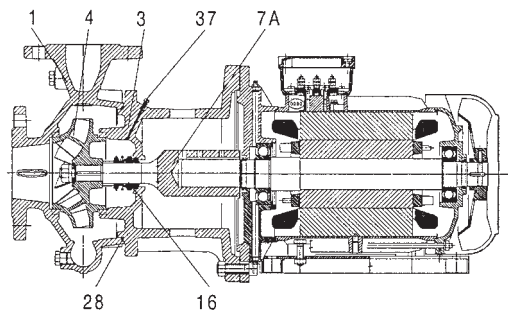
| No. | PARTS | MATERIALS (standard version) |
|-----|-------------------|--|
| 1 | PUMP BODY | CAST IRON 250 UNI ISO 185 |
| 3 | SUPPORT | CAST IRON 250 UNI ISO 185 |
| 4 | IMPELLER | CAST IRON 250 UNI ISO 185 |
| 7A | PUMP SHAFT | AISI 304 STAINLESS STEEL - UNI 6900/71 |
| 16 | MECHANICAL SEAL | CARBON/SILICON CARBIDE - EPDM |
| 28 | OR RING | EPDM |
| 31 | SEAL SPACER | AISI 304 STAINLESS STEEL - UNI 6900/71 |
| 36 | SEAL HOLDING DISC | CAST IRON 250 UNI ISO 185 |
| 37 | BLEED COCK | AISI 304 STAINLESS STEEL - UNI 6900/71 |

| No. | PARTS | MATERIALS (version on request) |
|-----|-----------------|---|
| 4 | IMPELLER | BRONZE GCuSn5Zn5Pb5 UNI 7013/8a-72 |
| 16 | MECHANICAL SEAL | SILICON CARBIDE/SILICON CARBIDE - EPDM SILICON CARBIDE/SILICON CARBIDE - VITON CARBON/SILICON CARBIDE - VITON |

VERSION WITH MOTOR UP TO 7,5 KW INCLUDED

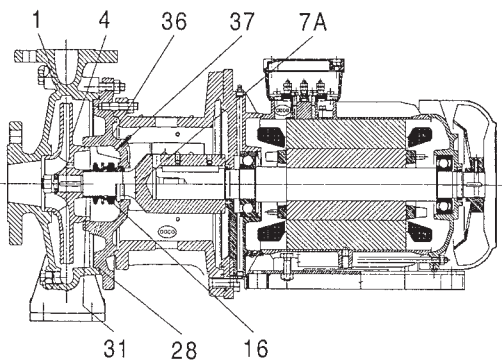


VERSION WITH MOTOR OVER 7,5 KW



VERSION FOR MODELS:

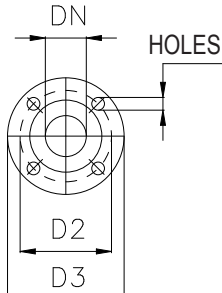
NKM-G 65-315/309/11 /4
 NKM-G 100-315/316/22 /4, NKM-G125-250/243/15 /4,
 NKM-G 80-200/200/4 /4,
 NKM-G 80-250/270/11 /4, NKM-G 80-315/305/15 /4,
 NKM-G 80-315/320/18.5 /4, NKM-G 80-315/334/22 /4,
 NKM-G 100-250/250/11 /4, NKM-G 150-200/218/11 /4

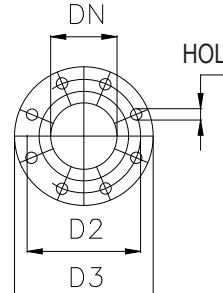


NKM-G / NKP-G

STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS

FLANGE SIZES (mm)

|  | Nominal diameter (DN) | | | | |
|---|-----------------------|-----|-----|-----|-----|
| | DIN 2533 PN 16 | | | | |
| | DN | 32 | 40 | 50 | 65 |
| | D2 | 100 | 110 | 125 | 145 |
| | D3 | 140 | 150 | 165 | 185 |
| HOLES | Ø | 18 | | | |
| | No. | 4 | | | |

|  | Nominal diameter (DN) | | | | |
|--|-----------------------|-----|-----|-----|-----|
| | DIN 2533 PN 16 | | | | |
| | DN | 80 | 100 | 125 | 150 |
| | D2 | 160 | 180 | 210 | 240 |
| | D3 | 200 | 220 | 250 | 285 |
| HOLES | 18 | | | | 22 |
| | 8 | | | | 8 |

| Nominal diameter (DN) | | | | | DIN 2533 PN 16 |
|-----------------------|-----|-----|-----|--|----------------|
| DIN 2533 PN 16 | | | | | |
| 80 | 100 | 125 | 150 | | 200 |
| 160 | 180 | 210 | 240 | | 295 |
| 200 | 220 | 250 | 285 | | 340 |
| 18 | | | | | 22 |
| 8 | | | | | 8 |

– Denomination index: (example)

| | | | | | | | | | | |
|---------------|---------------|-------------------|--|-----------------------------------|----------------------------------|--|------------------------------|------------------|-------------------|---|
| NKM = 4 poles | NKP = 2 poles | G = with coupling | Nominal diameter of the delivery port: | Nominal diameter of the impeller: | Actual diameter of the impeller: | Material codes: A = Cast iron B = Cast iron with bronze impeller | Wear rings (only if present) | Seal description | Motor power in kW | Number of poles 4 = 4 poles 2 = 2 poles |
| | | | | | | | | | | |

DESCRIPTION OF THE MECHANICAL SEAL

| Position | Code | Description of the seal |
|----------|------|-------------------------------|
| 1 | A | O-ring seal with fixed guide |
| | B | Rubber bellows seal |
| | C | O-ring seal with spring guide |
| | D | O-ring seal balanced |
| | M | Rubber bellows seal |
| | X | Metal bellows seal |
| Position | Code | Materials |
| 2 & 3 | A | Impregnated carbon/metal |
| | B | Impregnated carbon/resin |
| | C | Other carbon types |
| | S | Chromium steel |
| | U | Tungsten carbide |
| | Q | Silicon carbide |
| | V | Aluminium oxide (ceramic) |
| | X | Other ceramic types |
| Position | Code | Materials |
| 4 | P | Nitrile rubber (NBR) |
| | S | Silicon rubber |
| | T | Teflon (PTFE) |
| | E | EPDM |
| | V | Viton |
| | M | PTFE coated O-ring |
| Position | Code | Materials |
| 5 | V | Reinforced |

PRODUCT CODE DESCRIPTION

| NOMINAL DIAMETER OF THE IMPELLER | Cod. |
|----------------------------------|------|
| 125 | 1 |
| 160 | 2 |
| 200 | 3 |
| 250 | 4 |
| 315 | 5 |
| | |
| 125.1 | K |
| 160.1 | L |
| 200.1 | M |

| PUMP TYPE | Cod. |
|-----------|------|
| 32 | 1 |
| 40 | 2 |
| 50 | 3 |
| 65 | 4 |
| 80 | 5 |
| 100 | 6 |
| 125 | 7 |
| 150 | 8 |

| IDENTIFICATION | Cod. |
|------------------|------|
| DAB PUMPS S.p.A. | D |

| IDENTIFICATION | Cod. |
|------------------|------|
| DAB PUMPS S.p.A. | 1 |

| Cod. | PUMP/IMPELLER MATERIALS |
|------|------------------------------|
| 1 | A (01) = cast iron/cast iron |
| 2 | B (03) = cast iron/bronze |
| 5 | A (01) + Wr* |
| 6 | B (03) + Wr* |

* With wear rings

| Cod. | SEAL DEVICE |
|------|-------------|
| 1 | BAQE |
| 5 | BQQV* |
| 7 | BAQV* |
| G | BQQE* |

* On request

| Cod. | CODE PUMP TYPE |
|------|---------------------|
| B | NKM-G / NKP-G 50 Hz |
| C | NKM-G / NKP-G 60 Hz |

| Cod. | P2 NOMINAL KW |
|------|---------------|
| 1 | 0.37 |
| 2 | 0.55 |
| 3 | 0.75 |
| 4 | 1.1 |
| 5 | 1.5 |
| 6 | 2.2 |
| 7 | 3 |
| 8 | 4 |
| 9 | 5.5 |
| A | 7.5 |
| B | 11 |
| C | 15 |
| D | 18.5 |
| E | 22 |
| F | 30 |

| Cod. | VOLTAGE | Poles |
|------|---|-------|
| 0 | Without motor | |
| 1 | 3 x 220-240/380-415 V 50 Hz(<0,75 kW) 3 x 220-277/380-480 V 60 Hz | 2 |
| 2 | 3 x 380-480 V 60 Hz | 2 |
| 3 | 3 x 220-240/380-415 V 50 Hz(<0,75 kW) 3 x 220-277/380-480 V 60 Hz | 4 |
| 4 | 3 x 380-480 V 60 Hz | 4 |
| A | 3 x 220-240/380-415 V 50 Hz - IE2 | 2 |
| B | 3 x 380-415 V 50 Hz - IE2 | 2 |
| C | 3 x 220-240/380-415 V 50 Hz - IE2 | 4 |
| D | 3 x 380-415 V 50 Hz - IE2 | 4 |
| U | 3 x 220-240/380-415 V 50 Hz - IE3 | 2 |
| V | 3 x 380-415 V 50 Hz - IE3 | 2 |
| W | 3 x 220-240/380-415 V 50 Hz - IE3 | 4 |
| X | 3 x 380-415 V 50 Hz - IE3 | 4 |

Product code

1 D 1 1 1 1 B 1 1

NKM-G RANGE

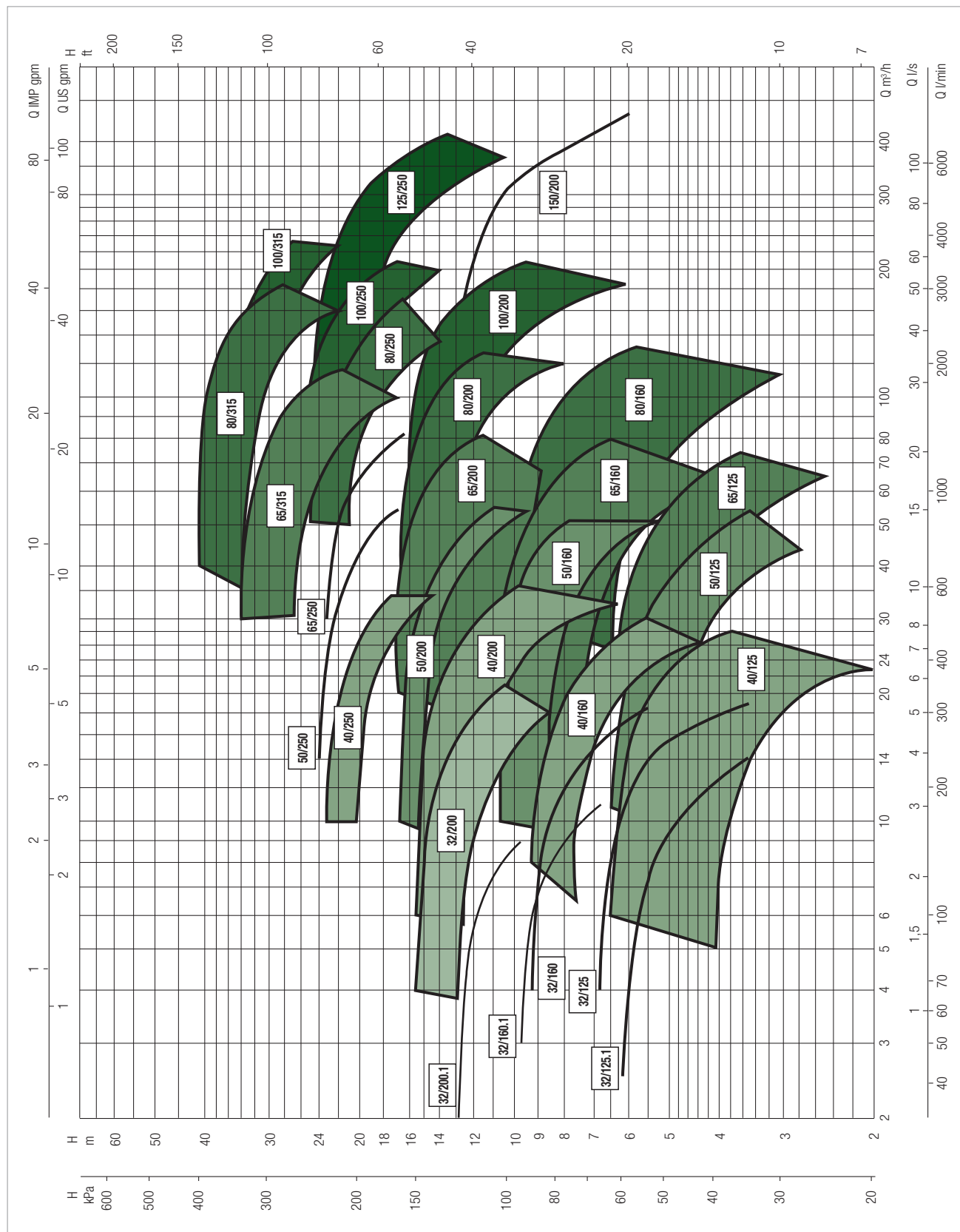
STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE

≈ 1450 1/min



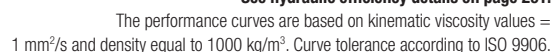
SELECTION TABLE - NKM-G

| MODEL | Q= m ³ /h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | 90 | 102 | 114 |
|---------------------------|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | Q= l/min | 0 | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1700 | 1900 |
| NKM-G 32-125.1/140/0.25/4 | H (m) | 6.2 | 5.8 | 4.2 | | | | | | | | | | | | | | | |
| NKM-G 32-125/142/ 0.37/4 | | 7 | 6.75 | 5.85 | 4.2 | | | | | | | | | | | | | | |
| NKM-G 32-160.1/169/0.37/4 | | 8.9 | 8.2 | 4.6 | | | | | | | | | | | | | | | |
| NKM-G 32-160/169/0.55/4 | | 9.4 | 9 | 7.9 | 5.6 | | | | | | | | | | | | | | |
| NKM-G 32-200.1/200/0.55/4 | | 12.7 | 11.2 | 7.2 | | | | | | | | | | | | | | | |
| NKM-G 32-200/200/ 0,75/4 | | 13 | 12.5 | 11.1 | 8.45 | | | | | | | | | | | | | | |
| NKM-G 32-200/219/ 1,1 /4 | | 16 | 15.4 | 14.3 | 12.2 | | | | | | | | | | | | | | |
| NKM-G 40-125/115/ 0.25/4 | | 4.2 | 4.1 | 3.7 | 3 | 2.1 | | | | | | | | | | | | | |
| NKM-G 40-125/130/ 0.37/4 | | 5.4 | 5.3 | 5.4 | 4 | 3.5 | | | | | | | | | | | | | |
| NKM-G 40-125/142/ 0.55/4 | | 6.6 | 6.5 | 6.2 | 5.7 | 4.8 | | | | | | | | | | | | | |
| NKM-G 40-160/153/ 0.55/4 | | 7.6 | 7.6 | 7.5 | 6.7 | 5.5 | | | | | | | | | | | | | |
| NKM-G 40-160/166/ 0.75/4 | | 9.2 | 9.2 | 9 | 8.4 | 7.4 | 5.7 | | | | | | | | | | | | |
| NKM-G 40-200/200/ 1,1 /4 | | 12.5 | 12.5 | 12.3 | 11.2 | 9.7 | 7.7 | | | | | | | | | | | | |
| NKM-G 40-200/219/ 1,5 /4 | | 15.6 | 15.6 | 15.3 | 14.7 | 13.4 | 11.8 | 9.8 | | | | | | | | | | | |
| NKM-G 40-250/245/ 2,2 /4 | | 20.6 | 20.5 | 20.1 | 19.2 | 17.8 | 16 | | | | | | | | | | | | |
| NKM-G 40-250/260/ 3 /4 | | 23.3 | 23.1 | 22.8 | 22.2 | 20.8 | 19 | | | | | | | | | | | | |
| NKM-G 50-125/130/ 0.55/4 | H (m) | 5.5 | | 5.2 | 5 | 4.7 | 4.3 | 3.9 | 3.3 | 2.6 | | | | | | | | | |
| NKM-G 50-125/141/ 0.75/4 | | 6.5 | | 6.3 | 6.1 | 5.8 | 5.5 | 5 | 4.5 | 3.9 | | | | | | | | | |
| NKM-G 50-160/161/ 1.1 /4 | | 8.6 | | 8.6 | 8.5 | 8.2 | 7.8 | 7.3 | 6.7 | 5.7 | | | | | | | | | |
| NKM-G 50-160/177/ 1,5 /4 | | 10.7 | | 10.7 | 10.7 | 10.5 | 10.2 | 9.8 | 9.2 | 8.3 | | | | | | | | | |
| NKM-G 50-200/210/ 2,2 /4 | | 15.3 | | 15.3 | 15.2 | 14.8 | 14 | 13.3 | 12.1 | 10.8 | 9.4 | | | | | | | | |
| NKM-G 50-200/219/ 3 /4 | | 16.8 | | 16.8 | 16.5 | 16.1 | 15.5 | 14.6 | 13.6 | 12.4 | 10.9 | | | | | | | | |
| NKM-G 50-250/263/ 4 /4 | | 23.8 | | 23.8 | 23.8 | 23.4 | 22.7 | 21.6 | 20.4 | 19 | 17.1 | | | | | | | | |
| NKM-G 65-125/130/ 0.75/4 | | 5.1 | | 4.9 | 4.8 | 4.75 | 4.7 | 4.4 | 4.2 | 3.8 | 3.4 | 3 | 2.5 | | | | | | |
| NKM-G 65-125/144/ 1.1 /4 | | 6.5 | | 6.4 | 6.4 | 6.3 | 6.2 | 6 | 5.75 | 5.5 | 5.1 | 4.65 | 4.2 | 3.75 | | | | | |
| NKM-G 65-160/153/ 1,1 /4 | | 7.4 | | 7.4 | 7.3 | 7.15 | 6.9 | 6.65 | 6.25 | 5.8 | 5.3 | 4.4 | | | | | | | |
| NKM-G 65-160/165/ 1,5 /4 | | 8.9 | | | 8.8 | 8.7 | 8.6 | 8.3 | 8 | 7.6 | 7.15 | 6.6 | 6 | | | | | | |
| NKM-G 65-160/177/ 2,2 /4 | | 10.5 | | | | 10.4 | 10.3 | 10.2 | 9.9 | 9.6 | 9.2 | 8.75 | 8.2 | 7.4 | 6.6 | | | | |
| NKM-G 65-200/210/ 3 /4 | | 15.3 | | | | 15.2 | 15.2 | 15.1 | 14.6 | 14.1 | 13.5 | 12.9 | 12.2 | 11.3 | | | | | |
| NKM-G 65-200/219/ 4 /4 | | 17 | | | | 17 | 16.9 | 16.8 | 16.4 | 16.2 | 15.8 | 15.2 | 14.3 | 13.8 | 12.6 | | | | |
| NKM-G 65-250/263/ 5,5 /4 | | 24.1 | | | | 23.8 | 23.6 | 23.3 | 22.8 | 22.3 | 21.5 | 20.8 | 19.7 | 18.6 | 17.3 | | | | |
| NKM-G 65-315/279/ 7,5 /4 | | 27 | | | | | | | 26 | 25.5 | 25 | 24.5 | 23.6 | 22.7 | 21.5 | 20.2 | 19 | | |
| NKM-G 65-315/309/11 /4 | | 34.2 | | | | | | | 33.2 | 33 | 32.5 | 32 | 31.5 | 30.7 | 29.8 | 29 | 28 | 25 | 21.7 |

SELECTION TABLE - NKM-G

| MODEL | Q= | 0 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | 90 | 102 | 114 | 120 | 150 | 180 | 210 | 240 | 270 | 300 | 330 | 360 | 390 | 420 |
|----------------------------|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | Q= | 0 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1700 | 1900 | 2000 | 2500 | 3000 | 3500 | 4000 | 4500 | 5000 | 5500 | 6000 | 6500 | 7000 |
| NKM-G 80-160/153-136/1,5/4 | H (m) | 6.5 | 6.35 | 6.3 | 6.2 | 5.95 | 5.75 | 5.55 | 5.3 | 5 | 4.7 | 4.5 | 4.25 | 3.65 | 3 | | | | | | | | | | | |
| NKM-G 80-160/163/ 2,2 /4 | | 8.65 | 8.5 | 8.45 | 8.3 | 8.15 | 7.9 | 7.7 | 7.4 | 7.2 | 6.9 | 6.65 | 6.3 | 5.7 | 4.9 | 4.6 | | | | | | | | | | |
| NKM-G 80-160/177/ 3 /4 | | 10.2 | 10.2 | 10.1 | 10 | 9.9 | 9.75 | 9.65 | 9.5 | 9.25 | 9 | 8.8 | 8.6 | 7.9 | 7.2 | 6.7 | | | | | | | | | | |
| NKM-G 80-200/200/ 4 /4 | | 13.2 | | | 13.1 | 13 | 12.9 | 12.8 | 12.7 | 12.4 | 12 | 11.7 | 11.3 | 10.4 | 9.3 | 8.7 | | | | | | | | | | |
| NKM-G 80-200/222/ 5,5 /4 | | 16.6 | | | 16.5 | 16.5 | 16.4 | 16.2 | 16.1 | 16 | 15.7 | 15.4 | 15 | 14.3 | 13.3 | 12.7 | | | | | | | | | | |
| NKM-G 80-250/240/ 7,5 /4 | | 20.4 | | | 20.3 | 20.3 | 20.2 | 20.1 | 20 | 19.9 | 19.8 | 19.5 | 19 | 18 | 16.7 | 16 | | | | | | | | | | |
| NKM-G 80-250/270/11 /4 | | 25.6 | | | 25.5 | 25.5 | 25.4 | 25.1 | 25 | 24.8 | 24.6 | 24.2 | 24 | 23 | 21.5 | 21 | | | | | | | | | | |
| NKM-G 80-315/305/15 /4 | | 32.9 | | | | | 32.7 | 32.6 | 32.6 | 32.5 | 32.4 | 32 | 31.6 | 30.5 | 29.5 | 28.9 | 24 | | | | | | | | | |
| NKM-G 80-315/320/18,5 /4 | | 36.8 | | | | | 36.7 | 36.7 | 36.6 | 36.5 | 36.5 | 36.5 | 36.1 | 35.5 | 34.5 | 34 | 29.5 | | | | | | | | | |
| NKM-G 80-315/334/22 /4 | | 41 | | | | | 40.8 | 40.8 | 40.7 | 40.6 | 40.6 | 40.4 | 40.2 | 39.8 | 39 | 38.5 | 34.8 | 29 | | | | | | | | |
| NKM-G100-200/200/ 5,5 /4 | | 12.7 | | | | | | 12.6 | 12.6 | 12.5 | 12.5 | 12.4 | 12.3 | 12 | 11.5 | 11.4 | 10.1 | 8.5 | | | | | | | | |
| NKM-G100-200/214/ 7,5 /4 | | 15.6 | | | | | | 15.4 | 15.4 | 15.3 | 15.2 | 15.1 | 15 | 14.7 | 14.5 | 14.3 | 13.3 | 11.6 | 9.8 | | | | | | | |
| NKM-G100-250/250/11 /4 | | 21.1 | | | | | | 21 | 21 | 21 | 21 | 21 | 21 | 20.9 | 20 | 19.8 | 18 | 16 | | | | | | | | |
| NKM-G100-250/270/15 /4 | | 25.5 | | | | | | 25.5 | 25.5 | 25.5 | 25.3 | 25.1 | 25.1 | 25 | 24.5 | 24 | 22.5 | 20.5 | 17.5 | | | | | | | |
| NKM-G100-315/300/18.5 /4 | | 32 | | | | | | | | | | 31.5 | 31.4 | 31 | 30.5 | 28.8 | 26 | 23 | | | | | | | | |
| NKM-G100-315/316/22 /4 | | 36 | | | | | | | | | | 35.5 | 35.2 | 35 | 34.6 | 33.2 | 31 | 28 | 24 | | | | | | | |
| NKM-G125-250/243/15 /4 | | 19.5 | | | | | | | | | | | | 19.3 | 19.3 | 19.2 | 19.2 | 18.7 | 17.8 | 16.8 | 15.5 | 14.1 | 12.5 | 10.9 | | |
| NKM-G125-250/256/18,5 /4 | | 21.9 | | | | | | | | | | | | 21.8 | 21.8 | 21.7 | 21.6 | 21.3 | 20.5 | 19.5 | 18.5 | 17.2 | 15.6 | 14 | 12 | |
| NKM-G125-250/266/22 /4 | | 24.6 | | | | | | | | | | | | 24.4 | 24.2 | 24.1 | 24 | 23.5 | 22.9 | 22 | 21 | 19.8 | 18.5 | 16.7 | 15 | |
| NKM-G150-200/218/11 /4 | | 13.2 | | | | | | | | | | | | 13.1 | 13 | 13 | 12.8 | 12.5 | 12.1 | 11.5 | 11 | 10.4 | 9.7 | 9 | 8 | 7 |

CENTRIFUGAL PUMPS

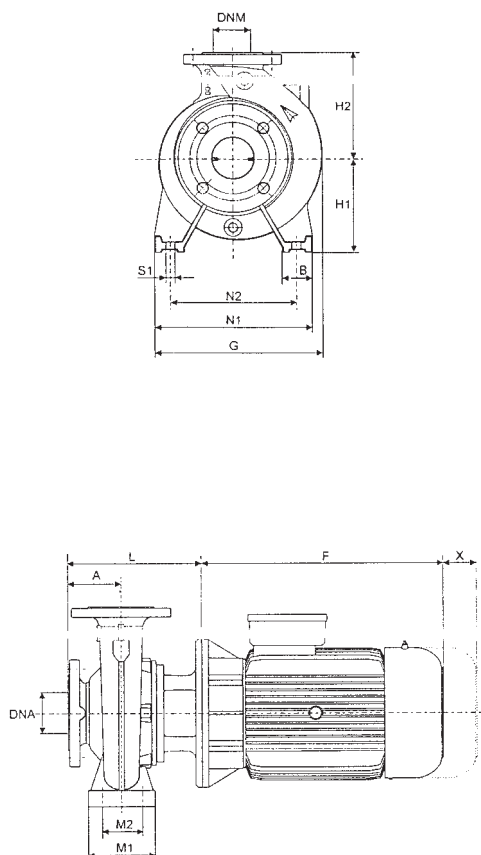
 $\approx 1450 \text{ 1/min}$ 

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|---------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| NKM-G 32-125.1/140/0.25/4 | 80 | 50 | 208 | — | 234 | 112 | 140 | 201 | 100 | 70 | 190 | 140 | M10 | 100 | 28 | 50 | 32 | 620 | 370 | 480 | 0.110 | 33 | — |

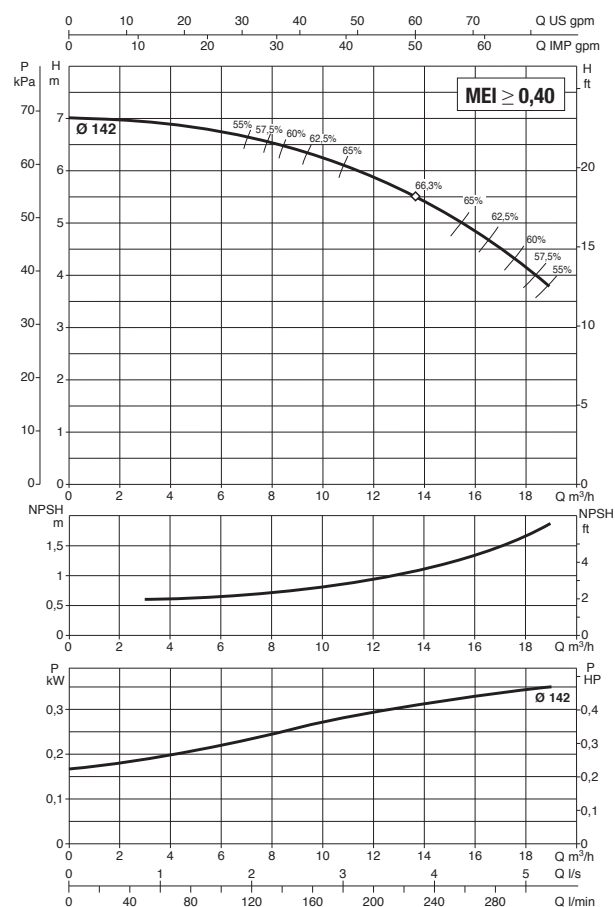
NKM-G 32-125- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

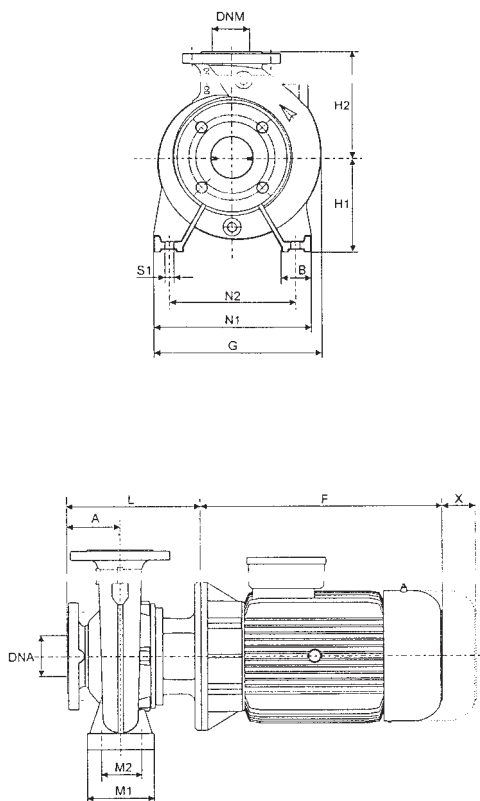
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|-----|----------|-----|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G 32-125/142/ 0.37/4 | MEC 71 | 230 - 400 V ~ | 0.37 | 0.5 | 1.7/0.98 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G 32-125/142/ 0.37/4 | 80 | 50 | 208 | – | 234 | 112 | 140 | 201 | 100 | 70 | 190 | 140 | M10 | 100 | 28 | 50 | 32 | 620 | 370 | 480 | 0.110 | 35 | – |

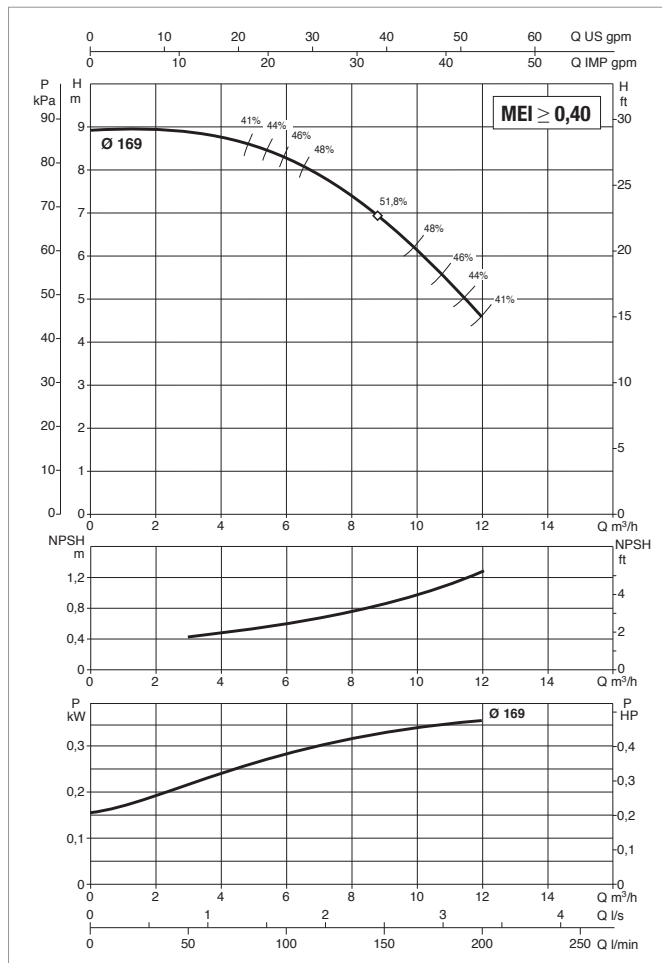
NKM-G 32-160.1- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

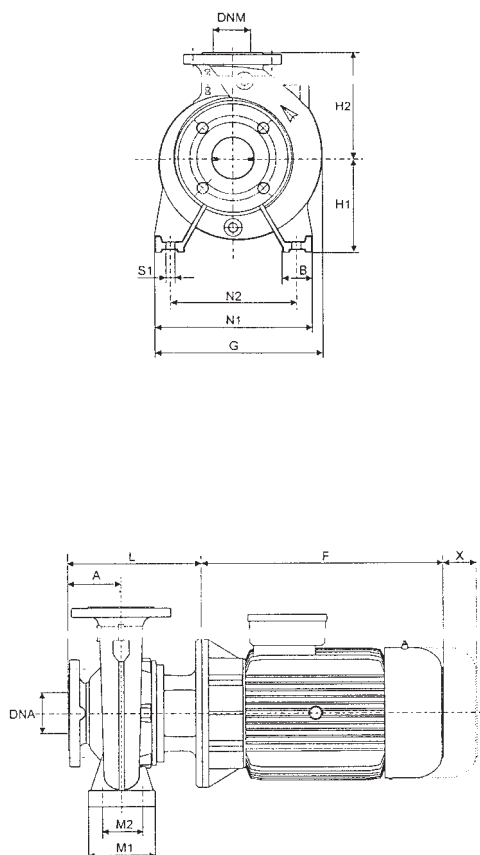
| MODEL | ELECTRICAL DATA | | | | | | |
|---------------------------|-----------------|----------------------|------------|-----|----------|-----|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | TYPE MOTOR |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G 32-160.1/169/0.37/4 | MEC 71 | 230 - 400 V ~ | 0.37 | 0.5 | 1.7/0.98 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|---------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G 32-160.1/169/0.37/4 | 80 | 50 | 208 | — | 245 | 132 | 160 | 201 | 100 | 70 | 240 | 190 | M10 | 100 | 28 | 50 | 32 | 620 | 370 | 480 | 0.110 | 36 | — |

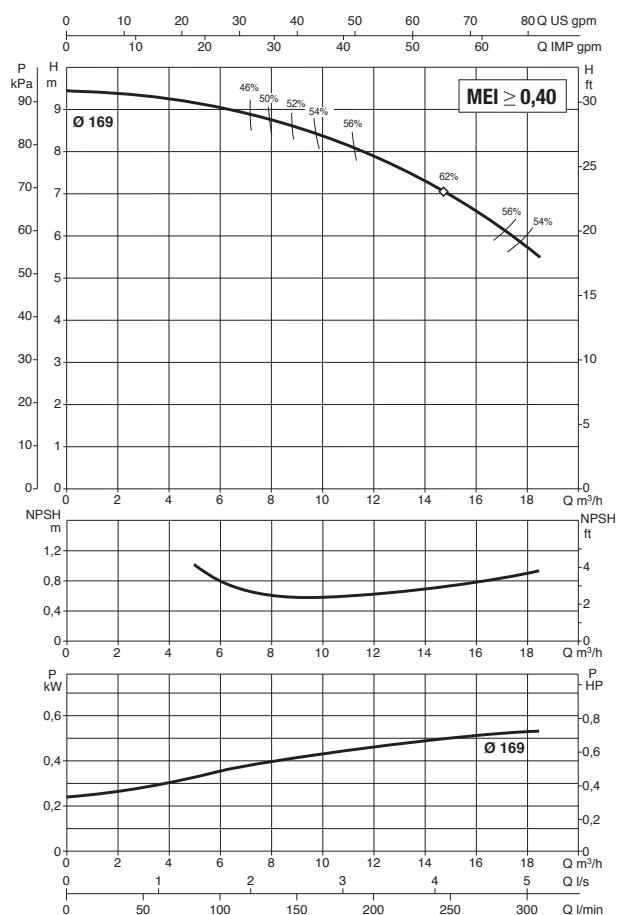
NKM-G 32-160- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

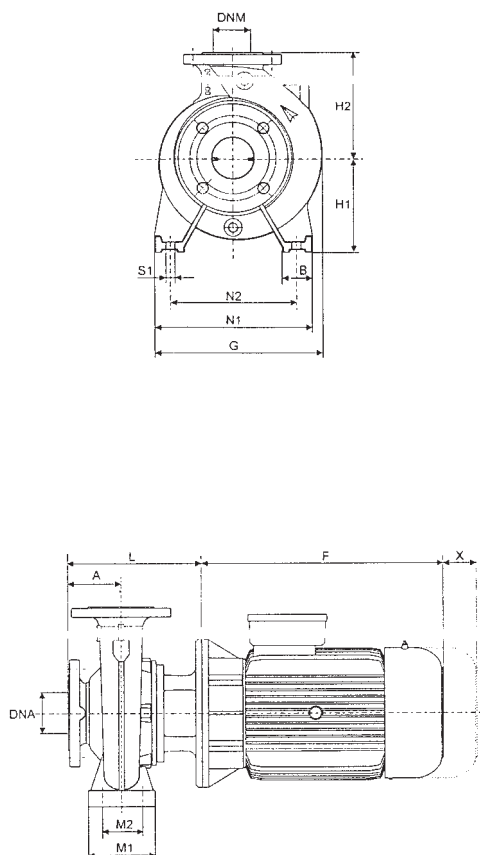
| MODEL | ELECTRICAL DATA | | | | | | |
|-------------------------|-----------------|----------------------|------------|------|---------|-----|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G 32-160/169/0.55/4 | MEC 80 | 230/400 V | 0.55 | 0.75 | 2.6/1.5 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|-------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G 32-160/169/0.55/4 | 80 | 50 | 234 | — | 245 | 132 | 160 | 226 | 100 | 70 | 240 | 190 | M10 | 100 | 28 | 50 | 32 | 620 | 370 | 480 | 0.110 | 42 | — |

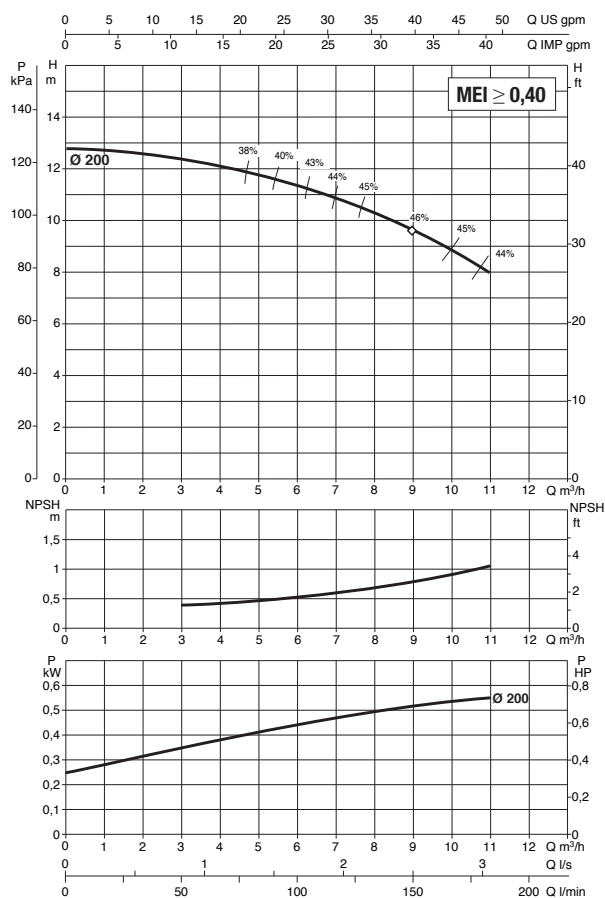
NKM-G 32-200.1- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

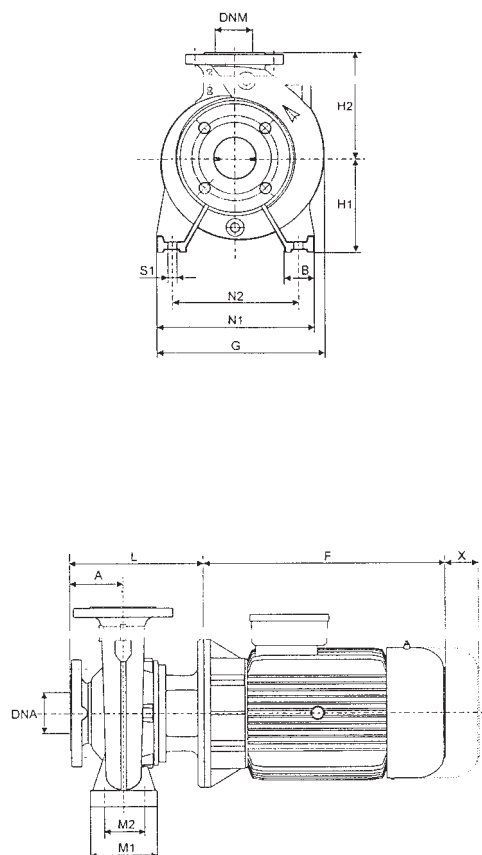
| MODEL | ELECTRICAL DATA | | | | | | |
|---------------------------|-----------------|----------------------|------------|------|---------|-----|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G 32-200.1/200/0.55/4 | MEC 80 | 230/400 V | 0.55 | 0.75 | 2.6/1.5 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|---------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G 32-200.1/200/0.55/4 | 80 | 50 | 234 | — | 279 | 160 | 180 | 226 | 100 | 70 | 240 | 190 | M10 | 100 | 28 | 50 | 32 | 620 | 370 | 480 | 0.110 | 51 | — |

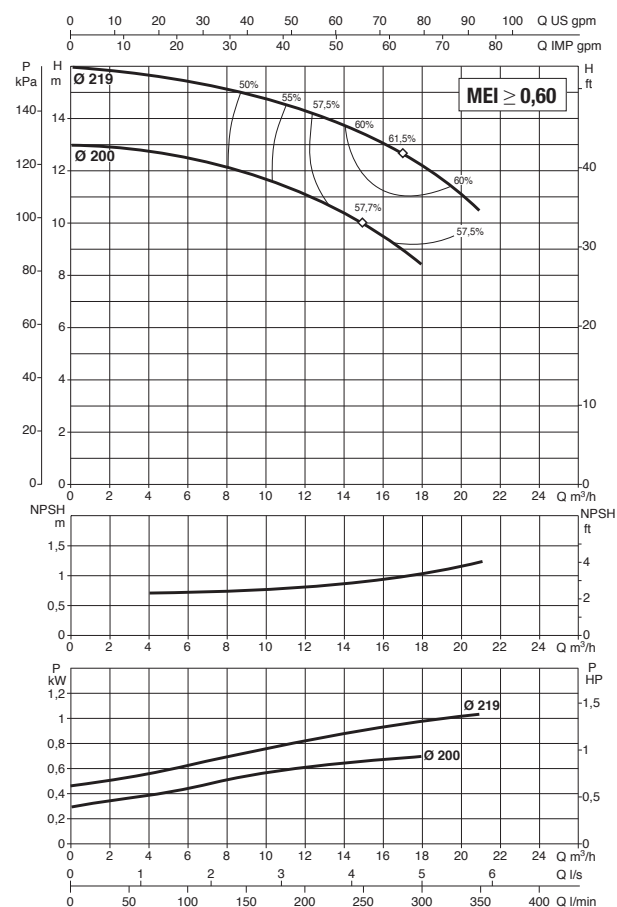
NKM-G 32-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

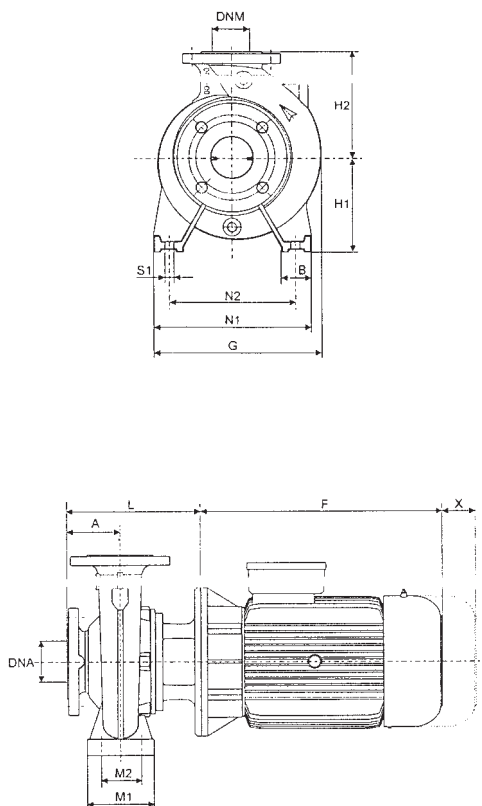
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|-----|-----------|-----|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G 32-200/200/ 0,75/4 | MEC 80 | 230/400 V | 0.75 | 1 | 3.57/2.06 | – | IE2 |
| NKM-G 32-200/219/ 1,1 /4 | MEC 90 S | 230/400 V | 1.1 | 1.5 | 4.68/2.7 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G 32-200/200/ 0,75/4 | 80 | 50 | 234 | – | 279 | 160 | 180 | 226 | 100 | 70 | 240 | 190 | M10 | 100 | 28 | 50 | 32 | 620 | 370 | 480 | 0.110 | 56 | – |
| NKM-G 32-200/219/ 1,1 /4 | 80 | 50 | 247 | – | 279 | 160 | 180 | 226 | 100 | 70 | 240 | 190 | M10 | 100 | 28 | 50 | 32 | 620 | 370 | 480 | 0.110 | 62 | – |

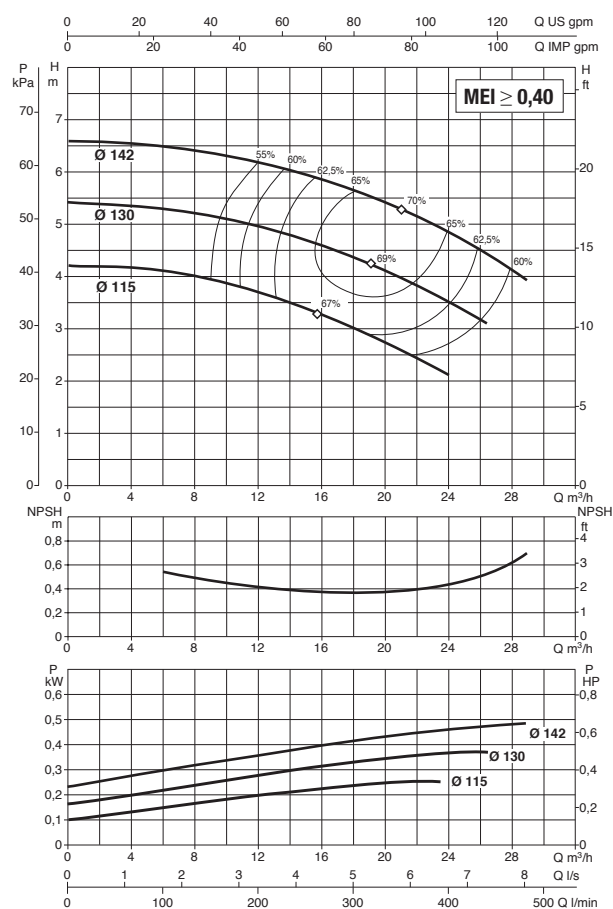
NKM-G 40-125- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

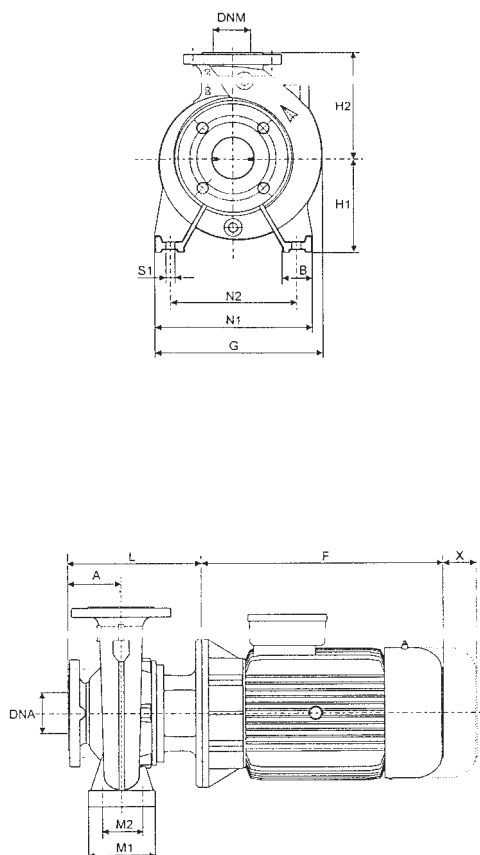
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|------|----------|-----|------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G 40-125/115/ 0.25/4 | MEC 71 | 230/400 V | 0.25 | 0.33 | 1.6/0.11 | – | IE2 |
| NKM-G 40-125/130/ 0.37/4 | MEC 71 | 230/400 V | 0.37 | 0.5 | 1.7/0.98 | – | IE2 |
| NKM-G 40-125/142/ 0.55/4 | MEC 80 | 230/400 V | 0.55 | 0.75 | 2.6/1.5 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G 40-125/115/ 0.25/4 | 80 | 50 | 208 | – | 235 | 112 | 140 | 201 | 100 | 70 | 210 | 160 | M10 | 100 | 28 | 65 | 40 | 620 | 370 | 480 | 0.110 | 37 | – |
| NKM-G 40-125/130/ 0.37/4 | 80 | 50 | 208 | – | 235 | 112 | 140 | 201 | 100 | 70 | 210 | 160 | M10 | 100 | 28 | 65 | 40 | 620 | 370 | 480 | 0.110 | 40 | – |
| NKM-G 40-125/142/ 0.55/4 | 80 | 50 | 234 | – | 235 | 112 | 140 | 201 | 100 | 70 | 210 | 160 | M10 | 100 | 28 | 65 | 40 | 620 | 370 | 480 | 0.110 | 47 | – |

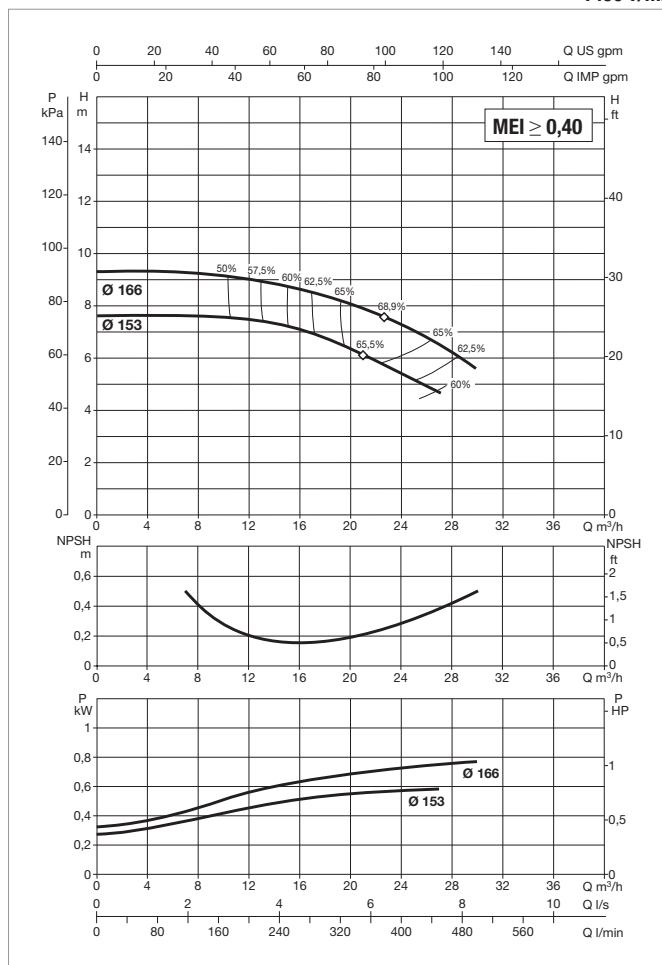
NKM-G 40-160- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

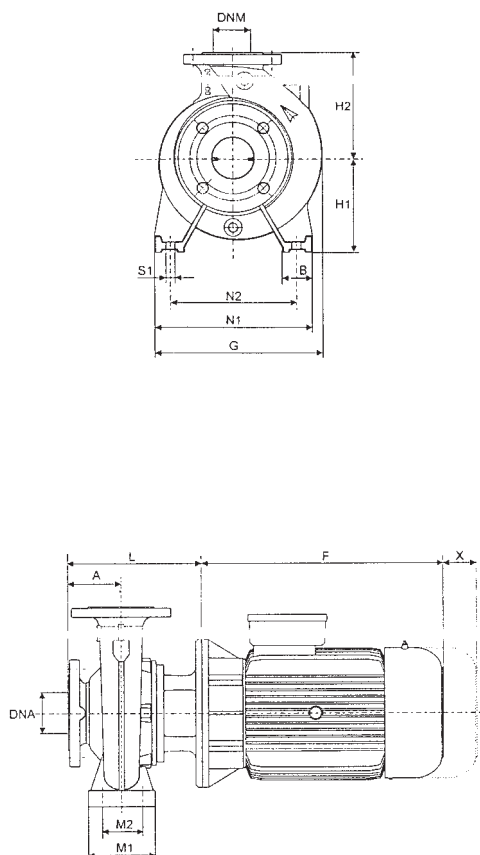
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|------|-----------|-----|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G 40-160/153/ 0.55/4 | MEC 80 | 230/400 V | 0.55 | 0.75 | 2.6/1.5 | – | IE2 |
| NKM-G 40-160/166/ 0.75/4 | MEC 80 | 230/400 V | 0.75 | 1 | 3.57/2.06 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G 40-160/153/ 0.55/4 | 80 | 50 | 234 | – | 253 | 132 | 160 | 226 | 100 | 70 | 240 | 190 | M10 | 100 | 28 | 65 | 40 | 620 | 370 | 480 | 0.110 | 48 | – |
| NKM-G 40-160/166/ 0.75/4 | 80 | 50 | 234 | – | 253 | 132 | 160 | 226 | 100 | 70 | 240 | 190 | M10 | 100 | 28 | 65 | 40 | 620 | 370 | 480 | 0.110 | 50 | – |

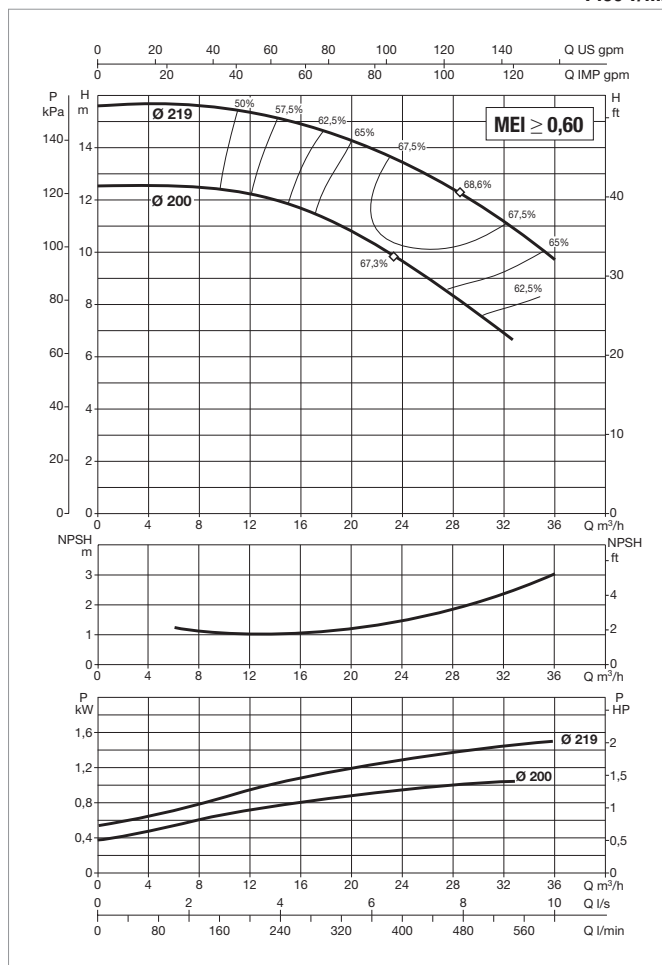
NKM-G 40-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

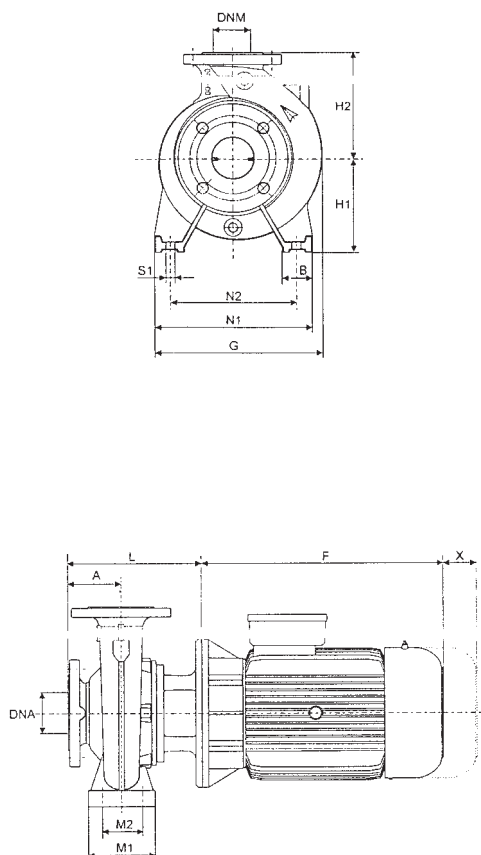
| MODEL | ELECTRICAL DATA | | | | | | |
|---------------------------|-----------------|----------------------|------------|-----|----------|-----|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G 40-200/200/ 1,1 / 4 | MEC 90 S | 230/400 V | 1.1 | 1.5 | 4.68/2.7 | – | IE2 |
| NKM-G 40-200/219/ 1,5 / 4 | MEC 90 L | 230/400 V | 1.5 | 2 | 6.24/3.6 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|---------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-------------------|-----|-----|--------------------|-----|-----|-------------|-----------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| NKM-G 40-200/200/ 1,1 / 4 | 100 | 50 | 247 | – | 296 | 160 | 180 | 246 | 100 | 70 | 265 | 212 | M10 | 100 | 28 | 65 | 40 | 620 | 370 | 480 | 0.110 | 64 | – |
| NKM-G 40-200/219/ 1,5 / 4 | 100 | 50 | 272 | – | 296 | 160 | 180 | 246 | 100 | 70 | 265 | 212 | M10 | 100 | 28 | 65 | 40 | 620 | 370 | 480 | 0.110 | 66 | – |

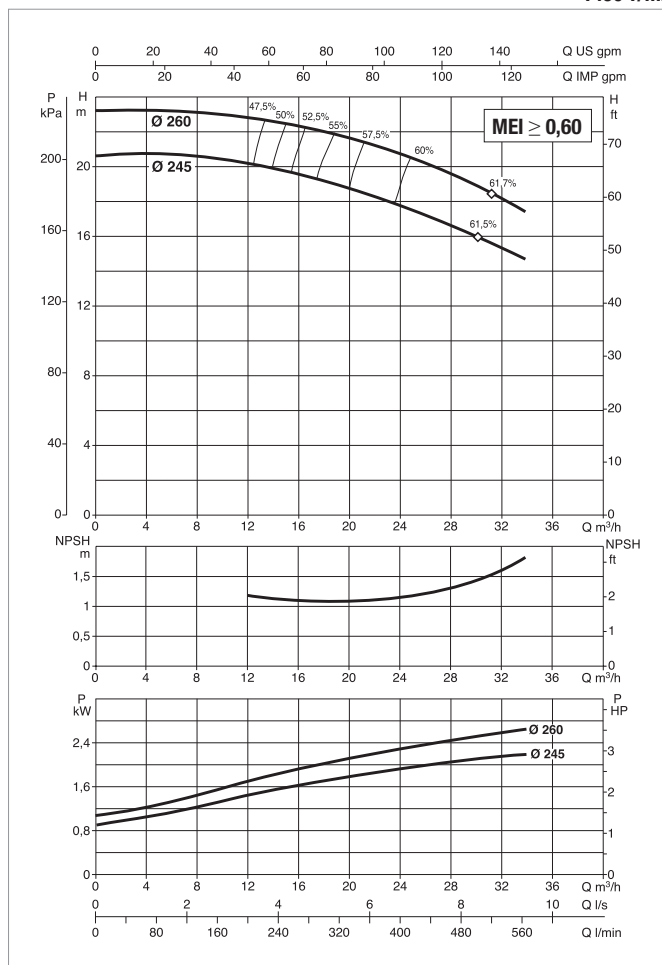
NKM-G 40-250- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

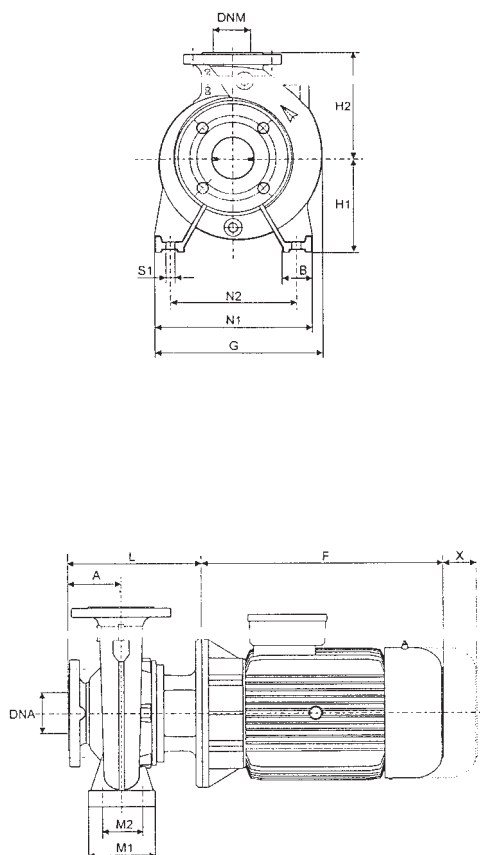
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|----|-----------|-----|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G 40-250/245/ 2,2 /4 | MEC 100 L | 230/400 V | 2.2 | 3 | 8.75/5.05 | – | IE2 |
| NKM-G 40-250/260/ 3 /4 | MEC 100 L | 400 V Δ | 3 | 4 | 6.25 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G 40-250/245/ 2,2 /4 | 100 | 65 | 301 | – | 336 | 180 | 225 | 274 | 125 | 95 | 320 | 250 | M10 | 100 | 28 | 65 | 40 | 670 | 420 | 540 | 0.152 | 85 | – |
| NKM-G 40-250/260/ 3 /4 | 100 | 65 | 301 | – | 336 | 180 | 225 | 274 | 125 | 95 | 320 | 250 | M10 | 100 | 28 | 65 | 40 | 670 | 420 | 540 | 0.152 | 89 | – |

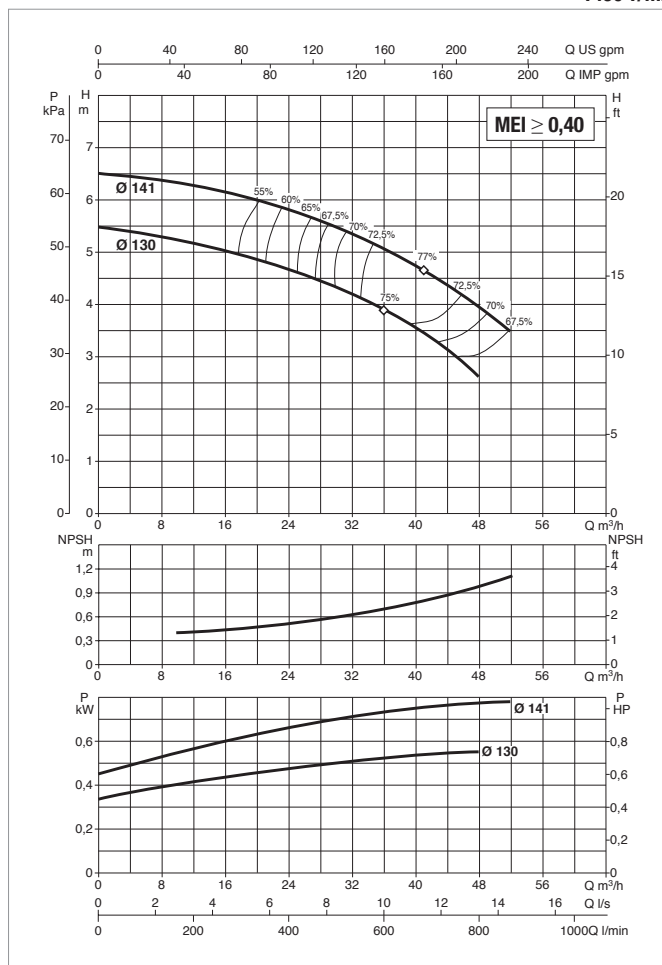
NKM-G 50-125- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

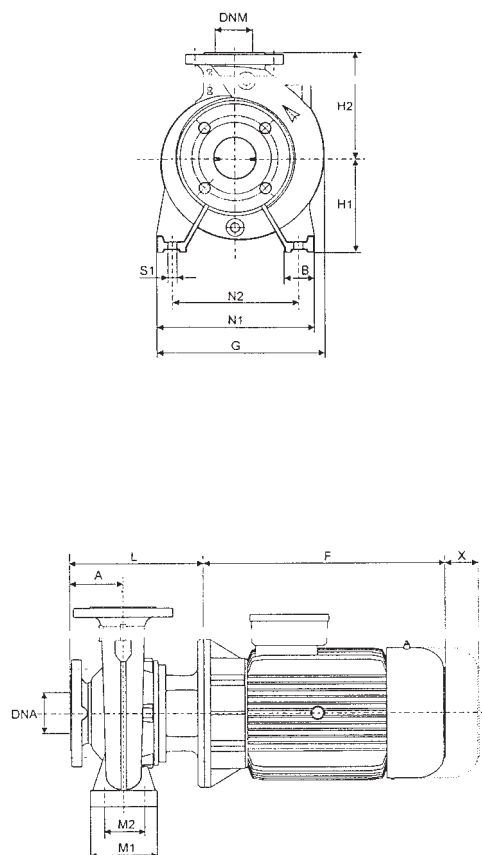
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|------|-----------|-----|------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G 50-125/130/ 0.55/4 | MEC 71 | 230/400 V | 0.55 | 0.75 | 2.6/1.5 | – | IE2 |
| NKM-G 50-125/141/ 0.75/4 | MEC 80 | 230/400 V | 0.75 | 1 | 3.57/2.06 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G 50-125/130/ 0.55/4 | 100 | 50 | 234 | – | 250 | 132 | 160 | 246 | 100 | 70 | 240 | 190 | M10 | 100 | 28 | 65 | 50 | 620 | 370 | 480 | 0.110 | 45 | – |
| NKM-G 50-125/141/ 0.75/4 | 100 | 50 | 234 | – | 250 | 132 | 160 | 246 | 100 | 70 | 240 | 190 | M10 | 100 | 28 | 65 | 50 | 620 | 370 | 480 | 0.110 | 51 | – |

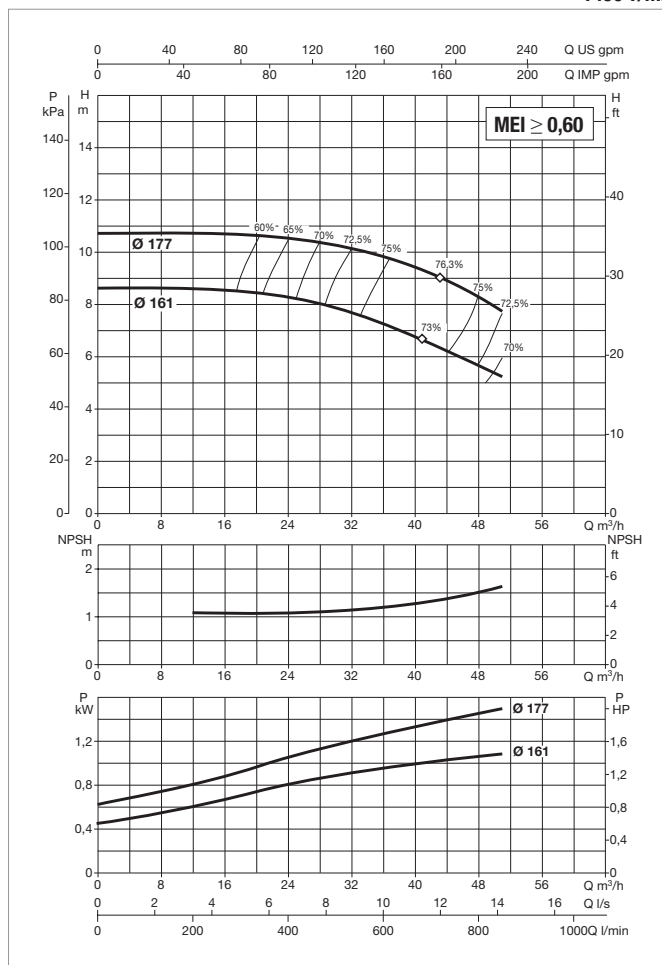
NKM-G 50-160- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

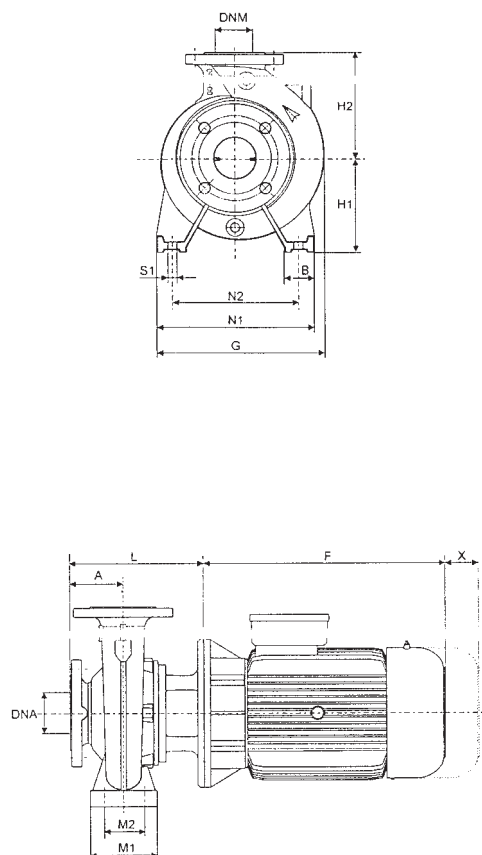
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|-----|----------|-----|------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G 50-160/161/ 1.1 /4 | MEC 90 S | 230/400 V | 1.1 | 1.5 | 4.68/2.7 | – | IE2 |
| NKM-G 50-160/177/ 1,5 /4 | MEC 90 L | 230/400 V | 1.5 | 2 | 6.24/3.6 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G 50-160/161/ 1.1 /4 | 100 | 50 | 247 | – | 282 | 160 | 180 | 274 | 100 | 70 | 265 | 212 | M10 | 100 | 28 | 65 | 50 | 620 | 370 | 480 | 0.110 | 58 | – |
| NKM-G 50-160/177/ 1,5 /4 | 100 | 50 | 272 | – | 282 | 160 | 180 | 274 | 100 | 70 | 265 | 212 | M10 | 100 | 28 | 65 | 50 | 620 | 370 | 480 | 0.110 | 60 | – |

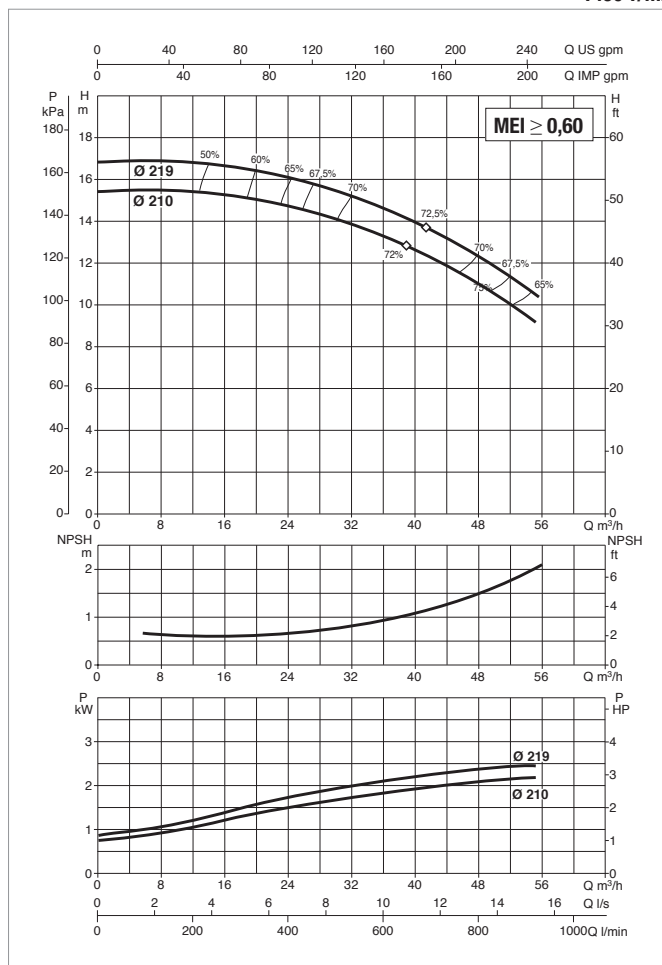
NKM-G 50-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

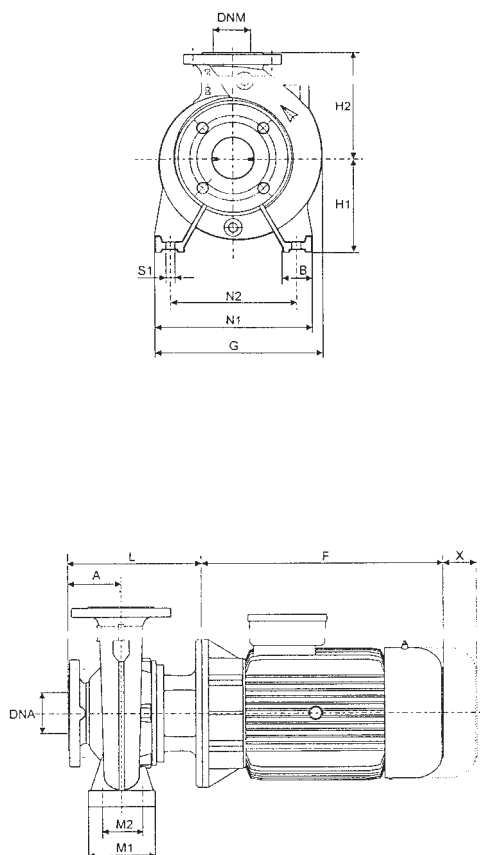
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|----|-----------|-----|------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G 50-200/210/ 2,2 /4 | MEC 100 L | 230/400 V | 2.2 | 3 | 8.75/5.05 | – | IE2 |
| NKM-G 50-200/219/ 3 /4 | MEC 100 L | 400 V Δ | 3 | 4 | 6.25 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G 50-200/210/ 2,2 /4 | 100 | 50 | 301 | – | 302 | 160 | 200 | 274 | 100 | 70 | 265 | 212 | M10 | 100 | 28 | 65 | 50 | 670 | 420 | 540 | 0.152 | 79 | – |
| NKM-G 50-200/219/ 3 /4 | 100 | 50 | 301 | – | 302 | 160 | 200 | 274 | 100 | 70 | 265 | 212 | M10 | 100 | 28 | 65 | 50 | 670 | 420 | 540 | 0.152 | 81 | – |

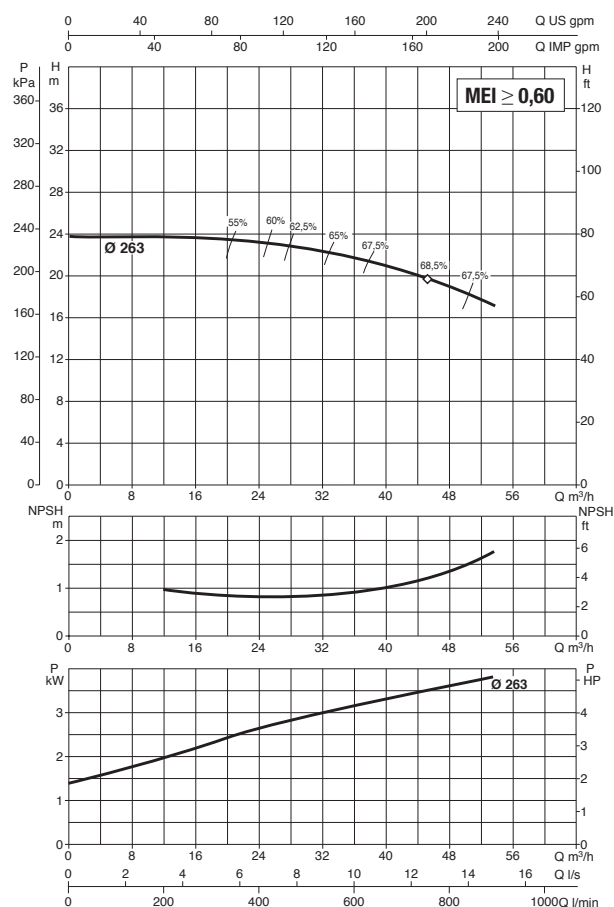
NKM-G 50-250- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

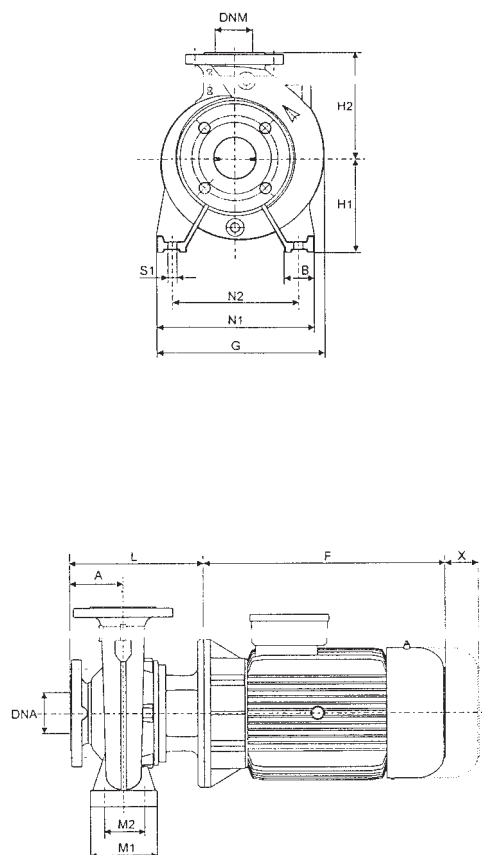
| MODEL | ELECTRICAL DATA | | | | | | |
|------------------------|-----------------|----------------------|------------|-----|------|-----|------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G 50-250/263/ 4 /4 | MEC 112 M | 400 V Δ | 4 | 5.5 | 7.95 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G 50-250/263/ 4 /4 | 100 | 65 | 301 | – | 343 | 180 | 225 | 274 | 125 | 95 | 320 | 250 | M10 | 100 | 28 | 65 | 50 | 670 | 420 | 540 | 0.152 | 98 | – |

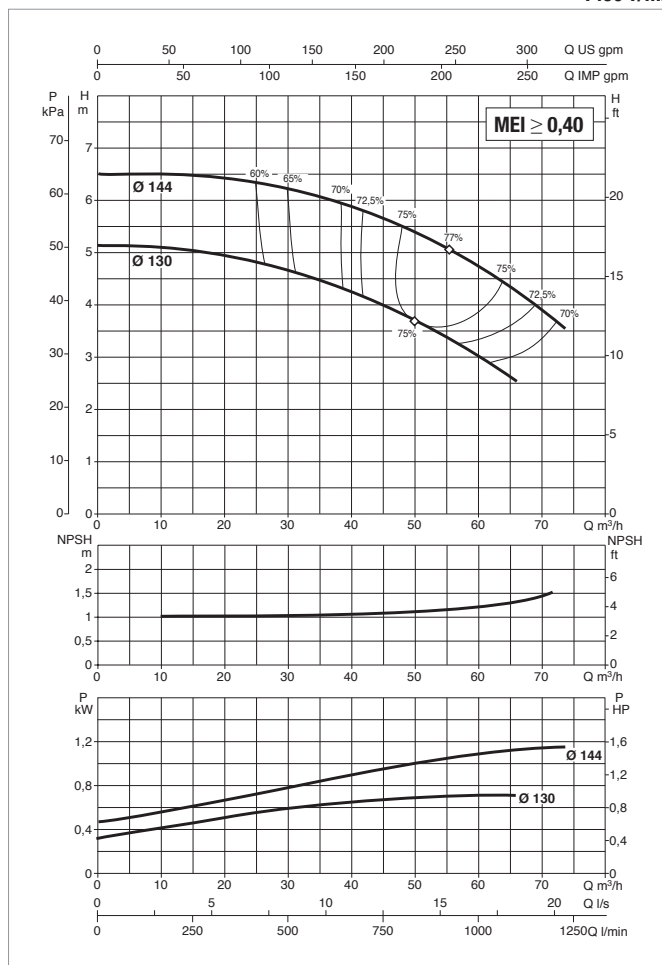
NKM-G 65-125- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

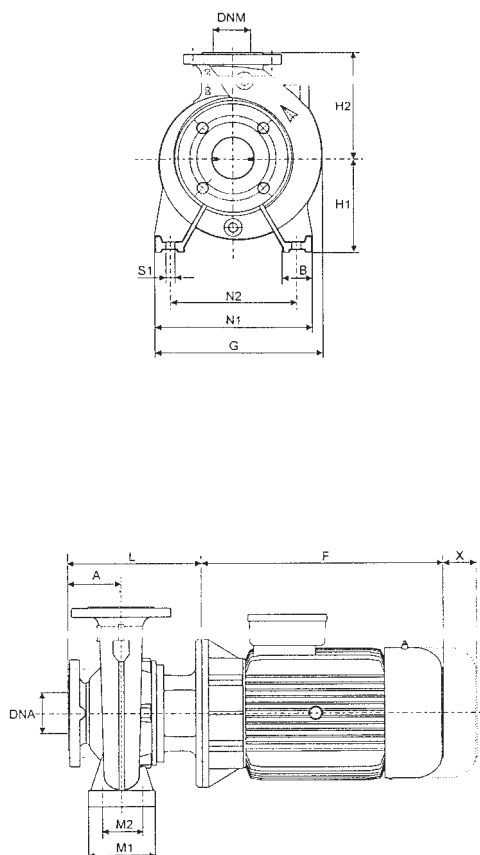
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|-----|-----------|-----|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G 65-125/130/ 0.75/4 | MEC 80 | 230/400 V | 0.75 | 1 | 3.57/2.06 | – | IE2 |
| NKM-G 65-125/144/ 1.1 /4 | MEC 90 S | 230/400 V | 1.1 | 1.5 | 4.68/2.7 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G 65-125/130/ 0.75/4 | 100 | 65 | 234 | – | 286 | 160 | 180 | 246 | 125 | 95 | 280 | 212 | M10 | 100 | 28 | 80 | 65 | 620 | 370 | 480 | 0.110 | 55 | – |
| NKM-G 65-125/144/ 1.1 /4 | 100 | 65 | 247 | – | 286 | 160 | 180 | 246 | 125 | 95 | 280 | 212 | M10 | 100 | 28 | 80 | 65 | 620 | 370 | 480 | 0.110 | 61 | – |

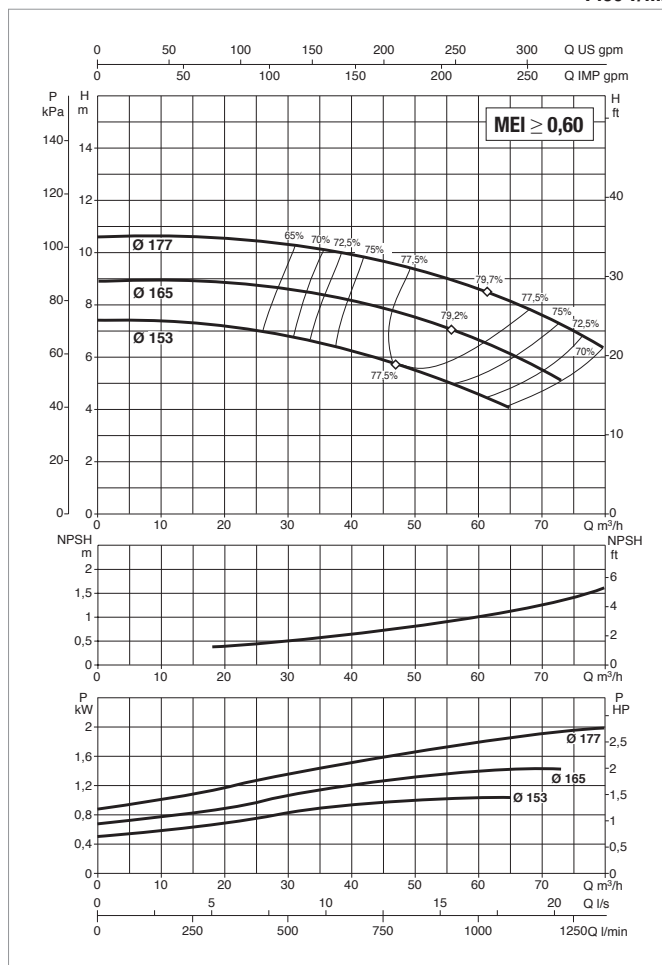
NKM-G 65-160- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



Construction features of the motor: B5



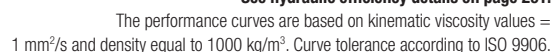
See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|-----|-----------|-----|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G 65-160/153/ 1,1 /4 | MEC 90 S | 230/400 V | 1.1 | 1.5 | 4.68/2.7 | – | IE2 |
| NKM-G 65-160/165/ 1,5 /4 | MEC 90 L | 230/400 V | 1.5 | 2 | 6.24/3.6 | – | IE2 |
| NKM-G 65-160/177/ 2,2 /4 | MEC 100 L | 230/400 V | 2.2 | 3 | 8.75/5.05 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G 65-160/153/ 1,1 /4 | 100 | 65 | 247 | – | 302 | 160 | 200 | 246 | 125 | 95 | 280 | 212 | M10 | 100 | 28 | 80 | 65 | 670 | 420 | 540 | 0.152 | 63 | – |
| NKM-G 65-160/165/ 1,5 /4 | 100 | 65 | 272 | – | 302 | 160 | 200 | 246 | 125 | 95 | 280 | 212 | M10 | 100 | 28 | 80 | 65 | 670 | 420 | 540 | 0.152 | 64 | – |
| NKM-G 65-160/177/ 2,2 /4 | 100 | 65 | 301 | – | 302 | 160 | 200 | 274 | 125 | 95 | 280 | 212 | M10 | 100 | 28 | 80 | 65 | 670 | 420 | 540 | 0.152 | 76 | – |

CENTRIFUGAL PUMPS

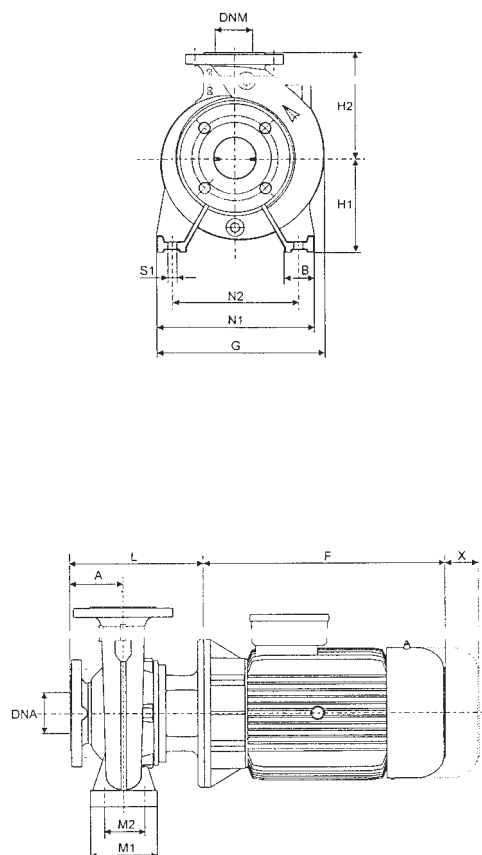
 $\approx 1450 \text{ 1/min}$ 

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G 65-200/210/ 3 /4 | 100 | 65 | 301 | – | 333 | 180 | 225 | 274 | 125 | 95 | 320 | 250 | M10 | 140 | 28 | 80 | 65 | 670 | 420 | 540 | 0.152 | 88 | – |
| NKM-G 65-200/219/ 4 /4 | 100 | 65 | 301 | – | 333 | 180 | 225 | 274 | 125 | 95 | 320 | 250 | M10 | 140 | 28 | 80 | 65 | 670 | 420 | 540 | 0.152 | 96 | – |

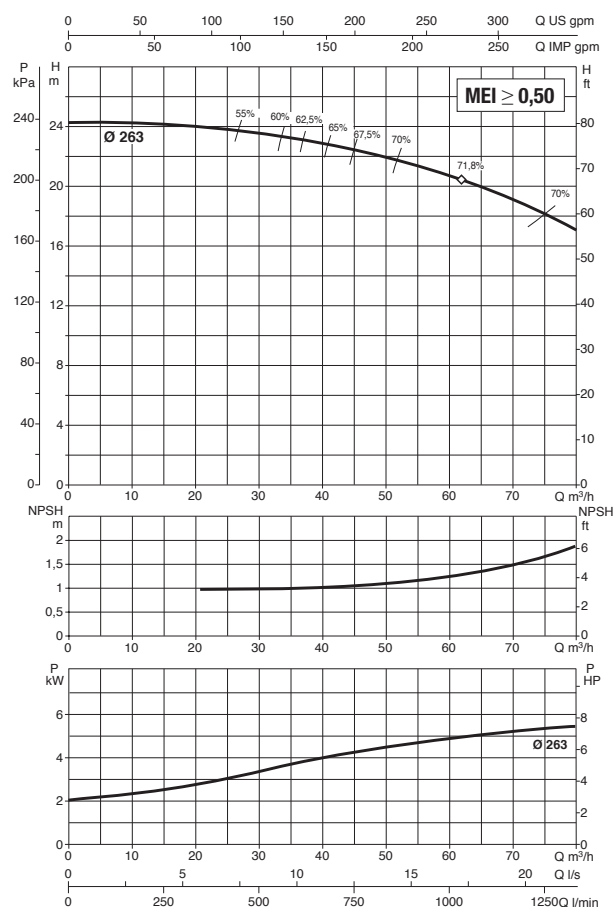
NKM-G 65-250- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

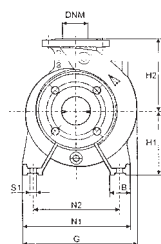
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|-----|------|-----|------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G 65-250/263/ 5,5 /4 | MEC132 S | 400 V Δ | 5.5 | 7.5 | 10.6 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G 65-250/263/ 5,5 /4 | 100 | 80 | 390 | – | 370 | 200 | 250 | 343 | 160 | 120 | 360 | 280 | M14 | 140 | 38 | 80 | 65 | 1030 | 530 | 640 | 0.349 | 159 | – |

NKM-G 65-315- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

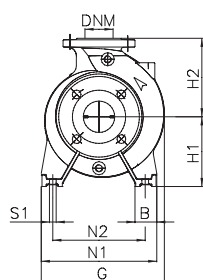
Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



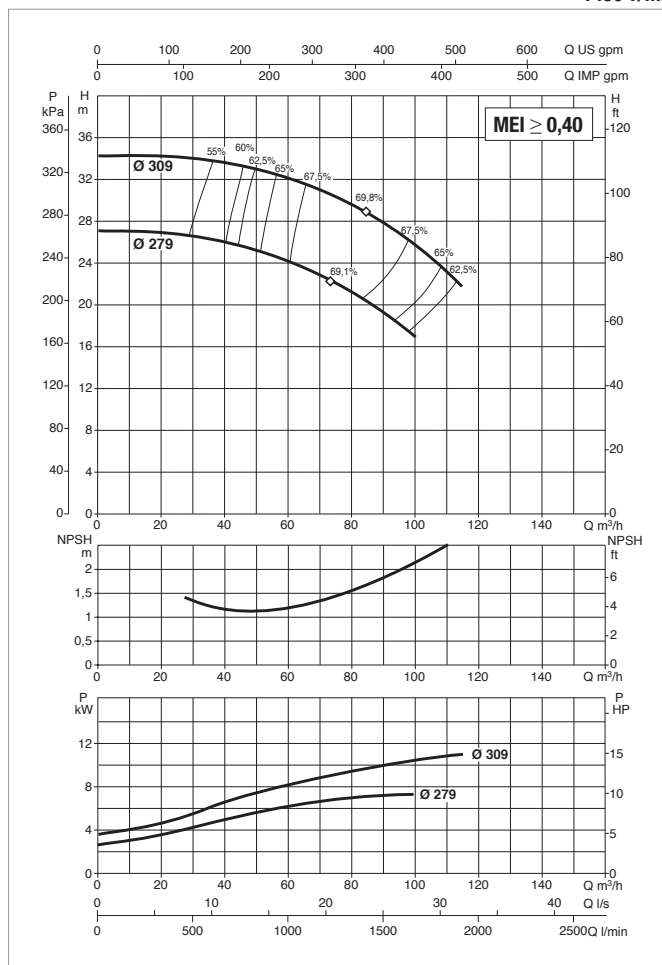
Construction features of the motor: B5

NKM-G 65-315 279



Construction features of the motor: B3/B5

NKM-G 65-315 309



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

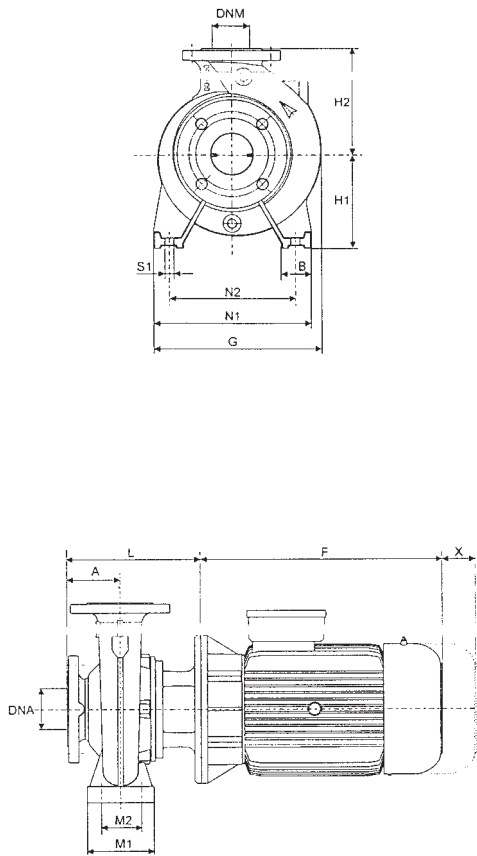
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|----|------|------|------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G 65-315/279/ 7,5 /4 | MEC 132 M | 400 V Δ | 7.5 | 10 | 14.2 | 14.6 | IE2 / IE3 |
| NKM-G 65-315/309/11 /4 | MEC 160 M | 400 V Δ | 11 | 15 | 21.6 | 20.5 | IE2 / IE3 |

| MODEL | A | B | E | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | N3 | S1 | S2 | W | X | H4 | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOL. (m³) | WEIGHT kg | |
|--------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----------------------|-----|-----|--------------------|-----|-----|--------------|--------------|-----|
| | | | | IE2 | IE3 | | | | | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G 65-315/279/ 7,5 /4 | 125 | 80 | – | 430 | 437 | 429 | 225 | 280 | 368 | 160 | 120 | 400 | 315 | – | M14 | – | – | 140 | – | 38 | 80 | 65 | 1030 | 530 | 640 | 0.349 | 157 | 163 |
| NKM-G 65-315/309/11 /4 | 125 | 80 | 210 | 505 | 505 | 429 | 225 | 280 | 398 | 160 | 120 | 400 | 315 | 254 | M14 | M12 | 402 | 140 | 65 | 38 | 80 | 65 | 1030 | 530 | 640 | 0.349 | 206 | 231 |

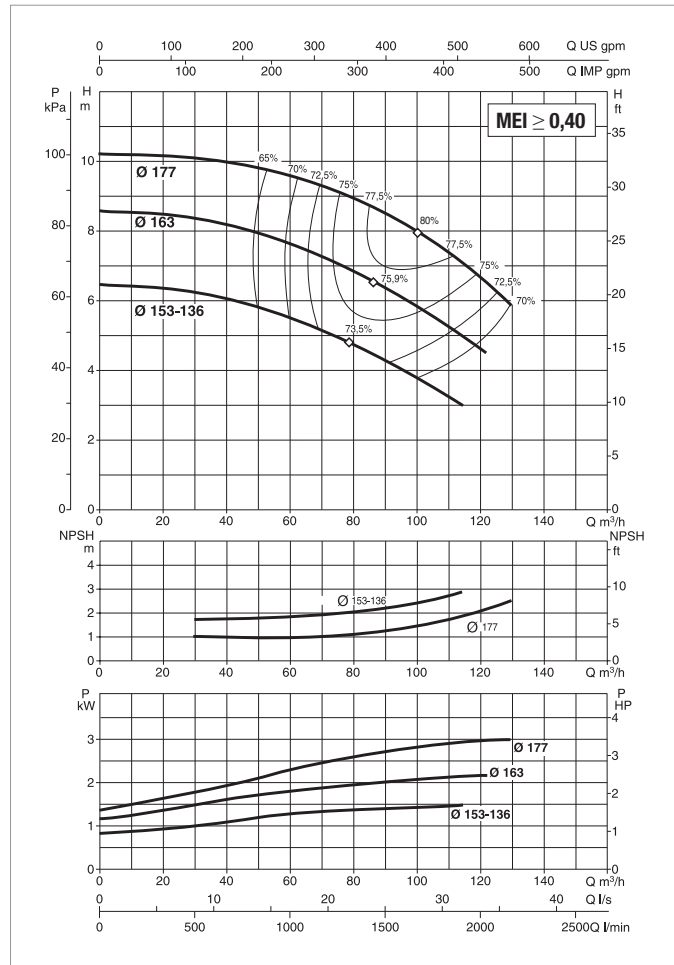
NKM-G 80-160- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40 °C

≈ 1450 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

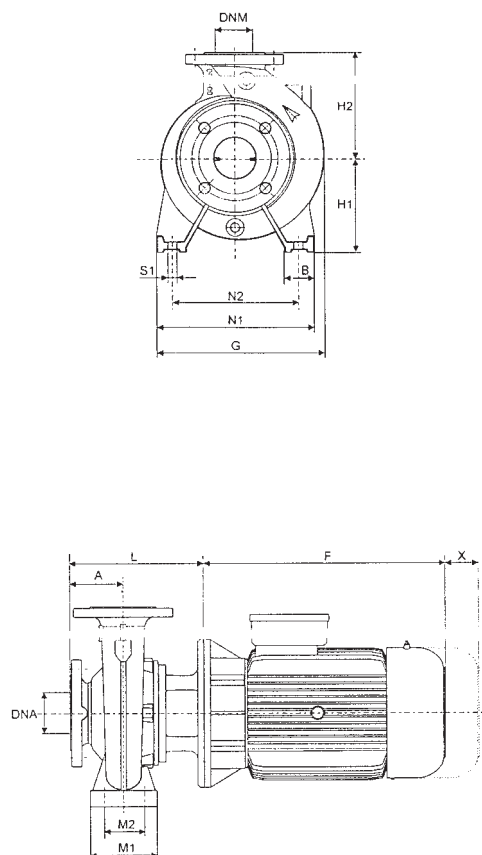
| MODEL | ELECTRICAL DATA | | | | | | |
|----------------------------|-----------------|----------------------|------------|----|-----------|-----|------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G 80-160/153-136/1.5/4 | MEC 90 L | 230/400 V | 1.5 | 2 | 6.24/3.6 | – | IE2 |
| NKM-G 80-160/163/ 2,2 /4 | MEC 100 L | 230/400 V | 2.2 | 3 | 8.75/5.05 | – | IE2 |
| NKM-G 80-160/177/ 3 /4 | MEC 100 L | 400 V Δ | 3 | 4 | 6.25 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|----------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G 80-160/153-136/1.5/4 | 125 | 65 | 272 | – | 342 | 180 | 225 | 299 | 125 | 95 | 320 | 250 | M10 | 140 | 28 | 100 | 80 | 670 | 420 | 540 | 0.152 | 83 | – |
| NKM-G 80-160/163/ 2,2 /4 | 125 | 65 | 301 | – | 342 | 180 | 225 | 299 | 125 | 95 | 320 | 250 | M10 | 140 | 28 | 100 | 80 | 670 | 420 | 540 | 0.152 | 83 | – |
| NKM-G 80-160/177/ 3 /4 | 125 | 65 | 301 | – | 342 | 180 | 225 | 299 | 125 | 95 | 320 | 250 | M10 | 140 | 28 | 100 | 80 | 670 | 420 | 540 | 0.152 | 87 | – |

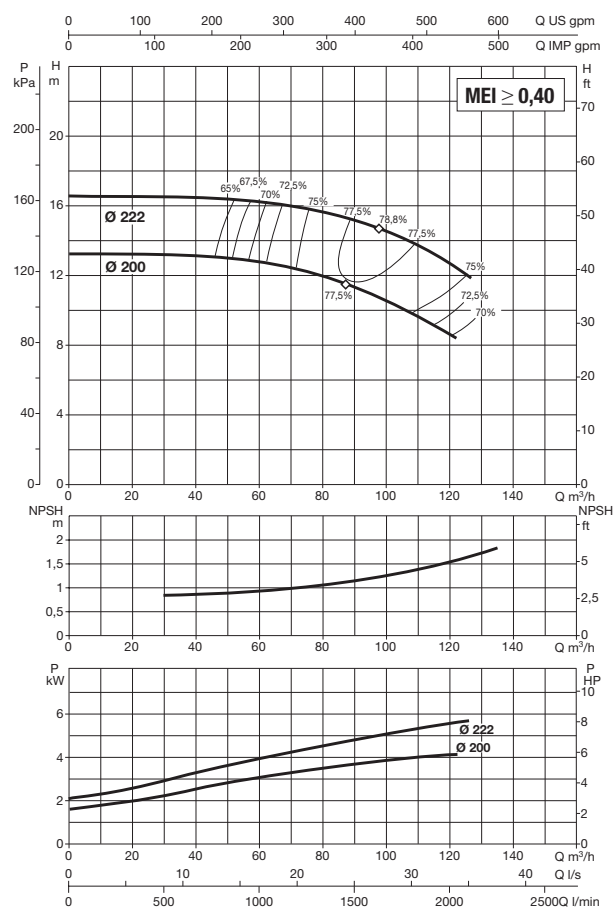
NKM-G 80-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

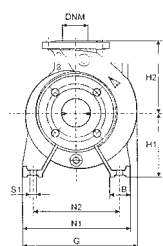
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|-----|------|-----|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G 80-200/200/ 4 /4 | MEC 112 M | 400 V Δ | 4 | 5.5 | 7.95 | – | IE2 |
| NKM-G 80-200/222/ 5,5 /4 | MEC 132 S | 400 V Δ | 5.5 | 7.5 | 10.6 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G 80-200/200/ 4 /4 | 125 | 65 | 301 | – | 365 | 180 | 250 | 368 | 125 | 95 | 345 | 280 | M10 | 140 | 38 | 100 | 80 | 1030 | 530 | 640 | 0.349 | 118 | – |
| NKM-G 80-200/222/ 5,5 /4 | 125 | 65 | 390 | – | 365 | 180 | 250 | 368 | 125 | 95 | 345 | 280 | M10 | 140 | 38 | 100 | 80 | 1030 | 530 | 640 | 0.349 | 147 | – |

NKM-G 80-250- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

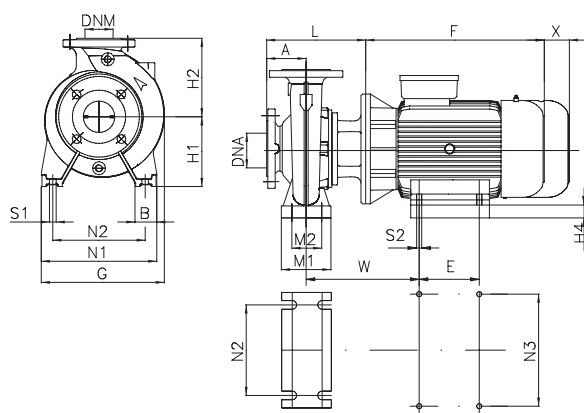
Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



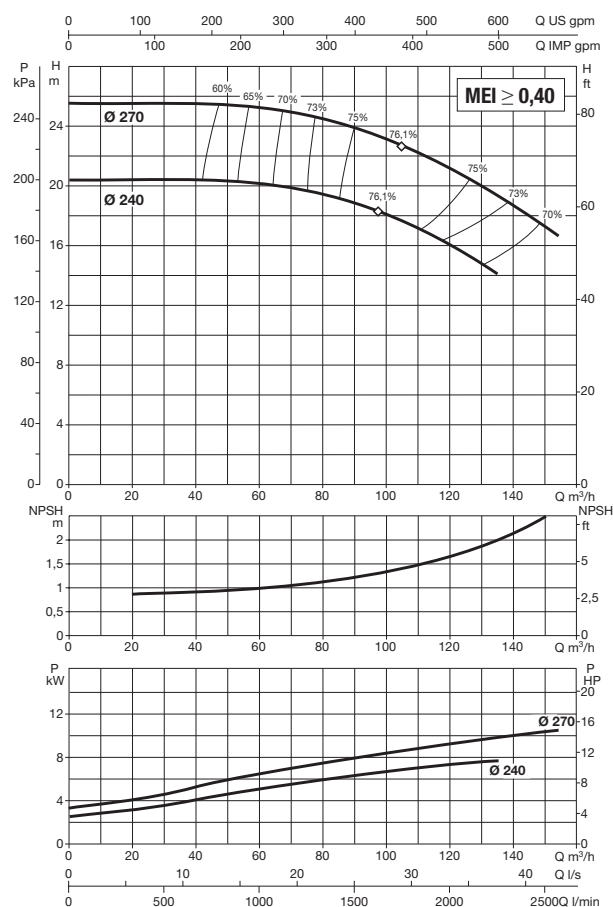
Construction features of the motor: B5

NKM-G 80-250 240



NKM-G 80-250 270

Construction features of the motor: B3/B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

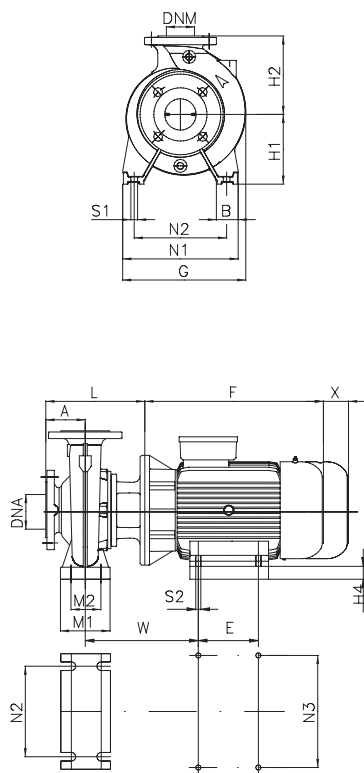
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|----|------|------|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G 80-250/240/ 7,5 /4 | MEC 132 M | 400 V Δ | 7.5 | 10 | 14.2 | 14.6 | IE2 / IE3 |
| NKM-G 80-250/270/11 /4 | MEC 160 M | 400 V Δ | 11 | 15 | 21.6 | 20.5 | IE2 / IE3 |

| MODEL | A | B | E | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | N3 | S1 | S2 | W | X | H4 | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOL. (m³) | WEIGHT kg | |
|--------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----------------------|-----|-----|--------------------|-----|-----|--------------|--------------|-----|
| | | | | IE2 | IE3 | | | | | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G 80-250/240/ 7,5 /4 | 125 | 80 | – | 430 | 437 | 410 | 200 | 280 | 368 | 160 | 120 | 400 | 315 | – | M14 | – | – | 140 | – | 38 | 100 | 80 | 1030 | 530 | 640 | 0.349 | 152 | 153 |
| NKM-G 80-250/270/11 /4 | 125 | 80 | 210 | 505 | 505 | 410 | 200 | 280 | 398 | 160 | 120 | 400 | 315 | 254 | M14 | M12 | 381 | 140 | 40 | 38 | 100 | 80 | 1030 | 530 | 640 | 0.349 | 180 | 205 |

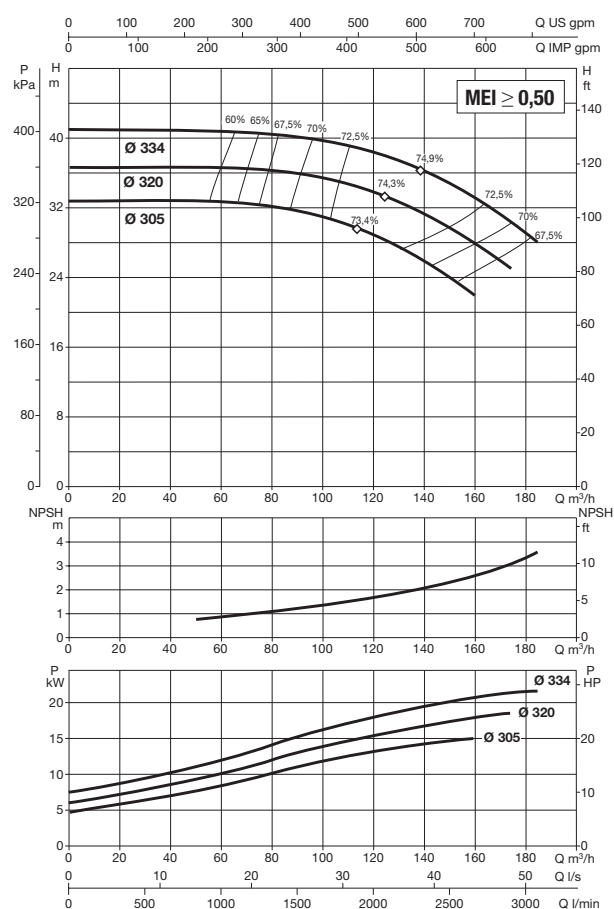
NKM-G 80-315- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



Construction features of the motor: B3/B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

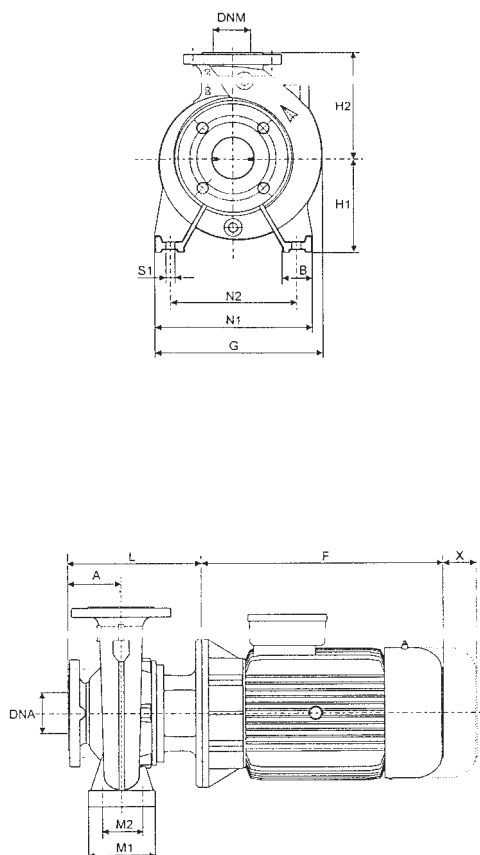
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|----|------|------|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G 80-315/305/15 /4 | MEC 160 L | 400 V Δ | 15 | 20 | 29 | 28 | IE2 / IE3 |
| NKM-G 80-315/320/18,5 /4 | MEC 180 M | 400 V Δ | 18.5 | 25 | 33 | 34 | IE2 / IE3 |
| NKM-G 80-315/334/22 /4 | MEC 180 L | 400 V Δ | 22 | 30 | 40 | 40.5 | IE2 / IE3 |

| MODEL | A | B | E | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | N3 | S1 | S2 | W | X | H4 | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOL. (m³) | WEIGHT kg | |
|--------------------------|-----|----|-----|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----------------------|-----|-----|--------------------|-----|-----|--------------|--------------|-----|
| | | | | IE2 | IE3 | | | | | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | NKM-G 80-315/305/15 /4 | 125 | | | | | | | | | | | | | | | | | | 80 | 254 | 560 | 548 | 460 | 250 |
| NKM-G 80-315/320/18,5 /4 | 125 | 80 | 241 | 580 | 580 | 460 | 250 | 315 | 398 | 160 | 120 | 400 | 315 | 279 | M14 | M12 | 429 | 140 | 70 | 38 | 100 | 80 | 1130 | 580 | 740 | 0.485 | 259 | 275 |
| NKM-G 80-315/334/22 /4 | 125 | 80 | 279 | 580 | 580 | 460 | 250 | 315 | 398 | 160 | 120 | 400 | 315 | 279 | M14 | M12 | 415 | 140 | 70 | 38 | 100 | 80 | 1130 | 580 | 740 | 0.485 | 256 | 298 |

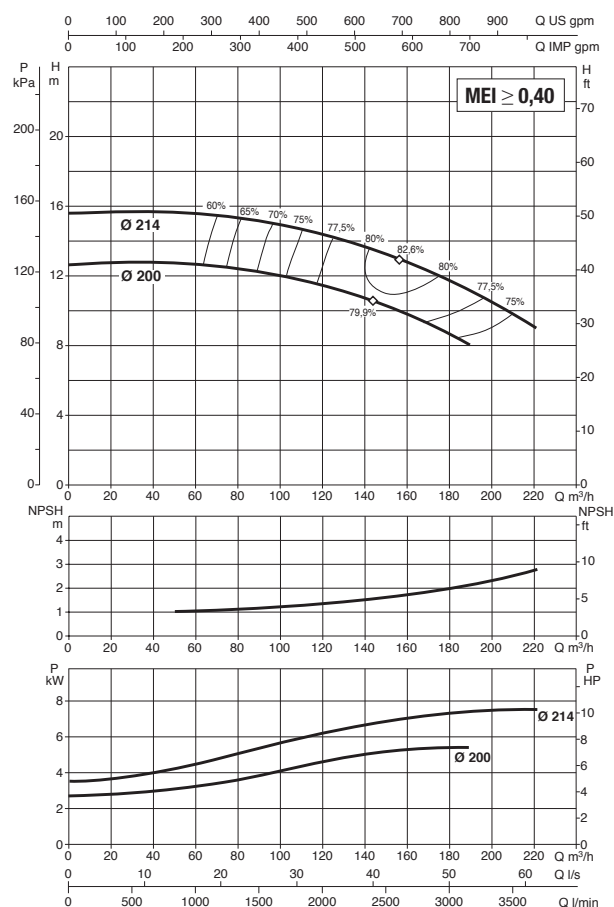
NKM-G 100-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

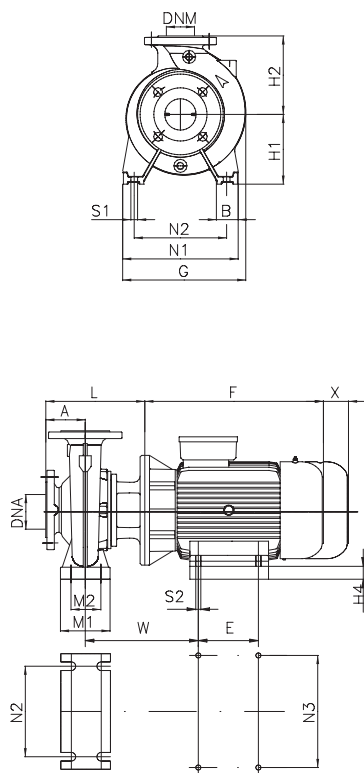
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|-----|------|------|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G100-200/200/ 5.5 /4 | MEC 132 S | 400 V Δ | 5.5 | 7.5 | 10.6 | – | IE2 |
| NKM-G100-200/214/ 7.5 /4 | MEC 132 M | 400 V Δ | 7.5 | 10 | 14.2 | 14.6 | IE2 / IE3 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G100-200/200/ 5.5 /4 | 125 | 80 | 390 | – | 392 | 200 | 280 | 368 | 160 | 120 | 360 | 280 | M14 | 140 | 38 | 125 | 100 | 1030 | 530 | 640 | 0.349 | 160 | – |
| NKM-G100-200/214/ 7.5 /4 | 125 | 80 | 430 | 437 | 392 | 200 | 280 | 368 | 160 | 120 | 360 | 280 | M14 | 140 | 38 | 125 | 100 | 1030 | 530 | 640 | 0.349 | 140 | 149 |

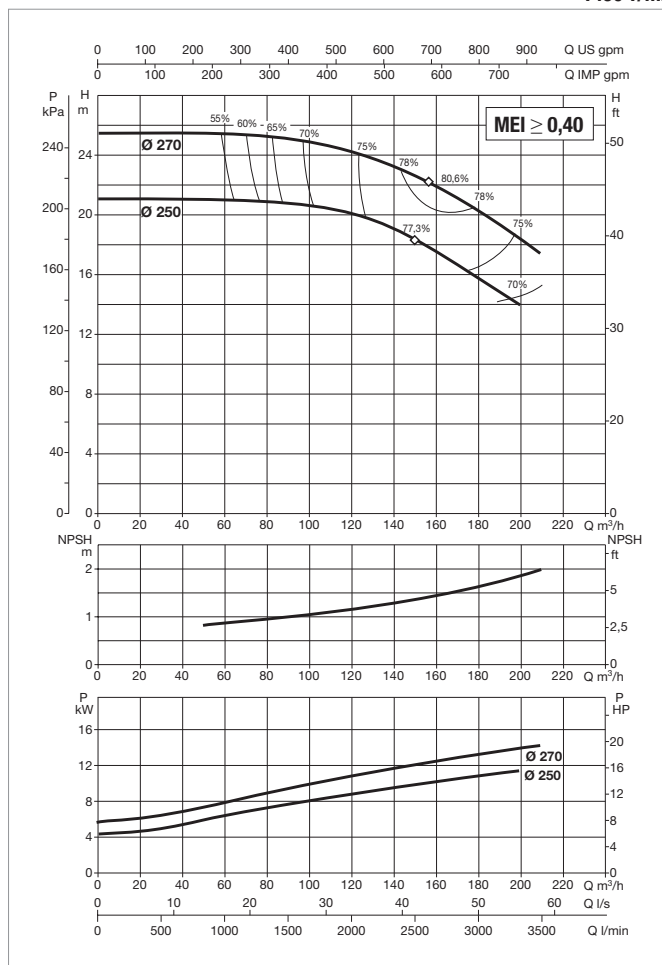
NKM-G 100-250- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



Construction features of the motor: B3/B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

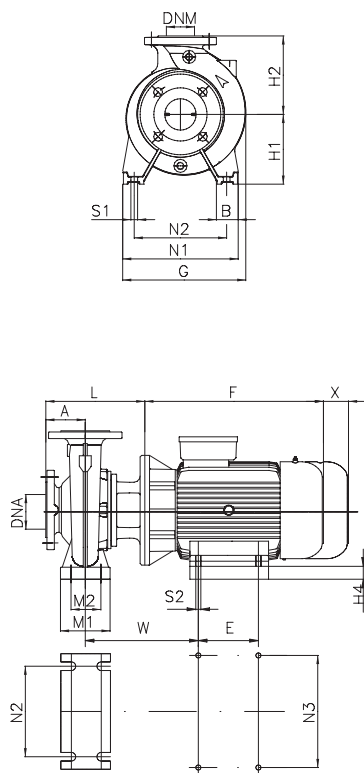
| MODEL | ELECTRICAL DATA | | | | | | |
|------------------------|-----------------|----------------------|------------|----|------|------|------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G100-250/250/11 /4 | MEC 160 M | 400 V Δ | 11 | 15 | 21.6 | 20.5 | IE2 / IE3 |
| NKM-G100-250/270/15 /4 | MEC 160 L | 400 V Δ | 15 | 20 | 29 | 28 | IE2 / IE3 |

| MODEL | A | B | E | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | N3 | S1 | S2 | W | X | H4 | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOL. (m³) | WEIGHT kg | |
|------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----------------------|-----|-----|--------------------|-----|-----|--------------|--------------|-----|
| | | | | IE2 | IE3 | | | | | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G100-250/250/11 /4 | 140 | 80 | 210 | 505 | 505 | 424 | 225 | 280 | 413 | 160 | 120 | 400 | 315 | 254 | M14 | M12 | 381 | 140 | 65 | 38 | 125 | 100 | 1030 | 530 | 640 | 0.349 | 189 | 213 |
| NKM-G100-250/270/15 /4 | 140 | 80 | 254 | 560 | 548 | 424 | 225 | 280 | 413 | 160 | 120 | 400 | 315 | 254 | M14 | M12 | 381 | 140 | 65 | 38 | 125 | 100 | 1030 | 530 | 640 | 0.485 | 227 | 237 |

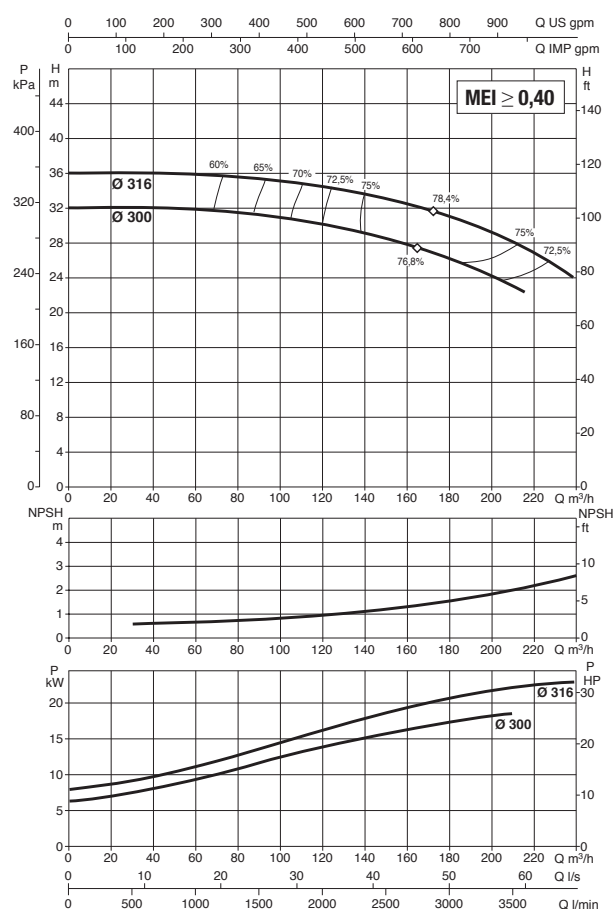
NKM-G 100-315- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



Construction features of the motor: B3/B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

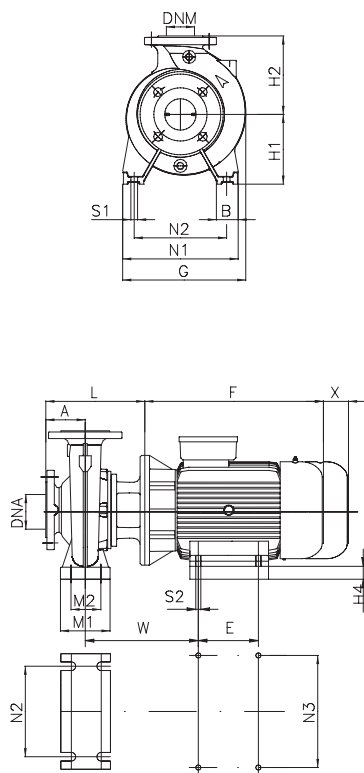
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|----|------|------|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G100-315/300/18.5 /4 | MEC 180 M | 400 V Δ | 18.5 | 25 | 33 | 34 | IE2 / IE3 |
| NKM-G100-315/316/22 /4 | MEC 180 L | 400 V Δ | 22 | 30 | 40 | 40.5 | IE2 / IE3 |

| MODEL | A | B | E | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | N3 | S1 | S2 | W | X | H4 | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOL. (m³) | WEIGHT kg | |
|--------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----------------------|-----|-----|--------------------|-----|-----|--------------|--------------|-----|
| | | | | IE2 | IE3 | | | | | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G100-315/300/18.5 /4 | 140 | 80 | 241 | 580 | 580 | 478 | 250 | 315 | 413 | 160 | 120 | 400 | 315 | 279 | M14 | M12 | 529 | 140 | 70 | 38 | 125 | 100 | 1030 | 530 | 640 | 0.485 | 253 | 257 |
| NKM-G100-315/316/22 /4 | 140 | 80 | 279 | 580 | 580 | 478 | 250 | 315 | 413 | 160 | 120 | 400 | 315 | 279 | M14 | M12 | 415 | 140 | 70 | 38 | 125 | 100 | 1030 | 530 | 640 | 0.485 | 261 | 272 |

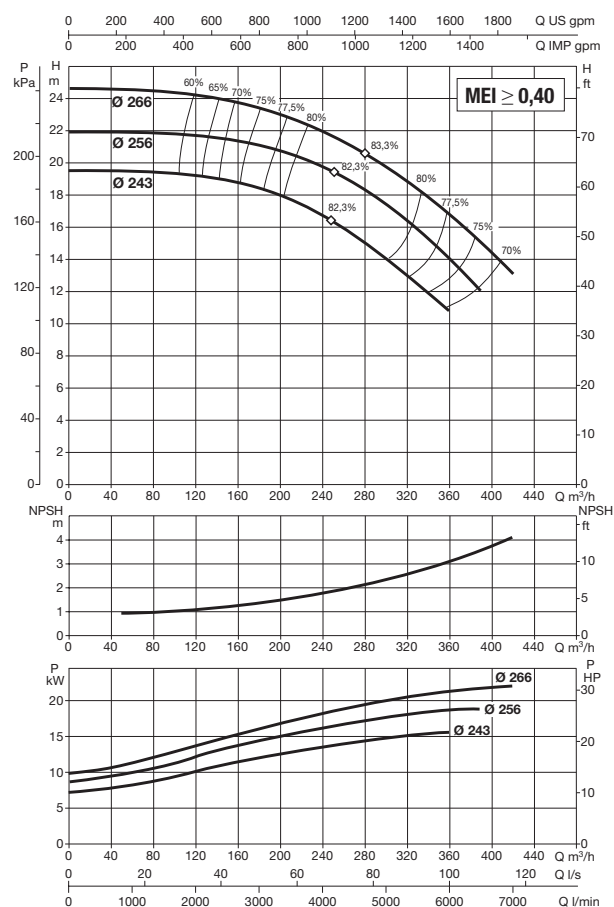
NKM-G 125-250- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 1450 1/min



Construction features of the motor: B3/B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

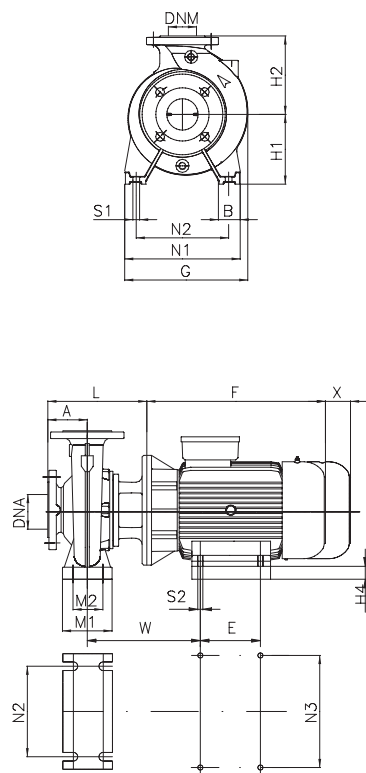
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|----|------|------|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G125-250/243/15 /4 | MEC 160 L | 400 V Δ | 15 | 20 | 29 | 28 | IE2 / IE3 |
| NKM-G125-250/256/18,5 /4 | MEC 180 M | 400 V Δ | 18.5 | 25 | 33 | 34 | IE2 / IE3 |
| NKM-G125-250/266/22 /4 | MEC 180 L | 400 V Δ | 22 | 30 | 40 | 40.5 | IE2 / IE3 |

| MODEL | A | B | E | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | N3 | S1 | S2 | W | X | H4 | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOL. (m³) | WEIGHT kg | |
|--------------------------|-----|----|-----|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----------------------|-----|-----|--------------------|-----|-----|--------------|--------------|-----|
| | | | | IE2 | IE3 | | | | | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | NKM-G125-250/243/15 /4 | 140 | | | | | | | | | | | | | | | | | | 80 | 254 | 560 | 548 | 472 | 250 |
| NKM-G125-250/256/18,5 /4 | 140 | 80 | 241 | 580 | 580 | 472 | 250 | 355 | 413 | 160 | 120 | 400 | 315 | 279 | M14 | M12 | 394 | 140 | 70 | 38 | 150 | 125 | 1130 | 580 | 740 | 0.485 | 253 | 290 |
| NKM-G125-250/266/22 /4 | 140 | 80 | 279 | 580 | 580 | 472 | 250 | 355 | 413 | 160 | 120 | 400 | 315 | 279 | M14 | M12 | 394 | 140 | 70 | 38 | 150 | 125 | 1130 | 580 | 740 | 0.485 | 271 | 309 |

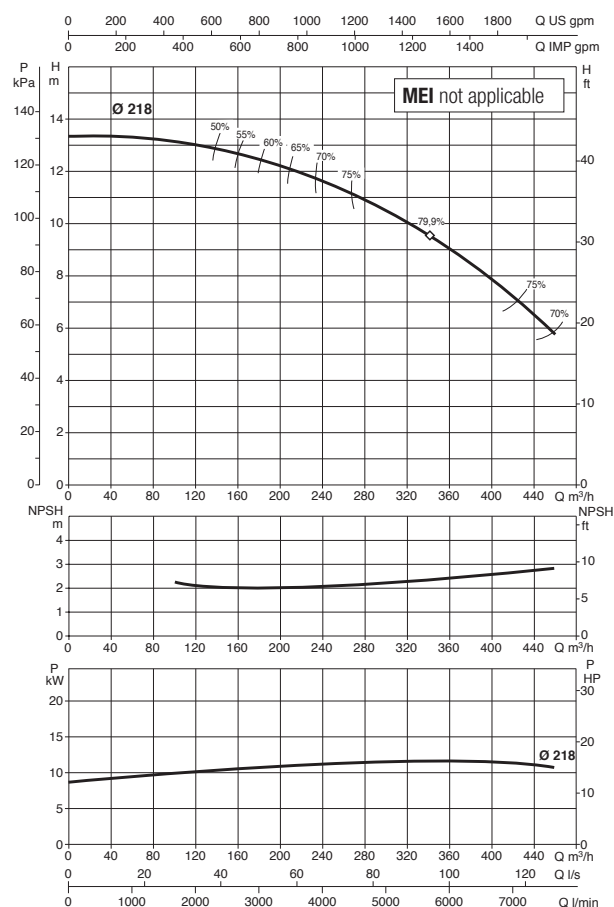
NKM-G 150-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40 °C

≈ 1450 1/min



Construction features of the motor: B3/B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | | |
|------------------------|-----------------|----------------------|------------|----|------|------|------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKM-G150-200/218/11 /4 | MEC 160 M | 400 V Δ | 11 | 15 | 21.6 | 20.5 | IE2 / IE3 |

| MODEL | A | B | E | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | N3 | S1 | W | X | H4 | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOL. (m³) | WEIGHT kg | |
|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|--------------|--------------|-----|
| | | | | IE2 | IE3 | | | | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NKM-G150-200/218/11 /4 | 160 | 100 | 210 | 505 | 505 | 593 | 280 | 400 | 433 | 200 | 150 | 550 | 450 | 254 | M20 | 381 | 140 | 120 | 38 | 200 | 150 | 1130 | 650 | 900 | 0.661 | 260 | 280 |

NKP-G RANGE

STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS

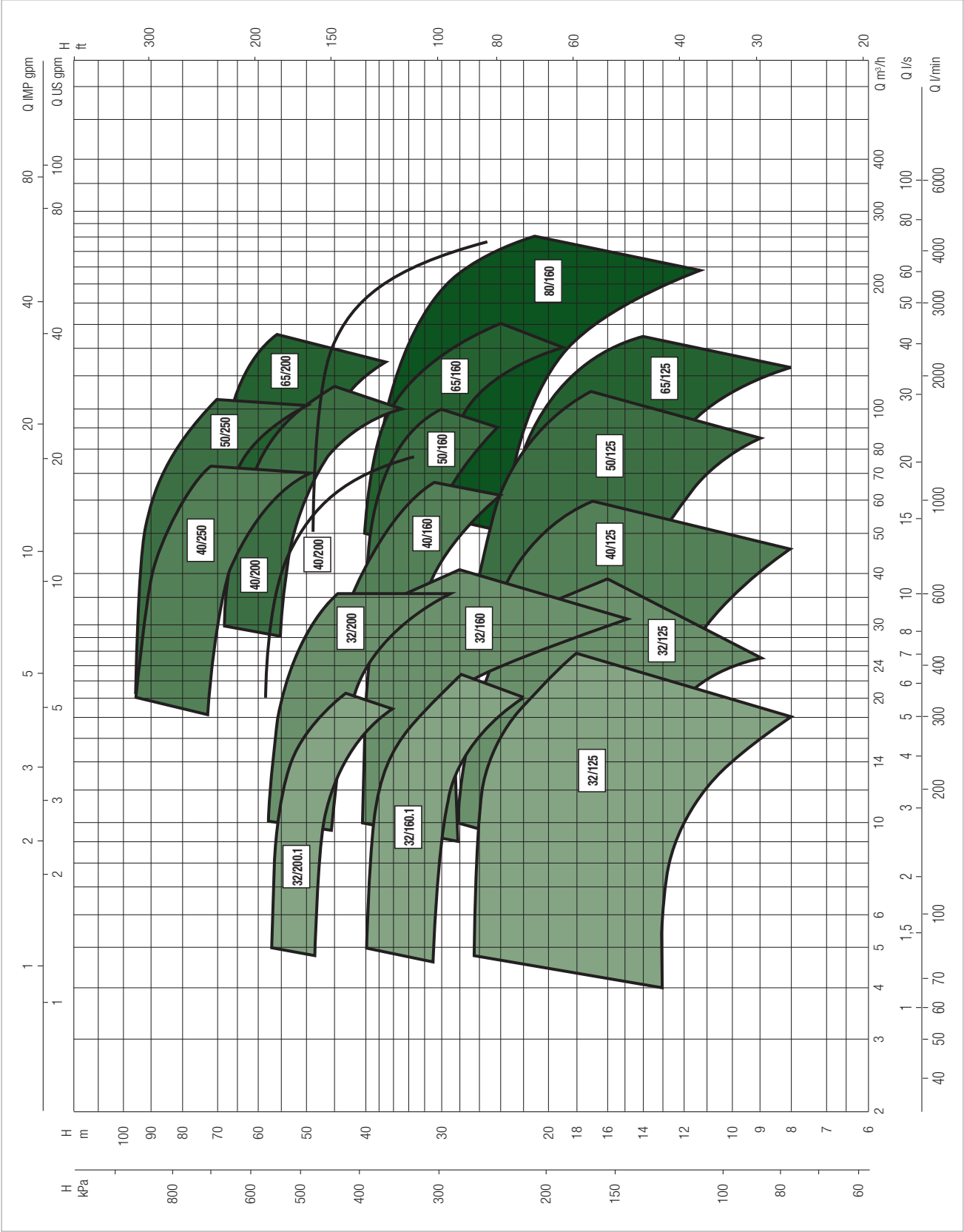
CENTRIFUGAL PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE

≈ 2900 1/min



SELECTION TABLE - NKP-G 32

| MODEL | Q=m ³ /h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 |
|---------------------------|---------------------|------|------|------|------|------|------|------|------|
| | Q=l/min | 0 | 100 | 200 | 300 | 400 | 500 | 600 | 700 |
| NKP-G 32-125.1/102/0.75/2 | H (m) | 13 | 12.5 | 11 | 8 | | | | |
| NKP-G 32-125.1/115/1.1/2 | | 17.2 | 17 | 15 | 12.5 | | | | |
| NKP-G 32-125.1/125/1.5/2 | | 21 | 20.8 | 19 | 16.8 | | | | |
| NKP-G 32-125.1/140/2.2/2 | | 27 | 26.9 | 25.9 | 23 | 19.5 | | | |
| NKP-G 32-125/110/ 1.1 /2 | | 15.8 | 15.2 | 14.5 | 12.9 | 9.9 | | | |
| NKP-G 32-125/120/ 1.5 /2 | | 19.3 | 18.9 | 18.2 | 16.8 | 14.5 | | | |
| NKP-G 32-125/130/ 2.2 /2 | | 23.6 | 23.1 | 23 | 21.6 | 19.6 | 16.8 | | |
| NKP-G 32-125/142/ 3 /2 | | 28.6 | 28 | 27.6 | 26.5 | 24.6 | 21.8 | 17.9 | |
| NKP-G 32-160.1 155/2.2/2 | | 31.7 | 32.4 | 31 | 26.7 | | | | |
| NKP-G 32-160.1 166/3 /2 | | 36.7 | 37.3 | 36.3 | 32.8 | 27 | | | |
| NKP-G 32-160.1 177/4/2 | | 42.7 | 43.4 | 42.6 | 38.5 | 33.9 | | | |
| NKP-G 32-160/151 /3 /2 | | 30.5 | 30 | 29 | 27 | 24 | 19.5 | | |
| NKP-G 32-160/163 /4 /2 | | 36.2 | 36 | 35 | 33.5 | 30.5 | 27 | 22 | |
| NKP-G 32-160/177 /5,5/2 | | 43.5 | 43.2 | 42.6 | 41.5 | 39 | 36 | 31.5 | 25.5 |
| NKP-G 32-200.1 188/4 /2 | | 45.3 | 44.4 | 40.8 | 34.4 | 26.8 | | | |
| NKP-G 32-200.1 205/5,5/2 | | 56.6 | 55.7 | 52 | 45.8 | 36.2 | | | |
| NKP-G 32-200/190/ 5.5 /2 | | 46.9 | 46.5 | 45 | 43 | 40 | 35 | 29 | |
| NKP-G 32-200/210/ 7.5 /2 | | 58.8 | 58 | 57 | 56 | 53 | 49 | 44 | |

SELECTION TABLE - NKP-G 40

| MODEL | Q=m ³ /h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
|--------------------------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | Q=l/min | 0 | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 |
| NKP-G 40-125/107/ 1.5 /2 | H (m) | 14.7 | 14.5 | 14.3 | 13.8 | 13 | 11.8 | 10.5 | 8.6 | 7 | | | | |
| NKP-G 40-125/120/ 2.2 /2 | | 19 | 18.7 | 18.4 | 17.8 | 17 | 15.9 | 14.6 | 13 | 11 | | | | |
| NKP-G 40-125/130/ 3 /2 | | 22.8 | 22.5 | 22.3 | 22 | 21.2 | 20.2 | 19 | 17.4 | 15.5 | 13.5 | | | |
| NKP-G 40-125/139/ 4 /2 | | 26.4 | 26.2 | 26 | 25.6 | 25 | 24 | 23 | 21.5 | 19.5 | 17.5 | 15 | | |
| NKP-G 40-160/158/ 5,5 /2 | | 33.7 | | | 34 | 33.4 | 32.4 | 31 | 29.5 | 27 | 24 | | | |
| NKP-G 40-160/172/ 7,5 /2 | | 40.7 | | | 40.2 | 40.1 | 39.8 | 38.5 | 37.5 | 35.5 | 33 | 30 | 26.5 | |
| NKP-G 40-200/210/11 /2 | | 57.1 | 57 | 57 | 56.8 | 56.5 | 56 | 55 | 53 | 50 | 47 | 43.5 | 39 | |
| NKP-G 40-250/230/15 /2 | | 72.5 | | | 72.5 | 72 | 70 | 68 | 66 | 62.5 | 60 | 56 | 51.5 | |
| NKP-G 40-250/245/18.5 /2 | | 83 | | | 83 | 82.5 | 81.5 | 80 | 77 | 74 | 71.5 | 67.5 | 63.5 | 58.5 |
| NKP-G 40-250/260/22 /2 | | 96 | | | 95 | 94.5 | 93.5 | 92 | 90 | 87.5 | 84 | 81 | 76.5 | 71.5 |

SELECTION TABLE - NKP-G 50

| MODEL | Q=m³/h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | 90 | 102 | 114 |
|--------------------------|----------|------|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | Q=l/min | 0 | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1700 | 1900 |
| NKP-G 50-125/115/ 3 /2 | H (m) | 17 | | | | 16.5 | 16 | 15.5 | 15 | 14.5 | 13.7 | 13 | 12 | 11 | 10 | 9 | | | |
| NKP-G 50-125/125/ 4 /2 | | 20.5 | | | | 20 | 19.5 | 19.1 | 18.5 | 18 | 17.5 | 16.5 | 15.8 | 14.8 | 14 | 12.5 | 11.5 | | |
| NKP-G 50-125/135/ 5,5 /2 | | 24 | | | | 23.6 | 23.5 | 23.2 | 22.8 | 22.2 | 21.5 | 21 | 20 | 19.1 | 18.5 | 17.5 | 16.5 | 13.4 | |
| NKP-G 50-125/144/ 7,5 /2 | | 28 | | | | 27.8 | 27.5 | 27.3 | 27 | 26.5 | 25.8 | 25.3 | 24.5 | 23.5 | 23 | 21.5 | 20.5 | 18 | 15.5 |
| NKP-G 50-160/153/ 7.5 /2 | | 31.9 | | | | 31.5 | 31.5 | 31.5 | 31.2 | 31 | 30.5 | 29.5 | 28.5 | 27.5 | 26 | 25 | 23.5 | | |
| NKP-G 50-160/169/11 /2 | | 39.6 | | | | | 39.5 | 39.3 | 39.1 | 39 | 38.5 | 38 | 37.2 | 36.5 | 35 | 34 | 32.5 | | |
| NKP-G 50-200/200/15 /2 | | 55.1 | | | | | 54.7 | 54.6 | 54 | 53.5 | 52 | 51 | 49 | 47.5 | 45.5 | 43 | 41 | | |
| NKP-G 50-200/210/18,5 /2 | | 61.7 | | | | | 61.7 | 61.6 | 61.5 | 60.5 | 59 | 58 | 56.5 | 55 | 53 | 51 | 48.5 | 43 | |
| NKP-G 50-200/219/22 /2 | | 67.7 | | | | | 67.5 | 67.4 | 66.5 | 66 | 65.5 | 64 | 62.5 | 61 | 59.5 | 57 | 55 | 50 | |
| NKP-G 50-250/230/22 /2 | | 73.6 | | | | | 73.2 | 73.1 | 72.8 | 72 | 71 | 68.5 | 67 | 65 | 62.5 | 60 | 57 | 49 | |
| NKP-G 50-250/257/30 /2 | | 93 | | | | | 92.5 | 92.3 | 92 | 91.5 | 91 | 89 | 87.5 | 86 | 83 | 81 | 78 | 72 | |

SELECTION TABLE - NKP-G 65

| MODEL | Q=m³/h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | 90 | 102 | 114 | 120 | 150 |
|--------------------------|----------|------|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | Q=l/min | 0 | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1700 | 1900 | 2200 | 2500 |
| NKP-G 65-125/120-110/4/2 | H (m) | 16 | | | | | | 15 | 14.6 | 14.2 | 13.7 | 13.3 | 12.8 | 12.3 | 12 | 11.4 | 10 | 8.5 | 8 | | |
| NKP-G 65-125/127/ 5,5 /2 | | 19.5 | | | | | | 19 | 18.9 | 18.7 | 18.4 | 18.1 | 17.5 | 17.2 | 16.9 | 16.5 | 15.8 | 14.5 | 13 | 12 | |
| NKP-G 65-125/137/ 7,5 /2 | | 23.5 | | | | | | 23.1 | 23 | 22.8 | 22.6 | 22.5 | 22 | 21.6 | 21.1 | 20.7 | 20.2 | 19 | 17.5 | 14.8 | 12 |
| NKP-G 65-160/157/11 /2 | | 32.5 | | | | | | | | 32.3 | 32 | 31.9 | 1.3 | 30.2 | 30 | 29.2 | 28.7 | 27 | 24.8 | 23.6 | |
| NKP-G 65-160/173/15 /2 | | 40.1 | | | | | | | | 39.7 | 39.6 | 39.5 | 39.5 | 39 | 38.5 | 38.2 | 37.5 | 36 | 34.5 | 33.5 | 26.9 |
| NKP-G 65-200/190/18,5 /2 | | 51.1 | | | | | | | | 51 | 50.8 | 50.5 | 50 | 49 | 48.5 | 48 | 47.5 | 45 | 42.5 | 41 | |
| NKP-G 65-200/200/22 /2 | | 56.4 | | | | | | | | 56.1 | 56.1 | 56 | 55.8 | 55.5 | 55 | 54.8 | 54.5 | 53 | 51 | 49 | |
| NKP-G 65-200/219/30 /2 | | 68.9 | | | | | | | | 68.8 | 68.8 | 68.7 | 68.7 | 68.6 | 68.5 | 68.4 | 67.5 | 66 | 64 | 63.1 | 57 |

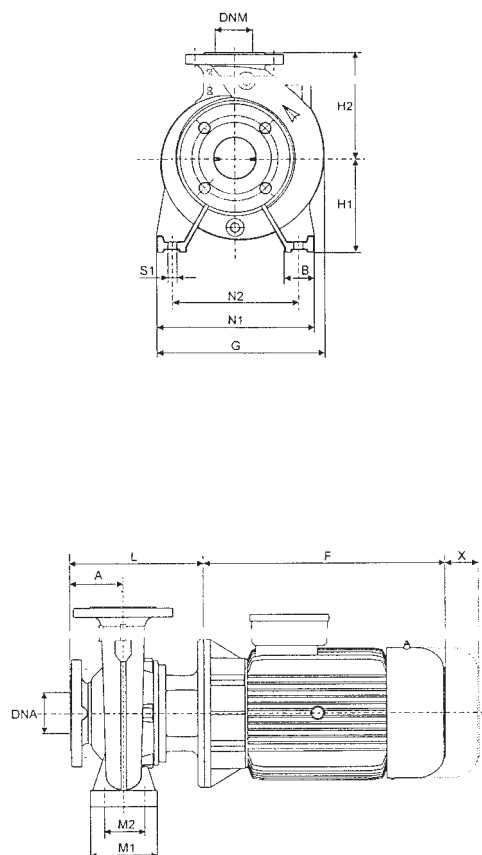
SELECTION TABLE - NKP-G 80

| MODEL | Q=m³/h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | 90 | 102 | 114 | 120 | 150 | 180 | 210 | 240 |
|----------------------------|----------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | Q=l/min | 0 | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1700 | 1900 | 2200 | 2500 | 3000 | 3500 | 4000 |
| NKP-G 80-160/147-127/11 /2 | H (m) | 24.5 | | | | | | | | | | | | | | | 22 | 21.4 | 20.4 | 20 | 17.4 | 16.8 | 12 | |
| NKP-G 80-160/153/15 /2 | | 30.5 | | | | | | | | | | | | | | | 29 | 28.4 | 27.5 | 27 | 24.5 | 21.3 | 18.3 | |
| NKP-G 80-160/163/18,5 /2 | | 35.5 | | | | | | | | | | | | | | | 34.3 | 33.6 | 32.6 | 32.3 | 29.8 | 26.8 | 23.6 | 20 |
| NKP-G 80-160/169/22 /2 | | 38.5 | | | | | | | | | | | | | | | 37.2 | 36.8 | 36 | 35.8 | 33.5 | 30.8 | 27.5 | 24 |
| NKP-G 80-200/190/30 /2 | | 408.3 | | | | | | | | | | | | | | | 47.9 | 47.6 | 47.5 | 47.3 | 44.7 | 41 | 36 | 29 |

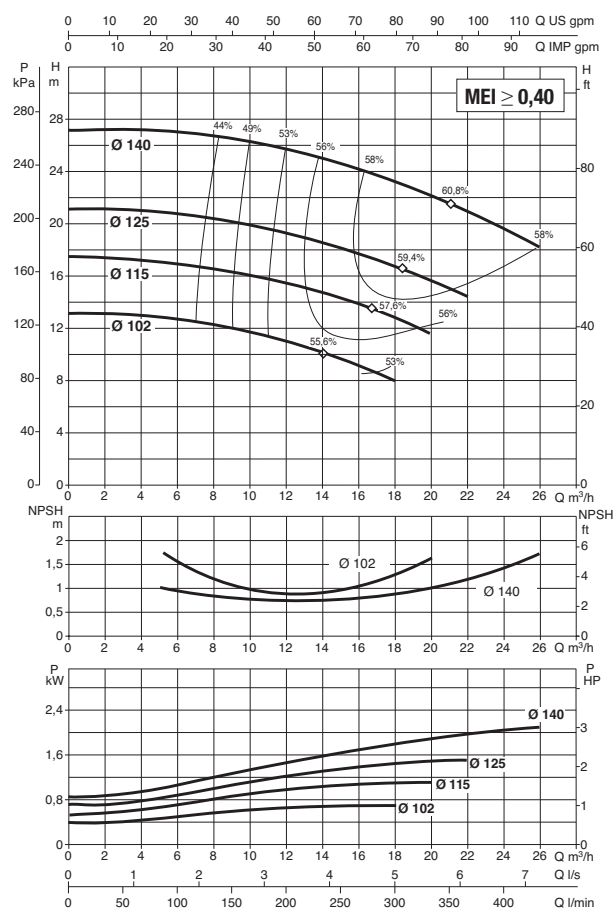
NKP-G 32-125.1 - STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40 °C

≈ 2900 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

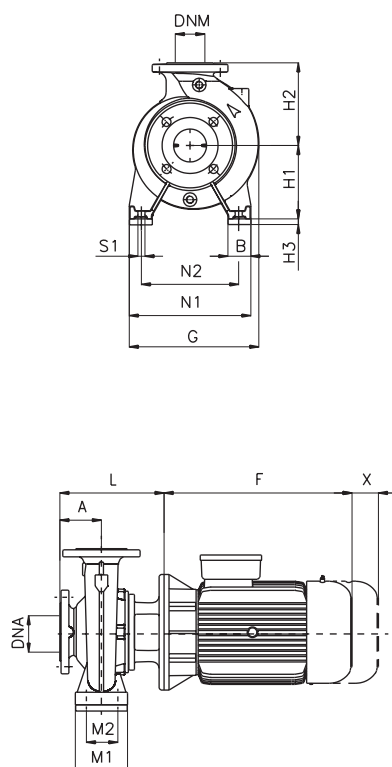
| MODEL | ELECTRICAL DATA | | | | | | |
|---------------------------|-----------------|----------------------|------------|-----|-----------|-----|------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKP-G 32-125.1/102/0.75/2 | MEC 80 | 230/400 V | 0.75 | 1 | 2.81/1.62 | – | IE2 |
| NKP-G 32-125.1/115/1.1/2 | MEC 80 | 230/400 V | 1.1 | 1.5 | 4.07/2.36 | – | IE2 |
| NKP-G 32-125.1/125/1.5/2 | MEC 90 S | 230/400 V | 1.5 | 2 | 5.8/3.35 | – | IE2 |
| NKP-G 32-125.1/140/2.2/2 | MEC 90 L | 230/400 V | 2.2 | 3 | 8.23/4.75 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|---------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKP-G 32-125.1/102/0.75/2 | 80 | 50 | 234 | – | 234 | 112 | 140 | 226 | 100 | 70 | 190 | 140 | M10 | 100 | 28 | 50 | 32 | 620 | 370 | 480 | 0.110 | 35 | – |
| NKP-G 32-125.1/115/1.1/2 | 80 | 50 | 234 | – | 234 | 112 | 140 | 226 | 100 | 70 | 190 | 140 | M10 | 100 | 28 | 50 | 32 | 620 | 370 | 480 | 0.110 | 47 | – |
| NKP-G 32-125.1/125/1.5/2 | 80 | 50 | 247 | – | 234 | 112 | 140 | 226 | 100 | 70 | 190 | 140 | M10 | 100 | 28 | 50 | 32 | 620 | 370 | 480 | 0.110 | 52 | – |
| NKP-G 32-125.1/140/2.2/2 | 80 | 50 | 272 | – | 234 | 112 | 140 | 226 | 100 | 70 | 190 | 140 | M10 | 100 | 28 | 50 | 32 | 620 | 370 | 480 | 0.110 | 54 | – |

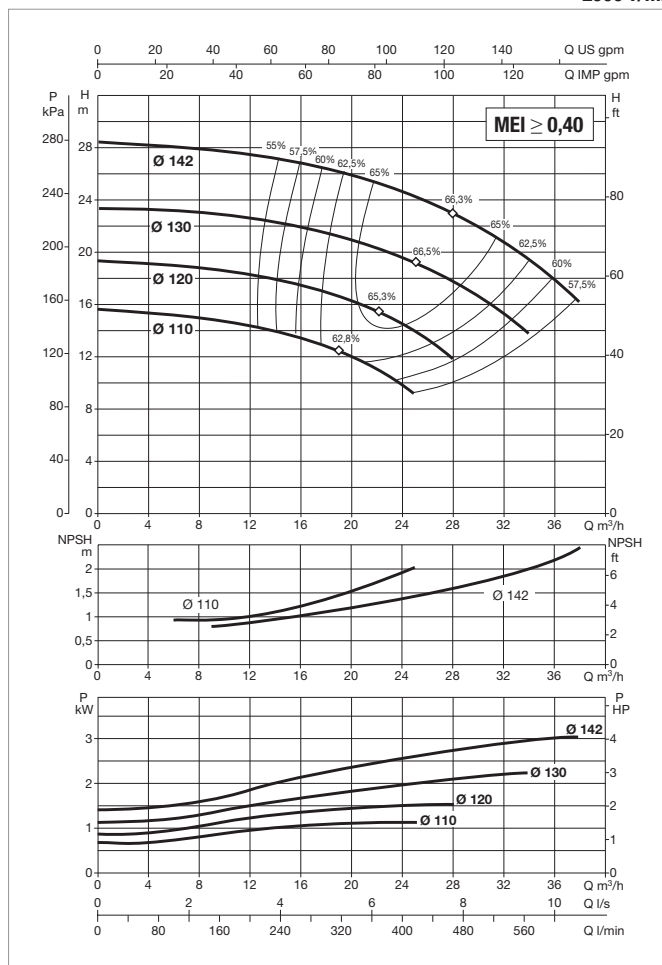
NKP-G 32-125- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

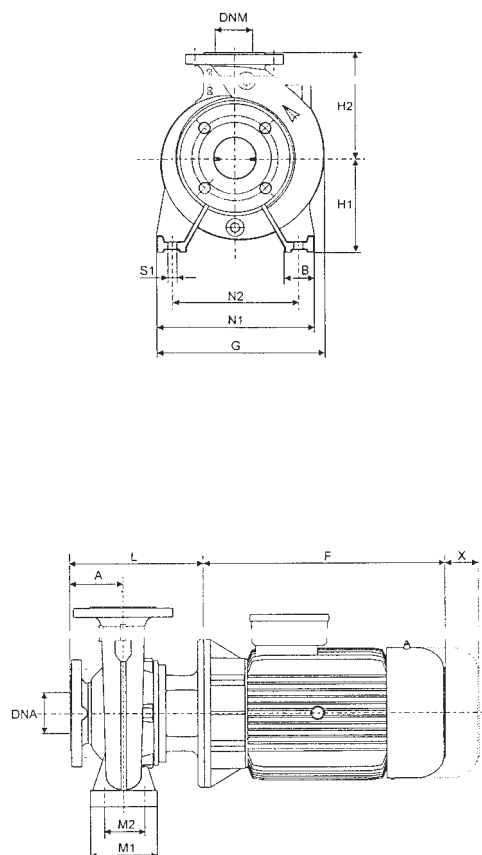
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|-----|-----------|-----|------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKP-G 32-125/110/ 1.1 /2 | MEC 80 | 230/400 V | 1.1 | 1.5 | 4.07/2.36 | – | IE2 |
| NKP-G 32-125/120/ 1.5 /2 | MEC 90 S | 230/400 V | 1.5 | 2 | 5.8/3.35 | – | IE2 |
| NKP-G 32-125/130/ 2.2 /2 | MEC 90 L | 230/400 V | 2.2 | 3 | 8.23/4.75 | – | IE2 |
| NKP-G 32-125/142/ 3 /2 | MEC 100 L | 400 V Δ | 3 | 4 | 5.85 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | H3 | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| NKP-G 32-125/110/ 1.1 /2 | 80 | 50 | 234 | – | 234 | 112 | 140 | 226 | 100 | 70 | 190 | 140 | M10 | 100 | – | 28 | 50 | 32 | 620 | 370 | 480 | 0.110 | 40 | – |
| NKP-G 32-125/120/ 1.5 /2 | 80 | 50 | 247 | – | 234 | 112 | 140 | 226 | 100 | 70 | 190 | 140 | M10 | 100 | – | 28 | 50 | 32 | 620 | 370 | 480 | 0.110 | 52 | – |
| NKP-G 32-125/130/ 2.2 /2 | 80 | 50 | 272 | – | 234 | 112 | 140 | 226 | 100 | 70 | 190 | 140 | M10 | 100 | – | 28 | 50 | 32 | 620 | 370 | 480 | 0.110 | 54 | – |
| NKP-G 32-125/142/ 3 /2 | 80 | 50 | 301 | – | 250 | 112 | 140 | 254 | 100 | 70 | 190 | 140 | M10 | 100 | 20 | 28 | 50 | 32 | 670 | 420 | 540 | 0.152 | 67 | – |

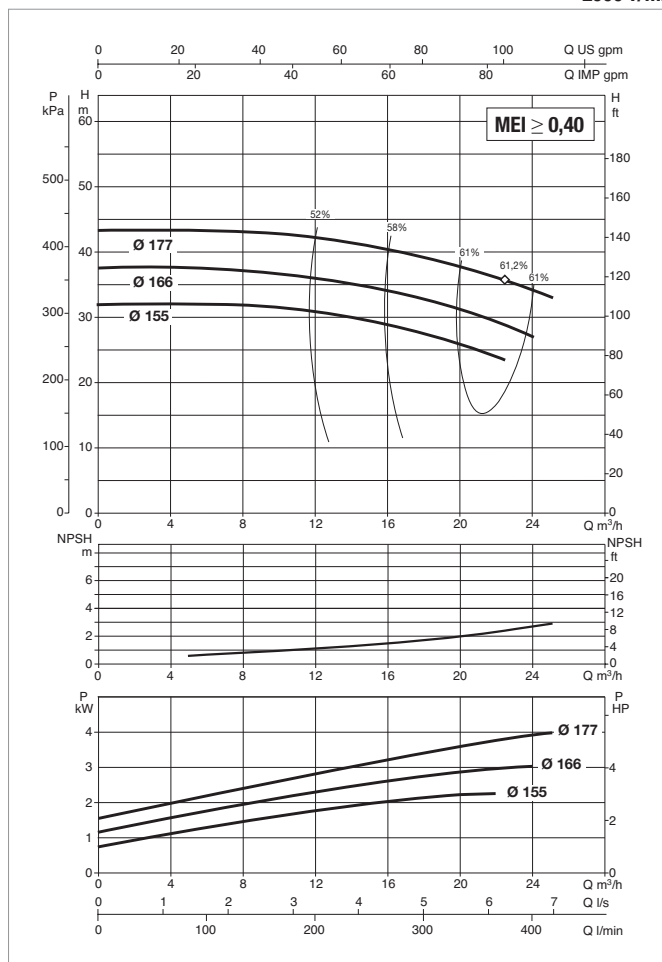
NKP-G 32-160.1 - STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

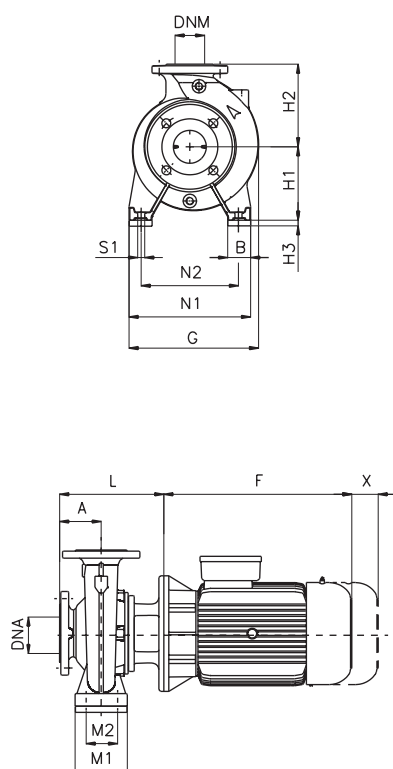
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|-----|-----------|-----|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKP-G 32-160.1 155/2.2/2 | MEC 90 L | 230/400 V | 2.2 | 3 | 8.23/4.75 | – | IE2 |
| NKP-G 32-160.1 166/3 /2 | MEC 100 L | 400 V Δ | 3 | 4 | 5.85 | – | IE2 |
| NKP-G 32-160.1 177/4/2 | MEC 112 M | 400 V Δ | 4 | 5.5 | 8.5 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| NKP-G 32-160.1 155/2.2/2 | 80 | 50 | 272 | – | 245 | 132 | 160 | 226 | 100 | 70 | 240 | 190 | M10 | 100 | 28 | 50 | 32 | 620 | 370 | 480 | 0.110 | 49 | – |
| NKP-G 32-160.1 166/3 /2 | 80 | 50 | 301 | – | 250 | 132 | 160 | 254 | 100 | 70 | 240 | 190 | M10 | 100 | 28 | 50 | 32 | 670 | 420 | 540 | 0.152 | 61 | – |
| NKP-G 32-160.1 177/4/2 | 80 | 50 | 301 | – | 250 | 132 | 160 | 254 | 100 | 70 | 240 | 190 | M10 | 100 | 28 | 50 | 32 | 670 | 420 | 540 | 0.152 | 83 | – |

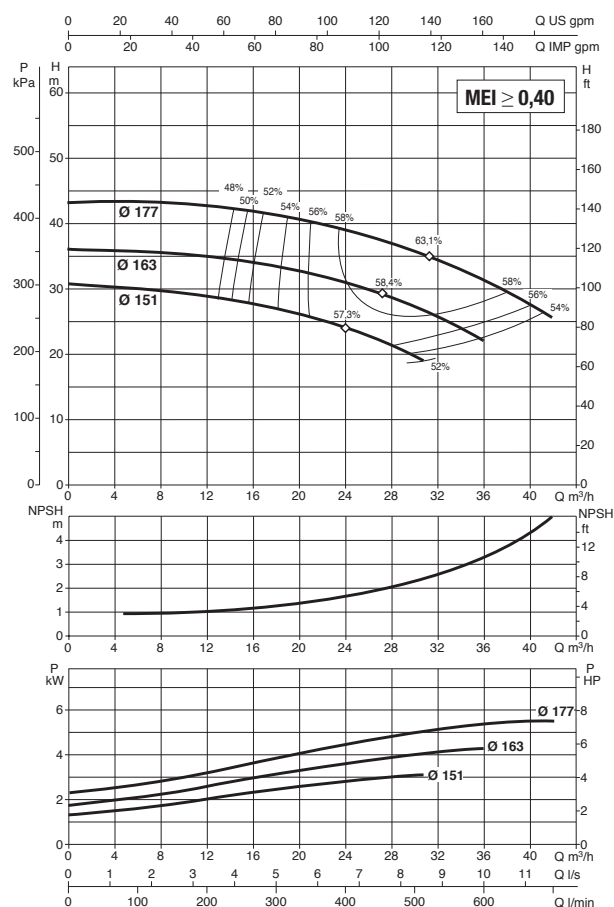
NKP-G 32-160- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

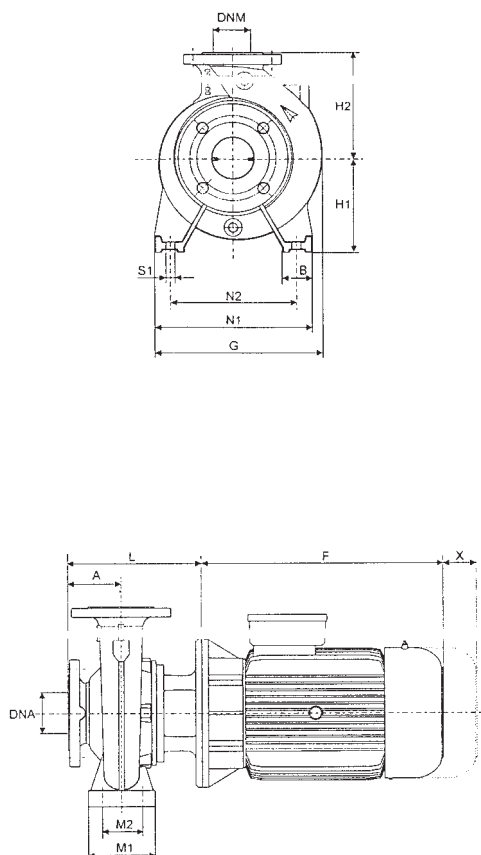
| MODEL | ELECTRICAL DATA | | | | | | |
|-------------------------|-----------------|----------------------|------------|-----|------|-----|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKP-G 32-160/151 /3 /2 | MEC 100 L | 400 V Δ | 3 | 4 | 5.85 | – | IE2 |
| NKP-G 32-160/163 /4 /2 | MEC 112 M | 400 V Δ | 4 | 5.5 | 8.05 | – | IE2 |
| NKP-G 32-160/177 /5,5/2 | MEC 132 S | 400 V Δ | 5.5 | 7.5 | 10.4 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | H3 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|-------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| NKP-G 32-160/151 /3 /2 | 80 | 50 | 301 | – | 250 | 132 | 160 | 254 | 100 | 70 | 240 | 190 | M10 | – | 100 | 28 | 50 | 32 | 670 | 420 | 540 | 0.152 | 61 | – |
| NKP-G 32-160/163 /4 /2 | 80 | 50 | 301 | – | 250 | 132 | 160 | 254 | 100 | 70 | 240 | 190 | M10 | – | 100 | 28 | 50 | 32 | 670 | 420 | 540 | 0.152 | 83 | – |
| NKP-G 32-160/177 /5,5/2 | 80 | 50 | 390 | – | 300 | 132 | 160 | 293 | 100 | 70 | 240 | 190 | M10 | 20 | 100 | 28 | 50 | 32 | 830 | 430 | 520 | 0.186 | 105 | – |

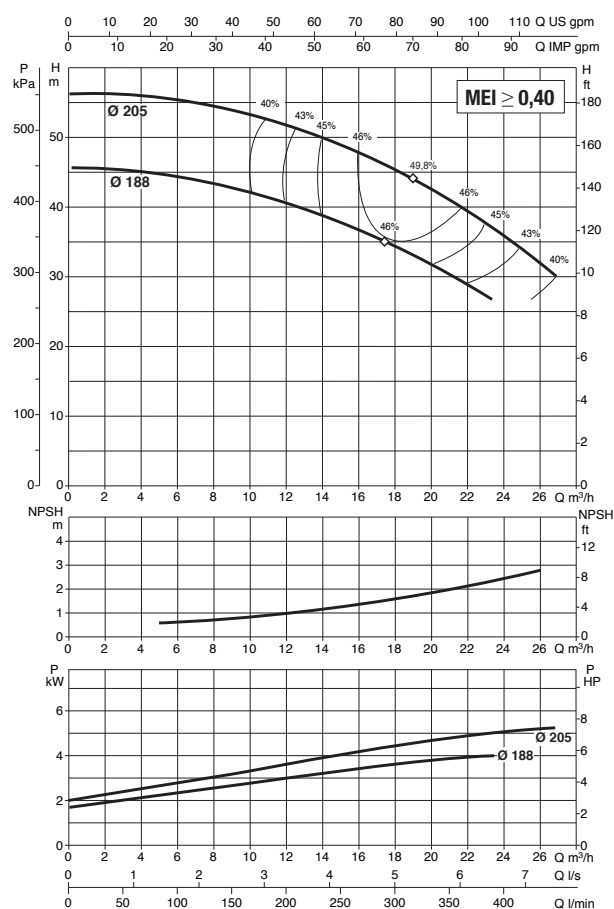
NKP-G 32-200.1 - STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40 °C

≈ 2900 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

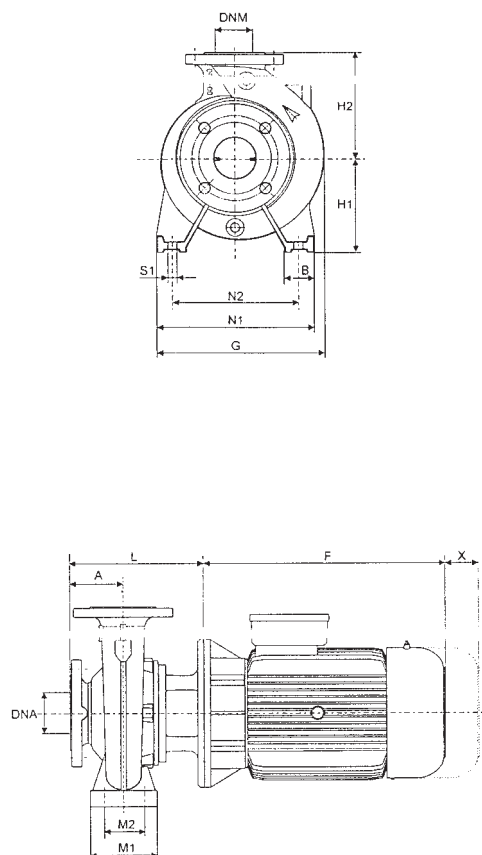
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|-----|------|-----|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKP-G 32-200.1 188/4 /2 | MEC 112 M | 400 V Δ | 4 | 5.5 | 8.05 | – | IE2 |
| NKP-G 32-200.1 205/5,5/2 | MEC 132 S | 400 V Δ | 5.5 | 7.5 | 10.4 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKP-G 32-200.1 188/4 /2 | 80 | 50 | 301 | – | 279 | 160 | 180 | 254 | 100 | 70 | 240 | 190 | M10 | 100 | 28 | 50 | 32 | 670 | 420 | 540 | 0.152 | 83 | – |
| NKP-G 32-200.1 205/5,5/2 | 80 | 50 | 390 | – | 300 | 160 | 180 | 293 | 100 | 70 | 240 | 190 | M10 | 100 | 28 | 50 | 32 | 830 | 430 | 520 | 0.186 | 105 | – |

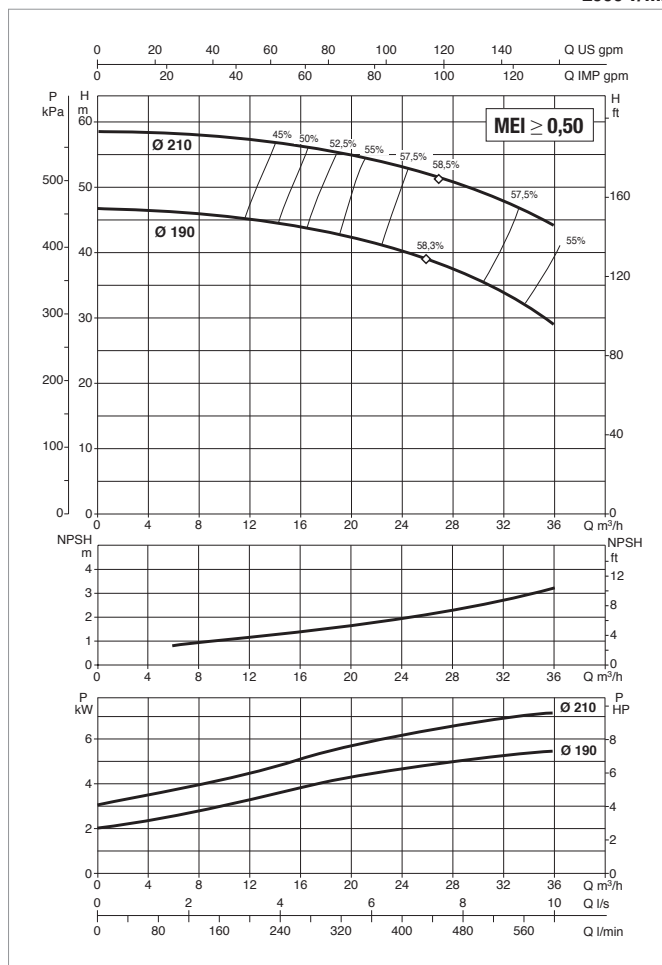
NKP-G 32-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

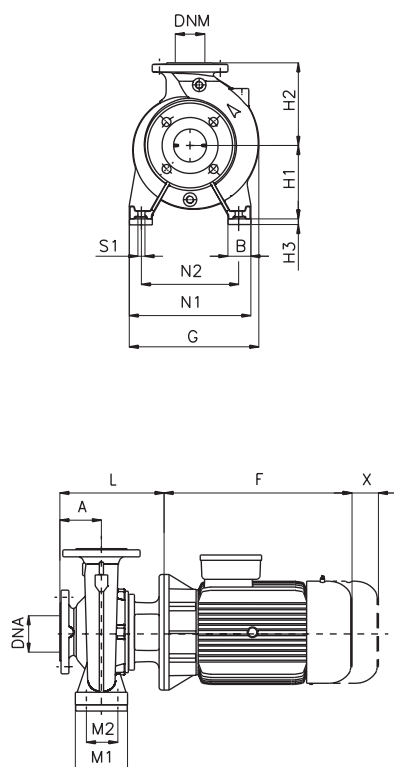
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|-----|------|------|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKP-G 32-200/190/ 5.5 /2 | MEC 132 S | 400 V Δ | 5.5 | 7.5 | 10.4 | – | IE2 |
| NKP-G 32-200/210/ 7.5 /2 | MEC 132 S | 400 V Δ | 7.5 | 10 | 14 | 13.4 | IE2 / IE3 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKP-G 32-200/190/ 5.5 /2 | 80 | 50 | 390 | – | 300 | 160 | 180 | 293 | 100 | 70 | 240 | 190 | M10 | 100 | 28 | 50 | 32 | 830 | 430 | 520 | 0.186 | 117 | – |
| NKP-G 32-200/210/ 7.5 /2 | 80 | 50 | 390 | 437 | 300 | 160 | 180 | 293 | 100 | 70 | 240 | 190 | M10 | 100 | 28 | 50 | 32 | 830 | 430 | 520 | 0.186 | 88 | 98 |

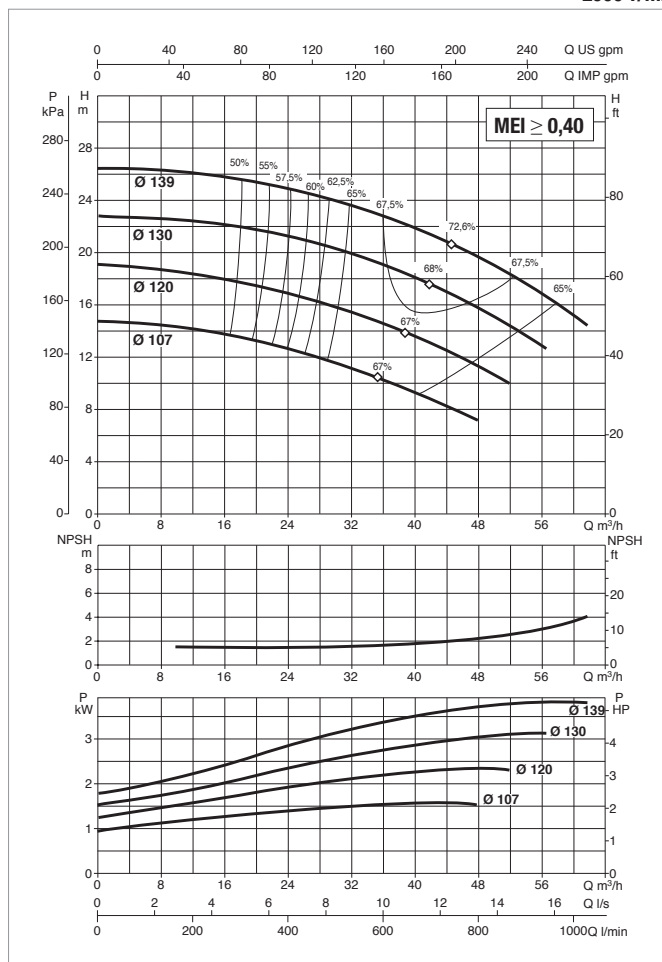
NKP-G 40-125- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40 °C

≈ 2900 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

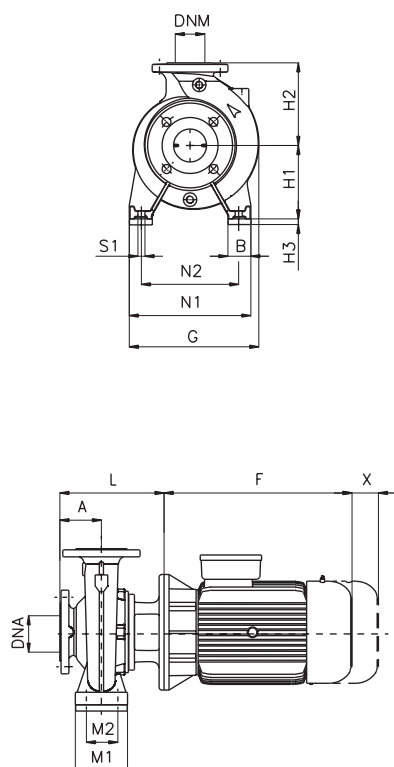
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|-----|-----------|-----|------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKP-G 40-125/107/ 1.5 /2 | MEC 90 S | 230/400 V | 1.5 | 2 | 5.8/3.35 | – | IE2 |
| NKP-G 40-125/120/ 2.2 /2 | MEC 90 L | 230/400 V | 2.2 | 3 | 8.23/4.75 | – | IE2 |
| NKP-G 40-125/130/ 3 /2 | MEC 100 L | 400 V Δ | 3 | 4 | 5.85 | – | IE2 |
| NKP-G 40-125/139/ 4 /2 | MEC 112 | 400 V Δ | 4 | 5.5 | 8.05 | – | IE2 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | H3 | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| NKP-G 40-125/107/ 1.5 /2 | 80 | 50 | 247 | – | 234 | 112 | 140 | 226 | 100 | 70 | 210 | 160 | M10 | 100 | – | 28 | 65 | 40 | 620 | 370 | 480 | 0.110 | 57 | – |
| NKP-G 40-125/120/ 2.2 /2 | 80 | 50 | 272 | – | 234 | 112 | 140 | 226 | 100 | 70 | 210 | 160 | M10 | 100 | – | 28 | 65 | 40 | 620 | 370 | 480 | 0.110 | 70 | – |
| NKP-G 40-125/130/ 3 /2 | 80 | 50 | 301 | – | 300 | 112 | 140 | 254 | 100 | 70 | 210 | 160 | M10 | 100 | 20 | 28 | 65 | 40 | 670 | 420 | 540 | 0.152 | 76 | – |
| NKP-G 40-125/139/ 4 /2 | 80 | 50 | 301 | – | 300 | 112 | 140 | 254 | 100 | 70 | 210 | 160 | M10 | 100 | 20 | 28 | 65 | 40 | 670 | 420 | 540 | 0.152 | 98 | – |

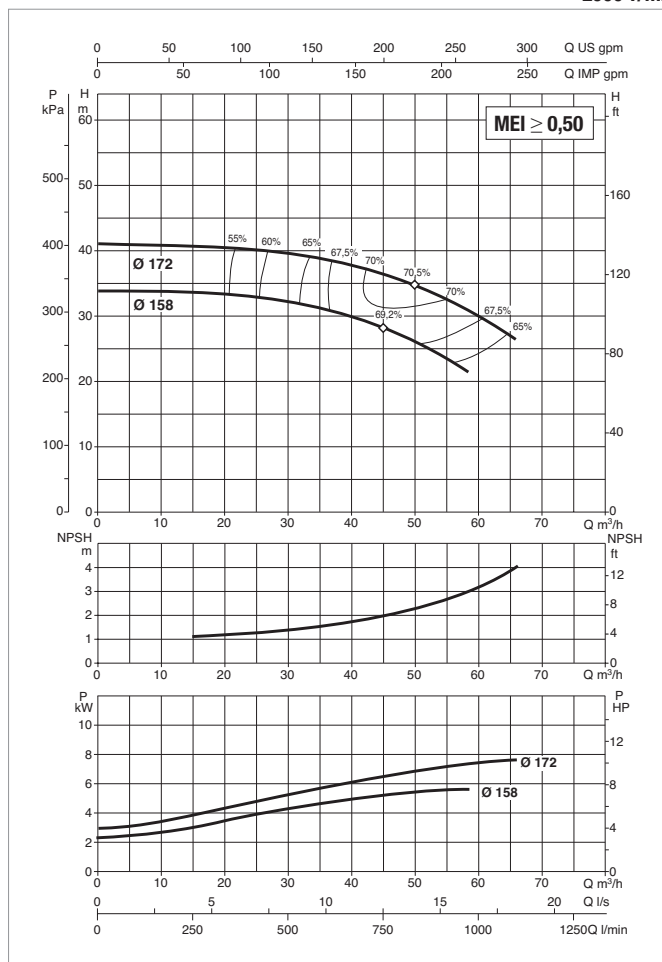
NKP-G 40-160- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

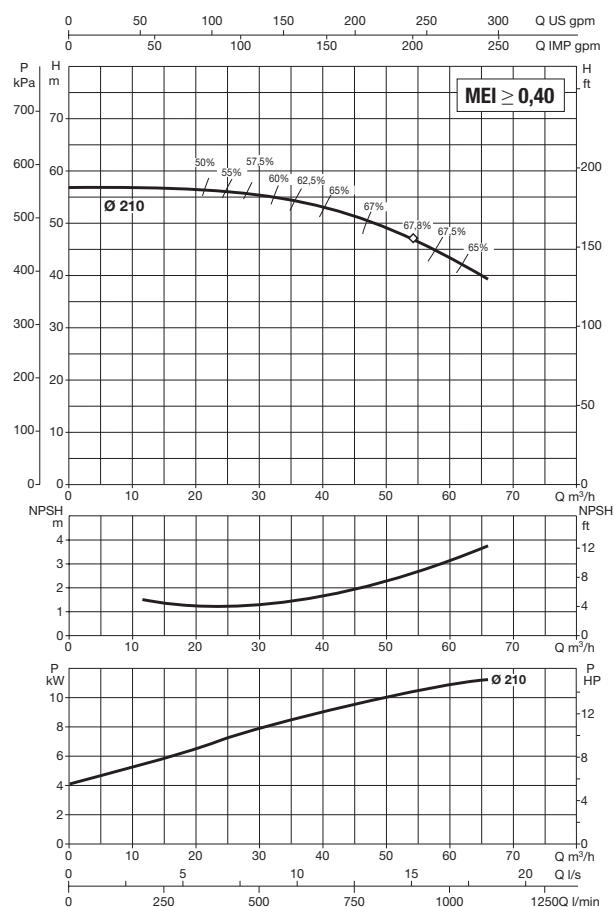
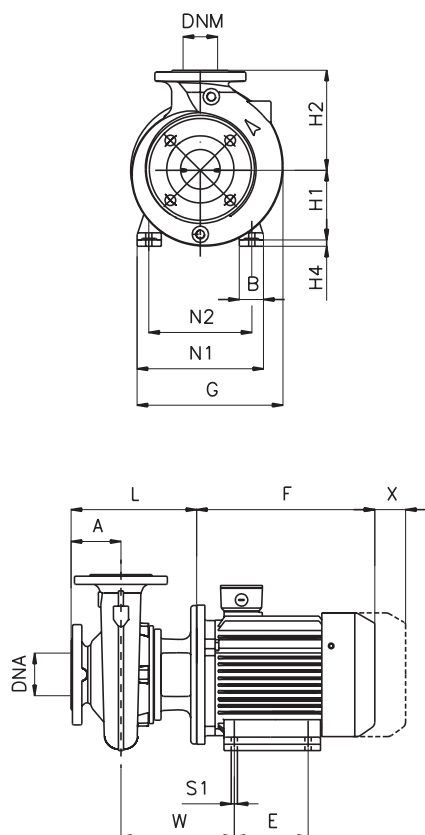
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|-----|------|------|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKP-G 40-160/158/ 5,5 /2 | MEC 132 S | 400 V Δ | 5.5 | 7.5 | 10.4 | – | IE2 |
| NKP-G 40-160/172/ 7,5 /2 | MEC 132 S | 400 V Δ | 7.5 | 10 | 14 | 13.4 | IE2 / IE3 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | H3 | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| NKP-G 40-160/158/ 5,5 /2 | 80 | 50 | 390 | – | 300 | 132 | 160 | 293 | 100 | 70 | 240 | 190 | M10 | 100 | 20 | 28 | 65 | 40 | 830 | 430 | 520 | 0.186 | 110 | – |
| NKP-G 40-160/172/ 7,5 /2 | 80 | 50 | 390 | 437 | 300 | 132 | 160 | 293 | 100 | 70 | 240 | 190 | M10 | 100 | 20 | 28 | 65 | 40 | 830 | 430 | 520 | 0.186 | 114 | 90 |

NKP-G 40-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

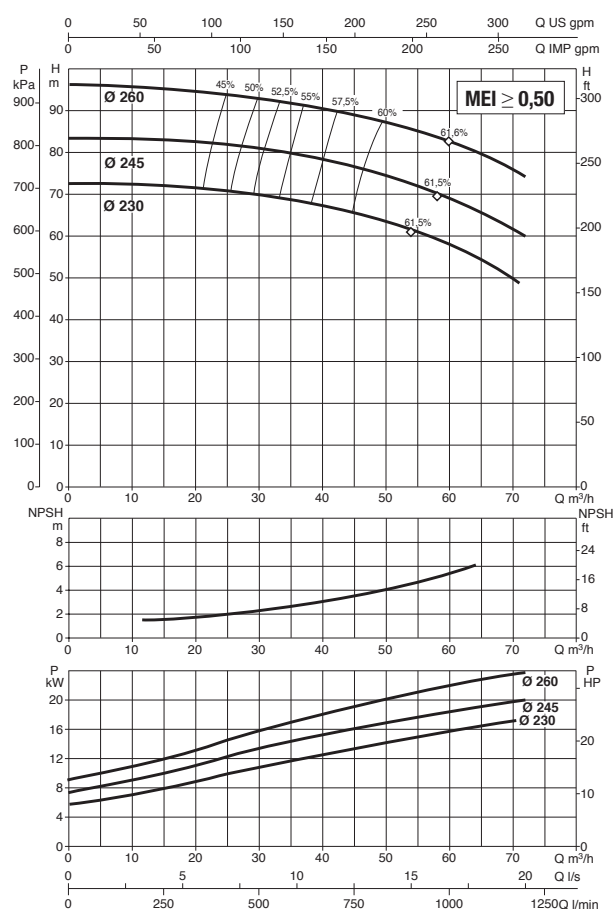
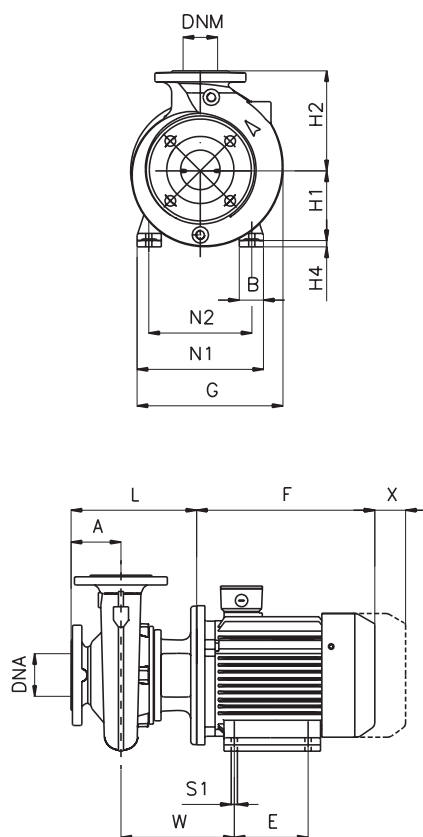
| MODEL | ELECTRICAL DATA | | | | | | |
|------------------------|-----------------|----------------------|------------|----|------|------|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKP-G 40-200/210/11 /2 | MEC 160 M | 400 V Δ | 11 | 15 | 20.2 | 19.4 | IE2 / IE3 |

| MODEL | A | B | E | F | | G | H1 | H2 | L | N1 | N2 | S1 | W | X | H4 | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| NKP-G 40-200/210/11 /2 | 100 | 67 | 210 | 505 | 505 | 350 | 160 | 180 | 343 | 314 | 254 | M12 | 351 | 100 | 20 | 28 | 65 | 40 | 1030 | 530 | 640 | 0.349 | 127 | 170 |

NKP-G 40-250- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

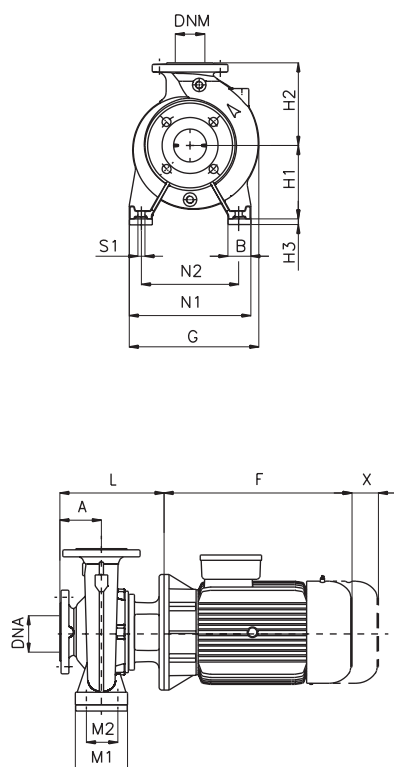
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|----|------|------|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKP-G 40-250/230/15 /2 | MEC 160 M | 400 V Δ | 15 | 20 | 27 | 26.5 | IE2 / IE3 |
| NKP-G 40-250/245/18.5 /2 | MEC 160 L | 400 V Δ | 18.5 | 25 | 33 | 32 | IE2 / IE3 |
| NKP-G 40-250/260/22 /2 | MEC 180 M | 400 V Δ | 22 | 30 | 39.5 | 38 | IE2 / IE3 |

| MODEL | A | B | E | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | W | X | H4 | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|----|----|-----|-----|-----|-----|-----|----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | | IE2 | IE3 | | | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NKP-G 40-250/230/15 /2 | 100 | 67 | 210 | 505 | 505 | 350 | 160 | 225 | 343 | — | — | 314 | 254 | M12 | 351 | 100 | 20 | 28 | 65 | 40 | 1030 | 530 | 640 | 0.349 | 142 | 180 |
| NKP-G 40-250/245/18.5 /2 | 100 | 67 | 254 | 560 | 549 | 350 | 160 | 225 | 343 | — | — | 314 | 254 | M12 | 351 | 100 | 20 | 28 | 65 | 40 | 1030 | 530 | 640 | 0.349 | 177 | 192 |
| NKP-G 40-250/260/22 /2 | 100 | 74 | 241 | 580 | 580 | 350 | 180 | 225 | 343 | — | — | 345 | 279 | M12 | 364 | 100 | — | 28 | 65 | 40 | 1030 | 530 | 640 | 0.349 | 182 | 223 |

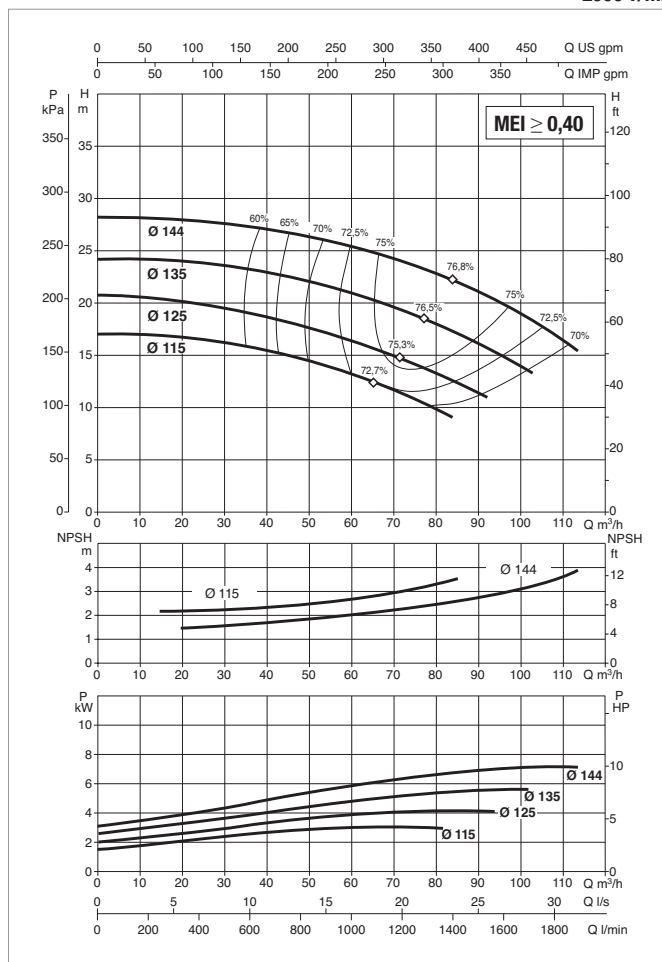
NKP-G 50-125- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

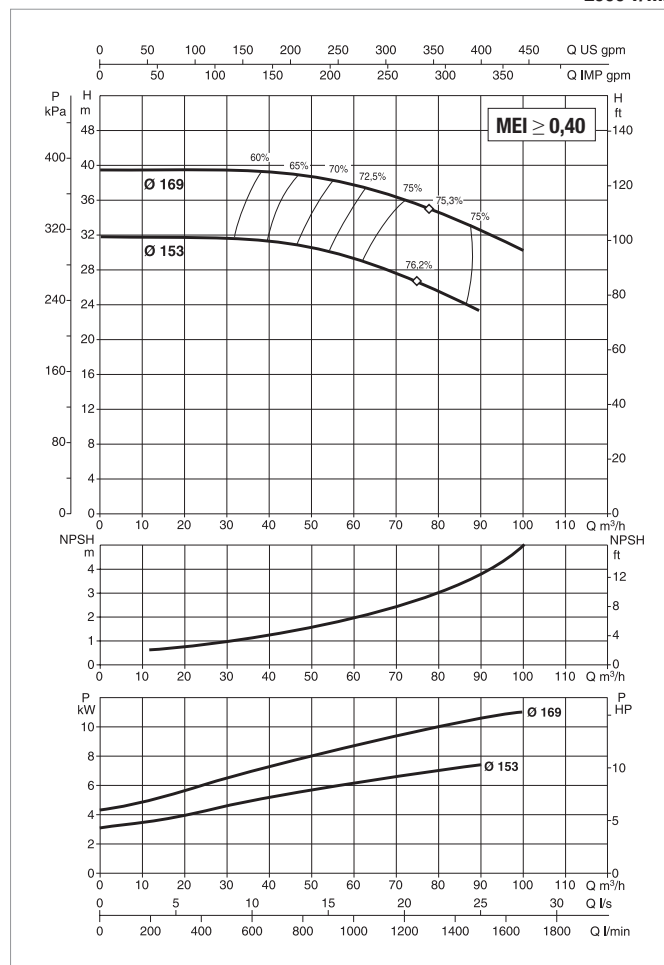
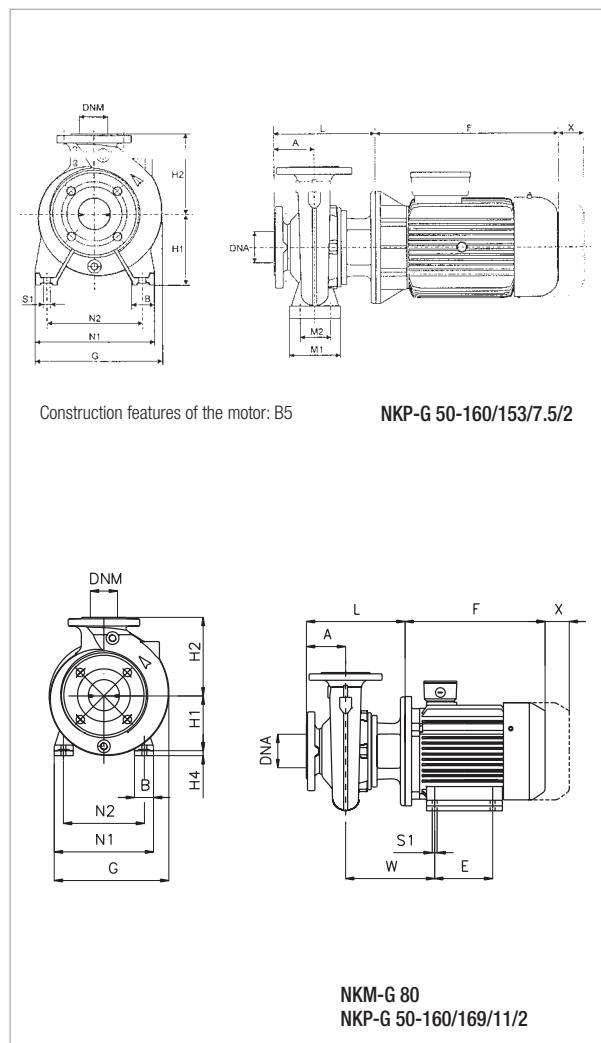
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|-----|------|------|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKP-G 50-125/115/ 3 /2 | MEC 100 L | 400 V Δ | 3 | 4 | 5.85 | – | IE2 |
| NKP-G 50-125/125/ 4 /2 | MEC 112 M | 400 V Δ | 4 | 5.5 | 8.05 | – | IE2 |
| NKP-G 50-125/135/ 5,5 /2 | MEC 132 S | 400 V Δ | 5.5 | 7.5 | 10.4 | – | IE2 |
| NKP-G 50-125/144/ 7,5 /2 | MEC 132 S | 400 V Δ | 7.5 | 10 | 14 | 13.4 | IE2 / IE3 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | H3 | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| NKP-G 50-125/115/ 3 /2 | 100 | 50 | 301 | – | 251 | 132 | 160 | 274 | 100 | 70 | 240 | 190 | M10 | 100 | – | 28 | 65 | 50 | 670 | 420 | 540 | 0.152 | 78 | – |
| NKP-G 50-125/125/ 4 /2 | 100 | 50 | 301 | – | 251 | 132 | 160 | 274 | 100 | 70 | 240 | 190 | M10 | 100 | – | 28 | 65 | 50 | 670 | 420 | 540 | 0.152 | 113 | – |
| NKP-G 50-125/135/ 5,5 /2 | 100 | 50 | 390 | – | 300 | 132 | 160 | 313 | 100 | 70 | 240 | 190 | M10 | 100 | 20 | 28 | 65 | 50 | 830 | 430 | 520 | 0.186 | 115 | – |
| NKP-G 50-125/144/ 7,5 /2 | 100 | 50 | 390 | 437 | 300 | 132 | 160 | 313 | 100 | 70 | 240 | 190 | M10 | 100 | 20 | 28 | 65 | 50 | 830 | 430 | 520 | 0.186 | 87 | 96 |

NKP-G 50-160- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



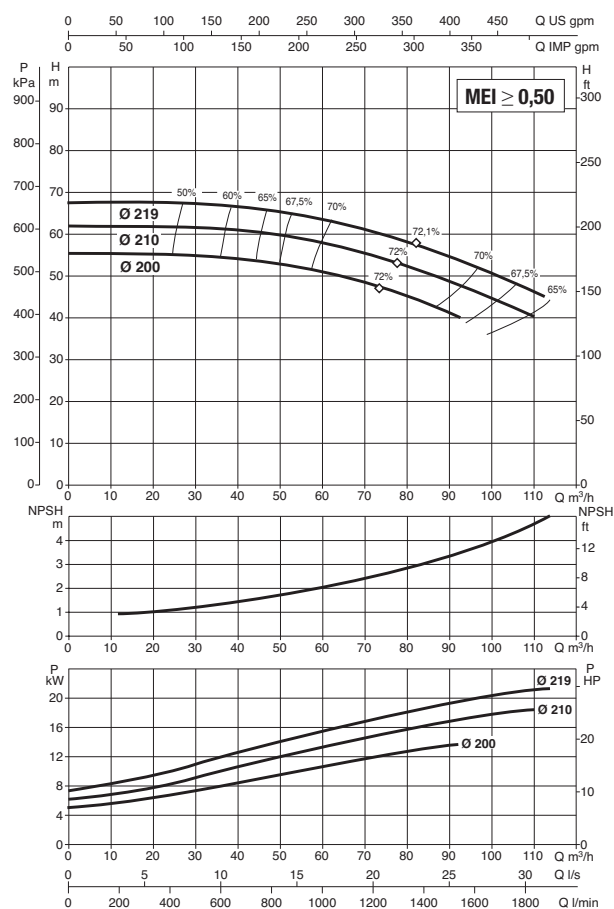
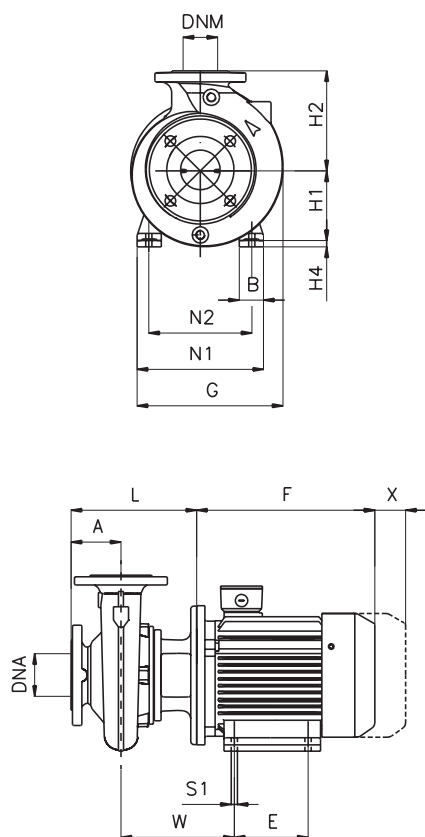
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|----|------|------|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKP-G 50-160/153/ 7.5 /2 | MEC 132 S | 400 V Δ | 7.5 | 10 | 14 | 13.4 | IE2 / IE3 |
| NKP-G 50-160/169/11 /2 | MEC 160 M | 400 V Δ | 11 | 15 | 20.2 | 19.4 | IE2 / IE3 |

| MODEL | A | B | E | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | W | X | H4 | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOL. (m³) | WEIGHT kg | |
|--------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|----|----------------------|-----|-----|--------------------|-----|-----|--------------|--------------|-----|
| | | | | IE2 | IE3 | | | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NKP-G 50-160/153/ 7.5 /2 | 100 | 50 | – | 390 | 437 | 300 | 160 | 180 | 313 | 100 | 70 | 265 | 212 | M10 | – | 100 | – | 28 | 65 | 50 | 1030 | 530 | 640 | 0.349 | 94 | 64 |
| NKP-G 50-160/169/11 /2 | 100 | 67 | 210 | 505 | 505 | 350 | 160 | 180 | 343 | – | – | 314 | 254 | M12 | 351 | 100 | 20 | 28 | 65 | 50 | 1030 | 530 | 640 | 0.349 | 115 | 96 |

NKP-G 50-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

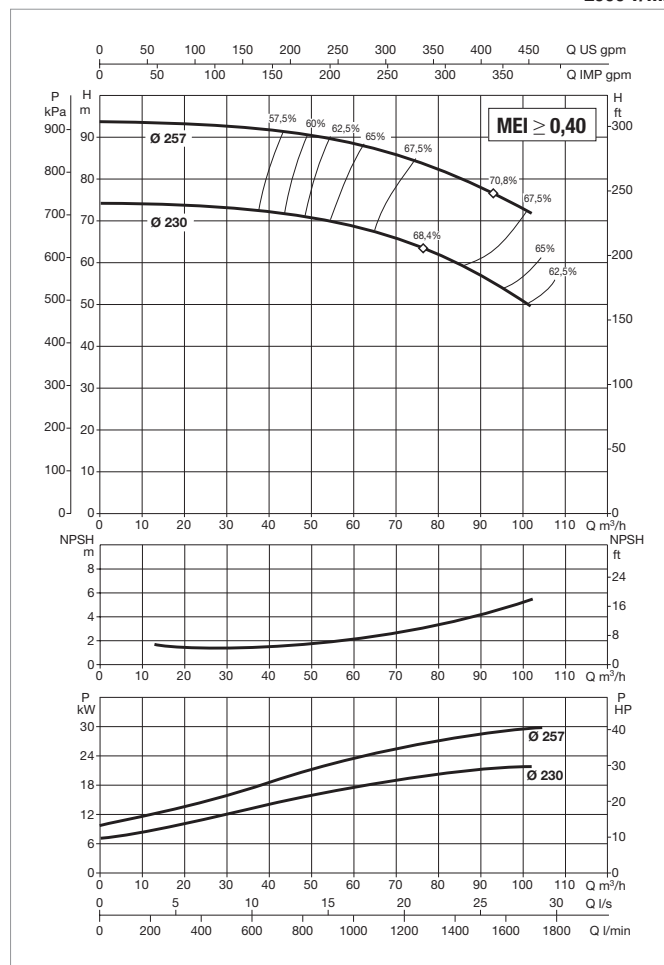
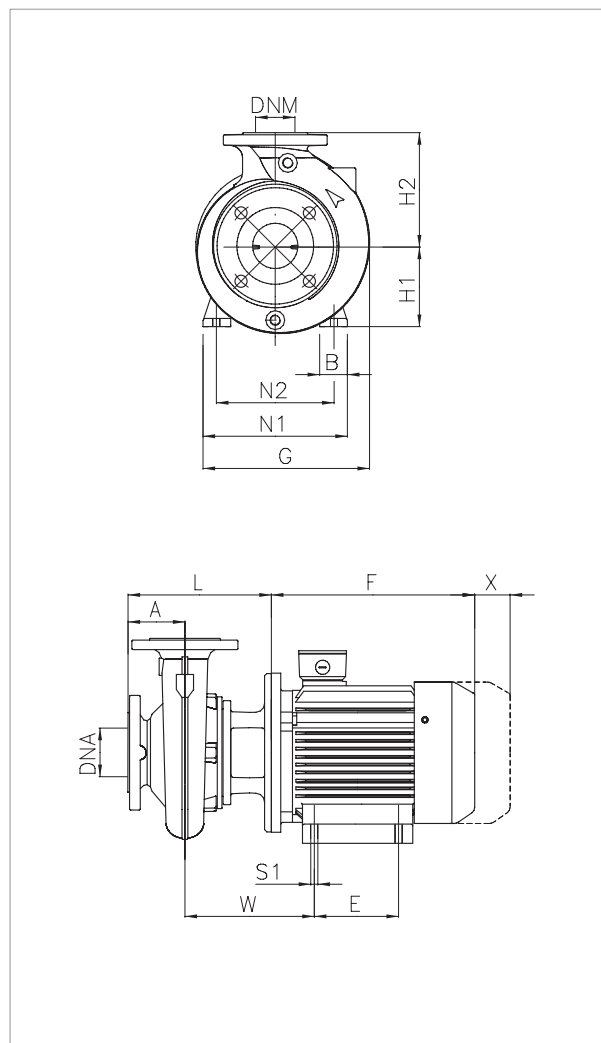
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|----|------|------|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKP-G 50-200/200/15 /2 | MEC 160 M | 400 V Δ | 15 | 20 | 27 | 26.5 | IE2 / IE3 |
| NKP-G 50-200/210/18.5 /2 | MEC 160 L | 400 V Δ | 18.5 | 25 | 33 | 32 | IE2 / IE3 |
| NKP-G 50-200/219/22 /2 | MEC 180 M | 400 V Δ | 22 | 30 | 39.5 | 38 | IE2 / IE3 |

| MODEL | A | B | E | F | | G | H1 | H2 | L | N1 | N2 | S1 | W | X | H4 | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| NKP-G 50-200/200/15 /2 | 100 | 67 | 210 | 505 | 505 | 350 | 160 | 200 | 343 | 314 | 254 | M12 | 351 | 100 | 20 | 28 | 65 | 50 | 1030 | 530 | 640 | 0.349 | 138 | 176 |
| NKP-G 50-200/210/18.5 /2 | 100 | 67 | 254 | 560 | 549 | 350 | 160 | 200 | 343 | 314 | 254 | M12 | 351 | 100 | 20 | 28 | 65 | 50 | 1030 | 530 | 640 | 0.349 | 166 | 187 |
| NKP-G 50-200/219/22 /2 | 100 | 74 | 241 | 580 | 580 | 350 | 160 | 200 | 343 | 345 | 279 | M12 | 364 | 100 | – | 28 | 65 | 50 | 1030 | 530 | 640 | 0.349 | 179 | 218 |

NKP-G 50-250- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

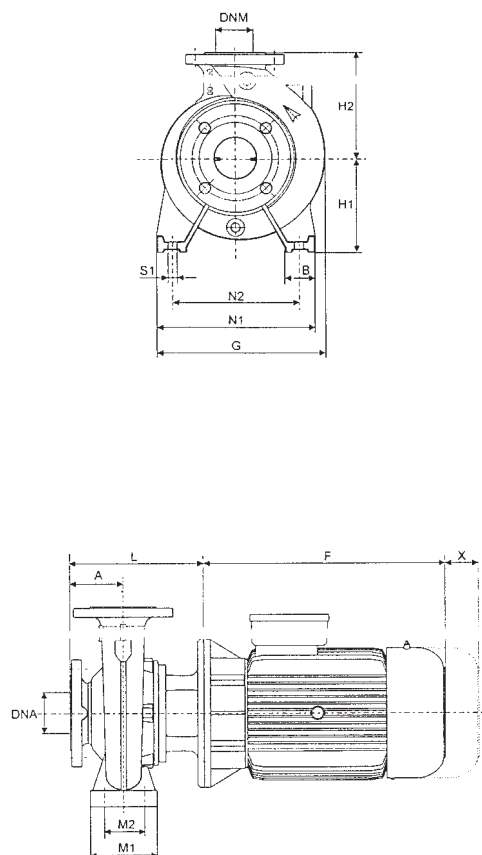
| MODEL | ELECTRICAL DATA | | | | | | |
|------------------------|-----------------|----------------------|------------|----|------|-----|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKP-G 50-250/230/22 /2 | MEC 180 M | 400 V Δ | 22 | 30 | 39.5 | 38 | IE2 / IE3 |
| NKP-G 50-250/257/30 /2 | MEC 200 L | 400 V Δ | 30 | 40 | 52 | 52 | IE2 / IE3 |

| MODEL | A | B | E | F | | G | H1 | H2 | L | N1 | N2 | S1 | W | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|------------------------|-----|----|-----|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | | IE2 | IE3 | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | NKP-G 50-250/230/22 /2 | 100 | | | | | | | | | | | | | 74 | 241 | 580 | 580 | 350 | 180 |
| NKP-G 50-250/257/30 /2 | 100 | 85 | 305 | 660 | 670 | 400 | 200 | 225 | 343 | 388 | 318 | M14 | 376 | 100 | 28 | 65 | 50 | 1130 | 580 | 740 | 0.485 | 325 | 351 |

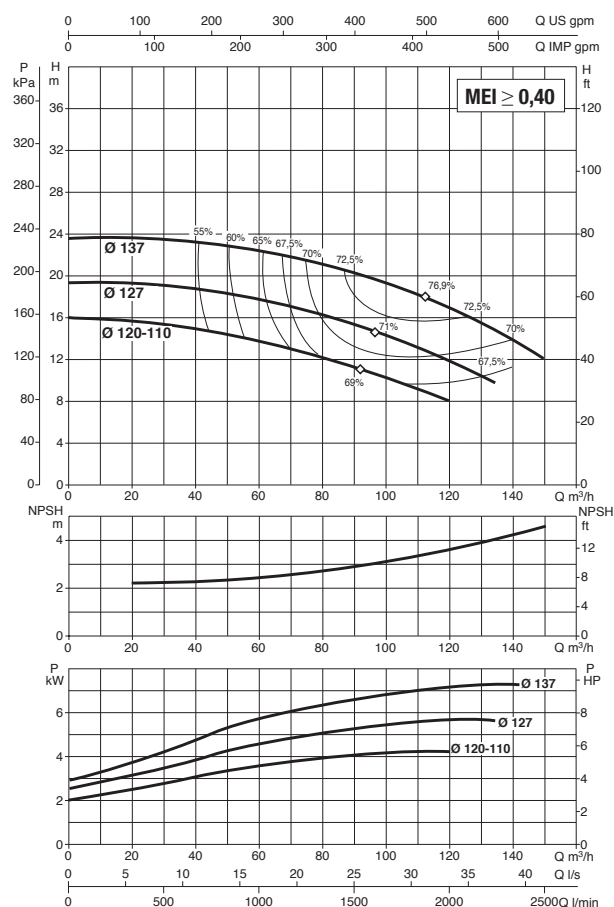
NKP-G 65-125- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



Construction features of the motor: B5



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

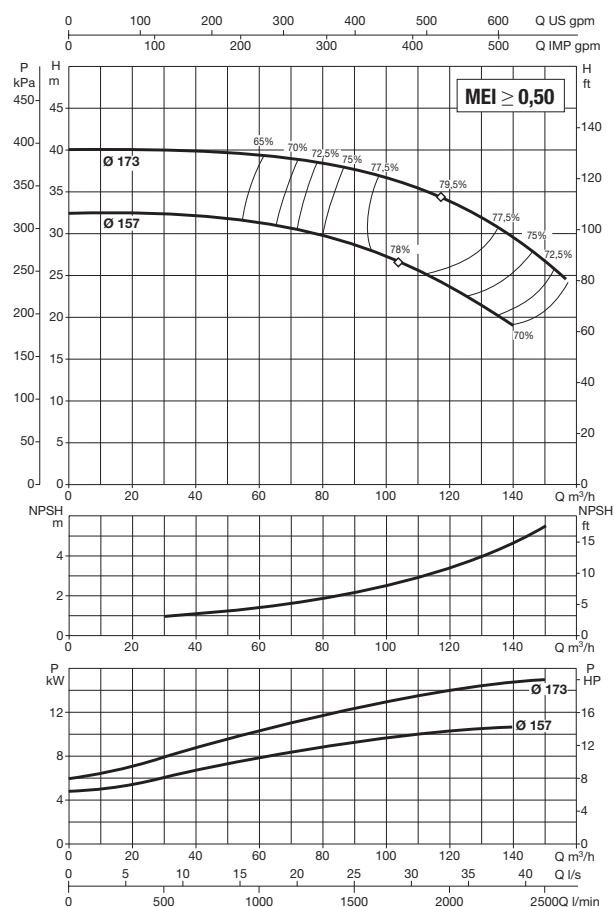
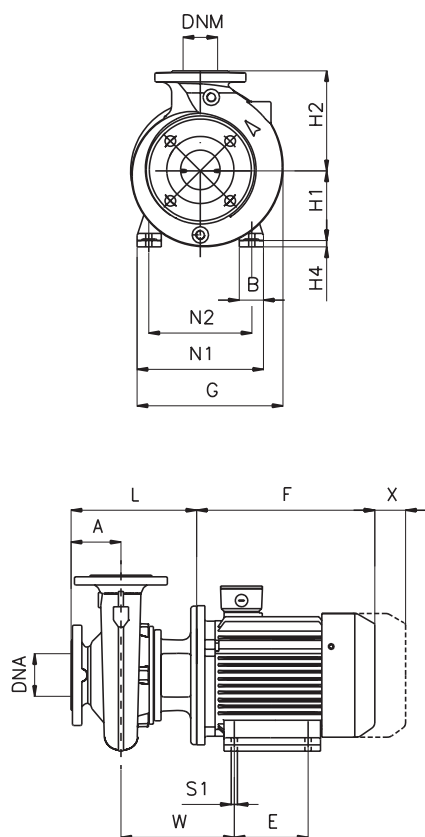
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|-----|------|------|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKP-G 65-125/120-110/4/2 | MEC 112 | 400 V Δ | 4 | 5.5 | 8.05 | – | IE2 |
| NKP-G 65-125/127/ 5.5 /2 | MEC 132 S | 400 V Δ | 5.5 | 7.5 | 10.4 | – | IE2 |
| NKP-G 65-125/137/ 7.5 /2 | MEC 132 S | 400 V Δ | 7.5 | 10 | 14 | 13.4 | IE2 / IE3 |

| MODEL | A | B | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | S1 | X | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | |
| NKP-G 65-125/120-110/4/2 | 100 | 65 | 301 | — | 286 | 160 | 180 | 274 | 125 | 95 | 280 | 212 | M10 | 100 | 28 | 80 | 65 | 670 | 420 | 540 | 0.152 | 104 | — |
| NKP-G 65-125/127/ 5.5 /2 | 100 | 65 | 390 | — | 300 | 160 | 180 | 313 | 125 | 95 | 280 | 212 | M10 | 100 | 28 | 80 | 65 | 830 | 430 | 520 | 0.186 | 113 | — |
| NKP-G 65-125/137/ 7.5 /2 | 100 | 65 | 390 | 437 | 300 | 160 | 180 | 313 | 125 | 95 | 280 | 212 | M10 | 100 | 28 | 80 | 65 | 830 | 430 | 520 | 0.186 | 91 | 94 |

NKP-G 65-160- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

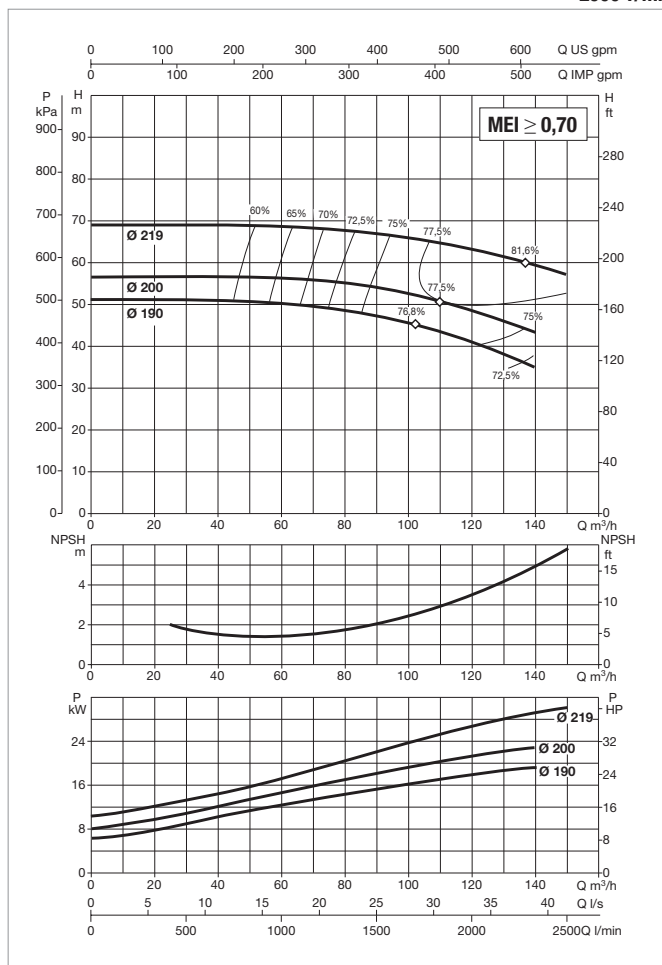
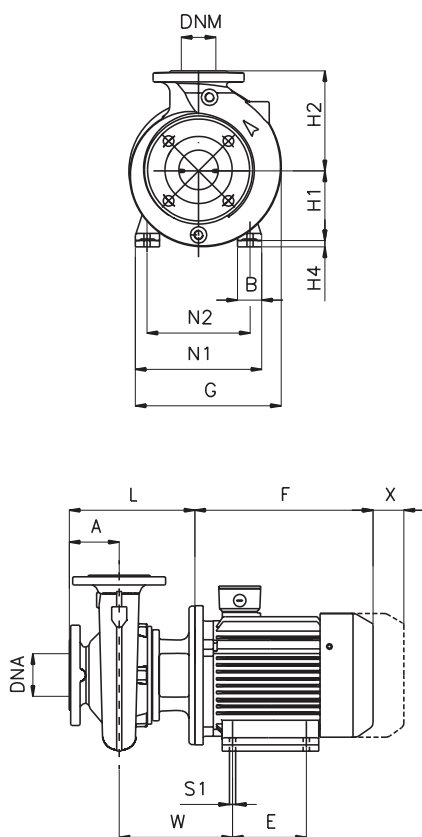
| MODEL | ELECTRICAL DATA | | | | | | |
|------------------------|-----------------|----------------------|------------|----|------|------|------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKP-G 65-160/157/11 /2 | MEC 160 M | 400 V Δ | 11 | 15 | 20.2 | 19.4 | IE2 / IE3 |
| NKP-G 65-160/173/15 /2 | MEC 160 M | 400 V Δ | 15 | 20 | 27 | 26.5 | IE2 / IE3 |

| MODEL | A | B | E | F | | G | H1 | H2 | L | N1 | N2 | S1 | W | X | H4 | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| NKP-G 65-160/157/11 /2 | 100 | 67 | 210 | 505 | 505 | 350 | 160 | 200 | 343 | 314 | 254 | M12 | 351 | 100 | 20 | 28 | 80 | 65 | 1030 | 530 | 640 | 0.349 | 122 | 166 |
| NKP-G 65-160/173/15 /2 | 100 | 67 | 210 | 505 | 505 | 350 | 160 | 200 | 343 | 314 | 254 | M12 | 351 | 100 | 20 | 28 | 80 | 65 | 1030 | 530 | 640 | 0.349 | 134 | 172 |

NKP-G 65-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

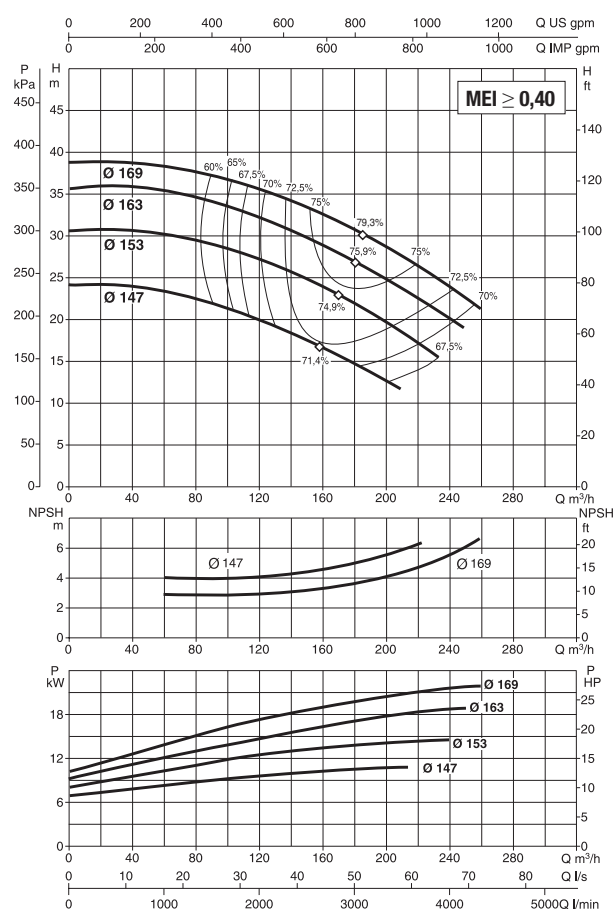
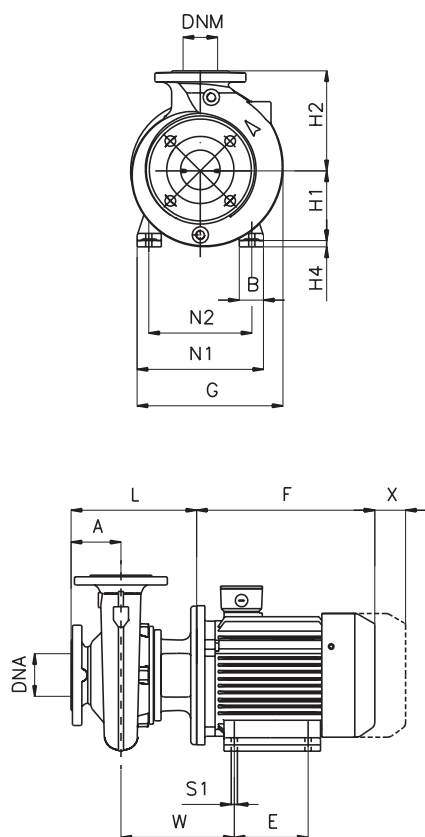
| MODEL | ELECTRICAL DATA | | | | | | |
|--------------------------|-----------------|----------------------|------------|----|------|-----|---------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKP-G 65-200/190/18.5 /2 | MEC 160 L | 400 V Δ | 18.5 | 25 | 33 | 32 | IE2 / IE3 |
| NKP-G 65-200/200/22 /2 | MEC 180 M | 400 V Δ | 22 | 30 | 39.5 | 38 | IE2 / IE3 |
| NKP-G 65-200/219/30 /2 | MEC 200 L | 400 V Δ | 30 | 40 | 52 | 52 | IE2 / IE3 |

| MODEL | A | B | E | F | | G | H1 | H2 | L | N1 | N2 | S1 | W | X | H4 | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|--------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | | IE2 | IE3 | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| NKP-G 65-200/190/18.5 /2 | 100 | 67 | 254 | 560 | 549 | 350 | 160 | 225 | 343 | 314 | 254 | M12 | 351 | 100 | 20 | 28 | 80 | 65 | 1030 | 530 | 640 | 0.349 | 165 | 192 |
| NKP-G 65-200/200/22 /2 | 100 | 74 | 241 | 580 | 580 | 350 | 180 | 225 | 343 | 345 | 279 | M12 | 364 | 100 | – | 28 | 80 | 65 | 1030 | 530 | 640 | 0.349 | 183 | 223 |
| NKP-G 65-200/219/30 /2 | 100 | 85 | 305 | 660 | 670 | 400 | 200 | 225 | 343 | 388 | 318 | M14 | 376 | 100 | – | 28 | 80 | 65 | 1130 | 580 | 740 | 0.485 | 234 | 351 |

NKP-G 80-160- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

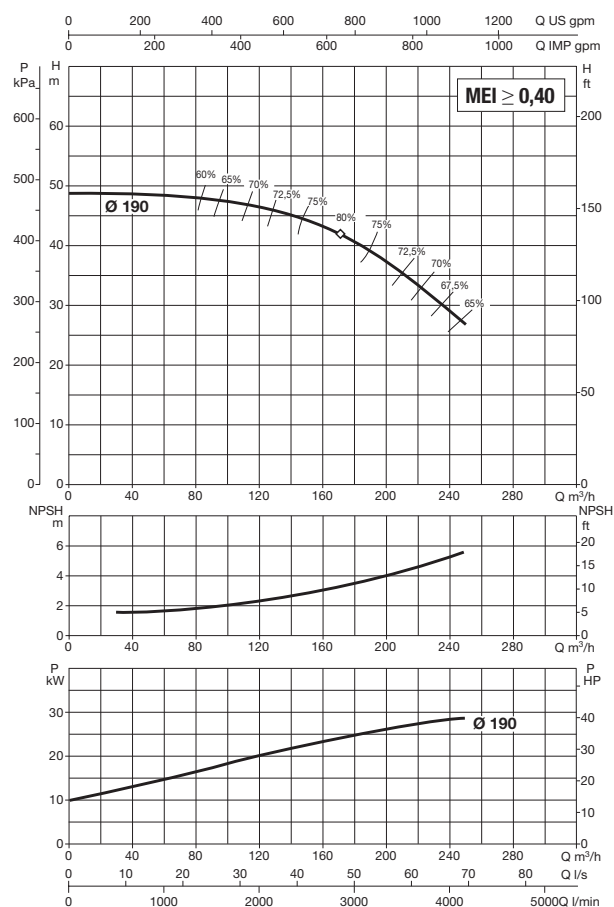
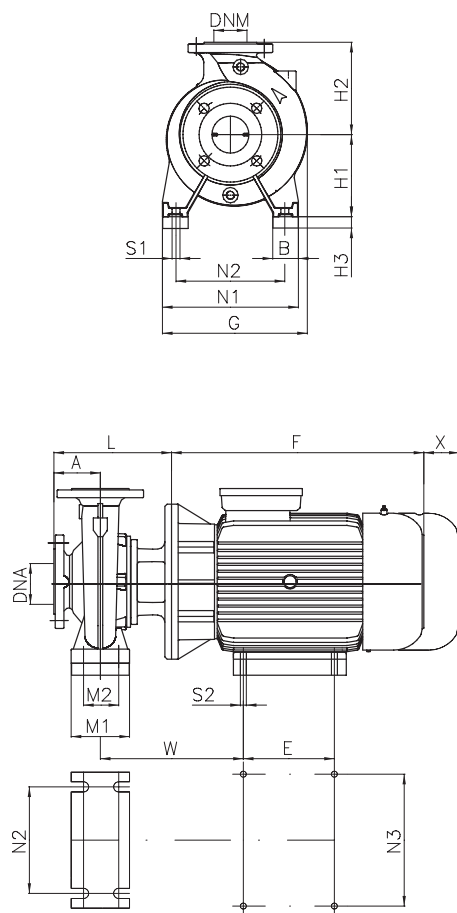
| MODEL | ELECTRICAL DATA | | | | | | |
|----------------------------|-----------------|----------------------|------------|----|------|------|------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKP-G 80-160/147-127/11 /2 | MEC 160 M | 400 V Δ | 11 | 15 | 20.2 | 19.4 | IE2 / IE3 |
| NKP-G 80-160/153/15 /2 | MEC 160 M | 400 V Δ | 15 | 20 | 27 | 26.5 | IE2 / IE3 |
| NKP-G 80-160/163/18.5 /2 | MEC 160 L | 400 V Δ | 18.5 | 25 | 33 | 32 | IE2 / IE3 |
| NKP-G 80-160/169/22 /2 | MEC 180 M | 400 V Δ | 22 | 30 | 39.5 | 38 | IE2 / IE3 |

| MODEL | A | B | E | F | | G | H1 | H2 | L | N1 | N2 | S1 | W | X | H4 | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|----------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | | | | | | | | | | | | | | | | | | | | | IE2 | IE3 |
| | | | | IE2 | IE3 | | | | | | | | | | | | | | | | | | | |
| NKP-G 80-160/147-127/11 /2 | 125 | 67 | 210 | 505 | 505 | 350 | 160 | 225 | 368 | 314 | 254 | M12 | 351 | 140 | 20 | 28 | 100 | 80 | 1030 | 530 | 640 | 0.349 | 131 | 179 |
| NKP-G 80-160/153/15 /2 | 125 | 67 | 210 | 505 | 505 | 350 | 160 | 225 | 368 | 314 | 254 | M12 | 351 | 140 | 20 | 28 | 100 | 80 | 1030 | 530 | 640 | 0.349 | 149 | 181 |
| NKP-G 80-160/163/18.5 /2 | 125 | 67 | 254 | 560 | 549 | 350 | 160 | 225 | 368 | 314 | 254 | M12 | 351 | 140 | 20 | 28 | 100 | 80 | 1030 | 530 | 640 | 0.349 | 173 | 192 |
| NKP-G 80-160/169/22 /2 | 125 | 74 | 241 | 580 | 580 | 350 | 180 | 225 | 368 | 345 | 279 | M12 | 364 | 140 | - | 28 | 100 | 80 | 1130 | 580 | 740 | 0.485 | 187 | 221 |

NKP-G 80-200- STANDARDISED MONOBLOC CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

≈ 2900 1/min

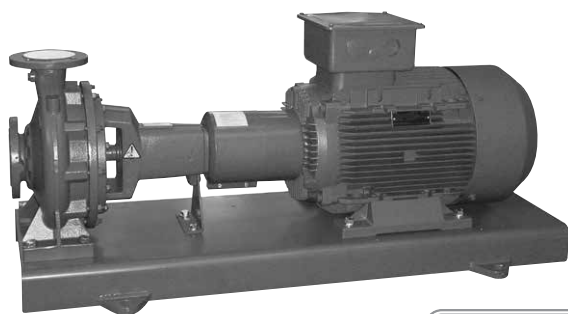


See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | | |
|------------------------|-----------------|----------------------|------------|----|------|-----|------------|
| | MOTOR SIZE | POWER INPUT 50 Hz | P2 NOMINAL | | In A | | MOTOR TYPE |
| | | | kW | HP | IE2 | IE3 | |
| NKP-G 80-200/190/30 /2 | MEC 200 L | 400 V Δ | 30 | 40 | 52 | 52 | IE2 /IE3 |

| MODEL | A | B | E | F | | G | H1 | H2 | L | M1 | M2 | N1 | N2 | N3 | S1 | S2 | W | X | H3 | Ø (mm) Mech. seal | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|------------------------|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|----|----------------------|-----|-----|--------------------|-----|-----|----------------|--------------|-----|
| | | | | IE2 | IE3 | | | | | | | | | | | | | | | | | | L/A | L/B | H | | IE2 | IE3 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NKP-G 80-200/190/30 /2 | 125 | 65 | 305 | 660 | 670 | 400 | 180 | 250 | 398 | 125 | 95 | 345 | 280 | 318 | M10 | M16 | 406 | 140 | 20 | 28 | 100 | 80 | 1130 | 580 | 740 | 0.485 | 340 | 374 |



IE2 ≥ 7.5kW
ONLY FOR
EXTRA EU
MARKETS

ENERGY
EFFICIENCY IE3 ≥ 7.5 kW

TECHNICAL DATA

Rotation speed: 1450 - 2900 1/min.

Operating range:

from 1 to 470 m³/h with head up to 143 metres.

Pumped liquid: clean, free of solids and abrasives, non-viscous, non-aggressive, non-crystallised and chemically neutral, with properties similar to water.

Pumped liquid temperature range: from -10°C to +140°C.

Maximum ambient temperature: +40 °C.

Maximum operating pressure:

16 bar - 1600 kPa (for DN 200 max 10 bar).

Flanging: PN 16 DIN 2533

PN 10 DIN 2532 for DN 200

Installation: normally in the horizontal position.

Special executions on requests: pumps for liquids other than water.

Packing (also externally powered).

Other voltages and/or frequencies.

APPLICATIONS

Standardised centrifugal single-stage pumps, designed for a wide range of applications, such as:

Water supply.

Hot water circulation for the heating system.

Circulation of cold water for air conditioning and refrigeration systems.

Transfer of liquids in agricultural, horticultural, and industrial environments.

Installation of pumping assemblies.

They can be coupled, using an elastic joint (standard or spacer), to a 2-pole or 4-pole electric motor, and installed on a formed metal sheet base in accordance with UNI EN 23661.

CONSTRUCTION FEATURES OF THE PUMP

Cast iron single stage spiral body complying with DIN-EN 733 (formerly DIN 24255), seal holder cover and cast iron motor support, flanges complying with DIN 2533 (DIN 2532 for DN 200). Cast iron impeller, closed and dynamically balanced, with compensation of the axial thrust through balancing holes, operation on interchangeable wear rings (on request). Stainless steel pump shaft supported by two permanently lubricated oversized ball bearings, housed inside an appropriate chamber in the support.

Standard seal device: standardised mechanical seal according to DIN 24960 in carbon/silicon carbide with EPDM OR rings.

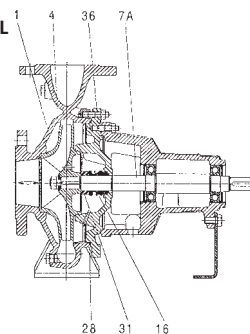
Packing with lubricating hydraulic ring and stuffing box in two easily removable parts available on request.

MATERIALS

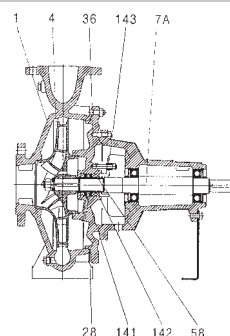
| No. | PARTS | MATERIALS |
|-----|-------------------|--------------------------------------|
| 1 | PUMP BODY | CAST IRON 250 UNI ISO 185 |
| 4 | IMPELLER | CAST IRON 200 UNI ISO 185 |
| 7A | PUMP SHAFT | AISI 420 STAINLESS STEEL UNI 6900/71 |
| 28 | OR RING | VITON |
| 36 | SEAL HOLDING DISC | CAST IRON 250 UNI ISO 185 |
| 16 | MECHANICAL SEAL | CARBON/SILICON CARBIDE |
| 31 | SEAL SPACER | AISI 304 STAINLESS STEEL UNI 6900/71 |

| No. | PARTS | MATERIALS |
|-----|----------------|---|
| 58 | SEAL BUSHING | AISI 420 STAINLESS STEEL UNI 6900/71 |
| 141 | HYDRAULIC RING | AISI 304 STAINLESS STEEL UNI 6900/71 |
| 142 | STUFFING BOX | RAMIE IMPREGNATED PTFE |

STANDARD VERSION
WITH MECHANICAL SEAL



VERSION ON REQUEST
WITH PACKING



DENOMINATION INDEX

In the description of the bare shaft pump no mention is made of the coupling or motor data.

In the description of the pumps mounted on a base without a motor, the motor data are not mentioned.

The example given describes an NK 100-200 type pump with a cast iron 198 Ø impeller, with BAQE type mechanics, standard coupling and 4-poles 5,5 kW motor running on 380-415 V 50 Hz.

KDN 100 - 200 / 198 A W / BAQE / 1 / 5.5 / 4

Type _____

Nominal diameter of the delivery port _____

Nominal diameter of the impeller _____

Actual diameter of the impeller _____

Material codes:
A (01): Cast iron
B (03): Cast iron with bronze impeller

Wear rings (only if present) _____

Seal code _____

Type of pump/motor coupling
0 = Without coupling (bare shaft pump)
1 = With standard elastic coupling
2 = With elastic spacer coupling

Motor power in kW _____

Number of poles of the motor _____

PUMP MATERIAL CODES

| Component | VERSION | |
|------------------|----------------------|---------------------------------------|
| | A (01) cast iron | B (03) cast iron with bronze impeller |
| Pump body | GG25 | GG25 |
| SEAL HOLDER DISC | GG25 | GG25 |
| Stuffing box | OT Cu 62 Si1 | OT Cu 62 Si1 |
| Impeller | GG25 | GCuSn5Zn5Pb5 UNI 7013/8a-72 |
| Wear rings* | GG20 | GG20 |
| Pump shaft | AISI 420 UNI 6900/71 | |
| Shaft sleeve* | AISI 420 UNI 6900/71 | |

PACKING CODES

| Position | Code | Description of the packing |
|----------|------|----------------------------|
| 1 | S | Stuffing box type |
| Position | Code | Cooling |
| 2 | N | Stuffing box not cooled |
| | K | Stuffing box cooled |
| Position | Code | Sealing liquid |
| 3 | E | With internal liquid |
| | F | With external liquid |
| | O | Without hydraulic ring |

* On request

** Only for packing or balanced mechanical seal.

DESCRIPTION OF THE MECHANICAL SEAL

| Position | Code | Description of the seal |
|----------|------|-------------------------------|
| 1 | A | O-ring seal with fixed guide |
| | B | Rubber bellows seal |
| | C | O-ring seal with spring guide |
| | D | O-ring seal balanced |
| | M | Rubber bellows seal |
| | X | Metal bellows seal |
| Position | Code | Materials |
| 2 & 3 | A | Impregnated carbon/metal |
| | B | Impregnated carbon/resin |
| | C | Other carbon types |
| | S | Chromium steel |
| | U | Tungsten carbide |
| | Q | Silicon carbide |
| | V | Aluminium oxide (ceramic) |
| | X | Other ceramic types |
| Position | Code | Materials |
| 4 | P | Nitrile rubber (NBR) |
| | S | Silicon rubber |
| | T | Teflon (PTFE) |
| | E | EPDM |
| | V | Viton |
| | M | PTFE coated O-ring |
| Position | Code | Materials |
| 5 | v | Reinforced |

PRODUCT CODE DESCRIPTION

| NOMINAL DIAMETER OF THE IMPELLER | Cod. |
|----------------------------------|------|
| 125 | 1 |
| 160 | 2 |
| 200 | 3 |
| 250 | 4 |
| 315 | 5 |
| | |
| 125.1 | K |
| 160.1 | L |
| 200.1 | M |

| PUMP TYPE | Cod. |
|-----------|------|
| KDN 32 | 1 |
| KDN 40 | 2 |
| KDN 50 | 3 |
| KDN 65 | 4 |
| KDN 80 | 5 |
| KDN 100 | 6 |
| KDN 125 | 7 |
| KDN 150 | 8 |

| IDENTIFICATION | Cod. |
|------------------|------|
| DAB PUMPS S.p.A. | D |

| | Cod. |
|------------------|------|
| DAB PUMPS S.p.A. | 1 |

| Cod. | PUMP/IMPELLER MATERIALS |
|------|------------------------------|
| 1 | A (01) = cast iron/cast iron |
| 2 | B (03) = cast iron/bronze |
| 3 | |
| 4 | |
| 5 | A (01) + Wr* |
| 6 | B (03) + Wr* |
| 7 | |
| 8 | |

| Cod. | SEAL DEVICE |
|------|-------------|
| 1 | BAQE |
| 2 | BAQE-RMG12 |
| 5 | BQQV* |
| 7 | BAQV* |
| A | SNE* |
| B | SNO* |
| C | SNF* |
| G | BQQE* |

* On request

| Cod. | JOINT |
|------|--------------------------------|
| 0 | Without joint |
| 1 | With standard elastic coupling |
| 2 | With elastic spacer coupling |

* Bare shaft pump

| Cod. | P2 NOMINAL |
|------|------------|
| 0 | bare shaft |
| 1 | 0.37 |
| 2 | 0.55 |
| 3 | 0.75 |
| 4 | 1.1 |
| 5 | 1.5 |
| 6 | 2.2 |
| 7 | 3 |
| 8 | 4 |
| 9 | 5.5 |
| A | 7.5 |
| B | 11 |
| C | 15 |
| D | 18.5 |
| E | 22 |
| F | 30 |
| G | 37 |
| H | 45 |
| K | 55 |
| L | 75 |
| M | 90 |
| N | 110 |
| P | 132 |

| Cod. | VOLTAGE | PO-LES |
|------|---|--------|
| 0 | Without motor | |
| 1 | 3 x 220-240/380-415 V 50 Hz(<0,75 kW) 3 x 220-277/380-480 V 60 Hz | 2 |
| 2 | 3 x 380-480 V 60 Hz | 2 |
| 3 | 3 x 220-240/380-415 V 50 Hz(<0,75 kW) 3 x 220-277/380-480 V 60 Hz | 4 |
| 4 | 3 x 380-480 V 60 Hz | 4 |
| A | 3 x 220-240/380-415 V 50 Hz - IE2 | 2 |
| B | 3 x 380-415 V 50 Hz - IE2 | 2 |
| C | 3 x 220-240/380-415 V 50 Hz - IE2 | 4 |
| D | 3 x 380-415 V 50 Hz - IE2 | 4 |
| U | 3 x 220-240/380-415 V 50 Hz - IE3 | 2 |
| V | 3 x 380-415 V 50 Hz - IE3 | 2 |
| W | 3 x 220-240/380-415 V 50 Hz - IE3 | 4 |
| X | 3 x 380-415 V 50 Hz - IE3 | 4 |

Product code

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | D | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
|---|---|---|---|---|---|---|---|---|

← Bare shaft pump → 0 0 0
 ← Pump with base without motor → 0
 ← Complete electric pump with base →

GENERAL DATA

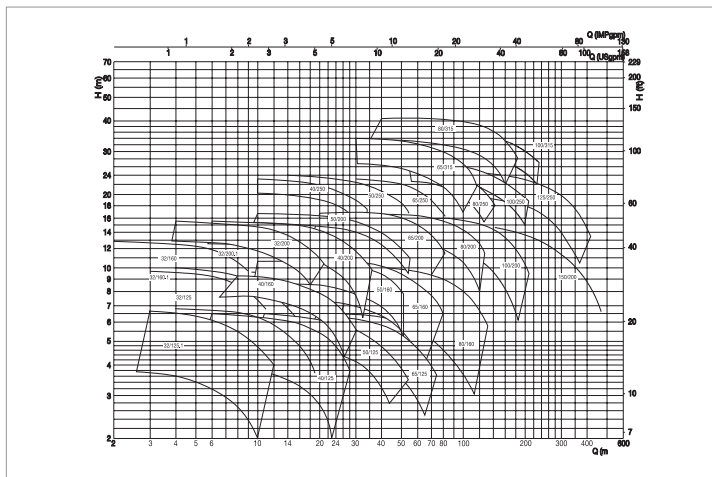
Supplied with closed asynchronous type motor, external ventilation cooling, 2 or 4 poles.

Rotor running on ball bearings, largely oversized to ensure low noise and durability.

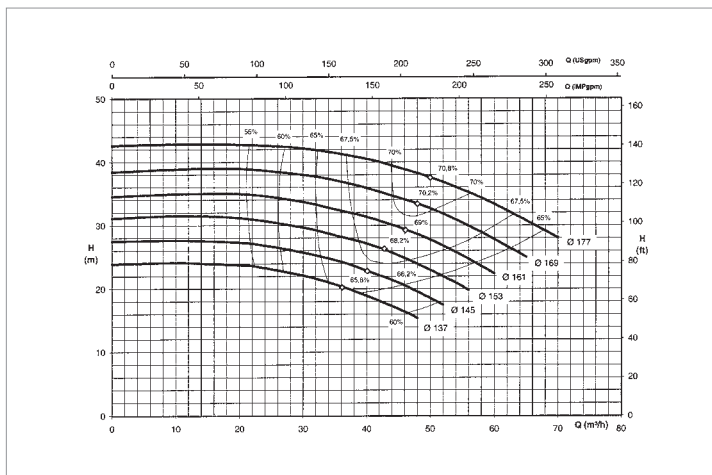
Electrical protection: in compliance with the EEC 89/336 ELECTROMAGNETIC COMPATIBILITY DIRECTIVE and subsequent amendments, the EEC 73/23 LOW VOLTAGE DIRECTIVE and subsequent amendments, as well as CEI 2-3 standards.

INSTRUCTIONS FOR THE IDENTIFICATION OF THE PUMP AND MOTOR REQUIRED.

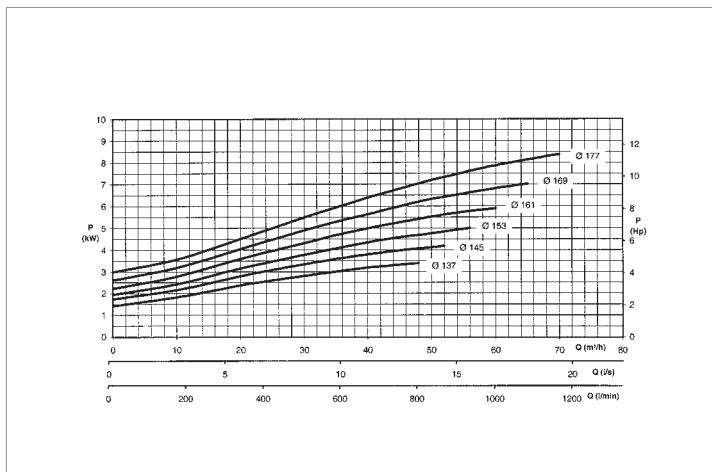
1. On the general chart supplied, find the family pump that indicatively offers the required flow rate and head characteristics.



2. Look for the most appropriate characteristic on the characteristic curves for each family.



3. On the power chart, identify the power required by the pump in order to operate at the required level.



4. Due to the possibility of variations in the pumped liquid flow rate, which can cause an oscillation of the point of operation, a higher power absorption may occur. When selecting the motor, allow for the following safety margins:

Safety margin according to ISO 5199

| REQUIRED PUMP SHAFT POWER (kW) | POWER OF THE MOTOR TO USE P2 (kW) |
|--------------------------------|-----------------------------------|
| 322 | 355 |
| 286 | 315 |
| 227 | 250 |
| 181 | 200 |
| 145 | 160 |
| 120 | 132 |
| 100 | 110 |
| 81 | 90 |
| 68 | 75 |
| 49 | 55 |
| 40 | 45 |
| 32.5 | 37 |
| 26 | 30 |
| 19 | 22 |
| 15.9 | 18.5 |
| 12.8 | 15 |
| 9.1 | 11 |
| 6.1 | 7.5 |
| 4.3 | 5.5 |
| 3.2 | 4 |
| 2.3 | 3 |
| 1.7 | 2.2 |
| 1.1 | 1.5 |
| 0.81 | 1.1 |
| 0.55 | 0.75 |
| 0.40 | 0.55 |
| 0.27 | 0.37 |
| 0.18 | 0.25 |

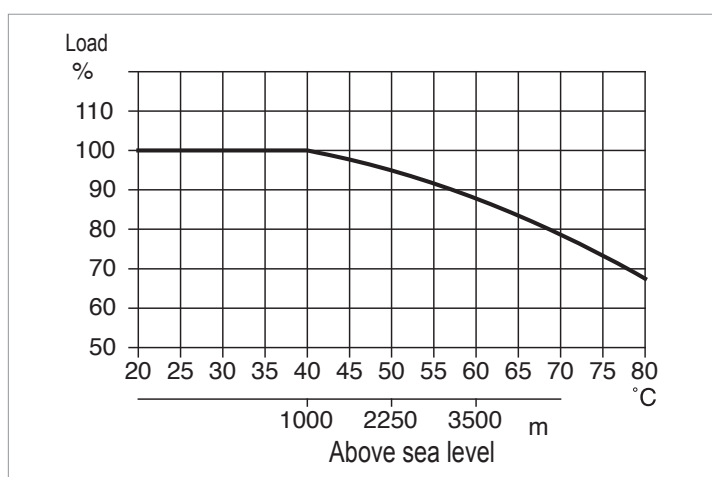
If the pump is to be used with liquids with fairly high specific weight and viscosity values, apply any required corrections to the power of the motor to be installed (check the suitability of the construction materials in contact with the liquid).

5. With the name of the pump and the power of the motor, look through the following technical data to find the name of the most suitable base (complete with motor, spacer coupling, and coupling cover).
6. The pump and base required will be delivered already assembled and aligned, although an alignment check is always required after installation (see INSTRUCTION MANUAL).

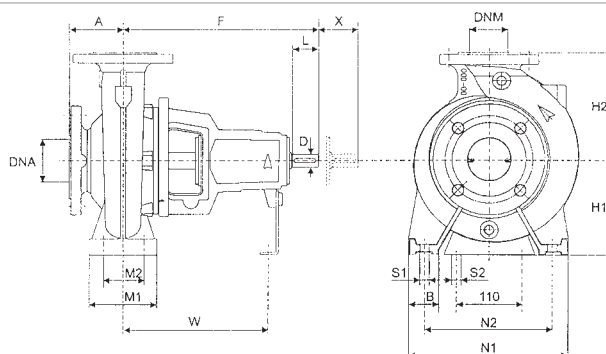
Ambient temperature

From -30 °C to +40 °C

Due to the low density, and therefore low cooling effect of the air, operation at an ambient temperature above 40 °C, or at an altitude exceeding 1000 m above sea level, requires a reduction of the rated motor load in accordance with this table.

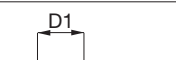


DIMENSIONS OF BARE SHAFT PUMPS



| MODEL | η MAX 1450 min ⁻¹ | | η MAX 2900 min ⁻¹ | | FLANGE DIMENSIONS | | PUMP DIMENSIONS | | | | BASE DIMENSIONS | | | | | | BOLT HOLES | | SHAFT END | | X | WEIGHT kg |
|--------------|--------------------------------------|--------|--------------------------------------|--------|----------------------|-----|-----------------|-----|-----|-----|-----------------|-----|-----|-----|-----|-----|------------|-----|-----------|----|-----|--------------|
| | Q m ³ /h | H m | Q m ³ /h | H m | DNA | DNM | A | F | H1 | H2 | B | M1 | M2 | N1 | N2 | W | S1 | S2 | D | L | | |
| KDN 32-125.1 | 10.5 | 5.5 | 20.9 | 22 | 50 | 32 | 80 | 360 | 112 | 140 | 50 | 100 | 70 | 190 | 140 | 260 | M12 | M12 | 24 | 50 | 100 | 37 |
| KDN 32-125 | 13.6 | 5.8 | 28 | 22.8 | 50 | 32 | 80 | 360 | 112 | 140 | 50 | 100 | 70 | 190 | 140 | 260 | M12 | M12 | 24 | 50 | 100 | 36 |
| KDN 32-160.1 | 8.7 | 8.3 | 17.5 | 33 | 50 | 32 | 80 | 360 | 132 | 160 | 50 | 100 | 70 | 240 | 190 | 260 | M12 | M12 | 24 | 50 | 100 | 38 |
| KDN 32-160 | 15.9 | 8.6 | 31 | 34 | 50 | 32 | 80 | 360 | 132 | 160 | 50 | 100 | 70 | 240 | 190 | 260 | M12 | M12 | 24 | 50 | 100 | 38 |
| KDN 32-200.1 | 8.5 | 11.4 | 18 | 45 | 50 | 32 | 80 | 360 | 160 | 180 | 50 | 100 | 70 | 240 | 190 | 260 | M12 | M12 | 24 | 50 | 100 | 46 |
| KDN 32-200 | 17.7 | 13.2 | 35.5 | 52.5 | 50 | 32 | 80 | 360 | 160 | 180 | 50 | 100 | 70 | 240 | 190 | 260 | M12 | M12 | 24 | 50 | 100 | 46 |
| KDN 40-125 | 21.8 | 5.6 | 46 | 21.5 | 65 | 40 | 80 | 360 | 112 | 140 | 50 | 100 | 70 | 210 | 160 | 260 | M12 | M12 | 24 | 50 | 100 | 39 |
| KDN 40-160 | 25.8 | 9.2 | 50 | 37.2 | 65 | 40 | 80 | 360 | 132 | 160 | 50 | 100 | 70 | 240 | 190 | 260 | M12 | M12 | 24 | 50 | 100 | 41 |
| KDN 40-200 | 29 | 12.6 | 57 | 51 | 65 | 40 | 100 | 360 | 160 | 180 | 50 | 100 | 70 | 265 | 212 | 260 | M12 | M12 | 24 | 50 | 100 | 49 |
| KDN 40-250 | 31 | 19.1 | 62 | 77 | 65 | 40 | 100 | 360 | 180 | 225 | 65 | 125 | 95 | 320 | 250 | 260 | M12 | M12 | 24 | 50 | 100 | 57 |
| KDN 50-125 | 41 | 5.4 | 83 | 21.5 | 65 | 50 | 100 | 360 | 132 | 160 | 50 | 100 | 70 | 240 | 190 | 260 | M12 | M12 | 24 | 50 | 100 | 42 |
| KDN 50-160 | 43.3 | 9.3 | 87.5 | 37 | 65 | 50 | 100 | 360 | 160 | 180 | 50 | 100 | 70 | 265 | 212 | 260 | M12 | M12 | 24 | 50 | 100 | 44 |
| KDN 50-200 | 41 | 14 | 81 | 56 | 65 | 50 | 100 | 360 | 160 | 200 | 50 | 100 | 70 | 265 | 212 | 260 | M12 | M12 | 24 | 50 | 100 | 51 |
| KDN 50-250 | 49 | 19.1 | 100 | 76 | 65 | 50 | 100 | 360 | 180 | 225 | 65 | 125 | 95 | 320 | 250 | 260 | M12 | M12 | 24 | 50 | 100 | 59 |
| KDN 65-125 | 57 | 5.2 | 114 | 21 | 80 | 65 | 100 | 360 | 160 | 180 | 65 | 125 | 95 | 280 | 212 | 260 | M12 | M12 | 24 | 50 | 100 | 46 |
| KDN 65-160 | 61 | 8.6 | 121 | 34.5 | 80 | 65 | 100 | 360 | 160 | 200 | 65 | 125 | 95 | 280 | 212 | 260 | M12 | M12 | 24 | 50 | 100 | 47 |
| KDN 65-200 | 62 | 14.8 | 123 | 59 | 80 | 65 | 100 | 360 | 180 | 225 | 65 | 125 | 95 | 320 | 250 | 260 | M12 | M12 | 24 | 50 | 140 | 66 |
| KDN 65-250 | 65.4 | 20 | 129 | 81 | 80 | 65 | 100 | 470 | 200 | 250 | 80 | 160 | 120 | 360 | 280 | 340 | M16 | M12 | 32 | 80 | 140 | 93 |
| KDN 65-315 | 84 | 31.5 | – | – | 80 | 65 | 125 | 470 | 225 | 280 | 80 | 160 | 120 | 400 | 315 | 340 | M16 | M12 | 32 | 80 | 140 | 112 |
| KDN 80-160 | 101 | 8.1 | 195 | 33.5 | 100 | 80 | 125 | 360 | 180 | 225 | 65 | 125 | 95 | 320 | 250 | 260 | M12 | M12 | 24 | 50 | 140 | 55 |
| KDN 80-200 | 101 | 14.4 | 200 | 57.5 | 100 | 80 | 125 | 470 | 180 | 250 | 65 | 125 | 95 | 345 | 280 | 340 | M12 | M12 | 32 | 80 | 140 | 84 |
| KDN 80-250 | 103 | 23 | 215 | 88 | 100 | 80 | 125 | 470 | 200 | 280 | 80 | 160 | 120 | 400 | 315 | 340 | M16 | M12 | 32 | 80 | 140 | 104 |
| KDN 80-315 | 136 | 35 | – | – | 100 | 80 | 125 | 470 | 250 | 315 | 80 | 160 | 120 | 400 | 315 | 340 | M16 | M12 | 32 | 80 | 140 | 122 |
| KDN 100-200 | 163 | 13.4 | 315 | 53 | 125 | 100 | 125 | 470 | 200 | 280 | 80 | 160 | 120 | 360 | 280 | 340 | M16 | M12 | 32 | 80 | 140 | 96 |
| KDN 100-250 | 159 | 21.8 | 313 | 87 | 125 | 100 | 140 | 470 | 225 | 280 | 80 | 160 | 120 | 400 | 315 | 340 | M16 | M12 | 32 | 80 | 140 | 111 |
| KDN 100-315 | 187 | 34.1 | – | – | 125 | 100 | 140 | 470 | 250 | 315 | 80 | 160 | 120 | 400 | 315 | 340 | M16 | M12 | 32 | 80 | 140 | 126 |
| KDN 125-250 | 289 | 20.5 | – | – | 150 | 125 | 140 | 470 | 250 | 355 | 80 | 160 | 120 | 400 | 315 | 340 | M16 | M12 | 32 | 80 | 140 | 135 |
| KDN 150-200 | 378 | 10 | – | – | 200 | 150 | 160 | 470 | 280 | 400 | 100 | 200 | 150 | 550 | 450 | 340 | M20 | M12 | 32 | 80 | 140 | 178 |

FLANGE DIMENSIONS (mm)

| | | | | | | | | | | |
|---|----|-----------------------|-----|-----|-----|-----|-----|-----|----------------|-----|
|  | | Nominal diameter (DN) | | | | | | | | |
| | | DIN 2533 PN 16 | | | | | | | DIN 2533 PN 10 | |
| | | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 |
| | D(| 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 200 |
| | D) | 100 | 110 | 125 | 145 | 160 | 180 | 210 | 240 | 295 |
| | D[| 140 | 150 | 165 | 185 | 200 | 220 | 250 | 285 | 340 |
| | S | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 22 | 22 |
| NO. OF HOLES | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 8 | 8 | |

KDN - 4 POLE RANGE

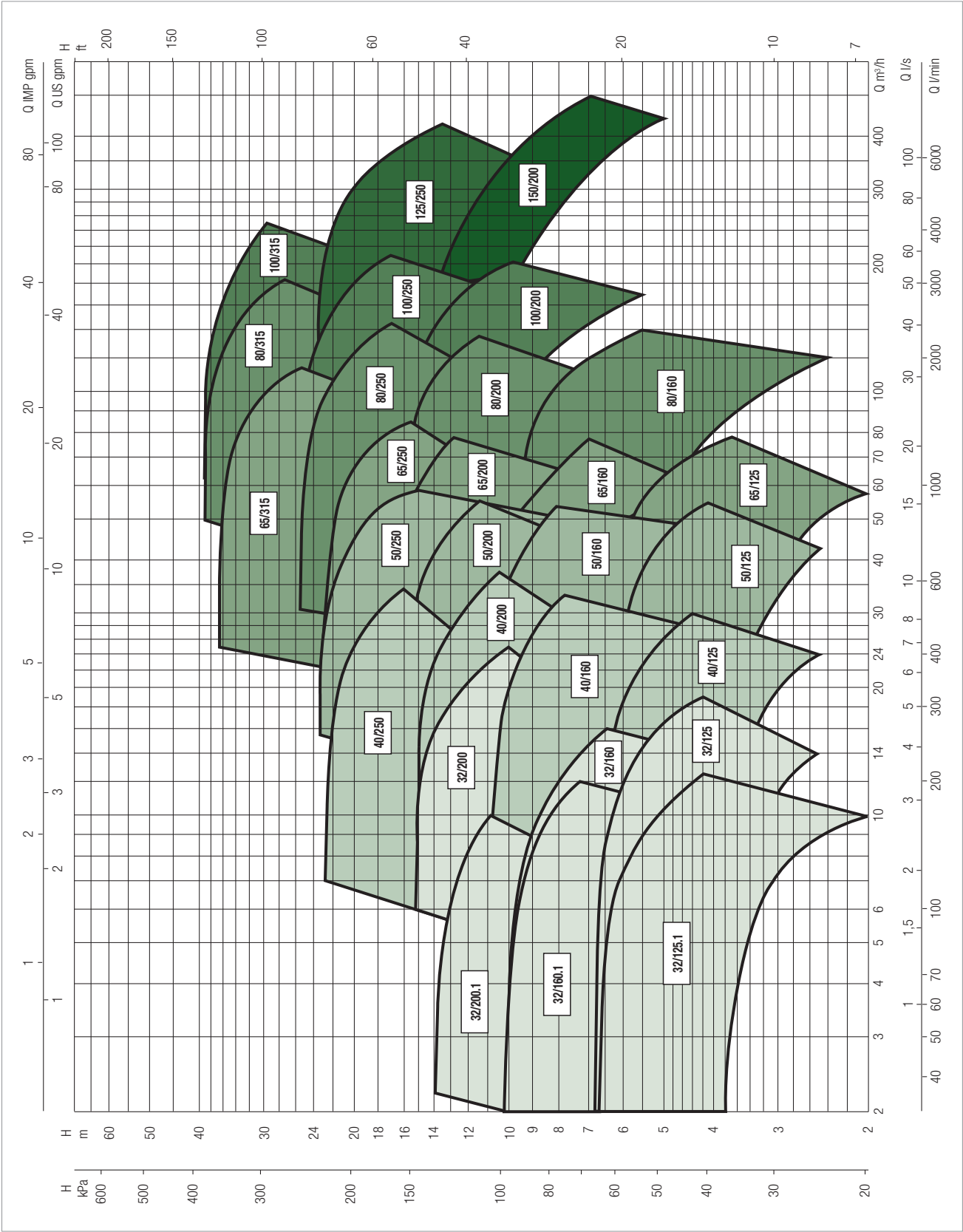
STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE

= 1450 1/min



KDN - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 32

| MODEL | Q=m ³ /h | 0 | 3 | 6 | 12 | 18 | 24 |
|------------------|---------------------|------|------|------|------|------|-----|
| | Q=l/min | 0 | 50 | 100 | 200 | 300 | 400 |
| KDN 32-125.1/105 | H (m) | 3.5 | 3.4 | 3.1 | | | |
| KDN 32-125.1/110 | | 3.9 | 3.8 | 3.5 | | | |
| KDN 32-125.1/115 | | 4.25 | 4.2 | 3.9 | | | |
| KDN 32-125.1/120 | | 4.7 | 4.6 | 4.3 | | | |
| KDN 32-125.1/125 | | 5.1 | 5.1 | 4.8 | | | |
| KDN 32-125.1/130 | | 5.6 | 5.6 | 5.3 | | | |
| KDN 32-125.1/135 | | 6.1 | 6 | 5.8 | 4.4 | | |
| KDN 32-125.1/140 | | 6.6 | 6.6 | 6.4 | 5.1 | | |
| KDN 32-125/115 | | 4.3 | | 4.1 | 3.2 | | |
| KDN 32-125/120 | | 4.75 | | 4.6 | 3.75 | | |
| KDN 32-125/125 | | 5.2 | | 5.05 | 4.2 | | |
| KDN 32-125/130 | | 5.7 | | 5.5 | 4.8 | | |
| KDN 32-125/135 | | 6.2 | | 6 | 5.3 | 3.65 | |
| KDN 32-125/142 | | 6.9 | | 6.75 | 6.15 | 4.5 | |
| KDN 32-160.1/137 | | 5.3 | 5.3 | 4.7 | | | |
| KDN 32-160.1/145 | | 6.2 | 6.1 | 5 | | | |
| KDN 32-160.1/153 | | 7 | 7 | 6.6 | | | |
| KDN 32-160.1/161 | | 8 | 7.9 | 7.6 | | | |
| KDN 32-160.1/169 | | 8.9 | 8.9 | 8.6 | 5.5 | | |
| KDN 32-160.1/177 | | 9 | 9.8 | 9.5 | 6.6 | | |
| KDN 32-160/137 | | 5.9 | | 5.6 | 4.4 | | |
| KDN 32-160/145 | | 6.7 | | 6.5 | 5.3 | | |
| KDN 32-160/153 | | 7.6 | | 7.4 | 6.25 | | |
| KDN 32-160/161 | | 8.5 | | 8.25 | 7.25 | | |
| KDN 32-160/169 | | 9.5 | | 9.3 | 8.4 | 6.6 | |
| KDN 32-160/177 | | 10.5 | | 10.4 | 9.6 | 7.8 | |
| KDN 32-200.1/170 | | 8.6 | 8.5 | 7.2 | | | |
| KDN 32-200.1/180 | | 9.8 | 9.8 | 9 | | | |
| KDN 32-200.1/190 | | 11.3 | 11.1 | 10.5 | | | |
| KDN 32-200.1/200 | | 12.8 | 12.7 | 11.7 | 8.3 | | |
| KDN 32-200.1/207 | | 13.8 | 13.8 | 13 | 8.9 | | |
| KDN 32-200/170 | | 8.6 | | 8.2 | 6.7 | | |
| KDN 32-200/180 | | 9.9 | | 9.6 | 8.2 | | |
| KDN 32-200/190 | | 11.2 | | 10.9 | 9.7 | 7 | |
| KDN 32-200/200 | | 12.6 | | 12.3 | 11.1 | 8.7 | |
| KDN 32-200/210 | | 14.3 | | 14 | 13.1 | 10.7 | |
| KDN 32-200/219 | | 15.7 | | 15.4 | 14.8 | 13 | 9.8 |

KDN - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

TABELLA DI SELEZIONE - KDN 40

| MODEL | Q=m ³ /h | 0 | 6 | 12 | 18 | 24 | 30 | 36 |
|----------------|---------------------|------|------|------|------|------|------|------|
| | Q=l/min | 0 | 100 | 200 | 300 | 400 | 500 | 600 |
| KDN 40-125/115 | H (m) | 4.2 | 4.1 | 3.8 | 3.2 | 2.4 | | |
| KDN 40-125/120 | | 4.6 | 4.5 | 4.2 | 3.7 | 2.9 | | |
| KDN 40-125/125 | | 5.1 | 4.9 | 4.7 | 4.1 | 3.3 | | |
| KDN 40-125/130 | | 5.5 | 5.4 | 5.2 | 4.7 | 3.9 | | |
| KDN 40-125/135 | | 6 | 5.9 | 5.8 | 5.3 | 4.6 | | |
| KDN 40-125/142 | | 6.7 | 6.6 | 6.5 | 6 | 5.3 | 4.1 | |
| KDN 40-160/137 | | 5.9 | 5.8 | 5.8 | 5 | 3.7 | | |
| KDN 40-160/145 | | 6.7 | 6.6 | 6.5 | 6 | 4.8 | | |
| KDN 40-160/153 | | 7.6 | 7.6 | 7.5 | 7 | 6.8 | | |
| KDN 40-160/161 | | 8.6 | 8.5 | 8.4 | 8 | 7.1 | 5.6 | |
| KDN 40-160/169 | | 9.6 | 9.5 | 9.5 | 9.1 | 8.3 | 7 | |
| KDN 40-160/177 | | 10.7 | 10.7 | 10.6 | 10.2 | 9.5 | 8.3 | |
| KDN 40-200/170 | | 8.4 | 8.4 | 8.2 | 7.4 | 5.7 | | |
| KDN 40-200/180 | | 9.7 | 9.7 | 9.4 | 8.8 | 7.2 | | |
| KDN 40-200/190 | | 10.9 | 10.8 | 10.7 | 10.2 | 8.8 | 6.8 | |
| KDN 40-200/200 | | 12.2 | 12.1 | 12 | 11.7 | 10.4 | 8.6 | |
| KDN 40-200/210 | | 13.6 | 13.5 | 13.5 | 13.2 | 12.1 | 10.6 | |
| KDN 40-200/219 | | 15 | 15 | 15 | 14.7 | 13.8 | 12.4 | 10.4 |
| KDN 40-250/220 | | 15.8 | | 15.6 | 14.8 | 13.6 | 12 | |
| KDN 40-250/230 | | 17.4 | | 17.2 | 16.5 | 15.3 | 13.7 | |
| KDN 40-250/240 | | 19.1 | | 19 | 18.2 | 17 | 15.5 | |
| KDN 40-250/250 | | 20.7 | | 20.6 | 20 | 18.9 | 17.5 | |
| KDN 40-250/260 | | 22.7 | | 22.6 | 22.1 | 21 | 19.5 | |

KDN - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 50

| MODEL | Q=m ³ /h | 0 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 |
|----------------|---------------------|------|------|------|------|------|------|------|------|------|
| | Q=l/min | 0 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 |
| KDN 50-125/115 | H (m) | 4.2 | 4.1 | 3.9 | 3.6 | 3.3 | 2.9 | 2.3 | | |
| KDN 50-125/120 | | 4.6 | 4.4 | 4.3 | 4 | 3.7 | 3.3 | 2.8 | | |
| KDN 50-125/125 | | 5 | 4.9 | 4.7 | 4.5 | 4.2 | 3.7 | 3.3 | | |
| KDN 50-125/130 | | 5.6 | 5.4 | 5.2 | 5 | 4.7 | 4.2 | 3.8 | 3.2 | |
| KDN 50-125/135 | | 6 | 5.8 | 5.7 | 5.5 | 5.2 | 4.8 | 4.3 | 3.8 | |
| KDN 50-125/139 | | 6.3 | 6.2 | 6.1 | 5.9 | 5.6 | 5.2 | 4.8 | 4.2 | |
| KDN 50-125/144 | | 6.7 | 6.7 | 6.6 | 6.4 | 6.2 | 5.8 | 5.3 | 4.8 | 4.1 |
| KDN 50-160/137 | | 6 | 6 | 5.9 | 5.6 | 5.2 | 4.8 | | | |
| KDN 50-160/145 | | 6.8 | 6.7 | 6.7 | 6.5 | 6.2 | 5.8 | | | |
| KDN 50-160/153 | | 7.6 | 7.6 | 7.5 | 7.4 | 7.2 | 6.7 | | | |
| KDN 50-160/161 | | 8.4 | 8.4 | 8.3 | 8.2 | 8.1 | 7.7 | | | |
| KDN 50-160/169 | | 9.4 | 9.3 | 9.2 | 9.2 | 9.1 | 8.8 | | | |
| KDN 50-160/177 | | 10.4 | 10.3 | 10.3 | 10.2 | 10.1 | 9.95 | | | |
| KDN 50-200/170 | | 9.5 | 9.3 | 9.2 | 8.8 | 8 | 6.85 | | | |
| KDN 50-200/180 | | 10.6 | 10.6 | 10.5 | 10.1 | 9.5 | 8.6 | 7.3 | | |
| KDN 50-200/190 | | 11.8 | 11.7 | 11.6 | 11.4 | 10.8 | 10.1 | 8.9 | | |
| KDN 50-200/200 | | 13.1 | 13 | 13 | 12.8 | 12.3 | 11.6 | 10.6 | 9.4 | |
| KDN 50-200/210 | | 14.6 | 14.6 | 14.5 | 14.4 | 13.9 | 13.2 | 12.2 | 11 | |
| KDN 50-200/219 | | 16 | 16 | 16 | 15.9 | 15.4 | 14.2 | 13.8 | 12.7 | 11.4 |
| KDN 50-250/220 | | 15.9 | 15.7 | 15.6 | 15.4 | 14.9 | 13.8 | 12.4 | 10.5 | xxx |
| KDN 50-250/230 | | 17.4 | 17.3 | 17.2 | 17 | 16.5 | 15.5 | 14.2 | 12.6 | 10.3 |
| KDN 50-250/240 | | 19 | 19 | 19 | 18.8 | 18.2 | 17.4 | 16.2 | 14.7 | 12.4 |
| KDN 50-250/250 | | 20.8 | 20.8 | 20.7 | 20.6 | 20.1 | 19.2 | 18.1 | 17 | 14.8 |
| KDN 50-250/263 | | 23 | 23 | 22.9 | 22.8 | 22.5 | 21.7 | 20.6 | 19.4 | 17.5 |

KDN - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 65

| MODEL | Q=m³/h | 0 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | 90 | 102 | 114 |
|--------------------|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | Q=l/min | 0 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1700 | 1900 |
| KDN 65-125/120/110 | H (m) | 3.75 | | 3.5 | 3.3 | 3.2 | 2.9 | 2.7 | 2.3 | 1.9 | | | | | | | |
| KDN 65-125/120 | | 4.25 | | 3.9 | 3.8 | 3.6 | 3.3 | 3.1 | 2.7 | 2.3 | | | | | | | |
| KDN 65-125/125 | | 4.7 | | 4.4 | 4.25 | 4.1 | 3.8 | 3.6 | 3.25 | 2.8 | | | | | | | |
| KDN 65-125/130 | | 5.1 | | 4.9 | 4.75 | 4.6 | 4.3 | 4.1 | 3.8 | 3.3 | 2.8 | | | | | | |
| KDN 65-125/135 | | 5.6 | | 5.4 | 5.3 | 5.2 | 4.9 | 4.7 | 4.3 | 3.9 | 3.5 | 3 | | | | | |
| KDN 65-125/140 | | 6 | | 5.9 | 5.8 | 5.7 | 5.5 | 5.2 | 4.9 | 4.5 | 4.1 | 3.6 | | | | | |
| KDN 65-125/144 | | 6.4 | | 6.35 | 6.25 | 6.2 | 5.9 | 5.7 | 5.4 | 5 | 4.65 | 4.2 | 3.7 | | | | |
| KDN 65-160/137 | | 5.8 | | 5.7 | 5.4 | 5.2 | 4.75 | 4.3 | 3.7 | | | | | | | | |
| KDN 65-160/145 | | 6.5 | | 6.5 | 6.3 | 6 | 5.7 | 5.3 | 4.75 | 4.1 | | | | | | | |
| KDN 65-160/153 | | 7.3 | | 7.2 | 7.2 | 6.9 | 6.7 | 6.3 | 5.8 | 5.25 | | | | | | | |
| KDN 65-160/161 | | 8.2 | | 8.1 | 8.1 | 7.9 | 7.7 | 7.3 | 6.85 | 6.3 | 5.8 | | | | | | |
| KDN 65-160/169 | | 9.1 | | 9.1 | 9 | 8.9 | 8.7 | 8.4 | 8 | 7.6 | 7.1 | 6.4 | | | | | |
| KDN 65-160/177 | | 10 | | 10 | 9.9 | 9.8 | 9.7 | 9.45 | 9.1 | 8.7 | 8.2 | 7.5 | | | | | |
| KDN 65-200/170 | | 9.3 | 9.3 | 9.2 | 9.2 | 9 | 8.5 | 7.9 | 7.1 | 6.3 | | | | | | | |
| KDN 65-200/180 | | 10.4 | 10.4 | 10.4 | 10.3 | 10.2 | 10 | 9.5 | 8.8 | 8.1 | | | | | | | |
| KDN 65-200/190 | | 12.1 | 12 | 12 | 12 | 11.9 | 11.5 | 11.1 | 10.5 | 9.8 | 8.8 | | | | | | |
| KDN 65-200/200 | | 13.3 | 13.3 | 13.3 | 13.2 | 13.1 | 13 | 12.8 | 12.3 | 11.6 | 10.8 | | | | | | |
| KDN 65-200/210 | | 14.8 | 14.7 | 14.7 | 14.7 | 14.6 | 14.6 | 14.3 | 13.8 | 13.4 | 12.7 | 12 | | | | | |
| KDN 65-200/219 | | 16.2 | 16.2 | 16.2 | 16.1 | 16 | 15.9 | 15.8 | 15.4 | 15 | 14.4 | 13.5 | 12.7 | | | | |
| KDN 65-250/220 | | 15.8 | | 15.8 | 15.5 | 15.1 | 14.5 | 14 | 13.2 | 12 | 10.7 | | | | | | |
| KDN 65-250/230 | | 17.4 | | 17.4 | 17.2 | 16.8 | 16.3 | 15.7 | 15 | 14.1 | 12.7 | 11.4 | | | | | |
| KDN 65-250/240 | | 19 | | 19 | 18.9 | 18.5 | 18.1 | 17.5 | 16.8 | 16 | 14.7 | 13.6 | | | | | |
| KDN 65-250/250 | | 20.7 | | 20.7 | 20.6 | 20.4 | 20 | 19.5 | 18.8 | 18 | 17 | 15.9 | 14.5 | | | | |
| KDN 65-250/263 | | 23.2 | | 23 | 23 | 22.9 | 22.5 | 22.2 | 21.6 | 20.8 | 19.8 | 18.6 | 17.4 | 16 | | | |
| KDN 65-315/260 | | 22.3 | | 22.2 | 22.1 | 22 | 21.5 | 21 | 20.5 | 20 | 19.2 | 18.4 | 17 | 16 | 15 | | |
| KDN 65-315/275 | | 25.1 | | 25.1 | 25 | 24.8 | 24.6 | 24.1 | 23.5 | 23 | 22.5 | 21.5 | 20.5 | 19.4 | 18.1 | | |
| KDN 65-315/290 | | 28.2 | | 28.2 | 28.1 | 28 | 27.8 | 27.3 | 27 | 26.5 | 25.5 | 25 | 24 | 23.1 | 22 | 19.5 | |
| KDN 65-315/305 | | 31.7 | | 31.5 | 31.4 | 31.4 | 31.3 | 31.2 | 30.8 | 30.4 | 29.6 | 29 | 28 | 27.2 | 26.1 | 23.5 | |
| KDN 65-315/320 | | 35.7 | | 35.4 | 35.3 | 35.2 | 35.1 | 35 | 34.8 | 34.5 | 33.8 | 33.5 | 32.5 | 31.5 | 30.8 | 28 | 24.8 |

KDN - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 80

| MODEL | Q=m ³ /h | 0 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | 90 | 102 | 114 | 120 | 150 | 180 |
|--------------------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | Q=l/min | 0 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1700 | 1900 | 2000 | 2500 | 3000 |
| KDN 80-160/147/127 | H (m) | 5.7 | 5.4 | 5.25 | 5.05 | 4.8 | 4.6 | 4.35 | 4.15 | 3.85 | 3.6 | 3.1 | 2.5 | 2.2 | | |
| KDN 80-160/153/136 | | 6.4 | 6.2 | 6.05 | 5.85 | 5.7 | 5.4 | 5.15 | 4.8 | 4.65 | 4.4 | 3.85 | 3.3 | 3 | | |
| KDN 80-160/153 | | 7.3 | 7.1 | 6.9 | 6.7 | 6.5 | 6.3 | 6 | 5.75 | 5.4 | 5.2 | 4.55 | 3.9 | 3.6 | | |
| KDN 80-160/161 | | 8.2 | 8 | 7.9 | 7.75 | 7.5 | 7.3 | 7.05 | 6.8 | 6.5 | 6.25 | 5.6 | 4.9 | 4.6 | | |
| KDN 80-160/169 | | 9.1 | 9 | 8.85 | 8.7 | 8.6 | 8.35 | 8.1 | 7.85 | 7.6 | 7.3 | 6.75 | 6 | 5.7 | | |
| KDN 80-160/177 | | 10 | 9.9 | 9.85 | 9.8 | 9.7 | 9.5 | 9.3 | 9.1 | 8.85 | 8.7 | 8.1 | 7.25 | 6.9 | | |
| KDN 80-200/170 | | 9.2 | 9.1 | 9 | 8.7 | 8.5 | 8.2 | 7.8 | 7.5 | 7.1 | 6.7 | 5.6 | | | | |
| KDN 80-200/180 | | 10.3 | 10.2 | 10.2 | 10 | 9.9 | 9.6 | 9.2 | 9 | 8.6 | 8.2 | 7.2 | | | | |
| KDN 80-200/190 | | 11.4 | 11.4 | 11.3 | 11.2 | 11.1 | 11 | 10.7 | 10.5 | 10.1 | 9.8 | 8.7 | 6.8 | | | |
| KDN 80-200/200 | | 12.7 | 12.6 | 12.6 | 12.6 | 12.5 | 12.4 | 12.3 | 12 | 11.6 | 11.4 | 10.5 | 9.4 | 8.8 | | |
| KDN 80-200/210 | | 14.1 | 14 | 14 | 14 | 13.9 | 13.8 | 13.7 | 13.6 | 13.3 | 13.1 | 12.1 | 11.2 | 10.6 | | |
| KDN 80-200/222 | | 15.9 | 15.9 | 15.8 | 15.7 | 15.6 | 15.6 | 15.5 | 15.4 | 15.3 | 15 | 14.3 | 13.4 | 12.8 | | |
| KDN 80-250/220 | | 16 | 15.9 | 15.8 | 15.7 | 15.6 | 15.5 | 15.2 | 14.9 | 14.5 | 13.9 | 12.8 | | | | |
| KDN 80-250/230 | | 17.3 | 17.3 | 17.2 | 17.1 | 17 | 16.9 | 16.8 | 16.5 | 16 | 15.5 | 14.3 | 12.4 | | | |
| KDN 80-250/240 | | 19 | 19 | 19 | 18.9 | 18.8 | 18.7 | 18.6 | 18.4 | 18 | 17.6 | 16.6 | 15.3 | 14.6 | | |
| KDN 80-250/250 | | 20.8 | 20.7 | 20.7 | 20.7 | 20.6 | 20.5 | 20.4 | 20.3 | 19.9 | 19.6 | 18.6 | 17.4 | 16.8 | | |
| KDN 80-250/260 | | 22.6 | 22.5 | 22.5 | 22.4 | 22.3 | 22.2 | 22.1 | 22 | 21.8 | 21.4 | 20.6 | 19.6 | 19 | 15.1 | |
| KDN 80-250/270 | | 24.5 | 24.4 | 24.4 | 24.4 | 24.3 | 24.2 | 24.1 | 24 | 23.7 | 23.3 | 22.4 | 21.4 | 20.7 | 16.3 | |
| KDN 80-315/275 | | 24.8 | | 24.8 | 24.8 | 24.7 | 24.6 | 24.5 | 24.4 | 24.3 | 24 | 23 | 21.4 | 20.5 | | |
| KDN 80-315/290 | | 27.8 | | 27.8 | 27.8 | 27.7 | 27.7 | 27.6 | 27.6 | 27.5 | 27.4 | 26.5 | 25 | 24.6 | 19.1 | |
| KDN 80-315/305 | | 31.4 | | 31.4 | 31.3 | 31.2 | 31.2 | 31.2 | 31.2 | 31.2 | 30.9 | 30 | 29 | 28.5 | 24 | |
| KDN 80-315/320 | | 34.8 | | 34.7 | 34.6 | 34.6 | 34.5 | 34.4 | 34.3 | 34 | 33.9 | 33.8 | 33.2 | 32.8 | 28.8 | |
| KDN 80-315/334 | | 38.3 | | 38.2 | 38.2 | 38.2 | 38.2 | 38.2 | 38.1 | 38 | 37.9 | 37.6 | 37 | 36.9 | 33.1 | 28 |

KDN - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 100

| MODEL | Q=m ³ /h | 0 | 60 | 66 | 72 | 78 | 84 | 90 | 102 | 114 | 120 | 150 | 180 | 210 | 240 |
|-----------------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | Q=l/min | 0 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1700 | 1900 | 2000 | 2500 | 3000 | 3500 | 4000 |
| KDN 100-200/180 | H (m) | 10.1 | 10.1 | 10.1 | 10 | 9.9 | 9.7 | 9.5 | 9.1 | 8.5 | 8.3 | 7 | 5.4 | | |
| KDN 100-200/190 | | 11.6 | 11.5 | 11.4 | 11.3 | 11.2 | 11.1 | 11 | 10.5 | 10.1 | 10 | 8.6 | 7 | | |
| KDN 100-200/200 | | 12.9 | 12.8 | 12.8 | 12.8 | 12.7 | 12.6 | 12.5 | 12.2 | 11.8 | 11.6 | 10.4 | 8.8 | | |
| KDN 100-200/210 | | 14.3 | 14.2 | 14.2 | 14.2 | 14.2 | 14.1 | 14 | 13.8 | 13.5 | 13.3 | 12.3 | 10.7 | 9 | |
| KDN 100-200/219 | | 16 | 15.7 | 15.7 | 15.6 | 15.6 | 15.5 | 15.5 | 15.3 | 15.1 | 15 | 14 | 12.5 | 10.8 | |
| KDN 100-250/220 | | 15.2 | 14.9 | 14.9 | 14.9 | 14.8 | 14.7 | 14.6 | 14.3 | 13.7 | 13.4 | 11.4 | | | |
| KDN 100-250/230 | | 16.9 | 16.7 | 16.7 | 16.6 | 16.5 | 16.4 | 16.3 | 16.1 | 15.7 | 15.3 | 13.6 | 11.1 | | |
| KDN 100-250/240 | | 18.5 | 18.3 | 18.3 | 18.3 | 18.2 | 18.1 | 18 | 17.9 | 17.6 | 17.4 | 15.7 | 13.3 | | |
| KDN 100-250/250 | | 20.1 | 20 | 20 | 19.9 | 19.8 | 19.7 | 19.6 | 19.5 | 19.4 | 19.2 | 17.6 | 15.4 | | |
| KDN 100-250/260 | | 22.3 | 22.1 | 22.1 | 22.1 | 22 | 21.9 | 21.8 | 21.7 | 21.5 | 21.4 | 19.8 | 17.7 | 15.1 | |
| KDN 100-250/270 | | 24.3 | 24.3 | 24.3 | 24.3 | 24.3 | 24.3 | 24.2 | 24.1 | 23.7 | 23.5 | 22.1 | 20.1 | 17.3 | |
| KDN 100-315/275 | | 25.1 | 25 | 25 | 25 | 24.9 | 24.8 | 24.7 | 24.6 | 24.4 | 24 | 22 | 19 | | |
| KDN 100-315/290 | | 28 | 27.9 | 27.9 | 27.9 | 27.9 | 27.8 | 27.7 | 27.6 | 27.5 | 27 | 25.5 | 23 | | |
| KDN 100-315/305 | | 31.3 | 31.1 | 31.1 | 31.1 | 31 | 30.9 | 30.8 | 30.7 | 30.6 | 30.5 | 29 | 27 | 24 | |
| KDN 100-315/320 | | 34.5 | 34.4 | 34.4 | 34.4 | 34.4 | 34.4 | 34.3 | 34.2 | 34.1 | 34 | 33 | 31 | 28.1 | |
| KDN 100-315/334 | | 38.2 | 38.2 | 38.1 | 38.1 | 38.1 | 38 | 38 | 37.7 | 37.5 | 37.3 | 36.5 | 34.8 | 32 | 28.8 |

SELECTION TABLE - KDN 125

| MODEL | Q=m ³ /h | 0 | 102 | 114 | 120 | 150 | 180 | 210 | 240 | 270 | 300 | 330 | 360 | 390 | 420 |
|-----------------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | Q=l/min | 0 | 1700 | 1900 | 2000 | 2500 | 3000 | 3500 | 4000 | 4500 | 5000 | 5500 | 6000 | 6500 | 7000 |
| KDN 125-250/220 | H (m) | 15 | 14.9 | 14.9 | 14.8 | 14.5 | 14 | 13 | 11.8 | 10.5 | 9.2 | | | | |
| KDN 125-250/230 | | 16.6 | 16.6 | 16.6 | 16.5 | 16.3 | 15.6 | 14.8 | 13.8 | 12.5 | 12.3 | 9.5 | | | |
| KDN 125-250/240 | | 18.2 | 18.1 | 18.1 | 18.1 | 18 | 17.7 | 16.8 | 15.8 | 14.5 | 13.3 | 11.6 | 10.1 | | |
| KDN 125-250/250 | | 19.9 | 19.8 | 19.8 | 19.7 | 19.6 | 19.4 | 18.7 | 17.8 | 16.6 | 15.5 | 14 | 12.3 | | |
| KDN 125-250/260 | | 21.7 | 21.7 | 21.6 | 21.5 | 21.4 | 21.3 | 20.6 | 19.9 | 18 | 17.7 | 16.3 | 14.6 | 13 | |
| KDN 125-250/269 | | 23.9 | 23.9 | 23.9 | 23.8 | 23.6 | 23.2 | 22.7 | 22.1 | 22.2 | 20.2 | 19 | 17.5 | 15.6 | 14 |

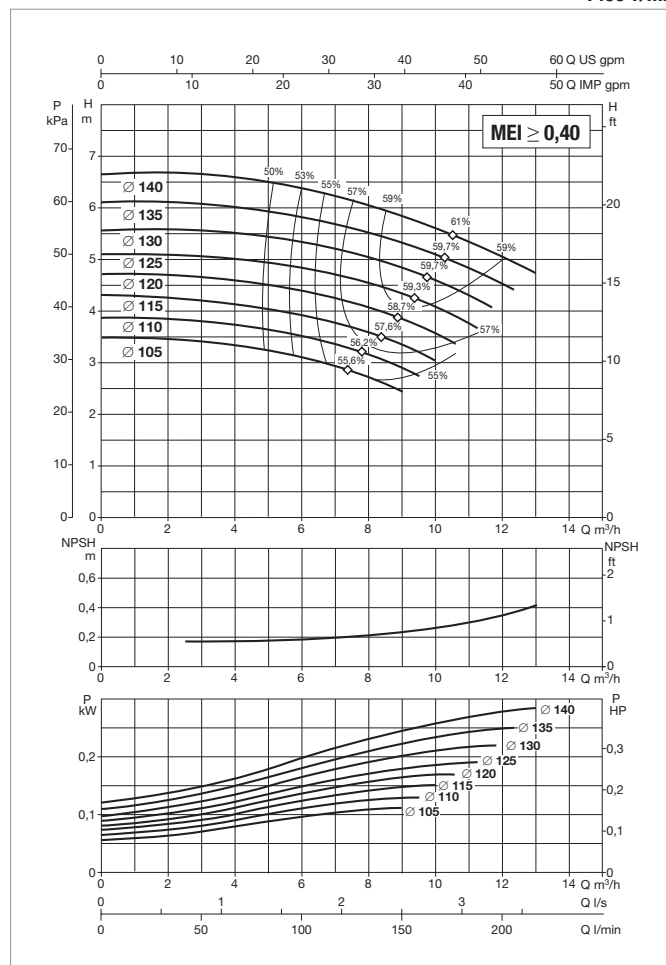
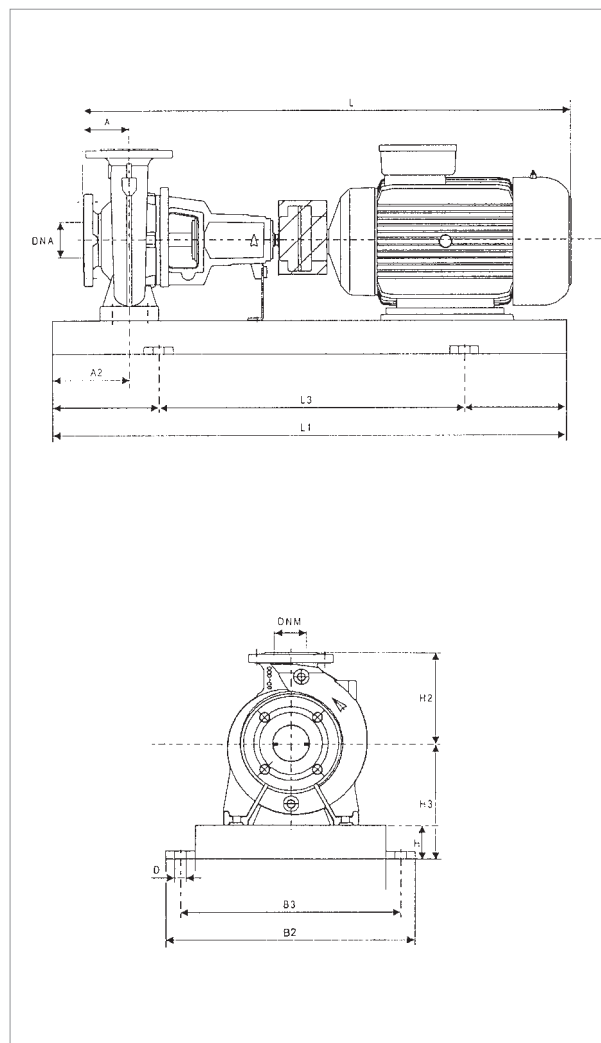
SELECTION TABLE - KDN 150

| MODEL | Q=m ³ /h | 0 | 102 | 114 | 120 | 150 | 180 | 210 | 240 | 270 | 300 | 330 | 360 | 390 | 420 |
|---------------------|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | Q=l/min | 0 | 1700 | 1900 | 2000 | 2500 | 3000 | 3500 | 4000 | 4500 | 5000 | 5500 | 6000 | 6500 | 7000 |
| KDN 150-200/210/170 | H (m) | 8.9 | 8.9 | 8.9 | 8.8 | 8.7 | 8.6 | 8.3 | 7.9 | 7.4 | 6.8 | 6.2 | 5.4 | 4.5 | |
| KDN 150-200/218/182 | | 10.4 | 10.4 | 10.4 | 10.3 | 10.2 | 9.9 | 9.5 | 9.1 | 8.6 | 8.1 | 7.4 | 6.6 | 5.8 | |
| KDN 150-200/218/200 | | 11.4 | 11.4 | 11.4 | 11.4 | 11.2 | 10.9 | 10.6 | 10.1 | 9.7 | 9.2 | 8.5 | 7.8 | 6.9 | 5.9 |
| KDN 150-200/218 | | 12.9 | 12.7 | 12.7 | 12.6 | 12.4 | 12.1 | 11.7 | 11.2 | 10.7 | 10.2 | 9.6 | 8.8 | 8 | 7.1 |
| KDN 150-200/224 | | 13.8 | 13.6 | 13.6 | 13.5 | 13.3 | 13 | 12.6 | 12.2 | 11.7 | 11.2 | 10.6 | 9.9 | 9.2 | 8.2 |

KDN 32-125.1 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | |
|--------------|-----------------|------------|-------------------|-----------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A |
| | 4 POLES | | | |
| KDN 32-125.1 | 0.37 | MEC 71 | 3 x 230 - 400 V ~ | 1.7/0.975 |
| | 0.55 | MEC 80 | 3 x 230 - 400 V ~ | 2.6/1.5 |

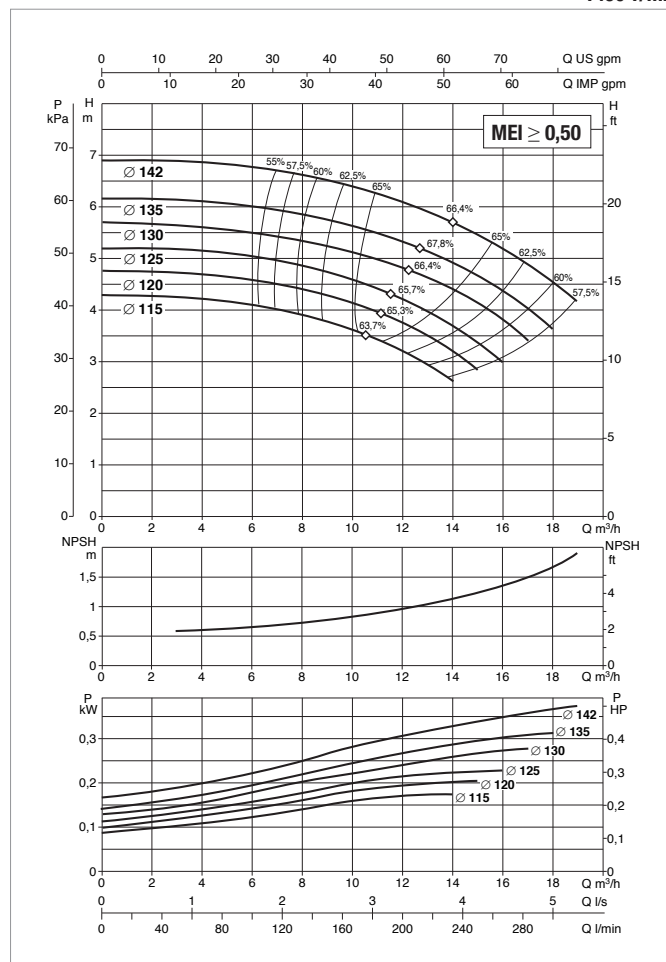
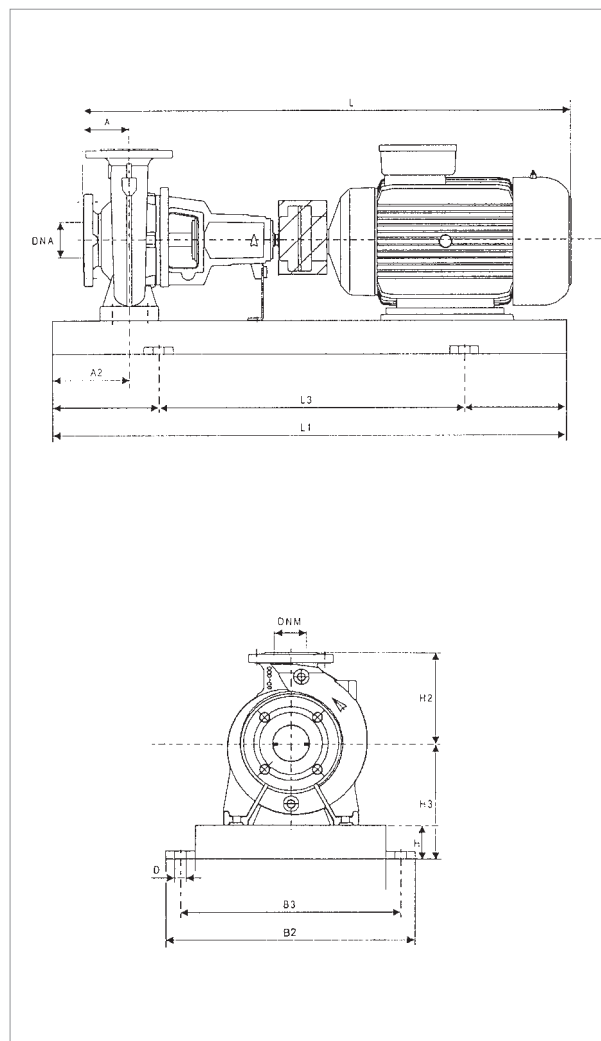
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | SPACER COUPLING | | REF. |
|--------------|------------|----------------------|----|-----|----|-----|-----|-----|-----|-----|----|------------------------|-----|-------------------|-----------|-----------------|-----------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 32-125.1 | 0.37 | 80 | 60 | 140 | 65 | 177 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | 730 | 81 | 830 | 86 | 2 |
| | 0.55 | 80 | 60 | 140 | 65 | 177 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | 730 | 83 | 830 | 88 | 2 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 32-125 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|-----------|-----------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | — | IE2 | |
| KDN 32-125 | 0.37 | MEC 71 | 3 x 230 - 400 V ~ | 1.7/0.975 | — | — |
| | 0.55 | MEC 80 | 3 x 230 - 400 V ~ | 2.6/1.5 | — | — |
| | 0.75 | MEC 80 | 3 x 230 - 400 V ~ | — | 3.57/2.06 | IE2 |

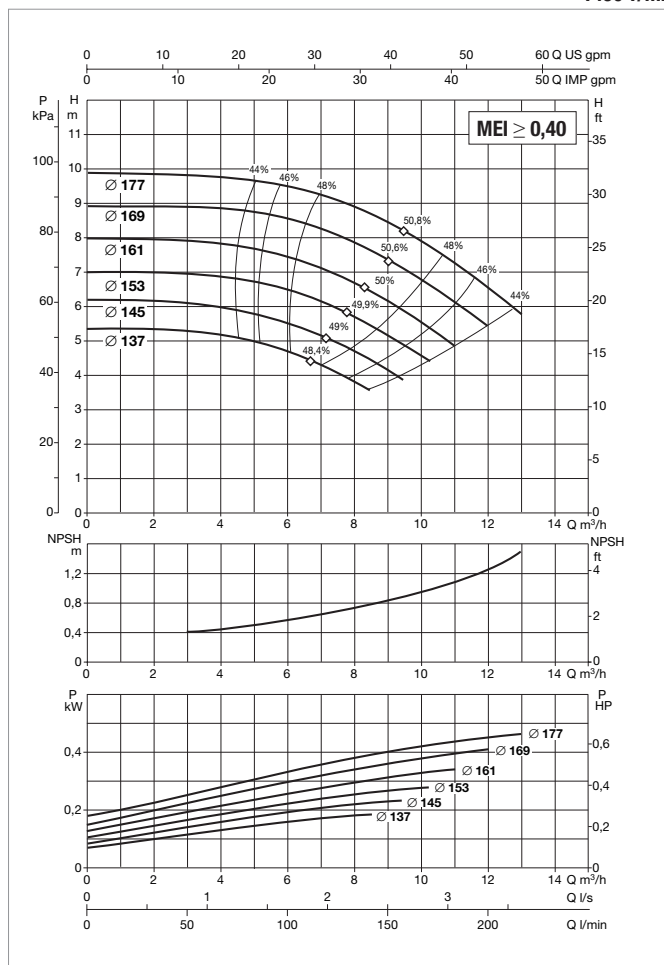
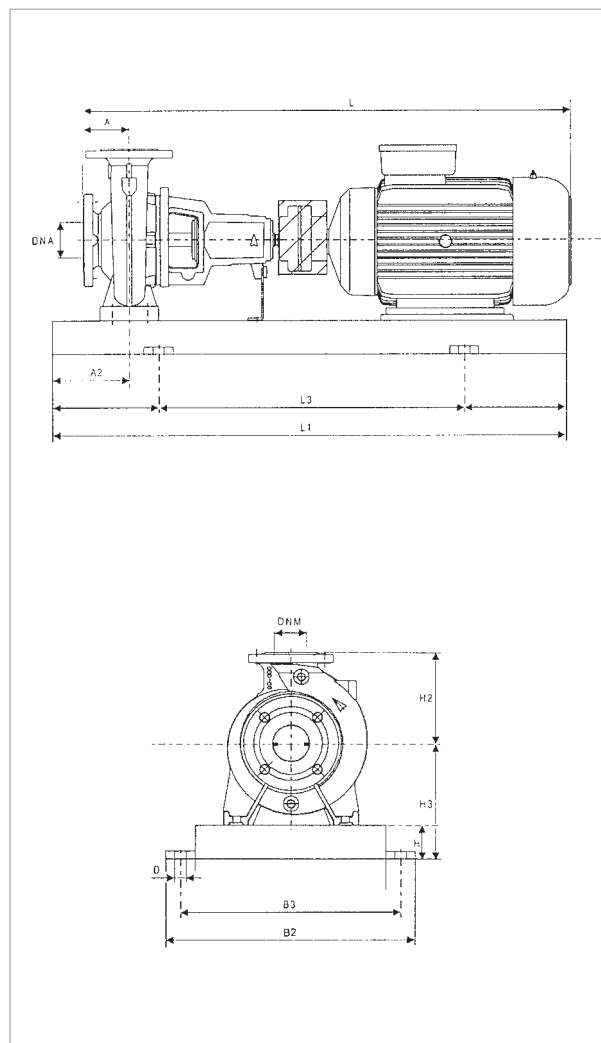
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|-----|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | — | | IE2 | | — | | IE2 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| | | | | | | | | | | | | | | | | | | | | | | |
| KDN 32-125 | 0.37 | 80 | 60 | 140 | 65 | 177 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | 730 | 81 | — | — | 830 | 86 | — | — | 2 |
| | 0.55 | 80 | 60 | 140 | 65 | 177 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | 730 | 83 | — | — | 830 | 88 | — | — | 2 |
| | 0.75 | 80 | 60 | 140 | 65 | 177 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | — | — | 730 | 84 | — | — | 830 | 89 | 2 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 32-160.1 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40 °C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|--------------|-----------------|------------|-------------------|-----------|-----------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | — | IE2 | |
| KDN 32-160.1 | 0.37 | MEC 71 | 3 x 230 - 400 V ~ | 1.7/0.975 | — | — |
| | 0.55 | MEC 80 | 3 x 230 - 400 V ~ | 2.6/1.5 | — | — |
| | 0.75 | MEC 80 | 3 x 230 - 400 V ~ | — | 3.57/2.07 | IE2 |

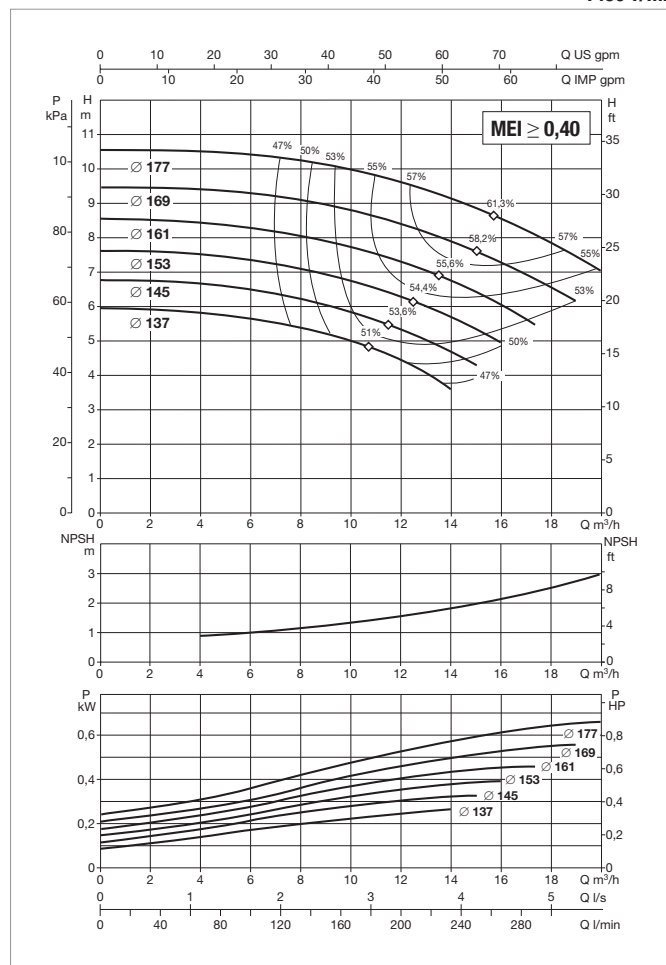
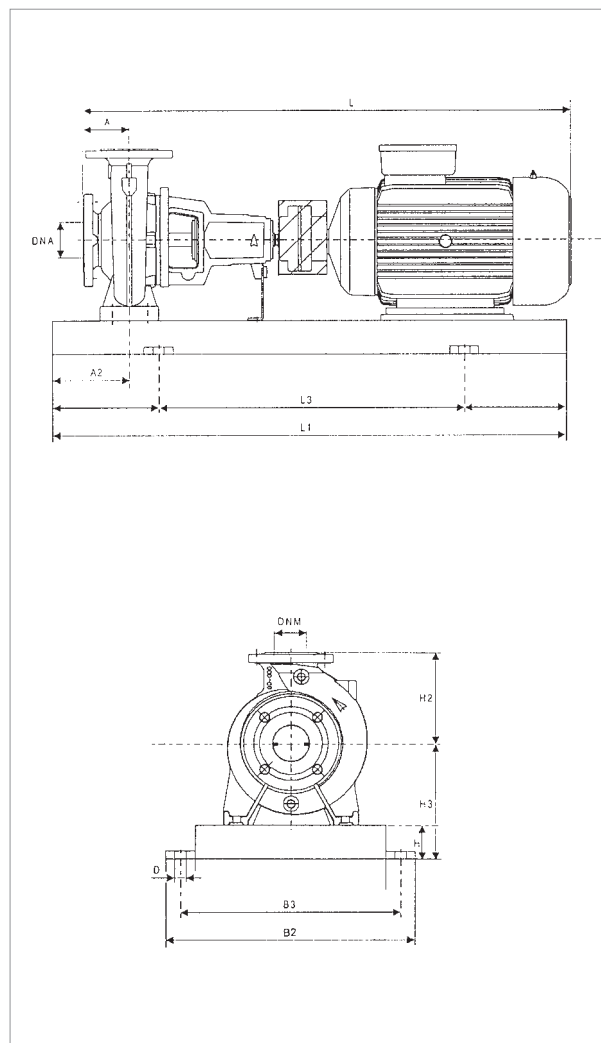
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|--------------|---------------|----------------------|----|-----|----|-----|-----|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | — | | IE2 | | — | | IE2 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 32-160.1 | 0.37 | 80 | 60 | 160 | 65 | 197 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | 730 | 83 | — | — | 830 | 88 | — | — | 2 |
| | 0.55 | 80 | 60 | 160 | 65 | 197 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | 730 | 86 | — | — | 830 | 91 | — | — | 2 |
| | 0.75 | 80 | 60 | 160 | 65 | 197 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | — | — | 730 | 86 | — | — | 830 | 91 | 2 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 32-160 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|-----------|-----------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | – | IE2 | |
| KDN 32-160 | 0.37 | MEC 71 | 3 x 230 - 400 V ~ | 1.7/0.975 | – | – |
| | 0.55 | MEC 80 | 3 x 230 - 400 V ~ | 2.6/1.5 | – | – |
| | 0.75 | MEC 80 | 3 x 230 - 400 V ~ | – | 3.57/2.07 | IE2 |
| | 1.1 | MEC 90S | 3 x 230 - 400 V ~ | – | 4.68/2.7 | IE2 |

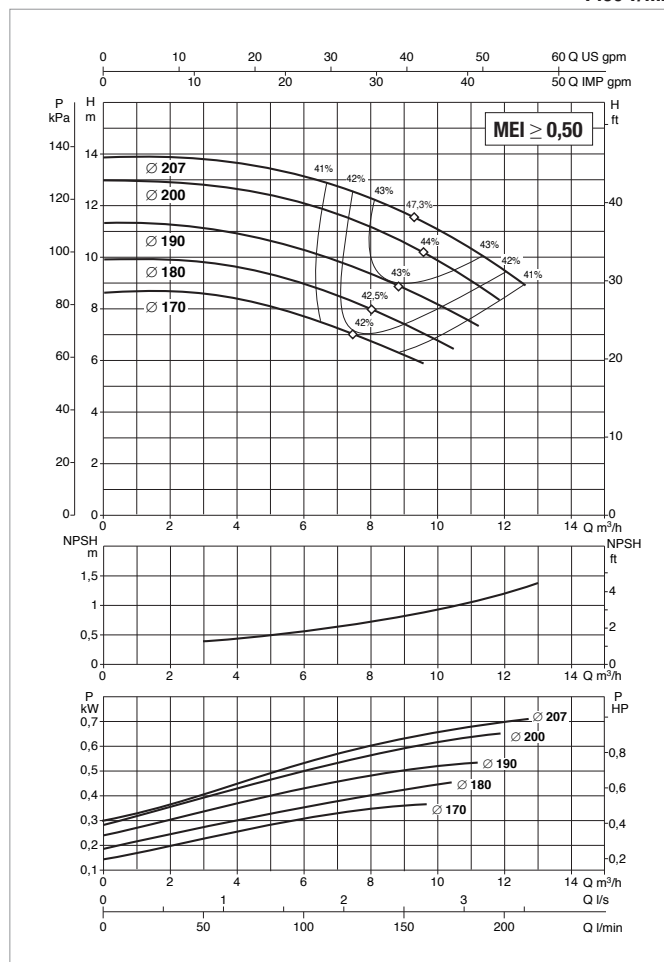
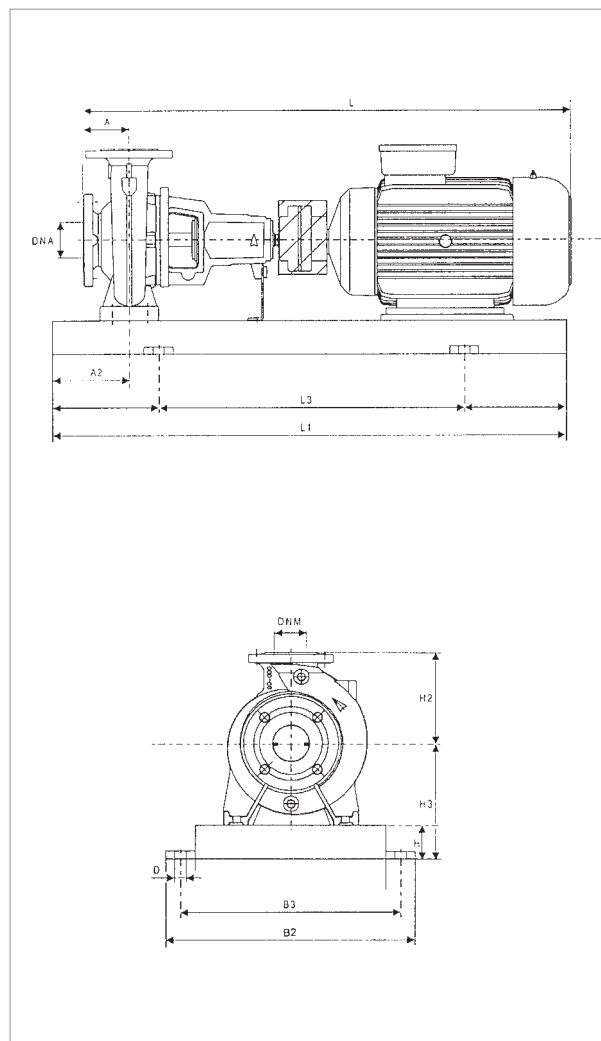
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|-----|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | — | | IE2 | | — | | IE2 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| | | | | | | | | | | | | | | | | | | | | | | |
| KDN 32-160 | 0.37 | 80 | 60 | 160 | 65 | 197 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | 730 | 83 | — | — | 830 | 88 | — | — | 2 |
| | 0.55 | 80 | 60 | 160 | 65 | 197 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | 730 | 85 | — | — | 830 | 90 | — | — | 2 |
| | 0.75 | 80 | 60 | 160 | 65 | 197 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | — | — | 730 | 86 | — | — | 830 | 91 | 2 |
| | 1.1 | 80 | 60 | 160 | 65 | 197 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | — | — | 790 | 88 | — | — | 890 | 93 | 2 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 32-200.1 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40 °C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|--------------|-----------------|------------|-------------------|-----------|-----------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | — | IE2 | |
| KDN 32-200.1 | 0.37 | MEC 71 | 3 x 230 - 400 V ~ | 1.7/0.975 | — | — |
| | 0.55 | MEC 80 | 3 x 230 - 400 V ~ | 2.6/1.5 | — | — |
| | 0.75 | MEC 80 | 3 x 230 - 400 V ~ | — | 3.57/2.09 | IE2 |
| | 1.1 | MEC 90S | 3 x 230 - 400 V ~ | — | 4.68/2.7 | IE2 |

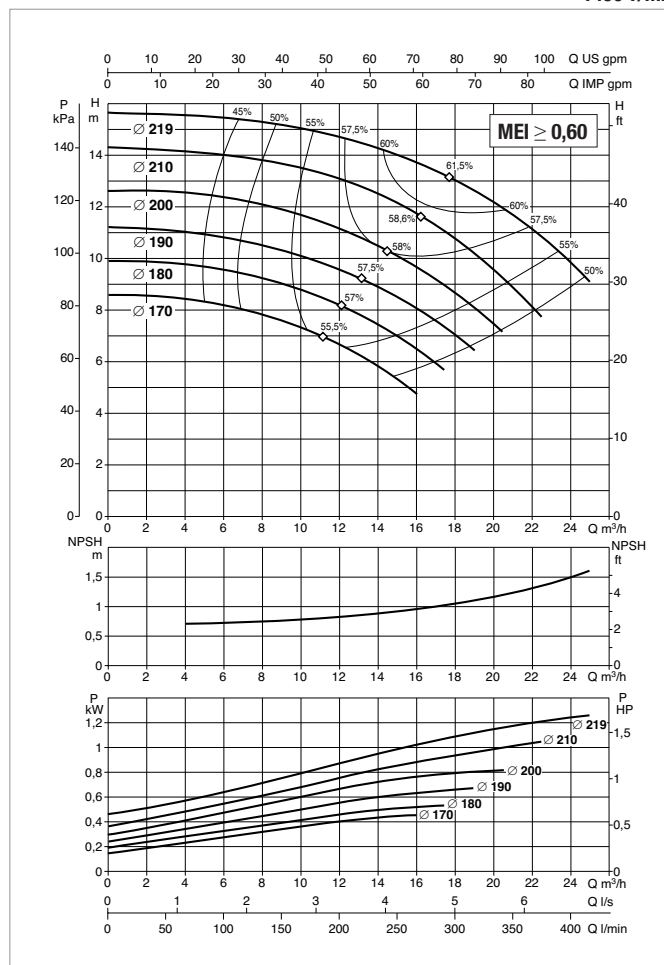
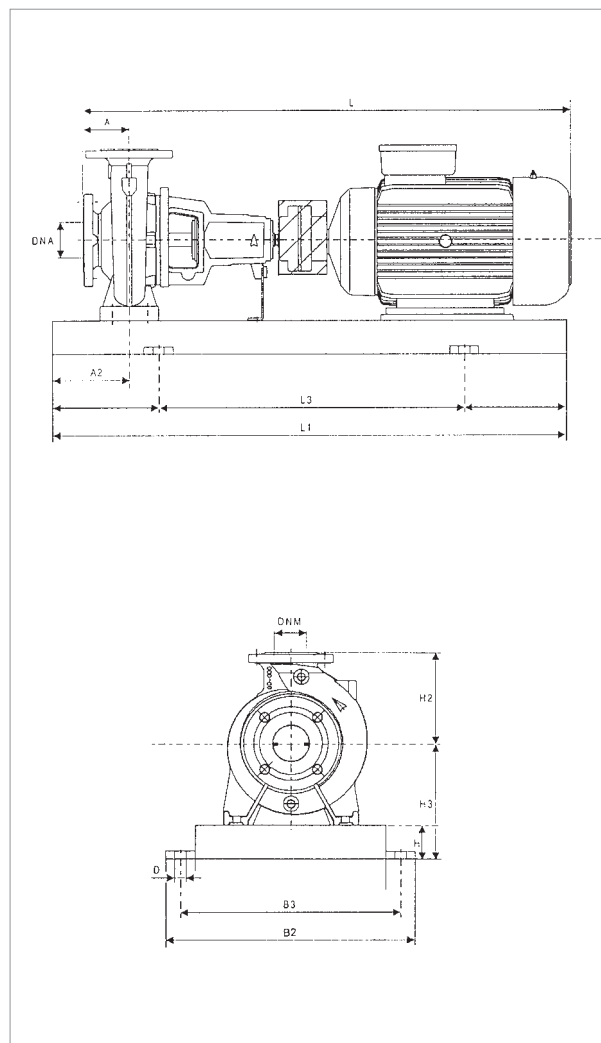
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|--------------|---------------|----------------------|----|-----|----|-----|-----|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | — | | IE2 | | — | | IE2 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 32-200.1 | 0.37 | 80 | 60 | 180 | 65 | 225 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | 730 | 87 | — | — | 830 | 92 | — | — | 2 |
| | 0.55 | 80 | 60 | 180 | 65 | 225 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | 730 | 89 | — | — | 830 | 94 | — | — | 2 |
| | 0.75 | 80 | 60 | 180 | 65 | 225 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | — | — | 730 | 101 | — | — | 830 | 106 | 2 |
| | 1.1 | 80 | 60 | 180 | 65 | 225 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | — | — | 790 | 106 | — | — | 890 | 111 | 2 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 32-200 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|-----------|-----------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | – | IE2 | |
| KDN 32-200 | 0.37 | MEC 71 | 3 x 230 - 400 V ~ | 1.7/0.975 | – | – |
| | 0.55 | MEC 80 | 3 x 230 - 400 V ~ | 2.6/1.5 | – | – |
| | 0.75 | MEC 80 | 3 x 230 - 400 V ~ | – | 3.57/2.08 | IE2 |
| | 1.1 | MEC 90S | 3 x 230 - 400 V ~ | – | 4.68/2.8 | IE2 |
| | 1.5 | MEC 90L | 3 x 230 - 400 V ~ | – | 6.24/3.6 | IE2 |
| | 2.2 | MEC 100L | 3 x 230 - 400 V ~ | – | 8.75/5.05 | IE2 |

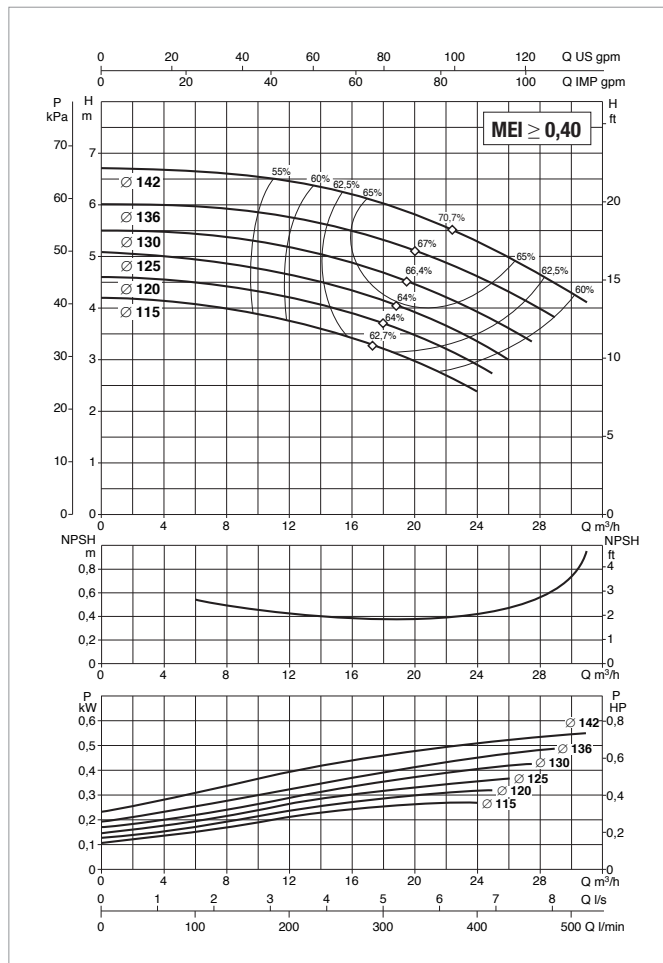
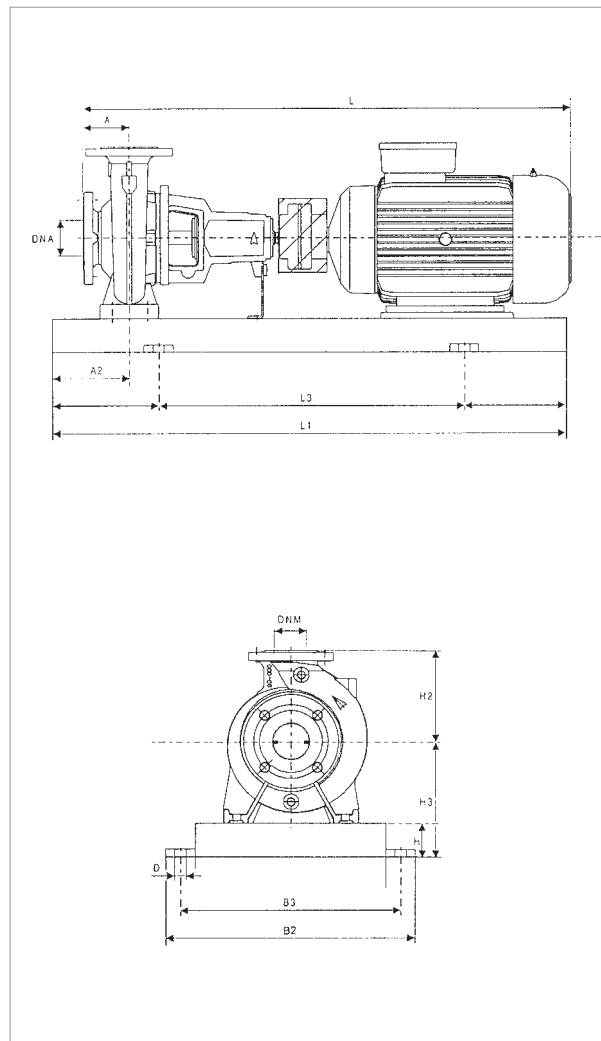
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|-----|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | — | | IE2 | | — | | IE2 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 32-200 | 0.37 | 80 | 60 | 180 | 65 | 225 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | 730 | 87 | — | — | 830 | 92 | — | — | 2 |
| | 0.55 | 80 | 60 | 180 | 65 | 225 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | 730 | 89 | — | — | 830 | 94 | — | — | 2 |
| | 0.75 | 80 | 60 | 180 | 65 | 225 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | — | — | 730 | 90 | — | — | 830 | 95 | 2 |
| | 1.1 | 80 | 60 | 180 | 65 | 225 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | — | — | 790 | 101 | — | — | 890 | 106 | 2 |
| | 1.5 | 80 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 50 | 32 | — | — | 830 | 101 | — | — | 930 | 106 | 3 |
| | 2.2 | 80 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 50 | 32 | — | — | 830 | 102 | — | — | 930 | 107 | 3 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 40-125 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|-----------|-----------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | — | IE2 | |
| KDN 40-125 | 0.37 | MEC 71 | 3 x 230 - 400 V ~ | 1.7/0.975 | — | — |
| | 0.55 | MEC 80 | 3 x 230 - 400 V ~ | 2.6/1.5 | — | — |
| | 0.75 | MEC 80 | 3 x 230 - 400 V ~ | — | 3.57/2.10 | IE2 |
| | 1.1 | MEC 90S | 3 x 230 - 400 V ~ | — | 4.68/2.9 | IE2 |

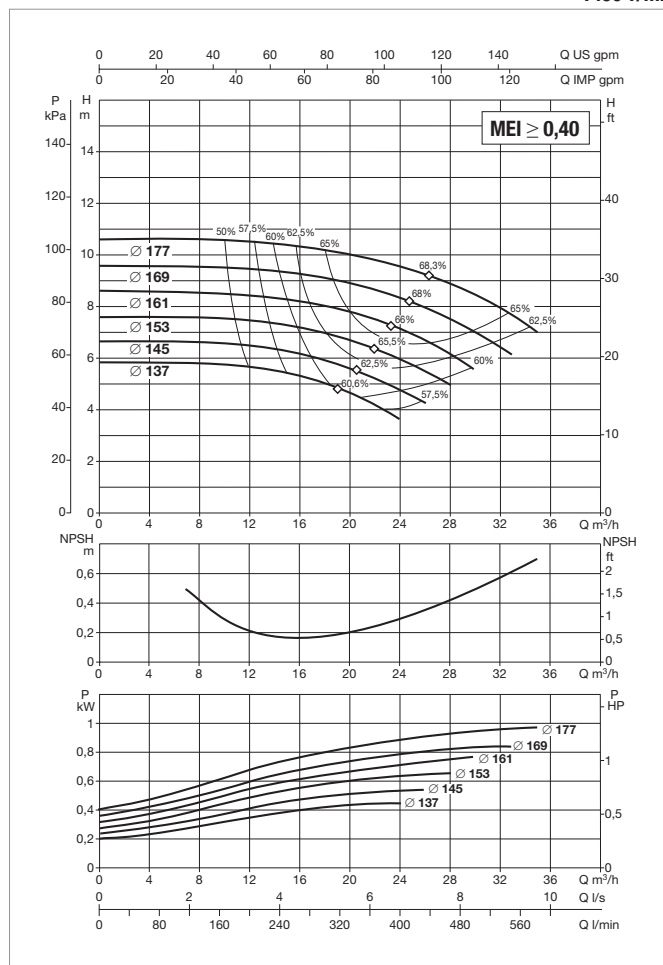
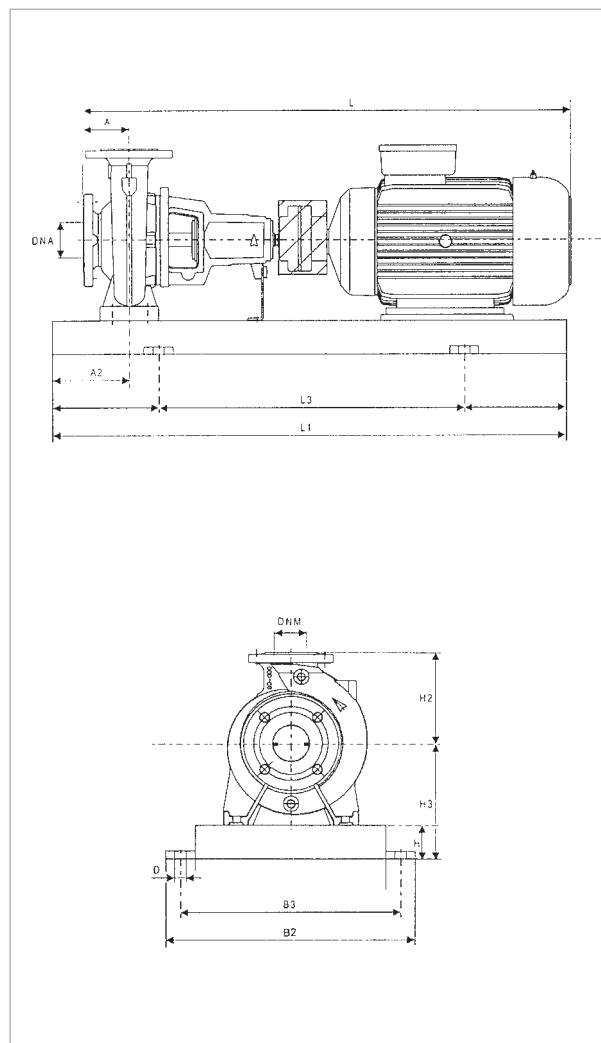
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|-----|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | — | | IE2 | | — | | IE2 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 40-125 | 0.37 | 80 | 60 | 140 | 65 | 177 | 800 | 540 | 360 | 320 | 19 | 65 | 40 | 730 | 81 | — | — | 830 | 86 | — | — | 2 |
| | 0.55 | 80 | 60 | 140 | 65 | 177 | 800 | 540 | 360 | 320 | 19 | 65 | 40 | 730 | 83 | — | — | 830 | 88 | — | — | 2 |
| | 0.75 | 80 | 60 | 140 | 65 | 177 | 800 | 540 | 360 | 320 | 19 | 65 | 40 | — | — | 730 | 84 | — | — | 830 | 89 | 2 |
| | 1.1 | 80 | 60 | 140 | 65 | 177 | 800 | 540 | 360 | 320 | 19 | 65 | 40 | — | — | 790 | 86 | — | — | 890 | 81 | 3 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 40-160 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|-----------|-----------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | — | IE2 | |
| KDN 40-160 | 0.37 | MEC 71 | 3 x 230 - 400 V ~ | 1.7/0.975 | — | — |
| | 0.55 | MEC 80 | 3 x 230 - 400 V ~ | 2.6/1.5 | — | — |
| | 0.75 | MEC 80 | 3 x 230 - 400 V ~ | — | 3.57/2.11 | IE2 |
| | 1.1 | MEC 90S | 3 x 230 - 400 V ~ | — | 4.68/2.10 | IE2 |
| | 1.5 | MEC 90L | 3 x 230 - 400 V ~ | — | 6.24/3.7 | IE2 |

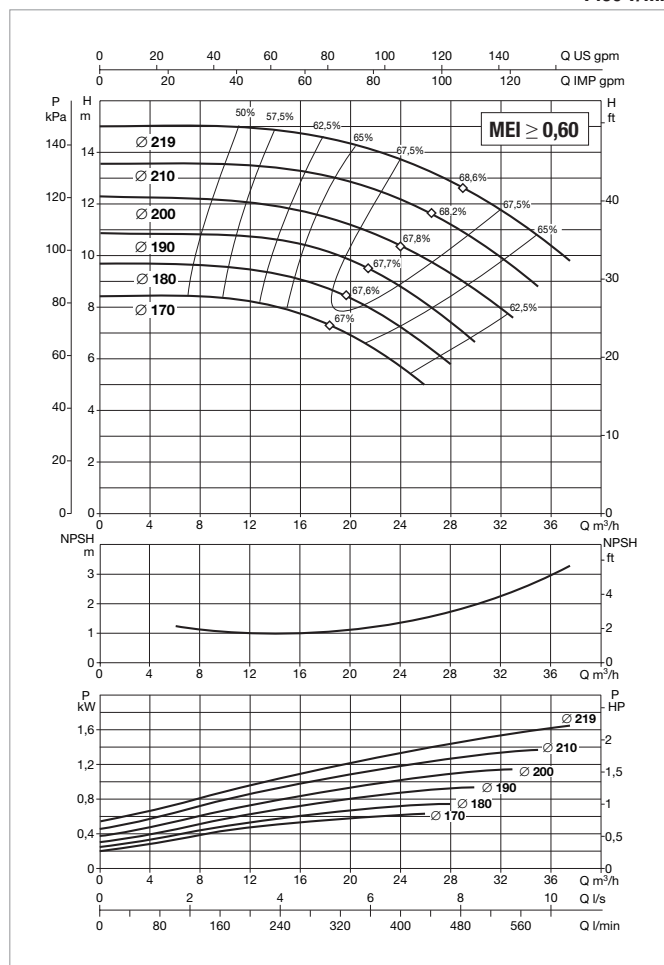
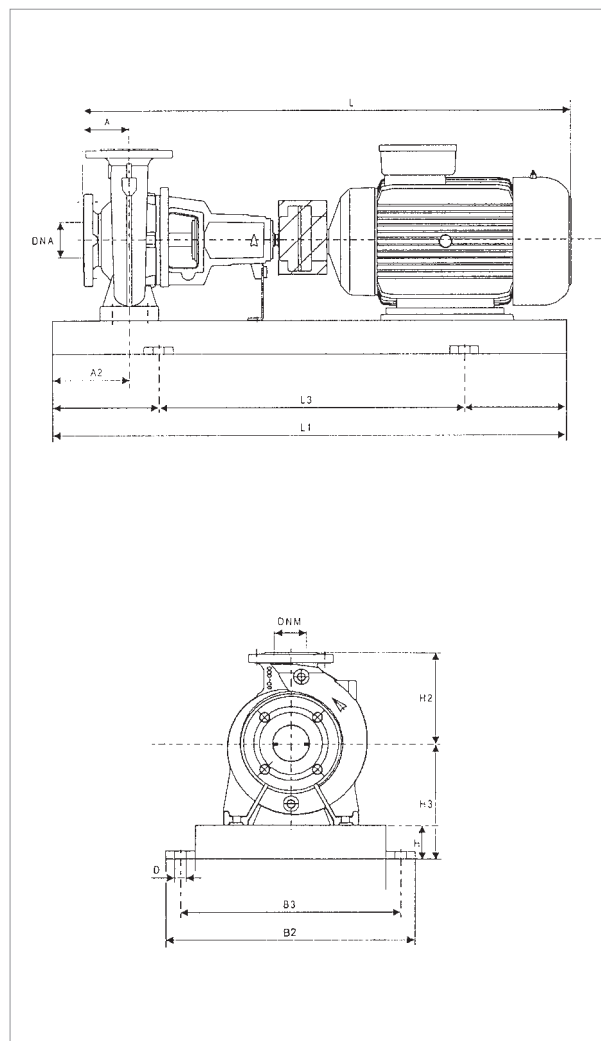
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|-----|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | — | | IE2 | | — | | IE2 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 40-160 | 0.37 | 80 | 60 | 160 | 65 | 197 | 800 | 540 | 360 | 320 | 19 | 65 | 40 | 730 | 85 | — | — | 830 | 90 | — | — | 2 |
| | 0.55 | 80 | 60 | 160 | 65 | 197 | 800 | 540 | 360 | 320 | 19 | 65 | 40 | 730 | 89 | — | — | 830 | 94 | — | — | 2 |
| | 0.75 | 80 | 60 | 160 | 65 | 197 | 800 | 540 | 360 | 320 | 19 | 65 | 40 | — | — | 730 | 89 | — | — | 830 | 94 | 2 |
| | 1.1 | 80 | 60 | 160 | 65 | 197 | 800 | 540 | 360 | 320 | 19 | 65 | 40 | — | — | 790 | 91 | — | — | 890 | 96 | 2 |
| | 1.5 | 80 | 60 | 160 | 65 | 197 | 900 | 600 | 390 | 350 | 19 | 65 | 40 | — | — | 830 | 101 | — | — | 930 | 106 | 3 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 40-200 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40 °C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|---------|-----------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | — | IE2 | |
| KDN 40-200 | 0.55 | MEC 80 | 3 x 230 - 400 V ~ | 2.6/1.5 | — | — |
| | 0.75 | MEC 80 | 3 x 230 - 400 V ~ | — | 3.57/2.12 | IE2 |
| | 1.1 | MEC 90S | 3 x 230 - 400 V ~ | — | 4.68/2.11 | IE2 |
| | 1.5 | MEC 90L | 3 x 230 - 400 V ~ | — | 6.24/3.8 | IE2 |
| | 2.2 | MEC 100L | 3 x 230 - 400 V ~ | — | 8.75/5.06 | IE2 |
| | 3 | MEC 100L | 3 x 400 V ~ Δ | — | 6.25 | IE2 |

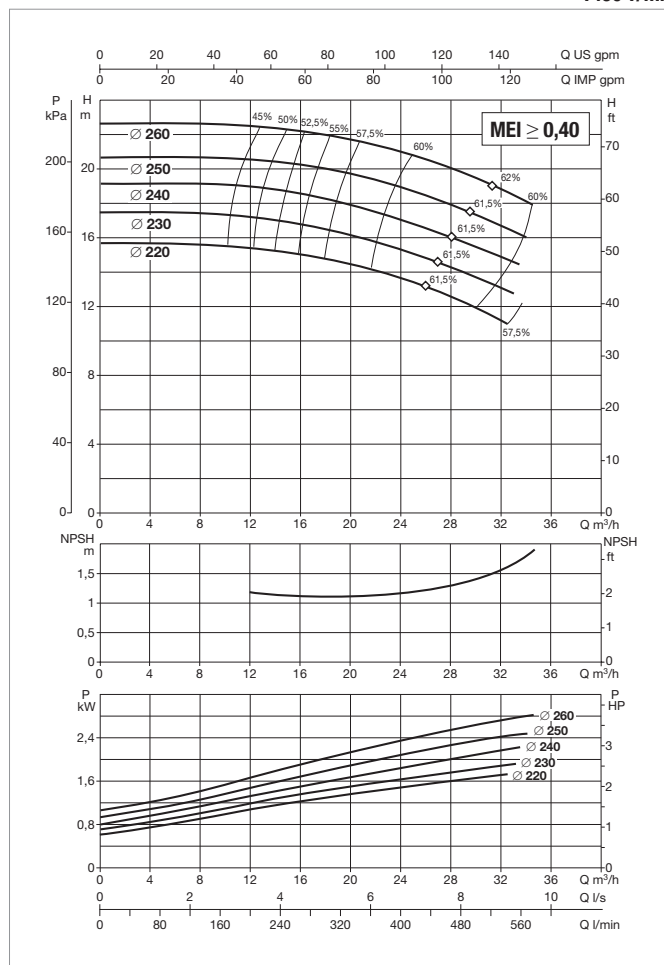
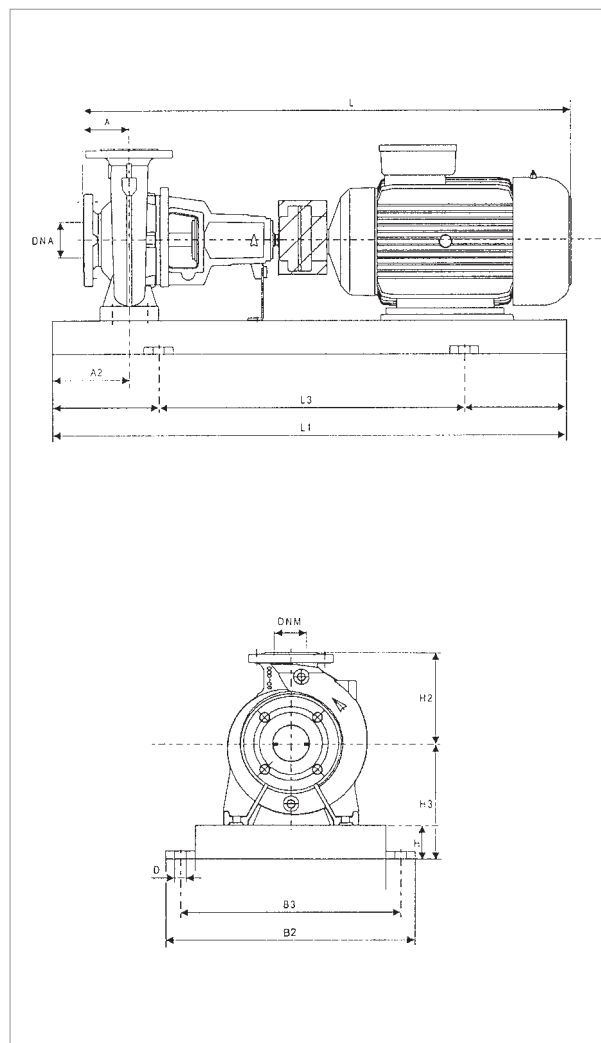
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|-----|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | — | | IE2 | | — | | IE2 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 40-200 | 0.55 | 100 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 65 | 40 | 750 | 98 | — | — | 850 | 103 | — | — | 3 |
| | 0.75 | 100 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 65 | 40 | — | — | 750 | 98 | — | — | 850 | 103 | 3 |
| | 1.1 | 100 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 65 | 40 | — | — | 810 | 101 | — | — | 910 | 106 | 3 |
| | 1.5 | 100 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 65 | 40 | — | — | 850 | 105 | — | — | 950 | 110 | 3 |
| | 2.2 | 100 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 65 | 40 | — | — | 850 | 111 | — | — | 950 | 116 | 3 |
| | 3 | 100 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 65 | 40 | — | — | 850 | 118 | — | — | 950 | 123 | 3 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 40-250 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|-----------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 40-250 | 1.5 | MEC 90L | 3 x 230 - 400 V ~ | 6.24/3.9 | — | IE2 |
| | 2.2 | MEC 100L | 3 x 230 - 400 V ~ | 8.75/5.07 | — | IE2 |
| | 3 | MEC 100L | 3 x 400 V ~ Δ | 6.25 | — | IE2 |
| | 4 | MEC 112M | 3 x 400 V ~ Δ | 7.95 | — | IE2 |

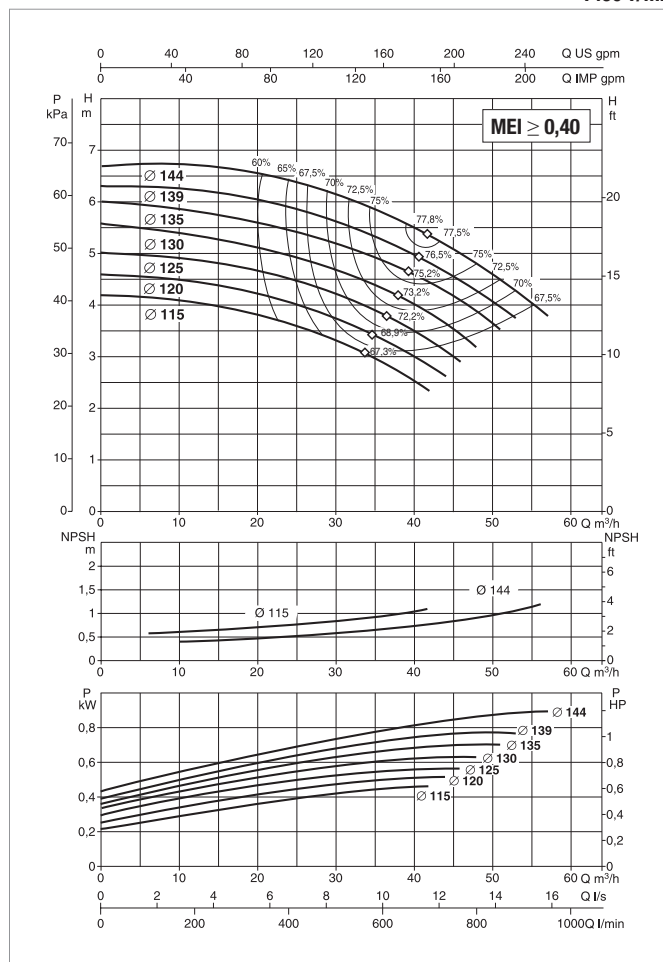
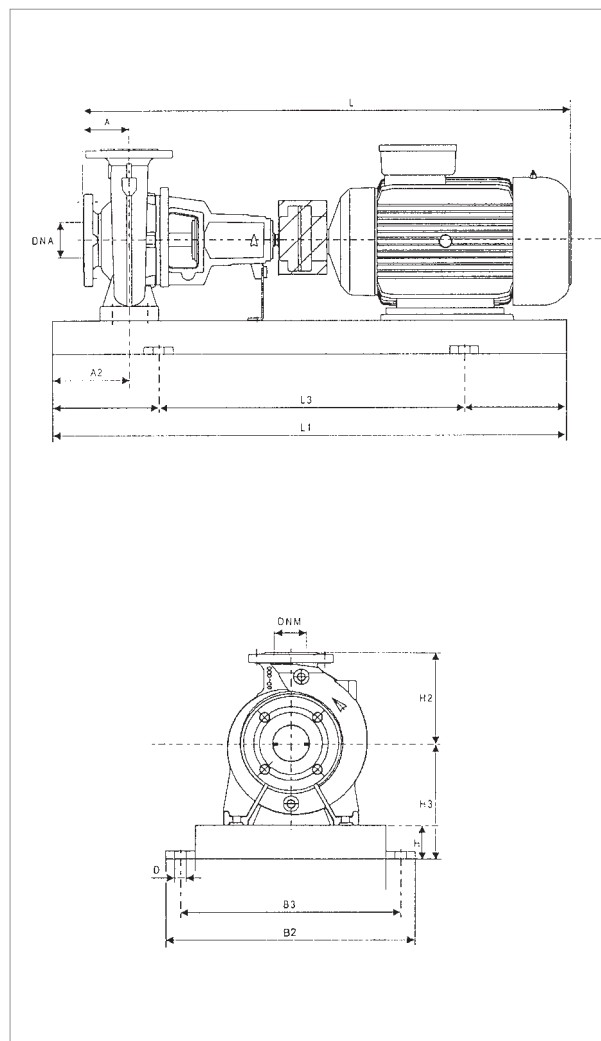
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 40-250 | 1.5 | 100 | 75 | 225 | 80 | 260 | 1000 | 660 | 450 | 400 | 24 | 65 | 40 | 850 | 125 | – | – | 950 | 130 | – | – | 4 |
| | 2.2 | 100 | 75 | 225 | 80 | 260 | 1000 | 660 | 450 | 400 | 24 | 65 | 40 | 850 | 129 | – | – | 950 | 134 | – | – | 4 |
| | 3 | 100 | 75 | 225 | 80 | 260 | 1000 | 660 | 450 | 400 | 24 | 65 | 40 | 850 | 149 | – | – | 950 | 154 | – | – | 4 |
| | 4 | 100 | 75 | 225 | 80 | 260 | 1000 | 660 | 450 | 400 | 24 | 65 | 40 | 935 | 200 | – | – | 1035 | 205 | – | – | 4 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 50-125 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|-----------|-----------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | — | IE2 | |
| KDN 50-125 | 0.37 | MEC 71 | 3 x 230 - 400 V ~ | 1.7/0.975 | — | — |
| | 0.55 | MEC 80 | 3 x 230 - 400 V ~ | 2.6/1.5 | — | — |
| | 0.75 | MEC 80 | 3 x 230 - 400 V ~ | — | 3.57/2.13 | IE2 |
| | 1.1 | MEC 90S | 3 x 230 - 400 V ~ | — | 4.68/2.12 | IE2 |
| | 1.5 | MEC 90L | 3 x 230 - 400 V ~ | — | 6.24/3.10 | IE2 |

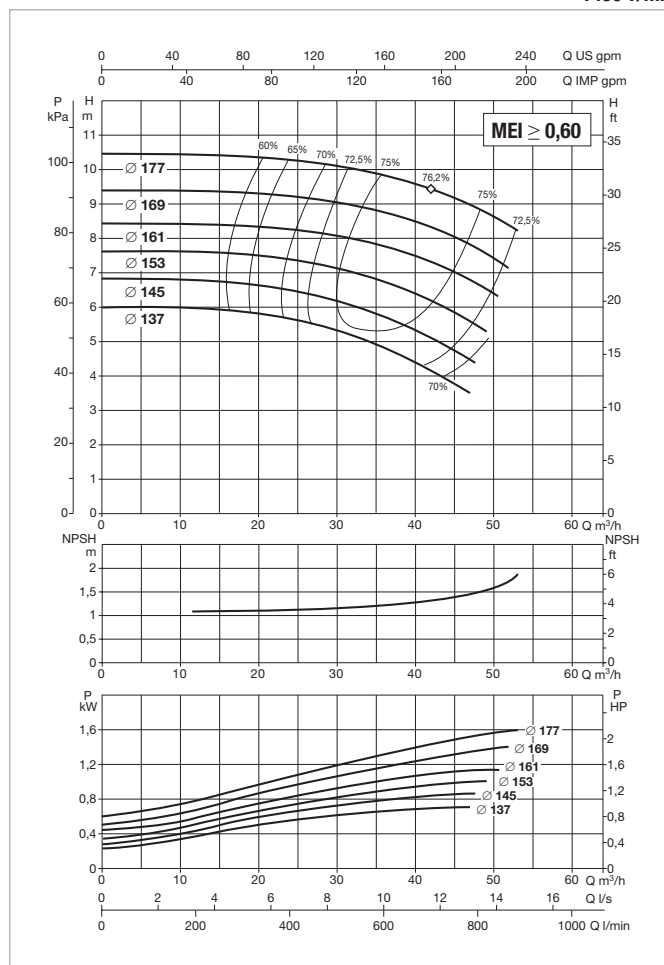
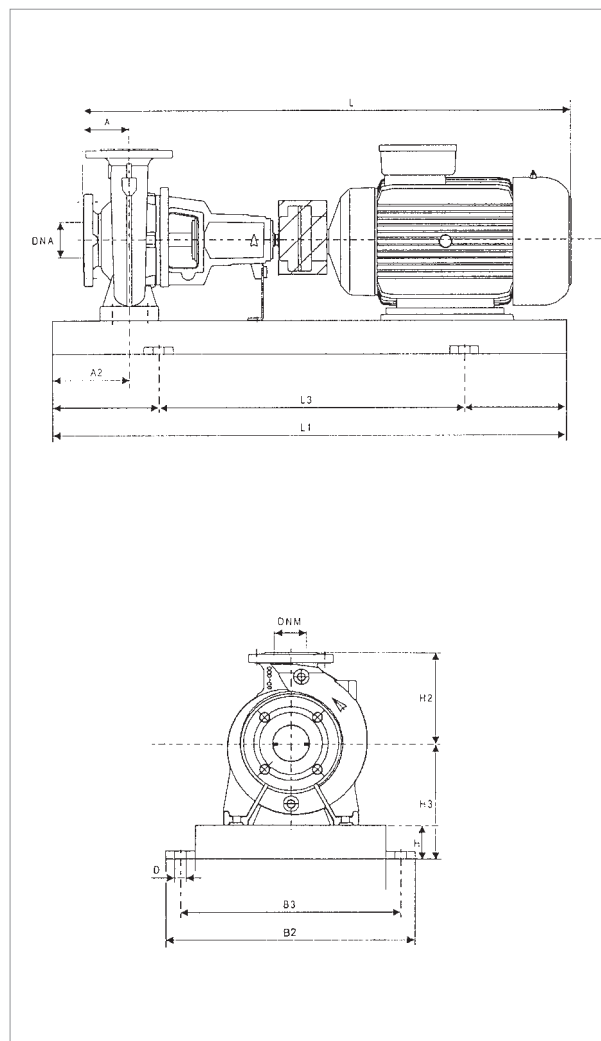
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|-----|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | — | | IE2 | | — | | IE2 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 50-125 | 0.37 | 100 | 60 | 160 | 65 | 197 | 800 | 540 | 360 | 320 | 19 | 65 | 50 | 750 | 87 | — | — | 850 | 92 | — | — | 2 |
| | 0.55 | 100 | 60 | 160 | 65 | 197 | 800 | 540 | 360 | 320 | 19 | 65 | 50 | 750 | 90 | — | — | 850 | 95 | — | — | 2 |
| | 0.75 | 100 | 60 | 160 | 65 | 197 | 800 | 540 | 360 | 320 | 19 | 65 | 50 | — | — | 750 | 91 | — | — | 850 | 96 | 2 |
| | 1.1 | 100 | 60 | 160 | 65 | 197 | 800 | 540 | 360 | 320 | 19 | 65 | 50 | — | — | 810 | 93 | — | — | 910 | 98 | 2 |
| | 1.5 | 100 | 60 | 160 | 65 | 197 | 900 | 600 | 390 | 350 | 19 | 65 | 50 | — | — | 850 | 101 | — | — | 950 | 106 | 3 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 50-160 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|---------|-----------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | — | IE2 | |
| KDN 50-160 | 0.55 | MEC 80 | 3 x 230 - 400 V ~ | 2.6/1.5 | — | — |
| | 0.75 | MEC 80 | 3 x 230 - 400 V ~ | — | 3.57/2.14 | IE2 |
| | 1.1 | MEC 90S | 3 x 230 - 400 V ~ | — | 4.68/2.13 | IE2 |
| | 1.5 | MEC 90L | 3 x 230 - 400 V ~ | — | 6.24/3.11 | IE2 |
| | 2.2 | MEC 100L | 3 x 230 - 400 V ~ | — | 8.75/5.08 | IE2 |
| | 3 | MEC 100L | 3 x 400 V ~ Δ | — | 6.25 | IE2 |

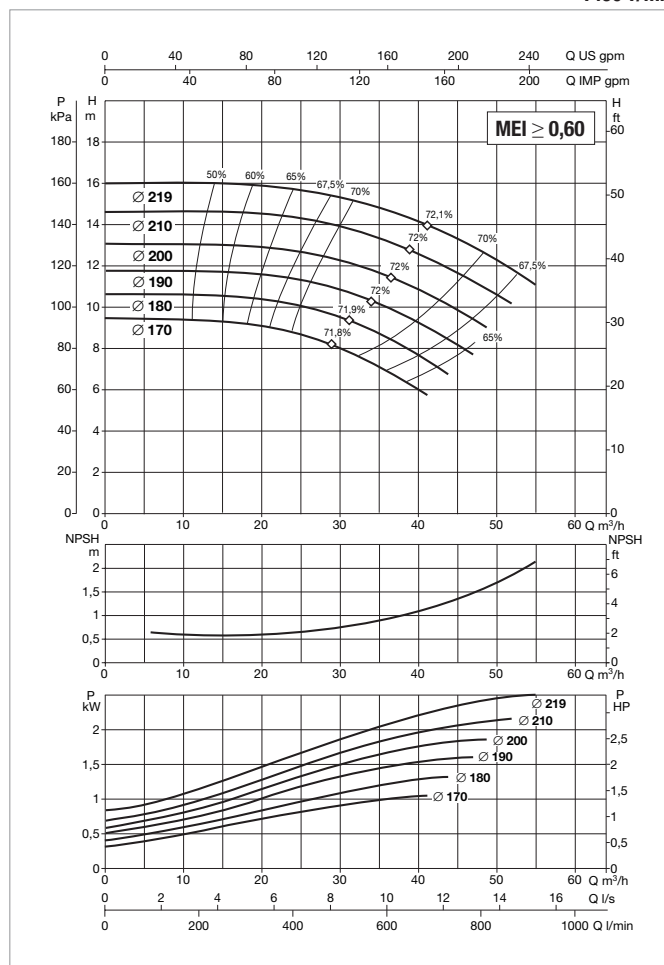
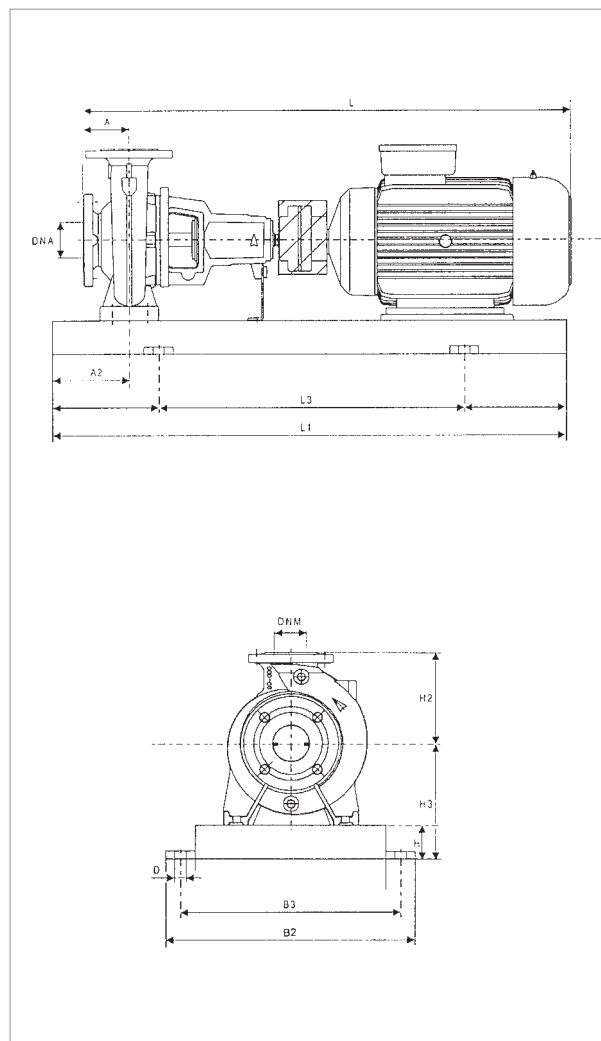
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REMARKS |
|------------|------------|----------------------|----|-----|----|-----|-----|-----|-----|-----|----|-----|------------------------|-----|-------------------|-----|-----------|-----|-----------------|-----|-----------|---|---------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | — | | IE2 | | — | | IE2 | | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | | |
| KDN 50-160 | 0.55 | 100 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 65 | 50 | 750 | 97 | — | — | 850 | 102 | — | — | 3 | |
| | 0.75 | 100 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 65 | 50 | — | — | 750 | 98 | — | — | 850 | 103 | 3 | |
| | 1.1 | 100 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 65 | 50 | — | — | 810 | 100 | — | — | 910 | 105 | 3 | |
| | 1.5 | 100 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 65 | 50 | — | — | 850 | 103 | — | — | 950 | 108 | 3 | |
| | 2.2 | 100 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 65 | 50 | — | — | 850 | 107 | — | — | 950 | 112 | 3 | |
| | 3 | 100 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 65 | 50 | — | — | 850 | 110 | — | — | 950 | 115 | 3 | |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 50-200 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|-----------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 50-200 | 0.75 | MEC 80 | 3 x 230 - 400 V ~ | 3.57/2.15 | — | IE2 |
| | 1.1 | MEC 90S | 3 x 230 - 400 V ~ | 4.68/2.14 | — | IE2 |
| | 1.5 | MEC 90L | 3 x 230 - 400 V ~ | 6.24/3.12 | — | IE2 |
| | 2.2 | MEC 100L | 3 x 230 - 400 V ~ | 8.75/5.09 | — | IE2 |
| | 3 | MEC 100L | 3 x 400 V ~ Δ | 6.25 | — | IE2 |
| | 4 | MEC 112M | 3 x 400 V ~ Δ | 7.95 | — | IE2 |

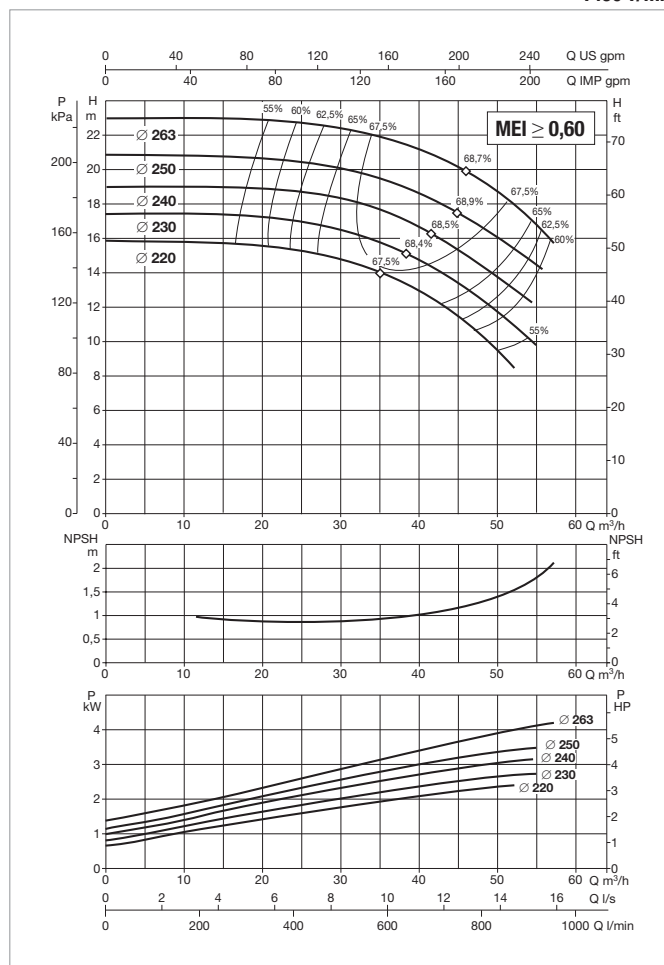
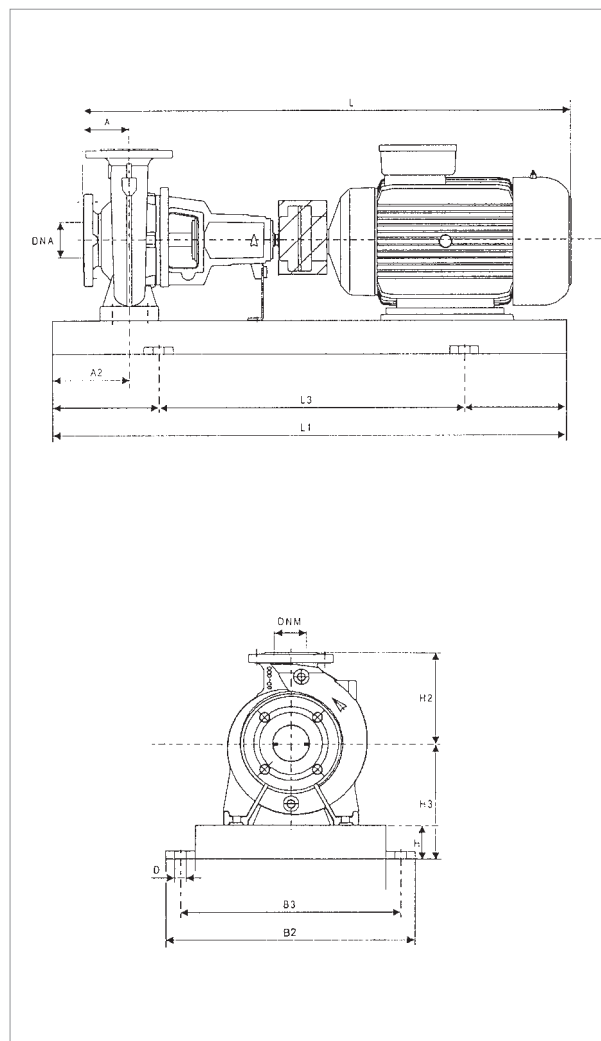
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|-----|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 50-200 | 0.75 | 100 | 60 | 200 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 65 | 50 | 750 | 104 | – | – | 850 | 109 | – | – | 3 |
| | 1.1 | 100 | 60 | 200 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 65 | 50 | 810 | 107 | – | – | 910 | 112 | – | – | 3 |
| | 1.5 | 100 | 60 | 200 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 65 | 50 | 850 | 114 | – | – | 950 | 119 | – | – | 3 |
| | 2.2 | 100 | 60 | 200 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 65 | 50 | 850 | 123 | – | – | 950 | 128 | – | – | 3 |
| | 3 | 100 | 60 | 200 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 65 | 50 | 850 | 122 | – | – | 950 | 127 | – | – | 3 |
| | 4 | 100 | 60 | 200 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 65 | 50 | 935 | 122 | – | – | 1035 | 127 | – | – | 3 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 50-250 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|-----------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 50-250 | 2.2 | MEC 100L | 3 x 230 - 400 V ~ | 8.75/5.11 | — | IE2 |
| | 3 | MEC 100L | 3 x 400 V ~ Δ | 6.25 | — | IE2 |
| | 4 | MEC 112M | 3 x 400 V ~ Δ | 7.95 | — | IE2 |
| | 5.5 | MEC 132S | 3 x 400 V ~ Δ | 10.6 | — | IE2 |

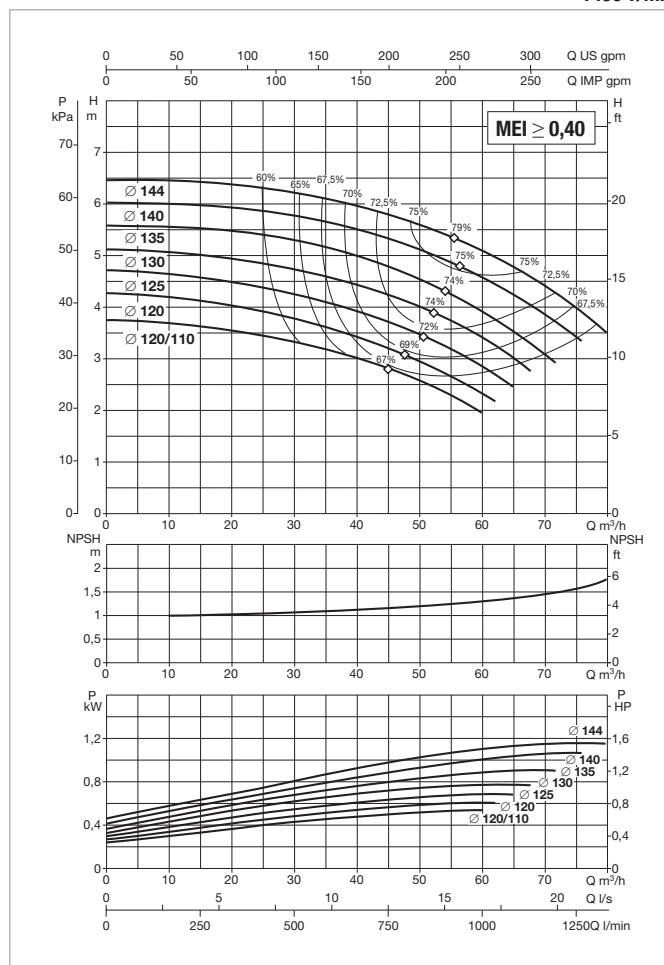
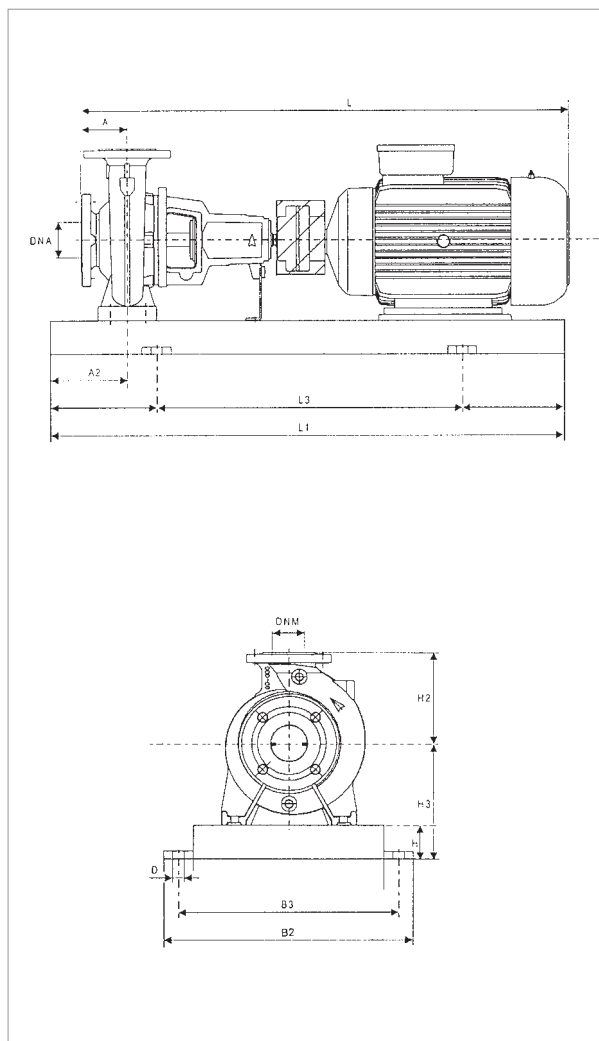
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| | | | | | | | | | | | | | | | | | | | | | | |
| KDN 50-250 | 2.2 | 100 | 75 | 225 | 80 | 260 | 1000 | 660 | 450 | 400 | 24 | 65 | 50 | 850 | 135 | – | – | 950 | 140 | – | – | 4 |
| | 3 | 100 | 75 | 225 | 80 | 260 | 1000 | 660 | 450 | 400 | 24 | 65 | 50 | 850 | 138 | – | – | 950 | 143 | – | – | 4 |
| | 4 | 100 | 75 | 225 | 80 | 260 | 1000 | 660 | 450 | 400 | 24 | 65 | 50 | 935 | 165 | – | – | 1035 | 170 | – | – | 4 |
| | 5.5 | 100 | 75 | 225 | 80 | 260 | 1120 | 740 | 490 | 440 | 24 | 65 | 50 | 935 | 173 | – | – | 1035 | 178 | – | – | 5 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 65-125 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|-----------|-----------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | – | IE2 | |
| KDN 65-125 | 0.37 | MEC 71 | 3 x 230 - 400 V ~ | 1.7/0.975 | – | – |
| | 0.55 | MEC 80 | 3 x 230 - 400 V ~ | – | 2.6/1.5 | IE2 |
| | 0.75 | MEC 80 | 3 x 230 - 400 V ~ | – | 3.57/2.16 | IE2 |
| | 1.1 | MEC 90S | 3 x 230 - 400 V ~ | – | 4.68/2.15 | IE2 |
| | 1.5 | MEC 90L | 3 x 230 - 400 V ~ | – | 6.24/3.13 | IE2 |
| | 2.2 | MEC 100L | 3 x 230 - 400 V ~ | – | 8.75/5.12 | IE2 |

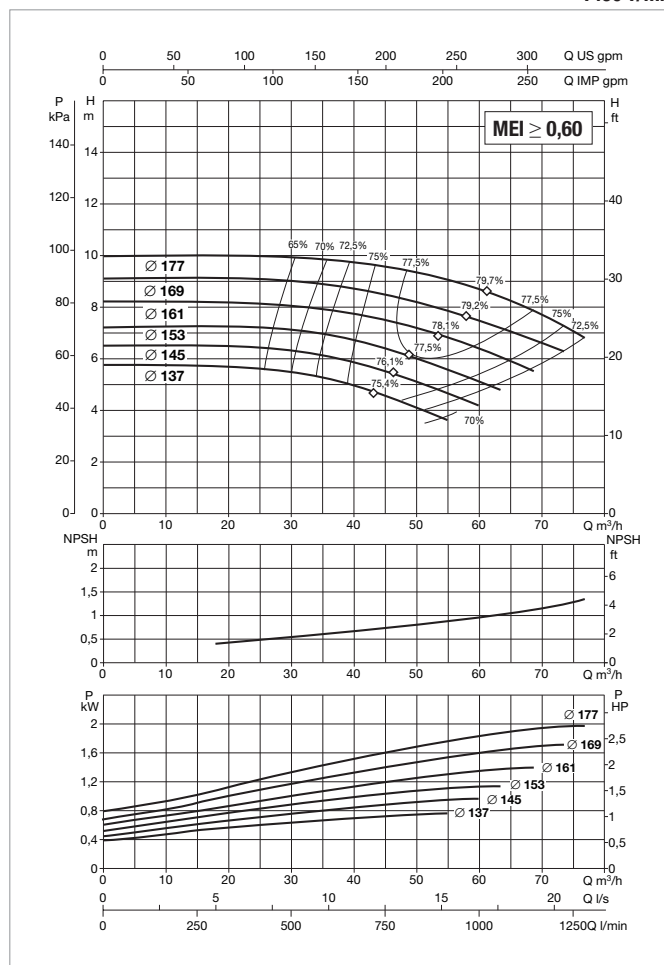
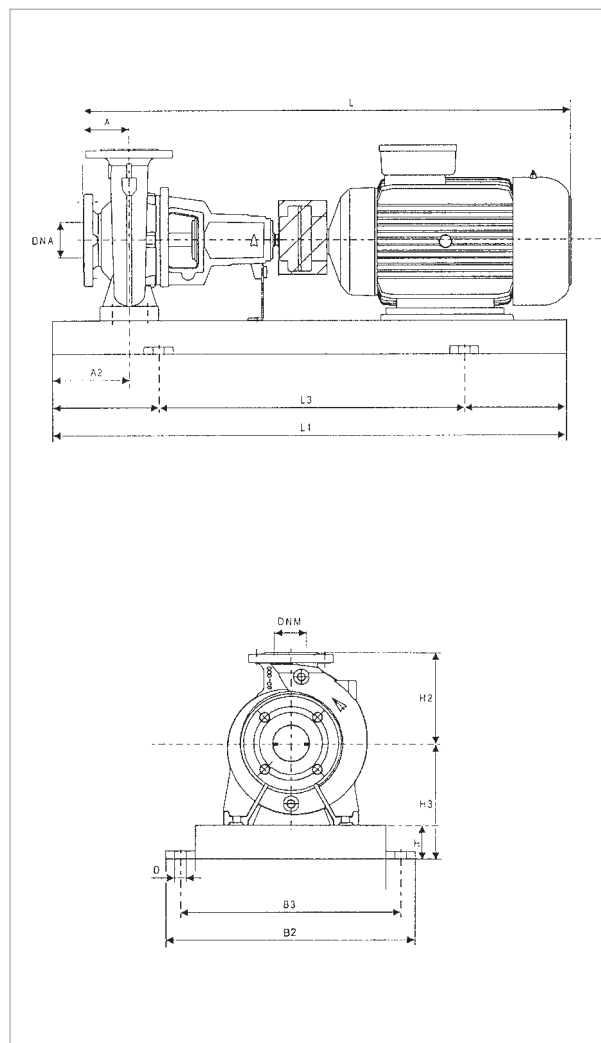
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REMARKS |
|------------|---------------|----------------------|----|-----|----|-----|-----|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|---------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | — | | IE2 | | — | | IE2 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 65-125 | 0.37 | 100 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 80 | 50 | 714 | 94 | — | — | 814 | 99 | — | — | 3 |
| | 0.55 | 100 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 80 | 50 | — | — | 757 | 97 | — | — | 857 | 102 | 3 |
| | 0.75 | 100 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 80 | 50 | — | — | 750 | 98 | — | — | 850 | 103 | 3 |
| | 1.1 | 100 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 80 | 50 | — | — | 810 | 100 | — | — | 910 | 105 | 3 |
| | 1.5 | 100 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 80 | 50 | — | — | 850 | 103 | — | — | 950 | 108 | 3 |
| | 2.2 | 100 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 80 | 50 | — | — | 850 | 107 | — | — | 950 | 112 | 3 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 65-160 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|-----------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 65-160 | 0.75 | MEC 80 | 3 x 230 - 400 V ~ | 3.57/2.17 | — | IE2 |
| | 1.1 | MEC 90S | 3 x 230 - 400 V ~ | 4.68/2.17 | — | IE2 |
| | 1.5 | MEC 90L | 3 x 230 - 400 V ~ | 6.24/3.14 | — | IE2 |
| | 2.2 | MEC 100L | 3 x 230 - 400 V ~ | 8.75/5.13 | — | IE2 |
| | 3 | MEC 100L | 3 x 400 V ~ Δ | 6.25 | — | IE2 |

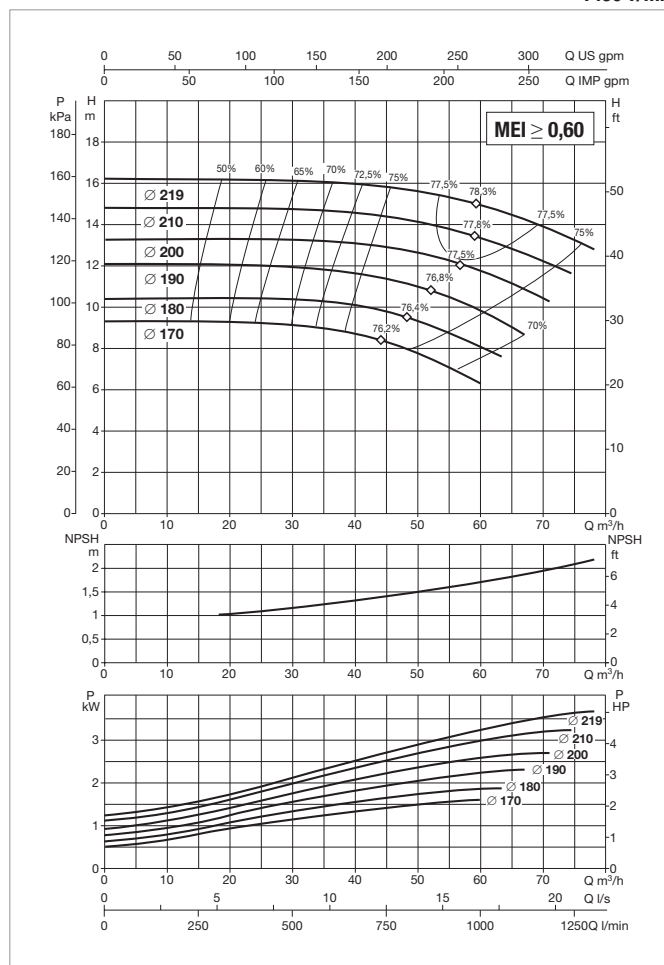
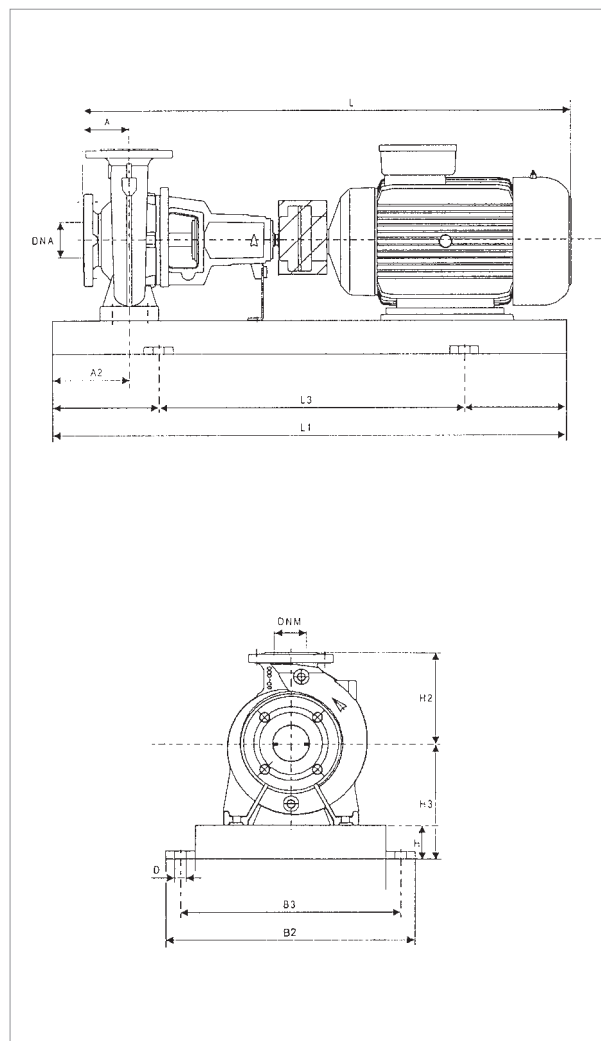
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|-----|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| | | | | | | | | | | | | | | | | | | | | | | |
| KDN 65-160 | 0.75 | 100 | 60 | 200 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 80 | 65 | 750 | 101 | — | — | 850 | 106 | — | — | 3 |
| | 1.1 | 100 | 60 | 200 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 80 | 65 | 810 | 103 | — | — | 910 | 108 | — | — | 3 |
| | 1.5 | 100 | 60 | 200 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 80 | 65 | 850 | 114 | — | — | 950 | 119 | — | — | 3 |
| | 2.2 | 100 | 60 | 200 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 80 | 65 | 850 | 114 | — | — | 950 | 119 | — | — | 3 |
| | 3 | 100 | 60 | 200 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 80 | 65 | 850 | 148 | — | — | 950 | 153 | — | — | 3 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 65-200 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|-----------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 65-200 | 1.1 | MEC 90S | 3 x 230 - 400 V ~ | 4.68/2.18 | — | IE2 |
| | 1.5 | MEC 90L | 3 x 230 - 400 V ~ | 6.24/3.15 | — | IE2 |
| | 2.2 | MEC 100L | 3 x 230 - 400 V ~ | 8.75/5.14 | — | IE2 |
| | 3 | MEC 100L | 3 x 400 V ~ Δ | 6.25 | — | IE2 |
| | 4 | MEC 112M | 3 x 400 V ~ Δ | 7.95 | — | IE2 |
| | 5.5 | MEC 132S | 3 x 400 V ~ Δ | 10.6 | — | IE2 |

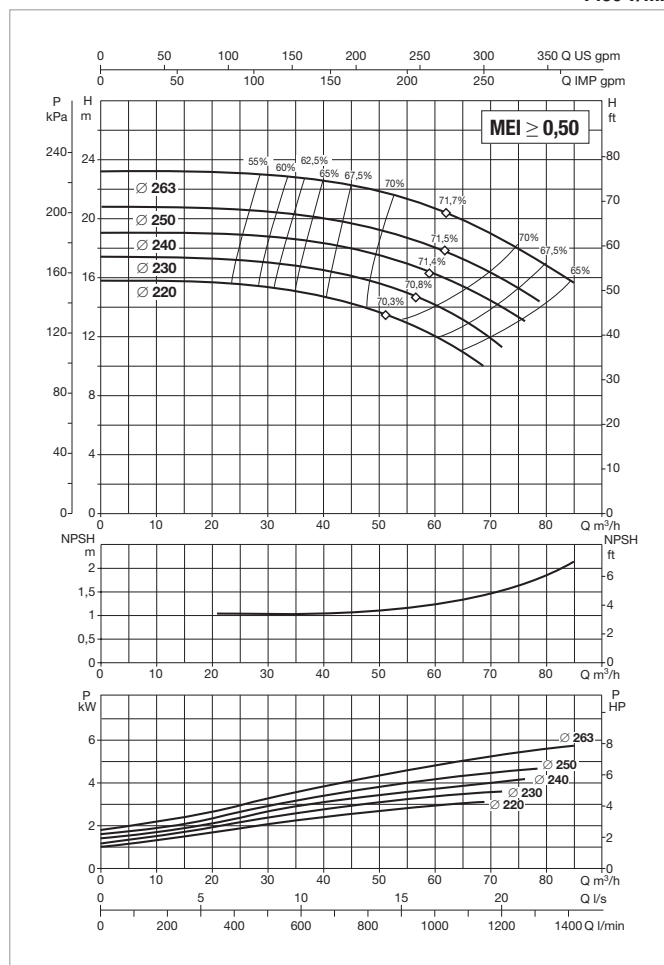
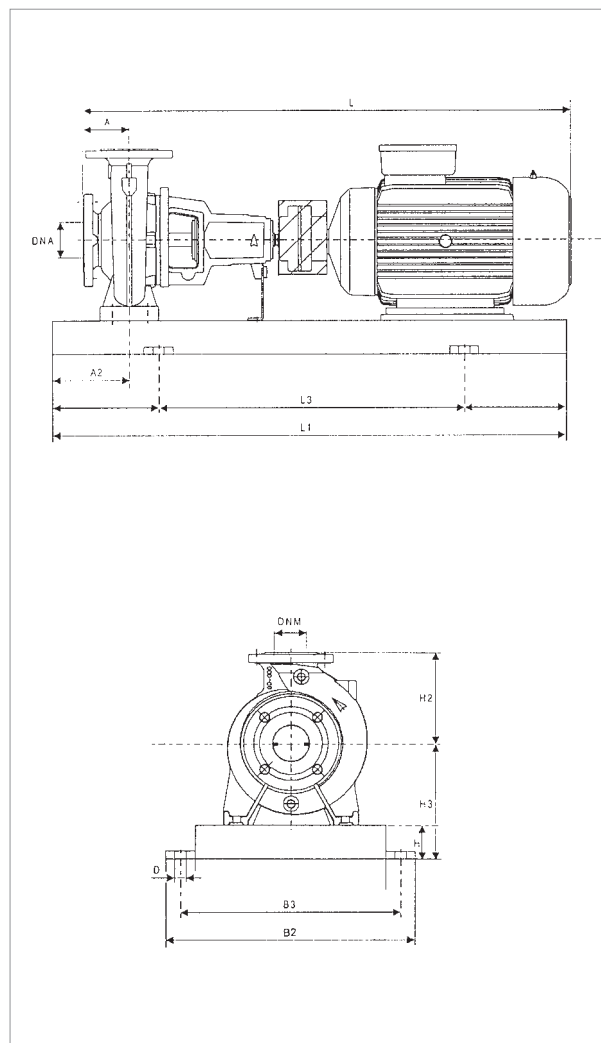
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| | | | | | | | | | | | | | | | | | | | | | | |
| KDN 65-200 | 1.1 | 100 | 75 | 225 | 80 | 260 | 1000 | 660 | 450 | 400 | 24 | 80 | 65 | 810 | 141 | — | — | 950 | 146 | — | — | 4 |
| | 1.5 | 100 | 75 | 225 | 80 | 260 | 1000 | 660 | 450 | 400 | 24 | 80 | 65 | 850 | 143 | — | — | 990 | 148 | — | — | 4 |
| | 2.2 | 100 | 75 | 225 | 80 | 260 | 1120 | 740 | 490 | 440 | 24 | 80 | 65 | 850 | 147 | — | — | 990 | 152 | — | — | 5 |
| | 3 | 100 | 75 | 225 | 80 | 260 | 1120 | 740 | 490 | 440 | 24 | 80 | 65 | 850 | 150 | — | — | 990 | 155 | — | — | 5 |
| | 4 | 100 | 75 | 225 | 80 | 260 | 1120 | 740 | 490 | 440 | 24 | 80 | 65 | 935 | 150 | — | — | 1075 | 155 | — | — | 5 |
| | 5.5 | 100 | 75 | 225 | 80 | 260 | 1120 | 740 | 490 | 440 | 24 | 80 | 65 | 935 | 200 | — | — | 1075 | 205 | — | — | 5 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 65-250 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 65-250 | 3 | MEC 100L | 3 x 400 V ~ Δ | 6.25 | – | IE2 |
| | 4 | MEC 112M | 3 x 400 V ~ Δ | 7.95 | – | IE2 |
| | 5.5 | MEC 132S | 3 x 400 V ~ Δ | 10.6 | – | IE2 |
| | 7.5 | MEC 132M | 3 x 400 V ~ Δ | 14.2 | 14.6 | IE2 / IE3 |
| | 11 | MEC 160M | 3 x 400 V ~ Δ | 21.6 | 20.5 | IE2 / IE3 |

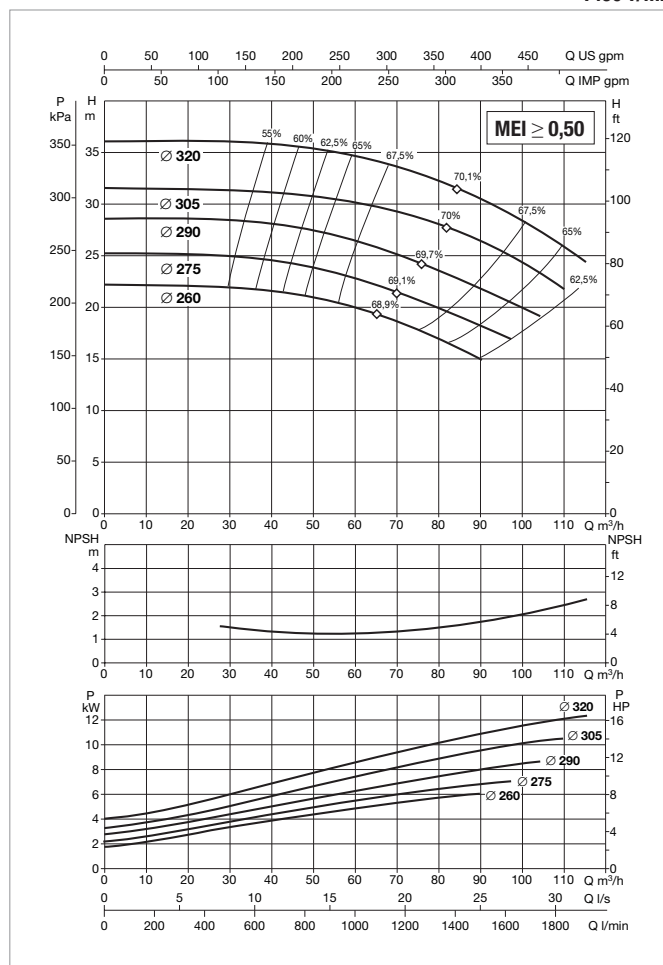
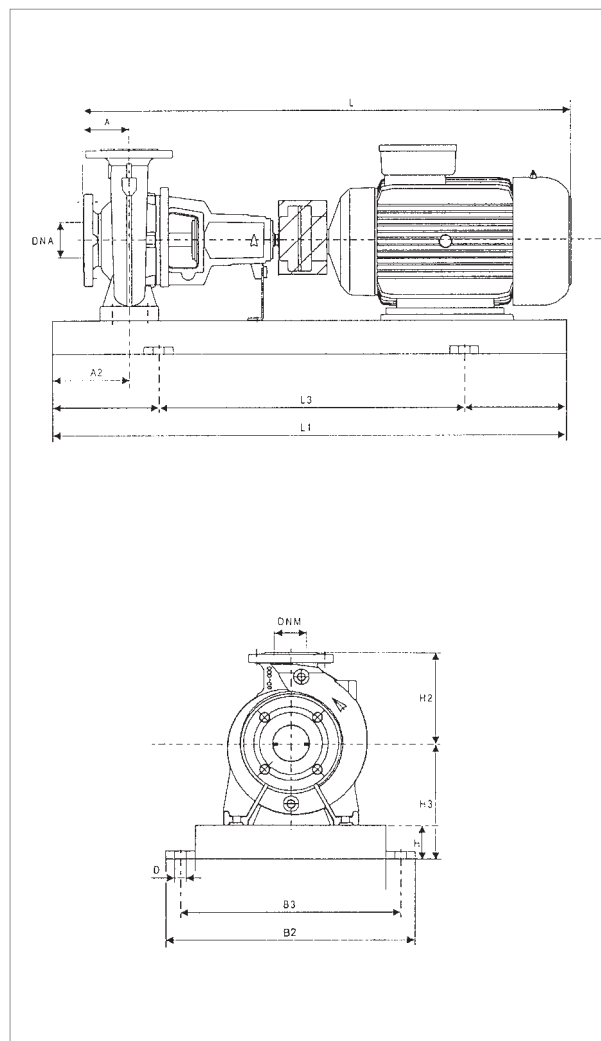
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 65-250 | 3 | 100 | 90 | 250 | 80 | 280 | 1120 | 740 | 490 | 440 | 24 | 80 | 65 | 960 | 178 | – | – | 1100 | 186 | – | – | 5 |
| | 4 | 100 | 90 | 250 | 80 | 280 | 1120 | 740 | 490 | 440 | 24 | 80 | 65 | 1045 | 185 | – | – | 1185 | 193 | – | – | 5 |
| | 5.5 | 100 | 90 | 250 | 80 | 280 | 1120 | 740 | 490 | 440 | 24 | 80 | 65 | 1045 | 201 | – | – | 1185 | 209 | – | – | 5 |
| | 7.5 | 100 | 90 | 250 | 80 | 280 | 1120 | 740 | 490 | 440 | 24 | 80 | 65 | 1085 | 257 | 1092 | 238 | 1225 | 265 | 1232 | 246 | 6 |
| | 11 | 100 | 90 | 250 | 80 | 280 | 1250 | 840 | 540 | 490 | 24 | 80 | 65 | 1190 | 257 | 1190 | 277 | 1330 | 265 | 1330 | 285 | 6 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 65-315 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 65-315 | 5.5 | MEC 132S | 3 x 400 V ~ Δ | 10.6 | — | IE2 |
| | 7.5 | MEC 132M | 3 x 400 V ~ Δ | 14.2 | 14.6 | IE2 / IE3 |
| | 11 | MEC 160M | 3 x 400 V ~ Δ | 21.6 | 20.5 | IE2 / IE3 |
| | 15 | MEC 160L | 3 x 400 V ~ Δ | 29 | 28 | IE2 / IE3 |
| | 18.5 | MEC 180M | 3 x 400 V ~ Δ | 33 | 34 | IE2 / IE3 |

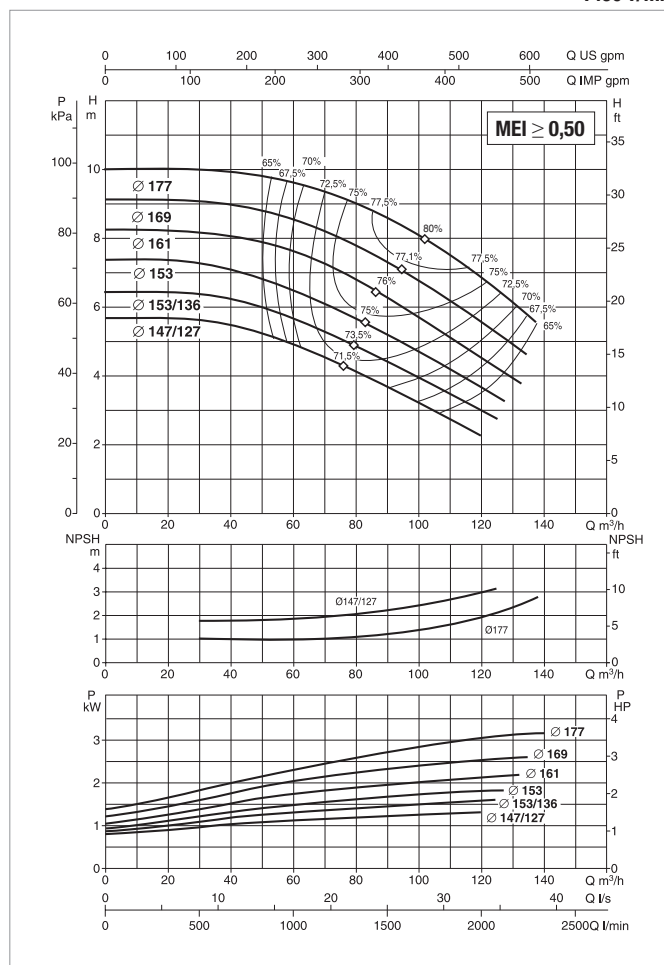
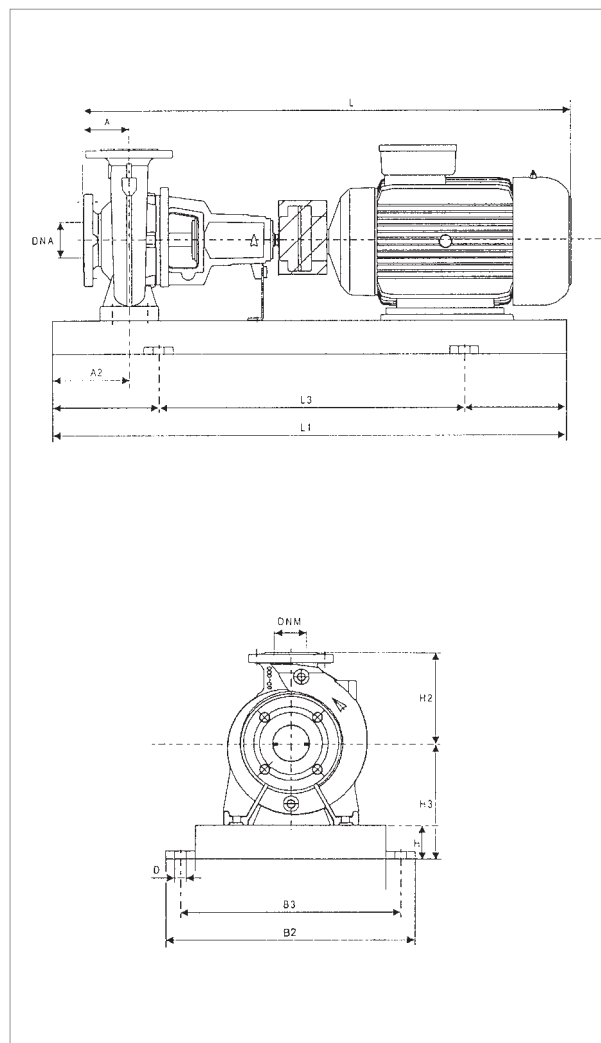
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REMARKS |
|------------|---------------|----------------------|----|-----|-----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|---------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| | | | | | | | | | | | | | | | | | | | | | | |
| KDN 65-315 | 5.5 | 125 | 90 | 280 | 80 | 305 | 1250 | 840 | 540 | 490 | 24 | 80 | 65 | 1070 | 259 | — | — | 1210 | 267 | — | — | 6 |
| | 7.5 | 125 | 90 | 280 | 80 | 305 | 1250 | 840 | 540 | 490 | 24 | 80 | 65 | 1110 | 292 | 1117 | 273 | 1250 | 300 | 1257 | 281 | 6 |
| | 11 | 125 | 90 | 280 | 80 | 305 | 1250 | 840 | 540 | 490 | 24 | 80 | 65 | 1215 | 297 | 1215 | 271 | 1355 | 305 | 1355 | 279 | 6 |
| | 15 | 125 | 90 | 280 | 100 | 325 | 1400 | 940 | 610 | 550 | 28 | 80 | 65 | 1220 | 297 | 1258 | 272 | 1360 | 305 | 1398 | 280 | 7 |
| | 18.5 | 125 | 90 | 280 | 100 | 325 | 1400 | 940 | 610 | 550 | 28 | 80 | 65 | 1290 | 322 | 1290 | 291 | 1430 | 330 | 1430 | 299 | 7 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 80-160 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|-----------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 80-160 | 1.1 | MEC 90S | 3 x 230 - 400 V ~ | 4.68/2.19 | — | IE2 |
| | 1.5 | MEC 90L | 3 x 230 - 400 V ~ | 6.24/3.16 | — | IE2 |
| | 2.2 | MEC 100L | 3 x 230 - 400 V ~ | 8.75/5.15 | — | IE2 |
| | 3 | MEC 100L | 3 x 400 V ~ Δ | 6.25 | — | IE2 |
| | 4 | MEC 112M | 3 x 400 V ~ Δ | 7.95 | — | IE2 |
| | 5.5 | MEC 132S | 3 x 400 V ~ Δ | 10.6 | — | IE2 |

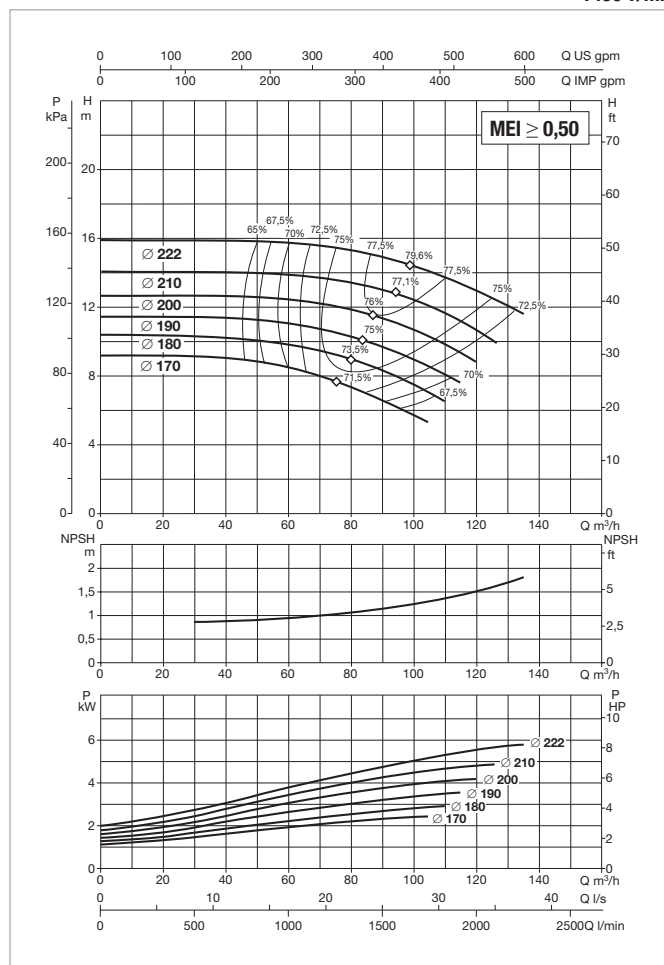
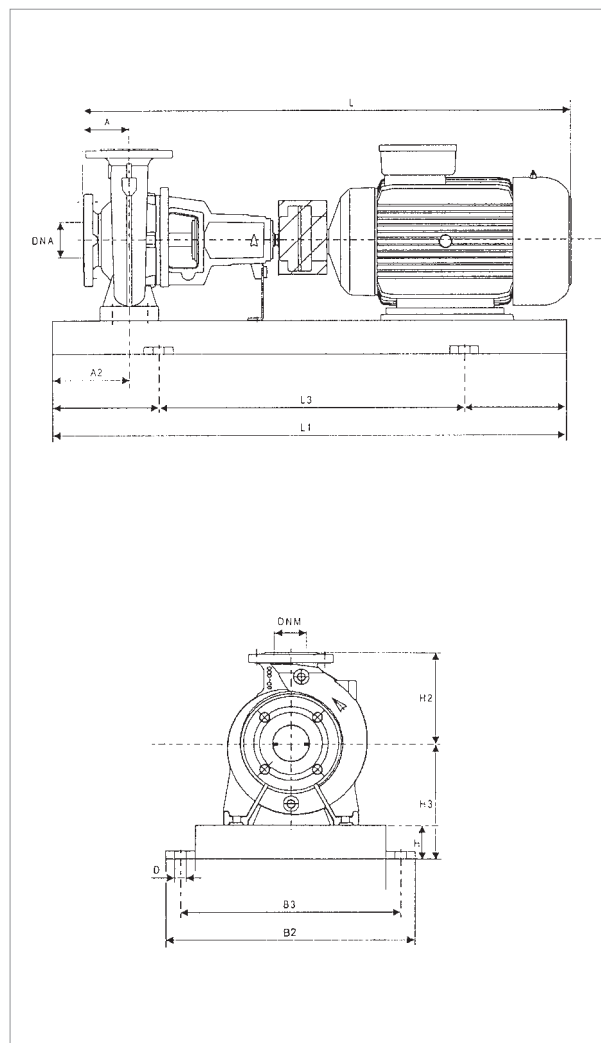
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 80-160 | 1.1 | 125 | 75 | 225 | 80 | 260 | 1000 | 660 | 450 | 400 | 24 | 100 | 80 | 835 | 125 | — | — | 975 | 133 | — | — | 4 |
| | 1.5 | 125 | 75 | 225 | 80 | 260 | 1000 | 660 | 450 | 400 | 24 | 100 | 80 | 875 | 127 | — | — | 1015 | 135 | — | — | 4 |
| | 2.2 | 125 | 75 | 225 | 80 | 260 | 1000 | 660 | 450 | 400 | 24 | 100 | 80 | 875 | 139 | — | — | 1015 | 147 | — | — | 4 |
| | 3 | 125 | 75 | 225 | 80 | 260 | 1000 | 660 | 450 | 400 | 24 | 100 | 80 | 875 | 138 | — | — | 1015 | 146 | — | — | 4 |
| | 4 | 125 | 75 | 225 | 80 | 260 | 1000 | 660 | 450 | 400 | 24 | 100 | 80 | 960 | 138 | — | — | 1100 | 146 | — | — | 4 |
| | 5.5 | 125 | 75 | 225 | 80 | 260 | 1120 | 740 | 490 | 440 | 24 | 100 | 80 | 960 | 163 | — | — | 1100 | 171 | — | — | 5 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 80-200 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|-----------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 80-200 | 1.5 | MEC 90L | 3 x 230 - 400 V ~ | 6.24/3.17 | — | IE2 |
| | 2.2 | MEC 100L | 3 x 230 - 400 V ~ | 8.75/5.16 | — | IE2 |
| | 3 | MEC 100L | 3 x 400 V ~ Δ | 6.25 | — | IE2 |
| | 4 | MEC 112M | 3 x 400 V ~ Δ | 7.95 | — | IE2 |
| | 5.5 | MEC 132S | 3 x 400 V ~ Δ | 10.6 | — | IE2 |
| | 7.5 | MEC 132M | 3 x 400 V ~ Δ | 14.2 | 14.6 | IE2 / IE3 |
| | 11 | MEC 160M | 3 x 400 V ~ Δ | 21.6 | 20.5 | IE2 / IE3 |

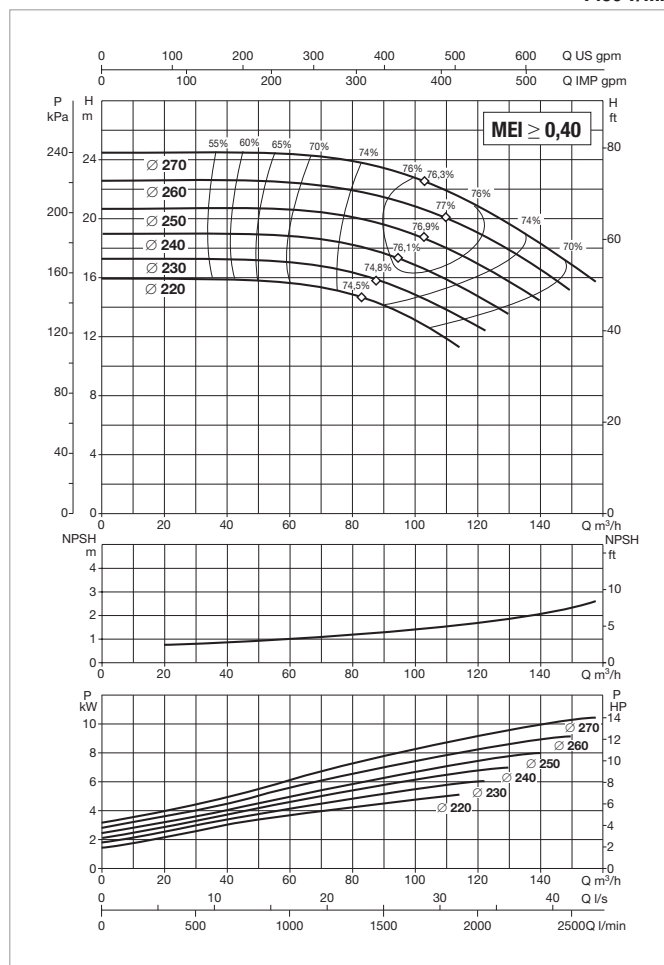
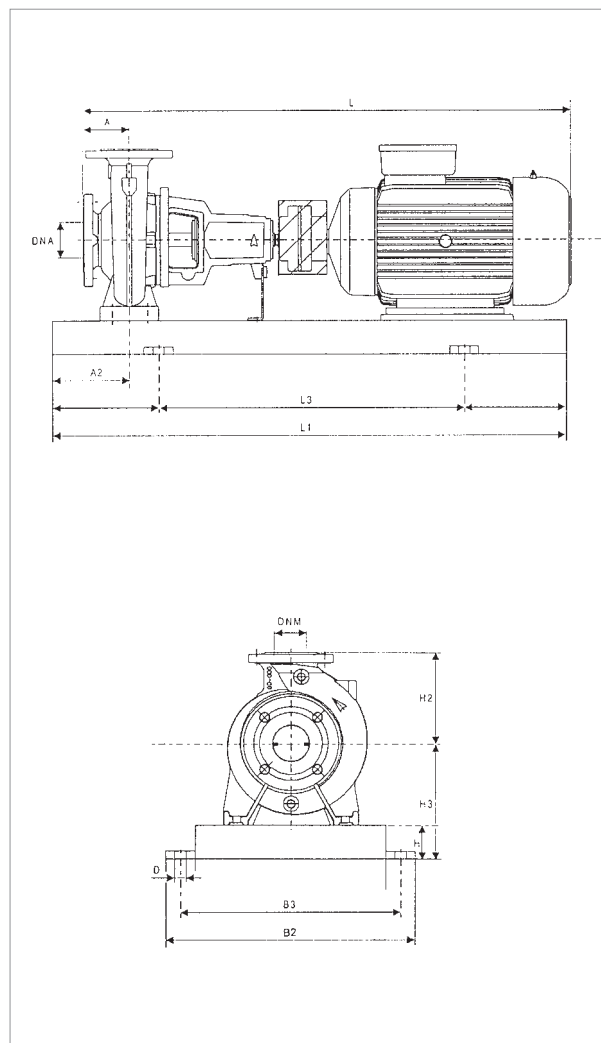
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| | | | | | | | | | | | | | | | | | | | | | | |
| KDN 80-200 | 1.5 | 125 | 75 | 250 | 80 | 260 | 1120 | 740 | 490 | 440 | 24 | 100 | 80 | 985 | 161 | — | — | 1125 | 169 | — | — | 5 |
| | 2.2 | 125 | 75 | 250 | 80 | 260 | 1120 | 740 | 490 | 440 | 24 | 100 | 80 | 985 | 166 | — | — | 1125 | 174 | — | — | 5 |
| | 3 | 125 | 75 | 250 | 80 | 260 | 1120 | 740 | 490 | 440 | 24 | 100 | 80 | 985 | 168 | — | — | 1125 | 176 | — | — | 5 |
| | 4 | 125 | 75 | 250 | 80 | 260 | 1120 | 740 | 490 | 440 | 24 | 100 | 80 | 1070 | 188 | — | — | 1210 | 196 | — | — | 5 |
| | 5.5 | 125 | 75 | 250 | 80 | 260 | 1120 | 740 | 490 | 440 | 24 | 100 | 80 | 1070 | 188 | — | — | 1210 | 196 | — | — | 5 |
| | 7.5 | 125 | 75 | 250 | 80 | 260 | 1120 | 740 | 490 | 440 | 24 | 100 | 80 | 1110 | 188 | 1117 | 169 | 1250 | 196 | 1257 | 177 | 5 |
| | 11 | 125 | 75 | 250 | 80 | 260 | 1250 | 840 | 540 | 490 | 24 | 100 | 80 | 1215 | 197 | 1215 | 171 | 1355 | 205 | 1355 | 179 | 6 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 80-250 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 80-250 | 4 | MEC 112M | 3 x 400 V ~ Δ | 7.95 | – | IE2 |
| | 5.5 | MEC 132S | 3 x 400 V ~ Δ | 10.6 | – | IE2 |
| | 7.5 | MEC 132M | 3 x 400 V ~ Δ | 14.2 | 14.6 | IE2 / IE3 |
| | 11 | MEC 160M | 3 x 400 V ~ Δ | 21.6 | 20.5 | IE2 / IE3 |
| | 15 | MEC 160L | 3 x 400 V ~ Δ | 29 | 28 | IE2 / IE3 |

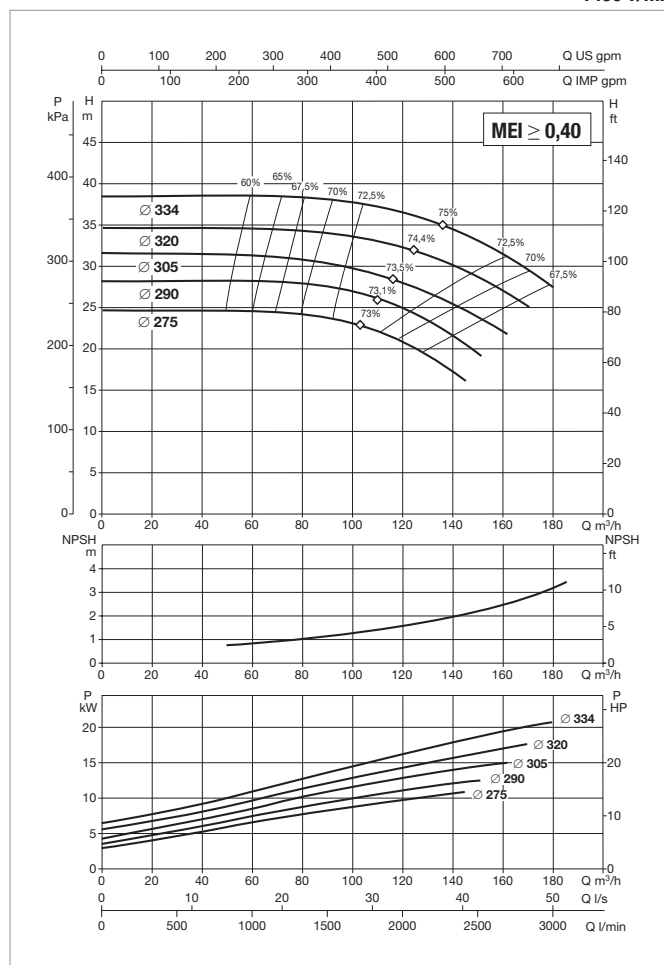
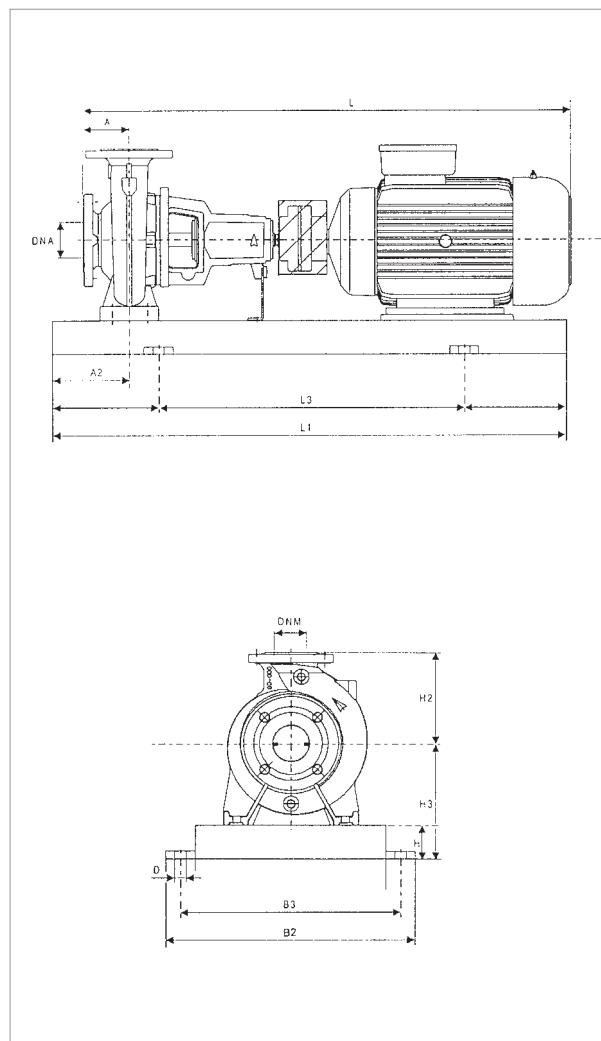
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REMARKS |
|------------|---------------|----------------------|----|-----|----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|---------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 80-250 | 4 | 125 | 90 | 280 | 80 | 280 | 1250 | 840 | 540 | 490 | 24 | 100 | 80 | 1070 | 219 | – | – | 1210 | 227 | – | – | 6 |
| | 5.5 | 125 | 90 | 280 | 80 | 280 | 1250 | 840 | 540 | 490 | 24 | 100 | 80 | 1070 | 219 | – | – | 1210 | 227 | – | – | 6 |
| | 7.5 | 125 | 90 | 280 | 80 | 280 | 1250 | 840 | 540 | 490 | 24 | 100 | 80 | 1110 | 219 | 1117 | 200 | 1250 | 227 | 1257 | 208 | 6 |
| | 11 | 125 | 90 | 280 | 80 | 280 | 1250 | 840 | 540 | 490 | 24 | 100 | 80 | 1215 | 258 | 1215 | 232 | 1355 | 266 | 1355 | 240 | 6 |
| | 15 | 125 | 90 | 280 | 80 | 280 | 1250 | 840 | 540 | 490 | 24 | 100 | 80 | 1220 | 277 | 1258 | 252 | 1360 | 285 | 1398 | 260 | 6 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 80-315 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 80-315 | 7.5 | MEC 132M | 3 x 400 V ~ Δ | 14.2 | 14.6 | IE2 / IE3 |
| | 11 | MEC 160M | 3 x 400 V ~ Δ | 21.6 | 20.5 | IE2 / IE3 |
| | 15 | MEC 160L | 3 x 400 V ~ Δ | 29 | 28 | IE2 / IE3 |
| | 18.5 | MEC 180M | 3 x 400 V ~ Δ | 33 | 34 | IE2 / IE3 |
| | 22 | MEC 180L | 3 x 400 V ~ Δ | 40 | 40.5 | IE2 / IE3 |
| | 30 | MEC 200L | 3 x 400 V ~ Δ | 53.5 | 53.5 | IE2 / IE3 |

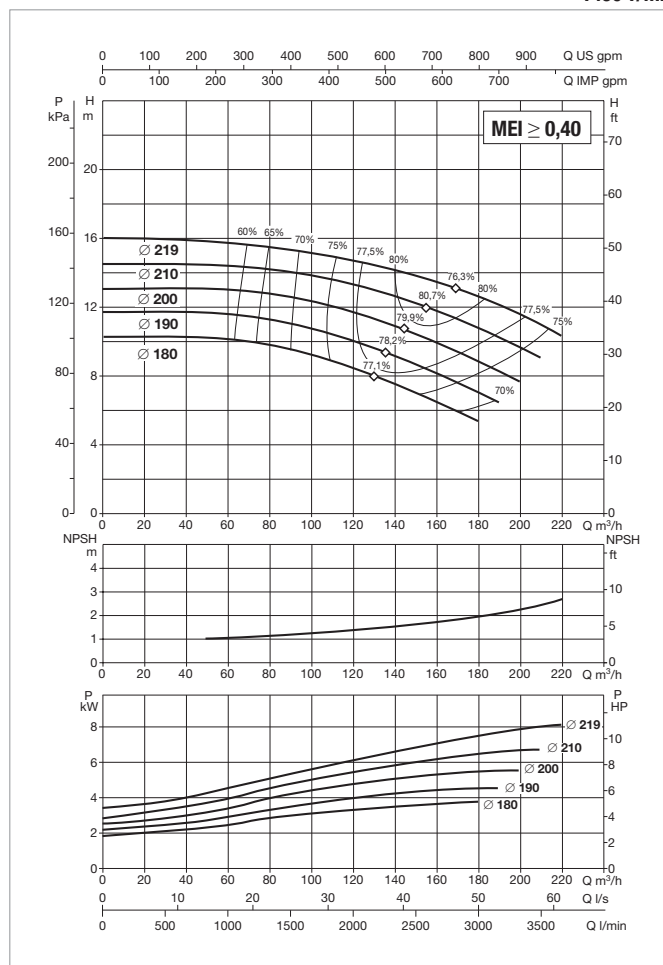
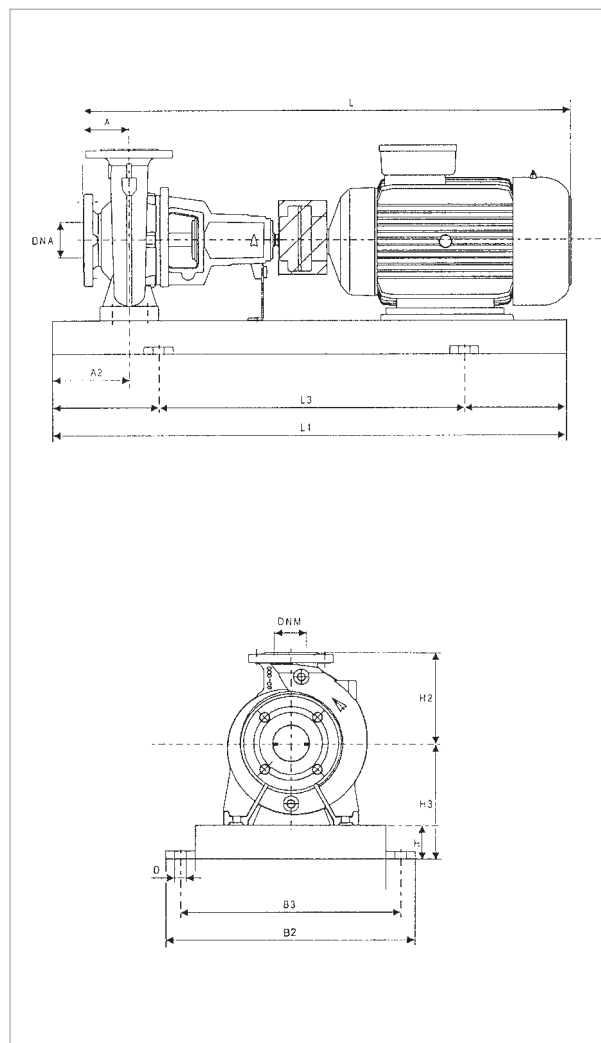
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REMARKS |
|------------|---------------|----------------------|----|-----|-----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|---------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 80-315 | 7.5 | 125 | 90 | 315 | 80 | 330 | 1250 | 840 | 540 | 490 | 24 | 100 | 80 | 1110 | 390 | 1117 | 371 | 1250 | 398 | 1257 | 379 | 6 |
| | 11 | 125 | 90 | 315 | 80 | 330 | 1250 | 840 | 540 | 490 | 24 | 100 | 80 | 1215 | 390 | 1215 | 364 | 1355 | 398 | 1355 | 372 | 6 |
| | 15 | 125 | 90 | 315 | 100 | 350 | 1400 | 940 | 610 | 550 | 28 | 100 | 80 | 1220 | 390 | 1258 | 365 | 1360 | 398 | 1398 | 373 | 7 |
| | 18.5 | 125 | 90 | 315 | 100 | 350 | 1400 | 940 | 610 | 550 | 28 | 100 | 80 | 1290 | 409 | 1290 | 378 | 1430 | 417 | 1430 | 386 | 7 |
| | 22 | 125 | 90 | 315 | 100 | 350 | 1400 | 940 | 610 | 550 | 28 | 100 | 80 | 1328 | 348 | 1328 | 318 | 1468 | 356 | 1468 | 326 | 7 |
| | 30 | 125 | 90 | 315 | 100 | 350 | 1400 | 940 | 610 | 550 | 28 | 100 | 80 | 1370 | 384 | 1380 | 384 | 1510 | 392 | 1520 | 392 | 7 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 100-200 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 100-200 | 3 | MEC 100L | 3 x 400 V ~ Δ | 6.25 | – | IE2 |
| | 4 | MEC 112M | 3 x 400 V ~ Δ | 7.95 | – | IE2 |
| | 5.5 | MEC 132S | 3 x 400 V ~ Δ | 10.6 | – | IE2 |
| | 7.5 | MEC 132M | 3 x 400 V ~ Δ | 14.2 | 14.6 | IE2 / IE3 |
| | 11 | MEC 160M | 3 x 400 V ~ Δ | 21.6 | 20.5 | IE2 / IE3 |
| | 15 | MEC 160L | 3 x 400 V ~ Δ | 29 | 28 | IE2 / IE3 |

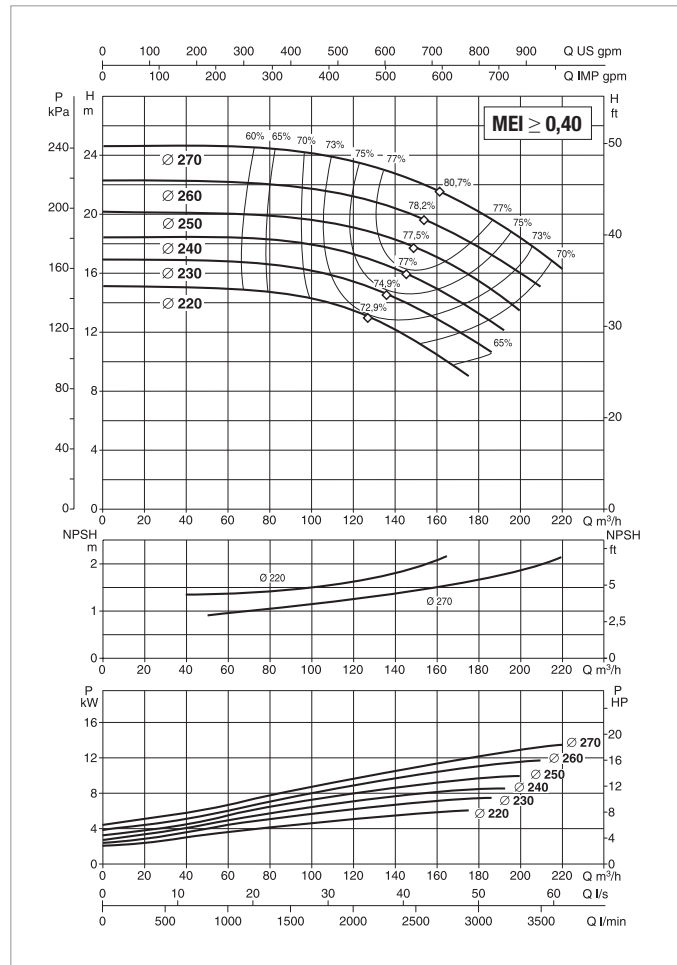
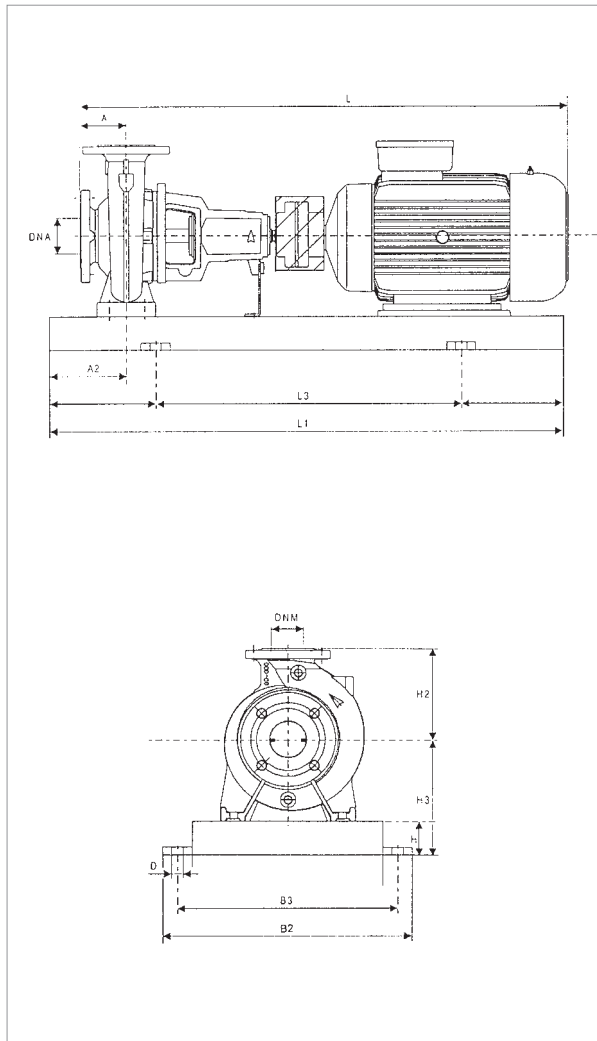
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REMARKS |
|-------------|---------------|----------------------|----|-----|----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|---------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 100-200 | 3 | 125 | 90 | 280 | 80 | 280 | 1120 | 740 | 490 | 440 | 24 | 125 | 100 | 985 | 181 | — | — | 1125 | 189 | — | — | 5 |
| | 4 | 100 | 90 | 280 | 80 | 280 | 1120 | 740 | 490 | 440 | 24 | 125 | 100 | 1070 | 188 | — | — | 1210 | 196 | — | — | 5 |
| | 5.5 | 100 | 90 | 280 | 80 | 280 | 1120 | 740 | 490 | 440 | 24 | 125 | 100 | 1070 | 214 | — | — | 1210 | 222 | — | — | 5 |
| | 7.5 | 100 | 90 | 280 | 80 | 280 | 1120 | 740 | 490 | 440 | 24 | 125 | 100 | 1110 | 209 | 1117 | 190 | 1250 | 217 | 1257 | 198 | 5 |
| | 11 | 100 | 90 | 280 | 80 | 280 | 1250 | 840 | 540 | 490 | 24 | 125 | 100 | 1215 | 307 | 1215 | 281 | 1355 | 315 | 1355 | 289 | 6 |
| | 15 | 100 | 90 | 280 | 80 | 280 | 1250 | 840 | 540 | 490 | 24 | 125 | 100 | 1220 | 380 | 1258 | 355 | 1360 | 388 | 1398 | 363 | 6 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 100-250 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 100-250 | 5.5 | MEC 132S | 3 x 400 V ~ Δ | 10.6 | – | IE2 |
| | 7.5 | MEC 132M | 3 x 400 V ~ Δ | 14.2 | 14.6 | IE2 / IE3 |
| | 11 | MEC 160M | 3 x 400 V ~ Δ | 21.6 | 20.5 | IE2 / IE3 |
| | 15 | MEC 160L | 3 x 400 V ~ Δ | 29 | 28 | IE2 / IE3 |
| | 18.5 | MEC 180M | 3 x 400 V ~ Δ | 33 | 34 | IE2 / IE3 |

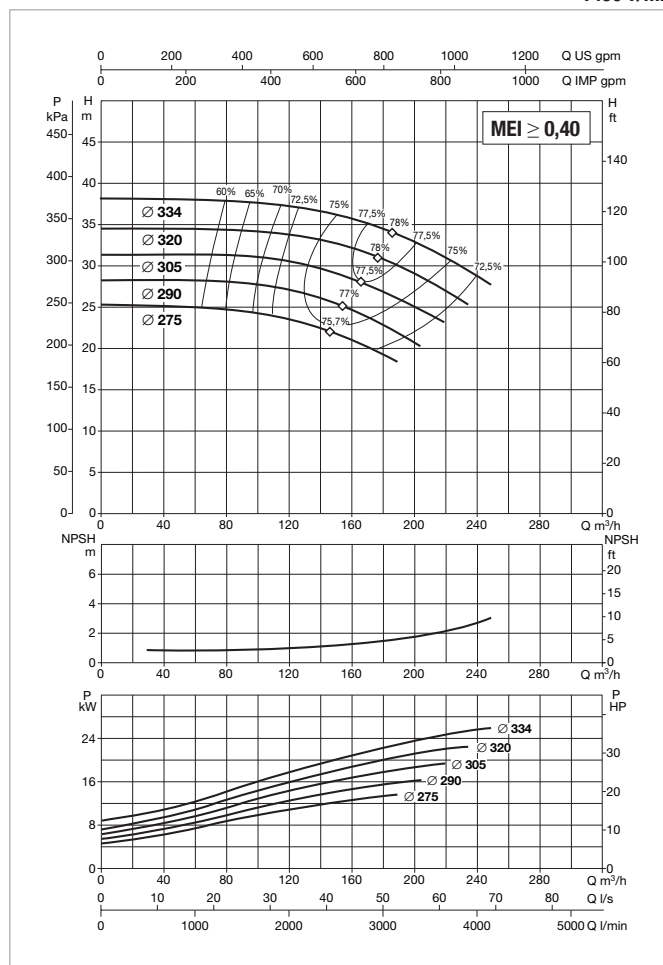
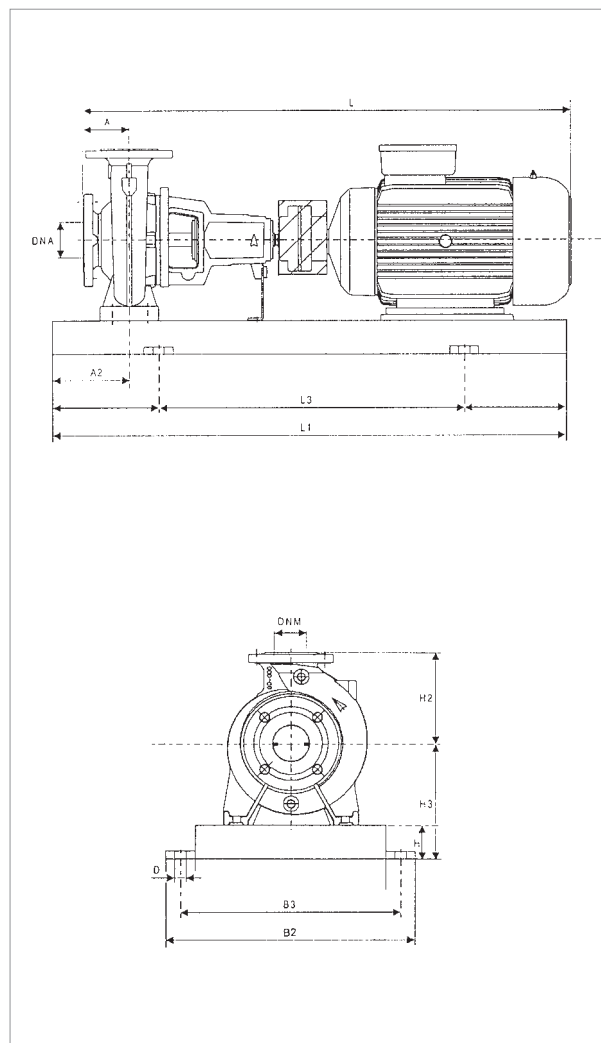
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|----|-----|-----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 100-250 | 5.5 | 140 | 90 | 280 | 80 | 305 | 1250 | 840 | 540 | 490 | 24 | 125 | 100 | 1085 | 241 | – | – | 1225 | 249 | – | – | 6 |
| | 7.5 | 140 | 90 | 280 | 80 | 305 | 1250 | 840 | 540 | 490 | 24 | 125 | 100 | 1125 | 250 | 1132 | 231 | 1265 | 258 | 1272 | 239 | 6 |
| | 11 | 140 | 90 | 280 | 80 | 305 | 1250 | 840 | 540 | 490 | 24 | 125 | 100 | 1230 | 292 | 1230 | 266 | 1370 | 300 | 1370 | 274 | 6 |
| | 15 | 140 | 90 | 280 | 100 | 325 | 1400 | 940 | 610 | 550 | 28 | 125 | 100 | 1235 | 300 | 1273 | 275 | 1375 | 308 | 1413 | 283 | 7 |
| | 18.5 | 140 | 90 | 280 | 100 | 325 | 1400 | 940 | 610 | 550 | 28 | 125 | 100 | 1305 | 578 | 1305 | 547 | 1445 | 586 | 1445 | 555 | 7 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 100-315 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 100-315 | 11 | MEC 160M | 3 x 400 V ~ Δ | 21.6 | 20.5 | IE2 / IE3 |
| | 15 | MEC 160L | 3 x 400 V ~ Δ | 29 | 28 | IE2 / IE3 |
| | 18.5 | MEC 180M | 3 x 400 V ~ Δ | 33 | 34 | IE2 / IE3 |
| | 22 | MEC 180L | 3 x 400 V ~ Δ | 40 | 40.5 | IE2 / IE3 |
| | 30 | MEC 200L | 3 x 400 V ~ Δ | 53.5 | 53.5 | IE2 / IE3 |
| | 37 | MEC 225S | 3 x 400 V ~ Δ | 66.5 | 65 | IE2 / IE3 |

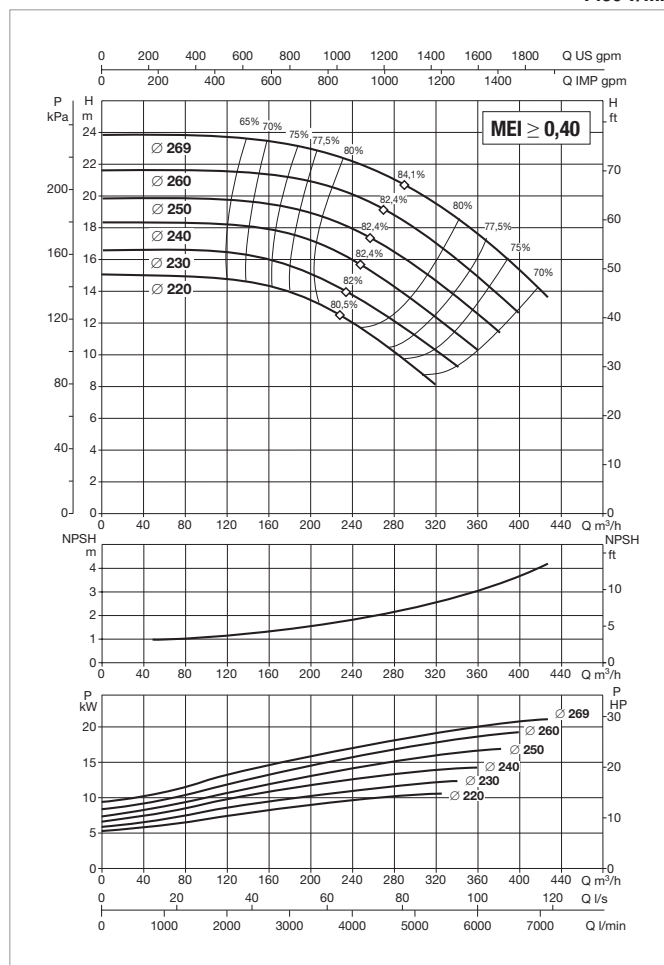
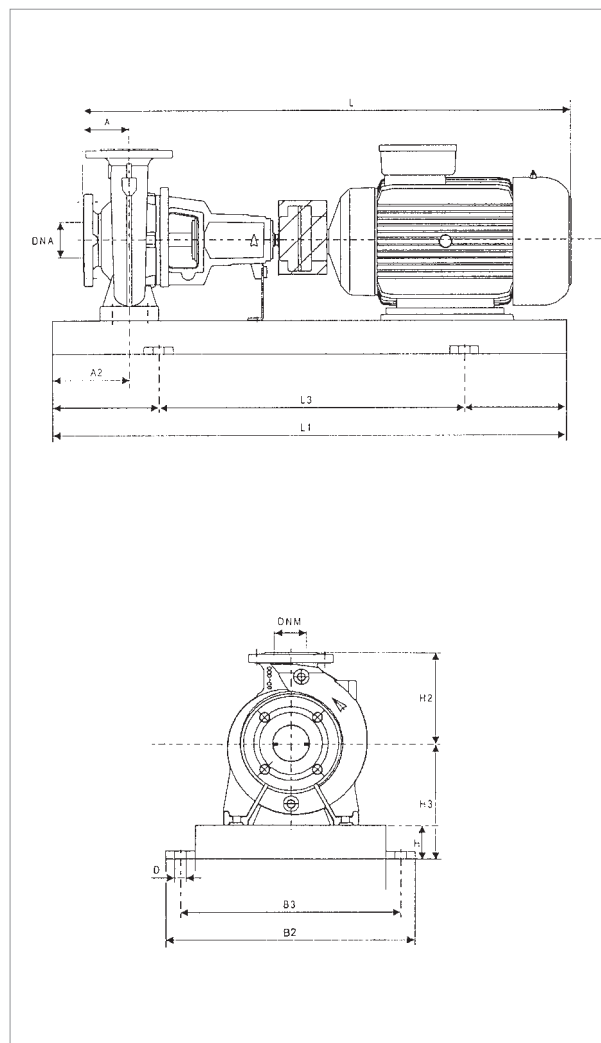
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|----|-----|-----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 100-315 | 11 | 140 | 90 | 315 | 80 | 330 | 1250 | 840 | 540 | 490 | 24 | 125 | 100 | 1230 | 313 | 1230 | 287 | 1370 | 321 | 1370 | 295 | 6 |
| | 15 | 140 | 90 | 315 | 100 | 350 | 1400 | 940 | 610 | 550 | 28 | 125 | 100 | 1325 | 300 | 1273 | 275 | 1375 | 308 | 1413 | 283 | 7 |
| | 18.5 | 140 | 90 | 315 | 100 | 350 | 1400 | 940 | 610 | 550 | 28 | 125 | 100 | 1305 | 346 | 1305 | 315 | 1445 | 354 | 1445 | 323 | 7 |
| | 22 | 140 | 90 | 315 | 100 | 350 | 1400 | 940 | 610 | 550 | 28 | 125 | 100 | 1343 | 372 | 1343 | 342 | 1483 | 380 | 1483 | 350 | 7 |
| | 30 | 140 | 90 | 315 | 100 | 350 | 1400 | 940 | 610 | 550 | 28 | 125 | 100 | 1385 | 458 | 1395 | 458 | 1525 | 466 | 1535 | 466 | 7 |
| | 37 | 140 | 90 | 315 | 100 | 350 | 1400 | 940 | 610 | 550 | 28 | 125 | 100 | 1430 | 518 | 1440 | 524 | 1570 | 526 | 1580 | 532 | 7 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 125-250 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40 °C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 125-250 | 7.5 | MEC 132M | 3 x 400 V ~ Δ | 14.2 | 14.6 | IE2 / IE3 |
| | 11 | MEC 160M | 3 x 400 V ~ Δ | 21.6 | 20.5 | IE2 / IE3 |
| | 15 | MEC 160L | 3 x 400 V ~ Δ | 29 | 28 | IE2 / IE3 |
| | 18.5 | MEC 180M | 3 x 400 V ~ Δ | 33 | 34 | IE2 / IE3 |
| | 22 | MEC 180L | 3 x 400 V ~ Δ | 40 | 40.5 | IE2 / IE3 |
| | 30 | MEC 200L | 3 x 400 V ~ Δ | 53.5 | 53.5 | IE2 / IE3 |

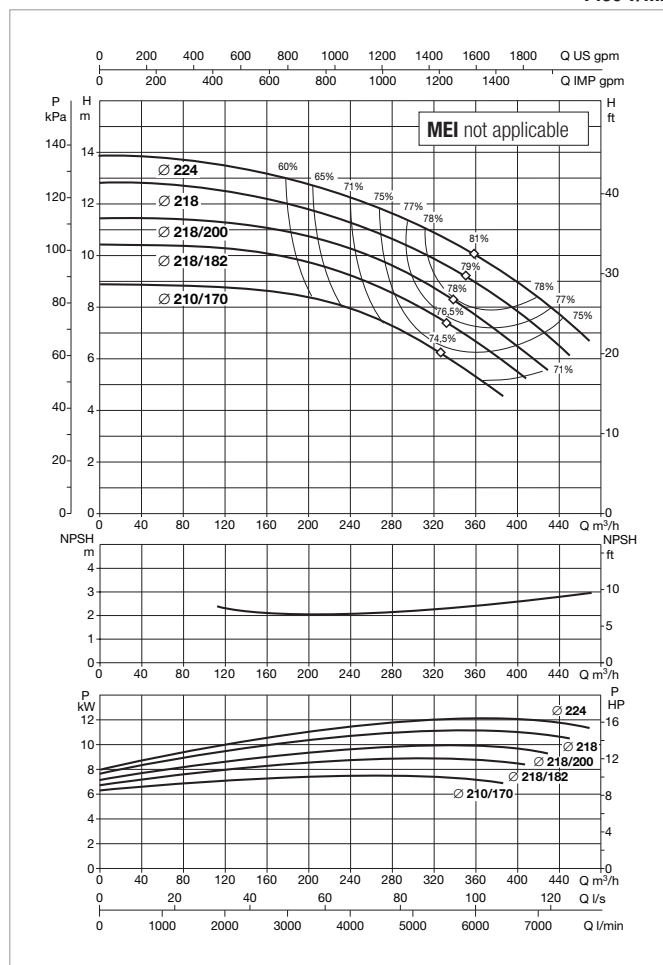
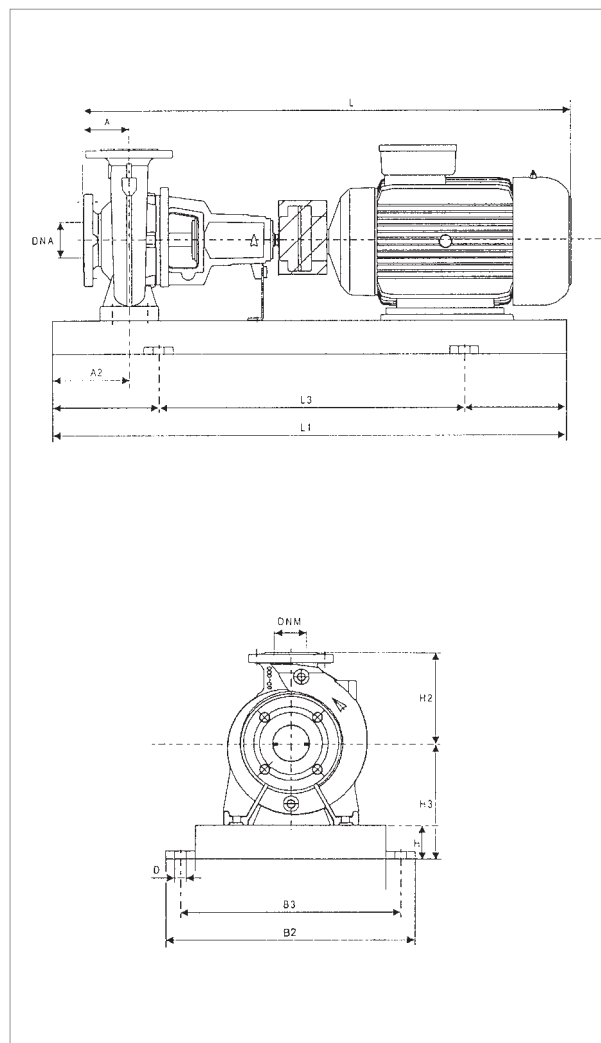
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|----|-----|-----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 125-250 | 7.5 | 140 | 90 | 355 | 80 | 330 | 1250 | 840 | 540 | 490 | 24 | 150 | 125 | 1125 | 310 | 1132 | 291 | 1265 | 318 | 1272 | 299 | 6 |
| | 11 | 140 | 90 | 355 | 80 | 330 | 1250 | 840 | 540 | 490 | 24 | 150 | 125 | 1230 | 328 | 1230 | 302 | 1370 | 336 | 1370 | 310 | 6 |
| | 15 | 140 | 90 | 355 | 100 | 350 | 1400 | 940 | 610 | 550 | 28 | 150 | 125 | 1235 | 416 | 1273 | 391 | 1375 | 424 | 1413 | 399 | 7 |
| | 18.5 | 140 | 90 | 355 | 100 | 350 | 1400 | 940 | 610 | 550 | 28 | 150 | 125 | 1305 | 422 | 1305 | 391 | 1445 | 430 | 1445 | 399 | 7 |
| | 22 | 140 | 90 | 355 | 100 | 350 | 1400 | 940 | 610 | 550 | 28 | 150 | 125 | 1343 | 463 | 1343 | 433 | 1483 | 471 | 1483 | 441 | 7 |
| | 30 | 140 | 90 | 355 | 100 | 350 | 1400 | 940 | 610 | 550 | 28 | 150 | 125 | 1385 | 511 | 1395 | 511 | 1525 | 519 | 1535 | 519 | 7 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 150-200 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 150-200 | 5.5 | MEC 132S | 3 x 400 V ~ Δ | 10.6 | — | IE2 |
| | 7.5 | MEC 132M | 3 x 400 V ~ Δ | 14.2 | 14.6 | IE2 / IE3 |
| | 11 | MEC 160M | 3 x 400 V ~ Δ | 21.6 | 20.5 | IE2 / IE3 |
| | 15 | MEC 160L | 3 x 400 V ~ Δ | 29 | 28 | IE2 / IE3 |
| | 18.5 | MEC 180M | 3 x 400 V ~ Δ | 33 | 34 | IE2 / IE3 |

| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|-----|-----|-----|-----|------|------|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| | | | | | | | | | | | | | | | | | | | | | | |
| KDN 150-200 | 5.5 | 160 | 110 | 400 | 100 | 380 | 1800 | 1200 | 730 | 670 | 28 | 200 | 150 | 1105 | 454 | — | — | 1245 | 462 | — | — | 9 |
| | 7.5 | 160 | 110 | 400 | 100 | 380 | 1800 | 1200 | 730 | 670 | 28 | 200 | 150 | 1145 | 470 | 1152 | 451 | 1285 | 478 | 1292 | 459 | 9 |
| | 11 | 160 | 110 | 400 | 100 | 380 | 1800 | 1200 | 730 | 670 | 28 | 200 | 150 | 1250 | 481 | 1250 | 455 | 1390 | 489 | 1390 | 463 | 9 |
| | 15 | 160 | 110 | 400 | 100 | 380 | 1800 | 1200 | 730 | 670 | 28 | 200 | 150 | 1255 | 501 | 1293 | 476 | 1395 | 509 | 1433 | 484 | 9 |
| | 18.5 | 160 | 110 | 400 | 100 | 380 | 1800 | 1200 | 730 | 670 | 28 | 200 | 150 | 1325 | 535 | 1325 | 504 | 1465 | 543 | 1465 | 512 | 9 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

IE2 STANDARD MOTOR ELECTRIC DATA

=1450 1/min

| MOTOR TYPE | P2 NOMINAL kW | SPEED rpm | YIELD % | POWER FACTOR COS φ | POWER INPUT 50 Hz | In A | | Start-up current Ia/In | Start-up torque Ma/Mn | Maximum torque M/k/Mn | POLES |
|------------|---------------|-----------|---------|----------------------------|-------------------|------|------|------------------------|-----------------------|-----------------------|-------|
| | | | | | | 230 | 400 | | | | |
| MEC 71 | 0.25 | 1400 | 60.00 | 0.710 | 3 x 230/400 | 1.60 | 0.90 | 2.88 | 2.15 | 2.26 | 4 |
| MEC 71 | 0.37 | 1340 | 67.00 | 0.780 | 3 x 230/400 | 1.70 | 0.98 | 4.75 | 2.84 | 2.64 | 4 |
| MEC 80 | 0.55 | 1410 | 71.00 | 0.720 | 3 x 230/400 | 2.60 | 1.50 | 5.33 | 2.78 | 2.89 | 4 |
| MEC 80 | 0.75 | 1430 | 79.80 | 0.795 | 3 x 230/400 | 3.57 | 2.06 | 6.65 | 3.58 | 3.54 | 4 |
| MEC 90S | 1.10 | 1440 | 82.20 | 0.723 | 3 x 230/400 | 4.68 | 2.70 | 7.27 | 3.43 | 3.47 | 4 |
| MEC 90L | 1.50 | 1430 | 82.56 | 0.732 | 3 x 230/400 | 6.24 | 3.60 | 6.67 | 3.39 | 3.30 | 4 |
| MEC 100L | 2.20 | 1450 | 83.38 | 0.756 | 3 x 230/400 | 8.75 | 5.05 | 8.40 | 3.45 | 3.75 | 4 |

| MOTOR TYPE | P2 NOMINAL kW | SPEED rpm | YIELD % | POWER FACTOR COS φ | POWER INPUT 50 Hz | In A | | Start-up current Ia/In | Start-up torque Ma/Mn | Maximum torque M/k/Mn | POLES |
|------------|---------------|-----------|---------|----------------------------|-------------------|--------|--------|------------------------|-----------------------|-----------------------|-------|
| | | | | | | 400 | 690 | | | | |
| MEC 100L | 3.00 | 1440 | 86.72 | 0.800 | 3 x 400 Δ | 6.25 | 3.61 | 6.91 | 2.70 | 3.11 | 4 |
| MEC 112M | 4.00 | 1450 | 87.19 | 0.832 | 3 x 400 Δ | 7.95 | 4.59 | 8.72 | 3.17 | 3.53 | 4 |
| MEC 132S | 5.50 | 1460 | 88.78 | 0.851 | 3 x 400 Δ | 10.60 | 6.15 | 7.97 | 2.37 | 3.13 | 4 |
| MEC 132M | 7.50 | 1460 | 89.81 | 0.849 | 3 x 400 Δ | 14.20 | 8.20 | 8.70 | 2.62 | 3.07 | 4 |
| MEC 160M | 11.00 | 1470 | 90.44 | 0.818 | 3 x 400 Δ | 21.60 | 12.47 | 8.32 | 2.70 | 2.95 | 4 |
| MEC 160L | 15.00 | 1470 | 90.48 | 0.834 | 3 x 400 Δ | 29.00 | 16.74 | 8.16 | 2.58 | 2.96 | 4 |
| MEC 180M | 18.50 | 1470 | 92.00 | 0.873 | 3 x 400 Δ | 33.00 | 19.05 | 7.66 | 2.93 | 3.23 | 4 |
| MEC 180L | 22.00 | 1470 | 92.31 | 0.862 | 3 x 400 Δ | 40.00 | 23.09 | 7.86 | 2.63 | 3.19 | 4 |
| MEC 200L | 30.00 | 1480 | 92.80 | 0.874 | 3 x 400 Δ | 53.31 | 30.78 | 8.72 | 3.17 | 3.53 | 4 |
| MEC 225S | 37.00 | 1480 | 93.22 | 0.865 | 3 x 400 Δ | 66.50 | 38.39 | 6.74 | 2.13 | 2.86 | 4 |
| MEC 225M | 45.00 | 1480 | 93.09 | 0.881 | 3 x 400 Δ | 79.50 | 45.90 | 7.53 | 2.34 | 2.92 | 4 |
| MEC 250M | 55.00 | 1490 | 94.22 | 0.843 | 3 x 400 Δ | 98.00 | 56.58 | 8.47 | 2.82 | 3.36 | 4 |
| MEC 280S | 75.00 | 1480 | 94.48 | 0.876 | 3 x 400 Δ | 132.00 | 76.50 | 8.69 | 2.96 | 3.56 | 4 |
| MEC 280M | 90.00 | 1480 | 94.78 | 0.895 | 3 x 400 Δ | 154.00 | 89.00 | 9.49 | 3.42 | 3.80 | 4 |
| MEC 315S | 110.00 | 1490 | 94.70 | 0.877 | 3 x 400 Δ | 195.00 | 112.59 | 7.14 | 2.51 | 3.44 | 4 |
| MEC 315M | 132.00 | 1490 | 94.80 | 0.879 | 3 x 400 Δ | 235.00 | 135.68 | 7.08 | 2.55 | 3.39 | 4 |
| MEC 315L | 160.00 | 1490 | 95.00 | 0.877 | 3 x 400 Δ | 285.00 | 164.55 | 7.18 | 2.67 | 3.40 | 4 |
| MEC 315L | 200.00 | 1490 | 95.10 | 0.874 | 3 x 400 Δ | 350.00 | 202.08 | 7.25 | 2.77 | 3.41 | 4 |
| MEC355M | 250.00 | 1490 | 96.01 | 0.88 | 3 x 400 Δ | 425.00 | 246.40 | 7.27 | 2.42 | 3.50 | 4 |
| MEC355L | 315.00 | 1490 | 95.98 | 0.88 | 3 x 400 Δ | 538.00 | 311.88 | 8.08 | 2.46 | 3.83 | 4 |

KDN - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

IE3 STANDARD MOTOR ELECTRIC DATA

=1450 1/min

| MOTOR TYPE | P2 NOMINAL kW | SPEED rpm | YIELD % | POWER FACTOR COS φ | POWER INPUT 50 Hz | In A | | Start-up current Ia/In | Start-up torque Ma/Mn | Maximum torque M/k/Mn | POLES |
|------------|---------------|-----------|---------|----------------------------|-------------------|--------|--------|------------------------|-----------------------|-----------------------|-------|
| | | | | | | 400 | 690 | | | | |
| MEC 132M | 7.50 | 1460 | 90.40 | 0.820 | 3 x 400 Δ | 14.60 | 8.44 | 8.50 | 2.70 | 3.20 | 4 |
| MEC 160M | 11.00 | 1470 | 91.40 | 0.850 | 3 x 400 Δ | 20.50 | 11.85 | 8.40 | 2.90 | 3.10 | 4 |
| MEC 160L | 15.00 | 1470 | 92.10 | 0.850 | 3 x 400 Δ | 28.00 | 16.18 | 8.30 | 2.90 | 3.00 | 4 |
| MEC 180M | 18.50 | 1470 | 92.60 | 0.850 | 3 x 400 Δ | 34.00 | 19.65 | 7.90 | 2.40 | 3.00 | 4 |
| MEC 180L | 22.00 | 1470 | 92.90 | 0.850 | 3 x 400 Δ | 40.50 | 23.41 | 8.30 | 2.60 | 3.10 | 4 |
| MEC 200L | 30.00 | 1470 | 93.60 | 0.870 | 3 x 400 Δ | 53.50 | 30.92 | 8.60 | 2.80 | 3.40 | 4 |
| MEC 225S | 37.00 | 1480 | 93.90 | 0.880 | 3 x 400 Δ | 65.00 | 37.57 | 7.50 | 2.20 | 2.60 | 4 |
| MEC 225M | 45.00 | 1480 | 94.20 | 0.880 | 3 x 400 Δ | 78.50 | 45.38 | 8.00 | 2.50 | 2.80 | 4 |
| MEC 250M | 55.00 | 1480 | 94.60 | 0.870 | 3 x 400 Δ | 96.00 | 55.49 | 8.10 | 2.40 | 2.80 | 4 |
| MEC 280S | 75.00 | 1490 | 95.00 | 0.880 | 3 x 400 Δ | 130.00 | 75.14 | 7.40 | 2.20 | 2.90 | 4 |
| MEC 280M | 90.00 | 1490 | 95.20 | 0.880 | 3 x 400 Δ | 156.00 | 90.17 | 6.80 | 2.10 | 2.60 | 4 |
| MEC 315S | 110.00 | 1490 | 95.40 | 0.860 | 3 x 400 Δ | 190.00 | 109.83 | 6.90 | 2.20 | 3.00 | 4 |
| MEC 315M | 132.00 | 1490 | 95.60 | 0.860 | 3 x 400 Δ | 230.00 | 132.95 | 6.90 | 2.30 | 3.00 | 4 |
| MEC 315L | 160.00 | 1490 | 95.80 | 0.870 | 3 x 400 Δ | 275.00 | 158.96 | 6.90 | 2.30 | 2.90 | 4 |
| MEC 315L | 200.00 | 1490 | 96.00 | 0.880 | 3 x 400 Δ | 340.00 | 196.53 | 6.70 | 2.30 | 2.80 | 4 |
| MEC 355M | 250.00 | 1490 | 96.00 | 0.890 | 3 x 400 Δ | 420.00 | 242.77 | 7.70 | 2.60 | 2.70 | 4 |
| MEC 355L | 315.00 | 1490 | 96.00 | 0.890 | 3 x 400 Δ | 530.00 | 306.36 | 7.80 | 2.80 | 2.70 | 4 |

KDN - 2 POLE RANGE

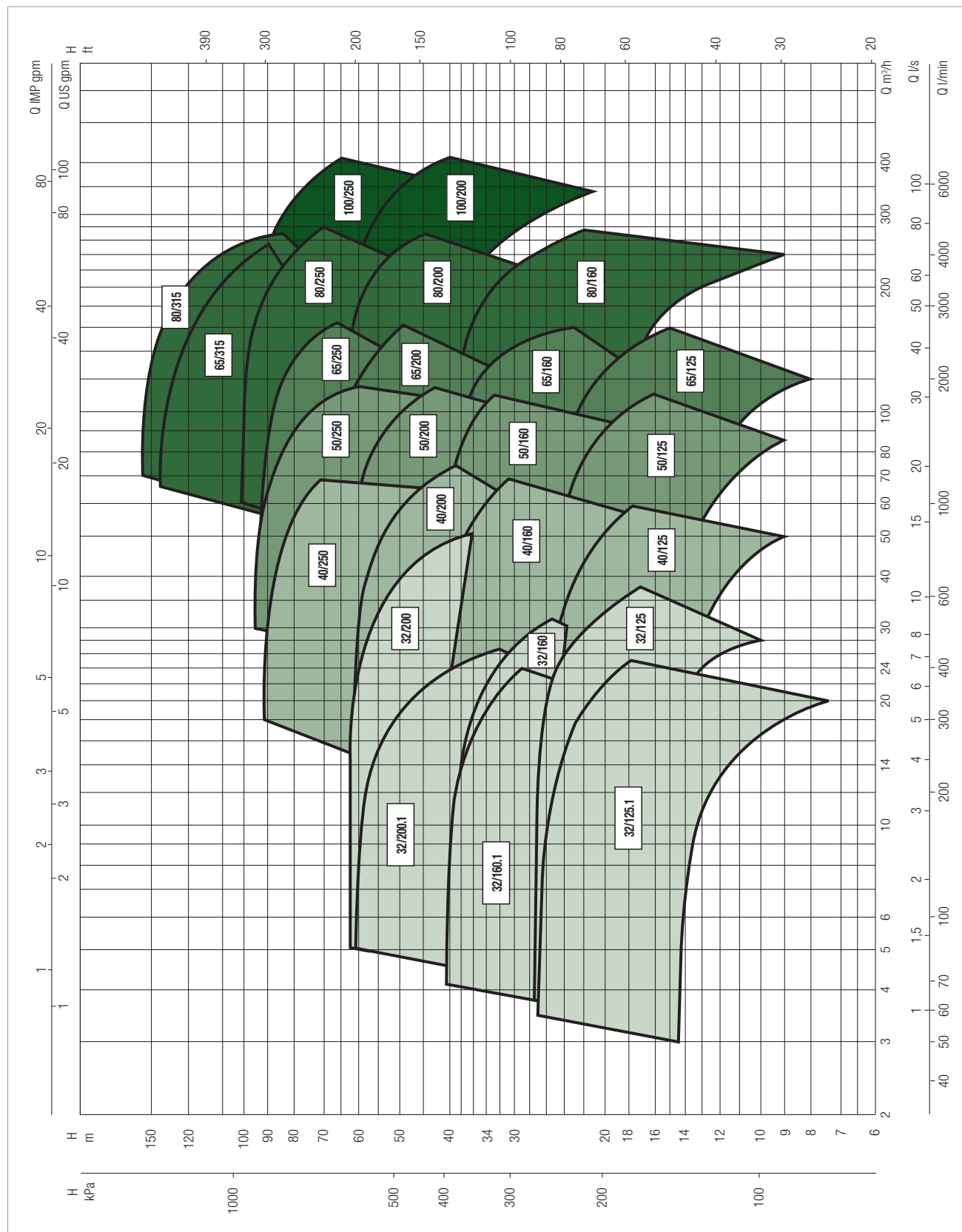
STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE

= 2900 1/min



KDN - 2 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 32

| MODEL | Q=m ³ /h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 |
|------------------|---------------------|------|------|------|------|------|------|------|------|------|
| | Q=l/min | 0 | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 |
| KDN 32-125.1/105 | H (m) | 13.8 | 13.6 | 12.3 | 9.7 | | | | | |
| KDN 32-125.1/110 | | 15.5 | 15.2 | 13.9 | 11.5 | | | | | |
| KDN 32-125.1/115 | | 17.1 | 16.8 | 15.5 | 13.2 | | | | | |
| KDN 32-125.1/120 | | 18.8 | 18.5 | 17.3 | 15.1 | | | | | |
| KDN 32-125.1/125 | | 20.5 | 20.3 | 19.1 | 17 | | | | | |
| KDN 32-125.1/130 | | 22.3 | 22.2 | 21.3 | 19 | | | | | |
| KDN 32-125.1/135 | | 24.4 | 24.1 | 23.3 | 21.1 | 17.8 | | | | |
| KDN 32-125.1/140 | | 26.5 | 26.4 | 25.6 | 23.4 | 20.1 | | | | |
| KDN 32-125/115 | | 17.3 | | 16.5 | 15.1 | 12.9 | | | | |
| KDN 32-125/120 | | 19 | | 18.2 | 17 | 14.9 | 11.1 | | | |
| KDN 32-125/125 | | 20.9 | | 20.1 | 18.9 | 16.9 | 13.5 | | | |
| KDN 32-125/130 | | 22.9 | | 22 | 21 | 19.1 | 16.2 | | | |
| KDN 32-125/135 | | 24.9 | | 24 | 22.1 | 21.5 | 18.5 | 14.7 | | |
| KDN 32-125/142 | | 27.8 | | 27 | 26.1 | 24.5 | 21.7 | 18 | | |
| KDN 32-160.1/137 | | 21.5 | 21.2 | 19.3 | | | | | | |
| KDN 32-160.1/145 | | 24.7 | 24.5 | 22.3 | 16.5 | | | | | |
| KDN 32-160.1/153 | | 28.3 | 28 | 26 | 20.5 | | | | | |
| KDN 32-160.1/161 | | 32 | 31.8 | 30 | 25 | | | | | |
| KDN 32-160.1/169 | | 36 | 35.7 | 34.4 | 29.5 | | | | | |
| KDN 32-160.1/177 | | 39.5 | 39.3 | 38.2 | 34.5 | 26 | | | | |
| KDN 32-160/137 | | 23.7 | | 22.6 | 20.7 | 17.6 | | | | |
| KDN 32-160/145 | | 27 | | 25.8 | 23.9 | 21.2 | 16.9 | | | |
| KDN 32-160/153 | | 30.4 | | 29.5 | 27.7 | 25.8 | 21.2 | | | |
| KDN 32-160/161 | | 34 | | 33 | 31.7 | 29.1 | 25.5 | | | |
| KDN 32-160/169 | | 38 | | 37.3 | 36 | 33.6 | 35.7 | 26.5 | | |
| KDN 32-160/177 | | 41.8 | | 41.5 | 40.5 | 38.4 | 35.3 | 31.4 | | |
| KDN 32-200.1/170 | | 34.3 | 34.2 | 31.9 | 23.5 | | | | | |
| KDN 32-200.1/180 | | 39.4 | 39.2 | 36.7 | 30 | | | | | |
| KDN 32-200.1/190 | | 45.3 | 44.7 | 41.5 | 35.5 | | | | | |
| KDN 32-200.1/200 | | 51.5 | 51 | 47.3 | 41 | 35 | | | | |
| KDN 32-200.1/207 | | 55.3 | 55 | 51.8 | 46.4 | 37 | | | | |
| KDN 32-200/170 | | 34 | | 33 | 31 | 27 | 21 | | | |
| KDN 32-200/180 | | 39 | | 38.5 | 36.5 | 32.5 | 28 | | | |
| KDN 32-200/190 | | 45 | | 43.5 | 42 | 39 | 34 | 28.5 | | |
| KDN 32-200/200 | | 51 | | 49 | 48 | 45 | 40.5 | 35 | | |
| KDN 32-200/210 | | 57 | | 56 | 55 | 52.5 | 48.5 | 43 | 36 | |
| KDN 32-200/219 | | 63 | | 62 | 61 | 59 | 56.5 | 52.5 | 46.5 | 39.5 |

KDN - 2 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 40

| MODEL | Q=m ³ /h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 |
|----------------|---------------------|------|-----|------|------|------|------|------|------|------|------|------|------|------|
| | Q=l/min | 0 | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 |
| KDN 40-125/115 | H (m) | 16.8 | | 13.3 | 15.6 | 15 | 14.3 | 13.2 | 12.6 | 9.8 | | | | |
| KDN 40-125/120 | | 18.5 | | 18 | 17.5 | 17 | 16 | 15 | 13.5 | 11.8 | | | | |
| KDN 40-125/125 | | 20.4 | | 20 | 19.5 | 19 | 18 | 16.7 | 15.3 | 13.5 | | | | |
| KDN 40-125/130 | | 22 | | 21.8 | 21.5 | 21 | 20 | 19 | 17.5 | 15.7 | 14 | | | |
| KDN 40-125/135 | | 24.1 | | 24 | 23.9 | 23.4 | 22.5 | 21.5 | 20 | 18.3 | 16.4 | | | |
| KDN 40-125/142 | | 26.8 | | 26.6 | 26.4 | 26 | 25.3 | 24.4 | 23 | 21.4 | 19.4 | 17 | | |
| KDN 40-160/137 | | 23.9 | | | 23.8 | 23 | 22 | 20.5 | 18 | 15 | | | | |
| KDN 40-160/145 | | 27.5 | | | 27.4 | 27 | 25.7 | 24.2 | 22.1 | 19.5 | | | | |
| KDN 40-160/153 | | 31.1 | | | 31 | 30.5 | 29.5 | 28 | 26.5 | 24 | 21 | | | |
| KDN 40-160/161 | | 34.5 | | | 34.5 | 34.4 | 33.7 | 32.3 | 30.5 | 28.5 | 25.8 | 22.5 | | |
| KDN 40-160/169 | | 38.4 | | | 38.4 | 38.2 | 38 | 37 | 35 | 33.5 | 31 | 28 | | |
| KDN 40-160/177 | | 42.6 | | | 42.5 | 42.4 | 42 | 41.5 | 40 | 38.5 | 35 | 33 | 30 | |
| KDN 40-200/170 | | 33.6 | | | 33 | 32.6 | 32 | 30 | 26.5 | 22.5 | | | | |
| KDN 40-200/180 | | 38.8 | | | 38.5 | 38 | 37 | 35 | 32.5 | 29 | 25 | | | |
| KDN 40-200/190 | | 43.4 | | | 43.1 | 43 | 42.7 | 41 | 38 | 35 | 31.5 | 27 | | |
| KDN 40-200/200 | | 48.7 | | | 48.4 | 48.2 | 47.5 | 46.5 | 44 | 41.5 | 38.5 | 34.5 | | |
| KDN 40-200/210 | | 54.3 | | | 54.1 | 54 | 53.6 | 53 | 51 | 48.5 | 46 | 42.5 | 38 | |
| KDN 40-200/219 | | 60 | | | 59.8 | 59.7 | 59.4 | 59 | 57 | 55 | 52.5 | 49.5 | 46 | 40 |
| KDN 40-250/220 | | 63.1 | | | 62.8 | 62.5 | 61 | 59 | 57 | 55 | 52 | 48 | | |
| KDN 40-250/230 | | 69.5 | | | 69.3 | 68.5 | 67.8 | 66 | 63.5 | 61 | 58 | 55 | 51 | |
| KDN 40-250/240 | | 76.3 | | | 76 | 75.8 | 75 | 73 | 70.5 | 68 | 65 | 62 | 58.5 | |
| KDN 40-250/250 | | 82.8 | | | 82.5 | 82 | 81.8 | 80 | 78 | 75.5 | 72.5 | 69 | 66 | |
| KDN 40-250/260 | | 91 | | | 90.5 | 90 | 89.5 | 88.5 | 86.5 | 84 | 81 | 78 | 74 | |

KDN - 2 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 50

| MODEL | Q=m ³ /h | 0 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | 90 | 102 | 114 |
|----------------|---------------------|------|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | Q=l/min | 0 | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1700 | 1900 |
| KDN 50-125/115 | H (m) | 17.1 | | | | | 15.9 | 15.5 | 15 | 14.3 | 13.6 | 13 | 12.2 | 11.5 | 10.4 | 9 | | | |
| KDN 50-125/120 | | 18.2 | | | | | 17.5 | 17 | 16.5 | 16 | 15.3 | 14.7 | 14 | 13.2 | 12 | 11.2 | 10 | | |
| KDN 50-125/125 | | 19.8 | | | | | 19.4 | 19 | 18.5 | 17.9 | 17.4 | 16.6 | 16 | 15.1 | 14 | 13 | 11.8 | | |
| KDN 50-125/130 | | 21.5 | | | | | 21.1 | 20.8 | 20.5 | 19.8 | 19.2 | 18.5 | 17.8 | 17 | 16.5 | 15.2 | 14 | | |
| KDN 50-125/135 | | 23.2 | | | | | 23 | 22.6 | 22.3 | 21.8 | 21.2 | 20.6 | 19.9 | 19.3 | 18.4 | 17.5 | 16.3 | 13.7 | |
| KDN 50-125/139 | | 24.7 | | | | | 24.5 | 24.3 | 24 | 23.5 | 23 | 22.4 | 21.6 | 20.8 | 20 | 19.2 | 18 | 15.5 | |
| KDN 50-125/144 | | 25.9 | | | | | 26.5 | 26.4 | 26.1 | 25.6 | 25.1 | 24.5 | 24 | 23.2 | 22.3 | 21.5 | 20.5 | 17.8 | 15 |
| KDN 50-160/137 | | 24.2 | | | | | 23.8 | 23.7 | 23.5 | 22.5 | 22 | 21 | 20.3 | 19 | 18 | 16.8 | 15 | | |
| KDN 50-160/145 | | 27.2 | | | | | 27 | 26.9 | 26.6 | 26.4 | 25.5 | 25 | 23.8 | 23 | 21.5 | 20.5 | 19 | | |
| KDN 50-160/153 | | 30.3 | | | | | 30.3 | 30.2 | 30 | 29.9 | 29.5 | 28.5 | 27.7 | 26.5 | 25.5 | 24.5 | 23 | | |
| KDN 50-160/161 | | 33.8 | | | | | 33.7 | 33.7 | 33.6 | 33.6 | 33.3 | 32.5 | 31.8 | 31 | 29.8 | 28.5 | 27.5 | | |
| KDN 50-160/169 | | 37.7 | | | | | 37.7 | 37.5 | 37.5 | 37.4 | 37 | 36.2 | 35.7 | 35.5 | 34.2 | 33 | 31.5 | 29 | |
| KDN 50-160/177 | | 41.6 | | | | | 41.5 | 41.5 | 41.3 | 41.2 | 41 | 40.6 | 40.5 | 39.5 | 38.8 | 38 | 36.7 | 33.5 | |
| KDN 50-200/170 | | 37.9 | | | | | 37 | 36.8 | 36.4 | 35 | 34 | 32 | 30 | 27 | 25 | | | | |
| KDN 50-200/180 | | 42.5 | | | | | 42 | 41.7 | 41.4 | 40.5 | 39.5 | 38 | 36 | 34 | 32 | 29 | | | |
| KDN 50-200/190 | | 47.2 | | | | | 46.8 | 46.6 | 46 | 45.7 | 44.5 | 43.5 | 42 | 40 | 38 | 35.5 | 33 | | |
| KDN 50-200/200 | | 52.4 | | | | | 52.2 | 52 | 18 | 51.5 | 50.5 | 49 | 47.5 | 46 | 44.5 | 42 | 40 | | |
| KDN 50-200/210 | | 58.4 | | | | | 58.4 | 58.2 | 58 | 57.5 | 56.5 | 55.5 | 54 | 52.5 | 51 | 49 | 46.5 | 41.5 | |
| KDN 50-200/219 | | 64 | | | | | 64 | 64 | 64 | 63.5 | 62.5 | 61.5 | 60 | 58.5 | 57 | 55 | 53 | 48.5 | |
| KDN 50-250/220 | | 63.7 | | | | | 63.3 | 63.1 | 63 | 62 | 61 | 59 | 57.5 | 55 | 53 | 50 | 46.5 | 36 | |
| KDN 50-250/230 | | 69.6 | | | | | 69.3 | 69 | 68.8 | 68.5 | 68 | 66 | 64 | 62 | 60 | 57 | 54 | 45 | |
| KDN 50-250/240 | | 76 | | | | | 75.8 | 75.5 | 75.3 | 75 | 74.5 | 73 | 71.5 | 69 | 67 | 65 | 62 | 55 | |
| KDN 50-250/250 | | 83.2 | | | | | 83 | 82.9 | 82.8 | 83.5 | 82 | 80.5 | 78.5 | 77 | 75 | 72.5 | 70 | 64 | |
| KDN 50-250/263 | | 92.1 | | | | | 92 | 91.8 | 91.6 | 91.5 | 91.3 | 89.9 | 88.5 | 86.5 | 84.5 | 82.5 | 80 | 75 | 61 |

KDN - 2 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 65

| MODEL | Q=m ³ /h | 0 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | 90 | 102 | 114 | 120 | 150 | 180 | 210 | 240 |
|--------------------|---------------------|-------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| | Q=l/min | 0 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1700 | 1900 | 2000 | 2500 | 3000 | 3500 | 4000 |
| KDN 65-125/120/110 | H (m) | 16 | 14.4 | 14 | 13.6 | 13.1 | 12.8 | 12.2 | 11.9 | 11.4 | 10.2 | 8.7 | 8 | | | | |
| KDN 65-125/120 | | 17.8 | 16 | 15.6 | 15.3 | 14.9 | 14.4 | 13.9 | 13.4 | 13 | 11.5 | 10.3 | 9.4 | | | | |
| KDN 65-125/125 | | 19.4 | 17.8 | 17.5 | 17.1 | 16.8 | 16.4 | 16 | 15.4 | 15 | 13.5 | 12.2 | 11.4 | | | | |
| KDN 65-125/130 | | 21 | 19.6 | 19.5 | 19.1 | 18.9 | 18.5 | 18 | 17.5 | 17 | 15.7 | 14.2 | 13.2 | | | | |
| KDN 65-125/135 | | 22.6 | 21.8 | 21.5 | 21.3 | 21 | 20.5 | 20.1 | 19.6 | 19.2 | 18 | 16.5 | 15.6 | | | | |
| KDN 65-125/140 | | 24 | 23.6 | 23.5 | 23.4 | 23 | 22.8 | 22.3 | 22 | 21.4 | 20.3 | 18.9 | 18 | 13.8 | | | |
| KDN 65-125/144 | | 25.6 | 25.5 | 25.4 | 25.2 | 25 | 24.6 | 24.3 | 24 | 23.4 | 22.5 | 21.1 | 20.2 | 16 | | | |
| KDN 65-160/137 | | 23.1 | 22.4 | 22 | 21.7 | 21.3 | 20.5 | 19.7 | 19 | 18 | 16 | | | | | | |
| KDN 65-160/145 | | 26.2 | 25.7 | 25.5 | 25 | 24.6 | 24 | 23.5 | 22.7 | 22 | 20 | 17.8 | 16.5 | | | | |
| KDN 65-160/153 | | 29.1 | 28.8 | 28.5 | 28.6 | 28.5 | 28 | 27.5 | 26.6 | 26 | 24 | 22 | 21 | | | | |
| KDN 65-160/161 | | 32.6 | 32.5 | 32.4 | 32.3 | 32 | 31.7 | 31.3 | 30.5 | 30 | 28.5 | 26.5 | 25.5 | | | | |
| KDN 65-160/169 | | 36.4 | 36.3 | 36.2 | 36.1 | 36 | 35.7 | 35.3 | 34.7 | 34 | 32.7 | 31 | 30 | | | | |
| KDN 65-160/177 | | 40.1 | 39.9 | 39.8 | 39.7 | 40 | 39.8 | 39.5 | 39 | 38.5 | 37.2 | 35.5 | 34.7 | 28.5 | | | |
| KDN 65-200/170 | | 37.2 | 36.8 | 36.7 | 36.6 | 36.5 | 36 | 35 | 34 | 32.5 | 30 | 27 | 25 | | | | |
| KDN 65-200/180 | | 41.7 | 41.4 | 41.3 | 41.2 | 41.1 | 41 | 40.5 | 40 | 39 | 36.5 | 34 | 32 | | | | |
| KDN 65-200/190 | | 48.3 | 48.2 | 48.1 | 48 | 47.9 | 47.5 | 47 | 41 | 45 | 43 | 40.5 | 39 | | | | |
| KDN 65-200/200 | | 53.2 | 53.1 | 52.9 | 52.8 | 52.7 | 52.5 | 52.3 | 52 | 51.8 | 50 | 48 | 46.5 | | | | |
| KDN 65-200/210 | | 59.2 | 59.1 | 59 | 58.9 | 58.8 | 58.7 | 58.5 | 58.2 | 58 | 56.5 | 54.5 | 53.5 | | | | |
| KDN 65-200/219 | | 64.9 | 64.9 | 64.8 | 64.5 | 64.3 | 64.1 | 64 | 63.8 | 62.5 | 62.4 | 61 | 60 | 52.5 | | | |
| KDN 65-250/220 | | 63.2 | 62.8 | 62.5 | 62 | 61 | 60 | 59.5 | 58 | 57 | 54 | 50.5 | 48 | | | | |
| KDN 65-250/230 | | 69.5 | 69.5 | 69 | 68.5 | 68 | 67 | 66 | 65 | 64 | 63 | 58.5 | 56.5 | | | | |
| KDN 65-250/240 | | 76 | 75.7 | 75.5 | 75 | 75 | 74 | 73 | 72 | 71 | 69 | 66 | 64 | | | | |
| KDN 65-250/250 | | 83 | 82.3 | 82.3 | 82.2 | 82 | 81.5 | 81 | 80 | 79 | 76.5 | 73.5 | 72 | 60 | | | |
| KDN 65-250/263 | | 92.6 | 91.8 | 91.8 | 91.7 | 91.5 | 91.5 | 91 | 90 | 89.5 | 87.5 | 85 | 83 | 72.5 | | | |
| KDN 65-315/260 | | 92.8 | | | | 92.7 | 91.9 | 90.9 | 89.7 | 88.5 | 85.5 | 81.9 | 79.9 | 67.8 | | | |
| KDN 65-315/275 | | 105 | | | | 104.5 | 103.9 | 103.1 | 102.1 | 101.1 | 98.5 | 95.5 | 93.8 | 83.3 | 69.5 | | |
| KDN 65-315/290 | | 117.1 | | | | 117.0 | 116.5 | 115.9 | 115.1 | 114.3 | 112.2 | 109.7 | 108.3 | 99.4 | 87.6 | | |
| KDN 65-315/305 | | 130 | | | | 129.6 | 129.2 | 128.7 | 128.0 | 127.3 | 125.5 | 123.2 | 121.9 | 113.8 | 103.0 | 89.6 | |
| KDN 65-315/320 | | 143 | | | | 142.9 | 142.6 | 142.1 | 141.6 | 140.9 | 139.3 | 137.3 | 136.2 | 128.9 | 119.1 | 106.8 | 92.0 |

SELECTION TABLE - KDN 80

| MODEL | Q=m³/h | 0 | 90 | 102 | 114 | 120 | 150 | 180 | 210 | 240 | 270 | 300 |
|--------------------|----------|------|-------|-------|-------|-------|-------|-------|-------|------|------|------|
| | Q=l/min | 0 | 1500 | 1700 | 1900 | 2000 | 2500 | 3000 | 3500 | 4000 | 4500 | 5000 |
| KDN 80-160/147/127 | H (m) | 23 | 21.5 | 207 | 20 | 19.5 | 17 | 14.5 | 11.8 | 8.8 | | |
| KDN 80-160/153/136 | | 25.6 | 24.5 | 23.8 | 23 | 22.5 | 20.2 | 17.5 | 15 | 11.8 | | |
| KDN 80-160/153 | | 29.3 | 28 | 27.3 | 26.5 | 26 | 23.5 | 20.7 | 16.5 | 14.5 | | |
| KDN 80-160/161 | | 32.8 | 32 | 31.5 | 30.5 | 30 | 27.8 | 25 | 21.5 | 18.5 | | |
| KDN 80-160/169 | | 36.5 | 35.7 | 35.2 | 34.5 | 34.2 | 32 | 29.5 | 26.5 | 22.6 | 18.5 | |
| KDN 80-160/177 | | 40 | 39.5 | 39.2 | 38.7 | 38.5 | 37 | 34.8 | 31.8 | 27.8 | 23 | |
| KDN 80-200/170 | | 36.6 | 35.7 | 35.5 | 34.5 | 34 | 31 | 27 | 21.5 | | | |
| KDN 80-200/180 | | 41 | 40.6 | 40.5 | 40 | 39.5 | 37 | 33 | 27.5 | | | |
| KDN 80-200/190 | | 45.7 | 45.4 | 45 | 44.5 | 44 | 42 | 29 | 34 | | | |
| KDN 80-200/200 | | 50.8 | 50.4 | 50.2 | 50 | 49.6 | 49 | 46.5 | 41 | 35 | | |
| KDN 80-200/210 | | 56.3 | 55.9 | 55.8 | 55.7 | 55.6 | 54.8 | 52 | 48 | 43 | | |
| KDN 80-200/222 | | 63.6 | 63.4 | 63.3 | 63.2 | 63.1 | 63 | 60 | 56.5 | 51.5 | 45 | |
| KDN 80-250/220 | | 62.6 | 62.5 | 62.4 | 62 | 61.8 | 60 | 55.5 | 49 | | | |
| KDN 80-250/230 | | 68.3 | 68.2 | 68.1 | 68 | 67.9 | 67 | 63 | 57 | 50 | | |
| KDN 80-250/240 | | 75.5 | 75.4 | 75.3 | 75.2 | 75 | 74.5 | 71 | 65.5 | 58.5 | | |
| KDN 80-250/250 | | 82.5 | 82.3 | 82 | 81.9 | 81.7 | 82 | 78.5 | 74 | 67.5 | 60.5 | |
| KDN 80-250/260 | | 90 | 89.7 | 89.6 | 86.5 | 89.3 | 89 | 86.5 | 82 | 77 | 70 | 61.5 |
| KDN 80-250/270 | | 97.9 | 97.8 | 97.5 | 91.3 | 97 | 96.5 | 94 | 89 | 84 | 77 | 69 |
| KDN 80-315/275 | | 101 | 101 | 100.8 | 100.8 | 100.7 | 100.1 | 97.6 | 92 | 82.7 | 73.5 | |
| KDN 80-315/290 | | 114 | 113.9 | 113.8 | 113.8 | 113.7 | 112 | 109.8 | 106.6 | 99.3 | 92.5 | 80.1 |

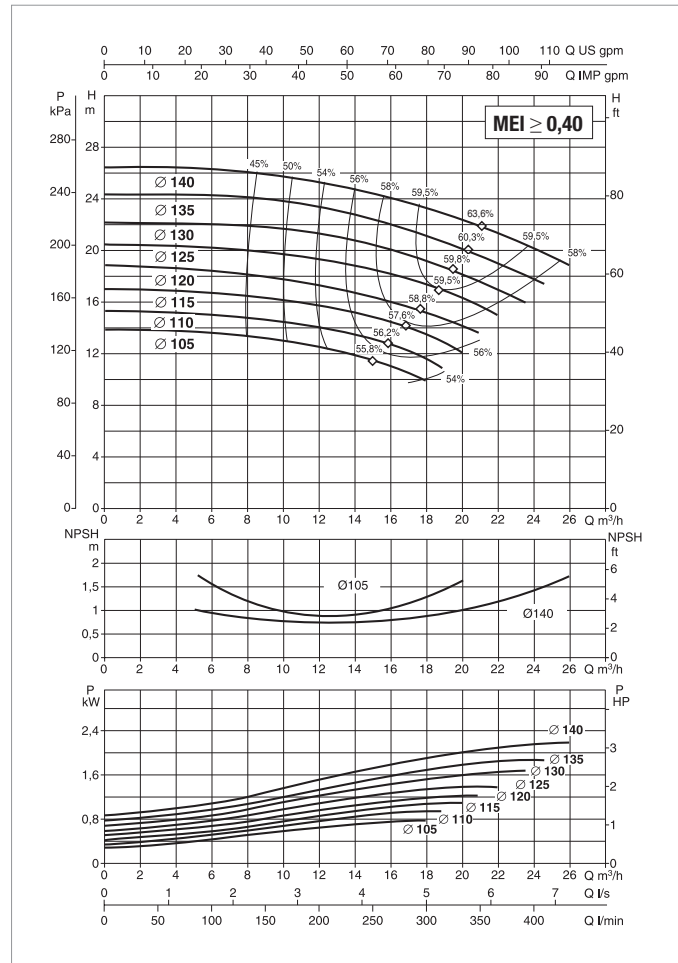
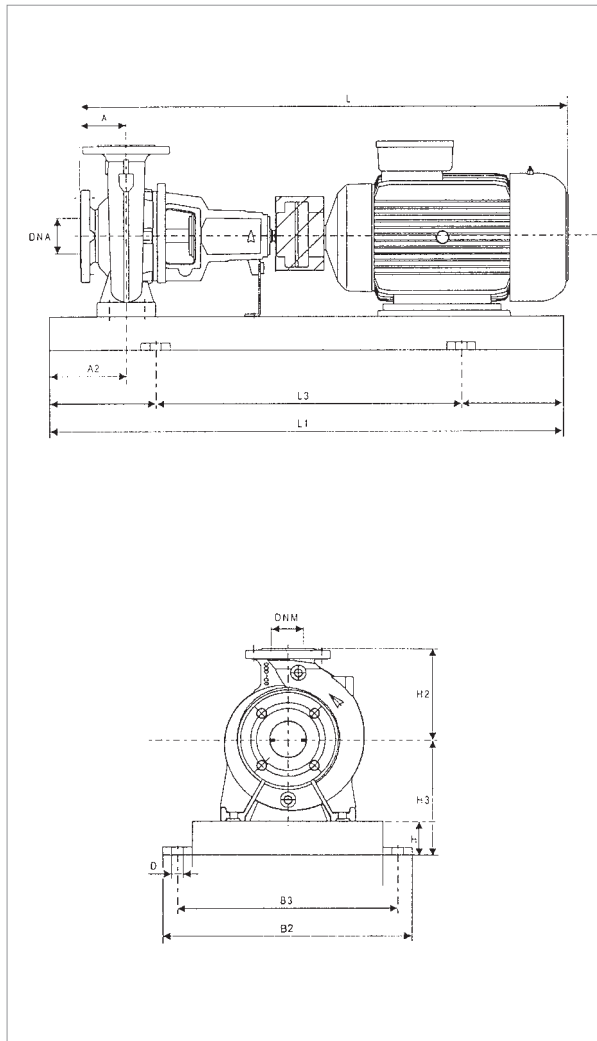
SELECTION TABLE - KDN 100

| MODEL | Q=m³/h | 0 | 150 | 180 | 210 | 240 | 270 | 300 | 330 | 360 | 390 | 420 |
|-----------------|----------|------|------|------|------|------|------|------|------|------|------|------|
| | Q=l/min | 0 | 2500 | 3000 | 3500 | 4000 | 4500 | 4500 | 5500 | 6000 | 6500 | 7000 |
| KDN 100-200/180 | H (m) | 40.4 | 40 | 38 | 36 | 33 | 30.5 | 28 | 25 | | | |
| KDN 100-200/190 | | 46.5 | 45 | 44 | 42 | 39 | 37 | 34.5 | 31 | 28 | | |
| KDN 100-200/200 | | 51.5 | 51 | 50 | 48.5 | 46 | 44 | 42 | 39 | 35 | 31.5 | |
| KDN 100-200/210 | | 57.5 | 57 | 56 | 55 | 53 | 51 | 49 | 46 | 43 | 39 | 36 |
| KDN 100-200/219 | | 64 | 62.5 | 62 | 61 | 60 | 58 | 56 | 53 | 50 | 47 | 43 |
| KDN 100-250/220 | | 61.1 | 60 | 59.5 | 57 | 54 | 50.5 | 46.5 | 42 | | | |
| KDN 100-250/230 | | 67.4 | 66.9 | 66.5 | 64 | 61 | 58 | 54 | 49 | 44 | | |
| KDN 100-250/240 | | 73.5 | 72.9 | 71 | 70.5 | 69 | 66 | 63 | 58.5 | 53 | | |
| KDN 100-250/250 | | 79.7 | 79.5 | 79 | 78.8 | 77 | 74 | 71 | 67 | 62.5 | | |
| KDN 100-250/260 | | 88.6 | 88.2 | 88.1 | 88 | 86 | 83 | 79.5 | 76 | 71.5 | 66 | |

KDN 32-125.1 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40 °C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|--------------|-----------------------|---------------|----------------------|-----------|-----|---------------|
| | POWER (kW) 2 POLES | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | | | | IE2 | IE3 | |
| KDN 32-125.1 | 0.75 | MEC 80 | 3 x 230 - 400 V ~ | 2.81/1.62 | — | IE2 |
| | 1.1 | MEC 80 | 3 x 230 - 400 V ~ | 4.07/2.36 | — | IE2 |
| | 1.5 | MEC 90S | 3 x 230 - 400 V ~ | 5.80/3.35 | — | IE2 |
| | 2.2 | MEC 90L | 3 x 230 - 400 V ~ | 8.23/4.75 | — | IE2 |
| | 3 | MEC 100L | 3 - 400 V ~ Δ | 5.85 | — | IE2 |
| | 4 | MEC 112M | 3 - 400 V ~ Δ | 8.05 | — | IE2 |

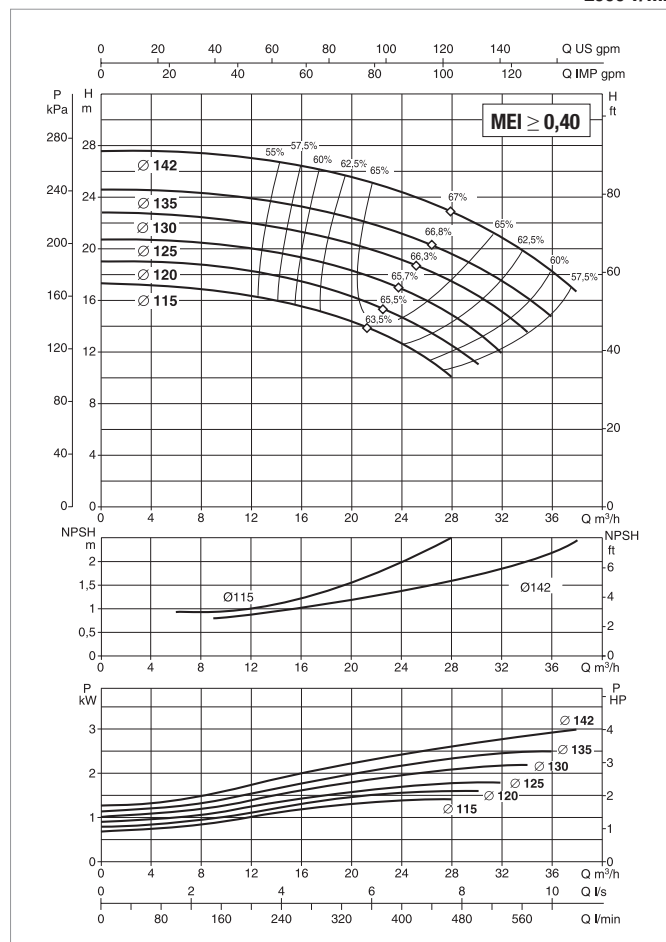
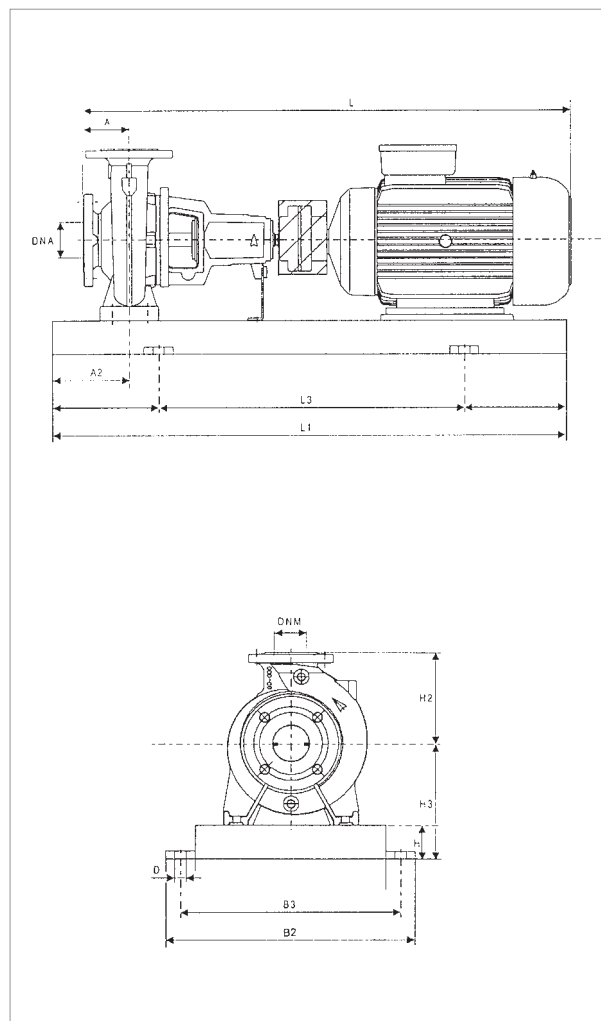
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|--------------|---------------|----------------------|----|-----|----|-----|-----|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 32-125.1 | 0.75 | 80 | 60 | 140 | 65 | 177 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | 740 | 85 | — | — | 840 | 90 | — | — | 2 |
| | 1.1 | 80 | 60 | 140 | 65 | 177 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | 740 | 86 | — | — | 840 | 91 | — | — | 2 |
| | 1.5 | 80 | 60 | 140 | 65 | 177 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | 765 | 93 | — | — | 865 | 98 | — | — | 3 |
| | 2.2 | 80 | 60 | 140 | 65 | 177 | 900 | 600 | 390 | 350 | 19 | 50 | 32 | 790 | 100 | — | — | 890 | 105 | — | — | 3 |
| | 3 | 80 | 60 | 140 | 65 | 177 | 900 | 600 | 390 | 350 | 19 | 50 | 32 | 830 | 102 | — | — | 930 | 107 | — | — | 3 |
| | 4 | 80 | 60 | 140 | 65 | 177 | 900 | 600 | 390 | 350 | 19 | 50 | 32 | 845 | 102 | — | — | 945 | 107 | — | — | 3 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 32-125 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|-----------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 32-125 | 1.1 | MEC 80 | 3 x 230 - 400 V ~ | 4.07/2.36 | — | IE2 |
| | 1.5 | MEC 90S | 3 x 230 - 400 V ~ | 5.80/3.35 | — | IE2 |
| | 2.2 | MEC 90L | 3 x 230 - 400 V ~ | 8.23/4.75 | — | IE2 |
| | 3 | MEC 100L | 3 - 400 V ~ Δ | 5.85 | — | IE2 |
| | 4 | MEC 112M | 3 - 400 V ~ Δ | 8.05 | — | IE2 |

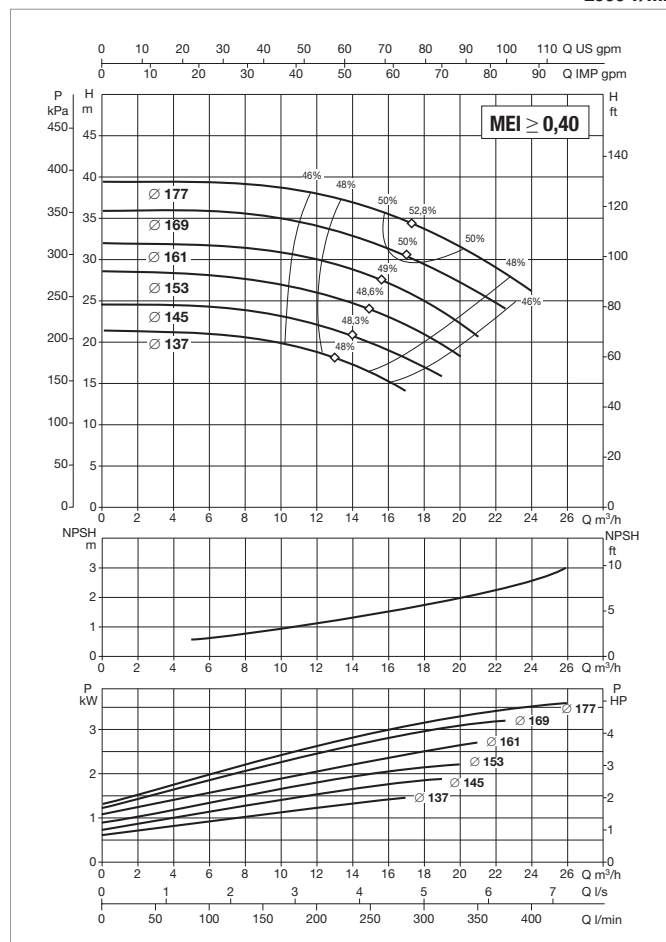
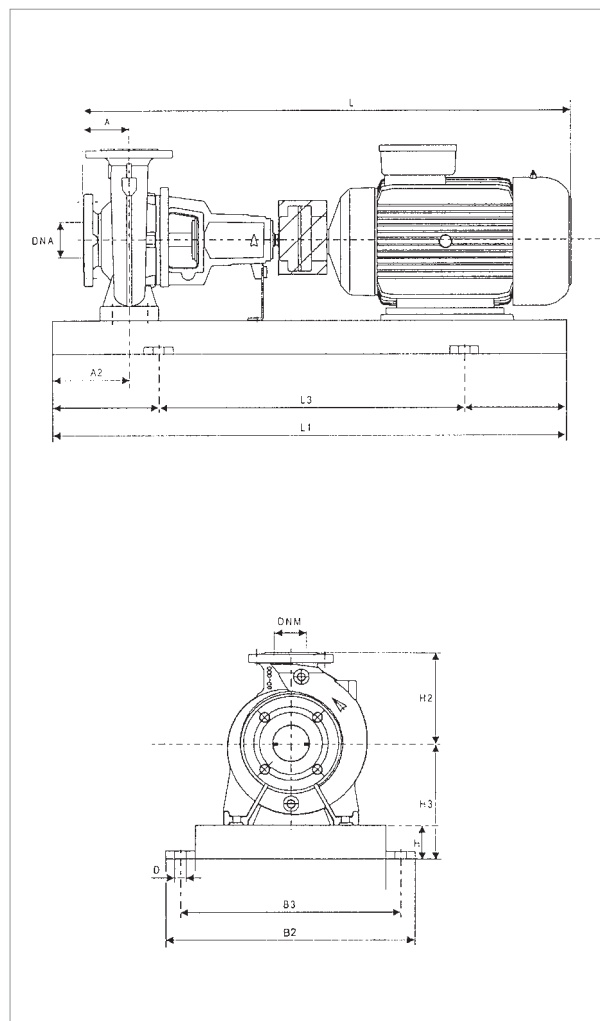
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|-----|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 32-125 | 1.1 | 80 | 60 | 140 | 65 | 177 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | 740 | 85 | — | — | 840 | 90 | — | — | 2 |
| | 1.5 | 80 | 60 | 140 | 65 | 177 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | 765 | 86 | — | — | 865 | 91 | — | — | 2 |
| | 2.2 | 80 | 60 | 140 | 65 | 177 | 900 | 600 | 390 | 350 | 19 | 50 | 32 | 790 | 93 | — | — | 890 | 98 | — | — | 3 |
| | 3 | 80 | 60 | 140 | 65 | 177 | 900 | 600 | 390 | 350 | 19 | 50 | 32 | 830 | 96.3 | — | — | 930 | 101.3 | — | — | 3 |
| | 4 | 80 | 60 | 140 | 65 | 177 | 900 | 600 | 390 | 350 | 19 | 50 | 32 | 845 | 117 | — | — | 945 | 122 | — | — | 3 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 32-160.1 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|--------------|-----------------------|---------------|----------------------|-----------|-----|---------------|
| | POWER (kW) 2 POLES | SIZE MOTOR | POWER INPUT 50 Hz | In A | | TYPE MOTOR |
| | | | | IE2 | IE3 | |
| KDN 32-160.1 | 1.1 | MEC 80 | 3 x 230 - 400 V ~ | 4.07/2.36 | — | IE2 |
| | 1.5 | MEC 90S | 3 x 230 - 400 V ~ | 5.80/3.35 | — | IE2 |
| | 2.2 | MEC 90L | 3 x 230 - 400 V ~ | 8.23/4.75 | — | IE2 |
| | 3 | MEC 100L | 3 - 400 V ~ Δ | 5.85 | — | IE2 |
| | 4 | MEC 112M | 3 - 400 V ~ Δ | 8.05 | — | IE2 |
| | 5.5 | MEC 132S | 3 - 400 V ~ Δ | 10.4 | — | IE2 |

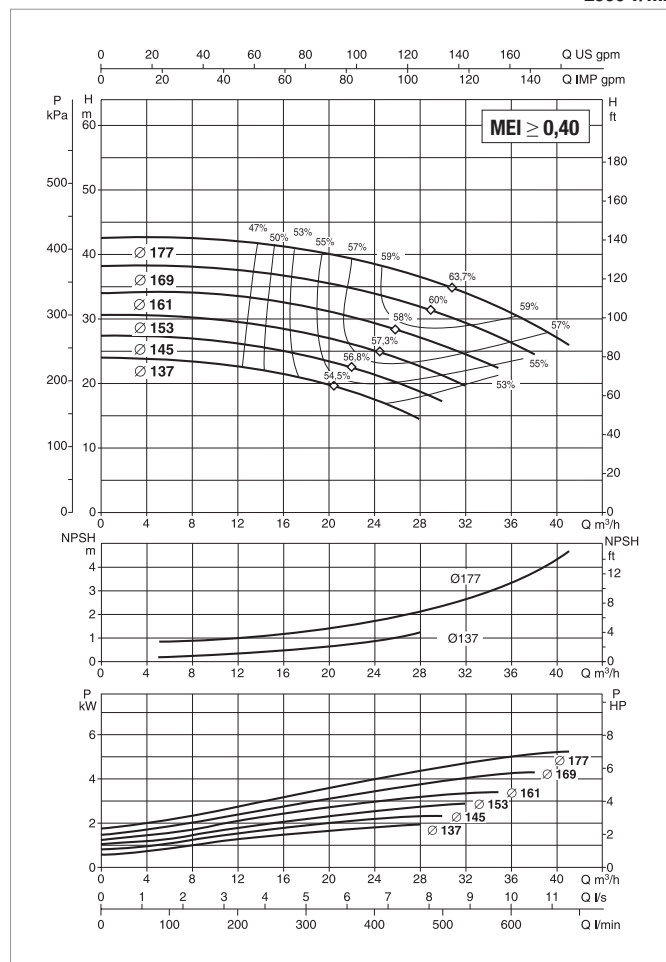
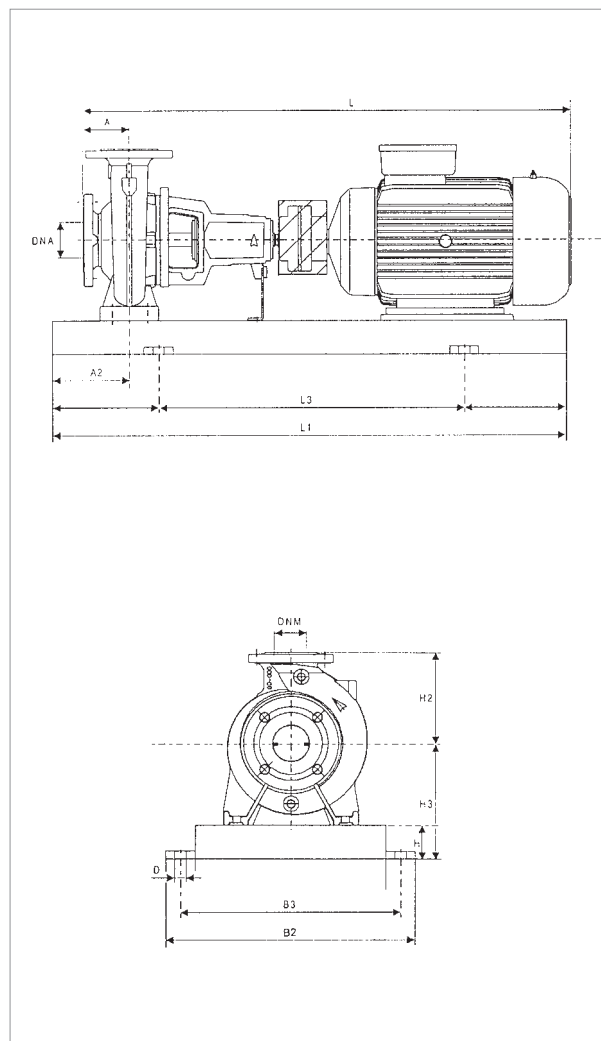
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REMARKS |
|--------------|---------------|----------------------|----|-----|----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|---------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| | | | | | | | | | | | | | | | | | | | | | | |
| KDN 32-160.1 | 1.5 | 80 | 60 | 160 | 65 | 197 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | 740 | 91 | — | — | 840 | 96 | — | — | 2 |
| | 1.5 | 80 | 60 | 160 | 65 | 197 | 800 | 540 | 360 | 320 | 19 | 50 | 32 | 765 | 94 | — | — | 865 | 99 | — | — | 2 |
| | 2.2 | 80 | 60 | 160 | 65 | 197 | 900 | 600 | 390 | 350 | 19 | 50 | 32 | 790 | 102 | — | — | 890 | 107 | — | — | 3 |
| | 3 | 80 | 60 | 160 | 65 | 197 | 900 | 600 | 390 | 350 | 19 | 50 | 32 | 830 | 102 | — | — | 930 | 107 | — | — | 3 |
| | 4 | 80 | 60 | 160 | 65 | 197 | 900 | 600 | 390 | 350 | 19 | 50 | 32 | 845 | 104 | — | — | 945 | 109 | — | — | 3 |
| | 5.5 | 80 | 60 | 160 | 80 | 212 | 1000 | 660 | 450 | 400 | 24 | 50 | 32 | 915 | 136 | — | — | 1015 | 141 | — | — | 4 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 32-160 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------------|---------------|----------------------|-----------|------|---------------|
| | POWER (kW) 2 POLES | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | | | | IE2 | IE3 | |
| KDN 32-160 | 2.2 | MEC 90L | 3 x 230 - 400 V ~ | 8.23/4.75 | — | IE2 |
| | 3 | MEC 100L | 3 x 400 V ~ Δ | 5.85 | — | IE2 |
| | 4 | MEC 112M | 3 x 400 V ~ Δ | 8.05 | — | IE2 |
| | 5.5 | MEC 132S | 3 x 400 V ~ Δ | 10.4 | — | IE2 |
| | 7.5 | MEC 132S | 3 x 400 V ~ Δ | 14 | 13.4 | IE2 / IE3 |

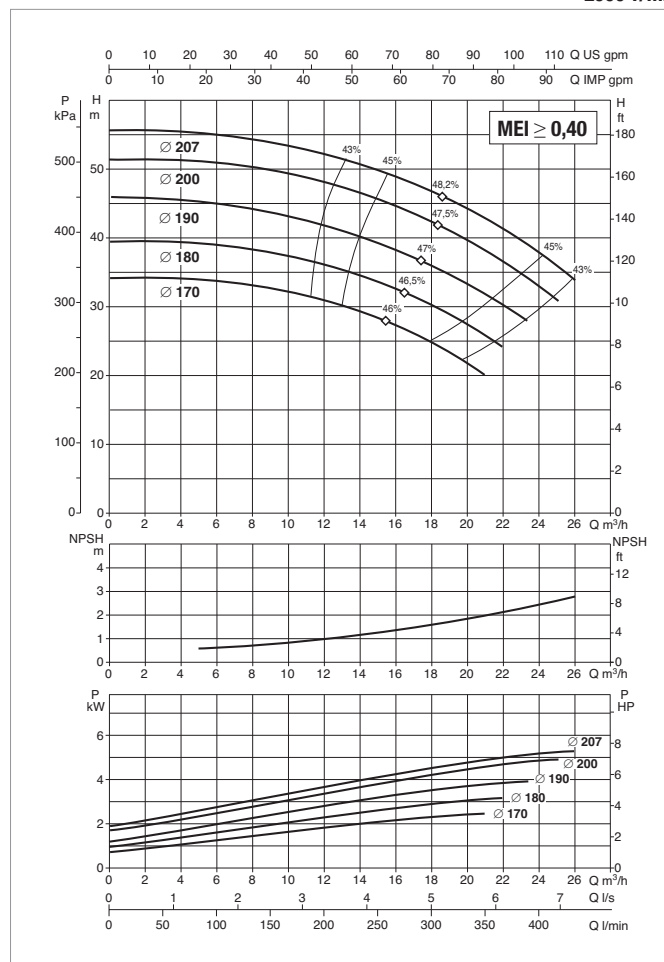
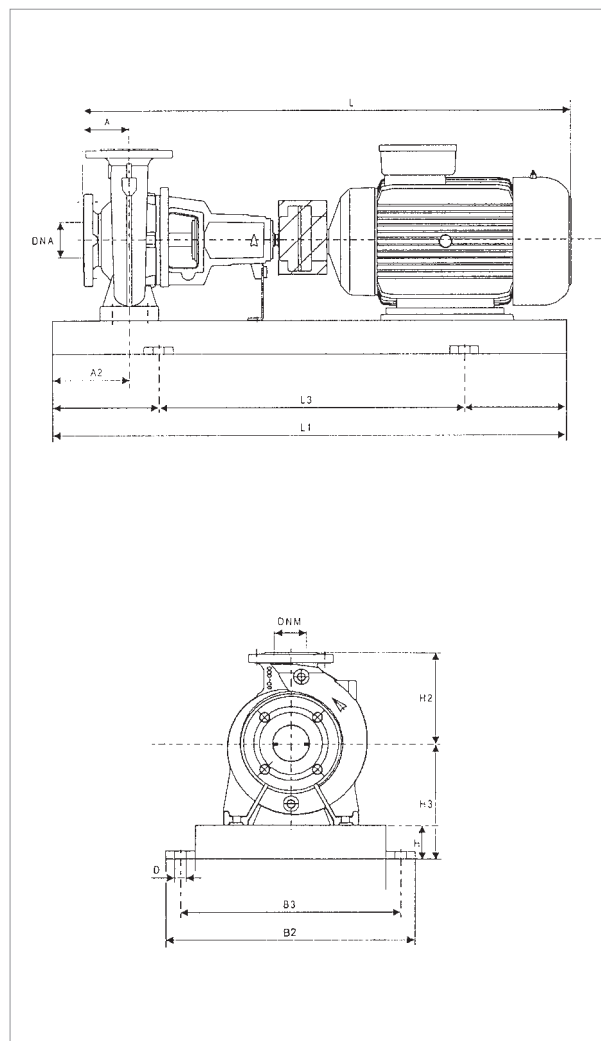
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REMARKS |
|------------|---------------|----------------------|----|-----|----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|------|--------------|---------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| | | | | | | | | | | | | | | | | | | | | | | |
| KDN 32-160 | 2.2 | 80 | 60 | 160 | 65 | 197 | 900 | 600 | 390 | 350 | 19 | 50 | 32 | 790 | 92 | — | — | 97 | 100 | — | — | 3 |
| | 3 | 80 | 60 | 160 | 65 | 197 | 900 | 600 | 390 | 350 | 19 | 50 | 32 | 830 | 102 | — | — | 107 | 107 | — | — | 3 |
| | 4 | 80 | 60 | 160 | 65 | 197 | 900 | 600 | 390 | 350 | 19 | 50 | 32 | 845 | 104 | — | — | 109 | 109 | — | — | 3 |
| | 5.5 | 80 | 60 | 160 | 80 | 212 | 1000 | 660 | 450 | 400 | 24 | 50 | 32 | 915 | 136 | — | — | 141 | 141 | — | — | 4 |
| | 7.5 | 80 | 60 | 160 | 80 | 212 | 1000 | 660 | 450 | 400 | 24 | 50 | 32 | 915 | 139 | 925 | 113 | 1015 | 144 | 1025 | 118 | 4 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 32-200.1 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|--------------|-----------------|------------|-------------------|-----------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 32-200.1 | 2.2 | MEC 90L | 3 x 230 - 400 V ~ | 8.23/4.75 | — | IE2 |
| | 3 | MEC 100L | 3 x 400 V ~ Δ | 5.85 | — | IE2 |
| | 4 | MEC 112M | 3 x 400 V ~ Δ | 8.05 | — | IE2 |
| | 5.5 | MEC 132S | 3 x 400 V ~ Δ | 10.4 | — | IE2 |
| | 7.5 | MEC 132S | 3 x 400 V ~ Δ | 14 | 13.4 | IE2 / IE3 |

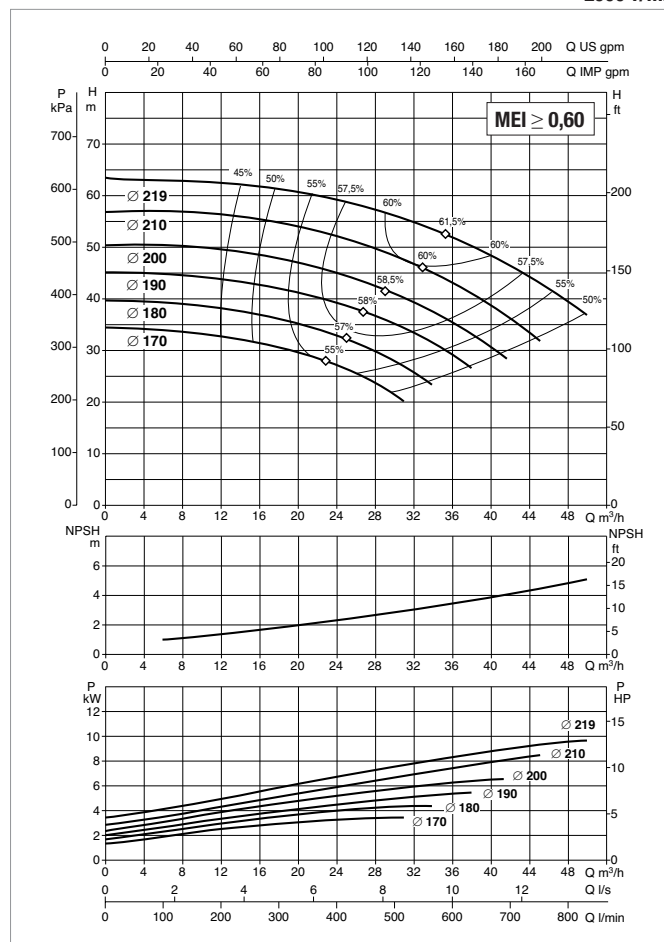
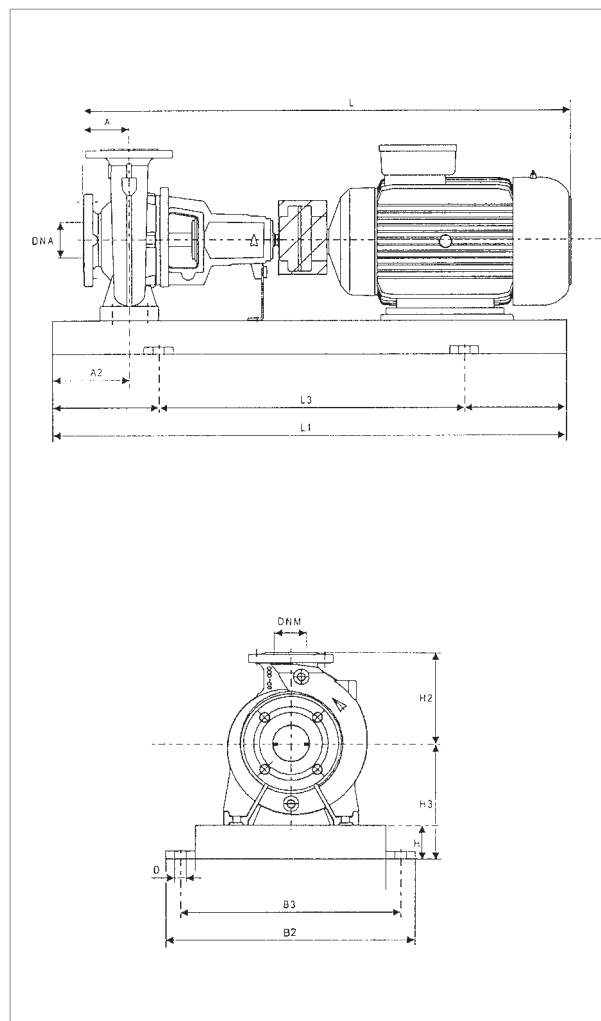
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|--------------|---------------|----------------------|----|-----|----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 32-200.1 | 2.2 | 80 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 50 | 32 | 790 | 108 | – | – | 890 | 113 | – | – | 3 |
| | 3 | 80 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 50 | 32 | 830 | 140 | – | – | 930 | 145 | – | – | 3 |
| | 4 | 80 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 50 | 32 | 845 | 143 | – | – | 945 | 148 | – | – | 3 |
| | 5.5 | 80 | 60 | 180 | 80 | 240 | 1000 | 660 | 450 | 400 | 24 | 50 | 32 | 915 | 143 | – | – | 1015 | 148 | – | – | 4 |
| | 7.5 | 80 | 60 | 180 | 80 | 240 | 1000 | 660 | 450 | 400 | 24 | 50 | 32 | 915 | 166 | 925 | 140 | 1015 | 171 | 1025 | 145 | 4 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 32-200 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 32-200 | 3 | MEC 100L | 3 x 400 V ~ Δ | 5.85 | — | IE3 |
| | 4 | MEC 112M | 3 x 400 V ~ Δ | 8.05 | — | IE3 |
| | 5.5 | MEC 132S | 3 x 400 V ~ Δ | 10.4 | — | IE3 |
| | 7.5 | MEC 132S | 3 x 400 V ~ Δ | 14 | 13.4 | IE2 / IE3 |
| | 11 | MEC 160M | 3 x 400 V ~ Δ | 20.2 | 19.4 | IE2 / IE3 |
| | 15 | MEC 160M | 3 x 400 V ~ Δ | 27 | 26.5 | IE2 / IE3 |

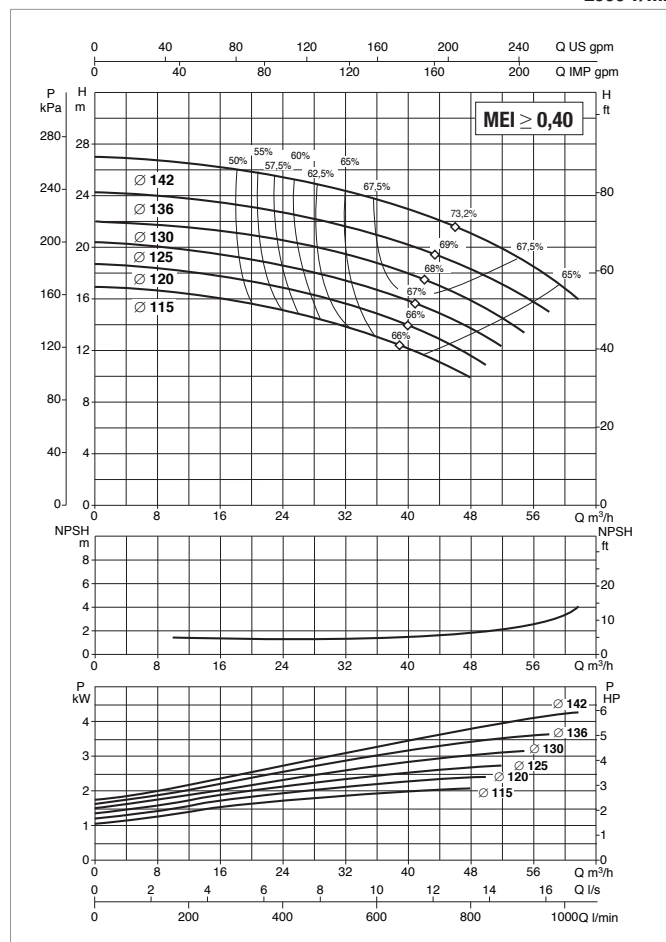
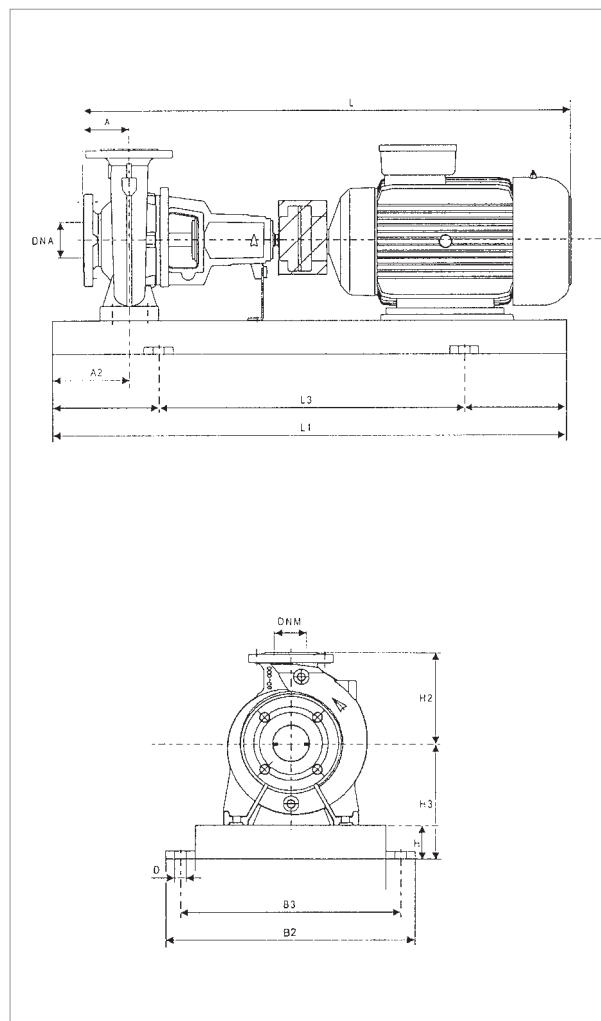
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| | | | | | | | | | | | | | | | | | | | | | | |
| KDN 32-200 | 3 | 80 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 50 | 32 | 830 | 103 | – | – | 930 | 108 | – | – | 3 |
| | 4 | 80 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 50 | 32 | 845 | 104 | – | – | 945 | 109 | – | – | 3 |
| | 5.5 | 80 | 60 | 180 | 80 | 240 | 1000 | 660 | 450 | 400 | 24 | 50 | 32 | 915 | 143 | – | – | 1015 | 148 | – | – | 4 |
| | 7.5 | 80 | 60 | 180 | 80 | 240 | 1000 | 660 | 450 | 400 | 24 | 50 | 32 | 915 | 177 | 925 | 151 | 1015 | 182 | 1025 | 156 | 4 |
| | 11 | 80 | 60 | 180 | 80 | 240 | 1120 | 740 | 490 | 440 | 24 | 50 | 32 | 1060 | 237 | 1060 | 214 | 1160 | 242 | 1160 | 219 | 5 |
| | 15 | 80 | 60 | 180 | 80 | 240 | 1120 | 740 | 490 | 440 | 24 | 50 | 32 | 1060 | 248 | 1060 | 221 | 1160 | 253 | 1160 | 226 | 5 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 40-125 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|-----------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 40-125 | 1.5 | MEC 90S | 3 x 230 - 400 V ~ | 5.80/3.35 | — | IE2 |
| | 2.2 | MEC 90L | 3 x 230 - 400 V ~ | 8.23/4.75 | — | IE2 |
| | 3 | MEC 100L | 3 x 400 V ~ Δ | 5.85 | — | IE2 |
| | 4 | MEC 112M | 3 x 400 V ~ Δ | 8.05 | — | IE2 |
| | 5.5 | MEC 132S | 3 x 400 V ~ Δ | 10.4 | — | IE2 |
| | 7.5 | MEC 132S | 3 x 400 V ~ Δ | 14 | 13.4 | IE2 / IE3 |

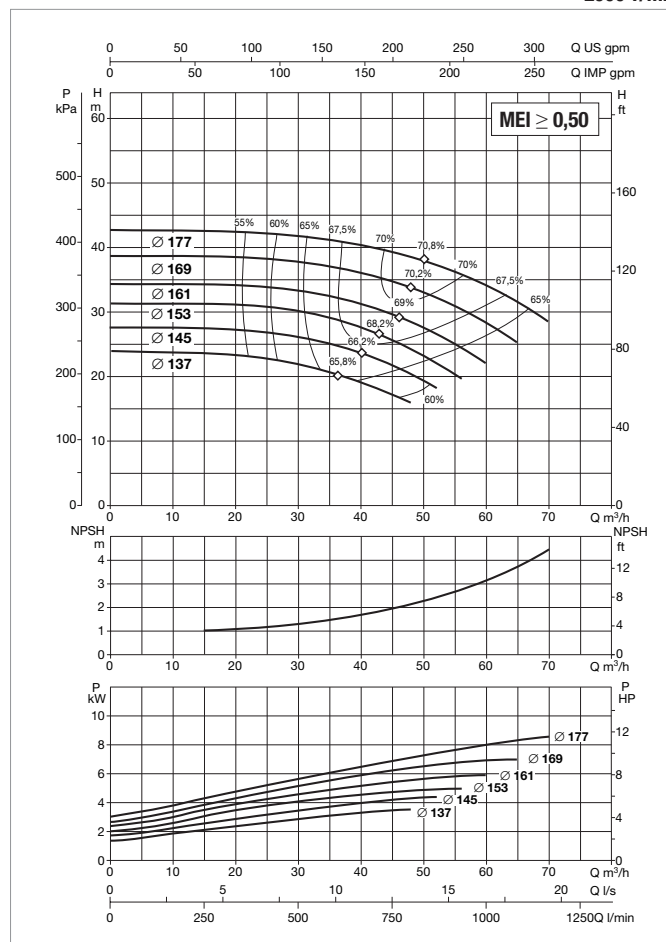
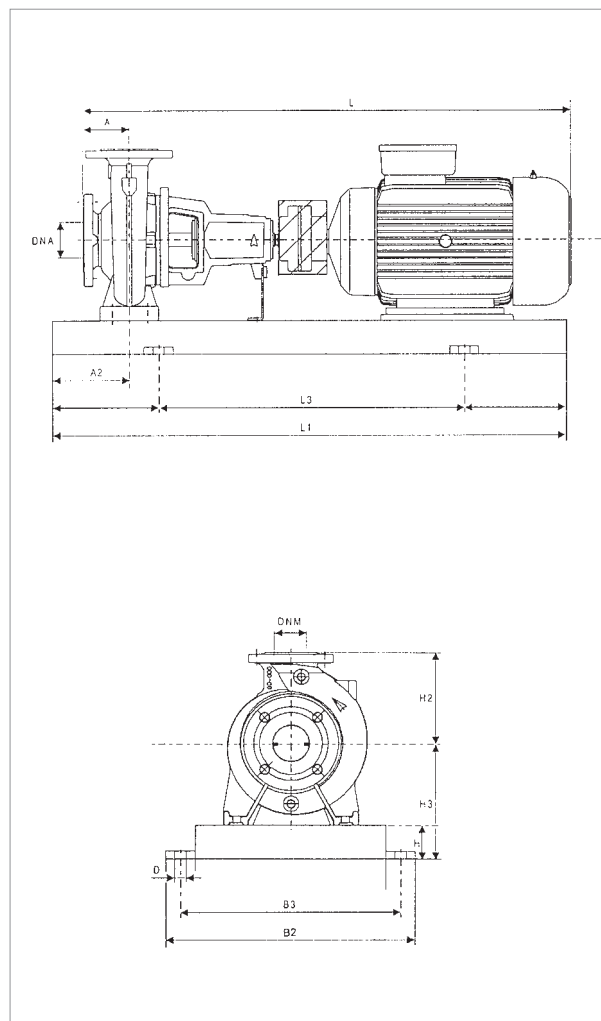
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| | | | | | | | | | | | | | | | | | | | | | | |
| KDN 40-125 | 1.5 | 80 | 60 | 140 | 65 | 177 | 800 | 540 | 360 | 320 | 19 | 65 | 40 | 765 | 86 | — | — | 865 | 91 | — | — | 2 |
| | 2.2 | 80 | 60 | 140 | 65 | 177 | 900 | 600 | 390 | 350 | 19 | 65 | 40 | 790 | 91 | — | — | 890 | 96 | — | — | 3 |
| | 3 | 80 | 60 | 140 | 65 | 177 | 900 | 600 | 390 | 350 | 19 | 65 | 40 | 830 | 91 | — | — | 930 | 96 | — | — | 3 |
| | 4 | 80 | 60 | 140 | 65 | 177 | 900 | 600 | 390 | 350 | 19 | 65 | 40 | 845 | 102 | — | — | 945 | 107 | — | — | 3 |
| | 5.5 | 80 | 60 | 140 | 80 | 212 | 1000 | 660 | 450 | 400 | 24 | 65 | 40 | 915 | 134 | — | — | 1015 | 139 | — | — | 4 |
| | 7.5 | 80 | 60 | 140 | 80 | 212 | 1000 | 600 | 450 | 400 | 24 | 65 | 40 | 915 | 137 | 925 | 111 | 1015 | 142 | 1025 | 116 | 4 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 40-160 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 40-160 | 3 | MEC 100L | 3 x 400 V ~ Δ | 5.85 | – | IE2 |
| | 4 | MEC 112M | 3 x 400 V ~ Δ | 8.05 | – | IE2 |
| | 5.5 | MEC 132S | 3 x 400 V ~ Δ | 10.4 | – | IE2 |
| | 7.5 | MEC 132S | 3 x 400 V ~ Δ | 14 | 13.4 | IE2 / IE3 |
| | 11 | MEC 160M | 3 x 400 V ~ Δ | 20.2 | 19.4 | IE2 / IE3 |
| | 15 | MEC 160M | 3 x 400 V ~ Δ | 27 | 26.5 | IE2 / IE3 |

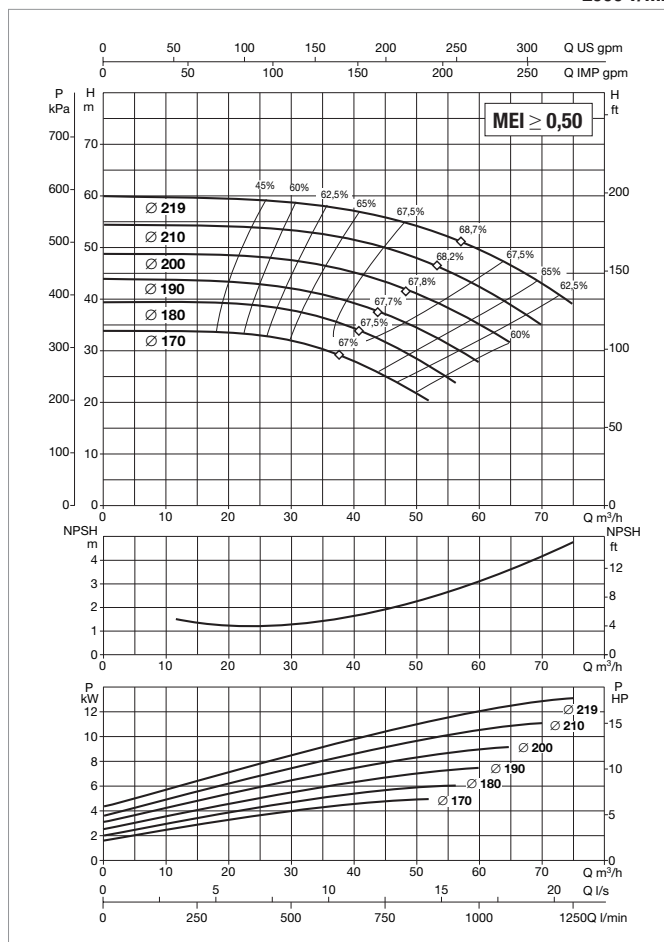
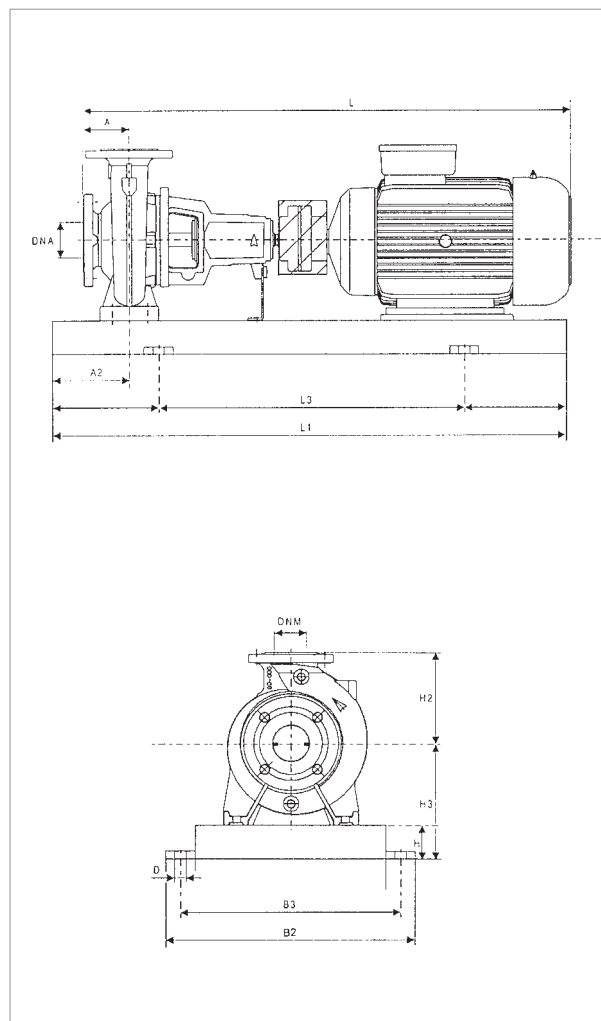
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 40-160 | 3 | 80 | 60 | 160 | 65 | 197 | 900 | 600 | 390 | 350 | 19 | 65 | 40 | 826 | 102 | – | – | 930 | 107 | – | – | 3 |
| | 4 | 80 | 60 | 160 | 65 | 197 | 900 | 600 | 390 | 350 | 19 | 65 | 40 | 846 | 104 | – | – | 945 | 109 | – | – | 3 |
| | 5.5 | 80 | 60 | 160 | 80 | 212 | 1000 | 660 | 450 | 400 | 24 | 65 | 40 | 959 | 160 | – | – | 1015 | 165 | – | – | 4 |
| | 7.5 | 80 | 60 | 160 | 80 | 212 | 1000 | 660 | 450 | 400 | 24 | 65 | 40 | 915 | 165 | 925 | 139 | 1015 | 170 | 1025 | 144 | 4 |
| | 11 | 80 | 60 | 160 | 80 | 240 | 1120 | 740 | 490 | 440 | 24 | 65 | 40 | 1060 | 173 | 1060 | 150 | 1160 | 178 | 1160 | 155 | 5 |
| | 15 | 80 | 60 | 160 | 80 | 240 | 1120 | 740 | 490 | 440 | 24 | 65 | 40 | 1060 | 173 | 1060 | 146 | 1160 | 178 | 1160 | 151 | 5 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 40-200 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 40-200 | 4 | MEC 112M | 3 x 400 V ~ Δ | 8.05 | – | IE2 |
| | 5.5 | MEC 132S | 3 x 400 V ~ Δ | 10.4 | – | IE2 |
| | 7.5 | MEC 132S | 3 x 400 V ~ Δ | 14 | 13.4 | IE2 / IE3 |
| | 11 | MEC 160M | 3 x 400 V ~ Δ | 20.2 | 19.4 | IE2 / IE3 |
| | 15 | MEC 160M | 3 x 400 V ~ Δ | 27 | 26.5 | IE2 / IE3 |
| | 18.5 | MEC 160L | 3 x 400 V ~ Δ | 33 | 32 | IE2 / IE3 |

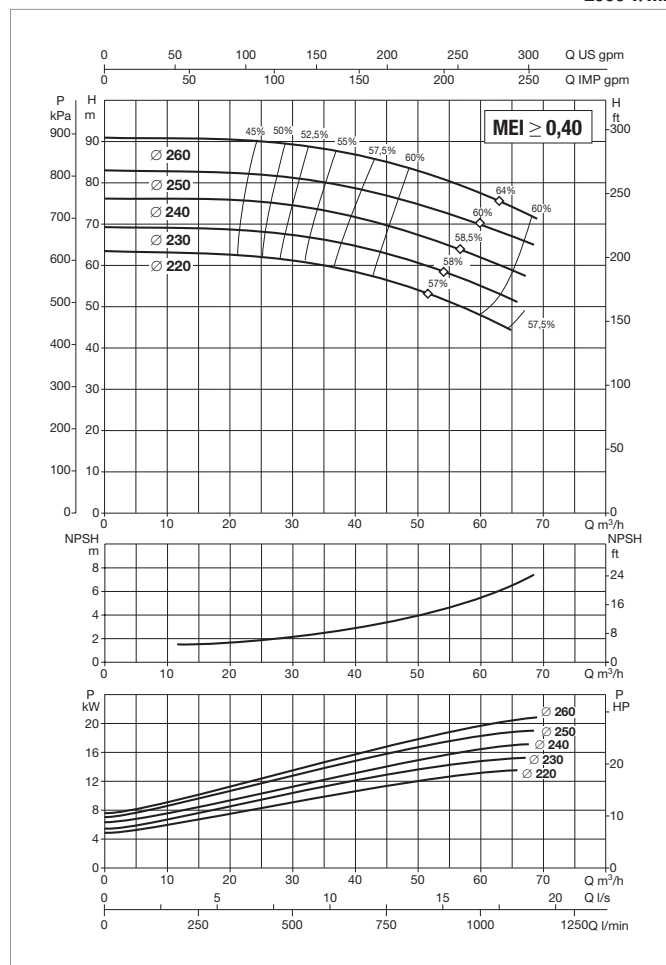
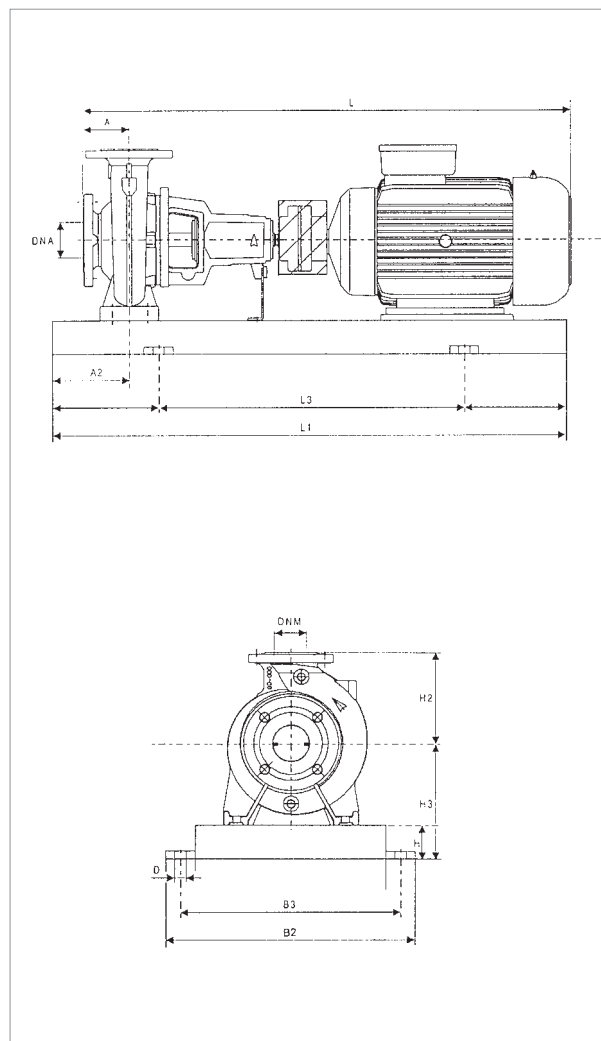
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 40-200 | 4 | 100 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 65 | 40 | 865 | 135 | – | – | 965 | 140 | – | – | 3 |
| | 5.5 | 100 | 60 | 180 | 80 | 240 | 1000 | 660 | 450 | 400 | 24 | 65 | 40 | 935 | 146 | – | – | 1035 | 151 | – | – | 4 |
| | 7.5 | 100 | 60 | 180 | 80 | 240 | 1000 | 660 | 450 | 400 | 24 | 65 | 40 | 935 | 147 | 945 | 121 | 1035 | 152 | 1045 | 126 | 4 |
| | 11 | 100 | 60 | 180 | 80 | 240 | 1120 | 740 | 490 | 440 | 24 | 65 | 40 | 1080 | 221 | 1080 | 198 | 1180 | 226 | 1180 | 203 | 5 |
| | 15 | 100 | 60 | 180 | 80 | 240 | 1120 | 740 | 490 | 440 | 24 | 65 | 40 | 1080 | 231 | 1080 | 204 | 1180 | 236 | 1180 | 209 | 5 |
| | 18.5 | 100 | 60 | 180 | 80 | 240 | 1120 | 740 | 490 | 440 | 24 | 65 | 40 | 1135 | 231 | 1123 | 199 | 1235 | 236 | 1223 | 204 | 5 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 40-250 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------------|---------------|----------------------|------|------|---------------|
| | POWER (kW) 2 POLES | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | | | | IE2 | IE3 | |
| KDN 40-250 | 11 | MEC 160M | 3 x 400 V ~ Δ | 20.2 | 19.4 | IE2 / IE3 |
| | 15 | MEC 160M | 3 x 400 V ~ Δ | 27 | 26.5 | IE2 / IE3 |
| | 18.5 | MEC 160L | 3 x 400 V ~ Δ | 33 | 32 | IE2 / IE3 |
| | 22 | MEC 180M | 3 x 400 V ~ Δ | 39.5 | 38 | IE2 / IE3 |
| | 30 | MEC 200L | 3 x 400 V ~ Δ | 52 | 52 | IE2 / IE3 |

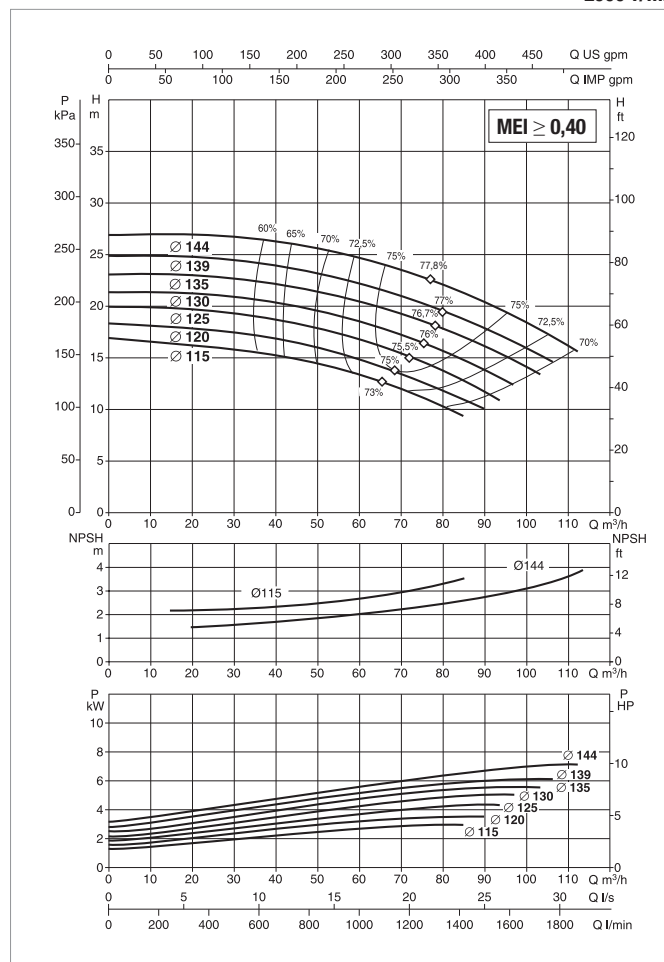
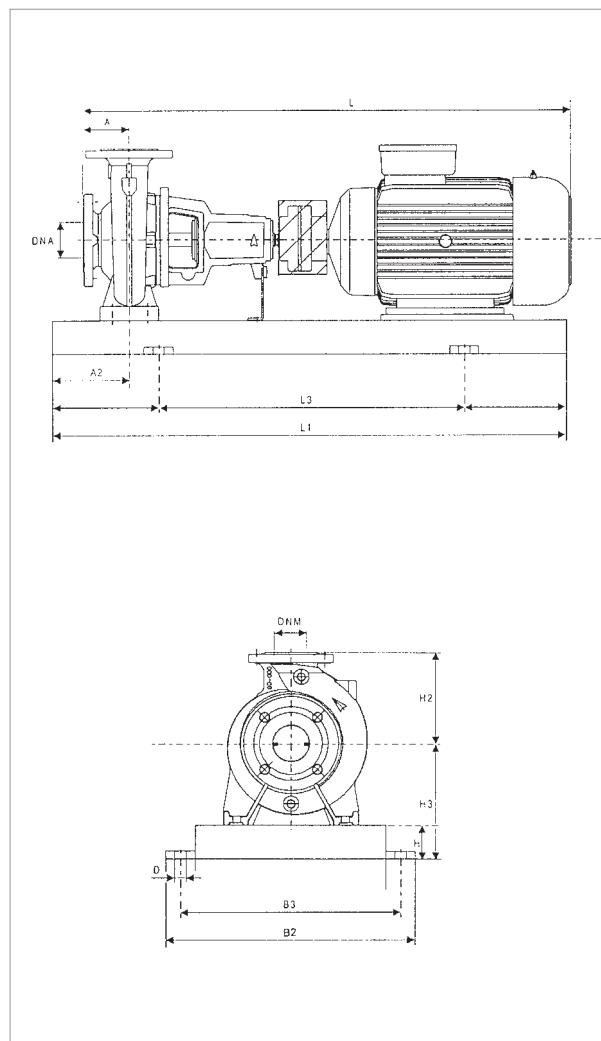
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REMARKS |
|------------|---------------|----------------------|----|-----|-----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|---------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 40-250 | 11 | 100 | 75 | 225 | 80 | 260 | 1250 | 840 | 540 | 490 | 24 | 65 | 40 | 1080 | 236 | 1080 | 213 | 1180 | 241 | 1180 | 218 | 6 |
| | 15 | 100 | 75 | 225 | 80 | 260 | 1250 | 840 | 540 | 490 | 24 | 65 | 40 | 1080 | 278 | 1080 | 251 | 1180 | 283 | 1180 | 256 | 6 |
| | 18.5 | 100 | 75 | 225 | 80 | 260 | 1250 | 840 | 540 | 490 | 24 | 65 | 40 | 1135 | 298 | 1123 | 266 | 1235 | 303 | 1223 | 271 | 6 |
| | 22 | 100 | 75 | 225 | 80 | 260 | 1250 | 840 | 540 | 490 | 24 | 65 | 40 | 1155 | 320 | 1155 | 278 | 1255 | 325 | 1255 | 283 | 6 |
| | 30 | 100 | 75 | 225 | 100 | 300 | 1400 | 940 | 610 | 550 | 28 | 65 | 40 | 1235 | 320 | 1245 | 332 | 1335 | 325 | 1345 | 337 | 7 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 50-125 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40 °C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 50-125 | 3 | MEC 100L | 3 x 400 V ~ Δ | 5.85 | — | IE2 |
| | 4 | MEC 112M | 3 x 400 V ~ Δ | 8.05 | — | IE2 |
| | 5.5 | MEC 132S | 3 x 400 V ~ Δ | 10.4 | — | IE2 |
| | 7.5 | MEC 132S | 3 x 400 V ~ Δ | 14 | 13.4 | IE2 / IE3 |
| | 11 | MEC 160M | 3 x 400 V ~ Δ | 20.2 | 19.4 | IE2 / IE3 |

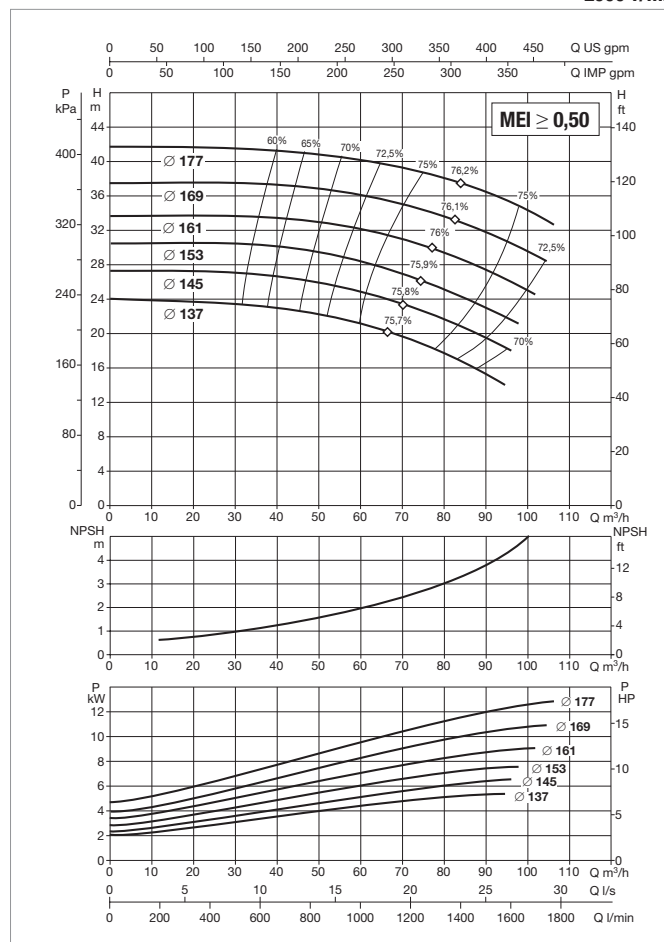
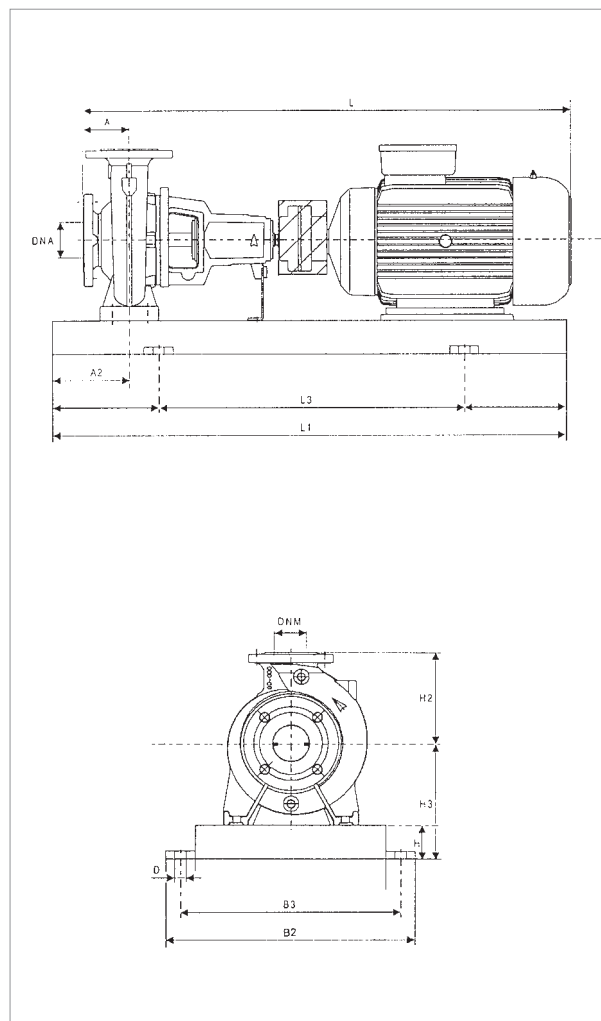
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 50-125 | 3 | 100 | 60 | 160 | 65 | 197 | 900 | 600 | 390 | 350 | 19 | 65 | 50 | 850 | 105 | — | — | 950 | 110 | — | — | 3 |
| | 4 | 100 | 60 | 160 | 65 | 197 | 900 | 600 | 390 | 350 | 19 | 65 | 50 | 865 | 109 | — | — | 965 | 114 | — | — | 3 |
| | 5.5 | 100 | 60 | 160 | 80 | 212 | 1000 | 660 | 450 | 400 | 24 | 65 | 50 | 935 | 143 | — | — | 1035 | 148 | — | — | 4 |
| | 7.5 | 100 | 60 | 160 | 80 | 212 | 1000 | 660 | 450 | 400 | 24 | 65 | 50 | 935 | 143 | 945 | 117 | 1035 | 148 | 1045 | 122 | 4 |
| | 11 | 100 | 60 | 160 | 80 | 240 | 1120 | 740 | 490 | 400 | 24 | 65 | 50 | 1080 | 143 | 1080 | 120 | 1180 | 148 | 1180 | 125 | 5 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 50-160 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE2 | |
| KDN 50-160 | 4 | MEC 112M | 3 x 400 V ~ Δ | 8.05 | – | IE2 |
| | 5.5 | MEC 132S | 3 x 400 V ~ Δ | 10.4 | – | IE2 |
| | 7.5 | MEC 132S | 3 x 400 V ~ Δ | 14 | 13.4 | IE2 / IE3 |
| | 11 | MEC 160M | 3 x 400 V ~ Δ | 20.2 | 19.4 | IE2 / IE3 |
| | 15 | MEC 160M | 3 x 400 V ~ Δ | 27 | 26.5 | IE2 / IE3 |
| | 18.5 | MEC 160L | 3 x 400 V ~ Δ | 33 | 32 | IE2 / IE3 |

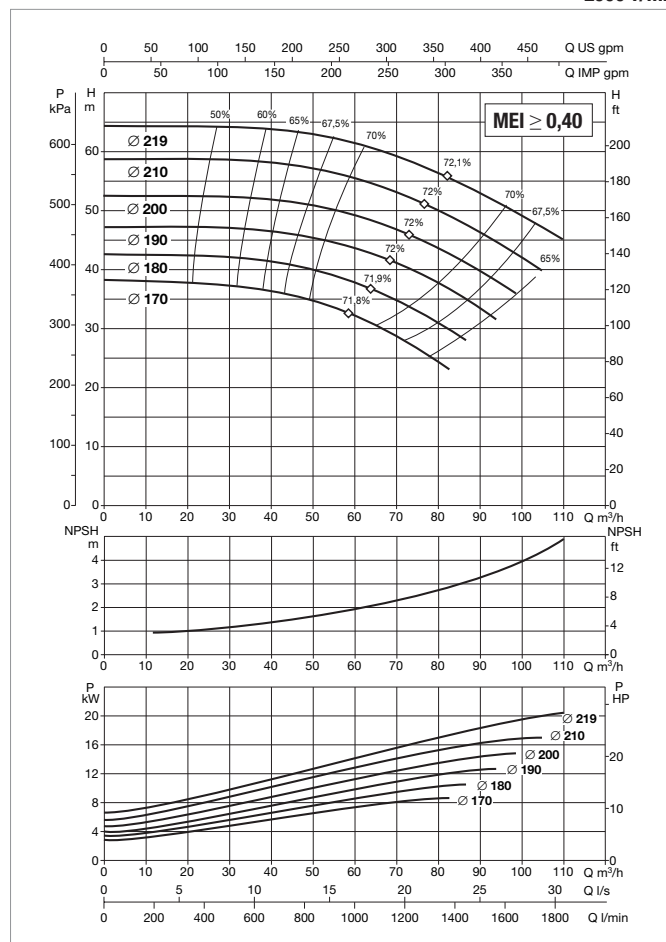
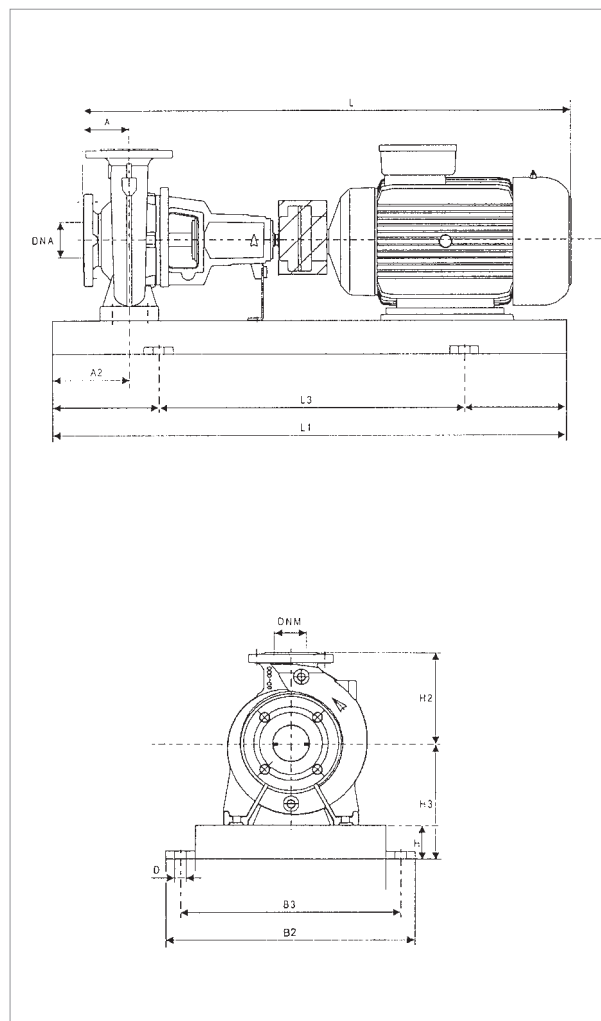
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| | | | | | | | | | | | | | | | | | | | | | | |
| KDN 50-160 | 4 | 100 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 65 | 50 | 865 | 132 | – | – | 965 | 137 | – | – | 3 |
| | 5.5 | 100 | 60 | 180 | 80 | 240 | 1000 | 660 | 450 | 400 | 24 | 65 | 50 | 935 | 143 | – | – | 1035 | 148 | – | – | 4 |
| | 7.5 | 100 | 60 | 180 | 80 | 240 | 1000 | 660 | 450 | 400 | 24 | 65 | 50 | 935 | 177 | 945 | 151 | 1035 | 182 | 1045 | 156 | 4 |
| | 11 | 100 | 60 | 180 | 80 | 240 | 1120 | 740 | 490 | 440 | 24 | 65 | 50 | 1080 | 188 | 1080 | 165 | 1180 | 193 | 1180 | 170 | 5 |
| | 15 | 100 | 60 | 180 | 80 | 240 | 1120 | 740 | 490 | 440 | 24 | 65 | 50 | 1080 | 200 | 1080 | 173 | 1180 | 205 | 1180 | 178 | 5 |
| | 18.5 | 100 | 60 | 180 | 80 | 240 | 1120 | 740 | 490 | 440 | 24 | 65 | 50 | 1135 | 202 | 1123 | 170 | 1235 | 207 | 1223 | 175 | 5 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 50-200 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 50-200 | 7.5 | MEC 132S | 3 x 400 V ~ Δ | 14 | 13.4 | IE2 / IE3 |
| | 11 | MEC 160M | 3 x 400 V ~ Δ | 20.2 | 19.4 | IE2 / IE3 |
| | 15 | MEC 160M | 3 x 400 V ~ Δ | 27 | 26.5 | IE2 / IE3 |
| | 18.5 | MEC 160L | 3 x 400 V ~ Δ | 33 | 32 | IE2 / IE3 |
| | 22 | MEC 180M | 3 x 400 V ~ Δ | 39.5 | 38 | IE2 / IE3 |
| | 30 | MEC 200L | 3 x 400 V ~ Δ | 52 | 52 | IE2 / IE3 |

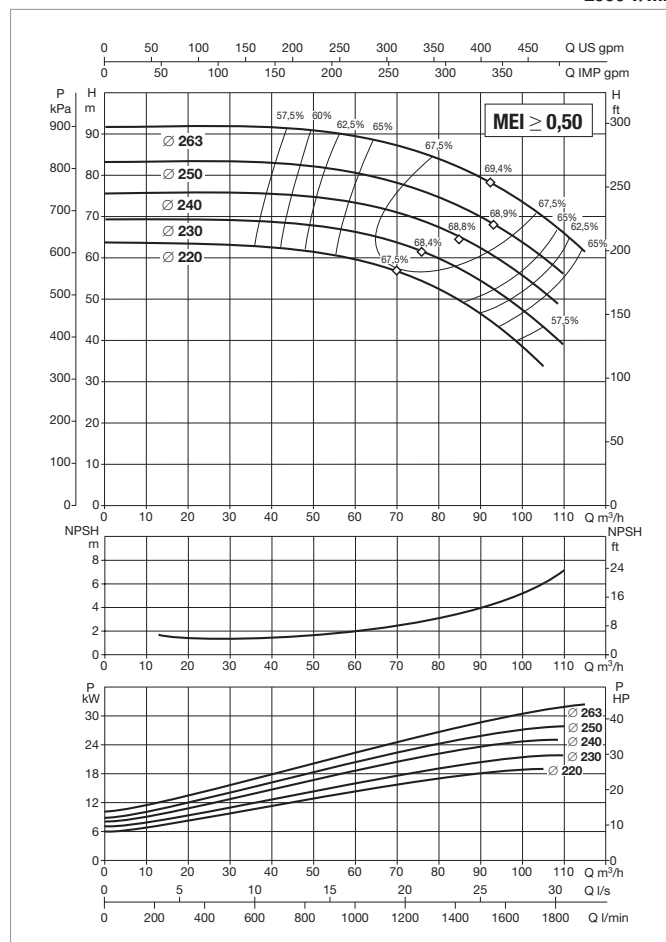
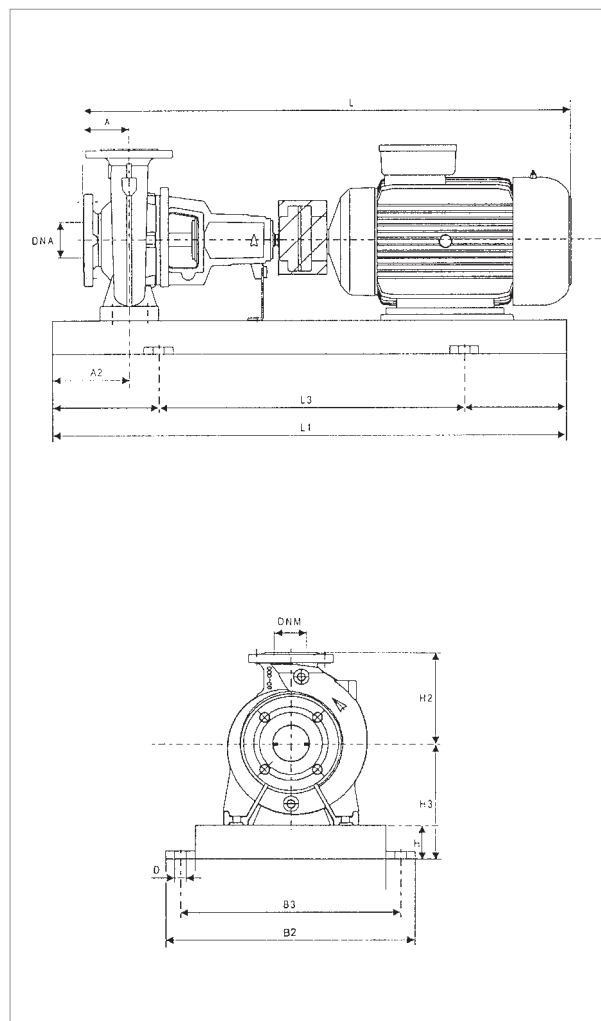
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| | | | | | | | | | | | | | | | | | | | | | | |
| KDN 50-200 | 7.5 | 100 | 60 | 200 | 80 | 240 | 1000 | 600 | 450 | 400 | 24 | 65 | 50 | 935 | 176 | 945 | 150 | 1035 | 181 | 1045 | 155 | 4 |
| | 11 | 100 | 60 | 200 | 80 | 240 | 1120 | 740 | 490 | 440 | 24 | 65 | 50 | 1080 | 186 | 1080 | 163 | 1180 | 191 | 1180 | 168 | 5 |
| | 15 | 100 | 60 | 200 | 80 | 240 | 1120 | 740 | 490 | 400 | 24 | 65 | 50 | 1080 | 280 | 1080 | 253 | 1180 | 285 | 1180 | 258 | 5 |
| | 18.5 | 100 | 60 | 200 | 80 | 240 | 1120 | 740 | 490 | 440 | 24 | 65 | 50 | 1135 | 283 | 1123 | 251 | 1235 | 288 | 1223 | 256 | 5 |
| | 22 | 100 | 60 | 200 | 80 | 260 | 1120 | 740 | 490 | 440 | 24 | 65 | 50 | 1155 | 290 | 1155 | 248 | 1255 | 295 | 1255 | 253 | 5 |
| | 30 | 100 | 60 | 200 | 80 | 280 | 1250 | 840 | 540 | 490 | 24 | 65 | 50 | 1235 | 290 | 1245 | 302 | 1335 | 295 | 1345 | 307 | 6 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 50-250 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 50-250 | 15 | MEC 160M | 3 x 400 V ~ Δ | 27 | 26.5 | IE2 / IE3 |
| | 18.5 | MEC 160L | 3 x 400 V ~ Δ | 33 | 32 | IE2 / IE3 |
| | 22 | MEC 180M | 3 x 400 V ~ Δ | 39.5 | 38 | IE2 / IE3 |
| | 30 | MEC 200L | 3 x 400 V ~ Δ | 52 | 52 | IE2 / IE3 |
| | 37 | MEC 200L | 3 x 400 V ~ Δ | 64 | 63 | IE2 / IE3 |
| | 45 | MEC 225M | 3 x 400 V ~ Δ | 78.5 | 76 | IE2 / IE3 |

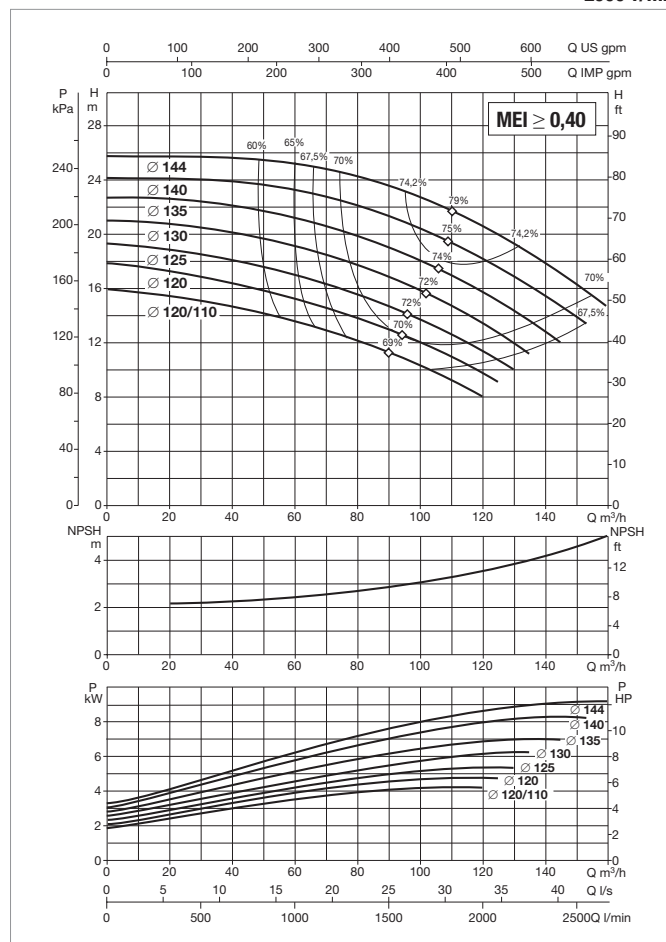
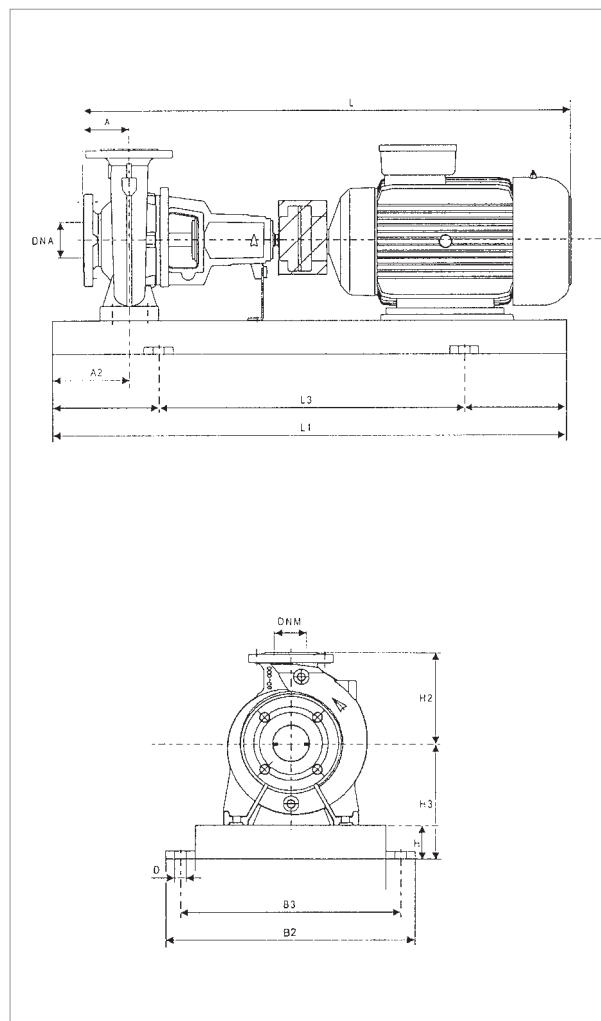
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|-----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| | | | | | | | | | | | | | | | | | | | | | | |
| KDN 50-250 | 15 | 100 | 75 | 225 | 80 | 260 | 1250 | 840 | 540 | 490 | 24 | 65 | 50 | 1080 | 260 | 1080 | 233 | 1180 | 265 | 1180 | 238 | 6 |
| | 18.5 | 100 | 75 | 225 | 80 | 260 | 1250 | 840 | 540 | 490 | 24 | 65 | 50 | 1135 | 289 | 1123 | 257 | 1235 | 294 | 1223 | 262 | 6 |
| | 22 | 100 | 75 | 225 | 80 | 260 | 1250 | 840 | 540 | 490 | 24 | 65 | 50 | 1155 | 319 | 1155 | 277 | 1255 | 324 | 1255 | 282 | 6 |
| | 30 | 100 | 75 | 225 | 100 | 300 | 1400 | 940 | 610 | 550 | 28 | 65 | 50 | 1235 | 407 | 1245 | 419 | 1335 | 412 | 1345 | 424 | 7 |
| | 37 | 100 | 75 | 225 | 100 | 300 | 1400 | 940 | 610 | 550 | 28 | 65 | 50 | 1235 | 333 | 1245 | 358 | 1335 | 338 | 1345 | 363 | 7 |
| | 45 | 100 | 75 | 225 | 100 | 325 | 1400 | 940 | 610 | 550 | 28 | 65 | 50 | 1280 | 374 | 1285 | 413 | 1380 | 379 | 1385 | 418 | 7 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 65-125 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 65-125 | 4 | MEC 112M | 3 x 400 V ~ Δ | 8.05 | – | IE2 |
| | 5.5 | MEC 132S | 3 x 400 V ~ Δ | 10.4 | – | IE2 |
| | 7.5 | MEC 132S | 3 x 400 V ~ Δ | 14 | 13.4 | IE2 / IE3 |
| | 11 | MEC 160M | 3 x 400 V ~ Δ | 20.2 | 19.4 | IE2 / IE3 |
| | 15 | MEC 160M | 3 x 400 V ~ Δ | 27 | 26.5 | IE2 / IE3 |

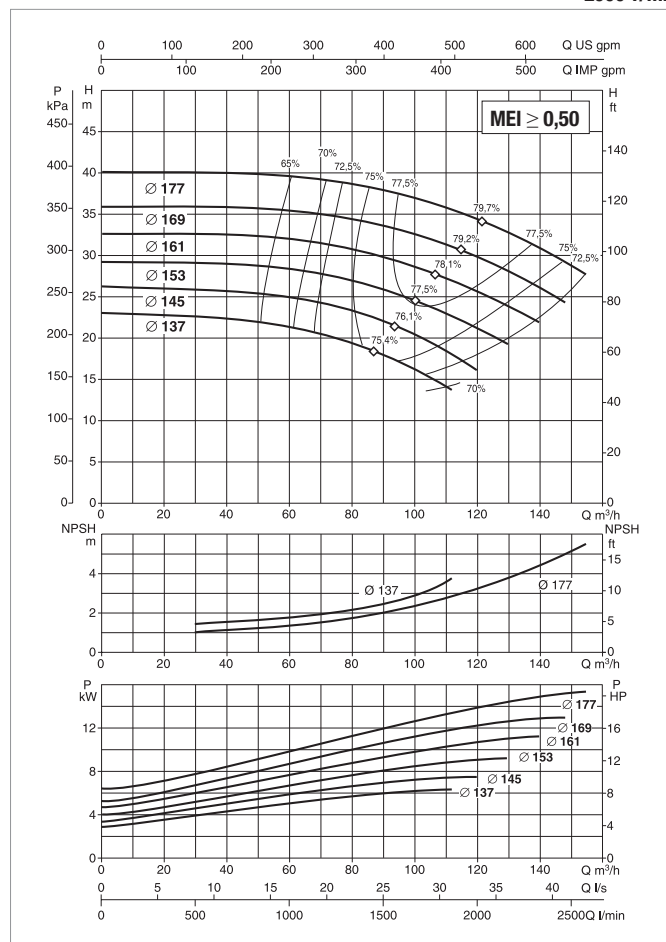
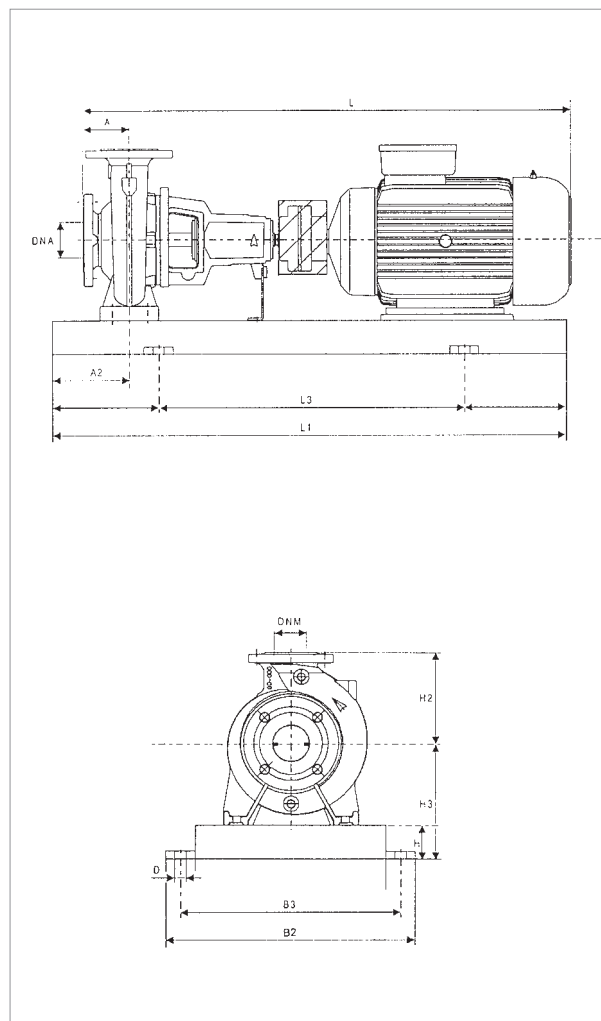
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REMARKS |
|------------|---------------|----------------------|----|-----|----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|---------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 65-125 | 4 | 100 | 60 | 180 | 65 | 225 | 900 | 600 | 390 | 350 | 19 | 80 | 65 | 865 | 132 | — | — | 965 | 137 | — | — | 3 |
| | 5.5 | 100 | 60 | 180 | 80 | 240 | 1000 | 660 | 450 | 400 | 24 | 80 | 65 | 935 | 143 | — | — | 1035 | 148 | — | — | 4 |
| | 7.5 | 100 | 60 | 180 | 80 | 240 | 1000 | 660 | 450 | 400 | 24 | 80 | 65 | 935 | 146 | 945 | 120 | 1035 | 151 | 1045 | 125 | 4 |
| | 11 | 100 | 60 | 180 | 80 | 240 | 1120 | 740 | 490 | 440 | 24 | 80 | 65 | 1080 | 175 | 1080 | 152 | 1180 | 180 | 1180 | 157 | 5 |
| | 15 | 100 | 60 | 180 | 80 | 240 | 1120 | 740 | 490 | 440 | 24 | 80 | 65 | 1080 | 180 | 1080 | 153 | 1180 | 185 | 1180 | 158 | 5 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 65-160 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 65-160 | 5.5 | MEC 132S | 3 x 400 V ~ Δ | 10.4 | – | IE2 |
| | 7.5 | MEC 132S | 3 x 400 V ~ Δ | 14 | 13.4 | IE2 / IE3 |
| | 11 | MEC 160M | 3 x 400 V ~ Δ | 20.2 | 19.4 | IE2 / IE3 |
| | 15 | MEC 160M | 3 x 400 V ~ Δ | 27 | 26.5 | IE2 / IE3 |
| | 18.5 | MEC 160L | 3 x 400 V ~ Δ | 33 | 32 | IE2 / IE3 |
| | 22 | MEC 180M | 3 x 400 V ~ Δ | 39.5 | 38 | IE2 / IE3 |

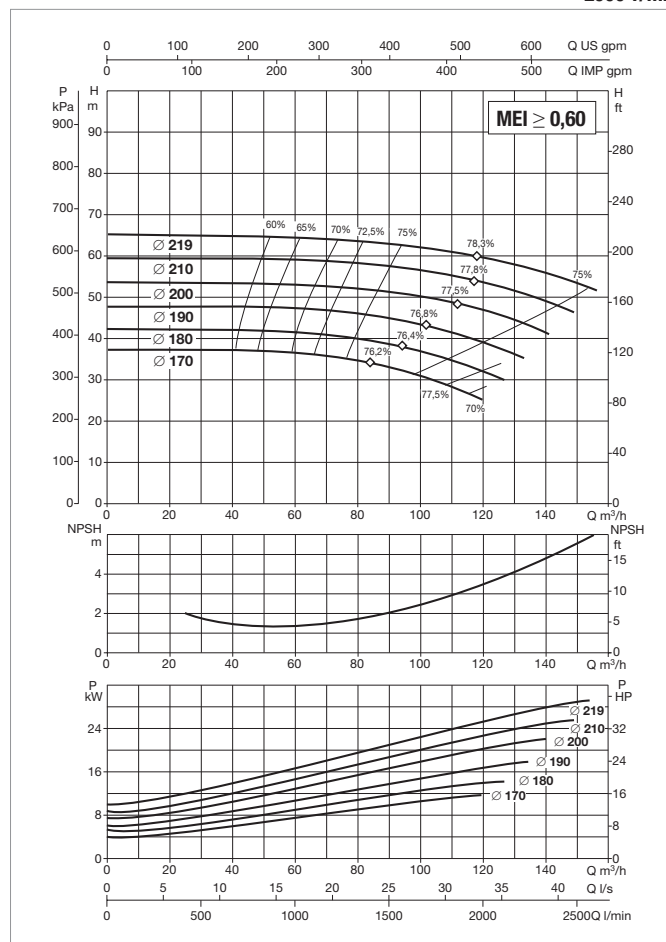
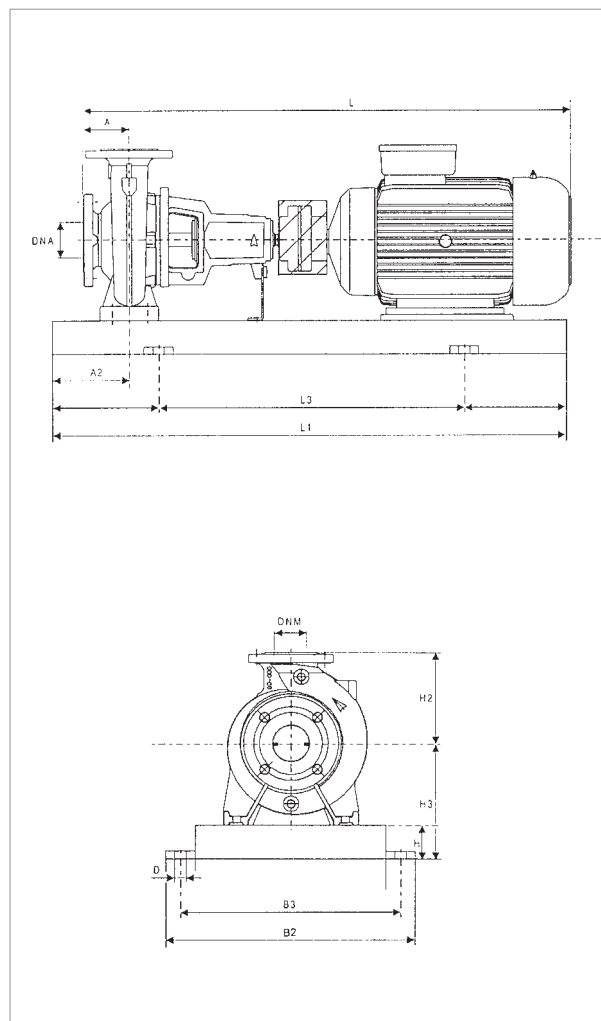
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 65-160 | 5.5 | 100 | 60 | 200 | 80 | 240 | 1000 | 660 | 450 | 400 | 24 | 80 | 65 | 935 | 149 | – | – | 1035 | 154 | – | – | 4 |
| | 7.5 | 100 | 60 | 200 | 80 | 240 | 1000 | 660 | 450 | 400 | 24 | 80 | 65 | 935 | 173 | 945 | 147 | 1035 | 178 | 1045 | 152 | 4 |
| | 11 | 100 | 60 | 200 | 80 | 240 | 1120 | 740 | 490 | 440 | 24 | 80 | 65 | 1080 | 183 | 1080 | 160 | 1180 | 188 | 1180 | 165 | 5 |
| | 15 | 100 | 60 | 200 | 80 | 240 | 1120 | 740 | 490 | 440 | 24 | 80 | 65 | 1080 | 220 | 1080 | 193 | 1180 | 225 | 1180 | 198 | 5 |
| | 18.5 | 100 | 60 | 200 | 80 | 240 | 1120 | 740 | 490 | 440 | 24 | 80 | 65 | 1135 | 220 | 1123 | 188 | 1235 | 225 | 1223 | 193 | 5 |
| | 22 | 100 | 60 | 200 | 80 | 260 | 1120 | 740 | 490 | 440 | 24 | 80 | 65 | 1155 | 220 | 1155 | 178 | 1255 | 225 | 1255 | 183 | 5 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 65-200 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 65-200 | 11 | MEC 160M | 3 x 400 V - Δ | 20.2 | 19.4 | IE2 / IE3 |
| | 15 | MEC 160M | 3 x 400 V - Δ | 27 | 26.5 | IE2 / IE3 |
| | 18.5 | MEC 160L | 3 x 400 V - Δ | 33 | 32 | IE2 / IE3 |
| | 22 | MEC 180M | 3 x 400 V - Δ | 39.5 | 38 | IE2 / IE3 |
| | 30 | MEC 200L | 3 x 400 V - Δ | 52 | 52 | IE2 / IE3 |
| | 37 | MEC 200L | 3 x 400 V - Δ | 64 | 63 | IE2 / IE3 |

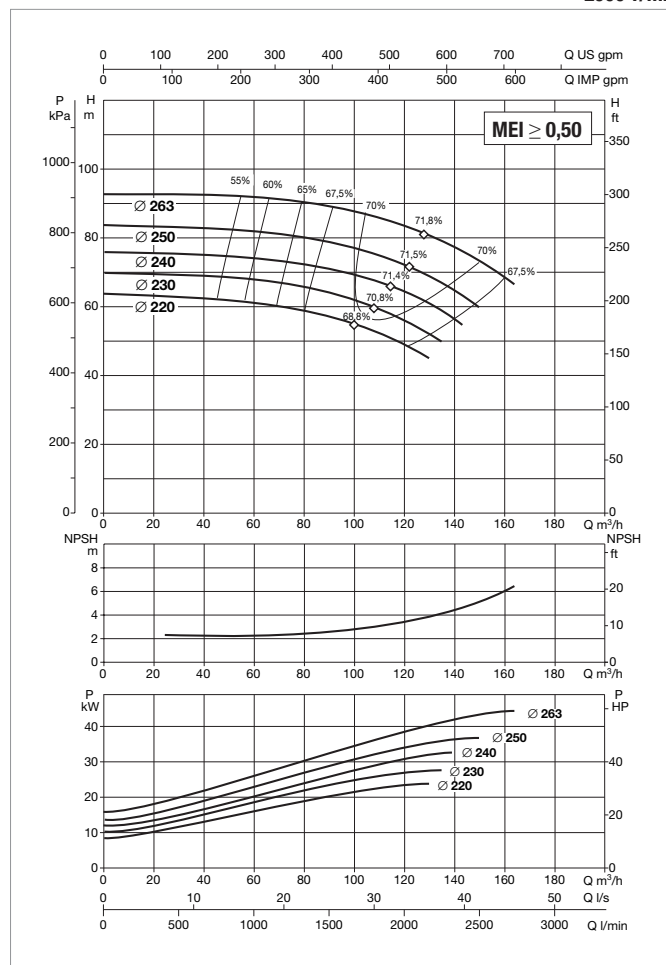
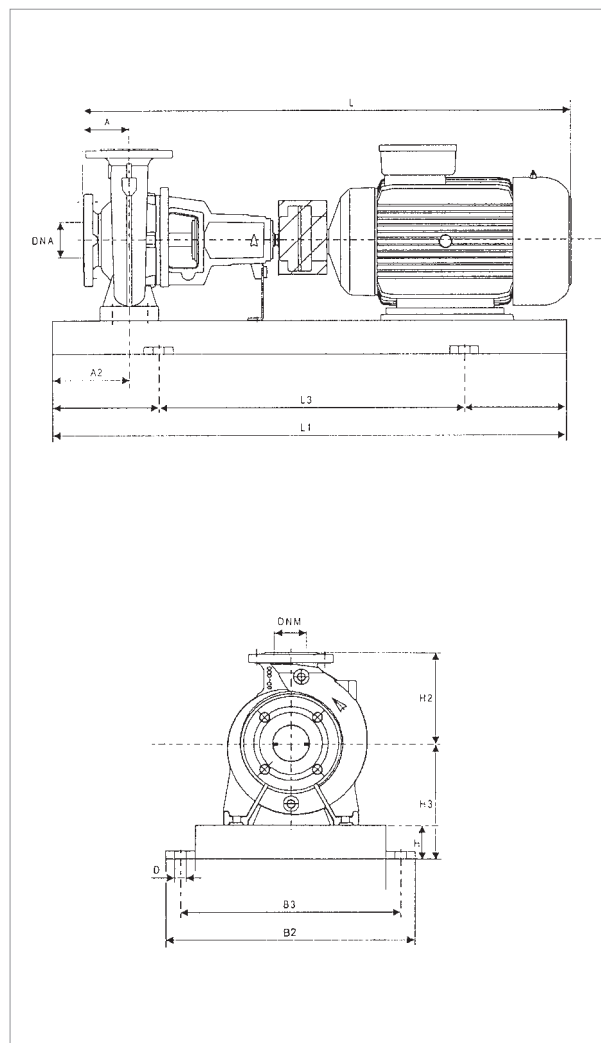
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|-----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 65-200 | 11 | 100 | 75 | 225 | 80 | 260 | 1250 | 840 | 540 | 490 | 24 | 80 | 65 | 1080 | 267 | 1080 | 244 | 1220 | 272 | 1220 | 249 | 6 |
| | 15 | 100 | 75 | 225 | 80 | 260 | 1250 | 840 | 540 | 490 | 24 | 80 | 65 | 1080 | 279 | 1080 | 252 | 1220 | 284 | 1220 | 257 | 6 |
| | 18.5 | 100 | 75 | 225 | 80 | 260 | 1250 | 840 | 540 | 490 | 24 | 80 | 65 | 1135 | 289 | 1123 | 257 | 1235 | 294 | 1223 | 262 | 6 |
| | 22 | 100 | 75 | 225 | 80 | 260 | 1250 | 840 | 540 | 490 | 24 | 80 | 65 | 1155 | 332 | 1155 | 290 | 1295 | 337 | 1295 | 295 | 6 |
| | 30 | 100 | 75 | 225 | 100 | 300 | 1400 | 940 | 610 | 550 | 28 | 80 | 65 | 1235 | 406 | 1245 | 418 | 1375 | 411 | 1385 | 423 | 7 |
| | 37 | 100 | 75 | 225 | 100 | 300 | 1400 | 940 | 610 | 550 | 28 | 80 | 65 | 1235 | 406 | 1245 | 431 | 1375 | 411 | 1385 | 436 | 7 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 65-250 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 65-250 | 22 | MEC 180M | 3 x 400 V ~ Δ | 39.5 | 38 | IE2 / IE3 |
| | 30 | MEC 200L | 3 x 400 V ~ Δ | 52 | 52 | IE2 / IE3 |
| | 37 | MEC 200L | 3 x 400 V ~ Δ | 64 | 63 | IE2 / IE3 |
| | 45 | MEC 225M | 3 x 400 V ~ Δ | 78.5 | 76 | IE2 / IE3 |
| | 55 | MEC 225M | 3 x 400 V ~ Δ | 94 | 95 | IE2 / IE3 |

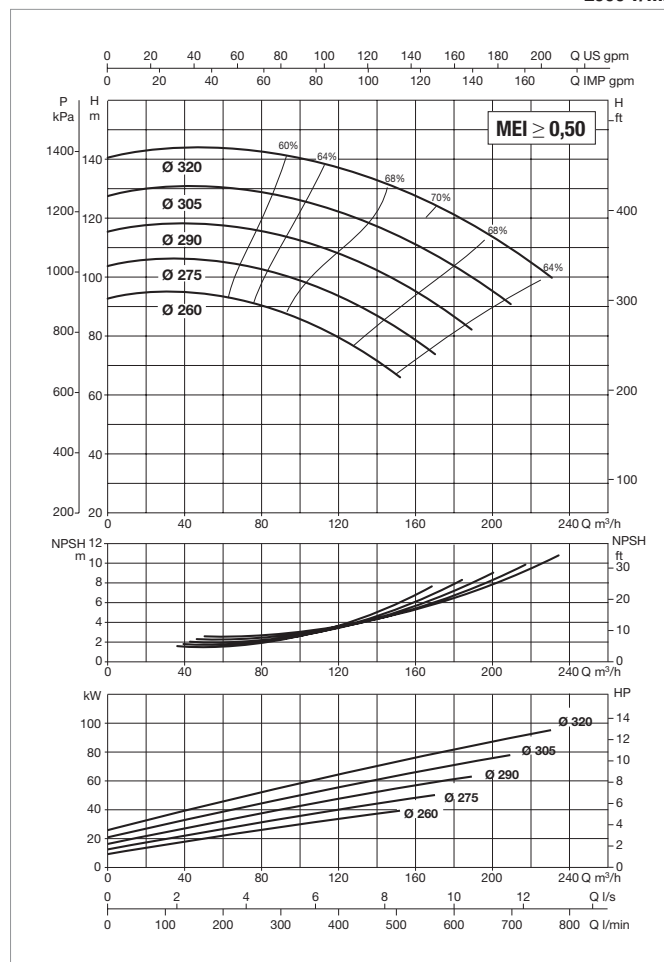
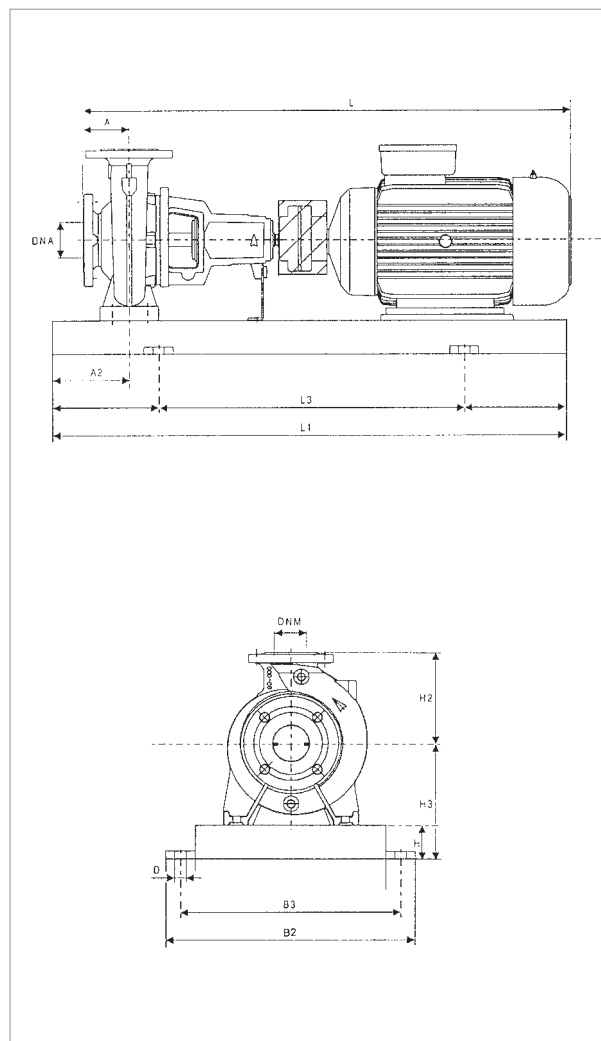
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REMARKS |
|------------|---------------|----------------------|----|-----|----|-----|------|------|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|---------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| | | | | | | | | | | | | | | | | | | | | | | |
| KDN 65-250 | 22 | 100 | 90 | 250 | 80 | 280 | 1250 | 840 | 540 | 490 | 24 | 80 | 65 | 1265 | 319 | 1265 | 277 | 1405 | 327 | 1405 | 285 | 6 |
| | 30 | 100 | 90 | 250 | 80 | 300 | 1400 | 940 | 610 | 550 | 28 | 80 | 65 | 1345 | 460 | 1355 | 472 | 1485 | 468 | 1495 | 480 | 7 |
| | 37 | 100 | 90 | 250 | 80 | 300 | 1400 | 940 | 610 | 550 | 28 | 80 | 65 | 1345 | 477 | 1355 | 502 | 1485 | 485 | 1495 | 510 | 7 |
| | 45 | 100 | 90 | 250 | 80 | 325 | 1400 | 940 | 610 | 550 | 28 | 80 | 65 | 1390 | 550 | 1395 | 589 | 1530 | 558 | 1535 | 597 | 7 |
| | 55 | 100 | 90 | 250 | 80 | 350 | 1600 | 1060 | 660 | 600 | 24 | 80 | 65 | 1490 | 672 | 1460 | 717 | 1630 | 680 | 1600 | 725 | 8 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 65-315 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 65-315 | 45 | MEC 225M | 3 x 400 V ~ Δ | 78.5 | 76 | IE2 / IE3 |
| | 55 | MEC 250M | 3 x 400 V ~ Δ | 94 | 95 | IE2 / IE3 |
| | 75 | MEC 280S | 3 x 400 V ~ Δ | 130 | 124 | IE2 / IE3 |
| | 90 | MEC 280M | 3 x 400 V ~ Δ | 154 | 148 | IE2 / IE3 |
| | 110 | MEC 315S | 3 x 400 V ~ Δ | 188 | 184 | IE2 / IE3 |

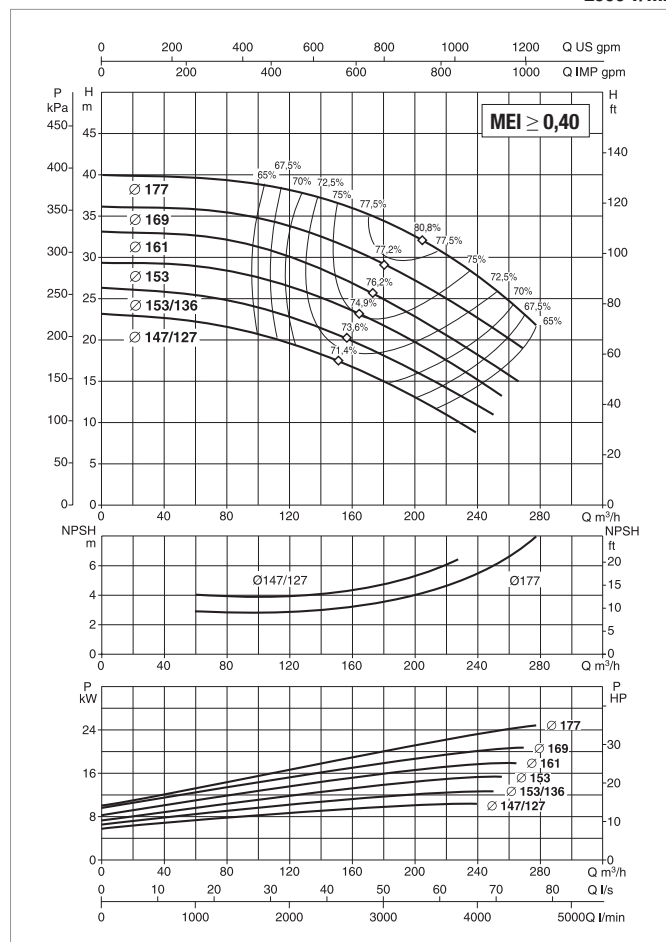
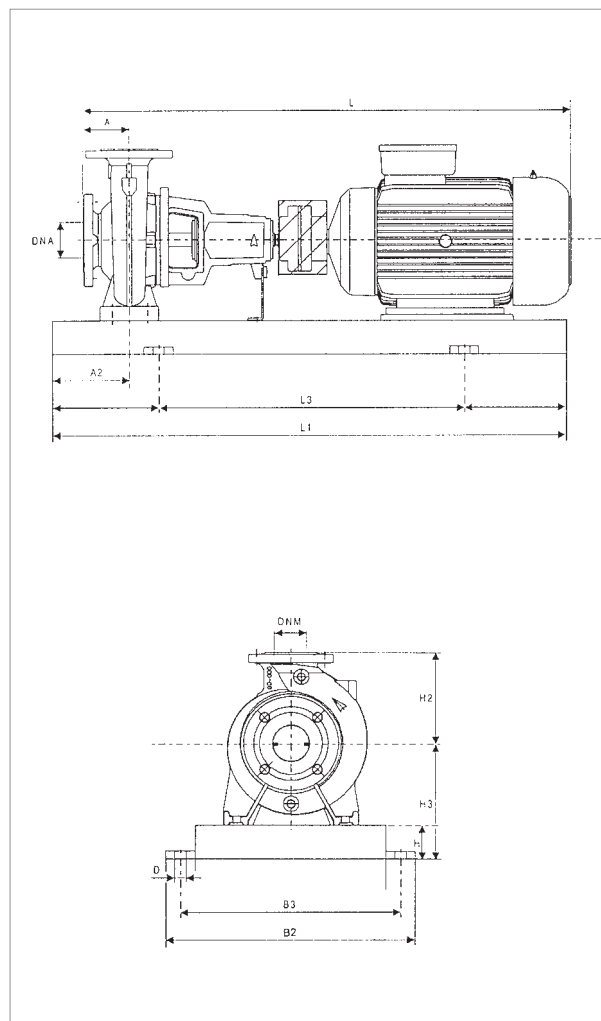
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|-----|-----|------|------|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 65-315 | 45 | 125 | 90 | 280 | 100 | 325 | 1600 | 1060 | 660 | 600 | 28 | 80 | 65 | 1415 | 695 | 1420 | 734 | 1555 | 703 | 1560 | 742 | 8 |
| | 55 | 125 | 90 | 280 | 100 | 325 | 1600 | 1060 | 660 | 600 | 28 | 80 | 65 | 1515 | 695 | 1515 | 740 | 1655 | 703 | 1655 | 748 | 8 |
| | 75 | 125 | 90 | 280 | 100 | 325 | 1800 | 1200 | 730 | 670 | 28 | 80 | 65 | 1570 | 849 | 1568 | 849 | 1710 | 857 | 1708 | 857 | 9 |
| | 90 | 125 | 90 | 280 | 100 | 325 | 1800 | 1200 | 730 | 670 | 28 | 80 | 65 | 1620 | 669 | 1620 | 651 | 1760 | 677 | 1760 | 659 | 9 |
| | 110 | 125 | 90 | 280 | 100 | 325 | 2000 | 1340 | 910 | 830 | 28 | 80 | 65 | 1840 | 1119 | 1805 | 1219 | 1980 | 1127 | 1945 | 1227 | 9 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 80-160 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 80-160 | 7.5 | MEC 132S | 3 x 400 V ~ Δ | 14 | 13.4 | IE2 / IE3 |
| | 11 | MEC 160M | 3 x 400 V ~ Δ | 20.2 | 19.4 | IE2 / IE3 |
| | 15 | MEC 160M | 3 x 400 V ~ Δ | 27 | 26.5 | IE2 / IE3 |
| | 18.5 | MEC 160L | 3 x 400 V ~ Δ | 33 | 32 | IE2 / IE3 |
| | 22 | MEC 180M | 3 x 400 V ~ Δ | 39.5 | 38 | IE2 / IE3 |
| | 30 | MEC 200L | 3 x 400 V ~ Δ | 52 | 52 | IE2 / IE3 |
| | 37 | MEC 200L | 3 x 400 V ~ Δ | 64 | 63 | IE2 / IE3 |

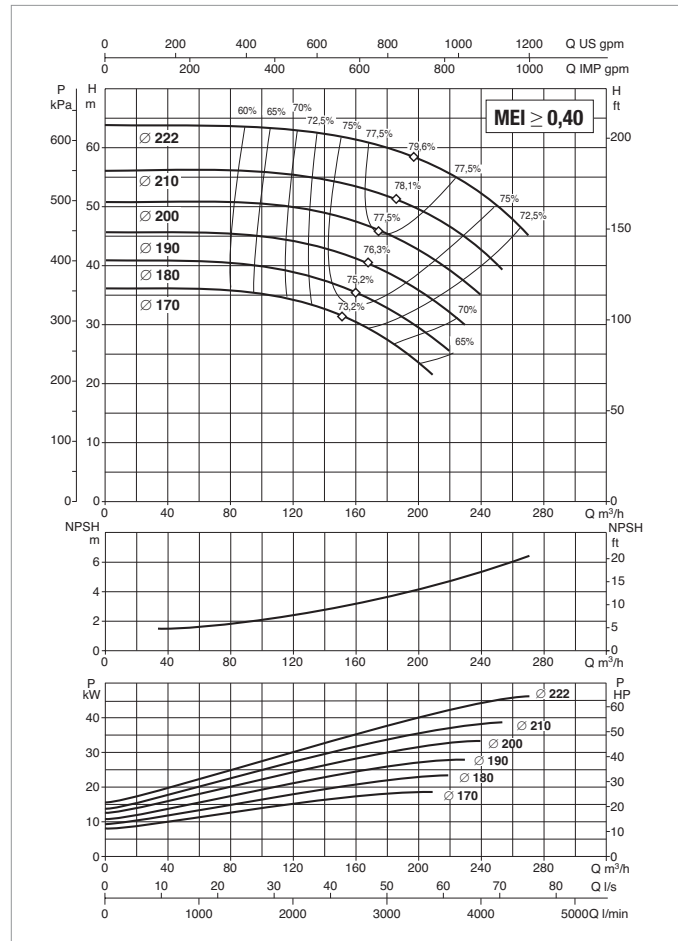
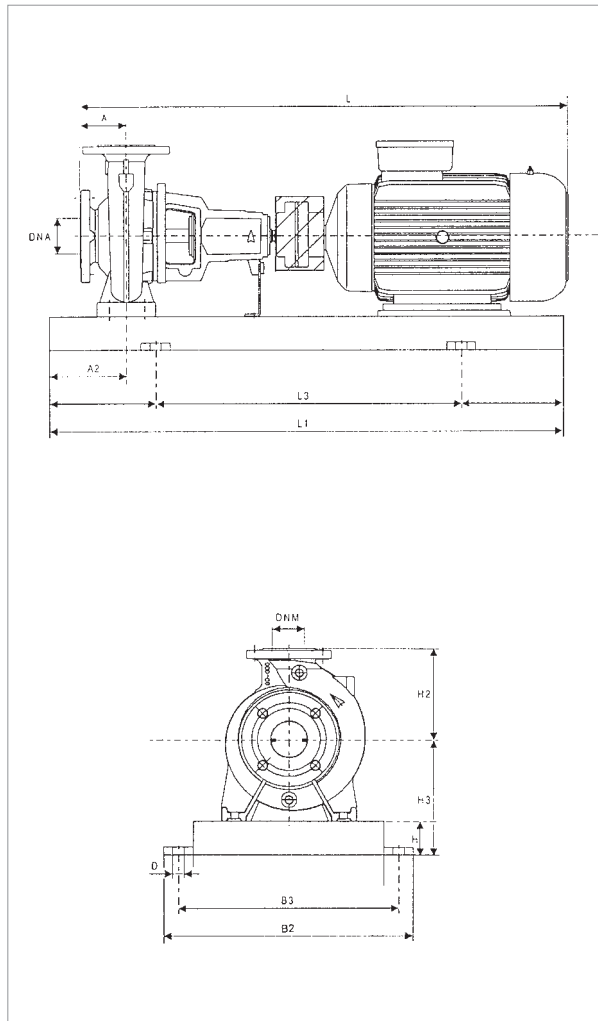
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REMARKS |
|------------|---------------|----------------------|----|-----|----|-----|------|-----|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|---------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 80-160 | 7.5 | 125 | 75 | 225 | 80 | 260 | 1120 | 740 | 490 | 440 | 24 | 100 | 80 | 960 | 189 | 970 | 163 | 1100 | 197 | 1110 | 171 | 5 |
| | 11 | 125 | 75 | 225 | 80 | 260 | 1250 | 840 | 540 | 490 | 24 | 100 | 80 | 1105 | 298 | 1105 | 275 | 1245 | 306 | 1245 | 283 | 6 |
| | 15 | 125 | 75 | 225 | 80 | 260 | 1250 | 840 | 540 | 490 | 24 | 100 | 80 | 1105 | 298 | 1105 | 271 | 1245 | 306 | 1245 | 279 | 6 |
| | 18.5 | 125 | 75 | 225 | 80 | 260 | 1250 | 840 | 540 | 490 | 24 | 100 | 80 | 1160 | 298 | 1148 | 266 | 1300 | 306 | 1288 | 274 | 6 |
| | 22 | 125 | 75 | 225 | 80 | 260 | 1250 | 840 | 540 | 490 | 24 | 100 | 80 | 1180 | 253 | 1180 | 211 | 1320 | 261 | 1320 | 219 | 6 |
| | 30 | 125 | 75 | 225 | 80 | 260 | 1400 | 940 | 610 | 550 | 28 | 100 | 80 | 1260 | 304 | 1270 | 316 | 1400 | 312 | 1410 | 324 | 7 |
| | 37 | 125 | 75 | 225 | 80 | 260 | 1400 | 940 | 610 | 550 | 28 | 100 | 80 | 1260 | 383 | 1270 | 408 | 1400 | 391 | 1410 | 416 | 7 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 80-200 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 80-200 | 18.5 | MEC 160L | 3 x 400 V ~ Δ | 33 | 32 | IE2 / IE3 |
| | 22 | MEC 180M | 3 x 400 V ~ Δ | 39.5 | 38 | IE2 / IE3 |
| | 30 | MEC 200L | 3 x 400 V ~ Δ | 52 | 52 | IE2 / IE3 |
| | 37 | MEC 200L | 3 x 400 V ~ Δ | 64 | 63 | IE2 / IE3 |
| | 45 | MEC 225M | 3 x 400 V ~ Δ | 78.5 | 76 | IE2 / IE3 |
| | 55 | MEC 250M | 3 x 400 V ~ Δ | 94 | 95 | IE2 / IE3 |
| | 75 | MEC 280S | 3 x 400 V ~ Δ | 130 | 124 | IE2 / IE3 |

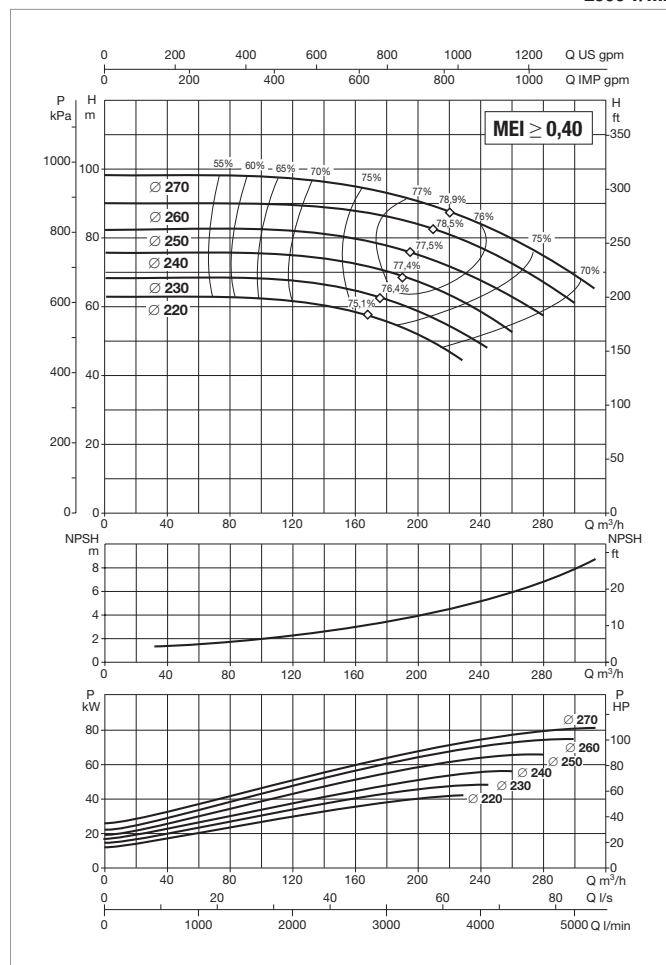
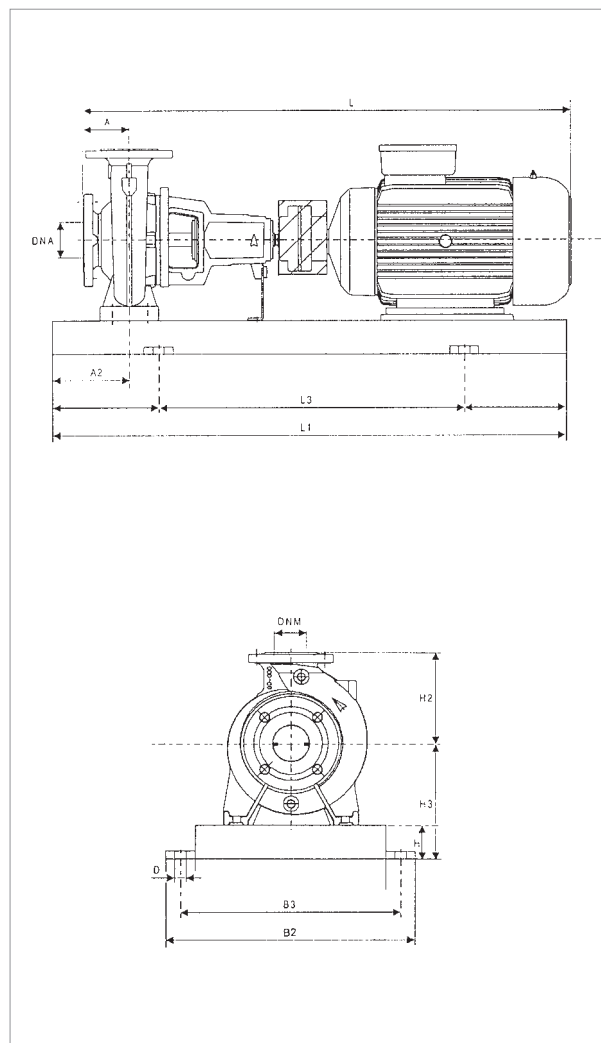
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|-----|-----|------|------|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 80-200 | 18.5 | 125 | 75 | 250 | 80 | 260 | 1250 | 840 | 540 | 490 | 24 | 100 | 80 | 1270 | 239 | 1258 | 207 | 1410 | 247 | 1398 | 215 | 6 |
| | 22 | 125 | 75 | 250 | 80 | 260 | 1250 | 840 | 540 | 490 | 24 | 100 | 80 | 1290 | 275 | 1290 | 233 | 1430 | 283 | 1430 | 241 | 6 |
| | 30 | 125 | 75 | 250 | 100 | 300 | 1400 | 940 | 610 | 550 | 28 | 100 | 80 | 1370 | 432 | 1380 | 444 | 1510 | 440 | 1520 | 452 | 7 |
| | 37 | 125 | 75 | 250 | 100 | 300 | 1400 | 940 | 610 | 550 | 28 | 100 | 80 | 1370 | 455 | 1380 | 480 | 1510 | 463 | 1520 | 488 | 7 |
| | 45 | 125 | 75 | 250 | 100 | 325 | 1400 | 940 | 610 | 550 | 28 | 100 | 80 | 1415 | 548 | 1420 | 587 | 1555 | 556 | 1560 | 595 | 7 |
| | 55 | 125 | 75 | 250 | 100 | 350 | 1600 | 1060 | 660 | 600 | 28 | 100 | 80 | 1515 | 494 | 1515 | 539 | 1655 | 502 | 1655 | 547 | 8 |
| | 75 | 125 | 75 | 250 | 100 | 380 | 1800 | 1200 | 730 | 670 | 28 | 100 | 80 | 1570 | 609 | 1568 | 609 | 1710 | 617 | 1708 | 617 | 9 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 80-250 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 80-250 | 37 | MEC 200L | 3 x 400 V ~ Δ | 64 | 63 | IE2 / IE3 |
| | 45 | MEC 225M | 3 x 400 V ~ Δ | 78.5 | 76 | IE2 / IE3 |
| | 55 | MEC 250M | 3 x 400 V ~ Δ | 94 | 95 | IE2 / IE3 |
| | 75 | MEC 280S | 3 x 400 V ~ Δ | 130 | 124 | IE2 / IE3 |
| | 90 | MEC 280M | 3 x 400 V ~ Δ | 154 | 148 | IE2 / IE3 |

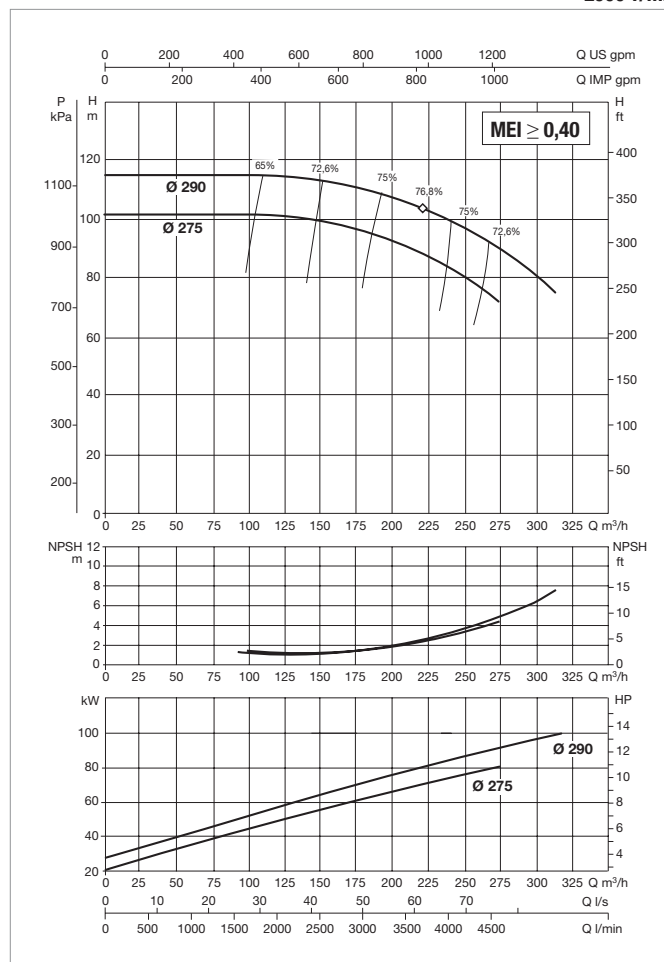
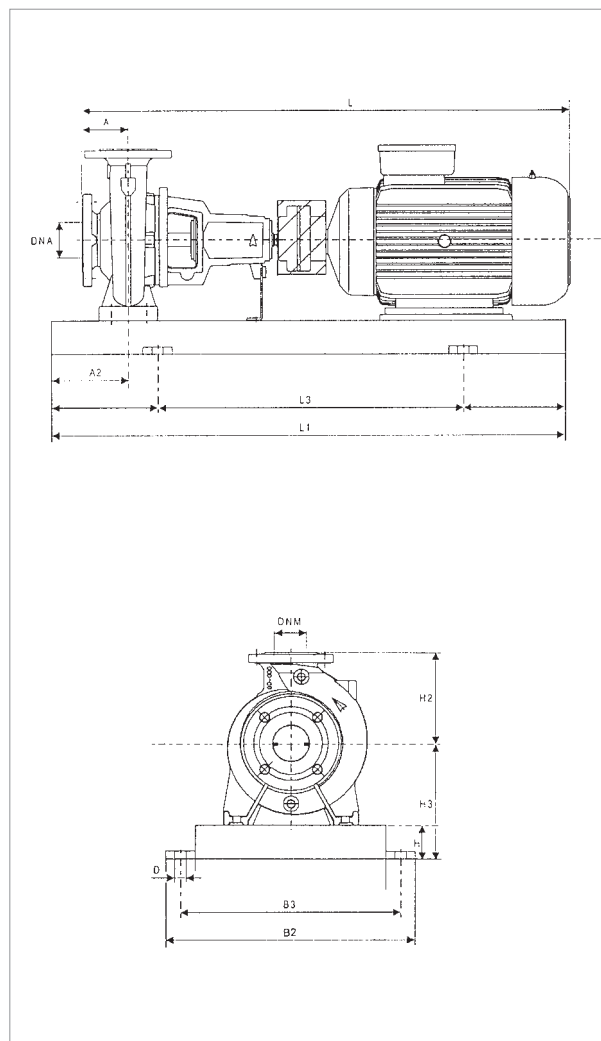
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|-----|-----|------|------|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 80-250 | 37 | 125 | 90 | 280 | 100 | 300 | 1400 | 940 | 610 | 550 | 28 | 100 | 80 | 1370 | 471 | 1380 | 496 | 1510 | 479 | 1520 | 504 | 7 |
| | 45 | 125 | 90 | 280 | 100 | 300 | 1400 | 940 | 610 | 550 | 28 | 100 | 80 | 1415 | 545 | 1420 | 584 | 1555 | 553 | 1560 | 592 | 7 |
| | 55 | 125 | 90 | 280 | 100 | 300 | 1600 | 1060 | 660 | 600 | 28 | 100 | 80 | 1515 | 650 | 1515 | 695 | 1655 | 658 | 1655 | 703 | 8 |
| | 75 | 125 | 90 | 280 | 100 | 300 | 1800 | 1200 | 730 | 670 | 28 | 100 | 80 | 1570 | 641 | 1568 | 641 | 1710 | 649 | 1708 | 649 | 9 |
| | 90 | 125 | 90 | 280 | 100 | 300 | 1800 | 1200 | 730 | 670 | 28 | 100 | 80 | 1620 | 909 | 1620 | 891 | 1760 | 917 | 1760 | 899 | 9 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 80-315 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 80-315 | 55 | MEC 250M | 3 x 400 V ~ Δ | 94 | 95 | IE2 / IE3 |
| | 75 | MEC 280S | 3 x 400 V ~ Δ | 130 | 124 | IE2 / IE3 |
| | 90 | MEC 280M | 3 x 400 V ~ Δ | 154 | 148 | IE2 / IE3 |
| | 110 | MEC 315S | 3 x 400 V ~ Δ | 188 | 184 | IE2 / IE3 |

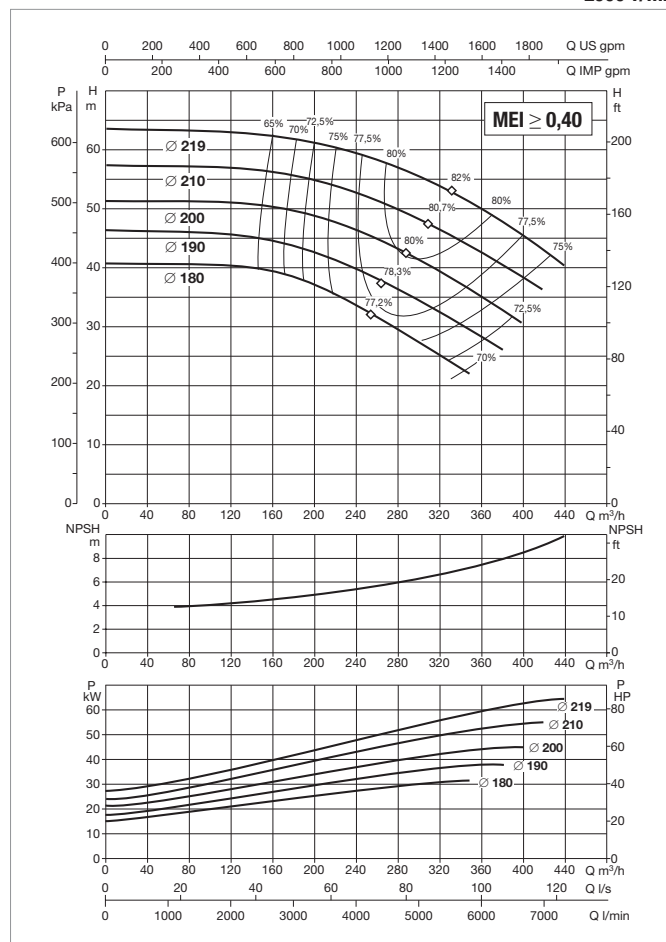
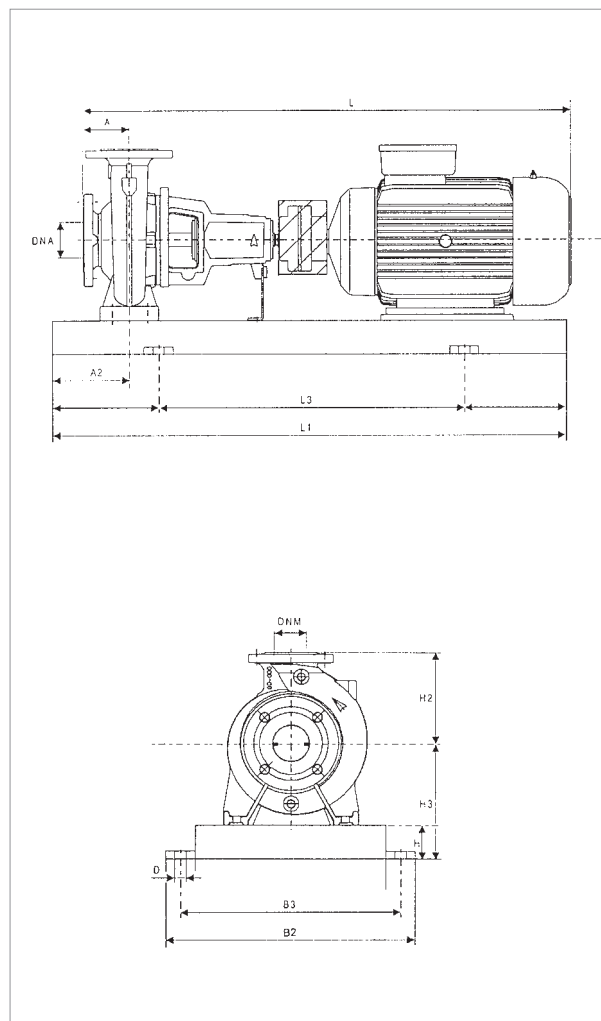
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|-----|-----|------|------|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 80-315 | 55 | 125 | 90 | 315 | 100 | 350 | 1600 | 1060 | 660 | 600 | 28 | 100 | 80 | 1515 | 707 | 1515 | 538 | 1655 | 715 | 1655 | 546 | 8 |
| | 75 | 125 | 90 | 315 | 100 | 350 | 1800 | 1200 | 730 | 670 | 28 | 100 | 80 | 1570 | 861 | 1568 | 628 | 1710 | 869 | 1708 | 636 | 9 |
| | 90 | 125 | 90 | 315 | 100 | 350 | 1800 | 1200 | 730 | 670 | 28 | 100 | 80 | 1620 | 681 | 1620 | 663 | 1760 | 689 | 1760 | 671 | 9 |
| | 110 | 125 | 90 | 315 | 120 | 370 | 2000 | 1340 | 910 | 830 | 28 | 100 | 80 | 1840 | 1131 | 1805 | 1231 | 1980 | 1139 | 1945 | 1239 | 9 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 100-200 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 100-200 | 30 | MEC 200L | 3 x 400 V ~ Δ | 52 | 52 | IE2 / IE3 |
| | 37 | MEC 200L | 3 x 400 V ~ Δ | 64 | 63 | IE2 / IE3 |
| | 45 | MEC 225M | 3 x 400 V ~ Δ | 78.5 | 76 | IE2 / IE3 |
| | 55 | MEC 250M | 3 x 400 V ~ Δ | 94 | 95 | IE2 / IE3 |
| | 75 | MEC 280S | 3 x 400 V ~ Δ | 130 | 124 | IE2 / IE3 |
| | 90 | MEC 280M | 3 x 400 V ~ Δ | 154 | 148 | IE2 / IE3 |

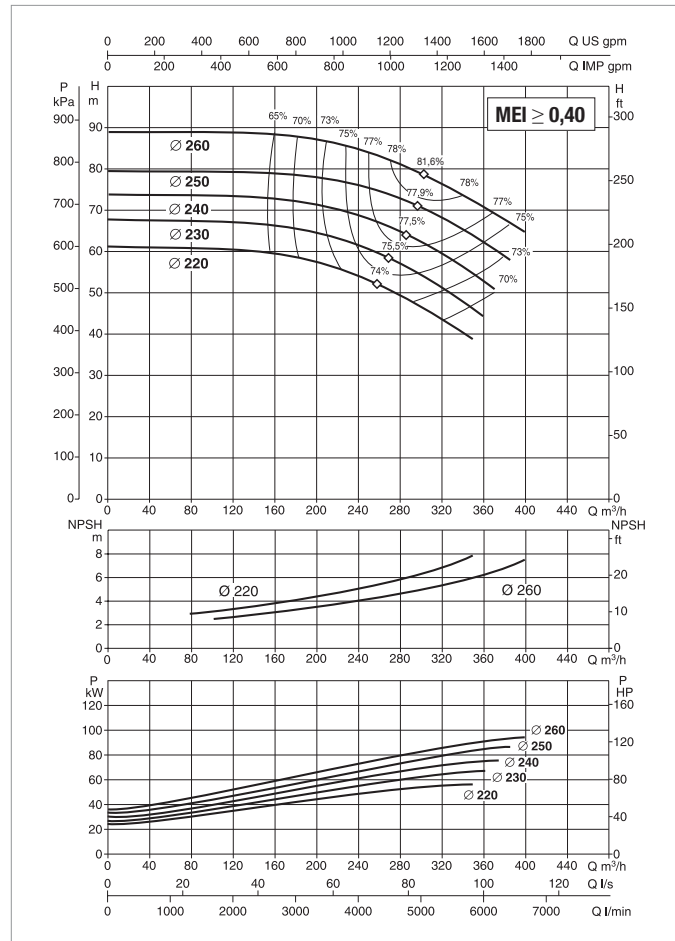
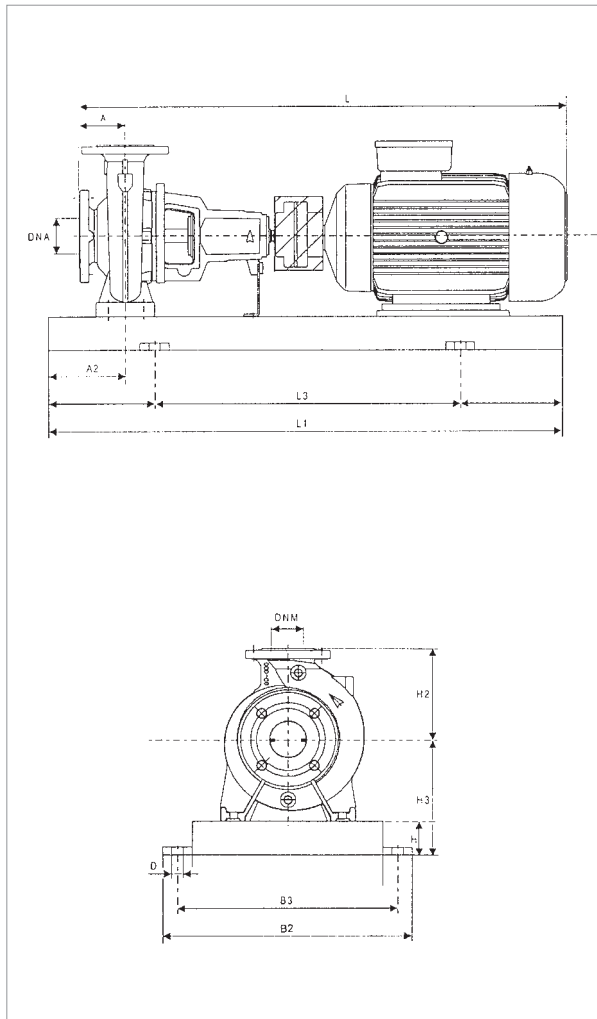
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|----|-----|-----|-----|------|------|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 100-200 | 30 | 125 | 90 | 280 | 100 | 300 | 1400 | 940 | 610 | 550 | 28 | 125 | 100 | 1370 | 454 | 1380 | 466 | 1510 | 462 | 1520 | 474 | 7 |
| | 37 | 125 | 90 | 280 | 100 | 300 | 1400 | 940 | 610 | 550 | 28 | 125 | 100 | 1370 | 402 | 1380 | 427 | 1510 | 410 | 1520 | 435 | 7 |
| | 45 | 125 | 90 | 280 | 100 | 325 | 1400 | 940 | 610 | 550 | 28 | 125 | 100 | 1415 | 549 | 1420 | 588 | 1555 | 557 | 1560 | 596 | 7 |
| | 55 | 125 | 90 | 280 | 100 | 350 | 1600 | 1060 | 660 | 600 | 28 | 125 | 100 | 1515 | 623 | 1515 | 668 | 1655 | 631 | 1655 | 676 | 8 |
| | 75 | 125 | 90 | 280 | 100 | 380 | 1800 | 1200 | 730 | 670 | 28 | 125 | 100 | 1570 | 621 | 1568 | 621 | 1710 | 629 | 1708 | 629 | 9 |
| | 90 | 125 | 90 | 280 | 100 | 380 | 1800 | 1200 | 730 | 670 | 28 | 125 | 100 | 1620 | 621 | 1620 | 603 | 1760 | 629 | 1760 | 611 | 9 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN 100-250 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +140 °C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 100-250 | 45 | MEC 225M | 3 x 400 V ~ Δ | 78.5 | 76 | IE2 / IE3 |
| | 55 | MEC 250M | 3 x 400 V ~ Δ | 94 | 95 | IE2 / IE3 |
| | 75 | MEC 280S | 3 x 400 V ~ Δ | 130 | 124 | IE2 / IE3 |
| | 90 | MEC 280M | 3 x 400 V ~ Δ | 154 | 148 | IE2 / IE3 |
| | 110 | MEC 315S | 3 x 400 V ~ Δ | 188 | 184 | IE2 / IE3 |

| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|----|-----|-----|-----|------|------|-----|-----|----|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H2 | H | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 100-250 | 45 | 125 | 90 | 280 | 100 | 325 | 1600 | 1060 | 660 | 600 | 28 | 125 | 100 | 1430 | 696 | 1435 | 735 | 1570 | 704 | 1575 | 743 | 8 |
| | 55 | 125 | 90 | 280 | 100 | 325 | 1600 | 1060 | 600 | 600 | 28 | 125 | 100 | 1530 | 696 | 1530 | 741 | 1670 | 704 | 1670 | 749 | 8 |
| | 75 | 125 | 90 | 280 | 100 | 380 | 1800 | 1200 | 730 | 670 | 28 | 125 | 100 | 1585 | 850 | 1583 | 850 | 1725 | 858 | 1723 | 858 | 9 |
| | 90 | 125 | 90 | 280 | 100 | 380 | 1800 | 1200 | 730 | 670 | 28 | 125 | 100 | 1635 | 670 | 1635 | 652 | 1775 | 678 | 1775 | 660 | 9 |
| | 110 | 125 | 90 | 280 | 100 | 435 | 2000 | 1340 | 910 | 830 | 28 | 125 | 100 | 1855 | 1120 | 1820 | 1220 | 1995 | 1128 | 1960 | 1228 | 9 |

Dimension and electrical data based on sizing definition following the instructions on page 96.

KDN - 2 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

IE2 STANDARD MOTOR ELECTRIC DATA

=2900 1/min

| MOTOR TYPE | P2 NOMINAL kW | SPEED rpm | YIELD % | POWER FACTOR COS φ | POWER INPUT 50 Hz | In A | | Start-up current Ia/In | Start-up torque Ma/Mn | Maximum torque M/k/Mn | POLES |
|------------|---------------|-----------|---------|----------------------------|-------------------|------|------|------------------------|-----------------------|-----------------------|-------|
| | | | | | | 230 | 400 | | | | |
| MEC 71 | 0.25 | 2790 | 69.81 | 0.778 | 3 x 230/400 | 1.15 | 0.67 | 5.06 | 2.90 | 3.01 | 2 |
| MEC 71 | 0.37 | 2820 | 72.79 | 0.783 | 3 x 230/400 | 1.61 | 0.93 | 5.40 | 2.69 | 2.99 | 2 |
| MEC 80 | 0.55 | 2810 | 76.97 | 0.800 | 3 x 230/400 | 2.23 | 1.29 | 6.41 | 3.43 | 3.13 | 2 |
| MEC 80 | 0.75 | 2880 | 81.52 | 0.823 | 3 x 230/400 | 2.81 | 1.62 | 7.93 | 3.47 | 3.33 | 2 |
| MEC 80 | 1.10 | 2870 | 81.82 | 0.826 | 3 x 230/400 | 4.07 | 2.36 | 7.92 | 3.42 | 3.25 | 2 |
| MEC 90S | 1.50 | 2880 | 82.95 | 0.794 | 3 x 230/400 | 5.80 | 3.35 | 8.85 | 4.18 | 3.80 | 2 |
| MEC 90L | 2.20 | 2870 | 83.41 | 0.811 | 3 x 230/400 | 8.23 | 4.75 | 8.31 | 3.87 | 1.87 | 2 |

| MOTOR TYPE | P2 NOMINAL kW | SPEED rpm | YIELD % | POWER FACTOR COS φ | POWER INPUT 50 Hz | In A | | Start-up current Ia/In | Start-up torque Ma/Mn | Maximum torque M/k/Mn | POLES |
|------------|---------------|-----------|---------|----------------------------|-------------------|--------|--------|------------------------|-----------------------|-----------------------|-------|
| | | | | | | 400 | 690 | | | | |
| MEC 100L | 3.00 | 2880 | 86.25 | 0.861 | 3 x 400 Δ | 5.85 | 3.40 | 8.93 | 3.17 | 3.70 | 2 |
| MEC 112M | 4.00 | 2910 | 87.10 | 0.856 | 3 x 400 Δ | 8.05 | 4.65 | 9.14 | 2.99 | 3.53 | 2 |
| MEC 132S | 5.50 | 2910 | 88.40 | 0.873 | 3 x 400 Δ | 10.40 | 6.00 | 7.77 | 2.53 | 3.26 | 2 |
| MEC 132S | 7.50 | 2900 | 88.40 | 0.882 | 3 x 400 Δ | 14.00 | 8.08 | 7.62 | 2.34 | 3.11 | 2 |
| MEC 160M | 11.00 | 2930 | 89.82 | 0.890 | 3 x 400 Δ | 20.20 | 11.66 | 6.24 | 2.16 | 2.79 | 2 |
| MEC 160M | 15.00 | 2940 | 90.46 | 0.890 | 3 x 400 Δ | 27.00 | 15.59 | 7.03 | 2.57 | 3.02 | 2 |
| MEC 160L | 18.50 | 2940 | 91.49 | 0.893 | 3 x 400 Δ | 33.00 | 19.05 | 7.27 | 2.69 | 3.21 | 2 |
| MEC 180M | 22.00 | 2960 | 92.05 | 0.875 | 3 x 400 Δ | 39.50 | 23.00 | 8.33 | 2.80 | 3.43 | 2 |
| MEC 200L | 30.00 | 2950 | 92.50 | 0.899 | 3 x 400 Δ | 52.00 | 30.02 | 7.79 | 2.37 | 3.06 | 2 |
| MEC 200L | 37.00 | 2960 | 92.90 | 0.897 | 3 x 400 Δ | 64.00 | 36.95 | 7.62 | 2.50 | 3.22 | 2 |
| MEC 225M | 45.00 | 2960 | 92.94 | 0.901 | 3 x 400 Δ | 78.50 | 45.32 | 6.73 | 2.40 | 2.85 | 2 |
| MEC 250M | 55.00 | 2970 | 93.97 | 0.900 | 3 x 400 Δ | 94.00 | 54.50 | 8.33 | 2.42 | 3.04 | 2 |
| MEC 280S | 75.00 | 2980 | 94.12 | 0.895 | 3 x 400 Δ | 130.00 | 74.50 | 7.73 | 2.36 | 3.21 | 2 |
| MEC 280M | 90.00 | 2980 | 94.51 | 0.918 | 3 x 400 Δ | 154.00 | 89.00 | 7.97 | 2.80 | 3.44 | 2 |
| MEC 315S | 110.00 | 2980 | 94.53 | 0.893 | 3 x 400 Δ | 188.00 | 110.00 | 8.06 | 2.53 | 3.53 | 2 |
| MEC 315M | 132.00 | 2970 | 94.80 | 0.923 | 3 x 400 Δ | 220.00 | 130.00 | 6.18 | 2.14 | 2.77 | 2 |
| MEC 315L | 160.00 | 2970 | 94.80 | 0.926 | 3 x 400 Δ | 265.00 | 155.00 | 5.96 | 2.12 | 2.65 | 2 |
| MEC 315L | 200.00 | 2970 | 95.20 | 0.925 | 3 x 400 Δ | 330.00 | 190.00 | 5.78 | 2.10 | 2.55 | 2 |
| MEC355M | 250.00 | 2980 | 96.04 | 0.897 | 3 x 400 Δ | 418.50 | 242.60 | 7.84 | 2.37 | 3.77 | 2 |
| MEC355L | 315.00 | 2980 | 96.43 | 0.903 | 3 x 400 Δ | 521.50 | 302.30 | 7.96 | 2.36 | 3.81 | 2 |

KDN - 2 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

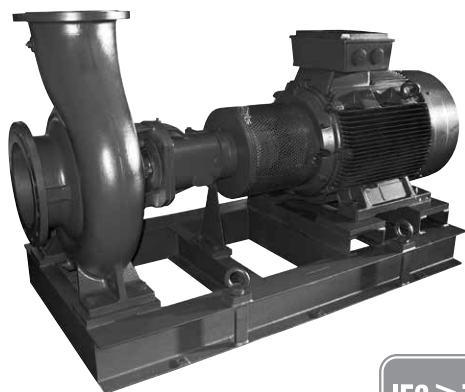
IE3 STANDARD MOTOR ELECTRIC DATA

=2900 1/min

| MOTOR TYPE | P2 NOMINAL kW | SPEED rpm | YIELD % | POWER FACTOR COS φ | POWER INPUT 50 Hz | In A | | Start-up current Ia/In | Start-up torque Ma/Mn | Maximum torque M/k/Mn | POLES |
|------------|---------------|-----------|---------|----------------------------|-------------------|--------|--------|------------------------|-----------------------|-----------------------|-------|
| | | | | | | 400 | 690 | | | | |
| MEC 132S | 7.50 | 2920 | 90.10 | 0.900 | 3 x 400 Δ | 13.40 | 7.75 | 8.50 | 2.20 | 3.20 | 2 |
| MEC 160M | 11.00 | 2940 | 91.20 | 0.900 | 3 x 400 Δ | 19.40 | 11.21 | 7.60 | 2.40 | 3.30 | 2 |
| MEC 160M | 15.00 | 2920 | 91.30 | 0.900 | 3 x 400 Δ | 26.50 | 15.32 | 7.70 | 2.60 | 3.30 | 2 |
| MEC 160L | 18.50 | 2920 | 92.40 | 0.910 | 3 x 400 Δ | 32.00 | 18.50 | 8.20 | 2.80 | 3.40 | 2 |
| MEC 180M | 22.00 | 2950 | 92.70 | 0.910 | 3 x 400 Δ | 38.00 | 21.97 | 8.70 | 2.60 | 3.90 | 2 |
| MEC 200L | 30.00 | 2960 | 93.30 | 0.890 | 3 x 400 Δ | 52.00 | 30.06 | 9.00 | 3.00 | 3.90 | 2 |
| MEC 200L | 37.00 | 2960 | 93.70 | 0.910 | 3 x 400 Δ | 63.00 | 36.42 | 9.00 | 3.10 | 3.90 | 2 |
| MEC 225M | 45.00 | 2960 | 94.00 | 0.910 | 3 x 400 Δ | 76.00 | 43.93 | 8.30 | 2.50 | 3.60 | 2 |
| MEC 250M | 55.00 | 2970 | 94.30 | 0.890 | 3 x 400 Δ | 95.00 | 54.91 | 7.20 | 2.30 | 3.60 | 2 |
| MEC 280S | 75.00 | 2970 | 94.70 | 0.920 | 3 x 400 Δ | 124.00 | 71.68 | 8.00 | 2.40 | 3.30 | 2 |
| MEC 280M | 90.00 | 2970 | 95.00 | 0.920 | 3 x 400 Δ | 148.00 | 85.55 | 8.10 | 2.50 | 3.30 | 2 |
| MEC 315S | 110.00 | 2980 | 95.20 | 0.910 | 3 x 400 Δ | 184.00 | 106.36 | 6.70 | 1.80 | 3.10 | 2 |
| MEC 315M | 132.00 | 2980 | 95.40 | 0.920 | 3 x 400 Δ | 220.00 | 127.17 | 6.50 | 1.80 | 2.90 | 2 |
| MEC 315L | 160.00 | 2980 | 95.60 | 0.920 | 3 x 400 Δ | 265.00 | 153.18 | 6.60 | 1.90 | 2.80 | 2 |
| MEC 315L | 200.00 | 2980 | 95.80 | 0.920 | 3 x 400 Δ | 330.00 | 190.75 | 6.10 | 1.80 | 2.60 | 2 |
| MEC 355M | 250.00 | 2980 | 95.80 | 0.920 | 3 x 400 Δ | 410.00 | 236.99 | 6.90 | 2.00 | 2.90 | 2 |
| MEC 355L | 315.00 | 2980 | 95.80 | 0.920 | 3 x 400 Δ | 520.00 | 300.58 | 5.70 | 1.70 | 2.40 | 2 |

KDN OVERSIZE

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS



TECHNICAL DATA

Rotation speed: 970 - 1450 - 2900 1/min.

Operating range:

from 4 to 3200 m³/h with head up to 158 metres.

Pumped liquid: clean, free of solids and abrasives, non-viscous, non-aggressive, non-crystallised and chemically neutral, with properties similar to water.

Pumped liquid temperature range: from -20°C to +120°C.

Maximum ambient temperature: +40 °C.

Maximum operating pressure:

16 bar as standard up to DN 200, 10 bar for KDN 250 - 300 - 350

Optional PN 16 for KDN 250 - 300 - 350 in the spheroidal cast iron version (H).

Installation: normally in the horizontal position.

Special executions on requests: pumps for liquids other than water. Special materials and other voltages and/or frequencies.

APPLICATIONS

Standardised centrifugal monobloc electric pumps with coupling, designed for a wide range of applications, such as:

- Central heating
- Water supply
- Air conditioning
- Refrigeration
- Industry
- Fire fighting
- Environmental engineering

CONSTRUCTION FEATURES OF THE PUMP

Non self-priming single stage spiral body centrifugal pump with axial suction port, radial delivery port and horizontal axis components, in compliance with ISO 2858/DIN 24256.

KDN pumps have PN 16 nominal sizes and performances.

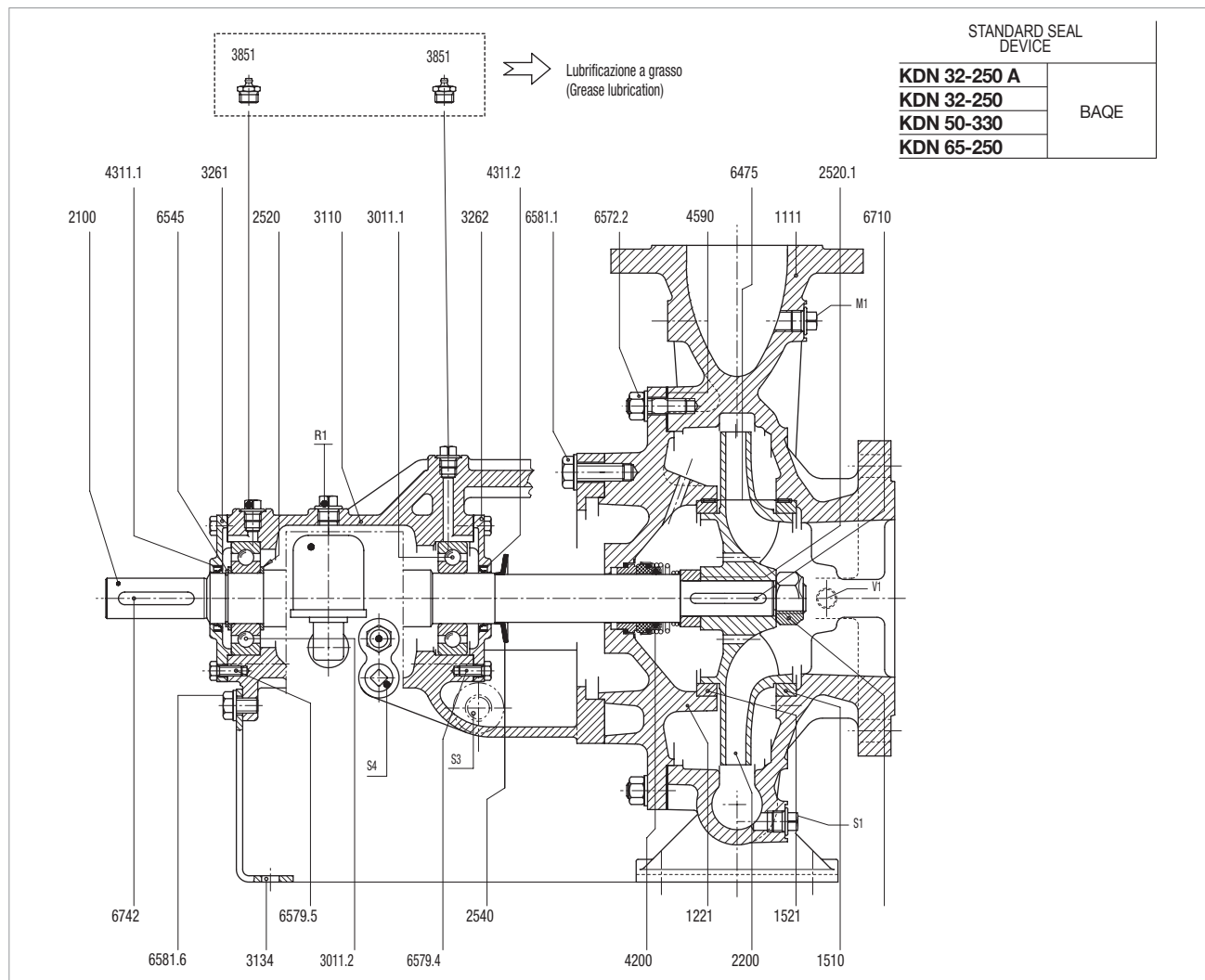
The suction and delivery flanges are in compliance with EN 7005 PN 10 or 16. All the pumps are dynamically balanced according to ISO 1940 class 6.3; the impellers are hydraulically balanced.

Pump and motor are installed on a single base according to EN 23 661, made of fully welded steel.

Oversize pumps have a base with welded steel profiles.

Thanks to the particular pump design, the bearings, the impeller, and the seal can be removed without detaching the pump body from the piping (back-pull-out design).

MATERIALS



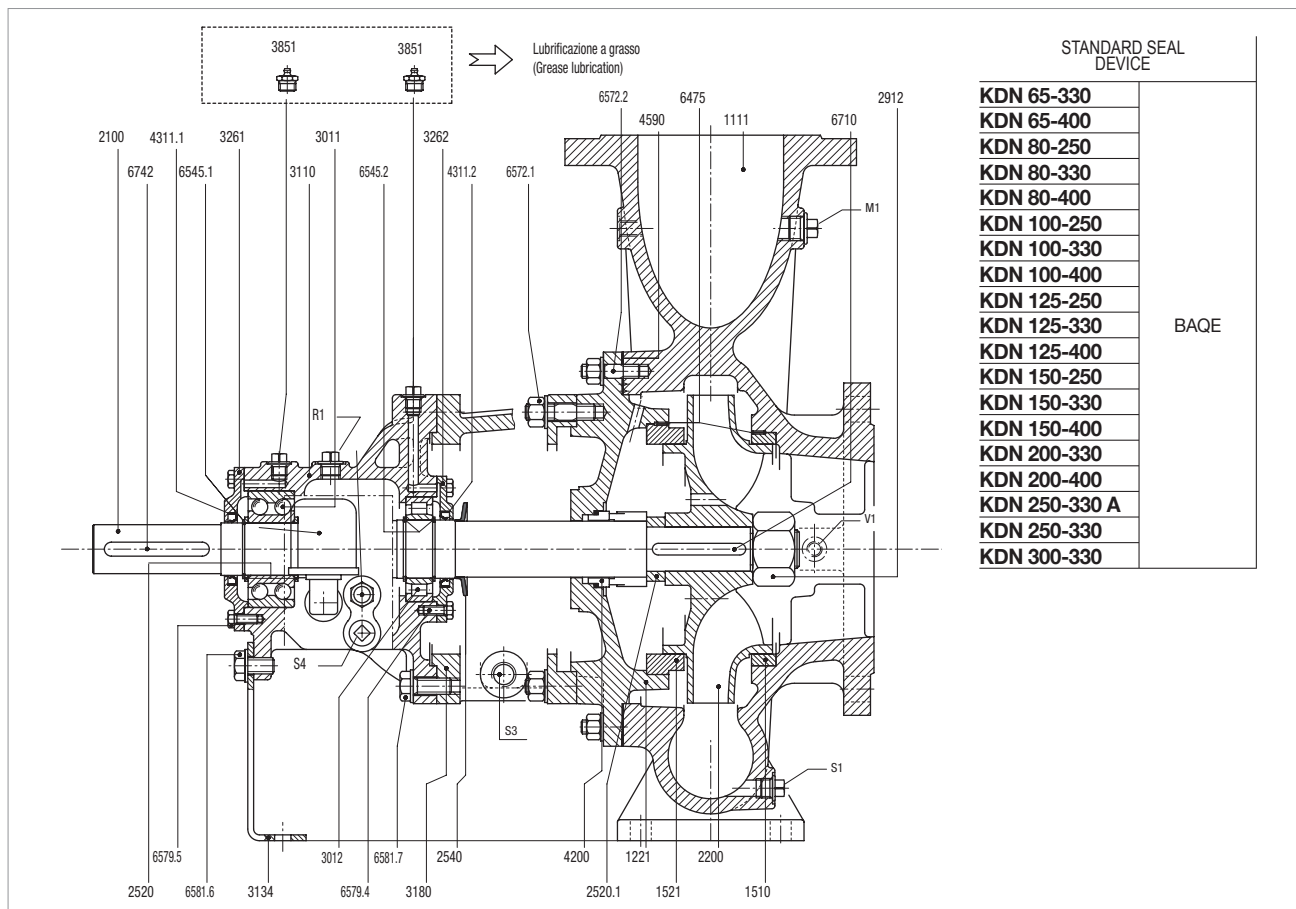
| No. | PARTS | MATERIALS | |
|--------|---------------------------|--------------------------------------|----------------------------------|
| 1111 | PUMP BODY | CAST IRON GG25 | |
| 1221 | COVER | CAST IRON GG25 | |
| 1510 | FRONT END WEAR RING | CAST IRON GG25 | |
| 1521 | REAR END WEAR RING | CAST IRON GG25 | |
| 2100 | SHAFT | AISI 420 | |
| 2200 | IMPELLER | CAST IRON GG25 CAST IRON GS400 | CAST IRON GS400 CF8M STEEL |
| 2520 | SHOULDER RING | STEEL | |
| 2520.1 | SHOULDER RING | STEEL | |
| 2540 | THROWER | RUBBER | |
| 2912 | IMPELLER NUT | CAST IRON GG25 | |
| 3011.1 | BALL BEARING | NA | |
| 3011.2 | BALL BEARING | NA | |
| 3110 | SUPPORT | CAST IRON GG25 | |
| 3134 | SUPPORT FOOT | STEEL | |
| 3261 | BEARING COVER, DRIVE SIDE | CAST IRON GG25 | |
| 3262 | BEARING COVER, PUMP SIDE | CAST IRON GG25 | |
| 4200 | MECHANICAL SEAL | CARBON/SILICON CARBIDE | |
| 4311.1 | SEAL RING | NBR | |
| 4311.2 | SEAL RING | NBR | |

| No. | PARTS | MATERIALS |
|--------|--------------------------------------|-----------|
| 4590 | GASKET | NONAM |
| 6475 | DOWEL | STEEL 8.8 |
| 6545 | SHAFT CIRCLIP | STEEL |
| 6572.2 | STUD BOLT + WASHER + NUT | STEEL |
| 6579.4 | SCREW | STEEL 8.8 |
| 6579.5 | SCREW | STEEL 8.8 |
| 6581.1 | SCREW + WASHER | STEEL 8.8 |
| 6581.6 | SCREW + WASHER | STEEL 8.8 |
| 6710 | IMPELLER KEY | STEEL |
| 6742 | COUPLING KEY | STEEL |
| M1 | PRESSURE GAUGE CONNECTION | |
| R1 | OIL FILLING | |
| S1 | PUMP DRAIN PLUG | |
| S3 | MECH. SEAL /PACKING DRAIN CONNECTION | |
| S4 | OIL DRAIN PLUG | |
| V1 | VACUUM GAUGE CONNECTION | |
| | | |
| | GREASE LUBRICATION | |
| 3851 | GREASER | |

KDN OVERSIZE

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

MATERIALS



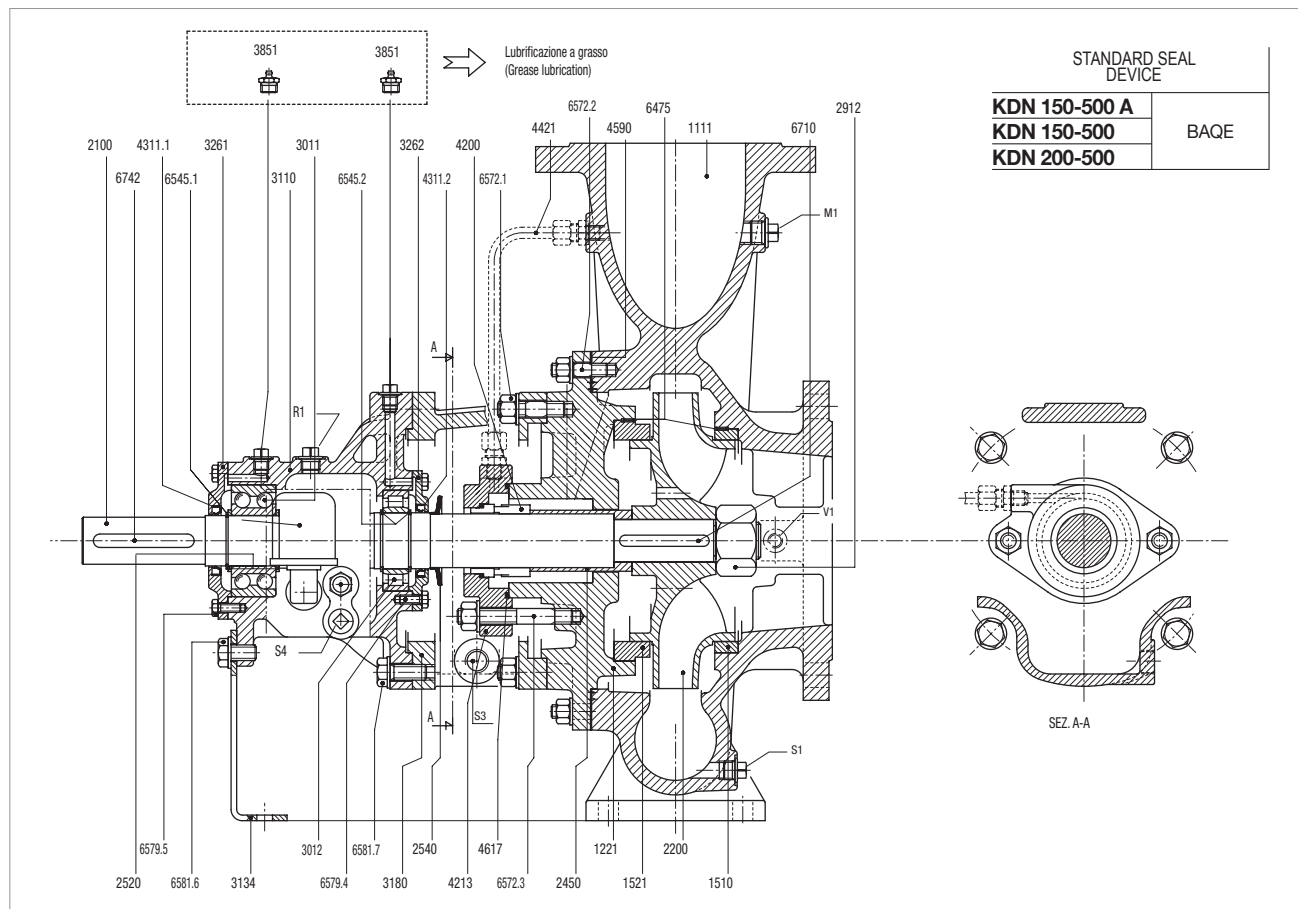
| No. | PARTS | MATERIALS |
|--------|---------------------------|--|
| 1111 | PUMP BODY | CAST IRON GG25 |
| 1221 | COVER | CAST IRON GG25 |
| 1510 | FRONT END WEAR RING | CAST IRON GG25 |
| 1521 | REAR END WEAR RING | CAST IRON GG25 |
| 2100 | SHAFT | AISI 420 |
| 2200 | IMPELLER | CAST IRON GG25 CAST IRON GS400 CAST IRON GS400 CF8M STEEL CAST IRON GG25 |
| 2520 | SHOULDER RING | STEEL |
| 2520.1 | SHOULDER RING | STEEL |
| 2540 | THROWER | RUBBER |
| 2912 | IMPELLER NUT | CAST IRON GG25 |
| 3011 | BALL BEARING | NA |
| 3012 | ROLLER BEARING | NA |
| 3110 | SUPPORT | CAST IRON GG25 |
| 3134 | SUPPORT FOOT | STEEL |
| 3180 | SUPPORT | CAST IRON GG25 |
| 3261 | BEARING COVER, DRIVE SIDE | CAST IRON GG25 |
| 3262 | BEARING COVER, PUMP SIDE | CAST IRON GG25 |
| 4200 | MECHANICAL SEAL | TUNGSTEN CARBIDE/CARBON |
| 4311.1 | SEAL RING | NBR |
| 4311.2 | SEAL RING | NBR |

| No. | PARTS | MATERIALS |
|--------|-------------------------------------|-----------|
| 4590 | GASKET | NONAM |
| 6475 | DOWEL | STEEL 8.8 |
| 6545.1 | SHAFT CIRCLIP | STEEL |
| 6545.2 | SHAFT CIRCLIP | STEEL |
| 6572.1 | STUD BOLT + WASHER + NUT | STEEL |
| 6572.2 | STUD BOLT + WASHER + NUT | STEEL |
| 6579.4 | SCREW | STEEL 8.8 |
| 6579.5 | SCREW | STEEL 8.8 |
| 6581.6 | SCREW + WASHER | STEEL 8.8 |
| 6581.7 | SCREW + WASHER | STEEL 8.8 |
| 6710 | IMPELLER KEY | STEEL |
| 6742 | COUPLING KEY | STEEL |
| M1 | PRESSURE GAUGE CONNECTION | |
| R1 | OIL FILLING | |
| S1 | PUMP DRAIN PLUG | |
| S3 | MECH. SEAL/PACKING DRAIN CONNECTION | |
| V1 | VACUUM GAUGE CONNECTION | |
| | | |
| | GREASE LUBRICATION | |
| 3851 | GREASER | |

KDN OVERSIZE

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

MATERIALS



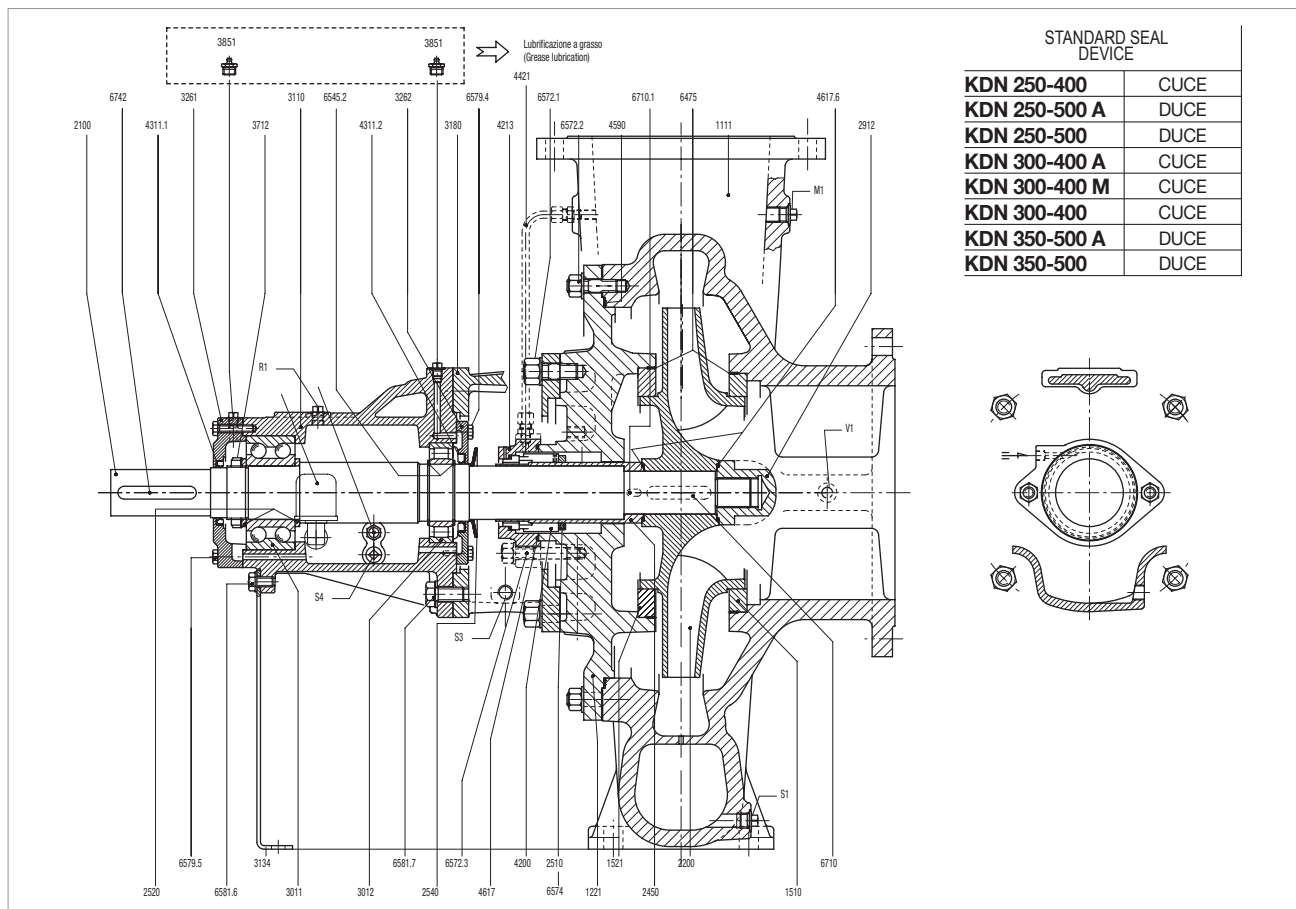
| No. | PARTS | MATERIALS |
|--------|-----------------------------|------------------------|
| 1111 | PUMP BODY | CAST IRON GG25 |
| 1221 | COVER | CAST IRON GG25 |
| 1510 | FRONT END WEAR RING | CAST IRON GG25 |
| 1521 | REAR END WEAR RING | CAST IRON GG25 |
| 2100 | SHAFT | AISI 420 |
| 2200 | IMPELLER | CAST IRON GG25 |
| 2450 | SHAFT SLEEVE | AISI 303 |
| 2520 | SHOULDER RING | STEEL |
| 2540 | THROWER | RUBBER |
| 2912 | IMPELLER NUT | CAST IRON GG25 |
| 3011 | BALL BEARING | NA |
| 3012 | ROLLER BEARING | NA |
| 3110 | SUPPORT | CAST IRON GG25 |
| 3134 | SUPPORT FOOT | STEEL |
| 3180 | SUPPORT | CAST IRON GG25 |
| 3261 | BEARING COVER, DRIVE SIDE | CAST IRON GG25 |
| 3262 | BEARING COVER, PUMP SIDE | CAST IRON GG25 |
| 4200 | MECHANICAL SEAL | CARBON/SILICON CARBIDE |
| 4213 | CARRIER FOR MECHANICAL SEAL | CAST IRON GS400 |
| 4311.1 | SEAL RING | NBR |
| 4311.2 | SEAL RING | NBR |

| No. | PARTS | MATERIALS |
|--------|--------------------------------------|-----------|
| 4421 | PIPE | AISI 316 |
| 4590 | GASKET | NONAM |
| 4617 | O-RING | NBR |
| 6475 | DOWEL | STEEL 8.8 |
| 6545.1 | SHAFT CIRCLIP | STEEL |
| 6545.2 | SHAFT CIRCLIP | STEEL |
| 6572.1 | STUD BOLT + WASHER + NUT | STEEL |
| 6572.2 | STUD BOLT + WASHER + NUT | STEEL |
| 6572.3 | STUD BOLT + WASHER + NUT | STEEL |
| 6579.4 | SCREW | STEEL 8.8 |
| 6579.5 | SCREW | STEEL 8.8 |
| 6581.6 | SCREW + WASHER | STEEL 8.8 |
| 6710 | IMPELLER KEY | STEEL |
| 6742 | COUPLING KEY | STEEL |
| M1 | PRESSURE GAUGE CONNECTION | |
| R1 | OIL FILLING | |
| S1 | PUMP DRAIN PLUG | |
| S3 | MECH. SEAL /PACKING DRAIN CONNECTION | |
| V1 | VACUUM GAUGE CONNECTION | |
| | GREASE LUBRICATION | |
| 3851 | GREASER | |

KDN OVERSIZE

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

MATERIALS



| No. | PARTS | MATERIALS | |
|--------|-----------------------------|-------------------------|-----------------|
| 1111 | PUMP BODY | CAST IRON GG25 | CAST IRON GS400 |
| 1221 | COVER | CAST IRON GG25 | CAST IRON GS400 |
| 1510 | FRONT END WEAR RING | CAST IRON GG25 | |
| 1521 | REAR END WEAR RING | CAST IRON GG25 | |
| 2100 | SHAFT | AISI 420 | |
| 2200 | IMPELLER | CAST IRON GG25 | |
| 2450 | SHAFT SLEEVE | AISI 303 | |
| 2510 | SPACER RING | CAST IRON GG25 | |
| 2520 | SHOULDER RING | STEEL | |
| 2540 | THROWER | RUBBER | |
| 2912 | IMPELLER NUT | CAST IRON GG25 | |
| 3011 | BALL BEARING | NA | |
| 3012 | ROLLER BEARING | NA | |
| 3110 | SUPPORT | CAST IRON GG25 | |
| 3134 | SUPPORT FOOT | STEEL | |
| 3180 | SUPPORT | CAST IRON GG25 | |
| 3261 | BEARING COVER, DRIVE SIDE | CAST IRON GG25 | |
| 3262 | BEARING COVER, PUMP SIDE | CAST IRON GG25 | |
| 3712 | BEARING NUT | STEEL | |
| 4200 | MECHANICAL SEAL | TUNGSTEN CARBIDE/CARBON | |
| 4213 | CARRIER FOR MECHANICAL SEAL | CAST IRON GS400 | |
| 4311.1 | SEAL RING | NBR | |
| 4311.2 | SEAL RING | NBR | |
| 4421 | PIPE | AISI 316 | |
| 4590 | GASKET | NONAM | GRAPHITE |

| No. | PARTS | MATERIALS |
|--------|---|-----------|
| 4617 | O-RING | NBR |
| 4617.6 | O-RING | NBR |
| 6475 | DOWEL | STEEL 8.8 |
| 6545.2 | SHAFT CIRCLIP | STEEL |
| 6572.1 | STUD BOLT + WASHER + NUT | STEEL |
| 6572.2 | STUD BOLT + WASHER + NUT | STEEL |
| 6572.3 | STUD BOLT + WASHER + NUT | STEEL |
| 6574 | SCREW | STEEL 8.8 |
| 6579.4 | SCREW | STEEL 8.8 |
| 6579.5 | SCREW | STEEL 8.8 |
| 6581.6 | SCREW + WASHER | STEEL 8.8 |
| 6581.7 | SCREW + WASHER | STEEL 8.8 |
| 6710 | IMPELLER KEY | STEEL |
| 6710.1 | IMPELLER KEY | STEEL |
| 6742 | COUPLING KEY | STEEL |
| | M1 PRESSURE GAUGE CONNECTION | |
| | R1 OIL FILLING | |
| | S1 PUMP DRAIN PLUG | |
| | S3 MECH. SEAL /PACKING DRAIN CONNECTION | |
| | S4 OIL DRAIN PLUG | |
| | V1 VACUUM GAUGE CONNECTION | |
| | | |
| | | |
| | GREASE LUBRICATION | |
| 3851 | GREASER | |

KDN OVERSIZE

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

PRODUCT DESCRIPTION

In the description of the pumps without a motor, the motor data are not mentioned. In the description of the bare shaft pump no mention is made of the coupling or motor data.

The example describes an KDN 125-250 with 264 mm. impeller, in cast iron with wear rings, with BAQE type mechanics, standard coupling, and a 132 kW 2-pole motor.

– Denomination index: (example)

| | KDN | 125 | - | 250 | /264 | /A | W | /BAQE | /1 | /132 | /2 |
|---|-----|-----|---|-----|------|----|---|-------|----|------|----|
| Type | | | | | | | | | | | |
| Nominal diameter of the delivery port | | | | | | | | | | | |
| Nominal diameter of the impeller | | | | | | | | | | | |
| Actual diameter of the impeller | | | | | | | | | | | |
| Material codes: (*) | | | | | | | | | | | |
| A = Cast iron GG 25 | | | | | | | | | | | |
| B = Cast iron GG 25 + cast iron impeller GG40 | | | | | | | | | | | |
| C = Cast iron GG 40 | | | | | | | | | | | |
| D = Cast iron GG 25 + AISI 316 stainless steel | | | | | | | | | | | |
| E = AISI 316 stainless steel | | | | | | | | | | | |
| F = Cast iron GG 25 + cast iron impeller GG40 + cataphoresis | | | | | | | | | | | |
| G = Cast iron GG 25 + AISI 316 stainless steel + cataphoresis | | | | | | | | | | | |
| H = Cast iron GG 40 + cast iron impeller GG 20 | | | | | | | | | | | |
| W = Wear ring | | | | | | | | | | | |
| Seal code | | | | | | | | | | | |
| Coupling type | | | | | | | | | | | |
| 1 = elastic standard | | | | | | | | | | | |
| 2 = elastic spacer | | | | | | | | | | | |
| Motor power in kW | | | | | | | | | | | |
| 2, 4, or 6 pole motor | | | | | | | | | | | |
| (*) Pump body/impeller materials | | | | | | | | | | | |

PACKING CODES

| Position | Code | Description of the seal |
|----------|------|-------------------------|
| 1 | S | Stuffing box type |
| Position | Code | Cooling |
| 2 | N | Stuffing box not cooled |
| | K | Stuffing box cooled |
| Position | Code | Sealing liquid |
| | E | With internal liquid |
| 3 | F | With external liquid |
| | O | Without sealing liquid |

DESCRIPTION OF THE MECHANICAL SEAL

| Position | Code | Description of the seal |
|----------|------|---|
| 1 | A | O-ring seal with fixed guide |
| | B | Rubber bellows seal |
| | C | O-ring seal with spring guide |
| | D | O-ring seal balanced |
| | G | Rubber bellows seal with reduced seal faces |
| | M | Rubber bellows seal |
| | X | Metal bellows seal |
| Position | Code | Materials |
| 2 & 3 | A | Impregnated carbon/metal |
| | B | Impregnated carbon/synthetic resin |
| | C | Other carbon types |
| | S | Chromium steel |
| | U | Tungsten carbide |
| | Q | Silicon carbide |
| | V | Aluminium oxide (ceramic) |
| | X | Other types of ceramic/carbide |
| Position | Code | Materials |
| 4 | P | Nitrile rubber (NBR) |
| | S | Silicon rubber |
| | T | Teflon (PTFE) |
| | E | EPDM |
| | V | FKM |
| | M | PTFE coated O-ring |

- Flow rate: max 3200 m³/h

- Head: max 157 m3/h

Pumped liquid temperature range: from -10 °C to +120 °C (other temperatures available on request)

- Operating pressure: 16 bar as standard up to DN 200, 10 bar for KDN 250 - 300 - 350

Optional PN 16 for KDN 250 - 300 - 350 in the spheroidal cast iron version (H).

KDN OVERSIZE

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

PRODUCT CODE DESCRIPTION

| NOMINAL DIAMETER OF THE IMPELLER | Cod. |
|----------------------------------|------|
| 250 | 4 |
| 400 | 8 |
| 500 | 9 |
| 330A | A |
| 330 | B |
| 500A | D |
| 400M | E |
| 400A | F |
| 250A | G |

| Cod. | PUMP/IMPELLER MATERIALS |
|------|--|
| A | Spheroidal cast iron + cast iron impeller + W* |
| 5 | Cast iron/cast iron + W* |
| 6 | Cast iron/spheroidal cast iron + W* |
| 7 | Full spheroidal cast iron + W* |
| 8 | Cast iron/AISI 316 impeller + W* |
| 9 | Full AISI 316 + W* |
| P | 6 + Cataphoresis |
| R | 8 + Cataphoresis |

* With wear rings

| Cod. | JOINT |
|------|------------------------|
| 0 | Without coupling *) |
| 1 | With standard coupling |
| 2 | With spacer coupling |

| Cod. | P2 NOMINAL |
|------|------------|
| 0 | bare shaft |
| 1 | 0.37 |
| 2 | 0.55 |
| 3 | 0.75 |
| 4 | 1.1 |
| 5 | 1.5 |
| 6 | 2.2 |
| 7 | 3 |
| 8 | 4 |
| 9 | 5.5 |
| A | 7.5 |
| B | 11 |
| C | 15 |
| D | 18.5 |
| E | 22 |
| F | 30 |
| G | 37 |
| H | 45 |
| K | 55 |
| L | 75 |
| M | 90 |
| N | 110 |
| P | 132 |
| Q | 160 |
| R | 200 |
| S | 250 |
| T | 315 |
| U | 355 |
| V | 400 |
| W | 450 |
| Z | 500 |

| PUMP TYPE | Cod. |
|--------------|------|
| 32 oversize | L |
| 65 oversize | A |
| 80 oversize | B |
| 100 oversize | C |
| 125 oversize | D |
| 150 oversize | H |
| 200 oversize | E |
| 250 oversize | F |
| 300 oversize | G |
| 350 oversize | I |

| Cod. | SEAL (1) |
|------|--------------|
| 1 | BAQE |
| 2 | BAQE (RMG12) |
| 5 | BQQV |
| 7 | BAQV |
| A | SNE |
| B | SNO |
| C | SNF |
| D | SKO |
| E | GQQE |
| F | GQQV |
| G | BQQE |
| S | DUCE |
| T | CUCE |

(1) For standard seals see the Technical Data section

Product code

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | F | 1 | K | 1 | 1 | B | X | 3 |
|---|---|---|---|---|---|---|---|---|

— Bare shaft pump — 0 0 0
 — Pump with base without motor — 0
 — Complete electric pump with base —

| Cod. | VOLTAGE | PO-LES |
|------|---|--------|
| 0 | Without motor | |
| 1 | 3 x 220-240/380-415 V 50 Hz(<0,75 kW) 3 x 220-277/380-480 V 60 Hz | 2 |
| 2 | 3 x 380-480 V 60 Hz | 2 |
| 3 | 3 x 220-240/380-415 V 50 Hz(<0,75 kW) 3 x 220-277/380-480 V 60 Hz | 4 |
| 4 | 3 x 380-480 V 60 Hz | 4 |
| 7 | 3 x 220-240/380-415 V 50 Hz(<0,75 kW) 3 x 220-277/380-480 V 60 Hz | 6 |
| 8 | 3 x 380-480 V 60 Hz | 6 |
| A | 3 x 220-240/380-415 V 50 Hz - IE2 | 2 |
| B | 3 x 380-415 V 50 Hz - IE2 | 2 |
| C | 3 x 220-240/380-415 V 50 Hz - IE2 | 4 |
| D | 3 x 380-415 V 50 Hz - IE2 | 4 |
| E | 3 x 220-240/380-415 V 50 Hz - IE2 | 6 |
| F | 3 x 380-415 V; 50 Hz; e45; IE2 | 6 |
| U | 3 x 220-240/380-415 V 50 Hz - IE3 | 2 |
| V | 3 x 380-415 V 50 Hz - IE3 | 2 |
| W | 3 x 220-240/380-415 V 50 Hz - IE3 | 4 |
| X | 3 x 380-415 V 50 Hz - IE3 | 4 |
| Y | 3 x 220-240/380-415 V 50 Hz - IE3 | 6 |
| Z | 3 x 380-415 V 50 Hz - IE3 | 6 |

KDN OVERSIZE

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

GENERAL DATA

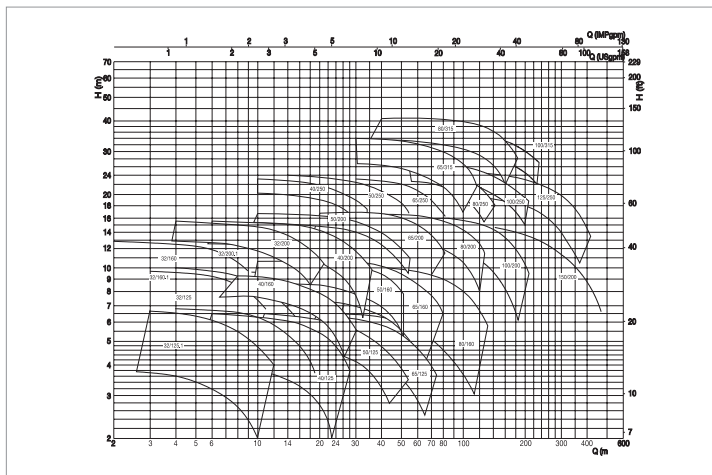
Supplied with closed asynchronous type motor, external ventilation cooling, 2 or 4 poles.

Rotor running on ball bearings, largely oversized to ensure low noise and durability.

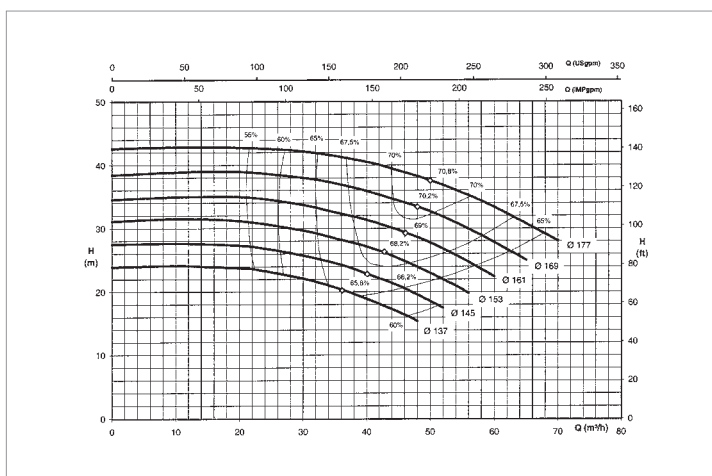
Electrical protection: in compliance with the EEC 89/336 ELECTROMAGNETIC COMPATIBILITY DIRECTIVE and subsequent amendments, the EEC 73/23 LOW VOLTAGE DIRECTIVE and subsequent amendments, as well as CEI 2-3 standards.

INSTRUCTIONS FOR THE IDENTIFICATION OF THE PUMP AND MOTOR REQUIRED.

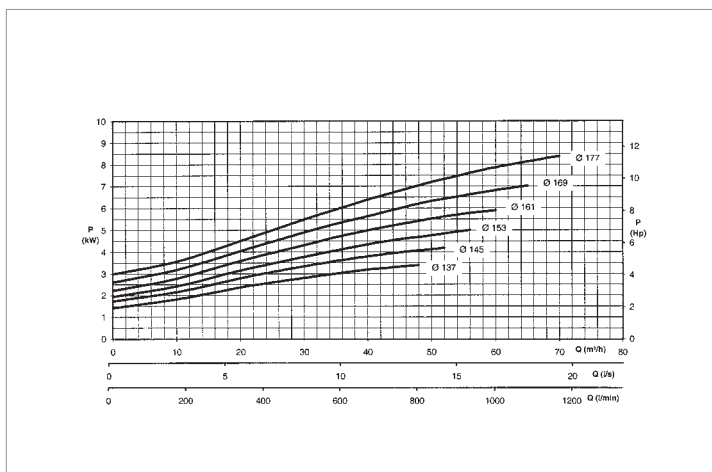
1. On the general chart supplied, find the family pump that indicatively offers the required flow rate and head characteristics.



2. Look for the most appropriate characteristic on the characteristic curves for each family.



3. On the power chart, identify the power required by the pump in order to operate at the required level.



KDN OVERSIZE

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

4. Due to the possibility of variations in the pumped liquid flow rate, which can cause an oscillation of the point of operation, a higher power absorption may occur. When selecting the motor, allow for the following safety margins:

Safety margin according to ISO 5199

| REQUIRED PUMP SHAFT POWER (kW) | POWER OF THE MOTOR TO USE P2 (kW) |
|--------------------------------|-----------------------------------|
| 322 | 355 |
| 286 | 315 |
| 227 | 250 |
| 181 | 200 |
| 145 | 160 |
| 120 | 132 |
| 100 | 110 |
| 81 | 90 |
| 68 | 75 |
| 49 | 55 |
| 40 | 45 |
| 32.5 | 37 |
| 26 | 30 |
| 19 | 22 |
| 15.9 | 18.5 |
| 12.8 | 15 |
| 9.1 | 11 |
| 6.1 | 7.5 |
| 4.3 | 5.5 |
| 3.2 | 4 |
| 2.3 | 3 |
| 1.7 | 2.2 |
| 1.1 | 1.5 |
| 0.81 | 1.1 |
| 0.55 | 0.75 |
| 0.40 | 0.55 |
| 0.27 | 0.37 |
| 0.18 | 0.25 |

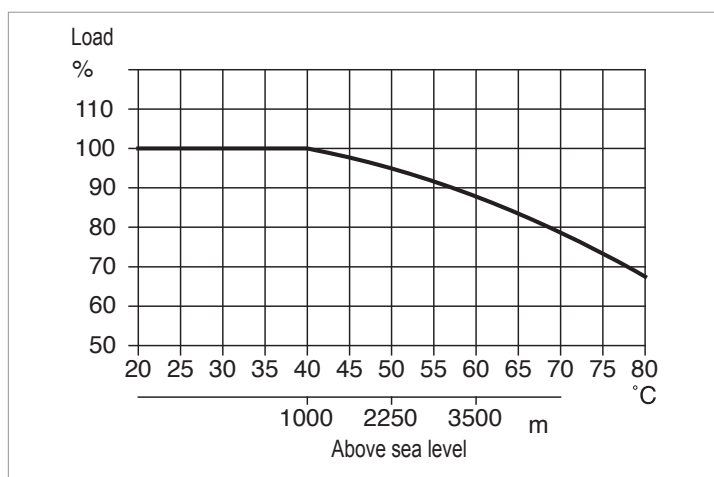
If the pump is to be used with liquids with fairly high specific weight and viscosity values, apply any required corrections to the power of the motor to be installed (check the suitability of the construction materials in contact with the liquid).

5. With the name of the pump and the power of the motor, look through the following technical data to find the name of the most suitable base (complete with motor, spacer coupling, and coupling cover).
6. The pump and base required will be delivered already assembled and aligned, although an alignment check is always required after installation (see INSTRUCTION MANUAL).

Ambient temperature

From -30 °C to +40 °C

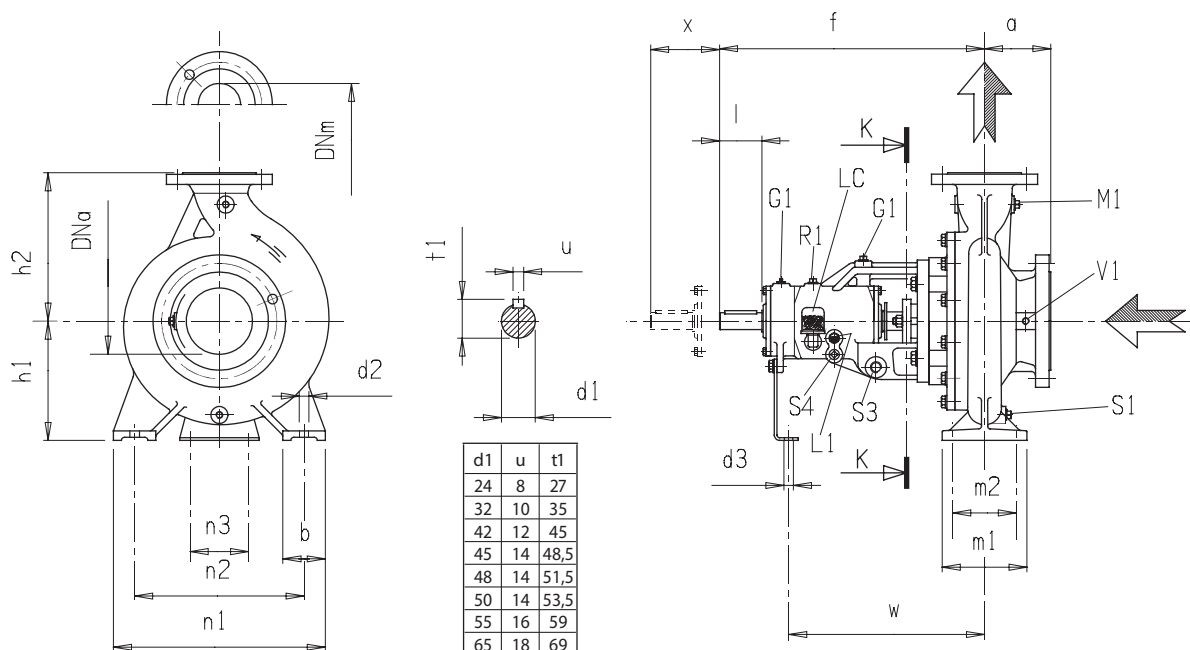
Due to the low density, and therefore low cooling effect of the air, operation at an ambient temperature above 40 °C, or at an altitude exceeding 1000 m above sea level, requires a reduction of the rated motor load in accordance with this table.



KDN OVERSIZE

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

DIMENSIONS OF BARE SHAFT PUMPS



| | | Grease lubrication | | Oil lubrication | |
|----|--|--------------------|---------|-----------------|------------------------------------|
| M1 | Pressure gauge connection | G1 | Greaser | R1 | Oil filling $\frac{3}{8}$ " |
| S1 | Drain plug | | | L1 | Oil level $\frac{3}{8}$ " |
| S3 | Packing drain connection $\frac{1}{2}$ " | | | S4 | Oil drain plug $\frac{3}{8}$ " |
| V1 | Vacuum gauge connection | | | LC | Constant level oil $\frac{1}{4}$ " |

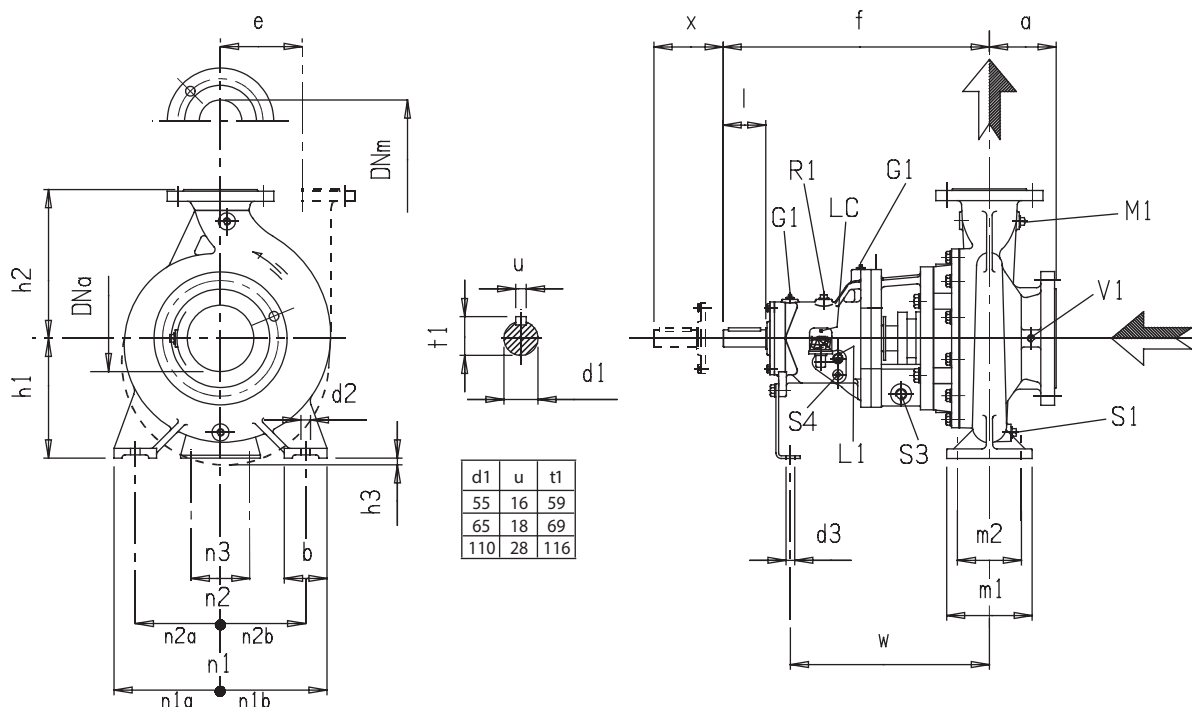
| Type | Supp. | DN _a | DN _m | a | f | h ₁ | h ₂ | b | m ₁ | m ₂ | n ₁ | n ₂ | d ₂ | n ₃ | d ₃ | w | x | d ₁ | l | M1 | S1 | V1 | kg |
|--------------|-------|-----------------|-----------------|-----|-----|----------------|----------------|-----|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----|-----|------------------|-----|------|------|------|-----|
| KDN 32-250A | 2 | 50 | 32 | 100 | 500 | 180 | 225 | 65 | 125 | 95 | 320 | 250 | 14 | 110 | 14 | 370 | 100 | 32 | 80 | 3/8" | 1/4" | 1/4" | 78 |
| KDN 32-250 | 2 | 50 | 32 | 100 | 500 | 180 | 225 | 65 | 125 | 95 | 320 | 250 | 14 | 110 | 14 | 370 | 100 | 32 | 80 | 3/8" | 1/4" | 1/4" | 78 |
| KDN 50-330 | 2 | 80 | 50 | 125 | 500 | 225 | 280 | 65 | 125 | 95 | 345 | 280 | 14 | 110 | 14 | 370 | 100 | 32 | 80 | 3/8" | 1/4" | 1/4" | 116 |
| KDN 65-250 | 2 | 100 | 65 | 125 | 500 | 200 | 250 | 80 | 160 | 120 | 360 | 280 | 18 | 110 | 14 | 370 | 140 | 32 | 80 | 3/8" | 1/4" | 1/4" | 88 |
| KDN 65-330 | 3 | 100 | 65 | 125 | 530 | 225 | 280 | 80 | 160 | 120 | 400 | 315 | 18 | 110 | 14 | 370 | 140 | 42 | 110 | 3/8" | 1/4" | 1/4" | 152 |
| KDN 65-400 | 3 | 100 | 65 | 125 | 530 | 280 | 355 | 80 | 160 | 120 | 435 | 355 | 18 | 110 | 14 | 370 | 140 | 42 | 110 | 3/8" | 1/4" | 1/4" | 180 |
| KDN 80-250 | 2 | 125 | 80 | 125 | 500 | 225 | 280 | 80 | 160 | 120 | 400 | 315 | 18 | 110 | 14 | 370 | 140 | 32 | 80 | 3/8" | 3/8" | 3/8" | 100 |
| KDN 80-330 | 3 | 125 | 80 | 125 | 530 | 250 | 315 | 80 | 160 | 120 | 400 | 315 | 18 | 110 | 14 | 370 | 140 | 42 | 110 | 3/8" | 3/8" | 3/8" | 155 |
| KDN 80-400 | 3 | 125 | 80 | 125 | 530 | 280 | 355 | 80 | 160 | 120 | 435 | 355 | 18 | 110 | 14 | 370 | 140 | 42 | 110 | 3/8" | 3/8" | 3/8" | 185 |
| KDN 100-250 | 3 | 125 | 100 | 140 | 530 | 225 | 280 | 80 | 160 | 120 | 400 | 315 | 18 | 110 | 14 | 370 | 140 | 42 | 110 | 3/8" | 3/8" | 3/8" | 130 |
| KDN 100-330 | 3 | 125 | 100 | 140 | 530 | 250 | 315 | 80 | 160 | 120 | 400 | 315 | 18 | 110 | 14 | 370 | 140 | 42 | 110 | 3/8" | 3/8" | 3/8" | 170 |
| KDN 100-400 | 3 | 125 | 100 | 140 | 530 | 280 | 355 | 100 | 200 | 150 | 500 | 400 | 23 | 110 | 14 | 370 | 140 | 42 | 110 | 3/8" | 3/8" | 3/8" | 200 |
| KDN 125-250 | 3 | 150 | 125 | 140 | 530 | 250 | 355 | 80 | 160 | 120 | 400 | 315 | 18 | 110 | 14 | 370 | 140 | 42 | 110 | 1/2" | 3/8" | 3/8" | 140 |
| KDN 125-330 | 3 | 150 | 125 | 140 | 530 | 280 | 355 | 100 | 200 | 150 | 500 | 400 | 23 | 110 | 14 | 370 | 140 | 42 | 110 | 1/2" | 3/8" | 3/8" | 190 |
| KDN 125-400 | 3 | 150 | 125 | 140 | 530 | 315 | 400 | 100 | 200 | 150 | 500 | 400 | 23 | 110 | 14 | 370 | 140 | 42 | 110 | 1/2" | 3/8" | 3/8" | 220 |
| KDN 150-250 | 3 | 200 | 150 | 160 | 530 | 280 | 375 | 100 | 200 | 150 | 500 | 400 | 23 | 110 | 14 | 370 | 180 | 42 | 110 | 1/2" | 1/2" | 3/8" | 180 |
| KDN 150-330 | 4 | 200 | 150 | 160 | 670 | 315 | 400 | 100 | 200 | 150 | 550 | 450 | 22 | 140 | 18 | 500 | 180 | 55 ¹⁾ | 110 | 1/2" | 1/2" | 3/8" | 255 |
| KDN 150-400 | 4 | 200 | 150 | 160 | 670 | 315 | 450 | 100 | 200 | 150 | 550 | 450 | 22 | 140 | 18 | 500 | 180 | 55 ¹⁾ | 110 | 1/2" | 1/2" | 3/8" | 298 |
| KDN 150-500 | 4 | 200 | 150 | 180 | 670 | 355 | 500 | 100 | 200 | 150 | 550 | 450 | 22 | 140 | 18 | 500 | 180 | 55 | 110 | 1/2" | 1/2" | 3/8" | 410 |
| KDN 150-500A | 4 | 200 | 150 | 180 | 670 | 355 | 500 | 100 | 200 | 150 | 550 | 450 | 22 | 140 | 18 | 500 | 180 | 55 | 110 | 1/2" | 1/2" | 3/8" | 410 |

¹⁾ Size d1 Ø 48 on request for pumps according to DIN 24256 - ISO 2858

KDN OVERSIZE

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

DIMENSIONS OF BARE SHAFT PUMPS



| | | Grease lubrication | | Oil lubrication | |
|----|--|--------------------|---------|-----------------|------------------------------------|
| M1 | Pressure gauge connection | G1 | Greaser | R1 | Oil filling $\frac{3}{8}$ " |
| S1 | Drain plug | | | L1 | Oil level $\frac{3}{8}$ " |
| S3 | Packing drain connection $\frac{1}{2}$ " | | | S4 | Oil drain plug $\frac{3}{8}$ " |
| V1 | Vacuum gauge connection | | | LC | Constant level oil $\frac{1}{4}$ " |

| Type | Supp. | DNa | DNm | a | f | h1 | h2 | b | m1 | m2 | n1 | n1a | n1b | n2 | n2a | n2b | d2 | n3 | d3 | h3 | and | w | x | d1 | l | M1 | S1 | V1 | kg |
|--------------|-------|-----|-----|-----|------|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|----|-----|----|----|-----|-----|-----|-----|-----|------|------|------|------|
| KDN 200-330 | 4 | 250 | 200 | 200 | 670 | 355 | 450 | 100 | 200 | 150 | 550 | 275 | 275 | 450 | 225 | 225 | 22 | 140 | 18 | | | 500 | 180 | 55 | 110 | 1/2" | 1/2" | 3/8" | 360 |
| KDN 200-400 | 4 | 250 | 200 | 185 | 670 | 355 | 500 | 100 | 200 | 150 | 550 | 275 | 275 | 450 | 225 | 225 | 22 | 140 | 18 | | | 500 | 180 | 55 | 110 | 1/2" | 1/2" | 3/8" | 390 |
| KDN 200-500 | 4 | 250 | 200 | 185 | 670 | 400 | 580 | 140 | 250 | 190 | 800 | 400 | 400 | 660 | 330 | 330 | 27 | 140 | 18 | 15 | | 500 | 180 | 55 | 110 | 1/2" | 1/2" | 3/8" | 400 |
| KDN 250-330 | 4 | 300 | 250 | 250 | 670 | 400 | 525 | 140 | 250 | 190 | 700 | 350 | 350 | 560 | 280 | 280 | 27 | 140 | 18 | | | 500 | 240 | 55 | 110 | 1/2" | 1/2" | 3/8" | 410 |
| KDN 250-400 | 5 | 300 | 250 | 225 | 780 | 400 | 600 | 125 | 250 | 190 | 690 | 345 | 345 | 560 | 280 | 280 | 27 | 140 | 18 | | | 545 | 180 | 65 | 140 | 1/2" | 1/2" | 3/8" | 650 |
| KDN 250-500 | 5 | 300 | 250 | 300 | 800 | 500 | 500 | 130 | 260 | 190 | 830 | 380 | 450 | 710 | 320 | 390 | 27 | 140 | 18 | | 425 | 565 | 250 | 65 | 140 | 1/2" | 1/2" | 3/8" | 700 |
| KDN 250-500A | 5 | 300 | 250 | 300 | 800 | 500 | 500 | 130 | 260 | 190 | 830 | 380 | 450 | 710 | 320 | 390 | 27 | 140 | 18 | | 425 | 565 | 250 | 65 | 140 | 1/2" | 1/2" | 3/8" | 700 |
| KDN 300-330 | 4 | 350 | 300 | 300 | 720 | 500 | 670 | 150 | 360 | 280 | 900 | 450 | 450 | 750 | 375 | 375 | 27 | 140 | 18 | | | 550 | 240 | 55 | 110 | 1/2" | 1/2" | 3/8" | 780 |
| KDN 300-400 | 5 | 350 | 300 | 325 | 790 | 400 | 640 | 125 | 250 | 190 | 690 | 345 | 345 | 560 | 280 | 280 | 27 | 140 | 18 | | | 555 | 240 | 65 | 140 | 1/2" | 1/2" | 3/8" | 800 |
| KDN 300-400A | 5 | 350 | 300 | 325 | 790 | 400 | 640 | 125 | 250 | 190 | 690 | 345 | 345 | 560 | 280 | 280 | 27 | 140 | 18 | | | 555 | 240 | 65 | 140 | 1/2" | 1/2" | 3/8" | 800 |
| KDN 300-400M | 5 | 350 | 300 | 300 | 845 | 500 | 670 | 150 | 360 | 280 | 900 | 450 | 450 | 750 | 375 | 375 | 27 | 140 | 18 | | | 610 | 240 | 65 | 140 | 1/2" | 1/2" | 3/8" | 900 |
| KDN 350-500 | 6 | 400 | 350 | 380 | 1150 | 600 | 600 | 150 | 400 | 300 | 1000 | 450 | 550 | 850 | 375 | 475 | 27 | 140 | 18 | | 450 | 800 | 380 | 110 | 210 | 1/2" | 1/2" | 3/8" | 1080 |
| KDN 350-500A | 6 | 400 | 350 | 380 | 1150 | 600 | 600 | 150 | 400 | 300 | 1000 | 450 | 550 | 850 | 375 | 475 | 27 | 140 | 18 | | 450 | 800 | 380 | 110 | 210 | 1/2" | 1/2" | 3/8" | 1080 |

KDN OVERSIZE - 2 POLE RANGE

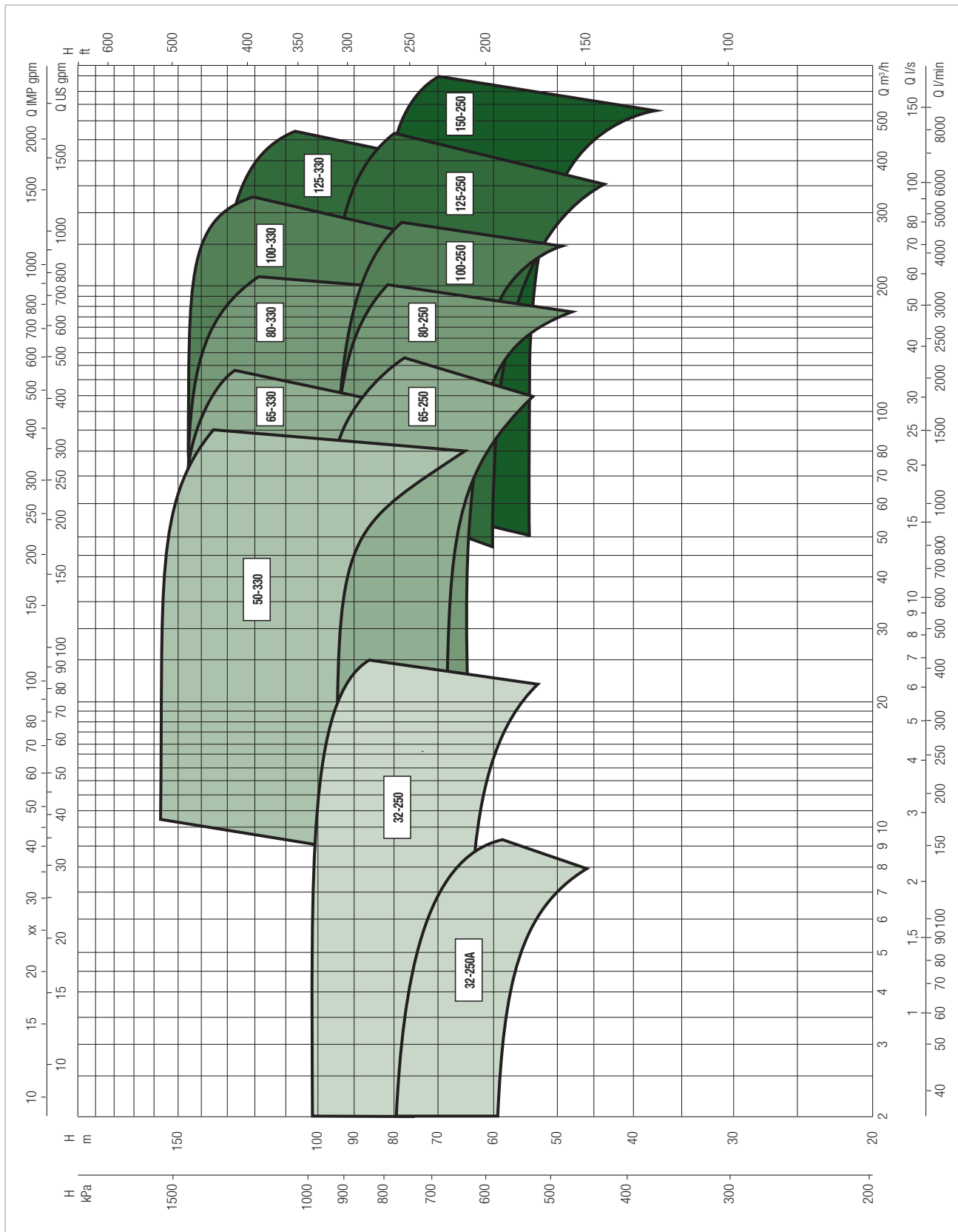
STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE

= 2900 1/min



KDN OVERSIZE - 2 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 32

| MODEL | Q=m³/h | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 16 | 20 | 24 |
|--------------------|----------|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|
| | Q=l/min | 0 | 33 | 67 | 100 | 133 | 167 | 200 | 267 | 333 | 400 |
| KDN 32-250 A / 244 | H (m) | 61 | 59 | 57 | 53 | 46 | | | | | |
| KDN 32-250 A / 254 | | 68 | 66 | 63 | 59 | 53 | | | | | |
| KDN 32-250 A / 259 | | 75 | 73 | 69 | 65 | 60 | 52 | | | | |
| KDN 32-250 A / 264 | | 81 | 79 | 76 | 72 | 68 | 60 | | | | |
| KDN 32-250 / 224 | | 63 | | 63 | 63 | 63 | 62 | 62 | 59 | 55 | |
| KDN 32-250 / 234 | | 71 | | 71 | 71 | 71 | 70 | 70 | 68 | 64 | |
| KDN 32-250 / 244 | | 81 | | 81 | 81 | 80 | 80 | 80 | 79 | 76 | 68 |
| KDN 32-250 / 254 | | 91 | | 91 | 91 | 91 | 90 | 90 | 89 | 85 | 78 |
| KDN 32-250 / 264 | | 100 | | 100 | 100 | 100 | 100 | 100 | 98 | 95 | 87 |

SELECTION TABLE - KDN 50

| MODEL | Q=m³/h | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 16 | 20 | 24 | 40 | 60 | 80 | 100 |
|------------------|----------|-----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| | Q=l/min | 0 | 33 | 67 | 100 | 133 | 167 | 200 | 267 | 333 | 400 | 667 | 1000 | 1333 | 1667 |
| KDN 50-330 / 270 | H (m) | 95 | | | | | | | | 95 | 94 | 93 | 85 | 64 | |
| KDN 50-330 / 290 | | 115 | | | | | | | | 115 | 114 | 113 | 106 | 88 | |
| KDN 50-330 / 310 | | 132 | | | | | | | | 132 | 132 | 132 | 128 | 114 | 100 |
| KDN 50-330 / 328 | | 157 | | | | | | | | 157 | 156 | 156 | 154 | 145 | 137 |

SELECTION TABLE - KDN 65

| MODEL | Q=m³/h | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 16 | 20 | 24 | 40 | 60 | 80 | 100 | 120 | 130 |
|------------------|----------|-----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| | Q=l/min | 0 | 33 | 67 | 100 | 133 | 167 | 200 | 267 | 333 | 400 | 667 | 1000 | 1333 | 1667 | 2000 | 2167 |
| KDN 65-250 / 224 | H (m) | 67 | | | | | | | | 66 | 66 | 66 | 64 | 61 | 56 | | |
| KDN 65-250 / 234 | | 74 | | | | | | | | 73 | 73 | 73 | 71 | 67 | 62 | 55 | |
| KDN 65-250 / 244 | | 81 | | | | | | | | 81 | 80 | 80 | 79 | 76 | 71 | 65 | |
| KDN 65-250 / 254 | | 89 | | | | | | | | 89 | 89 | 89 | 88 | 85 | 81 | 75 | 71 |
| KDN 65-250 / 264 | | 100 | | | | | | | | 100 | 99 | 99 | 98 | 95 | 91 | 85 | 80 |
| KDN 65-330 / 270 | | 92 | | | | | | | | 92 | 91 | 91 | 89 | 83 | 74 | | |
| KDN 65-330 / 290 | | 110 | | | | | | | | 110 | 109 | 108 | 105 | 100 | 92 | | |
| KDN 65-330 / 310 | | 128 | | | | | | | | 128 | 128 | 128 | 125 | 122 | 116 | 105 | |
| KDN 65-330 / 328 | | 150 | | | | | | | | 150 | 149 | 149 | 148 | 144 | 139 | 128 | |

SELECTION TABLE - KDN 80

| MODEL | Q=m³/h | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 16 | 20 | 24 | 40 | 60 | 80 | 100 | 120 | 130 | 150 | 180 | 200 |
|------------------|----------|-----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|
| | Q=l/min | 0 | 33 | 67 | 100 | 133 | 167 | 200 | 267 | 333 | 400 | 667 | 1000 | 1333 | 1667 | 2000 | 2167 | 2500 | 3000 | 3333 |
| KDN 80-250 / 224 | H (m) | 65 | | | | | | | | | | 64 | 64 | 64 | 62 | 60 | 58 | 54 | | |
| KDN 80-250 / 234 | | 71 | | | | | | | | | | 71 | 71 | 71 | 69 | 67 | 65 | 61 | 55 | |
| KDN 80-250 / 244 | | 79 | | | | | | | | | | 79 | 78 | 78 | 77 | 74 | 72 | 69 | 62 | |
| KDN 80-250 / 254 | | 87 | | | | | | | | | | 87 | 86 | 86 | 85 | 83 | 80 | 78 | 72 | |
| KDN 80-250 / 264 | | 98 | | | | | | | | | | 97 | 97 | 96 | 95 | 94 | 92 | 90 | 86 | 81 |
| KDN 80-330 / 270 | | 93 | | | | | | | | | | 92 | 92 | 90 | 89 | 86 | 84 | 80 | 68 | |
| KDN 80-330 / 290 | | 108 | | | | | | | | | | 107 | 107 | 106 | 105 | 102 | 100 | 96 | 85 | |
| KDN 80-330 / 310 | | 127 | | | | | | | | | | 126 | 126 | 125 | 125 | 123 | 122 | 120 | 111 | |
| KDN 80-330 / 328 | | 148 | | | | | | | | | | 147 | 147 | 146 | 146 | 143 | 142 | 139 | 130 | 123 |

KDN OVERSIZE - 2 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 100

| MODEL | Q=m ³ /h | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 16 | 20 | 24 | 40 | 60 | 80 | 100 | 120 | 130 | 150 | 180 | 200 | 260 | 280 | 300 |
|-------------------|---------------------|-----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| | Q=l/min | 0 | 33 | 67 | 100 | 133 | 167 | 200 | 267 | 333 | 400 | 667 | 1000 | 1333 | 1667 | 2000 | 2167 | 2500 | 3000 | 3333 | 4333 | 4667 | 5000 |
| KDN 100-250 / 224 | H (m) | 63 | | | | | | | | | | 63 | 63 | 63 | 62 | 62 | 61 | 61 | 59 | 57 | | | |
| KDN 100-250 / 234 | | 71 | | | | | | | | | | 71 | 71 | 71 | 70 | 70 | 70 | 69 | 68 | 65 | 55 | | |
| KDN 100-250 / 244 | | 77 | | | | | | | | | | 77 | 77 | 77 | 77 | 77 | 76 | 76 | 75 | 72 | 63 | | |
| KDN 100-250 / 254 | | 86 | | | | | | | | | | 86 | 86 | 86 | 86 | 85 | 85 | 84 | 83 | 81 | 74 | 70 | |
| KDN 100-250 / 264 | | 94 | | | | | | | | | | 94 | 94 | 93 | 93 | 93 | 92 | 92 | 91 | 89 | 84 | 80 | |
| KDN 100-330 / 270 | | 93 | | | | | | | | | | | | | 92 | 92 | 91 | 90 | 88 | 85 | 70 | | |
| KDN 100-330 / 290 | | 110 | | | | | | | | | | | | | 109 | 109 | 108 | 107 | 105 | 102 | 90 | 85 | |
| KDN 100-330 / 310 | | 129 | | | | | | | | | | | | | 128 | 128 | 127 | 127 | 125 | 123 | 112 | 107 | 102 |
| KDN 100-330 / 328 | | 148 | | | | | | | | | | | | | 148 | 148 | 147 | 147 | 146 | 145 | 137 | 135 | 120 |

SELECTION TABLE - KDN 125

| MODEL | Q=m ³ /h | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 16 | 20 | 24 | 40 | 60 | 80 | 100 | 120 | 130 | 150 | 180 | 200 | 260 | 280 | 300 | 400 | 450 |
|-------------------|---------------------|-----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | Q=l/min | 0 | 33 | 67 | 100 | 133 | 167 | 200 | 267 | 333 | 400 | 667 | 1000 | 1333 | 1667 | 2000 | 2167 | 2500 | 3000 | 3333 | 4333 | 4667 | 5000 | 6667 | 7500 |
| KDN 125-250 / 220 | H (m) | 60 | | | | | | | | | | | | | 59 | 59 | 59 | 58 | 57 | 56 | 55 | 53 | 49 | | |
| KDN 125-250 / 235 | | 72 | | | | | | | | | | | | | 71 | 71 | 71 | 70 | 70 | 69 | 68 | 66 | 62 | | |
| KDN 125-250 / 250 | | 83 | | | | | | | | | | | | | 82 | 82 | 82 | 82 | 82 | 81 | 80 | 79 | 77 | 68 | |
| KDN 125-250 / 264 | | 97 | | | | | | | | | | | | | 97 | 97 | 97 | 97 | 97 | 96 | 95 | 94 | 93 | 86 | |
| KDN 125-330 / 270 | | 96 | | | | | | | | | | | | | 96 | 96 | 96 | 96 | 95 | 94 | 93 | 90 | 87 | 68 | |
| KDN 125-330 / 290 | | 112 | | | | | | | | | | | | | 112 | 112 | 111 | 111 | 110 | 110 | 109 | 107 | 104 | 92 | |
| KDN 125-330 / 300 | | 122 | | | | | | | | | | | | | 122 | 122 | 121 | 121 | 121 | 120 | 119 | 118 | 117 | 106 | 98 |
| KDN 125-330 / 310 | | 132 | | | | | | | | | | | | | 132 | 132 | 132 | 132 | 131 | 131 | 130 | 130 | 128 | 120 | 110 |

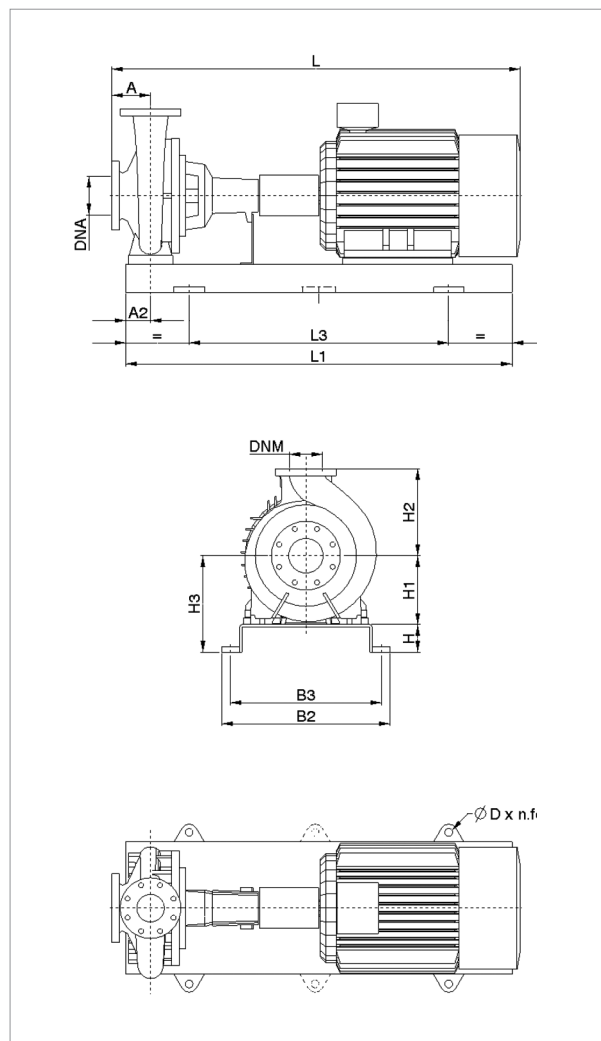
SELECTION TABLE - KDN 150

| MODEL | Q=m ³ /h | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 16 | 20 | 24 | 40 | 60 | 80 | 100 | 120 | 130 | 150 | 180 | 200 | 260 | 280 | 300 | 400 | 450 | 500 | 600 |
|-------------------|---------------------|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| | Q=l/min | 0 | 33 | 67 | 100 | 133 | 167 | 200 | 267 | 333 | 400 | 667 | 1000 | 1333 | 1667 | 2000 | 2167 | 2500 | 3000 | 3333 | 4333 | 4667 | 5000 | 6667 | 7500 | 8334 | 10000 |
| KDN 150-250 / 220 | H (m) | 54 | | | | | | | | | | | | | 54 | 53 | 53 | 53 | 53 | 53 | 53 | 52 | 51 | 47 | 45 | 43 | |
| KDN 150-250 / 235 | | 62 | | | | | | | | | | | | | 62 | 62 | 61 | 61 | 61 | 61 | 61 | 60 | 59 | 56 | 54 | 51 | |
| KDN 150-250 / 250 | | 72 | | | | | | | | | | | | | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 71 | 71 | 68 | 67 | 64 | 56 |
| KDN 150-250 / 264 | | 87 | | | | | | | | | | | | | 87 | 87 | 86 | 86 | 86 | 86 | 86 | 85 | 85 | 83 | 81 | 79 | 74 |

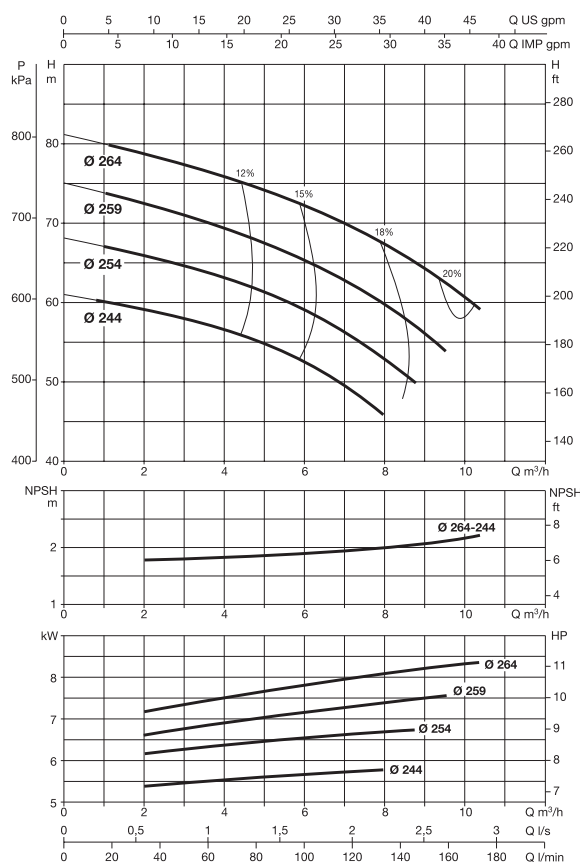
KDN 32-250A - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



* Only for markets outside the EU.



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------------|---------------|----------------------|-----------|------|---------------|
| | POWER (kW) 2 POLES | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | | | | IE2 | IE3 | |
| KDN 32-250A | 1.5 | 90S | 3 x 230 - 400 V ~ | 5.80/3.35 | – | IE2 |
| | 2.2 | 90L | 3 x 230 - 400 V ~ | 8.23/4.75 | – | IE2 |
| | 3 | 100L | 3 x 400 V ~ Δ | 5.85 | – | IE2 |
| | 5.5 | 132S | 3 x 400 V ~ Δ | 10.40 | – | IE2 |
| | 7.5 | 132S | 3 x 400 V ~ Δ | 14 | 13.4 | IE2 / IE3 |
| | 11 | 160M | 3 x 400 V ~ Δ | 20.2 | 19.4 | IE2 / IE3 |

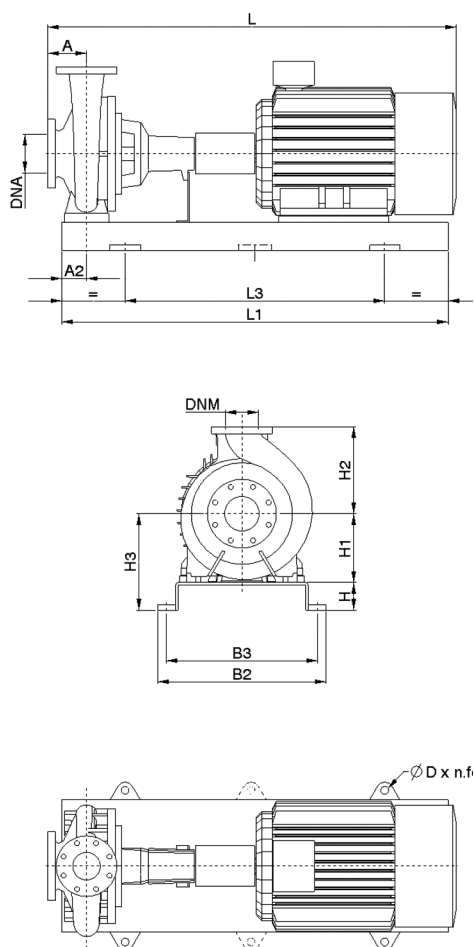
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|----|----|-----|-----|-----|------|-----|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 32-250A | 1.5 | 100 | 75 | 80 | 180 | 225 | 260 | 1000 | 660 | 450 | 400 | 24x4 | 50 | 32 | 924 | 140.2 | – | – | 1025 | 141.8 | – | – | 4 |
| | 2.2 | 100 | 75 | 80 | 180 | 225 | 260 | 1000 | 660 | 450 | 400 | 24x4 | 50 | 32 | 949 | 144.2 | – | – | 1050 | 145.8 | – | – | 4 |
| | 3 | 100 | 75 | 80 | 180 | 225 | 260 | 1000 | 660 | 450 | 400 | 24x4 | 50 | 32 | 989 | 154.2 | – | – | 1090 | 155.7 | – | – | 4 |
| | 5.5 | 100 | 75 | 80 | 180 | 225 | 260 | 1120 | 740 | 490 | 440 | 24x4 | 50 | 32 | 1074 | 194.3 | – | – | 1175 | 196.1 | – | – | 5 |
| | 7.5 | 100 | 75 | 80 | 180 | 225 | 260 | 1120 | 740 | 490 | 440 | 24x4 | 50 | 32 | 1074 | 198 | 1124 | 174 | 1175 | 217 | 1225 | 193 | 5 |
| | 11 | 100 | 75 | 80 | 180 | 225 | 260 | 1250 | 840 | 540 | 490 | 24x4 | 50 | 32 | 1219 | 259 | 1269 | 236 | 1320 | 274 | 1370 | 251 | 6 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

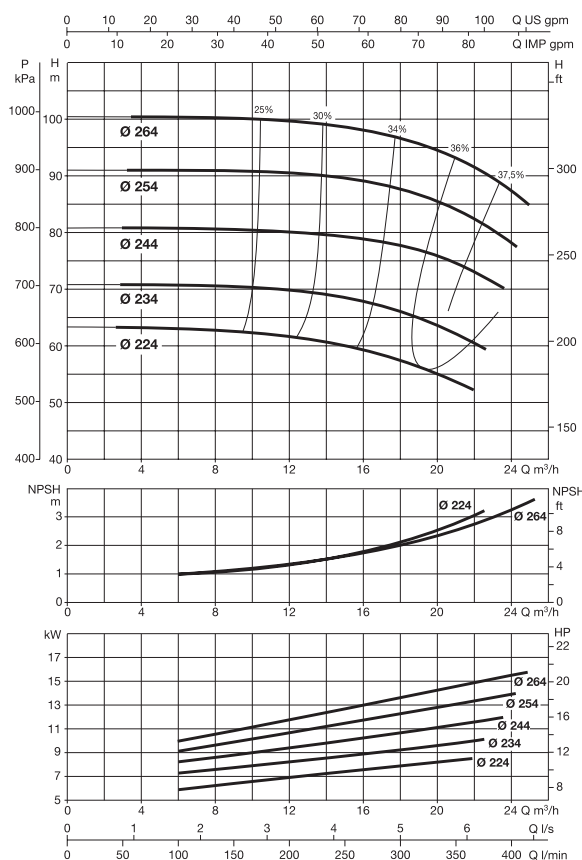
KDN 32-250 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



* Only for markets outside the EU.



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|-----------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 32-250 | 1.5 | 90S | 3 x 230 - 400 V ~ | 5.80/3.35 | — | IE2 |
| | 2.2 | 90L | 3 x 230 - 400 V ~ | 8.23/4.75 | — | IE2 |
| | 3 | 100L | 3 x 400 V ~ Δ | 5.85 | — | IE2 |
| | 5.5 | 132S | 3 x 400 V ~ Δ | 10.40 | — | IE2 |
| | 7.5 | 132S | 3 x 400 V ~ Δ | 14 | 13.4 | IE2 / IE3 |
| | 11 | 160M | 3 x 400 V ~ Δ | 20.2 | 19.4 | IE2 / IE3 |
| | 15 | 160M | 3 x 400 V ~ Δ | 27 | 26.5 | IE2 / IE3 |
| | 18.5 | 160L | 3 x 400 V ~ Δ | 33 | 32 | IE2 / IE3 |

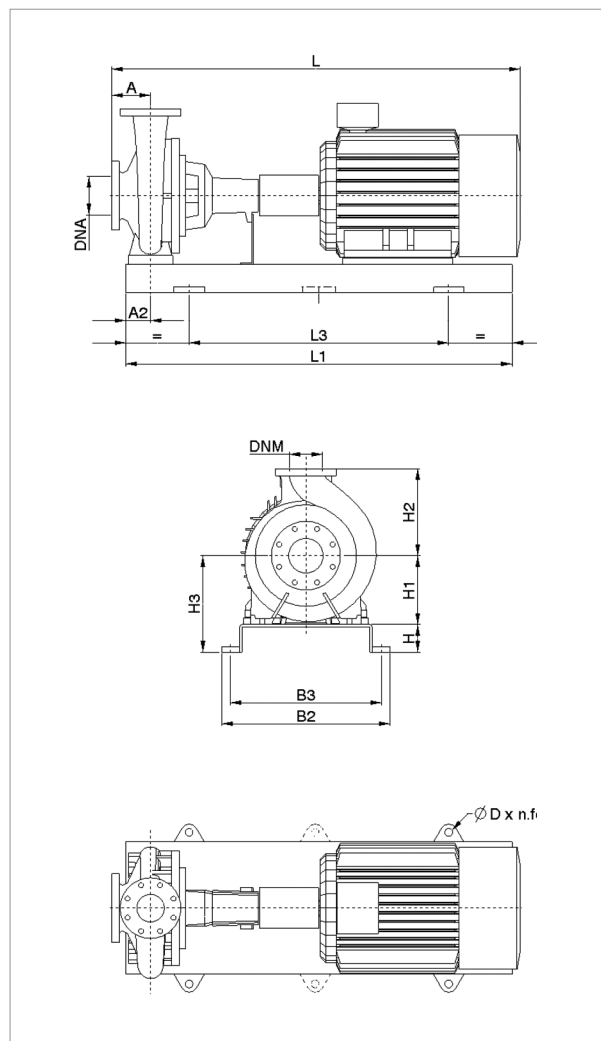
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|----|-----|-----|-----|------|-----|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | — | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 32-250 | 1.5 | 100 | 75 | 80 | 180 | 225 | 260 | 1000 | 660 | 450 | 400 | 24x4 | 50 | 32 | 924 | 140.2 | — | — | 1025 | 141.8 | — | — | 4 |
| | 2.2 | 100 | 75 | 80 | 180 | 225 | 260 | 1000 | 660 | 450 | 400 | 24x4 | 50 | 32 | 949 | 144.2 | — | — | 1050 | 145.8 | — | — | 4 |
| | 3 | 100 | 75 | 80 | 180 | 225 | 260 | 1000 | 660 | 450 | 400 | 24x4 | 50 | 32 | 989 | 154.2 | — | — | 1090 | 155.7 | — | — | 4 |
| | 5.5 | 100 | 75 | 80 | 180 | 225 | 260 | 1120 | 740 | 490 | 440 | 24x4 | 50 | 32 | 1074 | 191 | — | — | 1175 | 191 | — | — | 5 |
| | 7.5 | 100 | 75 | 80 | 180 | 225 | 260 | 1120 | 740 | 490 | 440 | 24x4 | 50 | 32 | 1074 | 198 | 1124 | 174 | 1175 | 217 | 1225 | 193 | 5 |
| | 11 | 100 | 75 | 80 | 180 | 225 | 260 | 1250 | 840 | 540 | 490 | 24x4 | 50 | 32 | 1219 | 259 | 1269 | 236 | 1320 | 274 | 1370 | 251 | 6 |
| | 15 | 100 | 75 | 80 | 180 | 225 | 260 | 1250 | 840 | 540 | 490 | 24x4 | 50 | 32 | 1219 | 273 | 1269 | 246 | 1320 | 288 | 1370 | 261 | 6 |
| | 18.5 | 100 | 75 | 80 | 180 | 225 | 260 | 1250 | 840 | 540 | 490 | 24x4 | 50 | 32 | 1274 | 295 | 1324 | 263 | 1375 | 310 | 1425 | 278 | 6 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

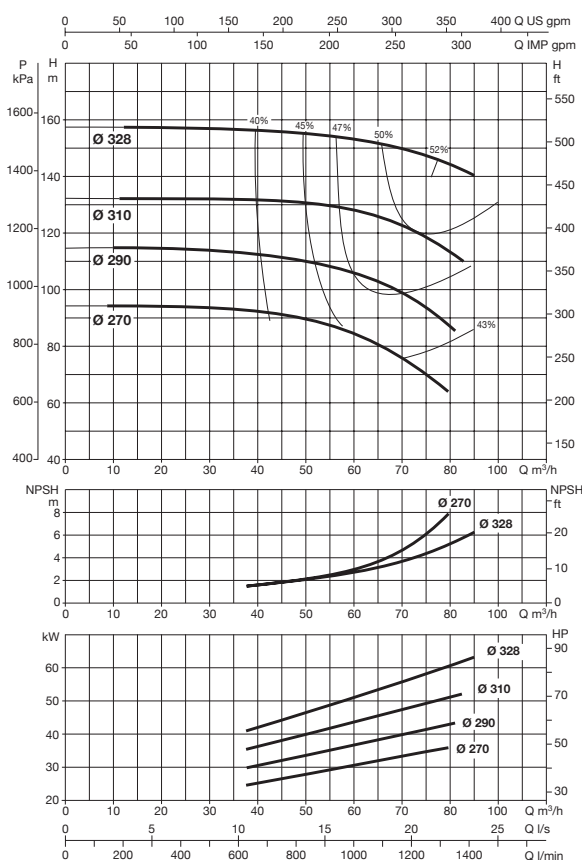
KDN 50-330 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



* Only for markets outside the EU.



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 50-330 | 22 | 180M | 3 x 400 V ~ Δ | 39.5 | 38 | IE2 / IE3 |
| | 30 | 200L | 3 x 400 V ~ Δ | 52 | 52 | IE2 / IE3 |
| | 37 | 200L | 3 x 400 V ~ Δ | 64 | 63 | IE2 / IE3 |
| | 45 | 225M | 3 x 400 V ~ Δ | 78.5 | 76 | IE2 / IE3 |
| | 55 | 250M | 3 x 400 V ~ Δ | 94 | 95 | IE2 / IE3 |
| | 75 | 280S | 3 x 400 V ~ Δ | 130 | 124 | IE2 / IE3 |
| | 90 | 280M | 3 x 400 V ~ Δ | 154 | 148 | IE2 / IE3 |

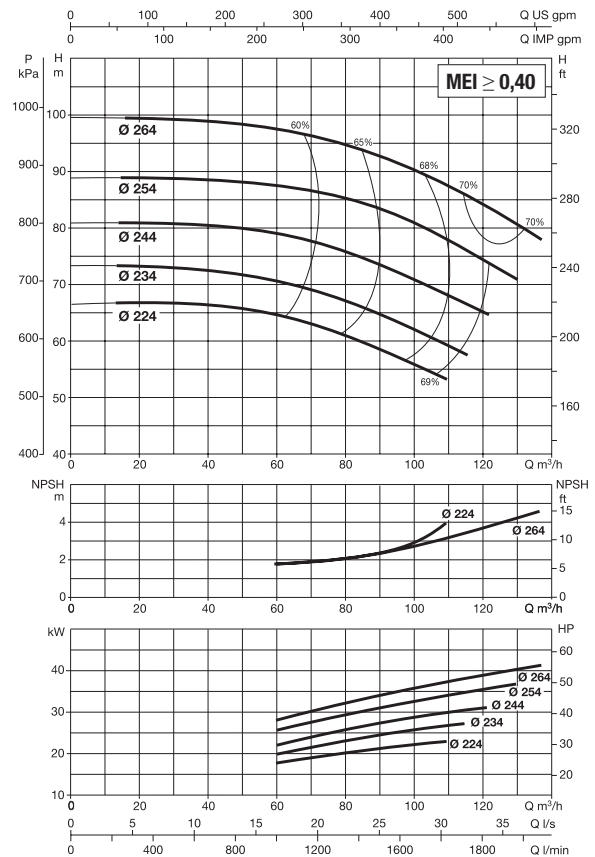
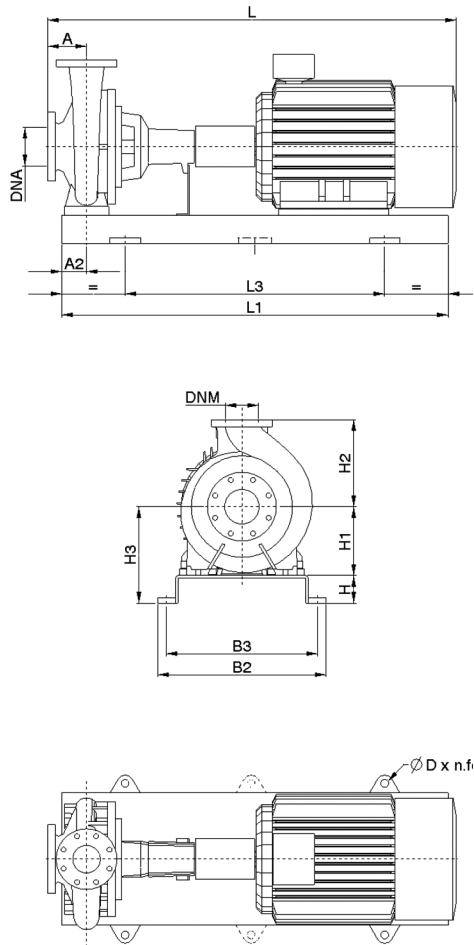
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 50-330 | 22 | 125 | 75 | 80 | 225 | 280 | 305 | 1250 | 840 | 540 | 490 | 24x4 | 80 | 50 | 1319 | 364 | 1369 | 322 | 1420 | 379 | 1470 | 337 | 6 |
| | 30 | 125 | 75 | 100 | 225 | 280 | 325 | 1400 | 940 | 610 | 550 | 28x4 | 80 | 50 | 1399 | 429 | 1449 | 441 | 1500 | 444 | 1550 | 402 | 7 |
| | 37 | 125 | 75 | 100 | 225 | 280 | 325 | 1400 | 940 | 610 | 550 | 28x4 | 80 | 50 | 1399 | 446 | 1449 | 471 | 1500 | 461 | 1550 | 486 | 7 |
| | 45 | 125 | 75 | 100 | 225 | 280 | 325 | 1400 | 940 | 610 | 550 | 28x4 | 80 | 50 | 1474 | 502 | 1545 | 541 | 1575 | 517 | 1646 | 556 | 7 |
| | 55 | 125 | 75 | 100 | 250 | 280 | 350 | 1600 | 1060 | 660 | 600 | 28x4 | 80 | 50 | 1404 | 618 | 1475 | 663 | 1505 | 633 | 1576 | 678 | 8 |
| | 75 | 125 | 75 | 100 | 280 | 280 | 380 | 1800 | 1200 | 730 | 670 | 28x4 | 80 | 50 | 1599 | 841 | 1670 | 839 | 1700 | 856 | 1771 | 854 | 9 |
| | 90 | 125 | 75 | 100 | 280 | 280 | 380 | 1800 | 1200 | 730 | 670 | 28x4 | 80 | 50 | 1649 | 892 | 1720 | 874 | 1750 | 907 | 1821 | 889 | 9 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 65-250 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 65-250 | 22 | 180M | 3 x 400 V ~ Δ | 39.5 | 38 | IE2 / IE3 |
| | 30 | 200L | 3 x 400 V ~ Δ | 52 | 52 | IE2 / IE3 |
| | 37 | 200L | 3 x 400 V ~ Δ | 64 | 63 | IE2 / IE3 |
| | 45 | 225M | 3 x 400 V ~ Δ | 78.5 | 76 | IE2 / IE3 |
| | 55 | 250M | 3 x 400 V ~ Δ | 94 | 95 | IE2 / IE3 |

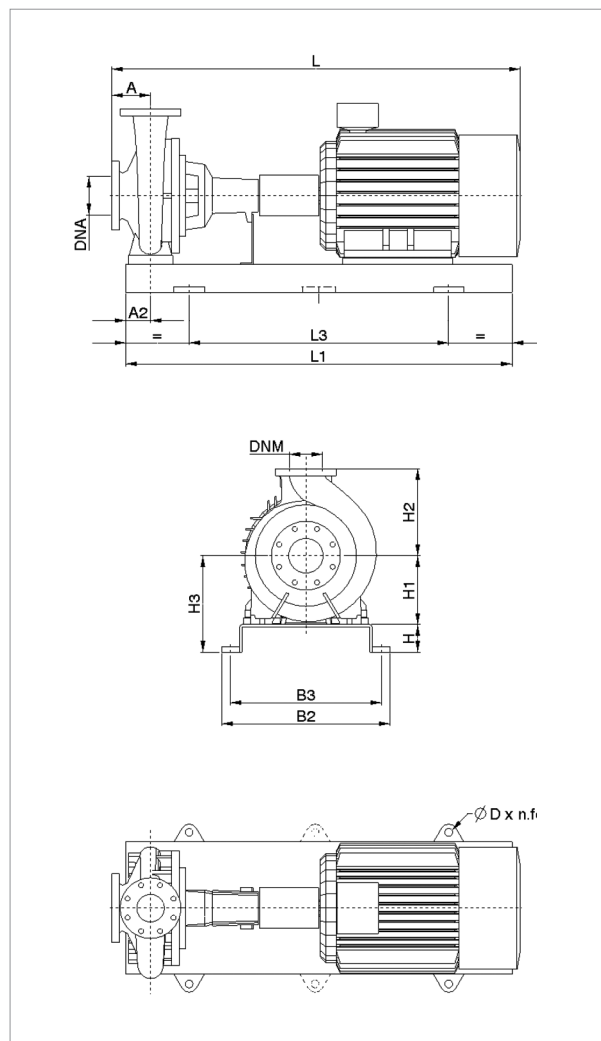
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 65-250 | 22 | 125 | 90 | 80 | 200 | 250 | 280 | 1250 | 840 | 540 | 490 | 24x4 | 100 | 65 | 1319 | 336 | 1369 | 294 | 1460 | 351 | 1510 | 309 | 6 |
| | 30 | 125 | 90 | 100 | 200 | 250 | 300 | 1400 | 940 | 610 | 550 | 28x4 | 100 | 65 | 1399 | 401 | 1449 | 413 | 1540 | 416 | 1590 | 428 | 7 |
| | 37 | 125 | 90 | 100 | 200 | 250 | 300 | 1400 | 940 | 610 | 550 | 28x4 | 100 | 65 | 1399 | 418 | 1449 | 443 | 1540 | 433 | 1590 | 458 | 7 |
| | 45 | 125 | 90 | 100 | 225 | 250 | 325 | 1400 | 940 | 610 | 550 | 28x4 | 100 | 65 | 1474 | 474 | 1545 | 513 | 1615 | 489 | 1686 | 528 | 7 |
| | 55 | 125 | 90 | 100 | 250 | 250 | 350 | 1600 | 1060 | 660 | 600 | 28x4 | 100 | 65 | 1404 | 590 | 1475 | 635 | 1545 | 605 | 1616 | 650 | 8 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

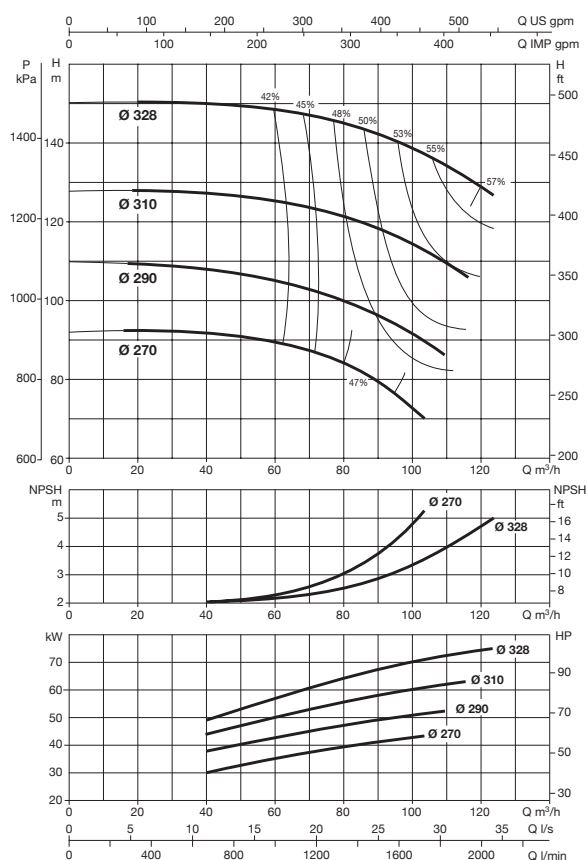
KDN 65-330 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



* Only for markets outside the EU.



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 65-330 | 22 | 180M | 3 x 400 V ~ Δ | 39.5 | 38 | IE2 / IE3 |
| | 30 | 200L | 3 x 400 V ~ Δ | 52 | 52 | IE2 / IE3 |
| | 37 | 200L | 3 x 400 V ~ Δ | 64 | 63 | IE2 / IE3 |
| | 45 | 225M | 3 x 400 V ~ Δ | 78.5 | 76 | IE2 / IE3 |
| | 55 | 250M | 3 x 400 V ~ Δ | 94 | 95 | IE2 / IE3 |
| | 75 | 280S | 3 x 400 V ~ Δ | 130 | 124 | IE2 / IE3 |
| | 90 | 280M | 3 x 400 V ~ Δ | 154 | 148 | IE2 / IE3 |
| | 110 | 315S | 3 x 400 V ~ Δ | 188 | 184 | IE2 / IE3 |

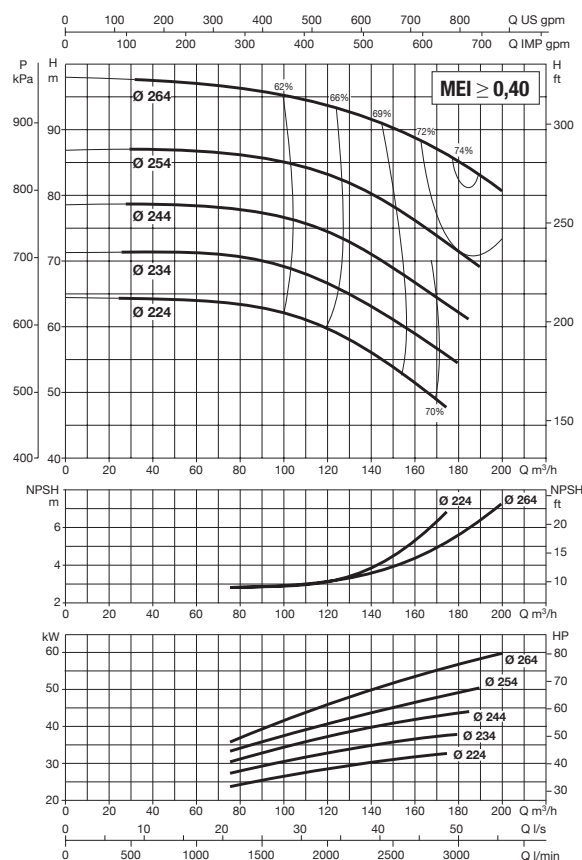
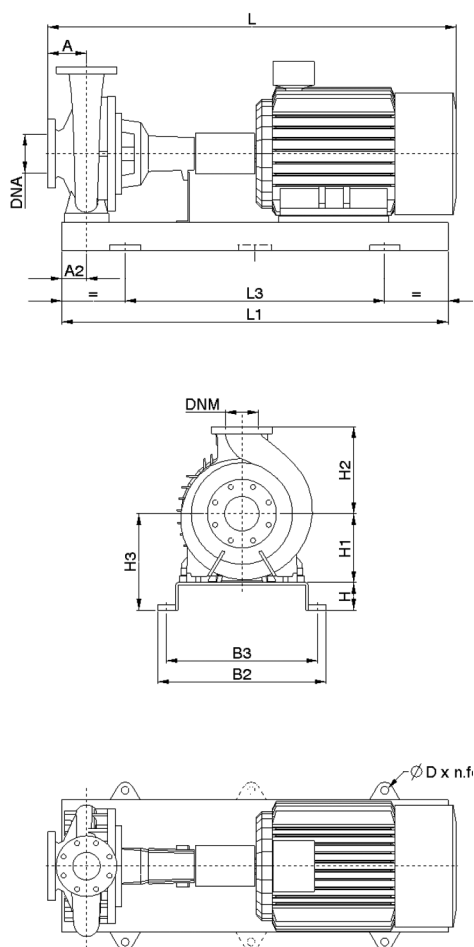
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| KDN 65-330 | 22 | 125 | 90 | 100 | 225 | 280 | 325 | 1400 | 940 | 610 | 550 | 28x4 | 100 | 65 | 1349 | 419 | 1399 | 377 | 1490 | 434 | 1540 | 392 | 7 |
| | 30 | 125 | 90 | 100 | 225 | 280 | 325 | 1400 | 940 | 610 | 550 | 28x4 | 100 | 65 | 1429 | 465 | 1479 | 477 | 1570 | 480 | 1620 | 492 | 7 |
| | 37 | 125 | 90 | 100 | 225 | 280 | 325 | 1400 | 940 | 610 | 550 | 28x4 | 100 | 65 | 1429 | 482 | 1479 | 507 | 1570 | 497 | 1620 | 522 | 7 |
| | 45 | 125 | 90 | 100 | 225 | 280 | 325 | 1600 | 1060 | 660 | 600 | 28x4 | 100 | 65 | 1504 | 555 | 1575 | 594 | 1645 | 570 | 1716 | 609 | 8 |
| | 55 | 125 | 90 | 100 | 250 | 280 | 350 | 1600 | 1060 | 660 | 600 | 28x4 | 100 | 65 | 1434 | 654 | 1505 | 699 | 1575 | 669 | 1646 | 714 | 8 |
| | 75 | 125 | 90 | 100 | 280 | 280 | 380 | 1800 | 1200 | 730 | 670 | 28x4 | 100 | 65 | 1629 | 894 | 1700 | 892 | 1770 | 909 | 1841 | 907 | 9 |
| | 90 | 125 | 90 | 100 | 280 | 280 | 380 | 1800 | 1200 | 730 | 670 | 28x4 | 100 | 65 | 1679 | 1014 | 1750 | 996 | 1820 | 1029 | 1891 | 1011 | 9 |
| | 110 | 125 | 90 | 120 | 315 | 280 | 435 | 2000 | 1340 | 910 | 830 | 28x4 | 100 | 65 | 1899 | 1314 | 1987 | 1419 | 2040 | 1329 | 2128 | 1434 | 10 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 80-250 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 80-250 | 30 | 200L | 3 x 400 V ~ Δ | 52 | 52 | IE2 / IE3 |
| | 37 | 200L | 3 x 400 V ~ Δ | 64 | 63 | IE2 / IE3 |
| | 45 | 225M | 3 x 400 V ~ Δ | 78.5 | 76 | IE2 / IE3 |
| | 55 | 250M | 3 x 400 V ~ Δ | 94 | 95 | IE2 / IE3 |
| | 75 | 280S | 3 x 400 V ~ Δ | 130 | 124 | IE2 / IE3 |
| | 90 | 280M | 3 x 400 V ~ Δ | 154 | 148 | IE2 / IE3 |

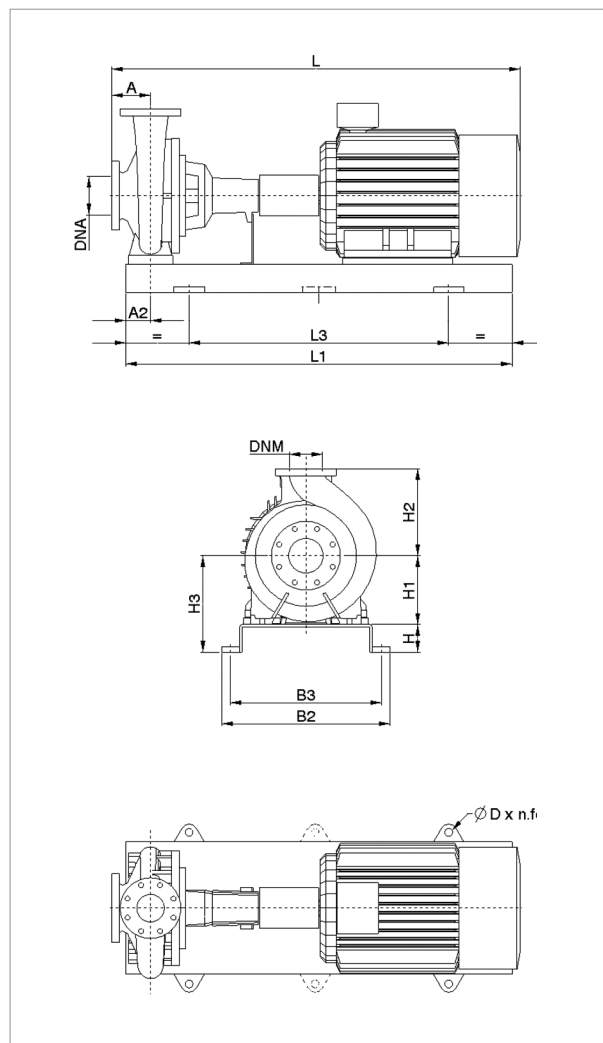
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 80-250 | 30 | 125 | 90 | 100 | 225 | 280 | 325 | 1400 | 940 | 610 | 550 | 28x4 | 125 | 80 | 1399 | 413 | 1449 | 425 | 1540 | 428 | 1590 | 440 | 7 |
| | 37 | 125 | 90 | 100 | 225 | 280 | 325 | 1400 | 940 | 610 | 550 | 28x4 | 125 | 80 | 1399 | 430 | 1470 | 455 | 1540 | 445 | 1611 | 470 | 7 |
| | 45 | 125 | 90 | 100 | 225 | 280 | 325 | 1400 | 940 | 610 | 550 | 28x4 | 125 | 80 | 1474 | 486 | 1545 | 525 | 1615 | 501 | 1686 | 540 | 7 |
| | 55 | 125 | 90 | 100 | 250 | 280 | 350 | 1600 | 1060 | 660 | 600 | 28x4 | 125 | 80 | 1404 | 602 | 1475 | 647 | 1545 | 617 | 1616 | 662 | 8 |
| | 75 | 125 | 90 | 100 | 280 | 280 | 380 | 1800 | 1200 | 730 | 670 | 28x4 | 125 | 80 | 1599 | 842 | 1670 | 840 | 1740 | 857 | 1811 | 855 | 9 |
| | 90 | 125 | 90 | 100 | 280 | 280 | 380 | 1800 | 1200 | 730 | 670 | 28x4 | 125 | 80 | 1649 | 962 | 1720 | 944 | 1790 | 977 | 1861 | 959 | 9 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

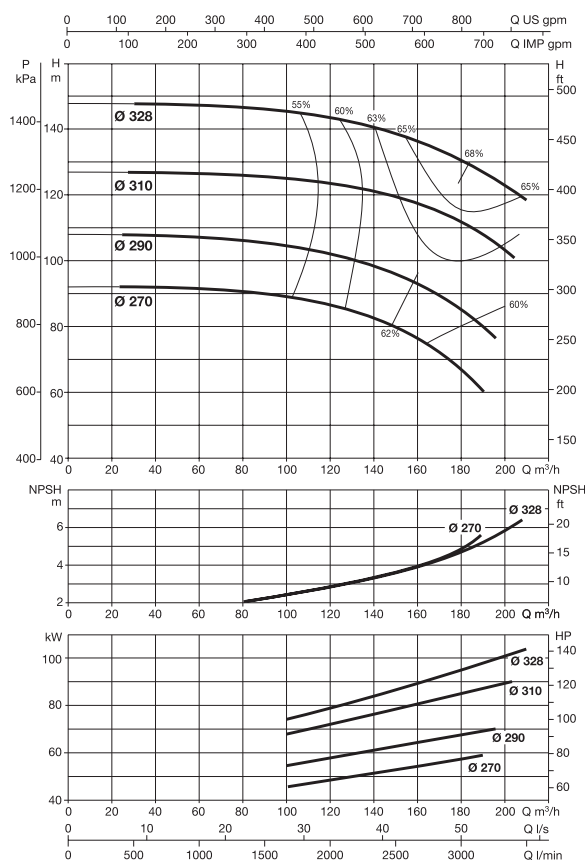
KDN 80-330 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



* Only for markets outside the EU.



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 80-330 | 30 | 200L | 3 x 400 V ~ Δ | 52 | 52 | IE2 / IE3 |
| | 37 | 200L | 3 x 400 V ~ Δ | 64 | 63 | IE2 / IE3 |
| | 45 | 225M | 3 x 400 V ~ Δ | 78.5 | 76 | IE2 / IE3 |
| | 55 | 250M | 3 x 400 V ~ Δ | 94 | 95 | IE2 / IE3 |
| | 75 | 280S | 3 x 400 V ~ Δ | 130 | 124 | IE2 / IE3 |
| | 90 | 280M | 3 x 400 V ~ Δ | 154 | 148 | IE2 / IE3 |
| | 110 | 315S | 3 x 400 V ~ Δ | 188 | 184 | IE2 / IE3 |
| | 132 | 315M | 3 x 400 V ~ Δ | 220 | 220 | IE2 / IE3 |
| | 160 | 315L | 3 x 400 V ~ Δ | 265 | 265 | IE2 / IE3 |

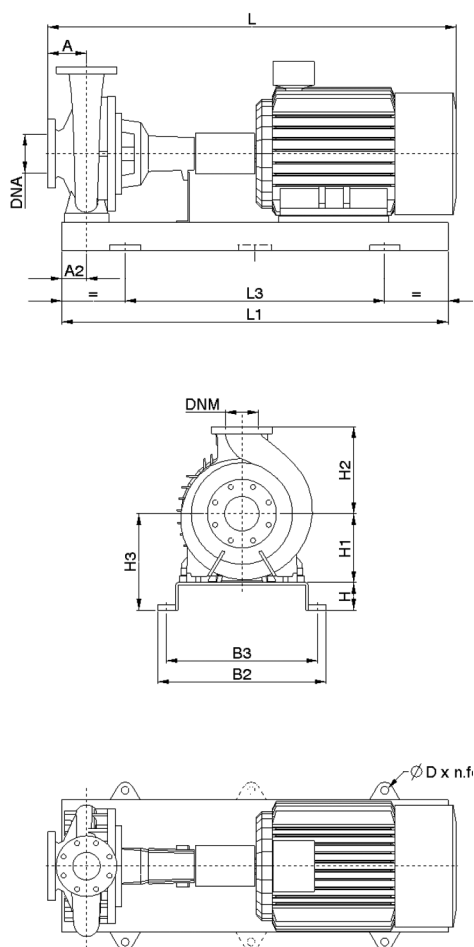
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| KDN 80-330 | 30 | 125 | 90 | 100 | 250 | 315 | 350 | 1400 | 940 | 610 | 550 | 28x4 | 125 | 80 | 1429 | 468 | 1479 | 480 | 1570 | 483 | 1620 | 495 | 7 |
| | 37 | 125 | 90 | 100 | 250 | 315 | 350 | 1400 | 940 | 610 | 550 | 28x4 | 125 | 80 | 1429 | 485 | 1500 | 510 | 1570 | 500 | 1641 | 525 | 7 |
| | 45 | 125 | 90 | 100 | 250 | 315 | 350 | 1600 | 1060 | 660 | 600 | 28x4 | 125 | 80 | 1504 | 558 | 1575 | 597 | 1645 | 573 | 1716 | 612 | 8 |
| | 55 | 125 | 90 | 100 | 250 | 315 | 350 | 1600 | 1060 | 660 | 600 | 28x4 | 125 | 80 | 1434 | 657 | 1505 | 702 | 1575 | 672 | 1646 | 717 | 8 |
| | 75 | 125 | 90 | 100 | 280 | 315 | 380 | 1800 | 1200 | 730 | 670 | 28x4 | 125 | 80 | 1629 | 897 | 1700 | 895 | 1770 | 912 | 1841 | 910 | 9 |
| | 90 | 125 | 90 | 100 | 280 | 315 | 380 | 1800 | 1200 | 730 | 670 | 28x4 | 125 | 80 | 1679 | 1017 | 1750 | 999 | 1820 | 1032 | 1891 | 1014 | 9 |
| | 110 | 125 | 90 | 120 | 315 | 315 | 435 | 2000 | 1340 | 910 | 830 | 28x4 | 125 | 80 | 1899 | 1317 | 1987 | 1422 | 2040 | 1332 | 2128 | 1437 | 10 |
| | 132 | 125 | 95 | 190 | 315 | 315 | 505 | 1550 | 1250 | 680 | 635 | 20x4 | 125 | 80 | 2039 | 1345 | 2127 | 1405 | 2180 | 1360 | 2268 | 1420 | 11 |
| | 160 | 125 | 95 | 190 | 315 | 315 | 505 | 1550 | 1250 | 680 | 635 | 20x4 | 125 | 80 | 2039 | 1450 | 2127 | 1545 | 2180 | 1465 | 2268 | 1560 | 11 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

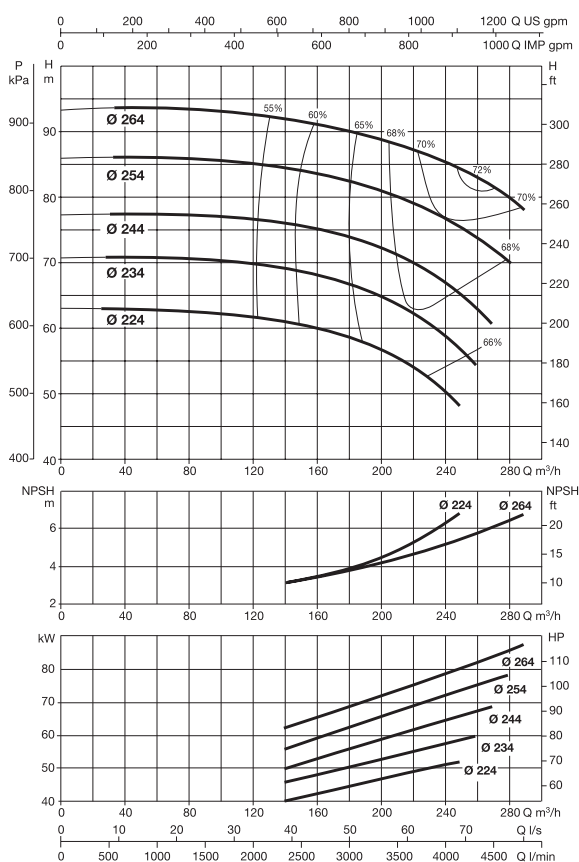
KDN 100-250 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



* Only for markets outside the EU.



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 100-250 | 30 | 200L | 3 x 400 V ~ Δ | 52 | 52 | IE2 / IE3 |
| | 37 | 200L | 3 x 400 V ~ Δ | 64 | 63 | IE2 / IE3 |
| | 45 | 225M | 3 x 400 V ~ Δ | 78.5 | 76 | IE2 / IE3 |
| | 55 | 250M | 3 x 400 V ~ Δ | 94 | 95 | IE2 / IE3 |
| | 75 | 280S | 3 x 400 V ~ Δ | 130 | 124 | IE2 / IE3 |
| | 90 | 280M | 3 x 400 V ~ Δ | 154 | 148 | IE2 / IE3 |
| | 110 | 315S | 3 x 400 V ~ Δ | 188 | 184 | IE2 / IE3 |
| | 132 | 315M | 3 x 400 V ~ Δ | 220 | 220 | IE2 / IE3 |

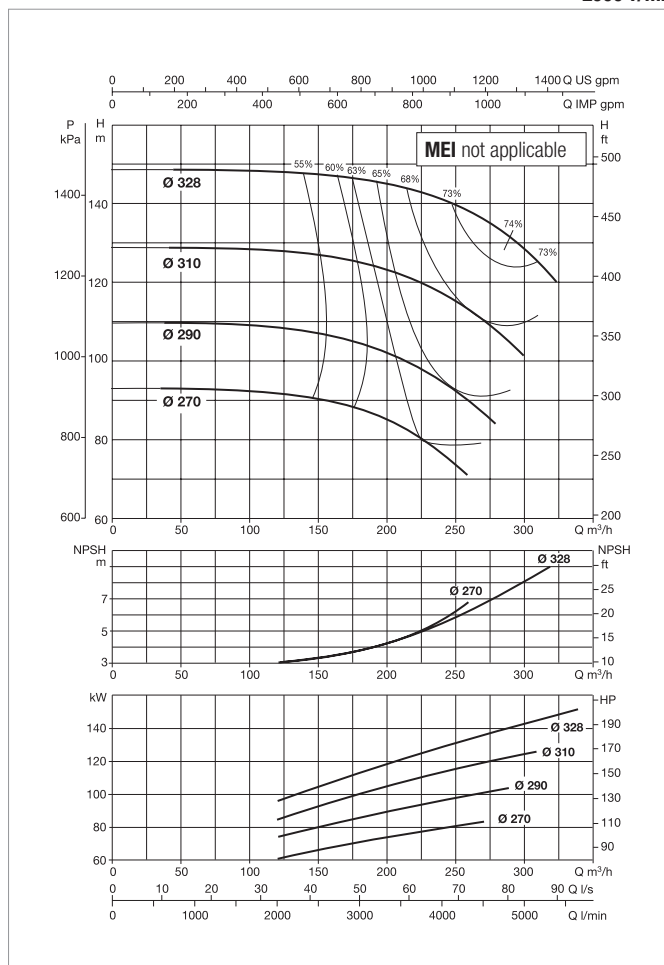
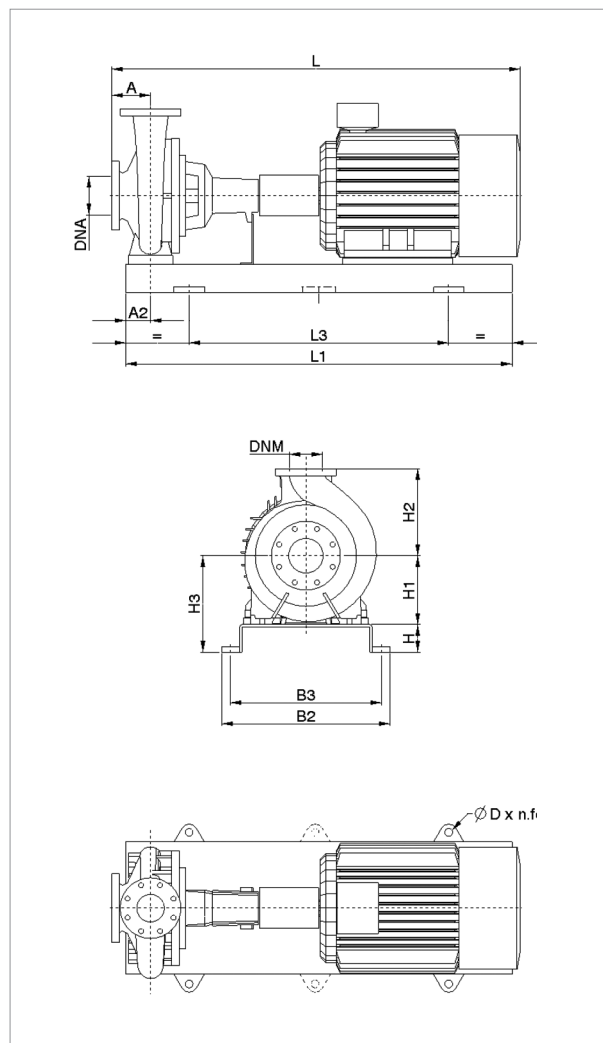
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 100-250 | 30 | 140 | 90 | 100 | 225 | 280 | 325 | 1400 | 940 | 610 | 550 | 28x4 | 125 | 100 | 1444 | 443 | 1494 | 455 | 1585 | 458 | 1635 | 470 | 7 |
| | 37 | 140 | 90 | 100 | 225 | 280 | 325 | 1400 | 940 | 610 | 550 | 28x4 | 125 | 100 | 1444 | 460 | 1515 | 485 | 1585 | 475 | 1656 | 500 | 7 |
| | 45 | 140 | 90 | 100 | 225 | 280 | 325 | 1600 | 1060 | 660 | 600 | 28x4 | 125 | 100 | 1519 | 533 | 1590 | 572 | 1660 | 548 | 1731 | 587 | 8 |
| | 55 | 140 | 90 | 100 | 250 | 280 | 350 | 1600 | 1060 | 660 | 600 | 28x4 | 125 | 100 | 1449 | 632 | 1520 | 677 | 1590 | 647 | 1661 | 692 | 8 |
| | 75 | 140 | 90 | 100 | 280 | 280 | 380 | 1800 | 1200 | 730 | 670 | 28x4 | 125 | 100 | 1644 | 872 | 1715 | 870 | 1785 | 887 | 1856 | 885 | 9 |
| | 90 | 140 | 90 | 100 | 280 | 280 | 380 | 1800 | 1200 | 730 | 670 | 28x4 | 125 | 100 | 1694 | 992 | 1765 | 974 | 1835 | 1007 | 1906 | 989 | 9 |
| | 110 | 140 | 90 | 120 | 315 | 280 | 435 | 2000 | 1340 | 910 | 830 | 28x4 | 125 | 100 | 1914 | 1292 | 2002 | 1397 | 2055 | 1307 | 2143 | 1412 | 10 |
| | 132 | 140 | 110 | 165 | 315 | 280 | 480 | 1550 | 1250 | 680 | 635 | 20x4 | 125 | 100 | 2054 | 1320 | 2142 | 1380 | 2195 | 1335 | 2283 | 1395 | 11 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 100-330 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 100-330 | 45 | 225M | 3 x 400 V ~ Δ | 78.5 | 76 | IE2 / IE3 |
| | 55 | 250M | 3 x 400 V ~ Δ | 94 | 95 | IE2 / IE3 |
| | 75 | 280S | 3 x 400 V ~ Δ | 130 | 124 | IE2 / IE3 |
| | 90 | 280M | 3 x 400 V ~ Δ | 154 | 148 | IE2 / IE3 |
| | 110 | 315S | 3 x 400 V ~ Δ | 188 | 184 | IE2 / IE3 |
| | 132 | 315M | 3 x 400 V ~ Δ | 220 | 220 | IE2 / IE3 |
| | 160 | 315L | 3 x 400 V ~ Δ | 265 | 265 | IE2 / IE3 |
| | 200 | 315L | 3 x 400 V ~ Δ | 330 | 330 | IE2 / IE3 |

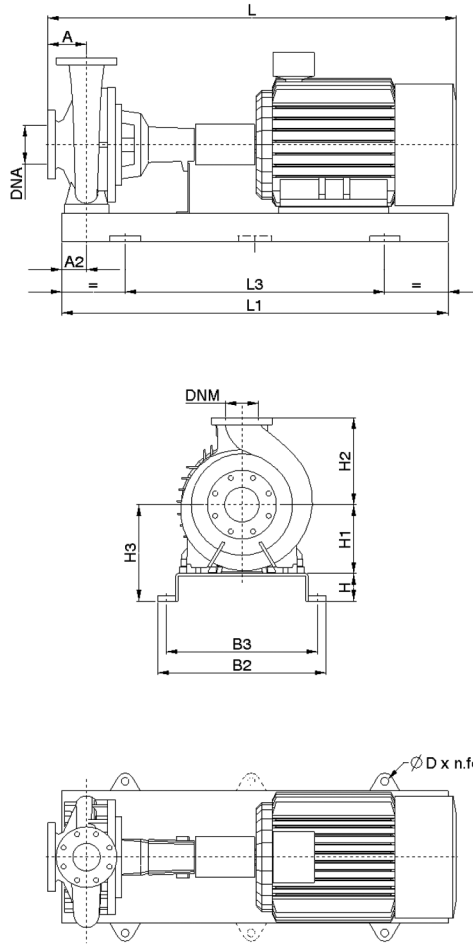
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 100-330 | 45 | 140 | 90 | 100 | 250 | 315 | 350 | 1600 | 1060 | 660 | 600 | 28x4 | 125 | 100 | 1519 | 573 | 1590 | 612 | 1660 | 588 | 1731 | 627 | 8 |
| | 55 | 140 | 90 | 100 | 250 | 315 | 350 | 1600 | 1060 | 660 | 600 | 28x4 | 125 | 100 | 1449 | 672 | 1520 | 717 | 1590 | 687 | 1661 | 732 | 8 |
| | 75 | 140 | 90 | 100 | 280 | 315 | 380 | 1800 | 1200 | 730 | 670 | 28x4 | 125 | 100 | 1644 | 912 | 1715 | 910 | 1785 | 927 | 1856 | 925 | 9 |
| | 90 | 140 | 90 | 100 | 280 | 315 | 380 | 1800 | 1200 | 730 | 670 | 28x4 | 125 | 100 | 1694 | 1032 | 1765 | 1014 | 1835 | 1047 | 1906 | 1029 | 9 |
| | 110 | 140 | 90 | 120 | 315 | 315 | 435 | 2000 | 1340 | 910 | 830 | 28x4 | 125 | 100 | 1914 | 1332 | 2002 | 1437 | 2055 | 1347 | 2143 | 1452 | 10 |
| | 132 | 140 | 95 | 190 | 315 | 315 | 505 | 1550 | 1250 | 680 | 635 | 20x4 | 125 | 100 | 2054 | 1360 | 2142 | 1420 | 2195 | 1375 | 2283 | 1435 | 11 |
| | 160 | 140 | 95 | 190 | 315 | 315 | 505 | 1550 | 1250 | 680 | 635 | 20x4 | 125 | 100 | 2054 | 1465 | 2142 | 1560 | 2195 | 1480 | 2283 | 1575 | 11 |
| | 200 | 140 | 95 | 190 | 315 | 315 | 505 | 1550 | 1250 | 680 | 635 | 20x4 | 125 | 100 | 2054 | 1505 | 2142 | 1600 | 2195 | 1520 | 2283 | 1615 | 11 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

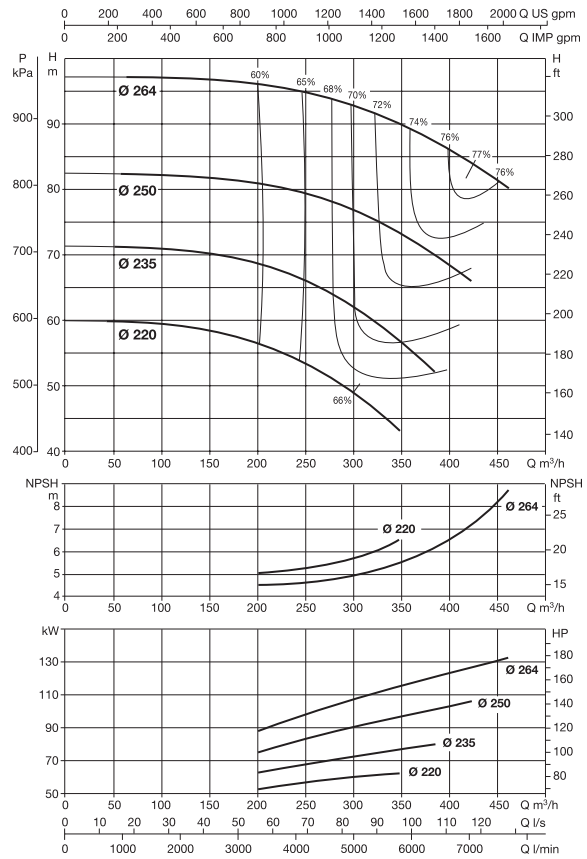
KDN 125-250 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



* Only for markets outside the EU.



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 125-250 | 55 | 250M | 3 x 400 V ~ Δ | 94 | 95 | IE2 / IE3 |
| | 75 | 280S | 3 x 400 V ~ Δ | 130 | 124 | IE2 / IE3 |
| | 90 | 280M | 3 x 400 V ~ Δ | 154 | 148 | IE2 / IE3 |
| | 110 | 315S | 3 x 400 V ~ Δ | 188 | 184 | IE2 / IE3 |
| | 132 | 315M | 3 x 400 V ~ Δ | 220 | 220 | IE2 / IE3 |
| | 160 | 315L | 3 x 400 V ~ Δ | 265 | 265 | IE2 / IE3 |

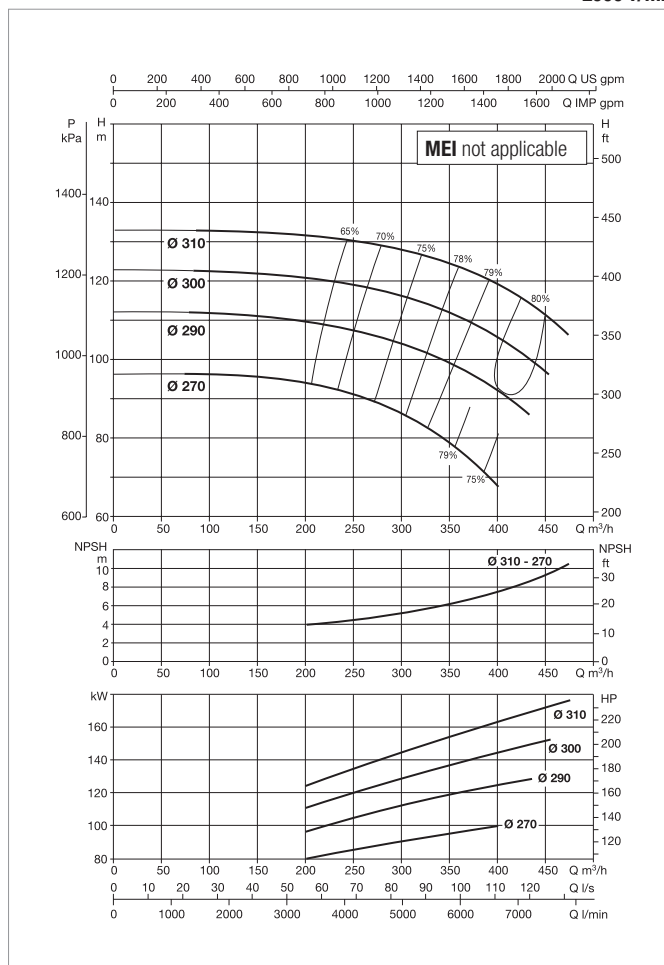
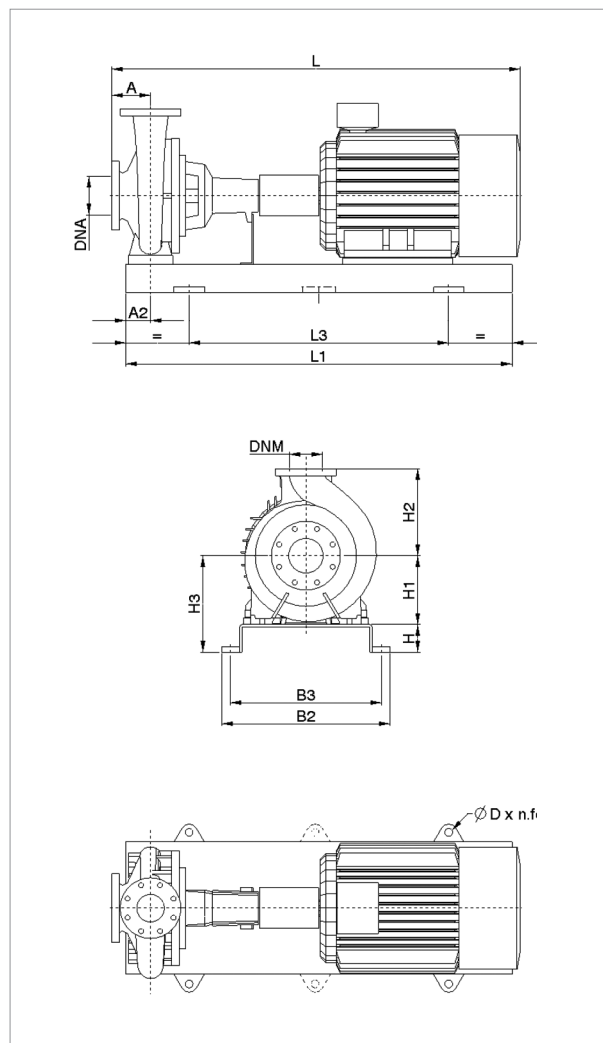
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 125-250 | 55 | 140 | 90 | 100 | 250 | 355 | 350 | 1600 | 1060 | 660 | 600 | 28x4 | 150 | 125 | 1449 | 642 | 1520 | 687 | 1590 | 657 | 1661 | 702 | 8 |
| | 75 | 140 | 90 | 100 | 280 | 355 | 380 | 1800 | 1200 | 730 | 670 | 28x4 | 150 | 125 | 1644 | 882 | 1715 | 880 | 1785 | 897 | 1856 | 895 | 9 |
| | 90 | 140 | 90 | 100 | 280 | 355 | 380 | 1800 | 1200 | 730 | 670 | 28x4 | 150 | 125 | 1694 | 1002 | 1765 | 984 | 1835 | 1017 | 1906 | 999 | 9 |
| | 110 | 140 | 90 | 120 | 315 | 355 | 435 | 2000 | 1340 | 910 | 830 | 28x4 | 150 | 125 | 1914 | 1302 | 2002 | 1407 | 2055 | 1317 | 2143 | 1422 | 10 |
| | 132 | 140 | 95 | 190 | 315 | 355 | 505 | 1550 | 1250 | 680 | 635 | 20x4 | 150 | 125 | 2054 | 1330 | 2142 | 1390 | 2195 | 1345 | 2283 | 1405 | 11 |
| | 160 | 140 | 95 | 190 | 315 | 355 | 505 | 1550 | 1250 | 680 | 635 | 20x4 | 150 | 125 | 2054 | 1435 | 2142 | 1530 | 2195 | 1450 | 2283 | 1545 | 11 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 125-330 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 125-330 | 75 | 280S | 3 x 400 V ~ Δ | 130 | 124 | IE2 / IE3 |
| | 90 | 280M | 3 x 400 V ~ Δ | 154 | 148 | IE2 / IE3 |
| | 110 | 315S | 3 x 400 V ~ Δ | 188 | 184 | IE2 / IE3 |
| | 132 | 315M | 3 x 400 V ~ Δ | 220 | 220 | IE2 / IE3 |
| | 160 | 315L | 3 x 400 V ~ Δ | 265 | 265 | IE2 / IE3 |
| | 200 | 315L | 3 x 400 V ~ Δ | 330 | 330 | IE2 / IE3 |

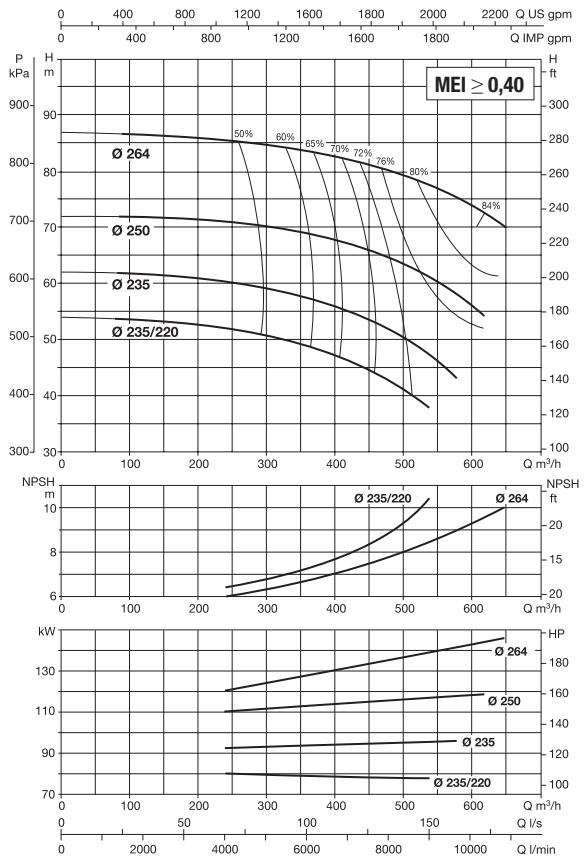
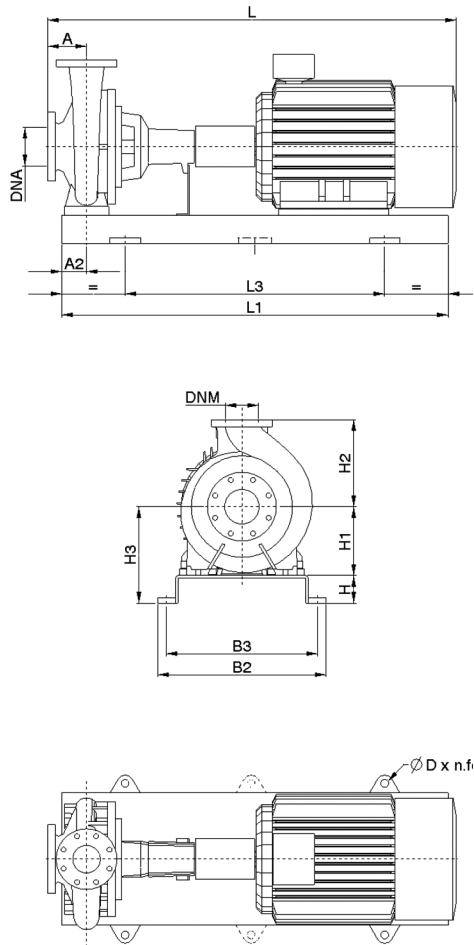
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 125-330 | 75 | 140 | 110 | 100 | 280 | 355 | 380 | 1800 | 1200 | 730 | 670 | 28x4 | 150 | 125 | 1644 | 932 | 1715 | 930 | 1785 | 947 | 1856 | 945 | 9 |
| | 90 | 140 | 110 | 100 | 280 | 355 | 380 | 1800 | 1200 | 730 | 670 | 28x4 | 150 | 125 | 1694 | 1052 | 1765 | 1034 | 1835 | 1067 | 1906 | 1049 | 9 |
| | 110 | 140 | 110 | 120 | 315 | 355 | 435 | 2000 | 1340 | 910 | 830 | 28x4 | 150 | 125 | 1914 | 1352 | 2002 | 1457 | 2055 | 1367 | 2143 | 1472 | 10 |
| | 132 | 140 | 115 | 220 | 315 | 355 | 535 | 1570 | 1270 | 680 | 635 | 20x4 | 150 | 125 | 2054 | 1420 | 2142 | 1480 | 2195 | 1435 | 2283 | 1495 | 12 |
| | 160 | 140 | 115 | 220 | 315 | 355 | 535 | 1570 | 1270 | 680 | 635 | 20x4 | 150 | 125 | 2054 | 1525 | 2142 | 1620 | 2195 | 1540 | 2283 | 1635 | 12 |
| | 200 | 140 | 115 | 220 | 315 | 355 | 535 | 1570 | 1270 | 680 | 635 | 20x4 | 150 | 125 | 2054 | 1565 | 2142 | 1660 | 2195 | 1580 | 2283 | 1675 | 12 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 150-250 - 2 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 2900 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 2 POLES | | | IE2 | IE3 | |
| KDN 150-250 | 75 | 280S | 3 x 400 V ~ Δ | 130 | 124 | IE2 / IE3 |
| | 90 | 280M | 3 x 400 V ~ Δ | 154 | 148 | IE2 / IE3 |
| | 110 | 315S | 3 x 400 V ~ Δ | 188 | 184 | IE2 / IE3 |
| | 132 | 315M | 3 x 400 V ~ Δ | 220 | 220 | IE2 / IE3 |
| | 160 | 315L | 3 x 400 V ~ Δ | 265 | 265 | IE2 / IE3 |
| | 200 | 315L | 3 x 400 V ~ Δ | 330 | 330 | IE2 / IE3 |

| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 150-250 | 75 | 160 | 110 | 100 | 280 | 375 | 380 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1664 | 922 | 1735 | 920 | 1845 | 937 | 1916 | 935 | 9 |
| | 90 | 160 | 110 | 100 | 280 | 375 | 380 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1714 | 1042 | 1785 | 1024 | 1895 | 1057 | 1966 | 1039 | 9 |
| | 110 | 160 | 110 | 120 | 315 | 375 | 435 | 2000 | 1340 | 910 | 830 | 28x4 | 200 | 150 | 1934 | 1342 | 2022 | 1447 | 2115 | 1357 | 2203 | 1462 | 10 |
| | 132 | 160 | 115 | 220 | 315 | 375 | 535 | 1570 | 1270 | 680 | 635 | 20x4 | 200 | 150 | 2074 | 1410 | 2162 | 1470 | 2255 | 1425 | 2343 | 1485 | 12 |
| | 160 | 160 | 115 | 220 | 315 | 375 | 535 | 1570 | 1270 | 680 | 635 | 20x4 | 200 | 150 | 2074 | 1515 | 2162 | 1610 | 2255 | 1530 | 2343 | 1625 | 12 |
| | 200 | 160 | 115 | 220 | 315 | 375 | 535 | 1570 | 1270 | 680 | 635 | 20x4 | 200 | 150 | 2074 | 1555 | 2162 | 1650 | 2255 | 1570 | 2343 | 1665 | 12 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN OVERSIZE - 2 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

IE2 STANDARD MOTOR ELECTRIC DATA

=2900 1/min

| MOTOR TYPE | P2 NOMINAL kW | SPEED rpm | YIELD % | POWER FACTOR COS φ | POWER INPUT 50 Hz | In A | | Start-up current Ia/In | Start-up torque Ma/Mn | Maximum torque M/k/Mn | POLES |
|------------|---------------|-----------|---------|----------------------------|-------------------|------|------|------------------------|-----------------------|-----------------------|-------|
| | | | | | | 230 | 400 | | | | |
| MEC 71 | 0.25 | 2790 | 69.81 | 0.778 | 3 x 230/400 | 1.15 | 0.67 | 5.06 | 2.90 | 3.01 | 2 |
| MEC 71 | 0.37 | 2820 | 72.79 | 0.783 | 3 x 230/400 | 1.61 | 0.93 | 5.40 | 2.69 | 2.99 | 2 |
| MEC 80 | 0.55 | 2810 | 76.97 | 0.800 | 3 x 230/400 | 2.23 | 1.29 | 6.41 | 3.43 | 3.13 | 2 |
| MEC 80 | 0.75 | 2880 | 81.52 | 0.823 | 3 x 230/400 | 2.81 | 1.62 | 7.93 | 3.47 | 3.33 | 2 |
| MEC 80 | 1.10 | 2870 | 81.82 | 0.826 | 3 x 230/400 | 4.07 | 2.36 | 7.92 | 3.42 | 3.25 | 2 |
| MEC 90S | 1.50 | 2880 | 82.95 | 0.794 | 3 x 230/400 | 5.80 | 3.35 | 8.85 | 4.18 | 3.80 | 2 |
| MEC 90L | 2.20 | 2870 | 83.41 | 0.811 | 3 x 230/400 | 8.23 | 4.75 | 8.31 | 3.87 | 1.87 | 2 |

| MOTOR TYPE | P2 NOMINAL kW | SPEED rpm | YIELD % | POWER FACTOR COS φ | POWER INPUT 50 Hz | In A | | Start-up current Ia/In | Start-up torque Ma/Mn | Maximum torque M/k/Mn | POLES |
|------------|---------------|-----------|---------|----------------------------|-------------------|--------|--------|------------------------|-----------------------|-----------------------|-------|
| | | | | | | 400 | 690 | | | | |
| MEC 100L | 3.00 | 2880 | 86.25 | 0.861 | 3 x 400 Δ | 5.85 | 3.40 | 8.93 | 3.17 | 3.70 | 2 |
| MEC 112M | 4.00 | 2910 | 87.10 | 0.856 | 3 x 400 Δ | 8.05 | 4.65 | 9.14 | 2.99 | 3.53 | 2 |
| MEC 132S | 5.50 | 2910 | 88.40 | 0.873 | 3 x 400 Δ | 10.40 | 6.00 | 7.77 | 2.53 | 3.26 | 2 |
| MEC 132S | 7.50 | 2900 | 88.40 | 0.882 | 3 x 400 Δ | 14.00 | 8.08 | 7.62 | 2.34 | 3.11 | 2 |
| MEC 160M | 11.00 | 2930 | 89.82 | 0.890 | 3 x 400 Δ | 20.20 | 11.66 | 6.24 | 2.16 | 2.79 | 2 |
| MEC 160M | 15.00 | 2940 | 90.46 | 0.890 | 3 x 400 Δ | 27.00 | 15.59 | 7.03 | 2.57 | 3.02 | 2 |
| MEC 160L | 18.50 | 2940 | 91.49 | 0.893 | 3 x 400 Δ | 33.00 | 19.05 | 7.27 | 2.69 | 3.21 | 2 |
| MEC 180M | 22.00 | 2960 | 92.05 | 0.875 | 3 x 400 Δ | 39.50 | 23.00 | 8.33 | 2.80 | 3.43 | 2 |
| MEC 200L | 30.00 | 2950 | 92.50 | 0.899 | 3 x 400 Δ | 52.00 | 30.02 | 7.79 | 2.37 | 3.06 | 2 |
| MEC 200L | 37.00 | 2960 | 92.90 | 0.897 | 3 x 400 Δ | 64.00 | 36.95 | 7.62 | 2.50 | 3.22 | 2 |
| MEC 225M | 45.00 | 2960 | 92.94 | 0.901 | 3 x 400 Δ | 78.50 | 45.32 | 6.73 | 2.40 | 2.85 | 2 |
| MEC 250M | 55.00 | 2970 | 93.97 | 0.900 | 3 x 400 Δ | 94.00 | 54.50 | 8.33 | 2.42 | 3.04 | 2 |
| MEC 280S | 75.00 | 2980 | 94.12 | 0.895 | 3 x 400 Δ | 130.00 | 74.50 | 7.73 | 2.36 | 3.21 | 2 |
| MEC 280M | 90.00 | 2980 | 94.51 | 0.918 | 3 x 400 Δ | 154.00 | 89.00 | 7.97 | 2.80 | 3.44 | 2 |
| MEC 315S | 110.00 | 2980 | 94.53 | 0.893 | 3 x 400 Δ | 188.00 | 110.00 | 8.06 | 2.53 | 3.53 | 2 |
| MEC 315M | 132.00 | 2970 | 94.80 | 0.923 | 3 x 400 Δ | 220.00 | 130.00 | 6.18 | 2.14 | 2.77 | 2 |
| MEC 315L | 160.00 | 2970 | 94.80 | 0.926 | 3 x 400 Δ | 265.00 | 155.00 | 5.96 | 2.12 | 2.65 | 2 |
| MEC 315L | 200.00 | 2970 | 95.20 | 0.925 | 3 x 400 Δ | 330.00 | 190.00 | 5.78 | 2.10 | 2.55 | 2 |
| MEC355M | 250.00 | 2980 | 96.04 | 0.897 | 3 x 400 Δ | 418.50 | 242.60 | 7.84 | 2.37 | 3.77 | 2 |
| MEC355L | 315.00 | 2980 | 96.43 | 0.903 | 3 x 400 Δ | 521.50 | 302.30 | 7.96 | 2.36 | 3.81 | 2 |

KDN OVERSIZE - 2 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

IE3 STANDARD MOTOR ELECTRIC DATA

=2900 1/min

| MOTOR TYPE | P2 NOMINAL kW | SPEED rpm | YIELD % | POWER FACTOR COS φ | POWER INPUT 50 Hz | In A | | Start-up current Ia/In | Start-up torque Ma/Mn | Maximum torque M/k/Mn | POLES |
|------------|---------------|-----------|---------|----------------------------|-------------------|--------|--------|------------------------|-----------------------|-----------------------|-------|
| | | | | | | 400 | 690 | | | | |
| MEC 132S | 7.50 | 2920 | 90.10 | 0.900 | 3 x 400 Δ | 13.40 | 7.75 | 8.50 | 2.20 | 3.20 | 2 |
| MEC 160M | 11.00 | 2940 | 91.20 | 0.900 | 3 x 400 Δ | 19.40 | 11.21 | 7.60 | 2.40 | 3.30 | 2 |
| MEC 160M | 15.00 | 2920 | 91.30 | 0.900 | 3 x 400 Δ | 26.50 | 15.32 | 7.70 | 2.60 | 3.30 | 2 |
| MEC 160L | 18.50 | 2920 | 92.40 | 0.910 | 3 x 400 Δ | 32.00 | 18.50 | 8.20 | 2.80 | 3.40 | 2 |
| MEC 180M | 22.00 | 2950 | 92.70 | 0.910 | 3 x 400 Δ | 38.00 | 21.97 | 8.70 | 2.60 | 3.90 | 2 |
| MEC 200L | 30.00 | 2960 | 93.30 | 0.890 | 3 x 400 Δ | 52.00 | 30.06 | 9.00 | 3.00 | 3.90 | 2 |
| MEC 200L | 37.00 | 2960 | 93.70 | 0.910 | 3 x 400 Δ | 63.00 | 36.42 | 9.00 | 3.10 | 3.90 | 2 |
| MEC 225M | 45.00 | 2960 | 94.00 | 0.910 | 3 x 400 Δ | 76.00 | 43.93 | 8.30 | 2.50 | 3.60 | 2 |
| MEC 250M | 55.00 | 2970 | 94.30 | 0.890 | 3 x 400 Δ | 95.00 | 54.91 | 7.20 | 2.30 | 3.60 | 2 |
| MEC 280S | 75.00 | 2970 | 94.70 | 0.920 | 3 x 400 Δ | 124.00 | 71.68 | 8.00 | 2.40 | 3.30 | 2 |
| MEC 280M | 90.00 | 2970 | 95.00 | 0.920 | 3 x 400 Δ | 148.00 | 85.55 | 8.10 | 2.50 | 3.30 | 2 |
| MEC 315S | 110.00 | 2980 | 95.20 | 0.910 | 3 x 400 Δ | 184.00 | 106.36 | 6.70 | 1.80 | 3.10 | 2 |
| MEC 315M | 132.00 | 2980 | 95.40 | 0.920 | 3 x 400 Δ | 220.00 | 127.17 | 6.50 | 1.80 | 2.90 | 2 |
| MEC 315L | 160.00 | 2980 | 95.60 | 0.920 | 3 x 400 Δ | 265.00 | 153.18 | 6.60 | 1.90 | 2.80 | 2 |
| MEC 315L | 200.00 | 2980 | 95.80 | 0.920 | 3 x 400 Δ | 330.00 | 190.75 | 6.10 | 1.80 | 2.60 | 2 |
| MEC 355M | 250.00 | 2980 | 95.80 | 0.920 | 3 x 400 Δ | 410.00 | 236.99 | 6.90 | 2.00 | 2.90 | 2 |
| MEC 355L | 315.00 | 2980 | 95.80 | 0.920 | 3 x 400 Δ | 520.00 | 300.58 | 5.70 | 1.70 | 2.40 | 2 |

KDN OVERSIZE - 4 POLE RANGE

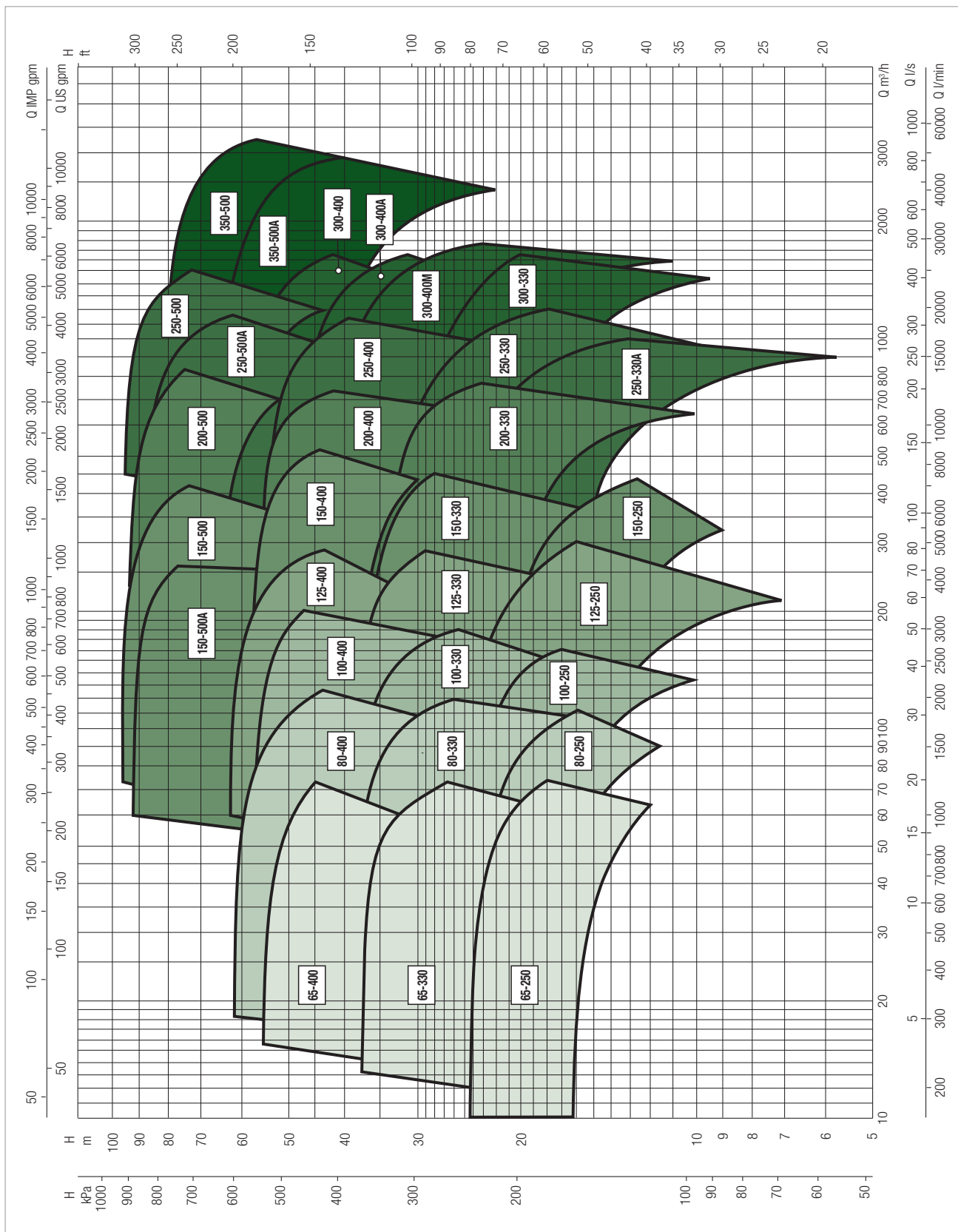
STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE

= 1450 1/min



KDN OVERSIZE - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 65

| MODEL | Q=m ³ /h | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 |
|------------------|---------------------|----|-----|-----|-----|-----|-----|------|------|------|
| | Q=l/min | 0 | 167 | 333 | 500 | 667 | 833 | 1000 | 1167 | 1333 |
| KDN 65-250 / 224 | H (m) | 16 | 16 | 16 | 15 | 15 | 14 | | | |
| KDN 65-250 / 244 | | 21 | 21 | 20 | 20 | 19 | 18 | 16 | | |
| KDN 65-250 / 264 | | 25 | 25 | 25 | 24 | 24 | 23 | 21 | 19 | 17 |
| KDN 65-330 / 270 | | 23 | 23 | 23 | 22 | 21 | 19 | 15 | | |
| KDN 65-330 / 290 | | 28 | 27 | 27 | 26 | 25 | 23 | 20 | | |
| KDN 65-330 / 310 | | 32 | 32 | 32 | 32 | 31 | 29 | 26 | 22 | |
| KDN 65-330 / 328 | | 38 | 38 | 38 | 37 | 36 | 35 | 33 | 29 | |
| KDN 65-400 / 350 | | 38 | 38 | 38 | 37 | 36 | 34 | 31 | | |
| KDN 65-400 / 370 | | 44 | 43 | 43 | 43 | 42 | 40 | 38 | | |
| KDN 65-400 / 390 | | 50 | 50 | 50 | 49 | 48 | 46 | 44 | 42 | |
| KDN 65-400 / 408 | | 55 | 55 | 54 | 54 | 53 | 51 | 49 | 46 | |

SELECTION TABLE - KDN 80

| MODEL | Q=m ³ /h | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 100 | 120 |
|------------------|---------------------|----|-----|-----|-----|-----|-----|------|------|------|------|------|
| | Q=l/min | 0 | 167 | 333 | 500 | 667 | 833 | 1000 | 1167 | 1333 | 1667 | 2000 |
| KDN 80-250 / 224 | H (m) | 16 | | 16 | 16 | 16 | 16 | 15 | 14 | 13 | | |
| KDN 80-250 / 244 | | 19 | | 19 | 19 | 19 | 19 | 18 | 17 | 17 | 14 | |
| KDN 80-250 / 264 | | 23 | | 23 | 23 | 23 | 22 | 22 | 21 | 21 | 18 | |
| KDN 80-330 / 270 | | 24 | | 24 | 24 | 24 | 23 | 23 | 21 | 19 | 15 | |
| KDN 80-330 / 290 | | 28 | | 28 | 28 | 28 | 27 | 26 | 25 | 24 | 19 | |
| KDN 80-330 / 310 | | 33 | | 33 | 33 | 33 | 33 | 33 | 32 | 31 | 27 | |
| KDN 80-330 / 328 | | 38 | | 38 | 38 | 38 | 38 | 38 | 37 | 36 | 32 | 26 |
| KDN 80-400 / 330 | | 37 | | 37 | 37 | 37 | 37 | 36 | 35 | 33 | 28 | |
| KDN 80-400 / 350 | | 43 | | 43 | 43 | 43 | 43 | 42 | 41 | 39 | 34 | |
| KDN 80-400 / 370 | | 48 | | 49 | 49 | 48 | 48 | 47 | 46 | 44 | 39 | |
| KDN 80-400 / 390 | | 55 | | 54 | 54 | 54 | 54 | 53 | 52 | 51 | 47 | 41 |
| KDN 80-400 / 408 | | 62 | | 61 | 61 | 61 | 61 | 60 | 59 | 57 | 52 | 46 |

SELECTION TABLE - KDN 100

| MODEL | Q=m ³ /h | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 100 | 120 | 150 | 180 | 200 |
|-------------------|---------------------|----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|
| | Q=l/min | 0 | 167 | 333 | 500 | 667 | 833 | 1000 | 1167 | 1333 | 1667 | 2000 | 2500 | 3000 | 3333 |
| KDN 100-250 / 224 | H (m) | 16 | | | 16 | 16 | 16 | 15 | 15 | 15 | 14 | 13 | | | |
| KDN 100-250 / 244 | | 19 | | | 19 | 19 | 19 | 19 | 19 | 19 | 18 | 17 | | | |
| KDN 100-250 / 264 | | 23 | | | 23 | 23 | 23 | 23 | 23 | 23 | 22 | 21 | 19 | | |
| KDN 100-330 / 270 | | 23 | | | 23 | 23 | 23 | 23 | 23 | 23 | 21 | 19 | | | |
| KDN 100-330 / 290 | | 27 | | | 27 | 27 | 27 | 27 | 27 | 27 | 26 | 24 | 19 | | |
| KDN 100-330 / 310 | | 32 | | | 32 | 32 | 32 | 32 | 32 | 32 | 31 | 30 | 25 | | |
| KDN 100-330 / 328 | | 37 | | | 37 | 37 | 37 | 37 | 37 | 37 | 36 | 35 | 32 | 26 | |
| KDN 100-400 / 330 | | 37 | | | 37 | 36 | 36 | 36 | 35 | 35 | 34 | 32 | 28 | | |
| KDN 100-400 / 350 | | 41 | | | 41 | 41 | 41 | 41 | 40 | 40 | 39 | 37 | 33 | | |
| KDN 100-400 / 370 | | 47 | | | 47 | 47 | 47 | 47 | 46 | 46 | 45 | 43 | 40 | 36 | |
| KDN 100-400 / 390 | | 53 | | | 53 | 53 | 53 | 53 | 52 | 52 | 51 | 50 | 47 | 44 | |
| KDN 100-400 / 408 | | 59 | | | 59 | 59 | 59 | 58 | 58 | 58 | 57 | 57 | 54 | 51 | 47 |

KDN OVERSIZE - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 125

| MODEL | Q=m³/h | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 100 | 120 | 150 | 180 | 200 | 250 | 300 |
|-------------------|----------|----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|
| | Q=l/min | 0 | 167 | 333 | 500 | 667 | 833 | 1000 | 1167 | 1333 | 1667 | 2000 | 2500 | 3000 | 3333 | 4167 | 5000 |
| KDN 125-250 / 220 | H (m) | 15 | | | | 15 | 15 | 14 | 14 | 14 | 14 | 13 | 12 | 11 | 9 | | |
| KDN 125-250 / 235 | | 18 | | | | 18 | 18 | 18 | 17 | 17 | 17 | 17 | 16 | 14 | 13 | 10 | |
| KDN 125-250 / 250 | | 21 | | | | 21 | 21 | 21 | 21 | 21 | 20 | 20 | 19 | 18 | 17 | 14 | |
| KDN 125-250 / 264 | | 24 | | | | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 23 | 22 | 19 | 16 |
| KDN 125-330 / 270 | | 25 | | | | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 22 | 19 | 17 | | |
| KDN 125-330 / 290 | | 28 | | | | 28 | 28 | 28 | 28 | 28 | 28 | 27 | 26 | 25 | 23 | | |
| KDN 125-330 / 310 | | 34 | | | | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 32 | 31 | 30 | 25 | |
| KDN 125-330 / 328 | | 38 | | | | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 38 | 37 | 36 | 33 | |
| KDN 125-400 / 330 | | 40 | | | | 40 | 40 | 40 | 40 | 40 | 39 | 39 | 37 | 34 | 31 | | |
| KDN 125-400 / 350 | | 44 | | | | 44 | 44 | 44 | 44 | 44 | 44 | 44 | 42 | 39 | 37 | | |
| KDN 125-400 / 370 | | 50 | | | | 50 | 50 | 50 | 49 | 49 | 49 | 49 | 48 | 45 | 43 | 33 | |
| KDN 125-400 / 390 | | 55 | | | | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 54 | 52 | 51 | 42 | |
| KDN 125-400 / 408 | | 61 | | | | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 60 | 59 | 57 | 51 | 41 |

SELECTION TABLE - KDN 150

| MODEL | Q=m³/h | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 100 | 120 | 150 | 180 | 200 | 250 | 300 | 350 | 400 | 450 | 500 |
|---------------------|----------|----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | Q=l/min | 0 | 167 | 333 | 500 | 667 | 833 | 1000 | 1167 | 1333 | 1667 | 2000 | 2500 | 3000 | 3333 | 4167 | 5000 | 5833 | 6667 | 7500 | 8334 |
| KDN 150-250 / 220 | H (m) | 14 | | | | | | 14 | 14 | 14 | 13 | 13 | 13 | 13 | 13 | 11 | 10 | | | | |
| KDN 150-250 / 235 | | 16 | | | | | | 16 | 16 | 16 | 16 | 16 | 15 | 15 | 15 | 13 | 12 | 10 | | | |
| KDN 150-250 / 250 | | 19 | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 17 | 16 | 15 | 13 | | | |
| KDN 150-250 / 264 | | 22 | | | | | | 21 | 21 | 21 | 21 | 21 | 21 | 20 | 20 | 19 | 18 | 17 | 14 | | |
| KDN 150-330 / 260 | | 22 | | | | | | 22 | 22 | 22 | 21 | 21 | 21 | 21 | 21 | 20 | 18 | 15 | | | |
| KDN 150-330 / 280 | | 26 | | | | | | 26 | 26 | 26 | 26 | 26 | 25 | 25 | 25 | 24 | 23 | 21 | | | |
| KDN 150-330 / 300 | | 30 | | | | | | 30 | 30 | 30 | 30 | 30 | 30 | 29 | 29 | 28 | 27 | 25 | 23 | | |
| KDN 150-330 / 315 | | 34 | | | | | | 34 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 32 | 31 | 29 | 27 | | |
| KDN 150-330 / 328 | | 37 | | | | | | 37 | 37 | 37 | 37 | 37 | 36 | 36 | 36 | 35 | 35 | 33 | 31 | 28 | |
| KDN 150-400 / 330 | | 37 | | | | | | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 36 | 35 | 34 | 31 | | |
| KDN 150-400 / 350 | | 42 | | | | | | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 41 | 39 | 37 | 33 | |
| KDN 150-400 / 370 | | 47 | | | | | | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 47 | 46 | 45 | 44 | 41 | 38 | |
| KDN 150-400 / 390 | | 54 | | | | | | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 53 | 52 | 51 | 50 | 47 | 44 | |
| KDN 150-400 / 408 | | 60 | | | | | | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 59 | 59 | 58 | 56 | 53 | 49 | 44 |
| KDN 150-500 A / 440 | | 65 | | | | | | 65 | 64 | 64 | 64 | 63 | 62 | 60 | 58 | 51 | | | | | |
| KDN 150-500A / 460 | | 72 | | | | | | 71 | 71 | 71 | 71 | 70 | 69 | 68 | 65 | 57 | | | | | |
| KDN 150-500A / 480 | | 78 | | | | | | 78 | 77 | 77 | 77 | 76 | 75 | 73 | 71 | 63 | | | | | |
| KDN 150-500A / 500 | | 85 | | | | | | 84 | 84 | 84 | 84 | 83 | 82 | 81 | 79 | 70 | | | | | |
| KDN 150-500A / 518 | | 91 | | | | | | 91 | 91 | 91 | 91 | 91 | 90 | 88 | 86 | 79 | | | | | |
| KDN 150-500 / 440 | | 68 | | | | | | | | | 68 | 68 | 68 | 67 | 66 | 63 | 57 | 48 | | | |
| KDN 150-500 / 460 | | 74 | | | | | | | | | 74 | 74 | 73 | 73 | 72 | 69 | 64 | 56 | | | |
| KDN 150-500 / 480 | | 82 | | | | | | | | | 81 | 81 | 81 | 80 | 79 | 77 | 72 | 66 | 58 | | |
| KDN 150-500 / 500 | | 89 | | | | | | | | | 89 | 89 | 88 | 88 | 87 | 85 | 81 | 76 | 68 | | |
| KDN 150-500 / 518 | | 96 | | | | | | | | | 96 | 96 | 96 | 95 | 95 | 93 | 89 | 84 | 75 | | |

KDN OVERSIZE - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 200

| MODEL | Q=m³/h | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 100 | 120 | 150 | 180 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 800 |
|-------------------|----------|----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|
| | Q=l/min | 0 | 167 | 333 | 500 | 667 | 833 | 1000 | 1167 | 1333 | 1667 | 2000 | 2500 | 3000 | 3333 | 4167 | 5000 | 5833 | 6667 | 7500 | 8334 | 10000 | 11667 | 13334 |
| KDN 200-330 / 270 | H (m) | 20 | | | | | | | | | 20 | 20 | 20 | 20 | 20 | 20 | 19 | 19 | 18 | 17 | 16 | 12 | | |
| KDN 200-330 / 290 | | 24 | | | | | | | | | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 23 | 22 | 22 | 19 | | |
| KDN 200-330 / 310 | | 29 | | | | | | | | | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 28 | 28 | 27 | 25 | 21 | |
| KDN 200-330 / 328 | | 34 | | | | | | | | | 34 | 34 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 32 | 31 | 27 | |
| KDN 200-400 / 330 | | 32 | | | | | | | | | 32 | 32 | 32 | 32 | 32 | 31 | 31 | 31 | 30 | 29 | 28 | 23 | | |
| KDN 200-400 / 350 | | 38 | | | | | | | | | 38 | 38 | 38 | 38 | 38 | 38 | 37 | 37 | 37 | 36 | 35 | 31 | | |
| KDN 200-400 / 370 | | 43 | | | | | | | | | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 42 | 42 | 42 | 41 | 37 | | |
| KDN 200-400 / 390 | | 48 | | | | | | | | | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 47 | 45 | 37 | |
| KDN 200-400 / 408 | | 54 | | | | | | | | | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 54 | 53 | 53 | 53 | 51 | 46 | |
| KDN 200-500 / 430 | | 65 | | | | | | | | | 65 | 65 | 65 | 65 | 65 | 65 | 64 | 64 | 63 | 62 | 60 | 56 | 51 | |
| KDN 200-500 / 450 | | 72 | | | | | | | | | 72 | 72 | 72 | 72 | 71 | 71 | 71 | 71 | 70 | 69 | 67 | 62 | 58 | |
| KDN 200-500 / 470 | | 76 | | | | | | | | | 76 | 77 | 77 | 77 | 76 | 76 | 76 | 76 | 75 | 74 | 72 | 68 | 63 | |
| KDN 200-500 / 490 | | 82 | | | | | | | | | 82 | 83 | 82 | 82 | 82 | 82 | 82 | 82 | 81 | 80 | 79 | 76 | 71 | 65 |
| KDN 200-500 / 508 | | 94 | | | | | | | | | 94 | 94 | 94 | 94 | 94 | 93 | 93 | 92 | 92 | 91 | 89 | 86 | 81 | 75 |

SELECTION TABLE - KDN 250

| MODEL | Q=m³/h | 0 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1400 | 1500 |
|------------------------|----------|----|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | Q=l/min | 0 | 4167 | 5000 | 5833 | 6667 | 7500 | 8334 | 10000 | 11667 | 13334 | 15000 | 16667 | 18334 | 20000 | 23334 | 25001 |
| KDN 250-330A / 275/32° | H (m) | 17 | 16 | 15 | 15 | 15 | 14 | 14 | 12 | 11 | 8 | 6 | | | | | |
| KDN 250-330A / 275/16° | | 20 | 19 | 18 | 18 | 18 | 17 | 17 | 16 | 14 | 11 | 8 | | | | | |
| KDN 250-330A / 275 | | 23 | 22 | 21 | 21 | 21 | 20 | 20 | 18 | 17 | 14 | 11 | | | | | |
| KDN 250-330A / 285 | | 26 | 24 | 24 | 23 | 23 | 23 | 22 | 21 | 19 | 17 | 14 | | | | | |
| KDN 250-330A / 295 | | 28 | | 26 | 26 | 25 | 25 | 24 | 23 | 22 | 20 | 17 | 13 | | | | |
| KDN 250-330 / 310/16° | | 23 | | 20 | 19 | 19 | 18 | 18 | 17 | 15 | 13 | 11 | | | | | |
| KDN 250-330/310/290 | | 26 | | 24 | 24 | 23 | 23 | 22 | 20 | 18 | 17 | 14 | 12 | | | | |
| KDN 250-330 / 310/300 | | 28 | | 26 | 25 | 25 | 24 | 24 | 23 | 21 | 18 | 17 | 13 | | | | |
| KDN 250-330 / 310 | | 30 | | 28 | 27 | 27 | 26 | 26 | 25 | 23 | 22 | 19 | 17 | | | | |
| KDN 250-330 / 320 | | 32 | | 30 | 30 | 30 | 29 | 29 | 28 | 26 | 25 | 23 | 21 | | | | |
| KDN 250-330 / 328 | | 35 | | 33 | 33 | 33 | 32 | 32 | 30 | 29 | 28 | 26 | 24 | | | | |
| KDN 250-400 / 330 | | 33 | | 33 | 32 | 32 | 31 | 31 | 29 | 27 | 25 | 22 | | | | | |
| KDN 250-400 / 350 | | 39 | | 38 | 38 | 37 | 37 | 36 | 35 | 33 | 31 | 29 | 26 | | | | |
| KDN 250-400 / 370 | | 44 | | 43 | 43 | 43 | 43 | 42 | 41 | 40 | 38 | 35 | 32 | | | | |
| KDN 250-400 / 390 | | 50 | | 50 | 50 | 50 | 49 | 49 | 48 | 47 | 45 | 43 | 40 | 36 | | | |
| KDN 250-400 / 408 | | 54 | | 54 | 54 | 54 | 54 | 54 | 53 | 52 | 50 | 48 | 45 | 41 | | | |
| KDN 250-500A / 440 | | 61 | | 61 | 61 | 61 | 61 | 60 | 58 | 55 | 51 | 45 | | | | | |
| KDN 250-500A / 460 | | 68 | | 68 | 68 | 68 | 67 | 67 | 65 | 62 | 58 | 53 | 46 | | | | |
| KDN 250-500A / 480 | | 76 | | 75 | 75 | 75 | 75 | 74 | 73 | 70 | 67 | 62 | 57 | | | | |
| KDN 250-500A / 500 | | 82 | | 82 | 82 | 82 | 82 | 82 | 81 | 79 | 76 | 72 | 67 | 60 | | | |
| KDN 250-500A / 518 | | 89 | | 89 | 89 | 89 | 89 | 88 | 87 | 85 | 82 | 78 | 74 | 68 | | | |
| KDN 250-500 / 440 | | 60 | | | | | | 60 | 59 | 57 | 56 | 55 | 54 | 50 | 44 | | |
| KDN 250-500 / 460 | | 66 | | | | | | 66 | 66 | 66 | 65 | 64 | 61 | 58 | 53 | | |
| KDN 250-500 / 480 | | 75 | | | | | | 75 | 75 | 75 | 74 | 73 | 72 | 69 | 65 | | |
| KDN 250-500 / 500 | | 84 | | | | | | 84 | 84 | 84 | 83 | 83 | 82 | 80 | 76 | 66 | |
| KDN 250-500 / 518 | | 94 | | | | | | 94 | 94 | 94 | 94 | 93 | 92 | 90 | 87 | 79 | 72 |

KDN OVERSIZE - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 300

| MODEL | Q=m³/h | 0 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1400 | 1500 | 1600 |
|-------------------------|----------|----|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | Q=l/min | 0 | 4167 | 5000 | 5833 | 6667 | 7500 | 8334 | 10000 | 11667 | 13334 | 15000 | 16667 | 18334 | 20000 | 23334 | 25001 | 26667 |
| KDN 300-330 / 325/36 ° | H (m) | 19 | | | | | | 18 | 18 | 17 | 16 | 16 | 15 | 14 | 13 | 10 | | |
| KDN 300-330 / 325/24° | | 22 | | | | | | 21 | 20 | 20 | 19 | 18 | 17 | 16 | 15 | 13 | 11 | |
| KDN 300-330 / 325/12° | | 24 | | | | | | 23 | 23 | 22 | 21 | 20 | 20 | 19 | 17 | 15 | 13 | |
| KDN 300-330 / 325 | | 28 | | | | | | 26 | 25 | 25 | 24 | 23 | 22 | 21 | 20 | 18 | 16 | |
| KDN 300-330 / 335 | | 30 | | | | | | 28 | 27 | 27 | 26 | 25 | 25 | 24 | 23 | 21 | 19 | 17 |
| KDN 300-330 / 345 | | 32 | | | | | | 30 | 30 | 29 | 29 | 28 | 27 | 27 | 26 | 23 | 22 | 21 |
| KDN 300-400M / 350 | | 25 | | | | | | 24 | 23 | 23 | 22 | 21 | 20 | 19 | 18 | 16 | 14 | 11 |
| KDN 300-400M / 380 | | 32 | | | | | | 31 | 31 | 31 | 30 | 29 | 29 | 28 | 27 | 25 | 22 | 20 |
| KDN 300-400M / 395 | | 37 | | | | | | 36 | 36 | 35 | 35 | 34 | 34 | 33 | 32 | 29 | 27 | 25 |
| KDN 300-400M / 408 | | 41 | | | | | | 40 | 40 | 40 | 39 | 38 | 37 | 37 | 36 | 34 | 31 | 29 |
| KDN 300-400 A / 330/7 ° | | 33 | | | | 33 | 32 | 32 | 32 | 31 | 31 | 30 | 29 | 28 | 26 | 21 | | |
| KDN 300-400 A / 370/340 | | 39 | | | | 38 | 38 | 38 | 38 | 38 | 37 | 36 | 35 | 34 | 33 | 29 | 27 | |
| KDN 300-400A / 370/355 | | 43 | | | | | 43 | 43 | 42 | 42 | 41 | 41 | 40 | 39 | 38 | 34 | 32 | 28 |
| KDN 300-400A / 370 | | 47 | | | | 47 | 47 | 47 | 47 | 47 | 46 | 46 | 45 | 44 | 42 | 39 | 36 | 33 |
| KDN 300-400 / 340 | | 40 | | | 40 | 39 | 39 | 39 | 38 | 37 | 36 | 35 | 33 | 32 | 28 | | | |
| KDN 300-400 / 370 | | 49 | | | 48 | 48 | 47 | 47 | 46 | 46 | 45 | 44 | 42 | 41 | 38 | | | |
| KDN 300-400 / 390 | | 54 | | | 53 | 53 | 53 | 53 | 52 | 51 | 51 | 50 | 49 | 48 | 46 | 42 | 39 | |
| KDN 300-400 / 408 | | 59 | | | 59 | 59 | 59 | 58 | 58 | 57 | 57 | 56 | 55 | 54 | 53 | 50 | 48 | 45 |

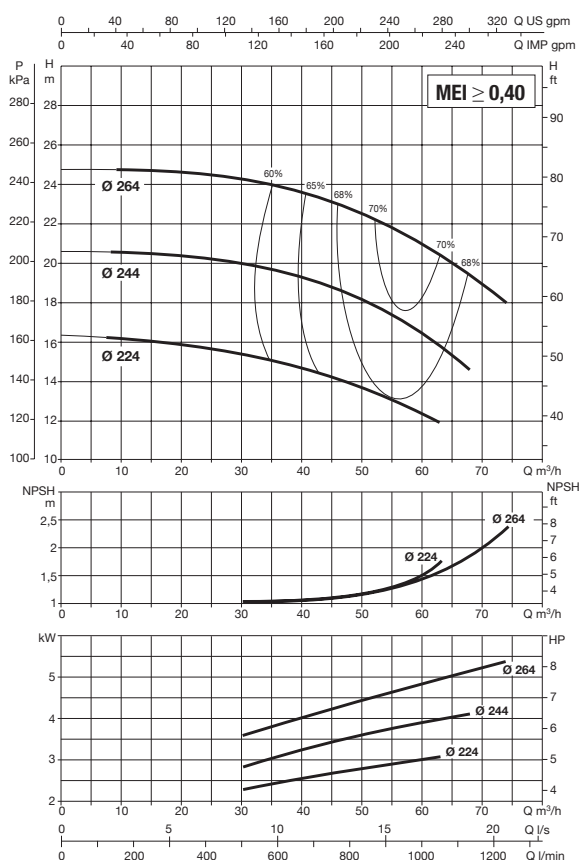
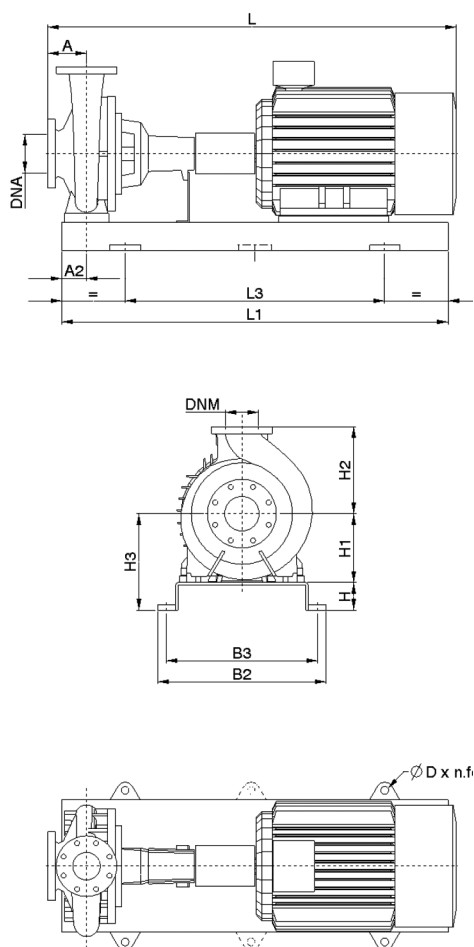
SELECTION TABLE - KDN 350

| MODEL | Q=m³/h | 0 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1400 | 1500 | 1600 | 2000 | 2500 | 1600 | 3000 |
|------------------------|----------|----|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | Q=l/min | 0 | 4167 | 5000 | 5833 | 6667 | 7500 | 8334 | 10000 | 11667 | 13334 | 15000 | 16667 | 18334 | 20000 | 23334 | 25001 | 26667 | 33334 | 41668 | 46668 | 50001 |
| KDN 350-500A / 405/16° | H (m) | 41 | | | | | 41 | 41 | 40 | 40 | 40 | 40 | 40 | 40 | 39 | 38 | 38 | 37 | 32 | | | |
| KDN 350-500A / 405 | | 50 | | | | | 50 | 50 | 50 | 50 | 50 | 50 | 49 | 49 | 49 | 49 | 48 | 47 | 43 | 33 | | |
| KDN 350-500A / 435 | | 57 | | | | | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 57 | 56 | 56 | 55 | 55 | 51 | 42 | 34 | |
| KDN 350-500A / 465 | | 65 | | | | | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 63 | 63 | 62 | 59 | 51 | 44 | |
| KDN 350-500 / 430 | | 49 | | | | | 48 | 48 | 48 | 48 | 48 | 47 | 47 | 47 | 47 | 46 | 46 | 45 | 42 | 36 | | |
| KDN 350-500 / 460 | | 61 | | | | | 61 | 61 | 60 | 60 | 60 | 59 | 59 | 59 | 58 | 58 | 57 | 56 | 54 | 47 | 40 | |
| KDN 350-500 / 490 | | 70 | | | | | 70 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 67 | 67 | 66 | 63 | 58 | 52 | 48 |
| KDN 350-500 / 518 | | 81 | | | | | 81 | 81 | 81 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 79 | 78 | 76 | 71 | 66 | 63 |

KDN 65-250 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|-----------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 65-250 | 2.2 | 100L | 3 x 230 - 400 V ~ | 8.75/5.05 | — | IE2 |
| | 3 | 100L | 3 x 400 V ~ Δ | 6.25 | — | IE2 |
| | 4 | 112M | 3 x 400 V ~ Δ | 7.95 | — | IE2 |
| | 5.5 | 132S | 3 x 400 V ~ Δ | 10.60 | — | IE2 |
| | 7.5 | 132S | 3 x 400 V ~ Δ | 14.2 | 14.6 | IE2 / IE3 |

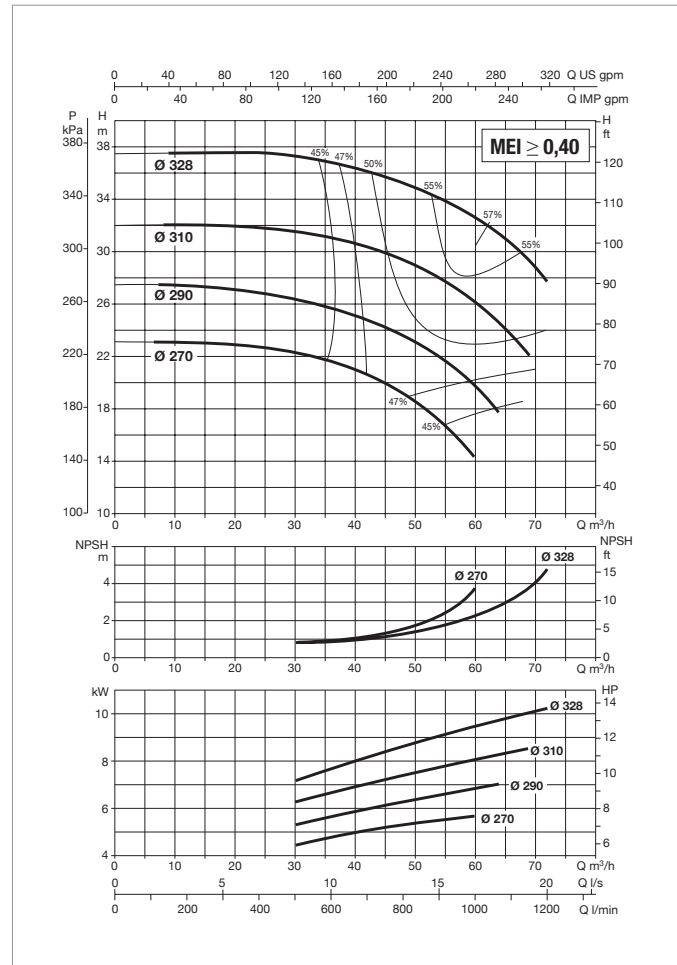
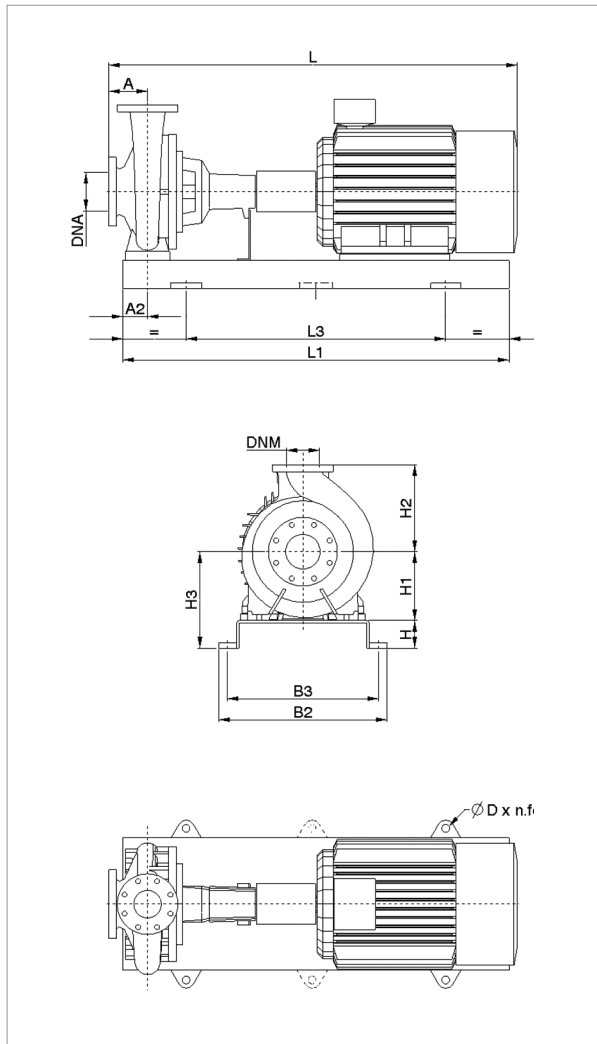
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF |
|------------|---------------|----------------------|----|----|-----|-----|-----|------|-----|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|-----|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 65-250 | 2.2 | 125 | 90 | 80 | 200 | 250 | 280 | 1120 | 740 | 490 | 440 | 24x4 | 100 | 65 | 1014 | 169 | — | — | 1155 | 169 | — | — | 5 |
| | 3 | 125 | 90 | 80 | 200 | 250 | 280 | 1120 | 740 | 490 | 440 | 24x4 | 100 | 65 | 1014 | 177 | — | — | 1155 | 177 | — | — | 5 |
| | 4 | 125 | 90 | 80 | 200 | 250 | 280 | 1120 | 740 | 490 | 440 | 24x4 | 100 | 65 | 1029 | 193 | — | — | 1170 | 193 | — | — | 5 |
| | 5.5 | 125 | 90 | 80 | 200 | 250 | 280 | 1120 | 740 | 490 | 440 | 24x4 | 100 | 65 | 1099 | 209 | — | — | 1240 | 209 | — | — | 5 |
| | 7.5 | 125 | 90 | 80 | 200 | 250 | 280 | 1120 | 740 | 490 | 440 | 24x4 | 100 | 65 | 1099 | 218 | 1149 | 199 | 1240 | 233 | 1290 | 214 | 5 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 65-330 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|-------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 65-330 | 5.5 | 132S | 3 x 400 V ~ Δ | 10.60 | – | IE2 |
| | 7.5 | 132S | 3 x 400 V ~ Δ | 14.2 | 14.6 | IE2 / IE3 |
| | 11 | 160M | 3 x 400 V ~ Δ | 21.6 | 20.5 | IE2 / IE3 |
| | 15 | 160L | 3 x 400 V ~ Δ | 29 | 28 | IE2 / IE3 |

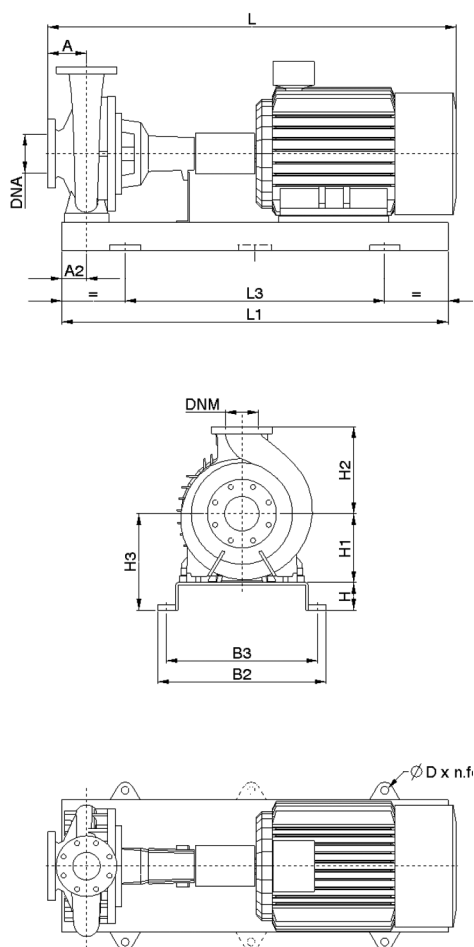
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|-----|-----|-----|------|-----|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 65-330 | 5.5 | 125 | 90 | 80 | 225 | 280 | 305 | 1250 | 840 | 540 | 490 | 24x4 | 100 | 65 | 1129 | 286 | – | – | 1270 | 286 | – | – | 6 |
| | 7.5 | 125 | 90 | 80 | 225 | 280 | 305 | 1250 | 840 | 540 | 490 | 24x4 | 100 | 65 | 1129 | 295 | 1179 | 276 | 1270 | 310 | 1320 | 291 | 6 |
| | 11 | 125 | 90 | 80 | 225 | 280 | 305 | 1250 | 840 | 540 | 490 | 24x4 | 100 | 65 | 1274 | 339 | 1324 | 313 | 1415 | 354 | 1465 | 328 | 6 |
| | 15 | 125 | 90 | 100 | 225 | 280 | 325 | 1400 | 940 | 610 | 550 | 28x4 | 100 | 65 | 1329 | 374 | 1379 | 349 | 1470 | 389 | 1520 | 364 | 7 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

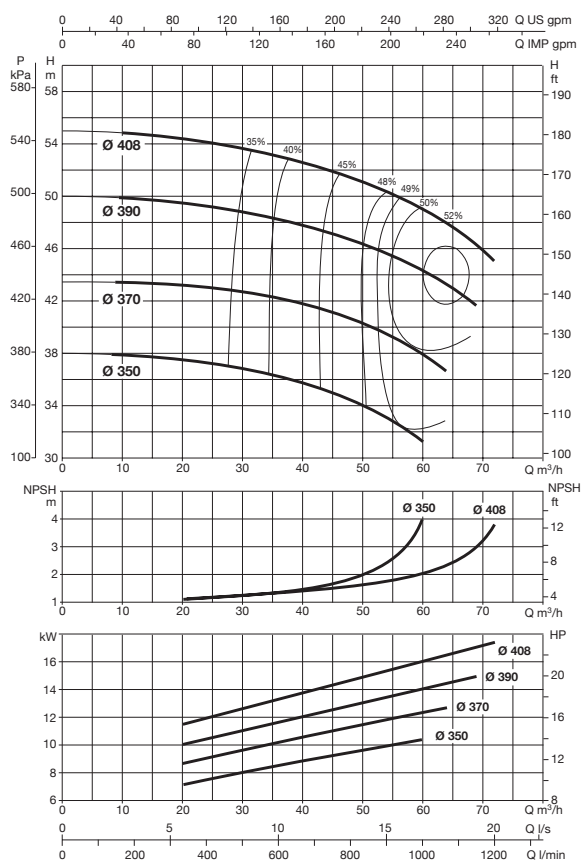
KDN 65-400 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



* Only for markets outside the EU.



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 65-400 | 11 | 160M | 3 x 400 V ~ Δ | 21.6 | 20.5 | IE2 / IE3 |
| | 15 | 160L | 3 x 400 V ~ Δ | 29 | 28 | IE2 / IE3 |
| | 18.5 | 180M | 3 x 400 V ~ Δ | 33 | 34 | IE2 / IE3 |
| | 22 | 180L | 3 x 400 V ~ Δ | 40 | 40.5 | IE2 / IE3 |

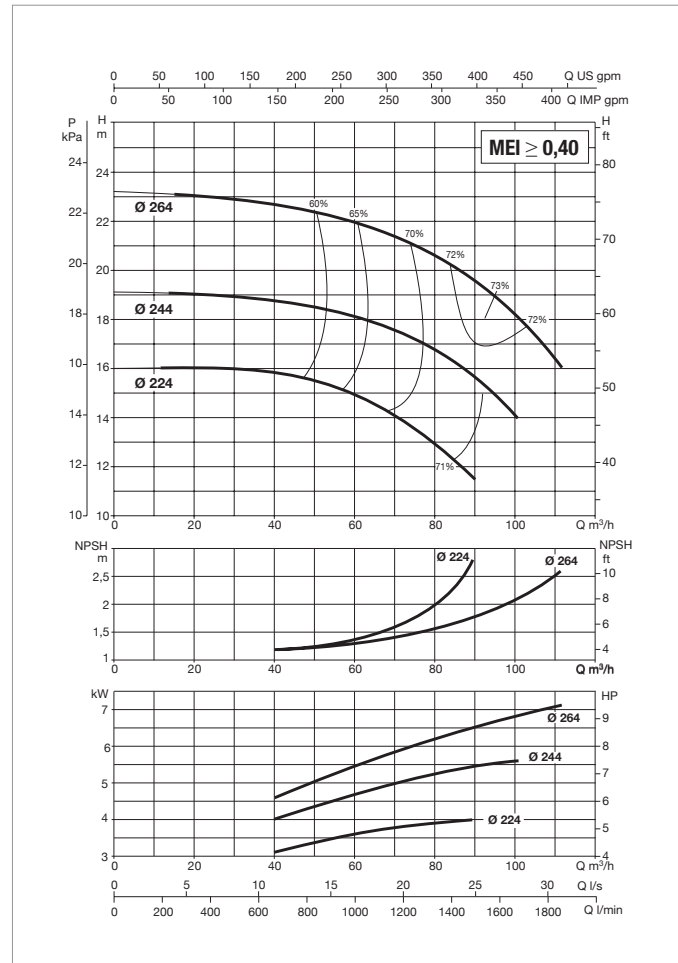
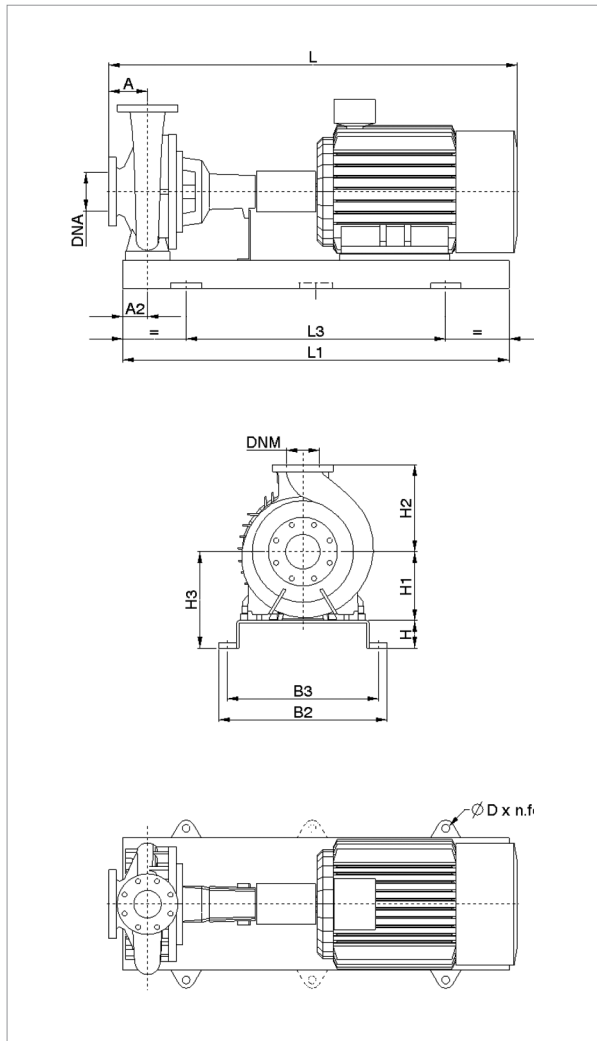
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|-----|-----|-----|------|-----|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 65-400 | 11 | 125 | 90 | 100 | 280 | 355 | 380 | 1400 | 940 | 610 | 550 | 28x4 | 100 | 65 | 1274 | 386 | 1324 | 360 | 1415 | 401 | 1465 | 375 | 7 |
| | 15 | 125 | 90 | 100 | 280 | 355 | 380 | 1400 | 940 | 610 | 550 | 28x4 | 100 | 65 | 1329 | 402 | 1379 | 377 | 1470 | 417 | 1520 | 392 | 7 |
| | 18.5 | 125 | 90 | 100 | 280 | 355 | 380 | 1400 | 940 | 610 | 550 | 28x4 | 100 | 65 | 1349 | 443 | 1399 | 412 | 1490 | 458 | 1540 | 427 | 7 |
| | 22 | 125 | 90 | 100 | 280 | 355 | 380 | 1400 | 940 | 610 | 550 | 28x4 | 100 | 65 | 1387 | 461 | 1437 | 431 | 1528 | 476 | 1578 | 446 | 7 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 80-250 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|-------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 80-250 | 4 | 112M | 3 x 400 V ~ Δ | 7.95 | – | IE2 |
| | 5.5 | 132S | 3 x 400 V ~ Δ | 10.60 | – | IE2 |
| | 7.5 | 132S | 3 x 400 V ~ Δ | 14.2 | 14.6 | IE2 / IE3 |
| | 11 | 160M | 3 x 400 V ~ Δ | 21.6 | 20.5 | IE2 / IE3 |
| | 15 | 160L | 3 x 400 V ~ Δ | 29 | 28 | IE2 / IE3 |

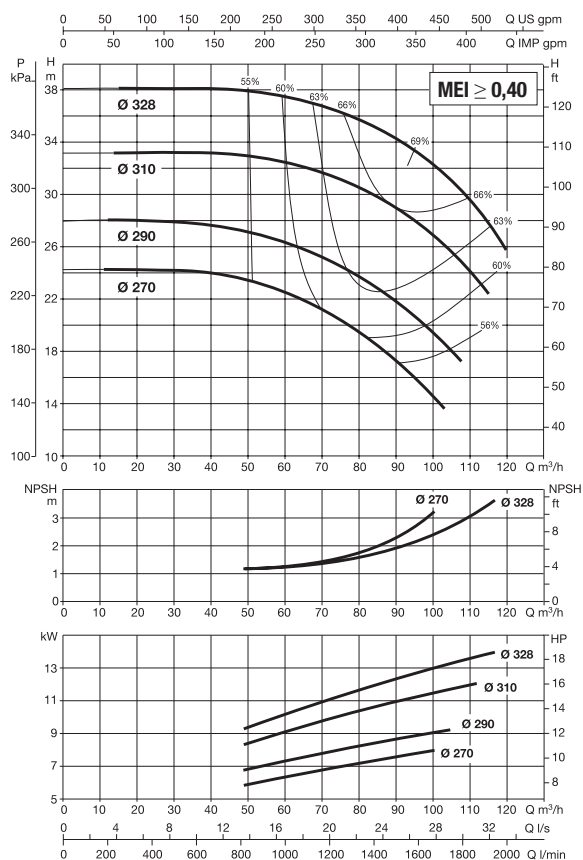
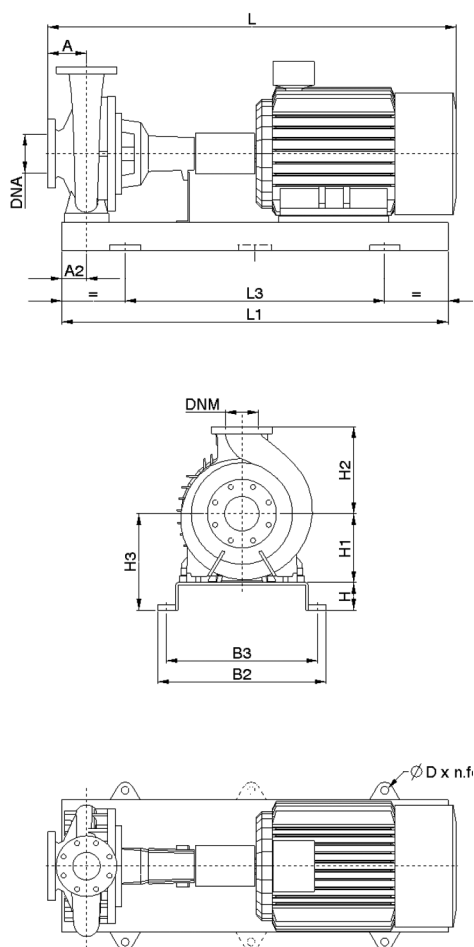
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|----|-----|-----|-----|------|-----|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 80-250 | 4 | 125 | 90 | 80 | 225 | 280 | 305 | 1250 | 840 | 540 | 490 | 24x4 | 125 | 80 | 1029 | 218 | – | – | 1170 | 218 | – | – | 6 |
| | 5.5 | 125 | 90 | 80 | 225 | 280 | 305 | 1250 | 840 | 540 | 490 | 24x4 | 125 | 80 | 1099 | 234 | – | – | 1240 | 234 | – | – | 6 |
| | 7.5 | 125 | 90 | 80 | 225 | 280 | 305 | 1250 | 840 | 540 | 490 | 24x4 | 125 | 80 | 1099 | 243 | 1149 | 224 | 1240 | 258 | 1290 | 239 | 6 |
| | 11 | 125 | 90 | 80 | 225 | 280 | 305 | 1250 | 840 | 540 | 490 | 24x4 | 125 | 80 | 1244 | 287 | 1294 | 261 | 1385 | 302 | 1435 | 276 | 6 |
| | 15 | 125 | 90 | 80 | 225 | 280 | 305 | 1250 | 840 | 540 | 490 | 24x4 | 125 | 80 | 1299 | 303 | 1349 | 278 | 1440 | 318 | 1490 | 293 | 6 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 80-330 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|-------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 80-330 | 5.5 | 132S | 3 x 400 V ~ Δ | 10.60 | — | IE2 |
| | 7.5 | 132S | 3 x 400 V ~ Δ | 14.2 | 14.6 | IE2 / IE3 |
| | 11 | 160M | 3 x 400 V ~ Δ | 21.6 | 20.5 | IE2 / IE3 |
| | 15 | 160L | 3 x 400 V ~ Δ | 29 | 28 | IE2 / IE3 |
| | 18.5 | 180M | 3 x 400 V ~ Δ | 33 | 34 | IE2 / IE3 |

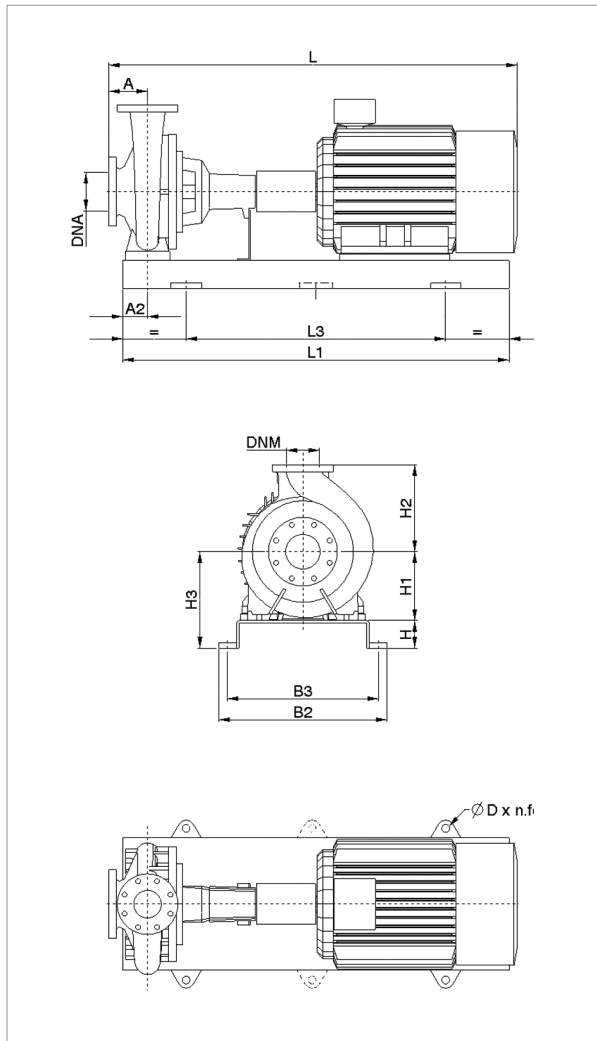
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|------------|---------------|----------------------|----|-----|-----|-----|-----|------|-----|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 80-330 | 5.5 | 125 | 90 | 80 | 250 | 315 | 330 | 1250 | 840 | 540 | 490 | 24x4 | 125 | 80 | 1129 | 289 | — | — | 1270 | 289 | — | — | 6 |
| | 7.5 | 125 | 90 | 80 | 250 | 315 | 330 | 1250 | 840 | 540 | 490 | 24x4 | 125 | 80 | 1129 | 298 | 1179 | 279 | 1270 | 313 | 1320 | 294 | 6 |
| | 11 | 125 | 90 | 80 | 250 | 315 | 330 | 1250 | 840 | 540 | 490 | 24x4 | 125 | 80 | 1274 | 342 | 1324 | 316 | 1415 | 357 | 1465 | 331 | 6 |
| | 15 | 125 | 90 | 100 | 250 | 315 | 350 | 1400 | 940 | 610 | 550 | 28x4 | 125 | 80 | 1329 | 377 | 1379 | 352 | 1470 | 392 | 1520 | 367 | 7 |
| | 18.5 | 125 | 90 | 100 | 250 | 315 | 350 | 1400 | 940 | 610 | 550 | 28x4 | 125 | 80 | 1349 | 418 | 1399 | 387 | 1490 | 433 | 1540 | 402 | 7 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

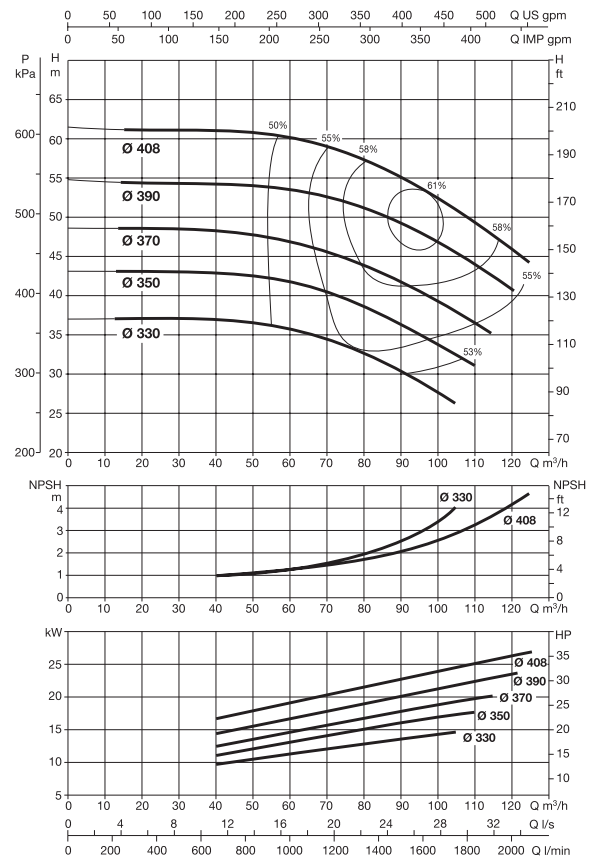
KDN 80-400 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



* Only for markets outside the EU.



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 80-400 | 11 | 160M | 3 x 400 V ~ Δ | 21.6 | 20.5 | IE2 / IE3 |
| | 15 | 160L | 3 x 400 V ~ Δ | 29 | 28 | IE2 / IE3 |
| | 18.5 | 180M | 3 x 400 V ~ Δ | 33 | 34 | IE2 / IE3 |
| | 22 | 180L | 3 x 400 V ~ Δ | 40 | 40.5 | IE2 / IE3 |
| | 30 | 200L | 3 x 400 V ~ Δ | 53.5 | 53.5 | IE2 / IE3 |
| | 37 | 225S | 3 x 400 V ~ Δ | 66.5 | 65 | IE2 / IE3 |

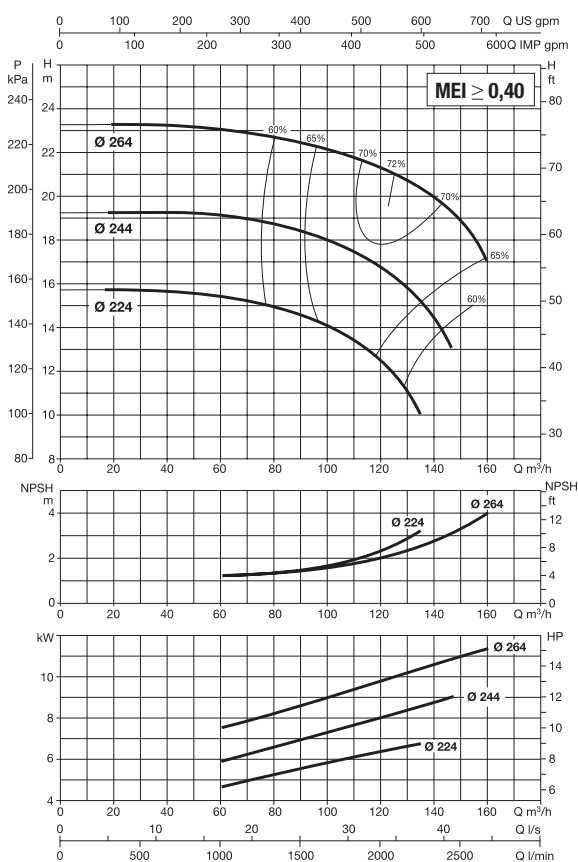
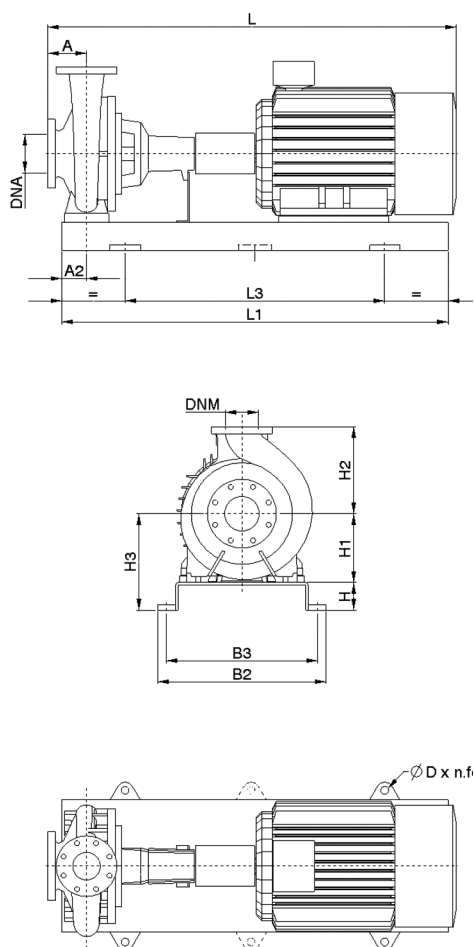
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. | |
|------------|---------------|----------------------|----|-----|-----|-----|-----|------|-----|-----|-----|---------------------------|-----|-------------------|------|--------------|------|-----------------|------|--------------|------|------|--------------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | | WEIGHT kg |
| KDN 80-400 | 11 | 125 | 90 | 100 | 280 | 355 | 380 | 1400 | 940 | 610 | 550 | 28x4 | 125 | 80 | 1274 | 391 | 1324 | 365 | 1415 | 406 | 1465 | 380 | 7 |
| | 15 | 125 | 90 | 100 | 280 | 355 | 380 | 1400 | 940 | 610 | 550 | 28x4 | 125 | 80 | 1329 | 407 | 1379 | 382 | 1470 | 422 | 1520 | 397 | 7 |
| | 18.5 | 125 | 90 | 100 | 280 | 355 | 380 | 1400 | 940 | 610 | 550 | 28x4 | 125 | 80 | 1349 | 448 | 1399 | 417 | 1490 | 463 | 1540 | 432 | 7 |
| | 22 | 125 | 90 | 100 | 280 | 355 | 380 | 1400 | 940 | 610 | 550 | 28x4 | 125 | 80 | 1387 | 466 | 1437 | 436 | 1528 | 481 | 1578 | 451 | 7 |
| | 30 | 125 | 90 | 100 | 280 | 355 | 380 | 1400 | 940 | 610 | 550 | 28x4 | 125 | 80 | 1429 | 530 | 1479 | 530 | 1570 | 545 | 1620 | 545 | 7 |
| | 37 | 125 | 90 | 100 | 280 | 355 | 380 | 1400 | 940 | 610 | 550 | 28x4 | 125 | 80 | 1474 | 579 | 1545 | 585 | 1615 | 594 | 1686 | 600 | 7 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 100-250 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|-------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 100-250 | 5.5 | 132S | 3 x 400 V ~ Δ | 10.60 | — | IE2 |
| | 7.5 | 132S | 3 x 400 V ~ Δ | 14.2 | 14.6 | IE2 / IE3 |
| | 11 | 160M | 3 x 400 V ~ Δ | 21.6 | 20.5 | IE2 / IE3 |
| | 15 | 160L | 3 x 400 V ~ Δ | 29 | 28 | IE2 / IE3 |
| | 18.5 | 180M | 3 x 400 V ~ Δ | 33 | 34 | IE2 / IE3 |

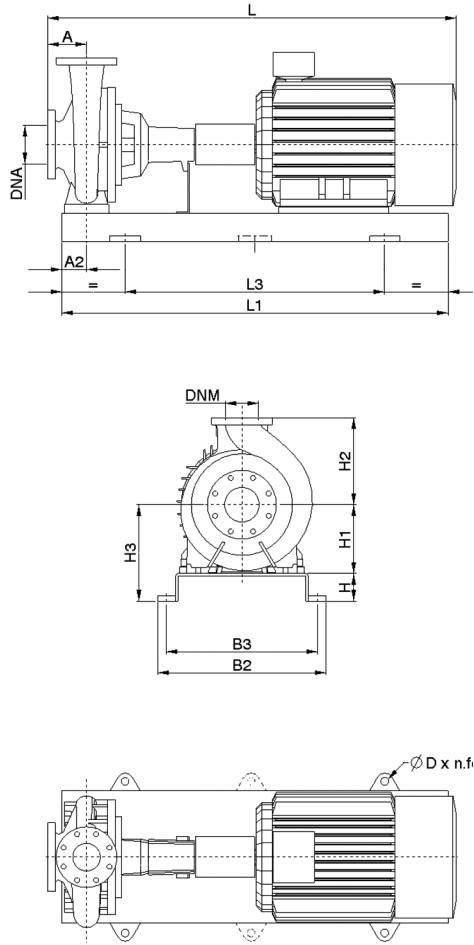
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|----|-----|-----|-----|-----|------|-----|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 100-250 | 5.5 | 140 | 90 | 80 | 225 | 280 | 305 | 1250 | 840 | 540 | 490 | 24x4 | 125 | 100 | 1144 | 264 | – | – | 1285 | 264 | – | – | 6 |
| | 7.5 | 140 | 90 | 80 | 225 | 280 | 305 | 1250 | 840 | 540 | 490 | 24x4 | 125 | 100 | 1144 | 273 | 1194 | 254 | 1285 | 288 | 1335 | 269 | 6 |
| | 11 | 140 | 90 | 80 | 225 | 280 | 305 | 1250 | 840 | 540 | 490 | 24x4 | 125 | 100 | 1289 | 317 | 1339 | 291 | 1430 | 332 | 1480 | 306 | 6 |
| | 15 | 140 | 90 | 100 | 225 | 280 | 325 | 1400 | 940 | 610 | 550 | 28x4 | 125 | 100 | 1344 | 352 | 1394 | 327 | 1485 | 367 | 1535 | 342 | 7 |
| | 18.5 | 140 | 90 | 100 | 225 | 280 | 325 | 1400 | 940 | 610 | 550 | 28x4 | 125 | 100 | 1364 | 393 | 1414 | 362 | 1505 | 408 | 1555 | 377 | 7 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

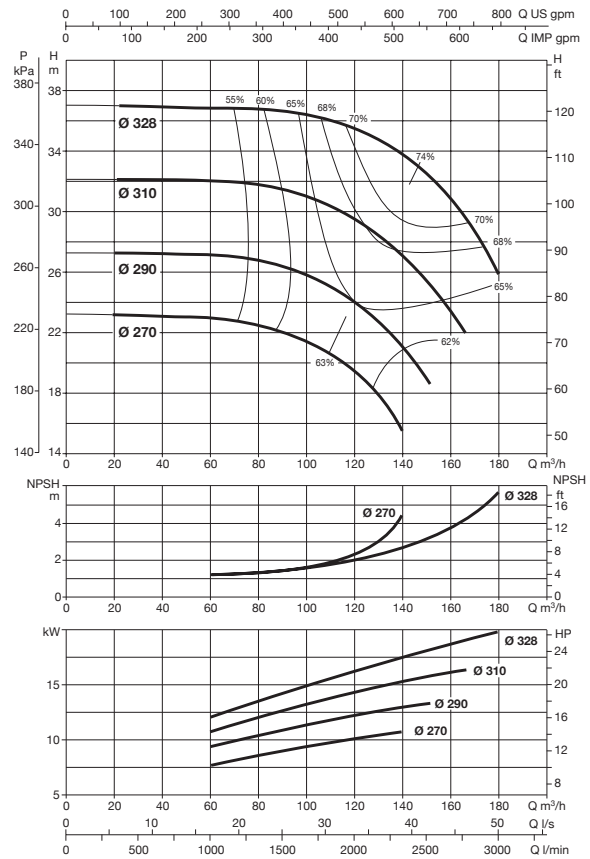
KDN 100-330 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



* Only for markets outside the EU.



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|-------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 100-330 | 5.5 | 132S | 3 x 400 V ~ Δ | 10.60 | — | IE2 |
| | 7.5 | 132S | 3 x 400 V ~ Δ | 14.2 | 14.6 | IE2 / IE3 |
| | 11 | 160M | 3 x 400 V ~ Δ | 21.6 | 2.5 | IE2 / IE3 |
| | 15 | 160L | 3 x 400 V ~ Δ | 29 | 28 | IE2 / IE3 |
| | 18.5 | 180M | 3 x 400 V ~ Δ | 33 | 34 | IE2 / IE3 |
| | 22 | 180L | 3 x 400 V ~ Δ | 40 | 40.5 | IE2 / IE3 |
| | 30 | 200L | 3 x 400 V ~ Δ | 53.5 | 53.5 | IE2 / IE3 |

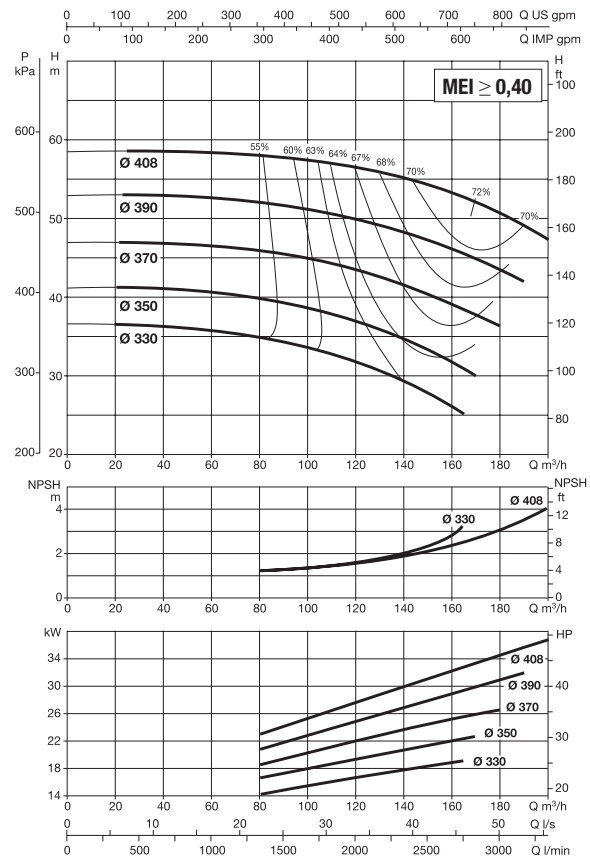
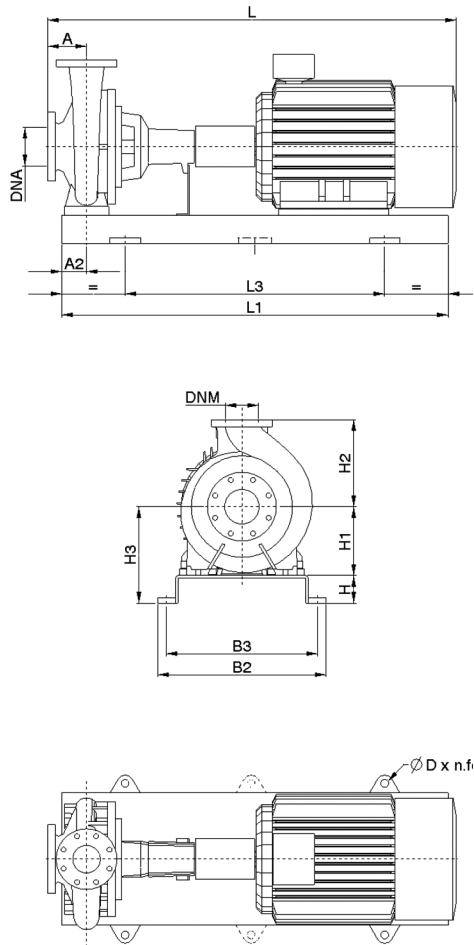
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|----|-----|-----|-----|-----|------|-----|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 100-330 | 5.5 | 140 | 90 | 80 | 250 | 315 | 330 | 1250 | 840 | 540 | 490 | 24x4 | 125 | 100 | 1144 | 304 | – | – | 1285 | 304 | – | – | 6 |
| | 7.5 | 140 | 90 | 80 | 250 | 315 | 330 | 1250 | 840 | 540 | 490 | 24x4 | 125 | 100 | 1144 | 313 | 1194 | 294 | 1285 | 328 | 1335 | 309 | 6 |
| | 11 | 140 | 90 | 80 | 250 | 315 | 330 | 1250 | 840 | 540 | 490 | 24x4 | 125 | 100 | 1289 | 357 | 1339 | 331 | 1430 | 372 | 1480 | 346 | 6 |
| | 15 | 140 | 90 | 100 | 250 | 315 | 350 | 1400 | 940 | 610 | 550 | 28x4 | 125 | 100 | 1344 | 392 | 1394 | 367 | 1485 | 407 | 1535 | 382 | 7 |
| | 18.5 | 140 | 90 | 100 | 250 | 315 | 350 | 1400 | 940 | 610 | 550 | 28x4 | 125 | 100 | 1364 | 433 | 1414 | 402 | 1505 | 448 | 1555 | 417 | 7 |
| | 22 | 140 | 90 | 100 | 250 | 315 | 350 | 1400 | 940 | 610 | 550 | 28x4 | 125 | 100 | 1402 | 451 | 1452 | 421 | 1543 | 466 | 1593 | 436 | 7 |
| | 30 | 140 | 90 | 100 | 250 | 315 | 350 | 1400 | 940 | 610 | 550 | 28x4 | 125 | 100 | 1444 | 515 | 1494 | 515 | 1585 | 530 | 1635 | 530 | 7 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 100-400 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 100-400 | 11 | 160M | 3 x 400 V ~ Δ | 21.6 | 20.5 | IE2 / IE3 |
| | 15 | 160L | 3 x 400 V ~ Δ | 29 | 28 | IE2 / IE3 |
| | 18.5 | 180M | 3 x 400 V ~ Δ | 33 | 34 | IE2 / IE3 |
| | 22 | 180L | 3 x 400 V ~ Δ | 40 | 40.5 | IE2 / IE3 |
| | 30 | 200L | 3 x 400 V ~ Δ | 53.5 | 53.5 | IE2 / IE3 |
| | 37 | 225S | 3 x 400 V ~ Δ | 66.5 | 65 | IE2 / IE3 |
| | 45 | 225M | 3 x 400 V ~ Δ | 79.5 | 68.5 | IE2 / IE3 |

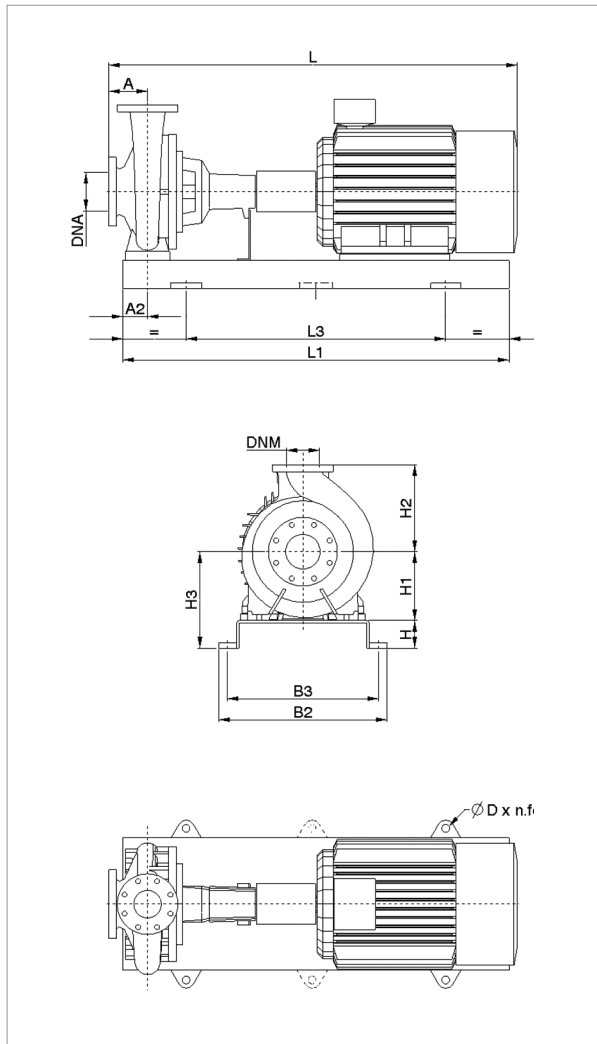
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 100-400 | 11 | 140 | 110 | 100 | 280 | 355 | 380 | 1600 | 1060 | 660 | 600 | 28x4 | 125 | 100 | 1289 | 423 | 1339 | 397 | 1430 | 438 | 1480 | 412 | 8 |
| | 15 | 140 | 110 | 100 | 280 | 355 | 380 | 1600 | 1060 | 660 | 600 | 28x4 | 125 | 100 | 1344 | 439 | 1394 | 414 | 1485 | 454 | 1535 | 429 | 8 |
| | 18.5 | 140 | 110 | 100 | 280 | 355 | 380 | 1600 | 1060 | 660 | 600 | 28x4 | 125 | 100 | 1364 | 480 | 1414 | 449 | 1505 | 495 | 1555 | 464 | 8 |
| | 22 | 140 | 110 | 100 | 280 | 355 | 380 | 1600 | 1060 | 660 | 600 | 28x4 | 125 | 100 | 1402 | 498 | 1452 | 468 | 1543 | 513 | 1593 | 483 | 8 |
| | 30 | 140 | 110 | 100 | 280 | 355 | 380 | 1600 | 1060 | 660 | 600 | 28x4 | 125 | 100 | 1444 | 562 | 1494 | 562 | 1585 | 577 | 1635 | 577 | 8 |
| | 37 | 140 | 110 | 100 | 280 | 355 | 380 | 1600 | 1060 | 660 | 600 | 28x4 | 125 | 100 | 1489 | 611 | 1560 | 617 | 1630 | 626 | 1701 | 632 | 8 |
| | 45 | 140 | 110 | 100 | 280 | 355 | 380 | 1600 | 1060 | 660 | 600 | 28x4 | 125 | 100 | 1519 | 627 | 1590 | 647 | 1660 | 642 | 1731 | 662 | 8 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

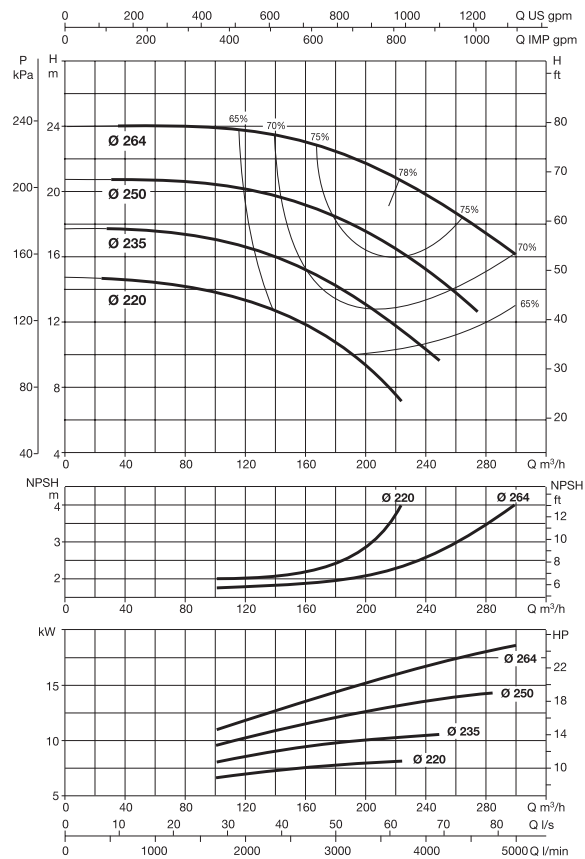
KDN 125-250 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



* Only for markets outside the EU.



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|-------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 125-250 | 5.5 | 132S | 3 x 400 V ~ Δ | 10.60 | – | IE2 |
| | 7.5 | 132S | 3 x 400 V ~ Δ | 14.2 | 14.6 | IE2 / IE3 |
| | 11 | 160M | 3 x 400 V ~ Δ | 21.6 | 20.5 | IE2 / IE3 |
| | 15 | 160L | 3 x 400 V ~ Δ | 29 | 28 | IE2 / IE3 |
| | 18.5 | 180M | 3 x 400 V ~ Δ | 33 | 34 | IE2 / IE3 |
| | 22 | 180L | 3 x 400 V ~ Δ | 40 | 40.5 | IE2 / IE3 |

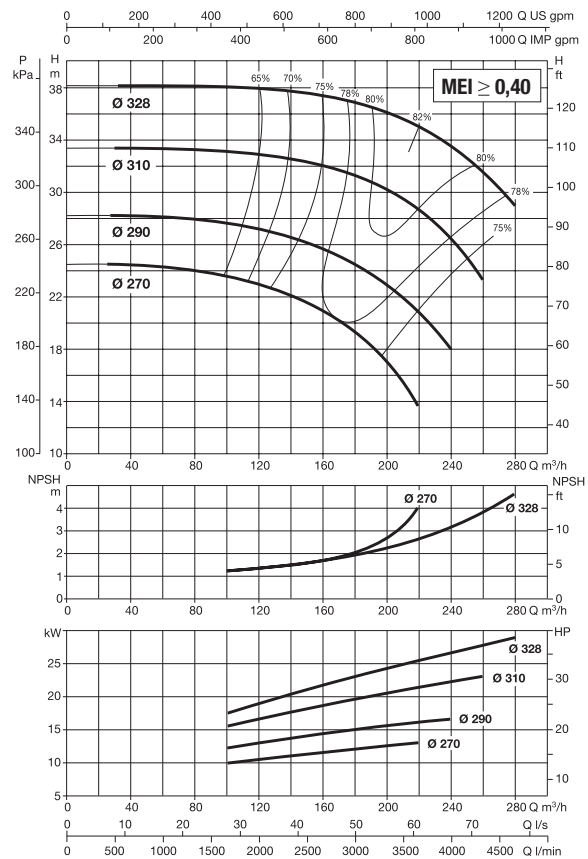
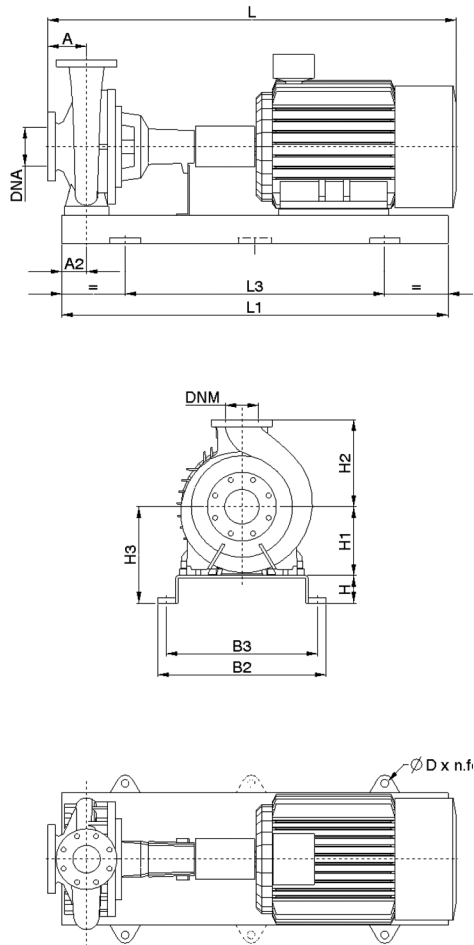
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|----|-----|-----|-----|-----|------|-----|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 125-250 | 5.5 | 140 | 90 | 80 | 250 | 355 | 330 | 1250 | 840 | 540 | 490 | 24x4 | 150 | 125 | 1144 | 274 | – | – | 1285 | 274 | – | – | 6 |
| | 7.5 | 140 | 90 | 80 | 250 | 355 | 330 | 1250 | 840 | 540 | 490 | 24x4 | 150 | 125 | 1144 | 283 | 1194 | 264 | 1285 | 298 | 1335 | 279 | 6 |
| | 11 | 140 | 90 | 80 | 250 | 355 | 330 | 1250 | 840 | 540 | 490 | 24x4 | 150 | 125 | 1289 | 327 | 1339 | 301 | 1430 | 342 | 1480 | 316 | 6 |
| | 15 | 140 | 90 | 100 | 250 | 355 | 350 | 1400 | 940 | 610 | 550 | 28x4 | 150 | 125 | 1344 | 362 | 1394 | 337 | 1485 | 377 | 1535 | 352 | 7 |
| | 18.5 | 140 | 90 | 100 | 250 | 355 | 350 | 1400 | 940 | 610 | 550 | 28x4 | 150 | 125 | 1364 | 403 | 1414 | 372 | 1505 | 418 | 1555 | 387 | 7 |
| | 22 | 140 | 90 | 100 | 250 | 355 | 350 | 1400 | 940 | 610 | 550 | 28x4 | 150 | 125 | 1402 | 421 | 1452 | 391 | 1543 | 436 | 1593 | 406 | 7 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 125-330 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 125-330 | 11 | 160M | 3 x 400 V ~ Δ | 21.6 | 20.5 | IE2 / IE3 |
| | 15 | 160L | 3 x 400 V ~ Δ | 29 | 28 | IE2 / IE3 |
| | 18.5 | 180M | 3 x 400 V ~ Δ | 33 | 34 | IE2 / IE3 |
| | 22 | 180L | 3 x 400 V ~ Δ | 40 | 40.5 | IE2 / IE3 |
| | 30 | 200L | 3 x 400 V ~ Δ | 53.5 | 53.5 | IE2 / IE3 |
| | 37 | 225S | 3 x 400 V ~ Δ | 66.5 | 65 | IE2 / IE3 |

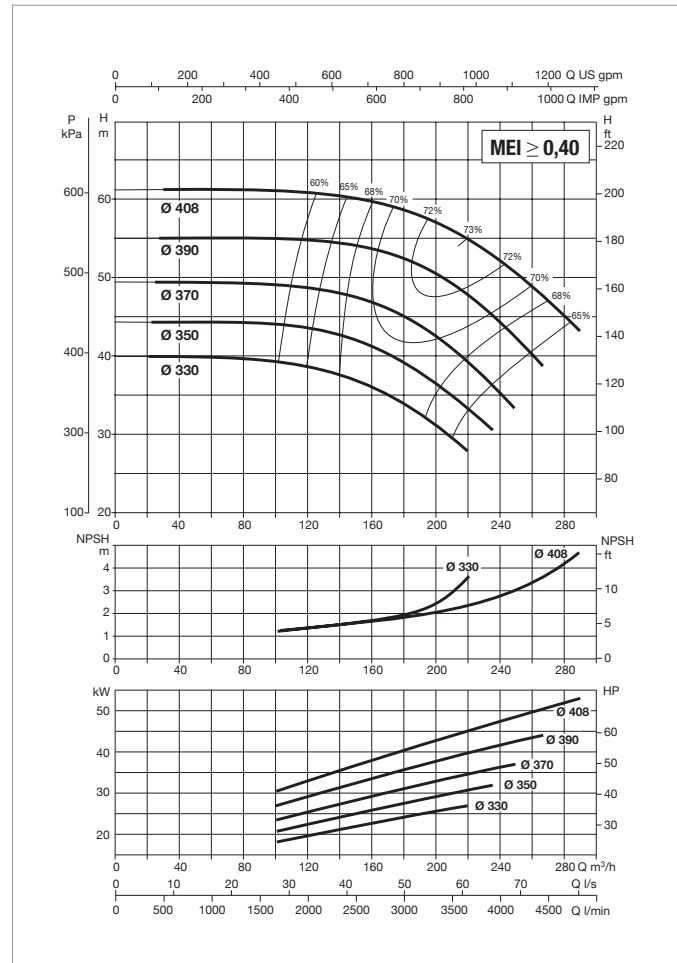
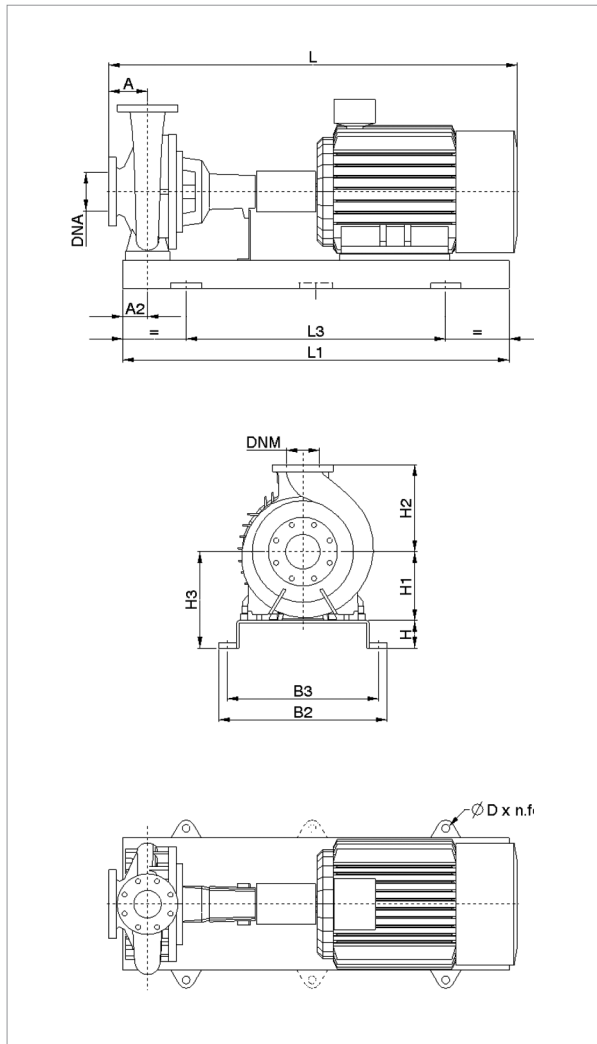
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. | |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|---------------------------|-----|-------------------|------|--------------|------|-----------------|------|--------------|------|------|--------------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | | WEIGHT kg |
| KDN 125-330 | 11 | 140 | 110 | 100 | 280 | 355 | 380 | 1600 | 1060 | 660 | 600 | 28x4 | 150 | 125 | 1289 | 413 | 1339 | 387 | 1430 | 428 | 1480 | 402 | 8 |
| | 15 | 140 | 110 | 100 | 280 | 355 | 380 | 1600 | 1060 | 660 | 600 | 28x4 | 150 | 125 | 1344 | 429 | 1394 | 404 | 1485 | 444 | 1535 | 419 | 8 |
| | 18.5 | 140 | 110 | 100 | 280 | 355 | 380 | 1600 | 1060 | 660 | 600 | 28x4 | 150 | 125 | 1364 | 470 | 1414 | 439 | 1505 | 485 | 1555 | 454 | 8 |
| | 22 | 140 | 110 | 100 | 280 | 355 | 380 | 1600 | 1060 | 660 | 600 | 28x4 | 150 | 125 | 1402 | 488 | 1452 | 458 | 1543 | 503 | 1593 | 473 | 8 |
| | 30 | 140 | 110 | 100 | 280 | 355 | 380 | 1600 | 1060 | 660 | 600 | 28x4 | 150 | 125 | 1444 | 552 | 1494 | 552 | 1585 | 567 | 1635 | 567 | 8 |
| | 37 | 140 | 110 | 100 | 280 | 355 | 380 | 1600 | 1060 | 660 | 600 | 28x4 | 150 | 125 | 1489 | 601 | 1560 | 607 | 1630 | 616 | 1701 | 622 | 8 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 125-400 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 125-400 | 18.5 | 180M | 3 x 400 V ~ Δ | 33 | 34 | IE2 / IE3 |
| | 22 | 180L | 3 x 400 V ~ Δ | 40 | 40.5 | IE2 / IE3 |
| | 30 | 200L | 3 x 400 V ~ Δ | 53.5 | 53.5 | IE2 / IE3 |
| | 37 | 225S | 3 x 400 V ~ Δ | 66.5 | 65 | IE2 / IE3 |
| | 45 | 225M | 3 x 400 V ~ Δ | 79.5 | 78.5 | IE2 / IE3 |
| | 55 | 250M | 3 x 400 V ~ Δ | 98 | 96 | IE2 / IE3 |
| | 75 | 280S | 3 x 400 V ~ Δ | 132 | 130 | IE2 / IE3 |

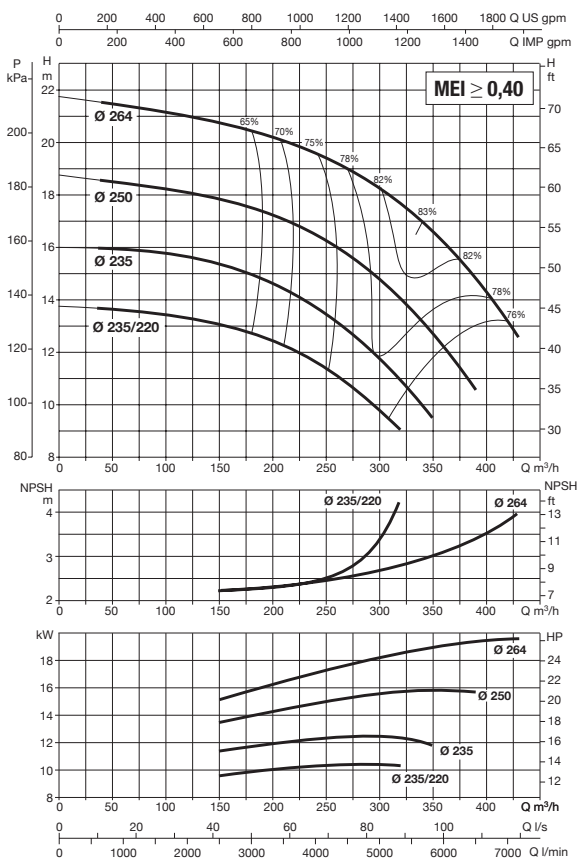
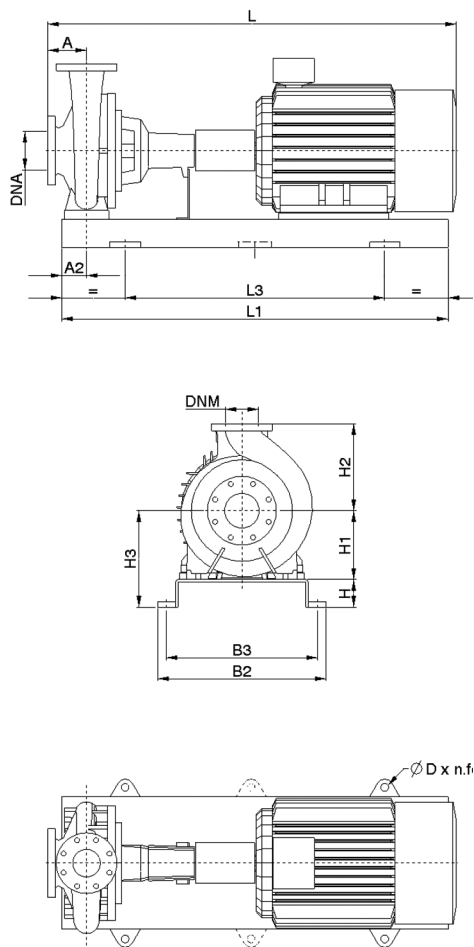
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 125-400 | 18.5 | 140 | 110 | 100 | 315 | 400 | 415 | 1600 | 1060 | 660 | 600 | 28x4 | 150 | 125 | 1364 | 500 | 1414 | 469 | 1505 | 515 | 1555 | 484 | 8 |
| | 22 | 140 | 110 | 100 | 315 | 400 | 415 | 1600 | 1060 | 660 | 600 | 28x4 | 150 | 125 | 1402 | 518 | 1452 | 488 | 1543 | 533 | 1593 | 503 | 8 |
| | 30 | 140 | 110 | 100 | 315 | 400 | 415 | 1600 | 1060 | 660 | 600 | 28x4 | 150 | 125 | 1444 | 582 | 1494 | 582 | 1585 | 597 | 1635 | 597 | 8 |
| | 37 | 140 | 110 | 100 | 315 | 400 | 415 | 1600 | 1060 | 660 | 600 | 28x4 | 150 | 125 | 1489 | 631 | 1560 | 637 | 1630 | 646 | 1701 | 652 | 8 |
| | 45 | 140 | 110 | 100 | 315 | 400 | 415 | 1600 | 1060 | 660 | 600 | 28x4 | 150 | 125 | 1519 | 647 | 1590 | 667 | 1660 | 662 | 1731 | 682 | 8 |
| | 55 | 140 | 110 | 100 | 315 | 400 | 415 | 1600 | 1060 | 660 | 600 | 28x4 | 150 | 125 | 1589 | 759 | 1660 | 774 | 1730 | 774 | 1801 | 789 | 8 |
| | 75 | 140 | 110 | 100 | 315 | 400 | 415 | 1800 | 1200 | 730 | 670 | 28x4 | 150 | 125 | 1644 | 962 | 1715 | 962 | 1785 | 977 | 1856 | 977 | 9 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 150-250 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

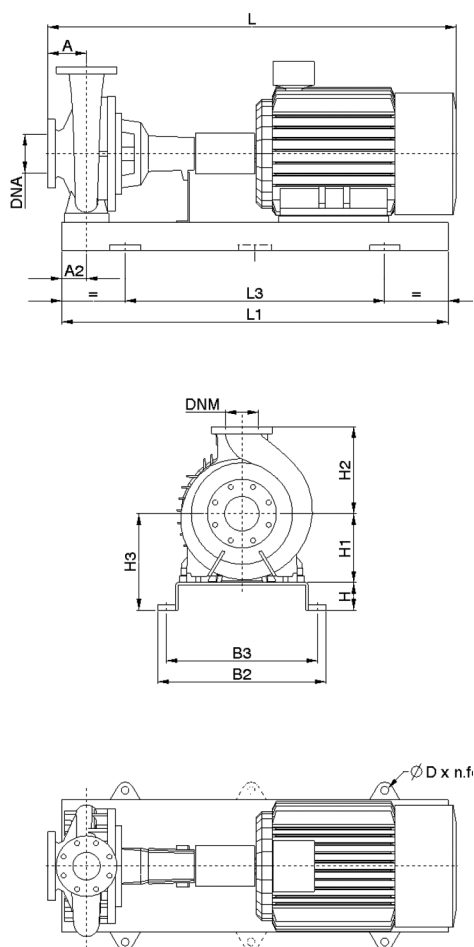
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 150-250 | 11 | 160M | 3 x 400 V ~ Δ | 21.6 | 20.5 | IE2 / IE3 |
| | 15 | 160L | 3 x 400 V ~ Δ | 29 | 28 | IE2 / IE3 |
| | 18.5 | 180M | 3 x 400 V ~ Δ | 33 | 34 | IE2 / IE3 |
| | 22 | 180L | 3 x 400 V ~ Δ | 40 | 40.5 | IE2 / IE3 |
| | 30 | 200L | 3 x 400 V ~ Δ | 53.5 | 53.5 | IE2 / IE3 |

| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | RE |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|----|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 150-250 | 11 | 160 | 110 | 100 | 280 | 375 | 380 | 1600 | 1060 | 660 | 600 | 28x4 | 200 | 150 | 1309 | 403 | 1359 | 377 | 1490 | 418 | 1540 | 392 | 8 |
| | 15 | 160 | 110 | 100 | 280 | 375 | 380 | 1600 | 1060 | 660 | 600 | 28x4 | 200 | 150 | 1364 | 419 | 1414 | 394 | 1545 | 434 | 1595 | 409 | 8 |
| | 18.5 | 160 | 110 | 100 | 280 | 375 | 380 | 1600 | 1060 | 660 | 600 | 28x4 | 200 | 150 | 1384 | 460 | 1434 | 429 | 1565 | 475 | 1615 | 444 | 8 |
| | 22 | 160 | 110 | 100 | 280 | 375 | 380 | 1600 | 1060 | 660 | 600 | 28x4 | 200 | 150 | 1422 | 478 | 1472 | 448 | 1603 | 493 | 1653 | 463 | 8 |
| | 30 | 160 | 110 | 100 | 280 | 375 | 380 | 1600 | 1060 | 660 | 600 | 28x4 | 200 | 150 | 1464 | 542 | 1514 | 542 | 1645 | 557 | 1695 | 557 | 8 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

$$= 1450 \text{ 1/min}$$


The 1000 Series centrifugal pump performance is detailed in the following three graphs:

- Total Head vs. Flow:** The top graph shows total head (H) in meters (m) and feet (ft) versus flow rate (Q) in m³/h and US gpm. Five performance curves are shown for different impeller diameters: Ø 328, Ø 315, Ø 300, Ø 280, and Ø 260. Efficiency lines (60%, 65%, 70%, 75%, 78%, 80%, 81%, 80%) are also plotted.
- Net Positive Suction Head (NPSH) vs. Flow:** The middle graph shows NPSH in meters (m) and feet (ft) versus flow rate (Q) in m³/h. Curves for Ø 260 and Ø 328 are shown, indicating the required head increases with flow.
- Power vs. Flow:** The bottom graph shows power in kilowatts (kW) and horsepower (HP) versus flow rate (Q) in m³/h and US gpm. Curves for Ø 328, Ø 315, Ø 300, Ø 280, and Ø 260 are shown, indicating power requirements increase with flow.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 150-330 | 18.5 | 180M | 3 x 400 V ~ Δ | 33 | 34 | IE2 / IE3 |
| | 22 | 180L | 3 x 400 V ~ Δ | 40 | 40.5 | IE2 / IE3 |
| | 30 | 200L | 3 x 400 V ~ Δ | 53.5 | 53.5 | IE2 / IE3 |
| | 37 | 225S | 3 x 400 V ~ Δ | 66.5 | 65 | IE2 / IE3 |
| | 45 | 225M | 3 x 400 V ~ Δ | 79.5 | 78.5 | IE2 / IE3 |
| | 55 | 250M | 3 x 400 V ~ Δ | 98 | 96 | IE2 / IE3 |

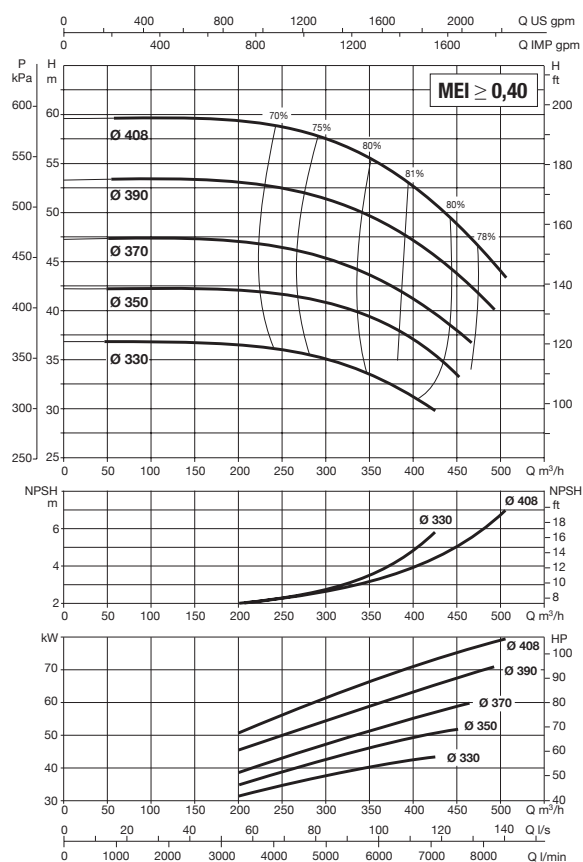
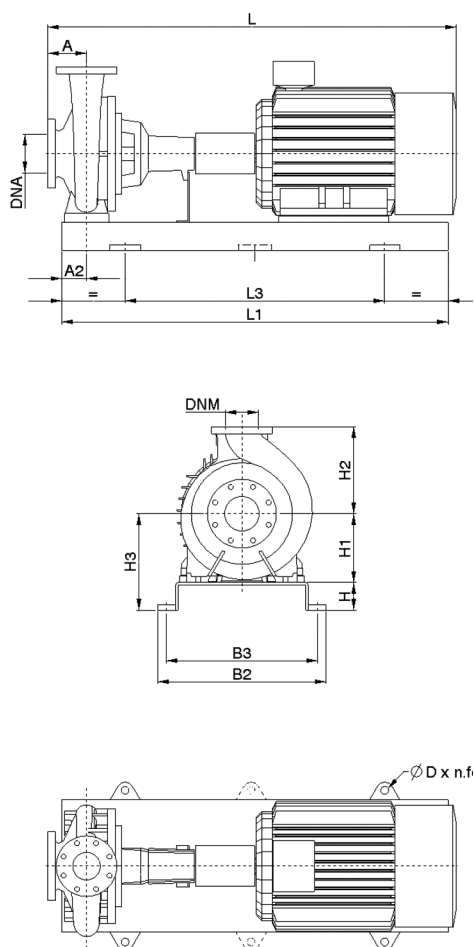
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|-----|---------------------------|------|-------------------|------|--------------|------|-----------------|------|--------------|---|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | | |
| KDN 150-330 | 18.5 | 160 | 110 | 100 | 315 | 400 | 415 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1524 | 621 | 1574 | 590 | 1705 | 636 | 1755 | 605 | 9 | |
| | 22 | 160 | 110 | 100 | 315 | 400 | 415 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1562 | 639 | 1612 | 609 | 1743 | 654 | 1793 | 624 | 9 | |
| | 30 | 160 | 110 | 100 | 315 | 400 | 415 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1604 | 703 | 1654 | 703 | 1785 | 718 | 1835 | 718 | 9 | |
| | 37 | 160 | 110 | 100 | 315 | 400 | 415 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1649 | 752 | 1720 | 758 | 1830 | 767 | 1901 | 773 | 9 | |
| | 45 | 160 | 110 | 100 | 315 | 400 | 415 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1679 | 768 | 1750 | 788 | 1860 | 783 | 1931 | 803 | 9 | |
| | 55 | 160 | 110 | 100 | 315 | 400 | 415 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1749 | 880 | 1820 | 895 | 1930 | 895 | 2001 | 910 | 9 | |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 150-400 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 150-400 | 37 | 225S | 3 x 400 V ~ Δ | 66.5 | 65 | IE2 / IE3 |
| | 45 | 225M | 3 x 400 V ~ Δ | 79.5 | 78.5 | IE2 / IE3 |
| | 55 | 250M | 3 x 400 V ~ Δ | 98 | 96 | IE2 / IE3 |
| | 75 | 280S | 3 x 400 V ~ Δ | 132 | 130 | IE2 / IE3 |
| | 90 | 280M | 3 x 400 V ~ Δ | 154 | 156 | IE2 / IE3 |
| | 110 | 315S | 3 x 400 V ~ Δ | 195 | 190 | IE2 / IE3 |

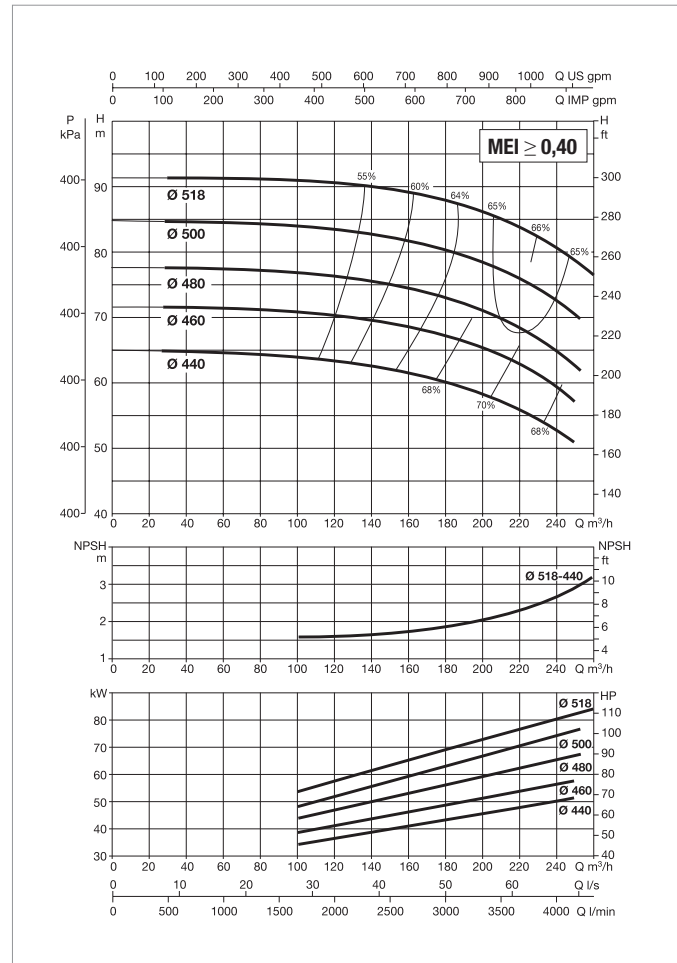
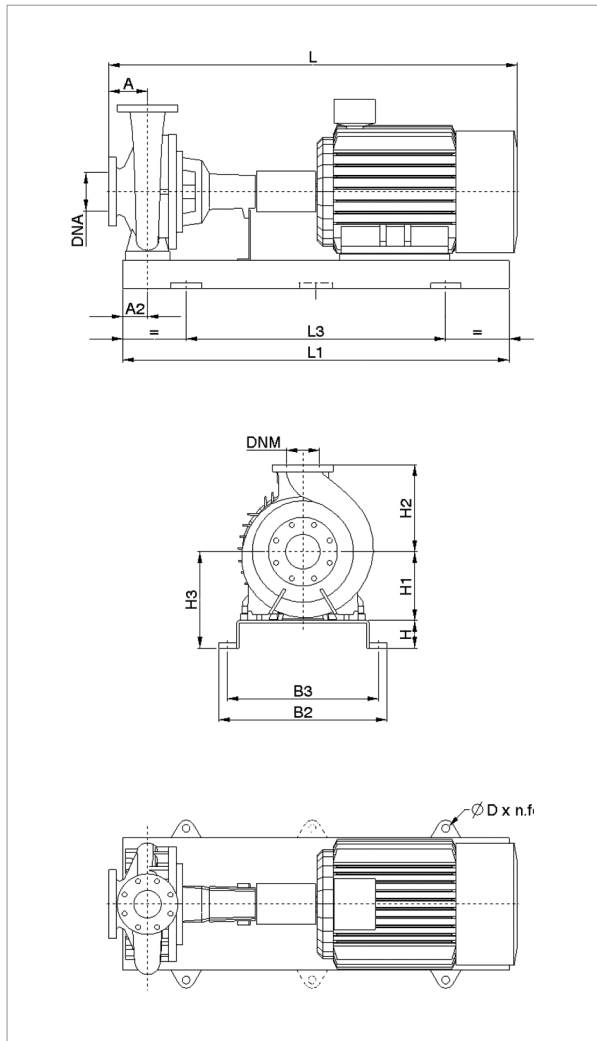
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 150-400 | 37 | 160 | 110 | 100 | 315 | 450 | 415 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1649 | 795 | 1720 | 801 | 1830 | 810 | 1901 | 816 | 9 |
| | 45 | 160 | 110 | 100 | 315 | 450 | 415 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1679 | 811 | 1750 | 831 | 1860 | 826 | 1931 | 846 | 9 |
| | 55 | 160 | 110 | 100 | 315 | 450 | 415 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1749 | 923 | 1820 | 938 | 1930 | 938 | 2001 | 953 | 9 |
| | 75 | 160 | 110 | 100 | 315 | 450 | 415 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1804 | 1040 | 1875 | 1040 | 1985 | 1055 | 2056 | 1055 | 9 |
| | 90 | 160 | 110 | 100 | 315 | 450 | 415 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1854 | 1160 | 1925 | 1145 | 2035 | 1175 | 2106 | 1160 | 9 |
| | 110 | 160 | 110 | 120 | 315 | 450 | 435 | 2000 | 1340 | 910 | 830 | 28x4 | 200 | 150 | 2104 | 1460 | 2175 | 1595 | 2285 | 1475 | 2356 | 1610 | 10 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 150-550A - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|--------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 150-550A | 37 | 225S | 3 x 400 V ~ Δ | 66.5 | 65 | IE2 / IE3 |
| | 45 | 225M | 3 x 400 V ~ Δ | 79.5 | 78.5 | IE2 / IE3 |
| | 55 | 250M | 3 x 400 V ~ Δ | 98 | 96 | IE2 / IE3 |
| | 75 | 280S | 3 x 400 V ~ Δ | 132 | 130 | IE2 / IE3 |
| | 90 | 280M | 3 x 400 V ~ Δ | 154 | 156 | IE2 / IE3 |
| | 110 | 315S | 3 x 400 V ~ Δ | 195 | 190 | IE2 / IE3 |

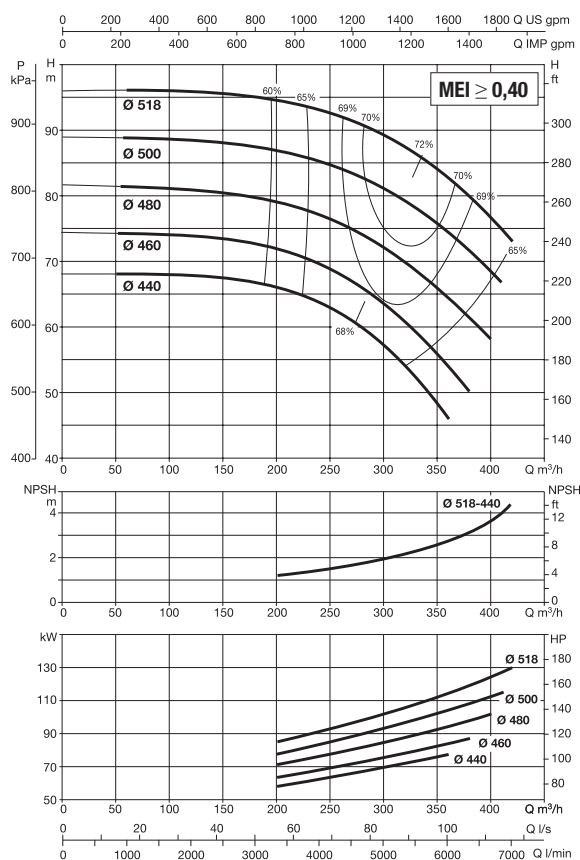
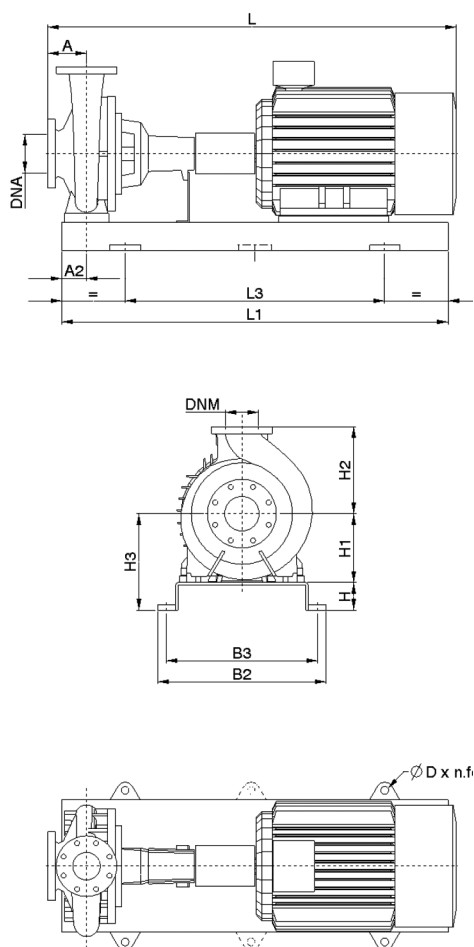
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|--------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 150-550A | 37 | 180 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1669 | 907 | 1740 | 913 | 1850 | 922 | 1921 | 928 | 9 |
| | 45 | 180 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1699 | 923 | 1770 | 943 | 1880 | 938 | 1951 | 958 | 9 |
| | 55 | 180 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1769 | 1035 | 1840 | 1050 | 1950 | 1050 | 2021 | 1065 | 9 |
| | 75 | 180 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1824 | 1152 | 1895 | 1152 | 2005 | 1167 | 2076 | 1167 | 9 |
| | 90 | 180 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1874 | 1272 | 1945 | 1257 | 2055 | 1287 | 2126 | 1272 | 9 |
| | 110 | 180 | 110 | 120 | 355 | 500 | 475 | 2000 | 1340 | 910 | 830 | 28x4 | 200 | 150 | 2124 | 1572 | 2195 | 1707 | 2305 | 1587 | 2376 | 1722 | 10 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 150-500 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 150-500 | 75 | 280S | 3 x 400 V ~ Δ | 132 | 130 | IE2 / IE3 |
| | 90 | 280M | 3 x 400 V ~ Δ | 154 | 156 | IE2 / IE3 |
| | 110 | 315S | 3 x 400 V ~ Δ | 195 | 190 | IE2 / IE3 |
| | 132 | 315M | 3 x 400 V ~ Δ | 235 | 230 | IE2 / IE3 |
| | 160 | 315L | 3 x 400 V ~ Δ | 285 | 275 | IE2 / IE3 |
| | 200 | 315L | 3 x 400 V ~ Δ | 350 | 340 | IE2 / IE3 |
| | 250 | 355 | 3 x 400 V ~ Δ | 425 | 420 | IE2 / IE3 |

| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| KDN 150-500 | 75 | 180 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1824 | 1152 | 1895 | 1152 | 2005 | 1167 | 2076 | 1167 | 9 |
| | 90 | 180 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1874 | 1272 | 1945 | 1257 | 2055 | 1287 | 2126 | 1272 | 9 |
| | 110 | 180 | 110 | 120 | 355 | 500 | 475 | 2000 | 1340 | 910 | 830 | 28x4 | 200 | 150 | 2124 | 1572 | 2212 | 1707 | 2305 | 1587 | 2393 | 1722 | 10 |
| | 132 | 180 | 120 | 205 | 355 | 500 | 560 | 1770 | 1170 | 715 | 670 | 20x4 | 200 | 150 | 2234 | 1705 | 2322 | 1780 | 2415 | 1720 | 2503 | 1795 | 13 |
| | 160 | 180 | 120 | 205 | 355 | 500 | 560 | 1770 | 1170 | 715 | 670 | 20x4 | 200 | 150 | 2234 | 1795 | 2322 | 1860 | 2415 | 1810 | 2503 | 1875 | 13 |
| | 200 | 180 | 120 | 205 | 355 | 500 | 560 | 1770 | 1170 | 715 | 670 | 20x4 | 200 | 150 | 2234 | 1955 | 2322 | 1955 | 2415 | 1970 | 2503 | 1970 | 13 |
| | 250 | 180 | 120 | 205 | 355 | 500 | 560 | 2000 | 1400 | 960 | 915 | 20x4 | 200 | 150 | 2354 | 730 | 2442 | (*) | 2535 | 745 | 2623 | (*) | 14 |

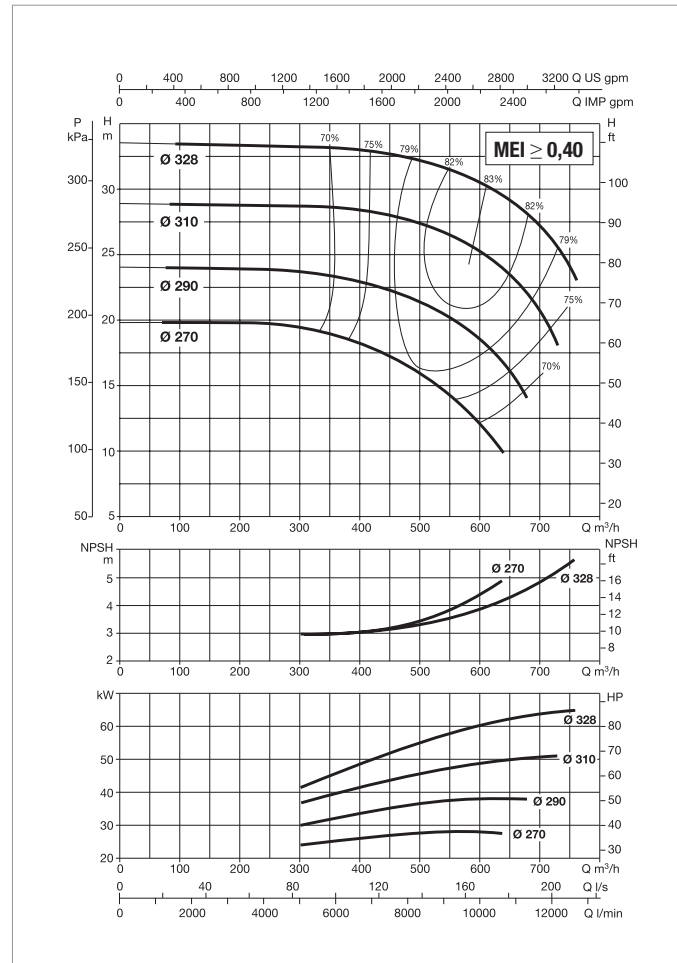
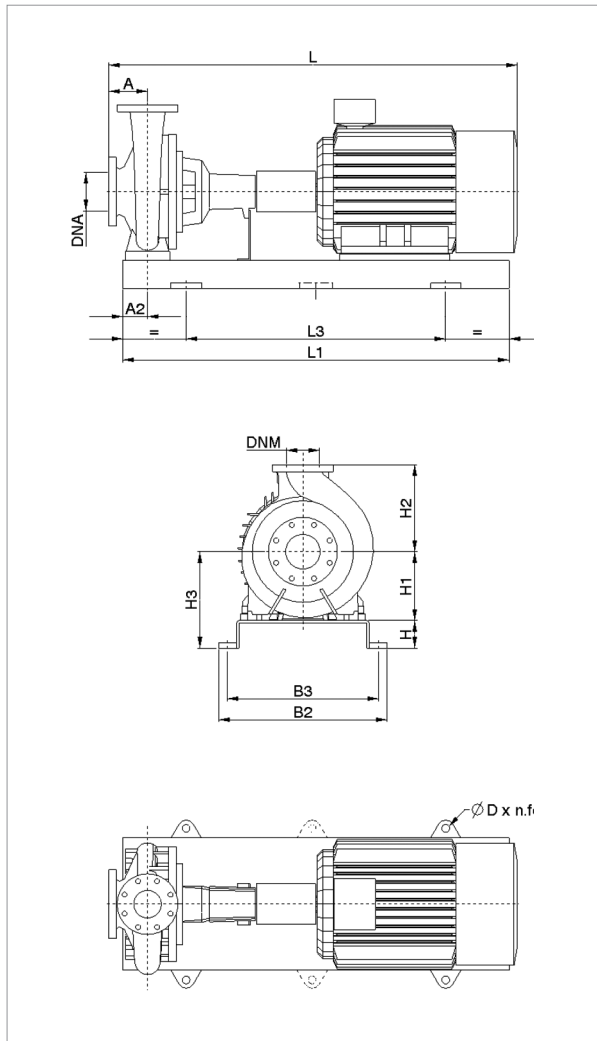
Dimension and electrical data based on sizing definition following the instructions on page 176.

(*) Data on request.

KDN 200-330 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 200-330 | 30 | 200L | 3 x 400 V ~ Δ | 53.5 | 53.5 | IE2 / IE3 |
| | 37 | 225S | 3 x 400 V ~ Δ | 66.5 | 65 | IE2 / IE3 |
| | 45 | 225M | 3 x 400 V ~ Δ | 79.5 | 78.5 | IE2 / IE3 |
| | 55 | 250M | 3 x 400 V ~ Δ | 98 | 96 | IE2 / IE3 |
| | 75 | 280S | 3 x 400 V ~ Δ | 132 | 130 | IE2 / IE3 |
| | 90 | 280M | 3 x 400 V ~ Δ | 154 | 156 | IE2 / IE3 |

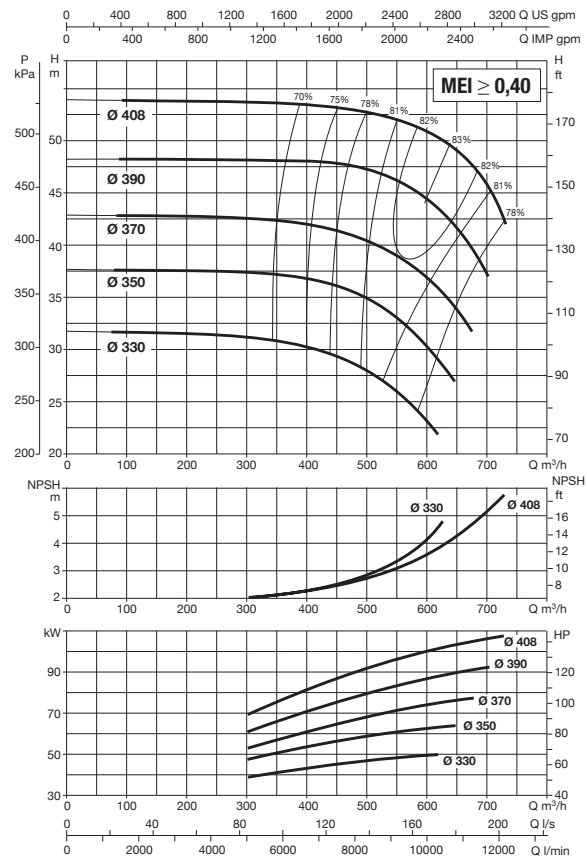
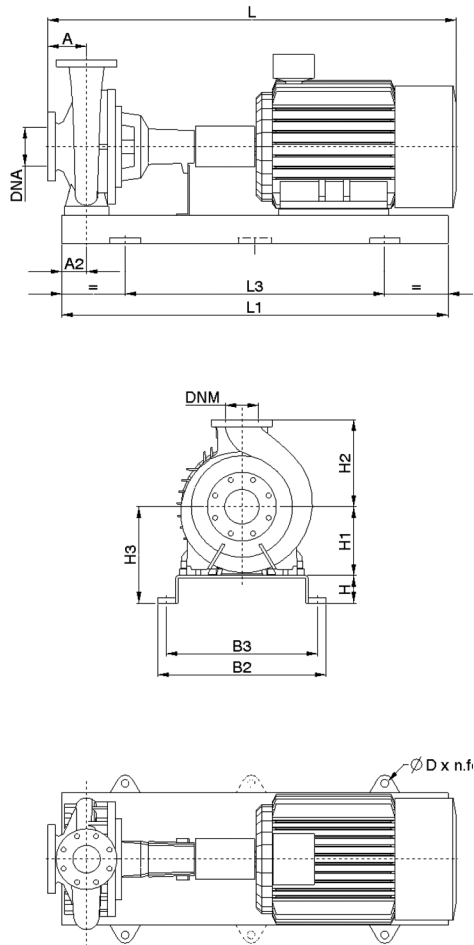
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 200-330 | 30 | 200 | 110 | 100 | 355 | 450 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 250 | 200 | 1644 | 808 | 1694 | 808 | 1825 | 823 | 1875 | 823 | 9 |
| | 37 | 200 | 110 | 100 | 355 | 450 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 250 | 200 | 1689 | 857 | 1760 | 814 | 1870 | 872 | 1941 | 829 | 9 |
| | 45 | 200 | 110 | 100 | 355 | 450 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 250 | 200 | 1719 | 873 | 1790 | 877 | 1900 | 888 | 1971 | 892 | 9 |
| | 55 | 200 | 110 | 100 | 355 | 450 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 250 | 200 | 1789 | 985 | 1860 | 888 | 1970 | 1000 | 2041 | 903 | 9 |
| | 75 | 200 | 110 | 100 | 355 | 450 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 250 | 200 | 1844 | 1102 | 1915 | 985 | 2025 | 1117 | 2096 | 1000 | 9 |
| | 90 | 200 | 110 | 100 | 355 | 450 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 250 | 200 | 1894 | 1222 | 1965 | 1087 | 2075 | 1237 | 2146 | 1102 | 9 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 200-400 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 200-400 | 37 | 225S | 3 x 400 V ~ Δ | 66.5 | 65 | IE2 / IE3 |
| | 45 | 225M | 3 x 400 V ~ Δ | 79.5 | 78.5 | IE2 / IE3 |
| | 55 | 250M | 3 x 400 V ~ Δ | 98 | 96 | IE2 / IE3 |
| | 75 | 280S | 3 x 400 V ~ Δ | 132 | 130 | IE2 / IE3 |
| | 90 | 280M | 3 x 400 V ~ Δ | 154 | 156 | IE2 / IE3 |
| | 110 | 315S | 3 x 400 V ~ Δ | 195 | 190 | IE2 / IE3 |
| | 132 | 315M | 3 x 400 V ~ Δ | 235 | 230 | IE2 / IE3 |

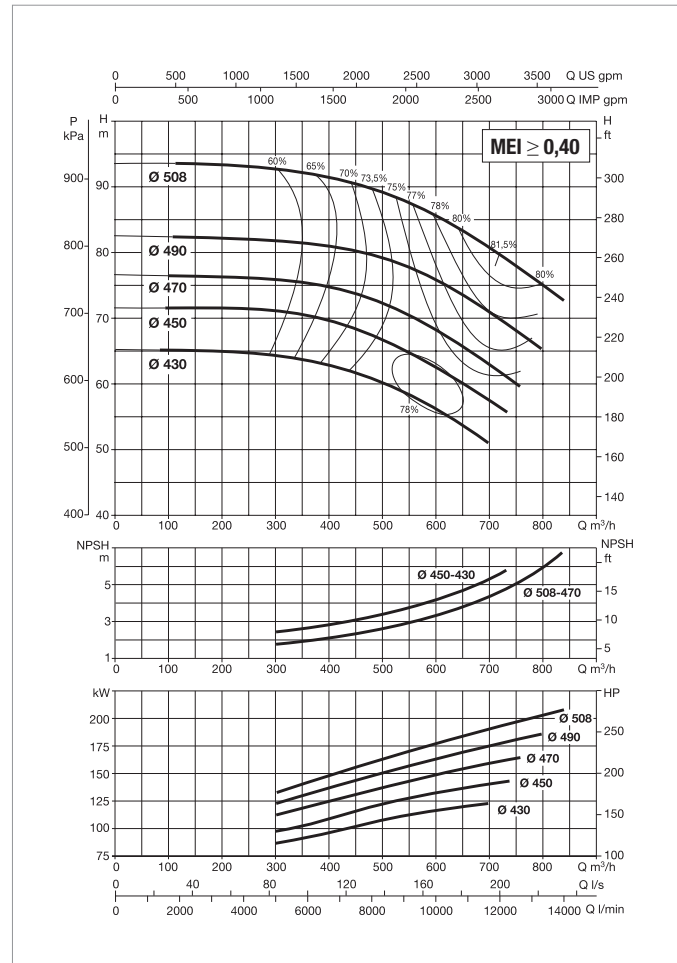
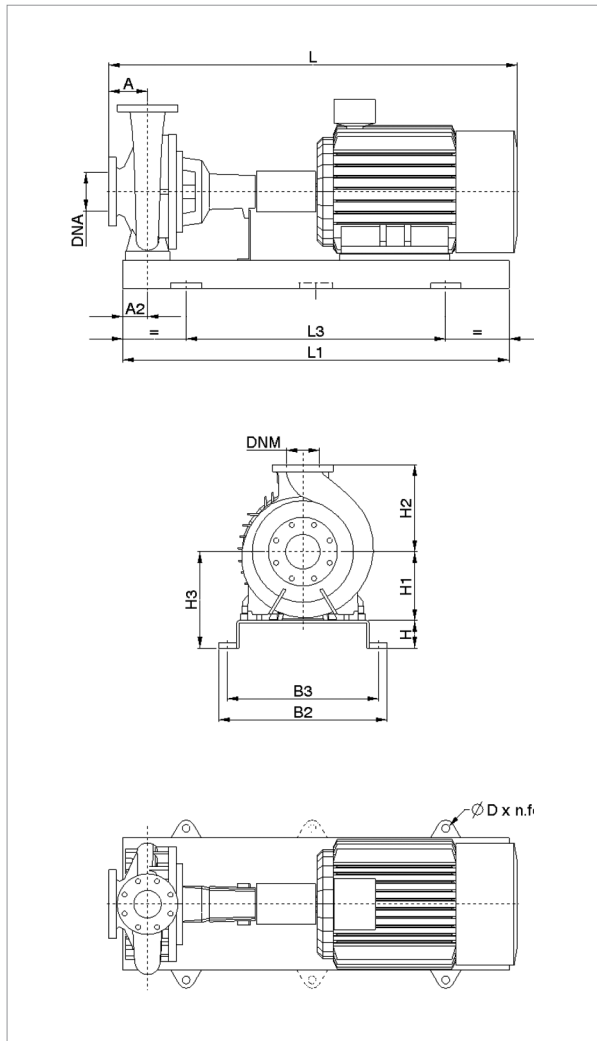
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 200-400 | 37 | 185 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 250 | 200 | 1674 | 887 | 1745 | 893 | 1855 | 902 | 1926 | 908 | 8 |
| | 45 | 185 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 250 | 200 | 1704 | 903 | 1775 | 923 | 1885 | 918 | 1956 | 938 | 8 |
| | 55 | 185 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 250 | 200 | 1774 | 1015 | 1845 | 1030 | 1955 | 1030 | 2026 | 1045 | 8 |
| | 75 | 185 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 250 | 200 | 1829 | 1132 | 1900 | 1132 | 2010 | 1147 | 2081 | 1147 | 8 |
| | 90 | 185 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 250 | 200 | 1879 | 1252 | 1950 | 1237 | 2060 | 1267 | 2131 | 1252 | 8 |
| | 110 | 185 | 110 | 120 | 355 | 500 | 475 | 2000 | 1340 | 910 | 830 | 28x4 | 250 | 200 | 2129 | 1552 | 2217 | 1687 | 2310 | 1567 | 2398 | 1702 | 8 |
| | 132 | 185 | 125 | 205 | 355 | 500 | 560 | 1770 | 1170 | 715 | 670 | 20x4 | 250 | 200 | 2239 | 1435 | 2327 | 1510 | 2420 | 1450 | 2508 | 1525 | 8 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 200-500 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 200-500 | 75 | 280S | 3 x 400 V ~ Δ | 132 | 130 | IE2 / IE3 |
| | 90 | 280M | 3 x 400 V ~ Δ | 154 | 156 | IE2 / IE3 |
| | 110 | 315S | 3 x 400 V ~ Δ | 195 | 190 | IE2 / IE3 |
| | 132 | 315M | 3 x 400 V ~ Δ | 235 | 230 | IE2 / IE3 |
| | 160 | 315L | 3 x 400 V ~ Δ | 285 | 175 | IE2 / IE3 |
| | 200 | 315L | 3 x 400 V ~ Δ | 350 | 340 | IE2 / IE3 |
| | 250 | 355 | 3 x 400 V ~ Δ | 425 | 420 | IE2 / IE3 |

| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg |
| KDN 200-500 | 75 | 185 | 145 | 185 | 400 | 580 | 585 | 1650 | 1050 | 960 | 915 | 20x4 | 250 | 200 | 1935 | 1120 | 2006 | 1120 | 2115 | 1135 | 2186 | 1135 |
| | 90 | 185 | 145 | 185 | 400 | 580 | 585 | 1650 | 1050 | 960 | 915 | 20x4 | 250 | 200 | 1935 | 1120 | 2006 | 1105 | 2115 | 1135 | 2186 | 1120 |
| | 110 | 185 | 145 | 205 | 400 | 580 | 605 | 1800 | 1200 | 960 | 915 | 20x4 | 250 | 200 | 2025 | 1600 | 2113 | 1735 | 2205 | 1615 | 2293 | 1750 |
| | 132 | 185 | 145 | 205 | 400 | 580 | 605 | 1800 | 1200 | 960 | 915 | 20x4 | 250 | 200 | 2025 | 1600 | 2113 | 1675 | 2205 | 1615 | 2293 | 1690 |
| | 160 | 185 | 145 | 205 | 400 | 580 | 605 | 1800 | 1200 | 960 | 915 | 20x4 | 250 | 200 | 2025 | 1600 | 2113 | 1665 | 2205 | 1615 | 2293 | 1680 |
| | 200 | 185 | 145 | 205 | 400 | 580 | 605 | 1800 | 1200 | 960 | 915 | 20x4 | 250 | 200 | 2025 | 1600 | 2113 | 1600 | 2205 | 1615 | 2293 | 1615 |
| | 250 | 185 | 145 | 205 | 400 | 580 | 605 | 2050 | 1450 | 960 | 915 | 20x4 | 250 | 200 | 2355 | 1825 | (*) | (*) | (*) | 1840 | (*) | (*) |

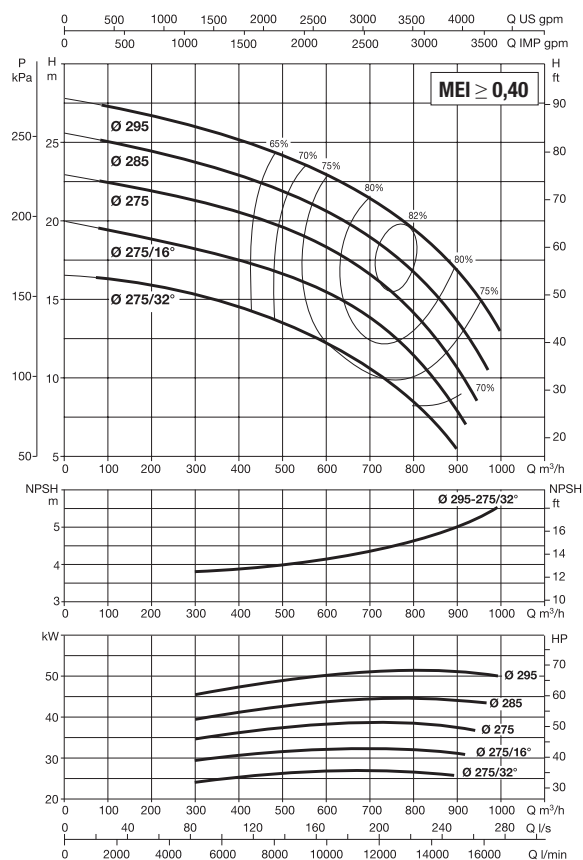
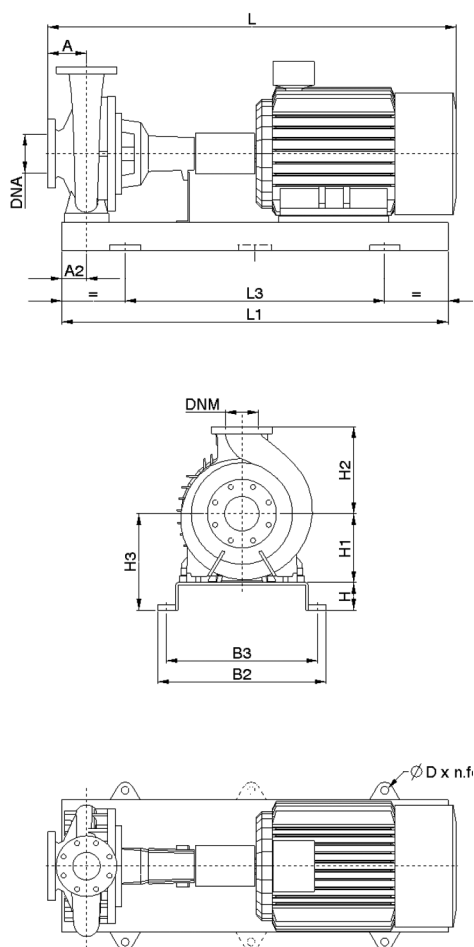
Dimension and electrical data based on sizing definition following the instructions on page 176.

(*) Data on request.

KDN 250-330A - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|--------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 250-330A | 30 | 200L | 3 x 400 V ~ Δ | 53.5 | 53.5 | IE2 / IE3 |
| | 37 | 225S | 3 x 400 V ~ Δ | 66.5 | 65 | IE2 / IE3 |
| | 45 | 225M | 3 x 400 V ~ Δ | 79.5 | 78.5 | IE2 / IE3 |
| | 55 | 250M | 3 x 400 V ~ Δ | 98 | 96 | IE2 / IE3 |
| | 75 | 280S | 3 x 400 V ~ Δ | 132 | 130 | IE2 / IE3 |

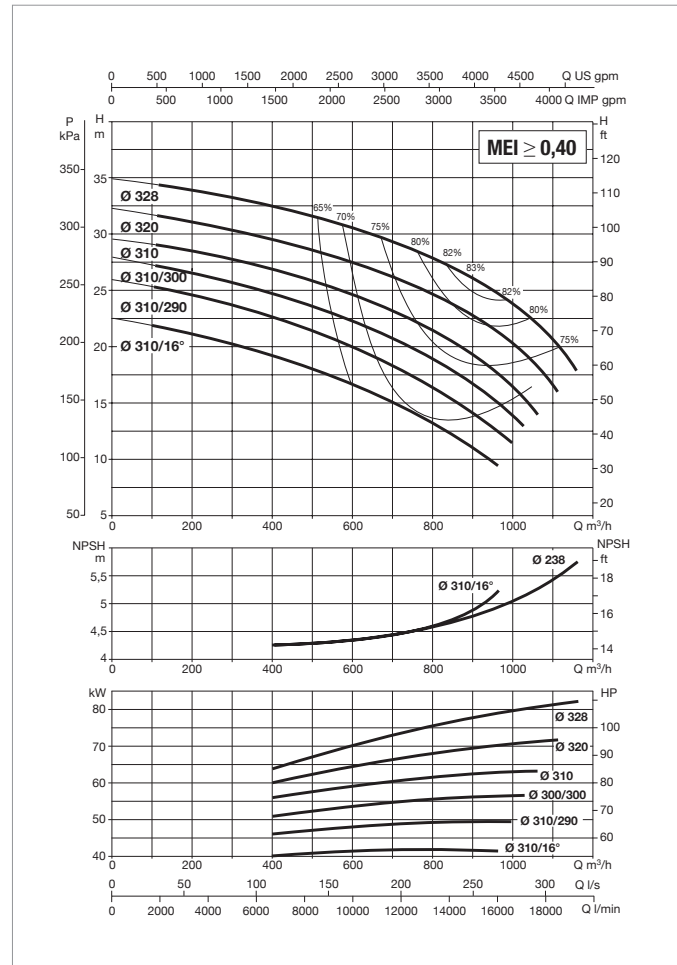
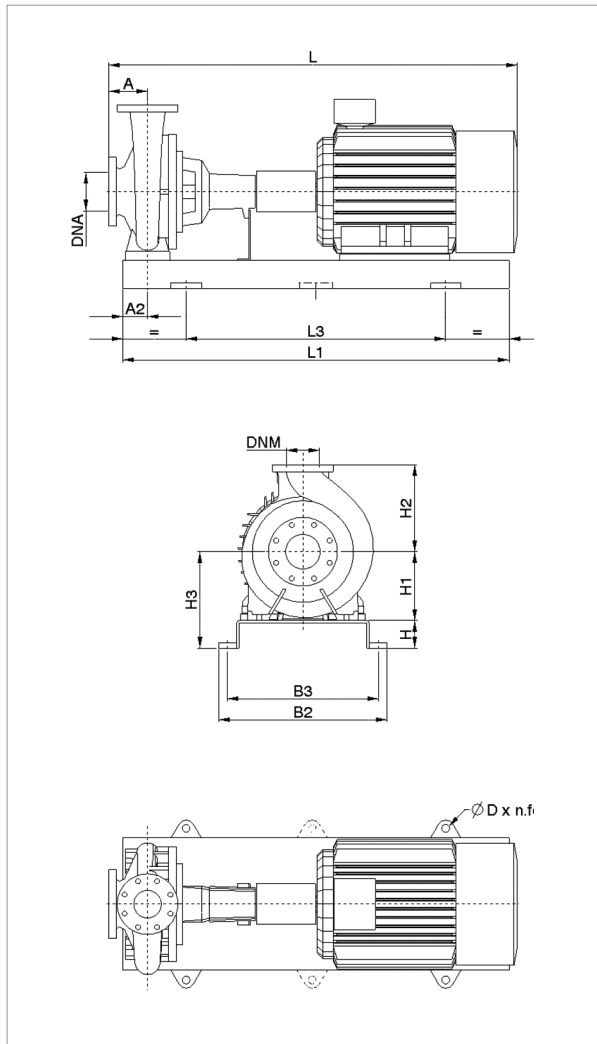
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|--------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 250-330A | 30 | 250 | 135 | 120 | 400 | 525 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 1694 | 912 | 1744 | 912 | 1935 | 927 | 1985 | 927 | 10 |
| | 37 | 250 | 135 | 120 | 400 | 525 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 1739 | 961 | 1810 | 918 | 1980 | 976 | 2051 | 933 | 10 |
| | 45 | 250 | 135 | 120 | 400 | 525 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 1769 | 977 | 1840 | 981 | 2010 | 992 | 2081 | 996 | 10 |
| | 55 | 250 | 135 | 120 | 400 | 525 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 1839 | 1089 | 1910 | 992 | 2080 | 1104 | 2151 | 1007 | 10 |
| | 75 | 250 | 135 | 120 | 400 | 525 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 1894 | 1206 | 1965 | 1089 | 2135 | 1221 | 2206 | 1104 | 10 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 250-330 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 250-330 | 30 | 200L | 3 x 400 V ~ Δ | 53.5 | 53.5 | IE2 / IE3 |
| | 37 | 225S | 3 x 400 V ~ Δ | 66.5 | 65 | IE2 / IE3 |
| | 45 | 225M | 3 x 400 V ~ Δ | 79.5 | 78.5 | IE2 / IE3 |
| | 55 | 250M | 3 x 400 V ~ Δ | 98 | 96 | IE2 / IE3 |
| | 75 | 280S | 3 x 400 V ~ Δ | 132 | 130 | IE2 / IE3 |
| | 90 | 280M | 3 x 400 V ~ Δ | 154 | 156 | IE2 / IE3 |
| | 110 | 315S | 3 x 400 V ~ Δ | 195 | 190 | IE2 / IE3 |

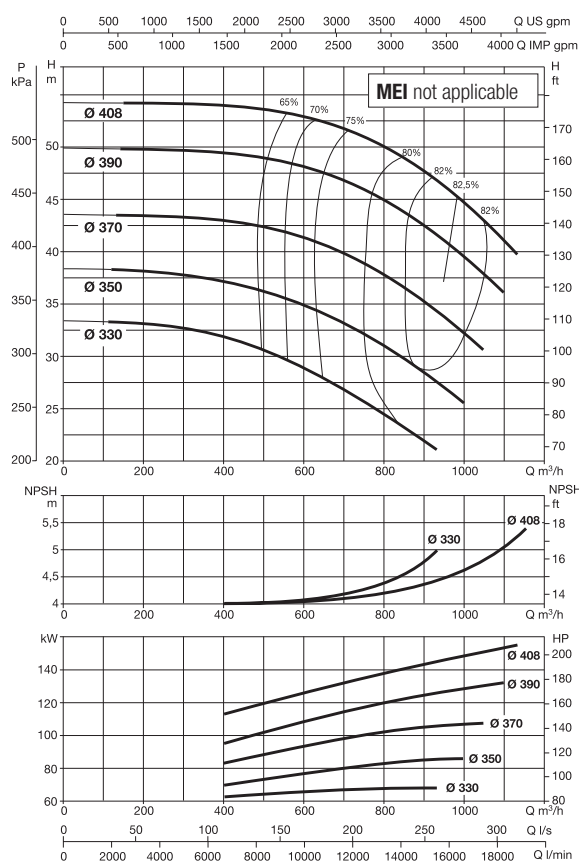
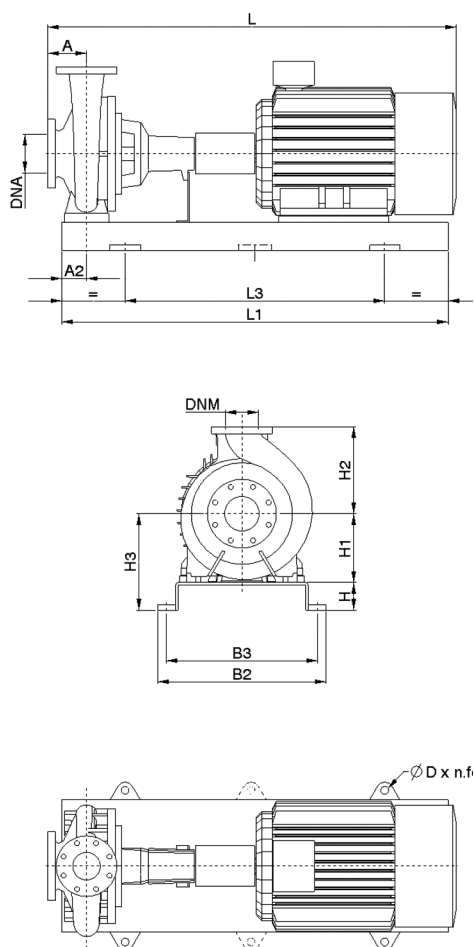
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| KDN 250-330 | 30 | 250 | 135 | 120 | 400 | 525 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 1694 | 912 | 1744 | 912 | 1935 | 927 | 1985 | 927 | 10 |
| | 37 | 250 | 135 | 120 | 400 | 525 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 1739 | 961 | 1810 | 967 | 1980 | 976 | 2051 | 982 | 10 |
| | 45 | 250 | 135 | 120 | 400 | 525 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 1769 | 977 | 1840 | 997 | 2010 | 992 | 2081 | 1012 | 10 |
| | 55 | 250 | 135 | 120 | 400 | 525 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 1839 | 1089 | 1910 | 1104 | 2080 | 1104 | 2151 | 1119 | 10 |
| | 75 | 250 | 135 | 120 | 400 | 525 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 1894 | 1206 | 1965 | 1206 | 2135 | 1221 | 2206 | 1221 | 10 |
| | 90 | 250 | 135 | 120 | 400 | 525 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 1944 | 1326 | 2015 | 1311 | 2185 | 1341 | 2256 | 1326 | 10 |
| | 110 | 250 | 135 | 120 | 400 | 525 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 2194 | 1572 | 2282 | 1707 | 2435 | 1587 | 2523 | 1722 | 10 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 250-400 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 250-400 | 75 | 280S | 3 x 400 V ~ Δ | 132 | 130 | IE2 / IE3 |
| | 90 | 280M | 3 x 400 V ~ Δ | 154 | 156 | IE2 / IE3 |
| | 110 | 315S | 3 x 400 V ~ Δ | 195 | 190 | IE2 / IE3 |
| | 132 | 315M | 3 x 400 V ~ Δ | 235 | 230 | IE2 / IE3 |
| | 160 | 315L | 3 x 400 V ~ Δ | 285 | 275 | IE2 / IE3 |

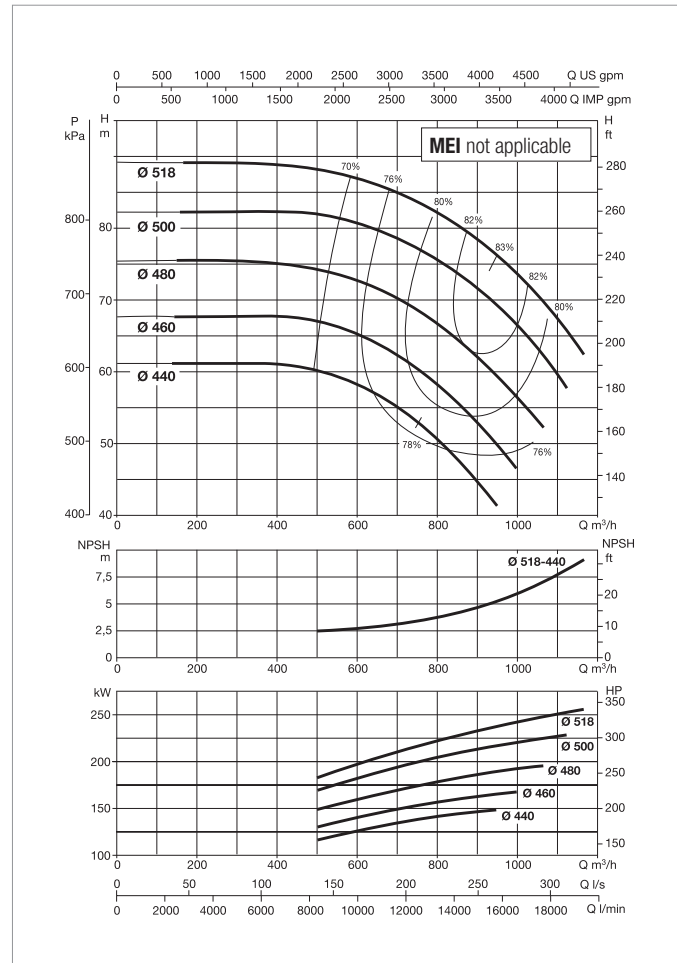
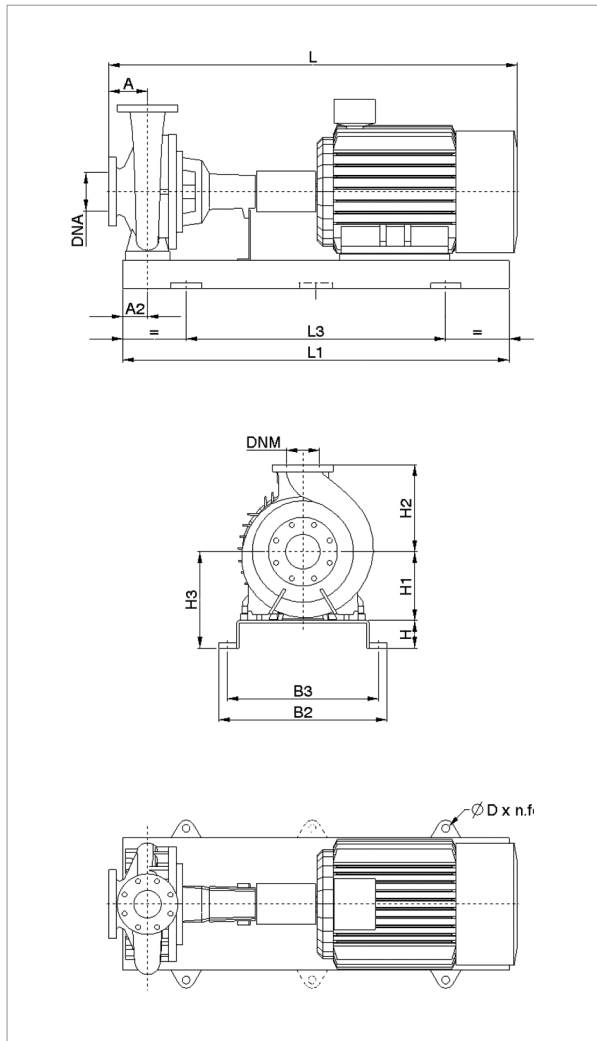
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | |
|-------------|------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|------------------------|-----|-------------------|-----------|------|-----------|-----------------|-----------|------|-----------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg |
| KDN 250-400 | 75 | 225 | 135 | 120 | 400 | 600 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 1979 | 1446 | 2050 | 1446 | 2160 | 1461 | 2231 | 1461 |
| | 90 | 225 | 135 | 120 | 400 | 600 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 2029 | 1566 | 2100 | 1551 | 2210 | 1581 | 2281 | 1566 |
| | 110 | 225 | 135 | 120 | 400 | 600 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 2279 | 1812 | 2367 | 1947 | 2460 | 1827 | 2548 | 1962 |
| | 132 | 225 | 155 | 210 | 400 | 600 | 610 | 1880 | 1280 | 995 | 950 | 20x6 | 300 | 250 | 2389 | 1695 | 2477 | 1770 | 2570 | 1710 | 2658 | 1785 |
| | 160 | 225 | 155 | 210 | 400 | 600 | 610 | 1880 | 1280 | 995 | 950 | 20x6 | 300 | 250 | 2389 | 1785 | 2477 | 1850 | 2570 | 1800 | 2658 | 1865 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 250-500A - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|--------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 250-500A | 132 | 315M | 3 x 400 V ~ Δ | 235 | 230 | IE2 / IE3 |
| | 160 | 315L | 3 x 400 V ~ Δ | 285 | 275 | IE2 / IE3 |
| | 200 | 315L | 3 x 400 V ~ Δ | 350 | 340 | IE2 / IE3 |
| | 250 | 355 | 3 x 400 V ~ Δ | 425 | 420 | IE2 / IE3 |
| | 315 | 355 | 3 x 400 V ~ Δ | 538 | 530 | IE2 / IE3 |

| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | |
|--------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|------|------|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg |
| KDN 250-500A | 132 | 300 | 155 | 210 | 500 | 500 | 710 | 2250 | 1650 | 995 | 950 | 20X6 | 300 | 250 | 2484 | 1745 | 2572 | 1820 | 2735 | 1760 | 2823 | 1835 |
| | 160 | 300 | 155 | 210 | 500 | 500 | 710 | 2250 | 1650 | 995 | 950 | 20X6 | 300 | 250 | 2484 | 1835 | 2572 | 1900 | 2735 | 1850 | 2823 | 1915 |
| | 200 | 300 | 155 | 210 | 500 | 500 | 710 | 2250 | 1650 | 995 | 950 | 20X6 | 300 | 250 | 2484 | 1995 | 2572 | 1995 | 2735 | 2010 | 2823 | 2010 |
| | 250 | 300 | 155 | 210 | 500 | 500 | (*) | (*) | (*) | (*) | (*) | (*) | 300 | 250 | (*) | 2780 | (*) | (*) | (*) | (*) | (*) | (*) |
| | 315 | 300 | 155 | 210 | 500 | 500 | 710 | 2500 | 1900 | 1095 | 1050 | 20X6 | 300 | 250 | (*) | (*) | (*) | (*) | 2855 | (*) | (*) | (*) |

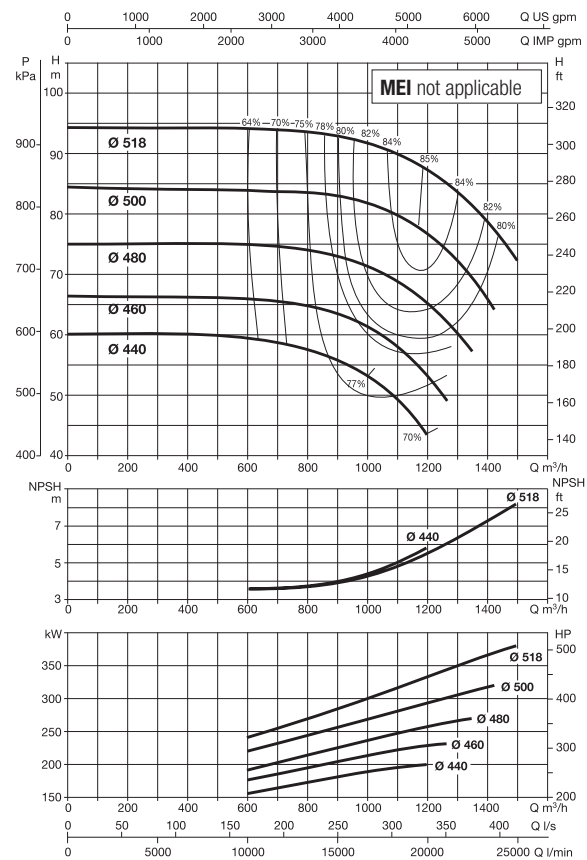
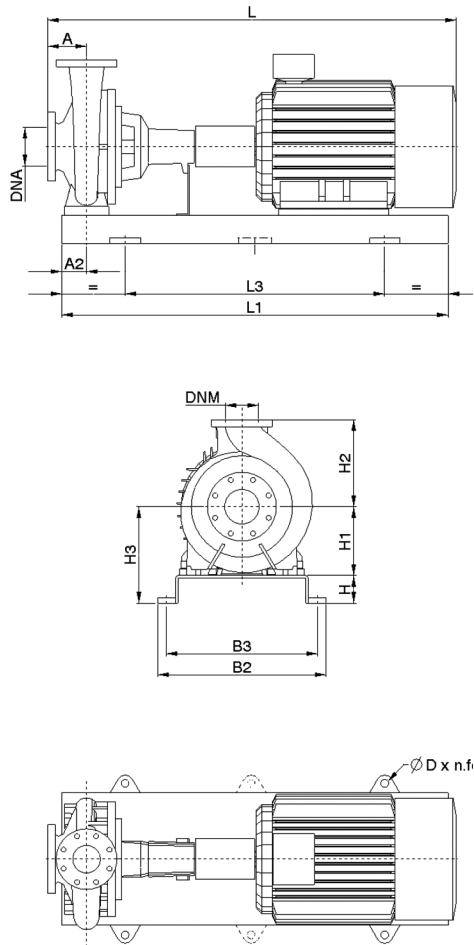
Dimension and electrical data based on sizing definition following the instructions on page 176.

(*) Data on request.

KDN 250-500 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 250-500 | 110 | 315S | 3 x 400 V ~ Δ | 195 | 190 | IE2 / IE3 |
| | 132 | 315M | 3 x 400 V ~ Δ | 235 | 230 | IE2 / IE3 |
| | 160 | 315L | 3 x 400 V ~ Δ | 285 | 275 | IE2 / IE3 |
| | 200 | 315L | 3 x 400 V ~ Δ | 350 | 340 | IE2 / IE3 |
| | 250 | 355 | 3 x 400 V ~ Δ | 425 | 420 | IE2 / IE3 |
| | 315 | 355 | 3 x 400 V ~ Δ | 538 | 530 | IE2 / IE3 |
| | 355 | 355 | 3 x 400 V ~ Δ | (*) | (*) | IE2 / IE3 |
| | 400 | 400 | 3 x 400 V ~ Δ | (*) | (*) | IE2 / IE3 |

| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|------|------|------|-----|---------------------------|------|-------------------|------|--------------|------|-----------------|------|--------------|--|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 250-500 | 110 | 300 | 155 | 210 | 500 | 500 | 710 | 2250 | 1650 | 995 | 950 | 20X6 | 300 | 250 | 2374 | 1625 | 2462 | 1760 | 2625 | 1640 | 2713 | 1775 | |
| | 132 | 300 | 155 | 210 | 500 | 500 | 710 | 2250 | 1650 | 995 | 950 | 20X6 | 300 | 250 | 2484 | 1745 | 2572 | 1820 | 2735 | 1760 | 2823 | 1835 | |
| | 160 | 300 | 155 | 210 | 500 | 500 | 710 | 2250 | 1650 | 995 | 950 | 20X6 | 300 | 250 | 2484 | 1835 | 2572 | 1900 | 2735 | 1850 | 2823 | 1915 | |
| | 200 | 300 | 155 | 210 | 500 | 500 | 710 | 2250 | 1650 | 995 | 950 | 20X6 | 300 | 250 | 2484 | 1995 | (*) | 1995 | 2735 | 2010 | (*) | 2010 | |
| | 250 | 300 | 155 | 210 | 500 | 500 | 710 | 2500 | 1900 | 1095 | 1050 | 20X5 | 300 | 250 | 2599 | (*) | (*) | (*) | 2850 | (*) | (*) | (*) | |
| | 315 | 300 | 155 | 210 | 500 | 500 | 710 | 2500 | 1900 | 1095 | 1050 | 20X6 | 300 | 250 | 2600 | 2780 | (*) | (*) | 2850 | 2795 | (*) | (*) | |
| | 355 | 300 | 155 | 210 | 500 | 500 | 710 | 2500 | 1900 | 1095 | 1050 | 20X6 | 300 | 250 | 1104 | 700 | (*) | (*) | 1355 | 715 | (*) | (*) | |
| | 400 | 300 | 155 | 210 | 500 | 500 | 710 | 2650 | 2050 | 1200 | 1155 | 20X6 | 300 | 250 | 1104 | 700 | (*) | (*) | 1355 | 715 | (*) | (*) | |

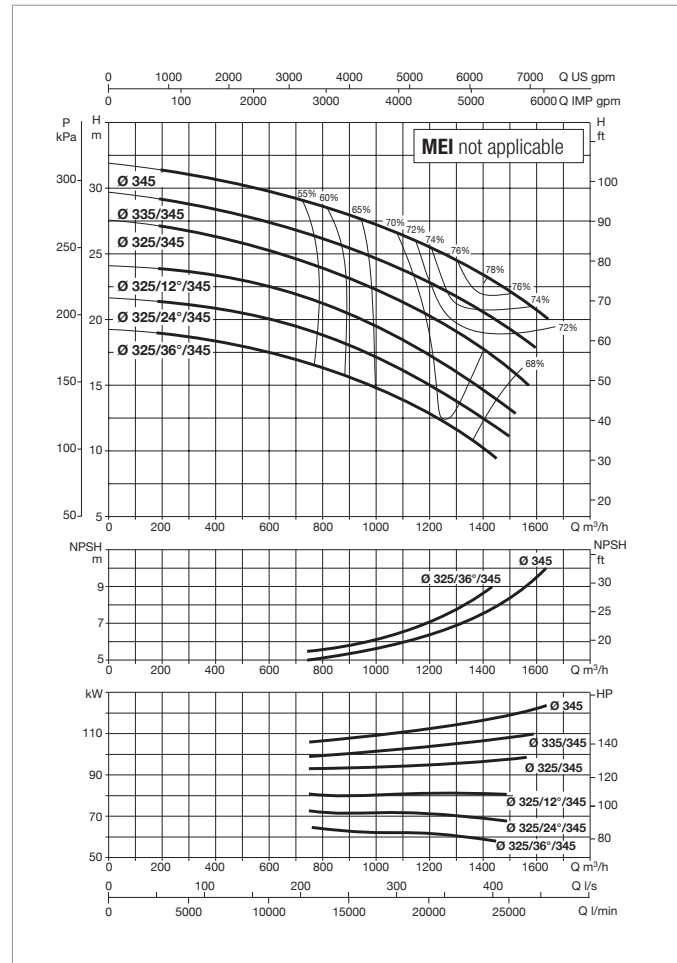
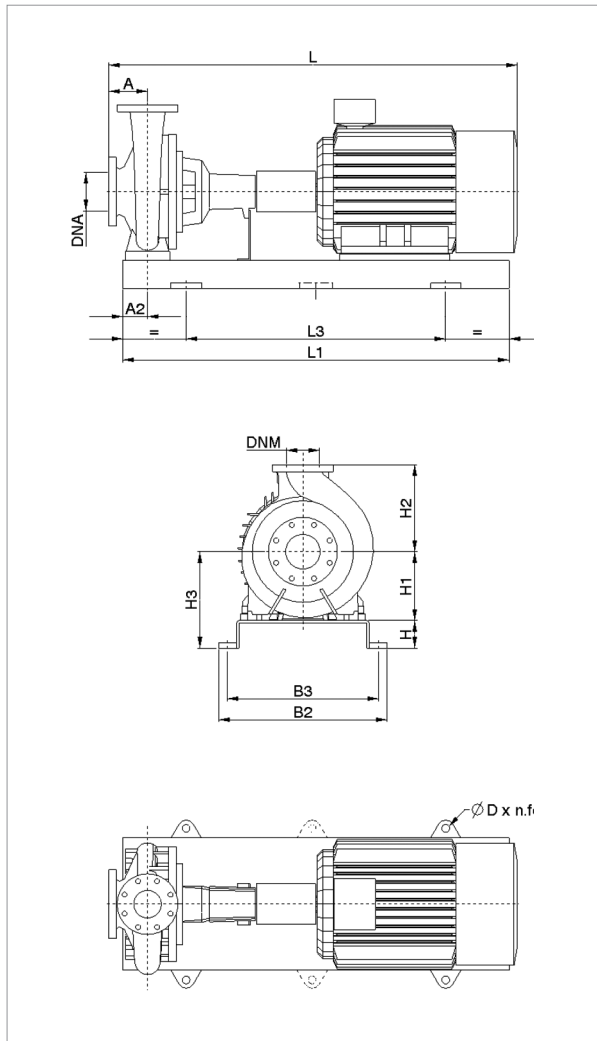
Dimension and electrical data based on sizing definition following the instructions on page 176.

(*) Data on request.

KDN 300-330 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 300-330 | 37 | 225S | 3 x 400 V ~ Δ | 66.5 | 65 | IE2 / IE3 |
| | 45 | 225M | 3 x 400 V ~ Δ | 79.5 | 78.5 | IE2 / IE3 |
| | 55 | 250M | 3 x 400 V ~ Δ | 98 | 96 | IE2 / IE3 |
| | 75 | 280S | 3 x 400 V ~ Δ | 132 | 130 | IE2 / IE3 |
| | 90 | 280M | 3 x 400 V ~ Δ | 154 | 156 | IE2 / IE3 |
| | 110 | 315S | 3 x 400 V ~ Δ | 195 | 190 | IE2 / IE3 |
| | 132 | 315M | 3 x 400 V ~ Δ | 235 | 230 | IE2 / IE3 |

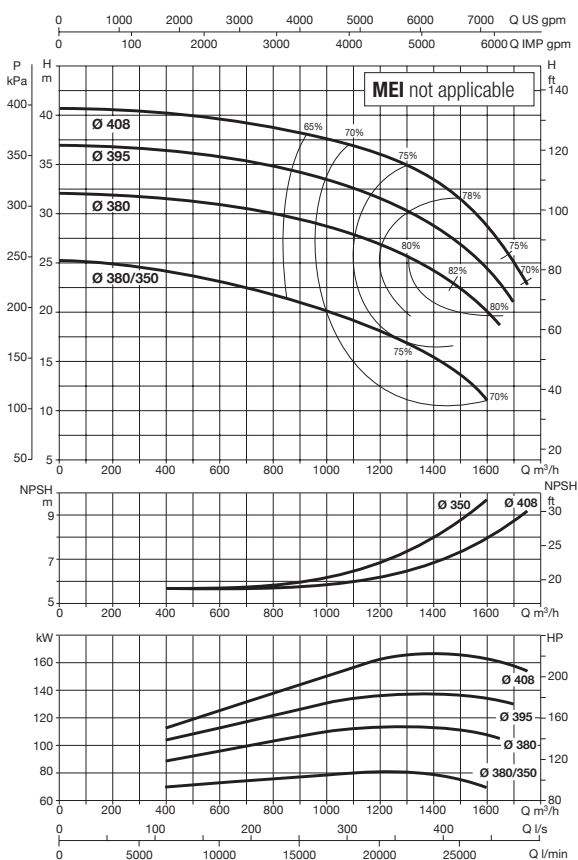
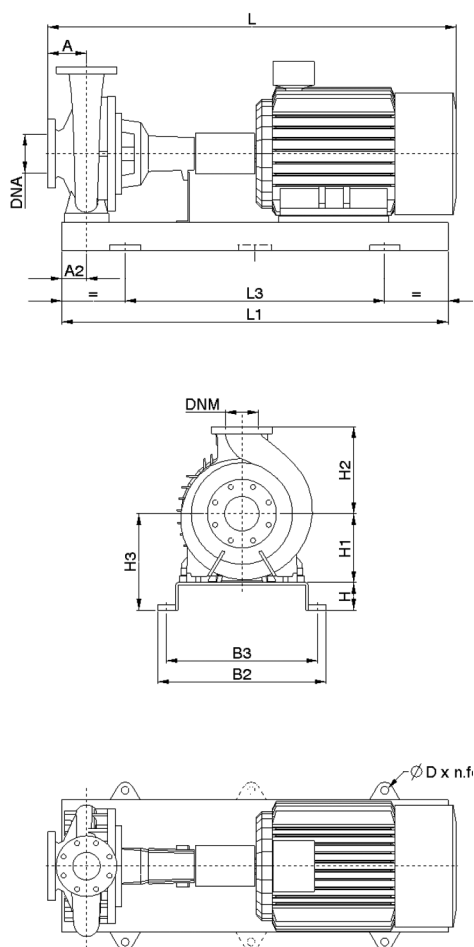
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg |
| KDN 300-330 | 37 | 300 | 230 | 185 | 500 | 670 | 685 | 1650 | 1050 | 960 | 915 | 16x4 | 350 | 300 | 1839 | 1094 | 1910 | 1100 | 2080 | 1109 | 2151 | 1115 |
| | 45 | 300 | 230 | 185 | 500 | 670 | 685 | 1650 | 1050 | 960 | 915 | 16x4 | 350 | 300 | 1869 | 1110 | 1940 | 1130 | 2110 | 1125 | 2181 | 1145 |
| | 55 | 300 | 230 | 185 | 500 | 670 | 685 | 1700 | 1100 | 960 | 915 | 16x4 | 350 | 300 | 1939 | 1222 | 2010 | 1237 | 2180 | 1237 | 2251 | 1252 |
| | 75 | 300 | 230 | 185 | 500 | 670 | 685 | 1800 | 1200 | 960 | 915 | 20x4 | 350 | 300 | 1994 | 1339 | 2065 | 1339 | 2235 | 1354 | 2306 | 1354 |
| | 90 | 300 | 230 | 185 | 500 | 670 | 685 | 1800 | 1200 | 960 | 915 | 20x4 | 350 | 300 | 2044 | 1459 | 2115 | 1444 | 2285 | 1474 | 2356 | 1459 |
| | 110 | 300 | 230 | 205 | 500 | 670 | 705 | 1930 | 1330 | 960 | 915 | 20x4 | 350 | 300 | 2294 | 1705 | 2382 | 1840 | 2535 | 1720 | 2623 | 1855 |
| | 132 | 300 | 230 | 205 | 500 | 670 | 705 | 1930 | 1330 | 960 | 915 | 20x4 | 350 | 300 | 2404 | 1825 | 2492 | 1900 | 2645 | 1840 | 2733 | 1915 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 300-400M - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|--------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 300-400M | 110 | 315S | 3 x 400 V ~ Δ | 195 | 190 | IE2 / IE3 |
| | 132 | 315M | 3 x 400 V ~ Δ | 235 | 230 | IE2 / IE3 |
| | 160 | 315L | 3 x 400 V ~ Δ | 285 | 275 | IE2 / IE3 |
| | 200 | 315L | 3 x 400 V ~ Δ | 350 | 340 | IE2 / IE3 |

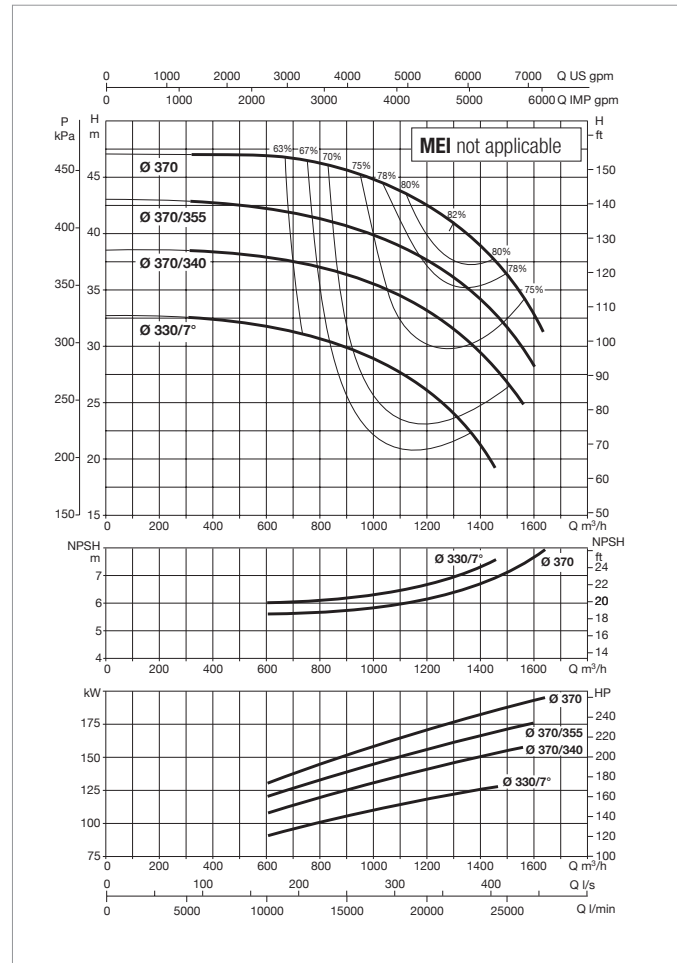
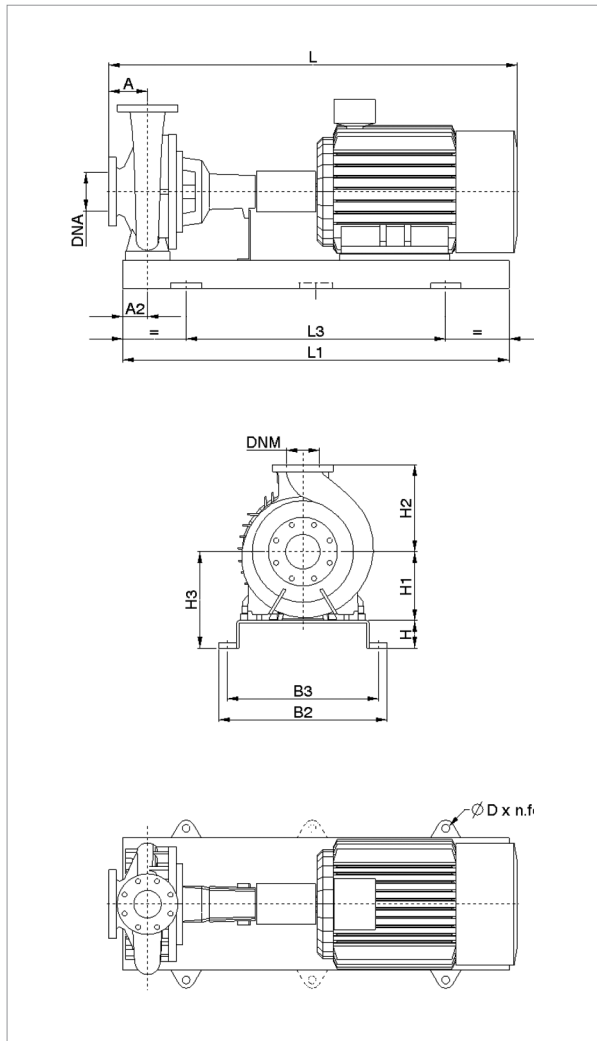
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | |
|--------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg |
| KDN 300-400M | 110 | 325 | 135 | 120 | 400 | 640 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 350 | 300 | 2389 | 1725 | 2477 | 1860 | 2630 | 1740 | 2718 | 1875 |
| | 132 | 325 | 145 | 210 | 400 | 640 | 610 | 1880 | 1280 | 995 | 950 | 20X6 | 350 | 300 | 2499 | 1845 | 2587 | 1920 | 2740 | 1860 | 2828 | 1935 |
| | 160 | 325 | 145 | 210 | 400 | 640 | 610 | 1880 | 1280 | 995 | 950 | 20X6 | 350 | 300 | 2499 | 1935 | 2587 | 2000 | 2740 | 1950 | 2828 | 2015 |
| | 200 | 325 | 145 | 210 | 400 | 640 | 610 | 1880 | 1280 | 995 | 950 | 20X6 | 350 | 300 | 2499 | 2095 | 2587 | 2095 | 2740 | 2110 | 2828 | 2110 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 300-400A - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|--------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 300-400A | 110 | 315S | 3 x 400 V ~ Δ | 195 | 190 | IE2 / IE3 |
| | 132 | 315M | 3 x 400 V ~ Δ | 235 | 230 | IE2 / IE3 |
| | 160 | 315L | 3 x 400 V ~ Δ | 285 | 275 | IE2 / IE3 |
| | 200 | 315L | 3 x 400 V ~ Δ | 350 | 340 | IE2 / IE3 |
| | 250 | 355 | 3 x 400 V ~ Δ | 425 | 420 | IE2 / IE3 |

| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | |
|--------------|------------|----------------------|-----|-----|-----|-----|-----|------|------|------|------|------|------------------------|-----|-------------------|-----------|------|-----------|-----------------|-----------|------|-----------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg |
| KDN 300-400A | 110 | 325 | 135 | 120 | 400 | 640 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 350 | 300 | 2389 | 1725 | 2477 | 1860 | 2630 | 1740 | 2718 | 1875 |
| | 132 | 325 | 145 | 210 | 400 | 640 | 610 | 1880 | 1280 | 995 | 950 | 20X6 | 350 | 300 | 2499 | 1845 | 2587 | 1920 | 2740 | 1860 | 2828 | 1935 |
| | 160 | 325 | 145 | 210 | 400 | 640 | 610 | 1880 | 1280 | 995 | 950 | 20X6 | 350 | 300 | 2499 | 1935 | 2587 | 2000 | 2740 | 1950 | 2828 | 2015 |
| | 200 | 325 | 145 | 210 | 400 | 640 | 610 | 1880 | 1280 | 995 | 950 | 20X6 | 350 | 300 | 2499 | 2095 | 2587 | 2095 | 2740 | 2110 | 2828 | 2110 |
| | 250 | 325 | 145 | 210 | 400 | 640 | 610 | 2250 | 1650 | 1095 | 1050 | 20X6 | 350 | 300 | 1119 | 800 | (*) | (*) | 1360 | 815 | (*) | (*) |

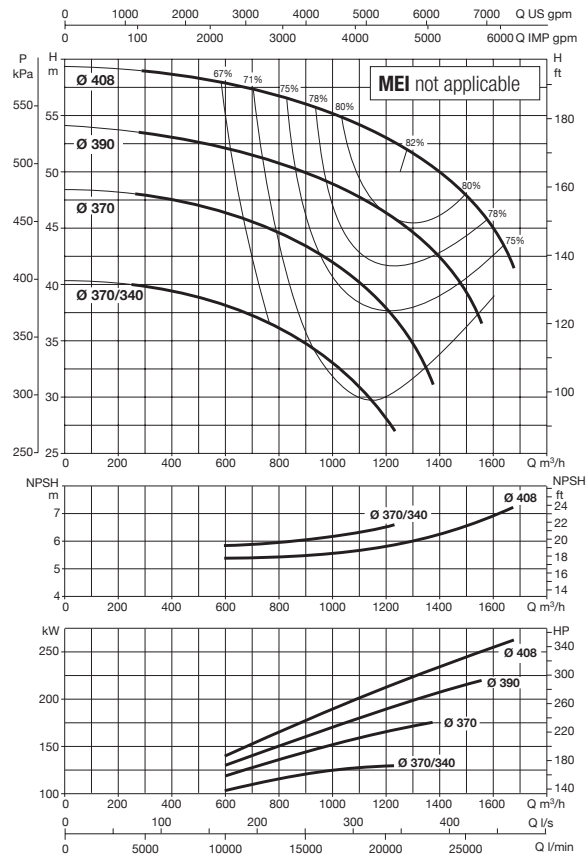
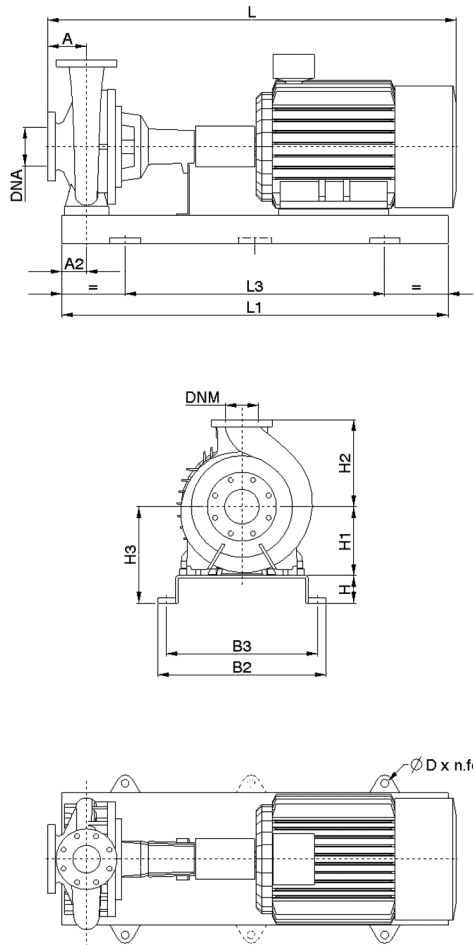
Dimension and electrical data based on sizing definition following the instructions on page 176.

(*) Data on request.

KDN 300-400 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECONTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 300-400 | 110 | 315S | 3 x 400 V ~ Δ | 195 | 190 | IE2 / IE3 |
| | 132 | 315M | 3 x 400 V ~ Δ | 235 | 230 | IE2 / IE3 |
| | 160 | 315L | 3 x 400 V ~ Δ | 285 | 275 | IE2 / IE3 |
| | 200 | 315L | 3 x 400 V ~ Δ | 350 | 340 | IE2 / IE3 |
| | 250 | 355 | 3 x 400 V ~ Δ | 425 | 420 | IE2 / IE3 |
| | 315 | 355 | 3 x 400 V ~ Δ | 538 | 530 | IE2 / IE3 |

| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|------|------|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg |
| KDN 300-400 | 110 | 325 | 135 | 120 | 400 | 640 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 350 | 300 | 2389 | 1725 | 2477 | 1860 | 2630 | 1740 | 2718 | 1875 |
| | 132 | 325 | 145 | 210 | 400 | 640 | 610 | 1880 | 1280 | 995 | 950 | 20X6 | 350 | 300 | 2499 | 1845 | 2587 | 1920 | 2740 | 1860 | 2828 | 1935 |
| | 160 | 325 | 145 | 210 | 400 | 640 | 610 | 1880 | 1280 | 995 | 950 | 20X6 | 350 | 300 | 2499 | 1935 | 2587 | 2000 | 2740 | 1950 | 2828 | 2015 |
| | 200 | 325 | 145 | 210 | 400 | 640 | 610 | 1880 | 1280 | 995 | 950 | 20X6 | 350 | 300 | 2499 | 2095 | 2587 | 2095 | 2740 | 2110 | 2828 | 2110 |
| | 250 | 325 | 145 | 210 | 400 | 640 | 610 | 2250 | 1650 | 1095 | 1050 | 20X6 | 350 | 300 | 1119 | 2480 | (*) | (*) | 1360 | 2495 | (*) | (*) |
| | 315 | 325 | 145 | 210 | 400 | 640 | 610 | 2250 | 1650 | 1095 | 1050 | 20X6 | 350 | 300 | 2645 | 2480 | (*) | (*) | 2720 | 2495 | (*) | (*) |

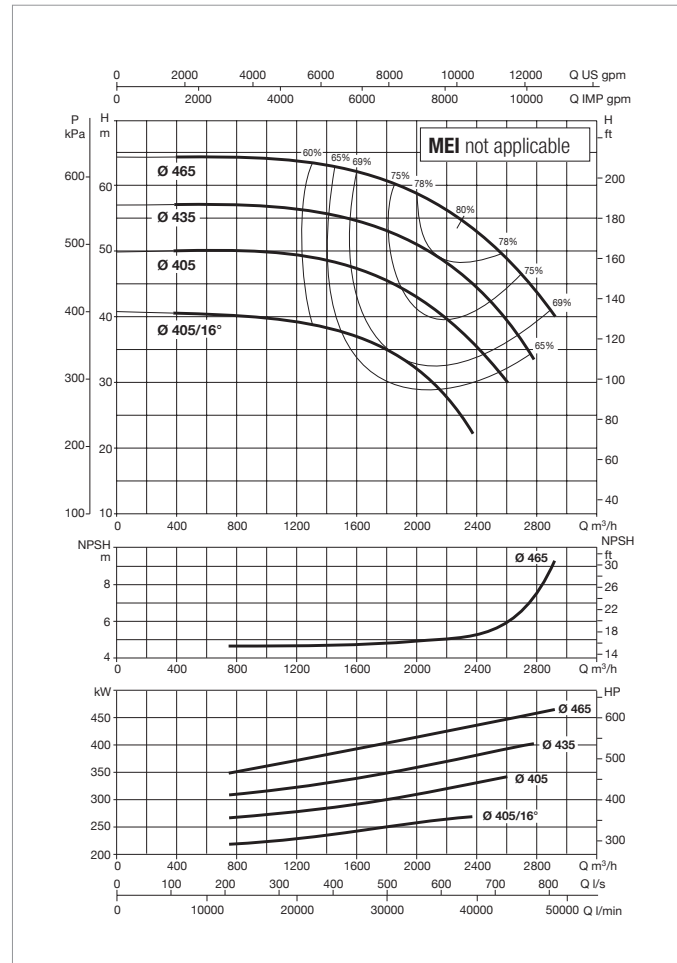
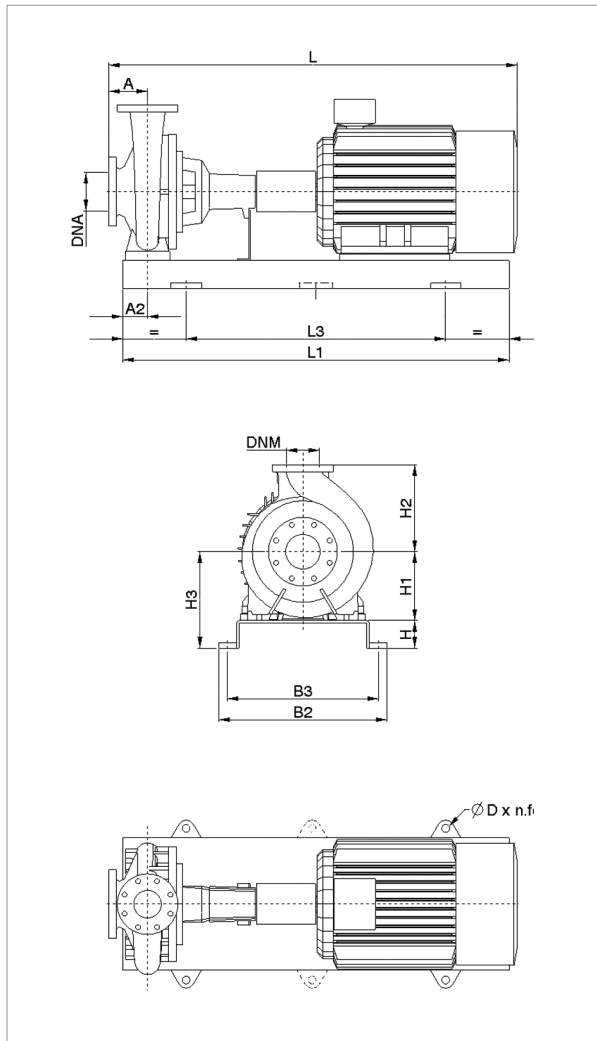
Dimension and electrical data based on sizing definition following the instructions on page 176.

(*) Data on request.

KDN 350-500A - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|--------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 350-500A | 315 | 355 | 3 x 400 V ~ Δ | 538 | 530 | IE2 / IE3 |
| | 355 | 355 | 3 x 400 V ~ Δ | (*) | (*) | IE2 / IE3 |
| | 400 | 355 | 3 x 400 V ~ Δ | (*) | (*) | IE2 / IE3 |
| | 500 | 355 | 3 x 400 V ~ Δ | (*) | (*) | IE2 / IE3 |

| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | |
|--------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|------|------|------|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg |
| KDN 350-500A | 315 | 380 | 295 | 240 | 600 | 600 | 840 | 2700 | 2100 | 1305 | 1260 | 20x6 | 400 | 350 | 3114 | 1080 | (*) | 1080 | 3115 | 1095 | (*) | 1095 |
| | 355 | 385 | 300 | 240 | 600 | 615 | 840 | 3000 | 2100 | 1305 | 1260 | (*) | 400 | 350 | 3115 | 4250 | (*) | 4250 | (*) | (*) | (*) | 4250 |
| | 400 | 380 | (*) | (*) | 600 | 600 | 600 | (*) | (*) | (*) | (*) | (*) | 400 | 350 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |
| | 500 | 380 | (*) | (*) | 600 | 600 | 600 | (*) | (*) | (*) | (*) | (*) | 400 | 350 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |

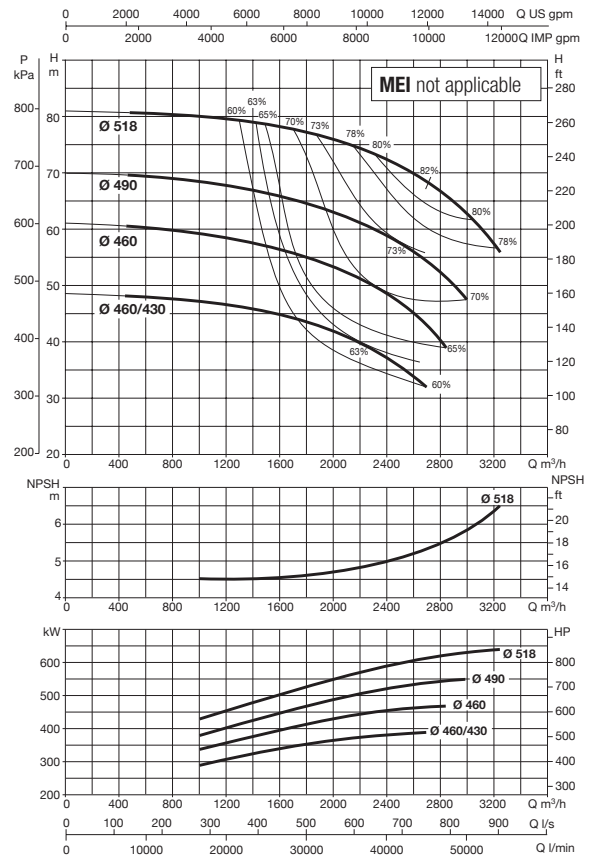
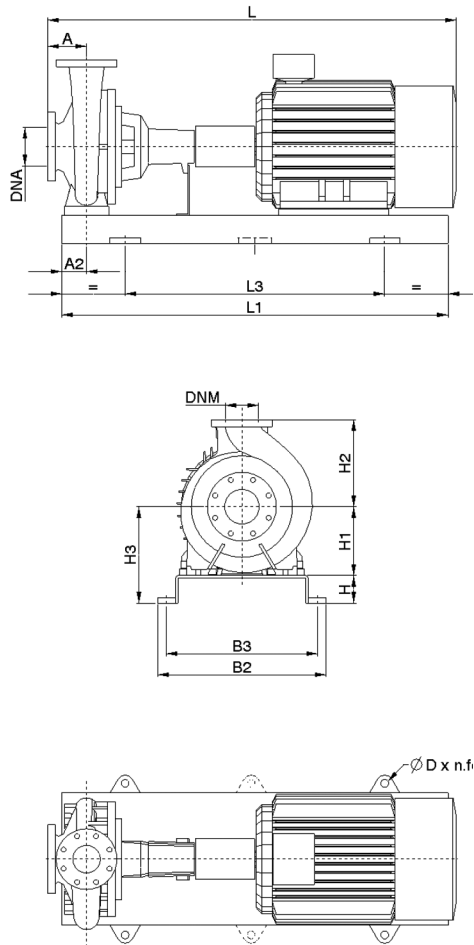
Dimension and electrical data based on sizing definition following the instructions on page 176.

(*) Data on request.

KDN 350-500 - 4 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 1450 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 4 POLES | | | IE2 | IE3 | |
| KDN 350-500 | 355 | 355 | 3 x 400 V ~ Δ | (*) | (*) | IE2 / IE3 |
| | 400 | 355 | 3 x 400 V ~ Δ | (*) | (*) | IE2 / IE3 |
| | 500 | 355 | 3 x 400 V ~ Δ | (*) | (*) | IE2 / IE3 |

| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg |
| KDN 350-500 | 355 | 380 | (*) | (*) | 600 | 600 | 600 | (*) | (*) | (*) | (*) | (*) | 400 | 350 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |
| | 400 | 380 | (*) | (*) | 600 | 600 | 600 | (*) | (*) | (*) | (*) | (*) | 400 | 350 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |
| | 500 | 380 | (*) | (*) | 600 | 600 | 600 | (*) | (*) | (*) | (*) | (*) | 400 | 350 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |

Dimension and electrical data based on sizing definition following the instructions on page 176.

(*) Data on request.

KDN OVERSIZE - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

IE2 STANDARD MOTOR ELECTRIC DATA

=1450 1/min

| MOTOR TYPE | P2 NOMINAL kW | SPEED rpm | YIELD % | POWER FACTOR COS φ | POWER INPUT 50 Hz | In A | | Start-up current Ia/In | Start-up torque Ma/Mn | Maximum torque M/k/Mn | POLES |
|------------|---------------|-----------|---------|----------------------------|-------------------|------|------|------------------------|-----------------------|-----------------------|-------|
| | | | | | | 230 | 400 | | | | |
| MEC 71 | 0.25 | 1400 | 60.00 | 0.710 | 3 x 230/400 | 1.60 | 0.90 | 2.88 | 2.15 | 2.26 | 4 |
| MEC 71 | 0.37 | 1340 | 67.00 | 0.780 | 3 x 230/400 | 1.70 | 0.98 | 4.75 | 2.84 | 2.64 | 4 |
| MEC 80 | 0.55 | 1410 | 71.00 | 0.720 | 3 x 230/400 | 2.60 | 1.50 | 5.33 | 2.78 | 2.89 | 4 |
| MEC 80 | 0.75 | 1430 | 79.80 | 0.795 | 3 x 230/400 | 3.57 | 2.06 | 6.65 | 3.58 | 3.54 | 4 |
| MEC 90S | 1.10 | 1440 | 82.20 | 0.723 | 3 x 230/400 | 4.68 | 2.70 | 7.27 | 3.43 | 3.47 | 4 |
| MEC 90L | 1.50 | 1430 | 82.56 | 0.732 | 3 x 230/400 | 6.24 | 3.60 | 6.67 | 3.39 | 3.30 | 4 |
| MEC 100L | 2.20 | 1450 | 83.38 | 0.756 | 3 x 230/400 | 8.75 | 5.05 | 8.40 | 3.45 | 3.75 | 4 |

| MOTOR TYPE | P2 NOMINAL kW | SPEED rpm | YIELD % | POWER FACTOR COS φ | POWER INPUT 50 Hz | In A | | Start-up current Ia/In | Start-up torque Ma/Mn | Maximum torque M/k/Mn | POLES |
|------------|---------------|-----------|---------|----------------------------|-------------------|--------|--------|------------------------|-----------------------|-----------------------|-------|
| | | | | | | 400 | 690 | | | | |
| MEC 100L | 3.00 | 1440 | 86.72 | 0.800 | 3 x 400 Δ | 6.25 | 3.61 | 6.91 | 2.70 | 3.11 | 4 |
| MEC 112M | 4.00 | 1450 | 87.19 | 0.832 | 3 x 400 Δ | 7.95 | 4.59 | 8.72 | 3.17 | 3.53 | 4 |
| MEC 132S | 5.50 | 1460 | 88.78 | 0.851 | 3 x 400 Δ | 10.60 | 6.15 | 7.97 | 2.37 | 3.13 | 4 |
| MEC 132M | 7.50 | 1460 | 89.81 | 0.849 | 3 x 400 Δ | 14.20 | 8.20 | 8.70 | 2.62 | 3.07 | 4 |
| MEC 160M | 11.00 | 1470 | 90.44 | 0.818 | 3 x 400 Δ | 21.60 | 12.47 | 8.32 | 2.70 | 2.95 | 4 |
| MEC 160L | 15.00 | 1470 | 90.48 | 0.834 | 3 x 400 Δ | 29.00 | 16.74 | 8.16 | 2.58 | 2.96 | 4 |
| MEC 180M | 18.50 | 1470 | 92.00 | 0.873 | 3 x 400 Δ | 33.00 | 19.05 | 7.66 | 2.93 | 3.23 | 4 |
| MEC 180L | 22.00 | 1470 | 92.31 | 0.862 | 3 x 400 Δ | 40.00 | 23.09 | 7.86 | 2.63 | 3.19 | 4 |
| MEC 200L | 30.00 | 1480 | 92.80 | 0.874 | 3 x 400 Δ | 53.31 | 30.78 | 8.72 | 3.17 | 3.53 | 4 |
| MEC 225S | 37.00 | 1480 | 93.22 | 0.865 | 3 x 400 Δ | 66.50 | 38.39 | 6.74 | 2.13 | 2.86 | 4 |
| MEC 225M | 45.00 | 1480 | 93.09 | 0.881 | 3 x 400 Δ | 79.50 | 45.90 | 7.53 | 2.34 | 2.92 | 4 |
| MEC 250M | 55.00 | 1490 | 94.22 | 0.843 | 3 x 400 Δ | 98.00 | 56.58 | 8.47 | 2.82 | 3.36 | 4 |
| MEC 280S | 75.00 | 1480 | 94.48 | 0.876 | 3 x 400 Δ | 132.00 | 76.50 | 8.69 | 2.96 | 3.56 | 4 |
| MEC 280M | 90.00 | 1480 | 94.78 | 0.895 | 3 x 400 Δ | 154.00 | 89.00 | 9.49 | 3.42 | 3.80 | 4 |
| MEC 315S | 110.00 | 1490 | 94.70 | 0.877 | 3 x 400 Δ | 195.00 | 112.59 | 7.14 | 2.51 | 3.44 | 4 |
| MEC 315M | 132.00 | 1490 | 94.80 | 0.879 | 3 x 400 Δ | 235.00 | 135.68 | 7.08 | 2.55 | 3.39 | 4 |
| MEC 315L | 160.00 | 1490 | 95.00 | 0.877 | 3 x 400 Δ | 285.00 | 164.55 | 7.18 | 2.67 | 3.40 | 4 |
| MEC 315L | 200.00 | 1490 | 95.10 | 0.874 | 3 x 400 Δ | 350.00 | 202.08 | 7.25 | 2.77 | 3.41 | 4 |
| MEC355M | 250.00 | 1490 | 96.01 | 0.88 | 3 x 400 Δ | 425.00 | 246.40 | 7.27 | 2.42 | 3.50 | 4 |
| MEC355L | 315.00 | 1490 | 95.98 | 0.88 | 3 x 400 Δ | 538.00 | 311.88 | 8.08 | 2.46 | 3.83 | 4 |

KDN OVERSIZE - 4 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

IE3 STANDARD MOTOR ELECTRIC DATA

=1450 1/min

| MOTOR TYPE | P2 NOMINAL kW | SPEED rpm | YIELD % | POWER FACTOR COS φ | POWER INPUT 50 Hz | In A | | Start-up current Ia/In | Start-up torque Ma/Mn | Maximum torque M/k/Mn | POLES |
|------------|---------------|-----------|---------|----------------------------|-------------------|--------|--------|------------------------|-----------------------|-----------------------|-------|
| | | | | | | 400 | 690 | | | | |
| MEC 132M | 7.50 | 1460 | 90.40 | 0.820 | 3 x 400 Δ | 14.60 | 8.44 | 8.50 | 2.70 | 3.20 | 4 |
| MEC 160M | 11.00 | 1470 | 91.40 | 0.850 | 3 x 400 Δ | 20.50 | 11.85 | 8.40 | 2.90 | 3.10 | 4 |
| MEC 160L | 15.00 | 1470 | 92.10 | 0.850 | 3 x 400 Δ | 28.00 | 16.18 | 8.30 | 2.90 | 3.00 | 4 |
| MEC 180M | 18.50 | 1470 | 92.60 | 0.850 | 3 x 400 Δ | 34.00 | 19.65 | 7.90 | 2.40 | 3.00 | 4 |
| MEC 180L | 22.00 | 1470 | 92.90 | 0.850 | 3 x 400 Δ | 40.50 | 23.41 | 8.30 | 2.60 | 3.10 | 4 |
| MEC 200L | 30.00 | 1470 | 93.60 | 0.870 | 3 x 400 Δ | 53.50 | 30.92 | 8.60 | 2.80 | 3.40 | 4 |
| MEC 225S | 37.00 | 1480 | 93.90 | 0.880 | 3 x 400 Δ | 65.00 | 37.57 | 7.50 | 2.20 | 2.60 | 4 |
| MEC 225M | 45.00 | 1480 | 94.20 | 0.880 | 3 x 400 Δ | 78.50 | 45.38 | 8.00 | 2.50 | 2.80 | 4 |
| MEC 250M | 55.00 | 1480 | 94.60 | 0.870 | 3 x 400 Δ | 96.00 | 55.49 | 8.10 | 2.40 | 2.80 | 4 |
| MEC 280S | 75.00 | 1490 | 95.00 | 0.880 | 3 x 400 Δ | 130.00 | 75.14 | 7.40 | 2.20 | 2.90 | 4 |
| MEC 280M | 90.00 | 1490 | 95.20 | 0.880 | 3 x 400 Δ | 156.00 | 90.17 | 6.80 | 2.10 | 2.60 | 4 |
| MEC 315S | 110.00 | 1490 | 95.40 | 0.860 | 3 x 400 Δ | 190.00 | 109.83 | 6.90 | 2.20 | 3.00 | 4 |
| MEC 315M | 132.00 | 1490 | 95.60 | 0.860 | 3 x 400 Δ | 230.00 | 132.95 | 6.90 | 2.30 | 3.00 | 4 |
| MEC 315L | 160.00 | 1490 | 95.80 | 0.870 | 3 x 400 Δ | 275.00 | 158.96 | 6.90 | 2.30 | 2.90 | 4 |
| MEC 315L | 200.00 | 1490 | 96.00 | 0.880 | 3 x 400 Δ | 340.00 | 196.53 | 6.70 | 2.30 | 2.80 | 4 |
| MEC 355M | 250.00 | 1490 | 96.00 | 0.890 | 3 x 400 Δ | 420.00 | 242.77 | 7.70 | 2.60 | 2.70 | 4 |
| MEC 355L | 315.00 | 1490 | 96.00 | 0.890 | 3 x 400 Δ | 530.00 | 306.36 | 7.80 | 2.80 | 2.70 | 4 |

KDN OVERSIZE - 6 POLE RANGE

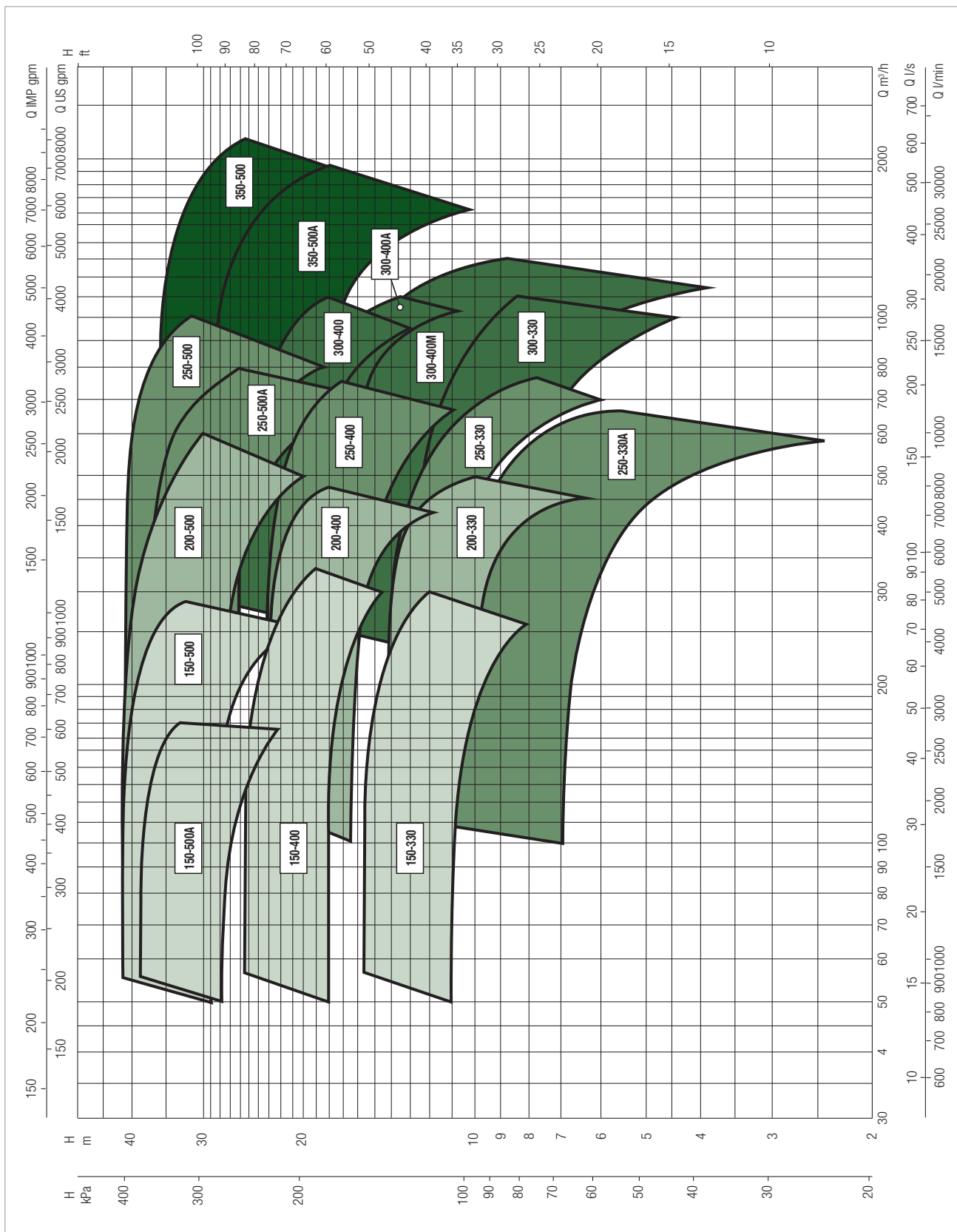
STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE

= 970 1/min



KDN OVERSIZE - 6 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 150

| MODEL | Q=m ³ /h | 0 | 50 | 100 | 150 | 200 | 250 | 300 |
|--------------------|---------------------|----|-----|------|------|------|------|------|
| | Q=l/min | 0 | 833 | 1667 | 2500 | 3333 | 4167 | 5000 |
| KDN 150-330 / 280 | H (m) | 11 | 11 | 11 | 11 | 10 | 8 | |
| KDN 150-330 / 300 | | 13 | 13 | 13 | 12 | 12 | 10 | |
| KDN 150-330 / 315 | | 14 | 14 | 14 | 14 | 13 | 12 | |
| KDN 150-330 / 328 | | 16 | 16 | 16 | 15 | 15 | 14 | 12 |
| KDN 150-400 / 350 | | 18 | 18 | 18 | 18 | 17 | 16 | 14 |
| KDN 150-400 / 370 | | 20 | 20 | 20 | 20 | 19 | 18 | 16 |
| KDN 150-400 / 390 | | 23 | 23 | 23 | 23 | 22 | 21 | 18 |
| KDN 150-400 / 408 | | 25 | 25 | 25 | 25 | 25 | 23 | 21 |
| KDN 150-500 / 440 | | 29 | 29 | 29 | 28 | 24 | | |
| KDN 150-500 / 480 | | 35 | 35 | 35 | 33 | 31 | 27 | |
| KDN 150-500 / 518 | | 41 | 41 | 41 | 40 | 39 | 35 | |
| KDN 150-500A / 440 | | 28 | 28 | 27 | 24 | | | |
| KDN 150-500A / 480 | | 33 | 33 | 32 | 29 | | | |
| KDN 150-500A / 518 | | 39 | 39 | 39 | 36 | | | |

SELECTION TABLE - KDN 200

| MODEL | Q=m ³ /h | 0 | 50 | 100 | 150 | 200 | 250 | 300 | 400 | 450 | 500 | 600 |
|-------------------|---------------------|----|-----|------|------|------|------|------|------|------|------|-------|
| | Q=l/min | 0 | 833 | 1667 | 2500 | 3333 | 4167 | 5000 | 6667 | 7500 | 8334 | 10000 |
| KDN 200-330 / 290 | H (m) | 10 | | 10 | 10 | 10 | 10 | 10 | 8 | 6 | | |
| KDN 200-330 / 310 | | 12 | | 12 | 12 | 12 | 12 | 12 | 11 | 8 | | |
| KDN 200-330 / 328 | | 14 | | 14 | 14 | 14 | 14 | 14 | 13 | 12 | 10 | |
| KDN 200-400 / 350 | | 16 | | 16 | 16 | 16 | 16 | 16 | 13 | | | |
| KDN 200-400 / 370 | | 18 | | 18 | 18 | 18 | 18 | 18 | 16 | | | |
| KDN 200-400 / 390 | | 21 | | 21 | 21 | 21 | 20 | 20 | 19 | 17 | | |
| KDN 200-400 / 408 | | 23 | | 23 | 23 | 23 | 23 | 23 | 22 | 20 | | |
| KDN 200-500 / 430 | | 28 | | 28 | 28 | 28 | 27 | 27 | 24 | 22 | 20 | |
| KDN 200-500 / 470 | | 34 | | 34 | 34 | 34 | 33 | 33 | 30 | 28 | 26 | |
| KDN 200-500 / 508 | | 41 | | 41 | 41 | 41 | 40 | 40 | 37 | 36 | 34 | 30 |

SELECTION TABLE - KDN 250

| MODEL | Q=m ³ /h | 0 | 50 | 100 | 150 | 200 | 250 | 300 | 400 | 450 | 500 | 600 | 700 | 800 | 1000 |
|-----------------------|---------------------|----|-----|------|------|------|------|------|------|------|------|-------|-------|-------|-------|
| | Q=l/min | 0 | 833 | 1667 | 2500 | 3333 | 4167 | 5000 | 6667 | 7500 | 8334 | 10000 | 11667 | 13334 | 16667 |
| KDN 250-330 / 310 | H (m) | 13 | | 12 | 12 | 12 | 12 | 11 | 11 | 10 | 10 | 8 | 6 | | |
| KDN 250-330 / 320 | | 14 | | 13 | 13 | 13 | 13 | 13 | 12 | 12 | 11 | 10 | 8 | | |
| KDN 250-330 / 328 | | 15 | | 15 | 15 | 14 | 14 | 14 | 13 | 13 | 13 | 11 | 10 | | |
| KDN 250-330 / 275/32° | | 7 | | 7 | 7 | 7 | 6 | 6 | 5 | 5 | 4 | 2 | | | |
| KDN 250-330 / 275 | | 10 | | 10 | 9 | 9 | 9 | 9 | 8 | 7 | 7 | | | | |
| KDN 250-330 / 295 | | 12 | | 12 | 12 | 11 | 11 | 11 | 10 | 9 | 9 | 7 | | | |
| KDN 250-400 / 350 | | 16 | | 16 | 16 | 16 | 16 | 16 | 15 | 15 | 14 | 12 | | | |
| KDN 250-400 / 370 | | 19 | | 19 | 19 | 19 | 18 | 18 | 18 | 18 | 17 | 15 | 13 | | |
| KDN 250-400 / 390 | | 22 | | 22 | 22 | 21 | 21 | 21 | 21 | 21 | 20 | 18 | | | |
| KDN 250-400 / 408 | | 23 | | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 22 | 21 | 18 | | |
| KDN 250-500 / 440 | | 26 | | | | 26 | 26 | 26 | 25 | 25 | 25 | 24 | 22 | 19 | |
| KDN 250-500 / 480 | | 32 | | | | 32 | 32 | 32 | 32 | 32 | 32 | 31 | 30 | 28 | |
| KDN 250-500 / 518 | | 40 | | | | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 39 | 38 | 31 |
| KDN 250-500A / 440 | | 27 | | | | 27 | 27 | 26 | 25 | 24 | 23 | 20 | | | |
| KDN 250-500A / 480 | | 33 | | | | 33 | 33 | 33 | 32 | 31 | 30 | 27 | 23 | | |
| KDN 250-500A / 518 | | 39 | | | | 39 | 39 | 38 | 38 | 37 | 36 | 34 | 31 | 26 | |

KDN OVERSIZE - 6 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

SELECTION TABLE - KDN 300

| MODEL | Q=m ³ /h | 0 | 50 | 100 | 150 | 200 | 250 | 300 | 400 | 450 | 500 | 600 | 700 | 800 | 1000 | 1200 |
|------------------------|---------------------|----|-----|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|
| | Q=l/min | 0 | 833 | 1667 | 2500 | 3333 | 4167 | 5000 | 6667 | 7500 | 8334 | 10000 | 11667 | 13334 | 16667 | 20000 |
| KDN 300-330 / 325/24° | H (m) | 9 | | | | 9 | 9 | 9 | 9 | 9 | 8 | 8 | 7 | 6 | 5 | |
| KDN 300-330 / 325 | | 12 | | | | 11 | 11 | 11 | 11 | 11 | 10 | 10 | 9 | 9 | 7 | |
| KDN 300-330 / 345 | | 14 | | | | 13 | 13 | 13 | 13 | 13 | 12 | 12 | 12 | 11 | 9 | |
| KDN 300-400 / 370 | | 20 | | | | 20 | 20 | 20 | 20 | 20 | 20 | 19 | 18 | 16 | | |
| KDN 300-400 / 390 | | 23 | | | | 23 | 23 | 23 | 22 | 22 | 22 | 21 | 21 | 20 | 17 | |
| KDN 300-400 / 408 | | 26 | | | | 25 | 25 | 25 | 25 | 25 | 25 | 24 | 24 | 23 | 20 | |
| KDN 300-400A / 340 | | 17 | | | | | 17 | 16 | 16 | 16 | 16 | 16 | 15 | 14 | 11 | |
| KDN 300-400A / 355 | | 18 | | | | x | 18 | 18 | 18 | 18 | 18 | 18 | 17 | 16 | 13 | |
| KDN 300-400A / 370 | | 20 | | | | x | 20 | 20 | 20 | 20 | 20 | 20 | 19 | 18 | 16 | |
| KDN 300-400M / 380/350 | | 10 | | | | x | 10 | 10 | 10 | 10 | 10 | 9 | 9 | 8 | 6 | |
| KDN 300-400M / 380 | | 14 | | | | x | 14 | 14 | 14 | 14 | 14 | 13 | 13 | 12 | 10 | 6 |
| KDN 300-400M / 395 | | 16 | | | | x | 16 | 16 | 16 | 16 | 16 | 15 | 15 | 14 | 12 | 9 |
| KDN 300-400M / 408 | | 18 | | | | x | 18 | 18 | 18 | 18 | 18 | 17 | 17 | 16 | 15 | 11 |

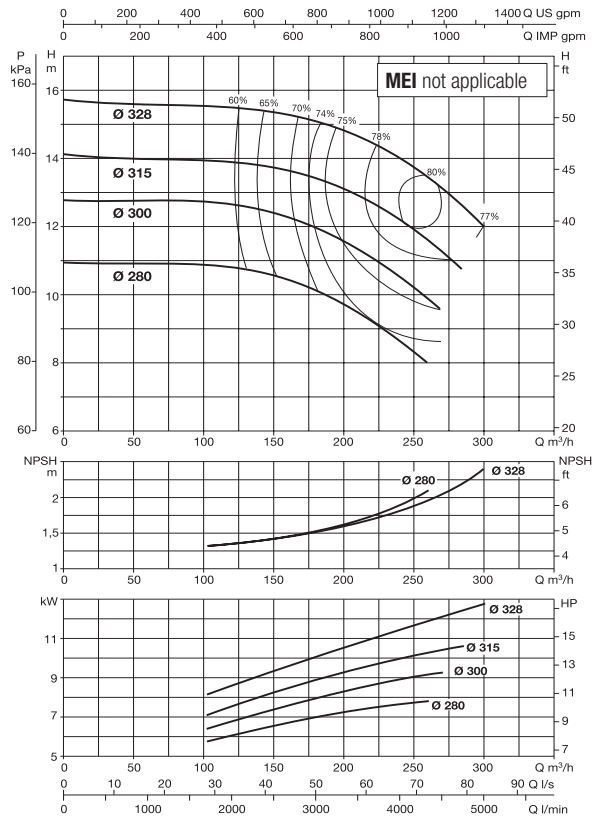
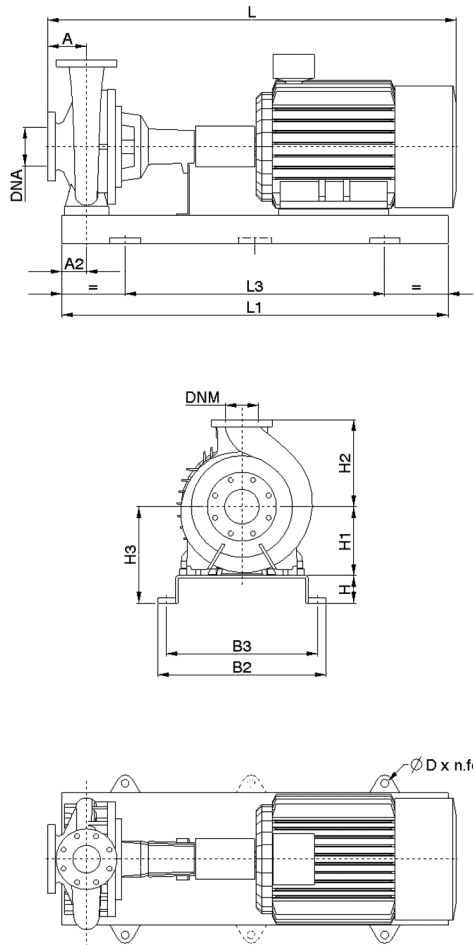
SELECTION TABLE - KDN 350

| MODEL | Q=m ³ /h | 0 | 50 | 100 | 150 | 200 | 250 | 300 | 400 | 450 | 500 | 600 | 700 | 800 | 1000 | 1200 | 1600 | 1700 | 1800 | 1900 | 2000 |
|------------------------|---------------------|----|-----|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | Q=l/min | 0 | 833 | 1667 | 2500 | 3333 | 4167 | 5000 | 6667 | 7500 | 8334 | 10000 | 11667 | 13334 | 16667 | 20000 | 26667 | 28334 | 30001 | 31667 | 33334 |
| KDN 350-500 / 460/430 | H (m) | 22 | | | | | | | 22 | 22 | 21 | 21 | 21 | 21 | 20 | 20 | 17 | 16 | 14 | | |
| KDN 350-500 / 460 | | 27 | | | | | | | 27 | 27 | 27 | 27 | 26 | 26 | 26 | 25 | 22 | 21 | 19 | | |
| KDN 350-500 / 490 | | 31 | | | | | | | 31 | 31 | 31 | 31 | 31 | 30 | 30 | 29 | 26 | 26 | 24 | 23 | 21 |
| KDN 350-500 / 518 | | 36 | | | | | | | 36 | 36 | 36 | 36 | 36 | 36 | 35 | 35 | 33 | 32 | 31 | 30 | 28 |
| KDN 350-500A / 405/16° | | 18 | | | | | | | 18 | 18 | 18 | 18 | 18 | 18 | 17 | 16 | 9 | | | | |
| KDN 350-500A / 405/435 | | 22 | | | | | | | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 20 | 16 | 14 | | | |
| KDN 350-500A / 435 | | 26 | | | | | | | 26 | 26 | 26 | 26 | 25 | 25 | 25 | 24 | 20 | 18 | 16 | | |
| KDN 350-500A / 465 | | 29 | | | | | | | 29 | 29 | 29 | 29 | 29 | 29 | 28 | 27 | 24 | 23 | 21 | 19 | |

KDN 150-330 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 6 POLES | | | IE2 | IE3 | |
| KDN 150-330 | 7.5 | 160L | 3 x 400 V ~ Δ | 16.4 | 15.80 | IE2 / IE3 |
| | 11 | 160L | 3 x 400 V ~ Δ | 23.6 | 23.10 | IE2 / IE3 |
| | 15 | 180L | 3 x 400 V ~ Δ | 31.5 | 29.70 | IE2 / IE3 |

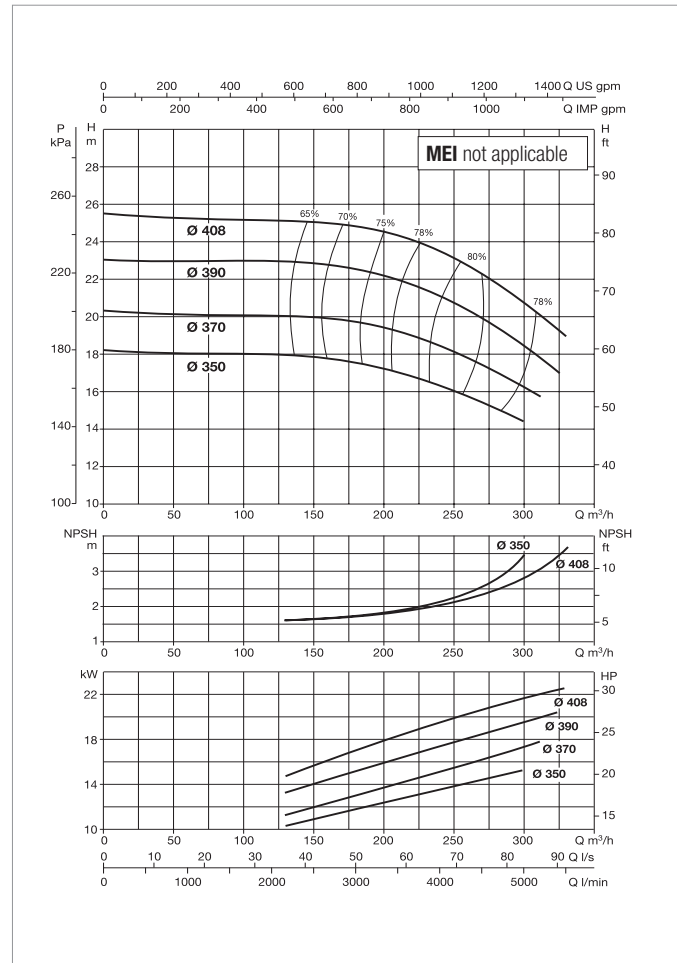
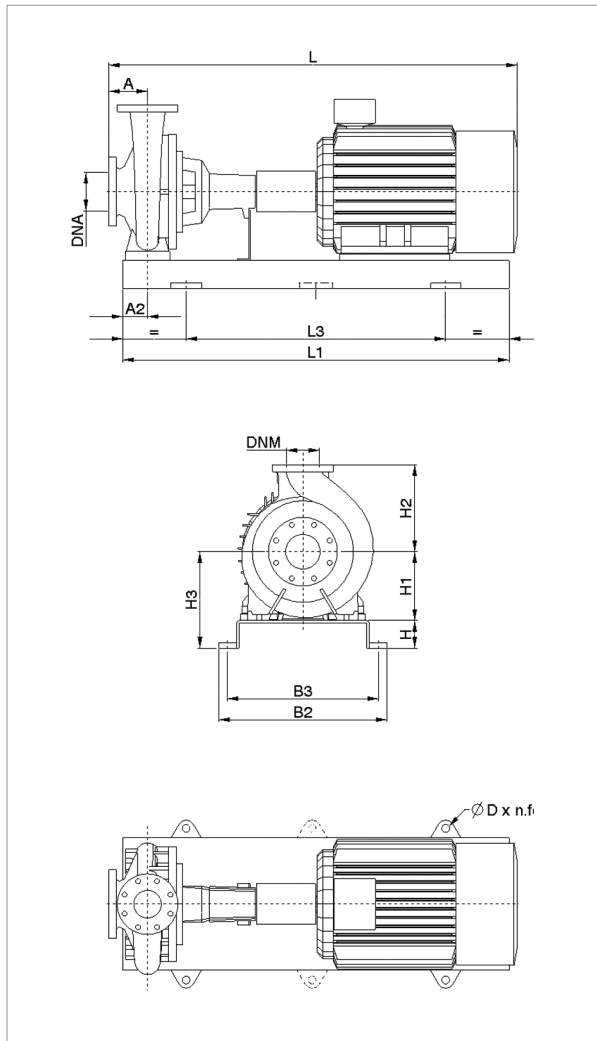
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|-----|---------------------------|------|-------------------|------|--------------|------|-----------------|------|--------------|---|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| KDN 150-330 | 7.5 | 160 | 110 | 100 | 315 | 400 | 415 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1504 | 438 | 1554 | 438 | 1685 | 453 | 1735 | 453 | 9 | |
| | 11 | 160 | 110 | 100 | 315 | 400 | 415 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1504 | 438 | 1554 | 438 | 1685 | 453 | 1735 | 453 | 9 | |
| | 15 | 160 | 110 | 100 | 315 | 400 | 415 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1562 | 438 | 1612 | 438 | 1743 | 453 | 1793 | 453 | 9 | |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 150-400 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 6 POLES | | | IE2 | IE3 | |
| KDN 150-400 | 18.5 | 200L | 3 x 400 V ~ Δ | 36.5 | 36 | IE2 / IE3 |
| | 22 | 200L | 3 x 400 V ~ Δ | 44 | 42.50 | IE2 / IE3 |
| | 30 | 225M | 3 x 400 V ~ Δ | 55 | 54.80 | IE2 / IE3 |

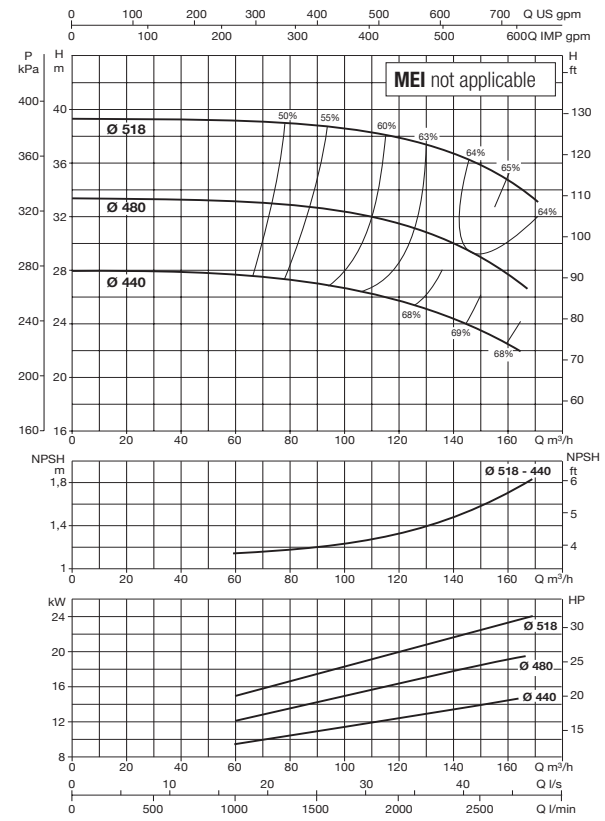
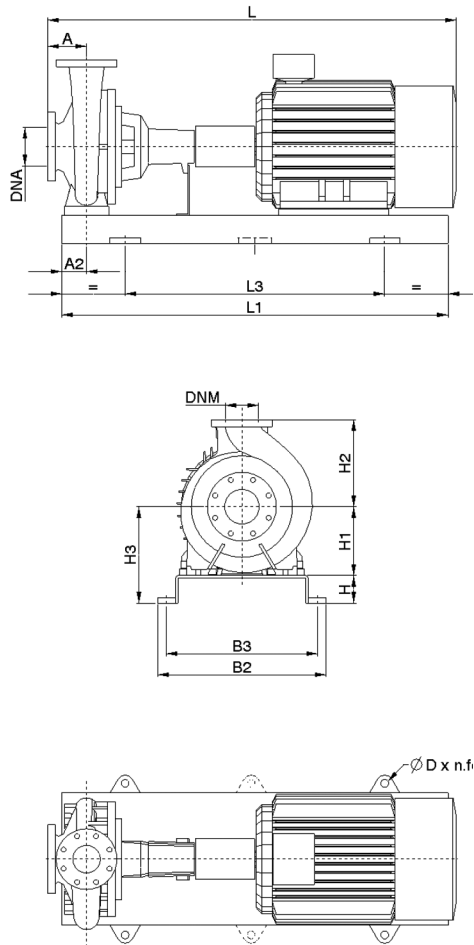
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| KDN 150-400 | 18.5 | 160 | 110 | 100 | 315 | 450 | 415 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1604 | 481 | 1654 | 481 | 1785 | 496 | 1835 | 496 | 9 |
| | 22 | 160 | 110 | 100 | 315 | 450 | 415 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1604 | 481 | 1654 | 481 | 1785 | 496 | 1835 | 496 | 9 |
| | 30 | 160 | 110 | 100 | 315 | 450 | 415 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1679 | 481 | 1729 | 481 | 1860 | 496 | 1910 | 496 | 9 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 150-500A - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|--------------|-----------------|------------|-------------------|------|-------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 6 POLES | | | IE2 | IE3 | |
| KDN 150-500A | 11 | 160L | 3 x 400 V ~ Δ | 23.6 | 23.10 | IE2 / IE3 |
| | 15 | 180L | 3 x 400 V ~ Δ | 31.5 | 29.70 | IE2 / IE3 |
| | 18.5 | 200L | 3 x 400 V ~ Δ | 36.5 | 36 | IE2 / IE3 |
| | 22 | 200L | 3 x 400 V ~ Δ | 44 | 42.50 | IE2 / IE3 |
| | 30 | 225M | 3 x 400 V ~ Δ | 55 | 54.80 | IE2 / IE3 |

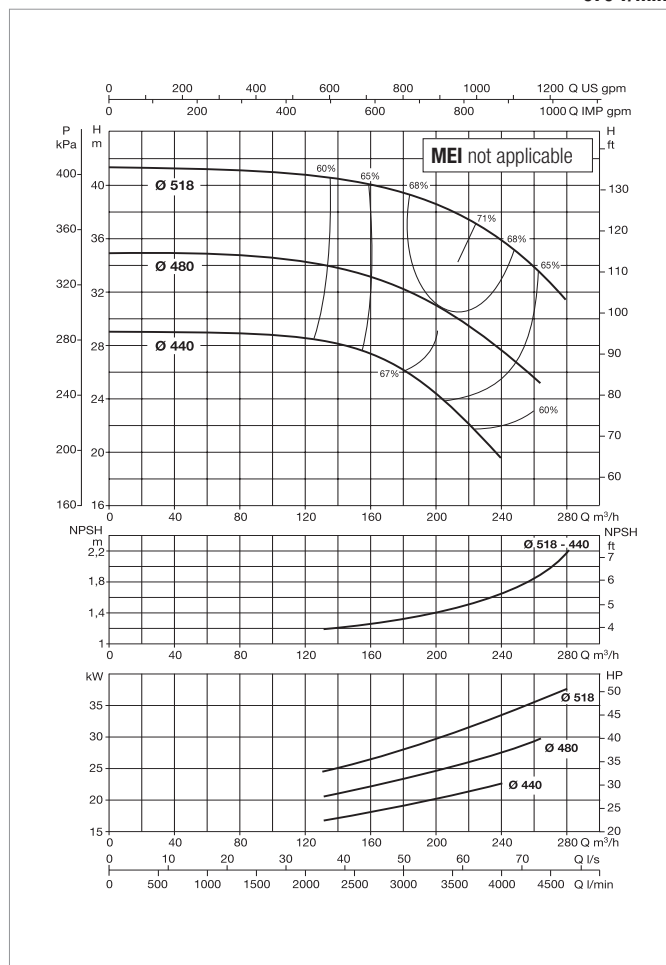
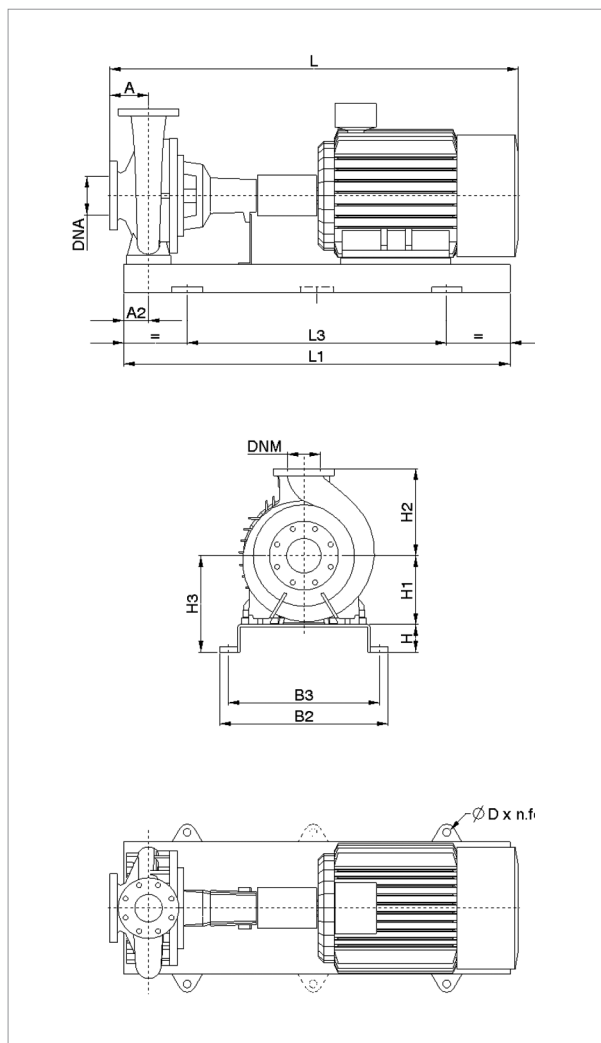
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|--------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 150-500A | 11 | 180 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1524 | 593 | 1574 | 593 | 1705 | 608 | 1755 | 608 | 9 |
| | 15 | 180 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1582 | 593 | 1632 | 593 | 1763 | 608 | 1813 | 608 | 9 |
| | 18.5 | 180 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1624 | 593 | 1674 | 593 | 1805 | 608 | 1855 | 608 | 9 |
| | 22 | 180 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1624 | 593 | 1674 | 593 | 1805 | 608 | 1855 | 608 | 9 |
| | 30 | 180 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1699 | 593 | 1749 | 593 | 1880 | 608 | 1930 | 608 | 9 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 150-500 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 6 POLES | | | IE2 | IE3 | |
| KDN 150-500 | 22 | 200L | 3 x 400 V ~ Δ | 44 | 42.50 | IE2 / IE3 |
| | 30 | 225M | 3 x 400 V ~ Δ | 55 | 54.80 | IE2 / IE3 |
| | 37 | 250M | 3 x 400 V ~ Δ | 69 | 66.60 | IE2 / IE3 |
| | 45 | 280S | 3 x 400 V ~ Δ | 85.9 | 80.60 | IE2 / IE3 |

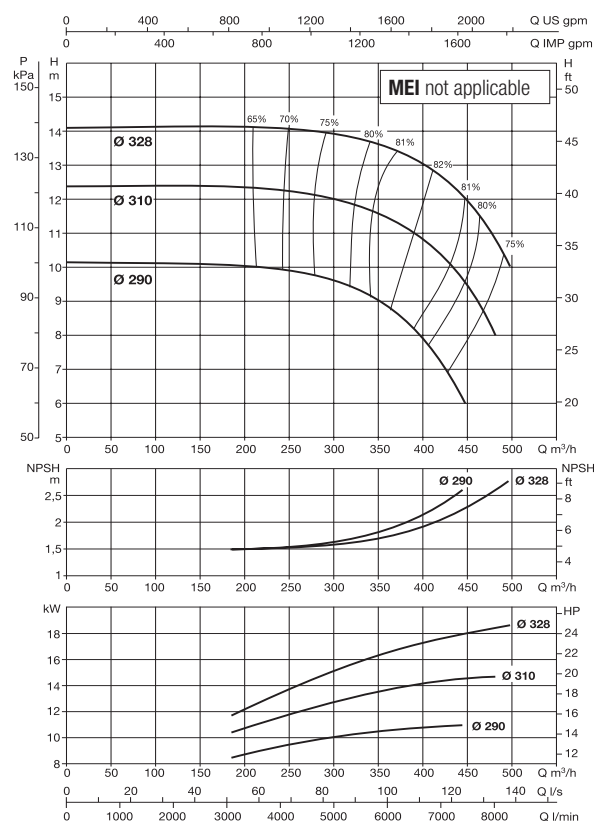
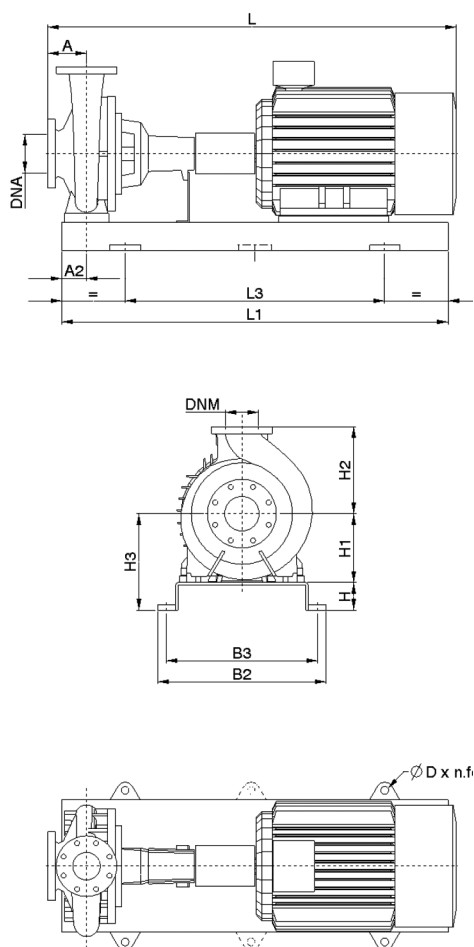
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 150-500 | 22 | 180 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1624 | 593 | 1674 | 593 | 1805 | 608 | 1855 | 608 | 9 |
| | 30 | 180 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1699 | 593 | 1749 | 593 | 1880 | 608 | 1930 | 608 | 9 |
| | 37 | 180 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1769 | 593 | 1840 | 593 | 1950 | 608 | 2021 | 608 | 9 |
| | 45 | 180 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 200 | 150 | 1824 | 593 | 1895 | 593 | 2005 | 608 | 2076 | 608 | 9 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 200-330 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 6 POLES | | | IE2 | IE3 | |
| KDN 200-330 | 11 | 160L | 3 x 400 V ~ Δ | 23.6 | 23.10 | IE2 / IE3 |
| | 15 | 180L | 3 x 400 V ~ Δ | 31.5 | 29.70 | IE2 / IE3 |
| | 18.5 | 200L | 3 x 400 V ~ Δ | 36.5 | 36 | IE2 / IE3 |
| | 22 | 200L | 3 x 400 V ~ Δ | 44 | 42.50 | IE2 / IE3 |
| | 30 | 225M | 3 x 400 V ~ Δ | 55 | 54.80 | IE2 / IE3 |

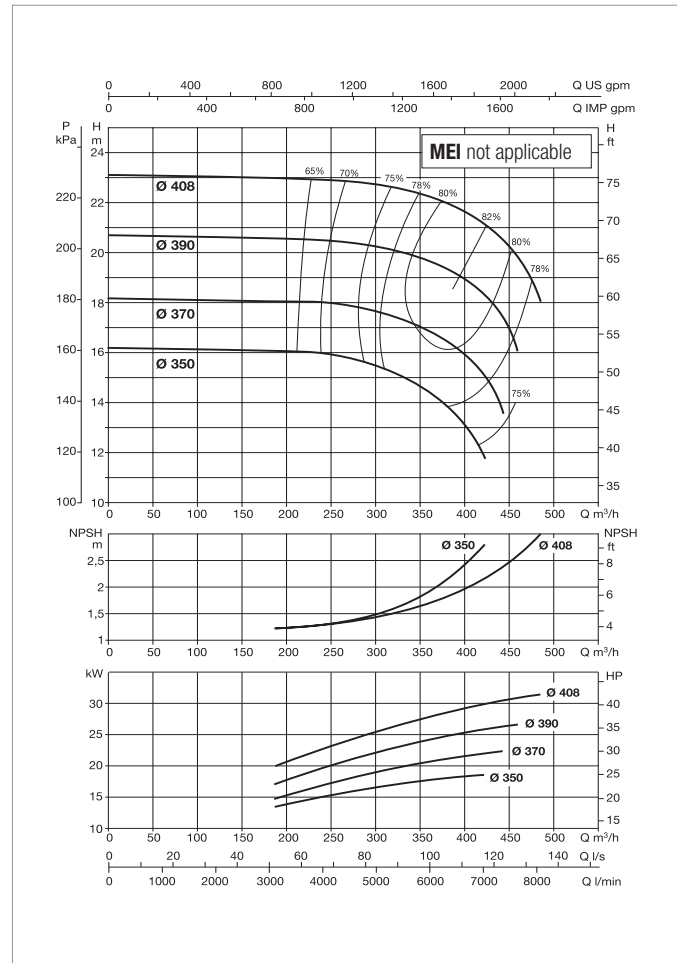
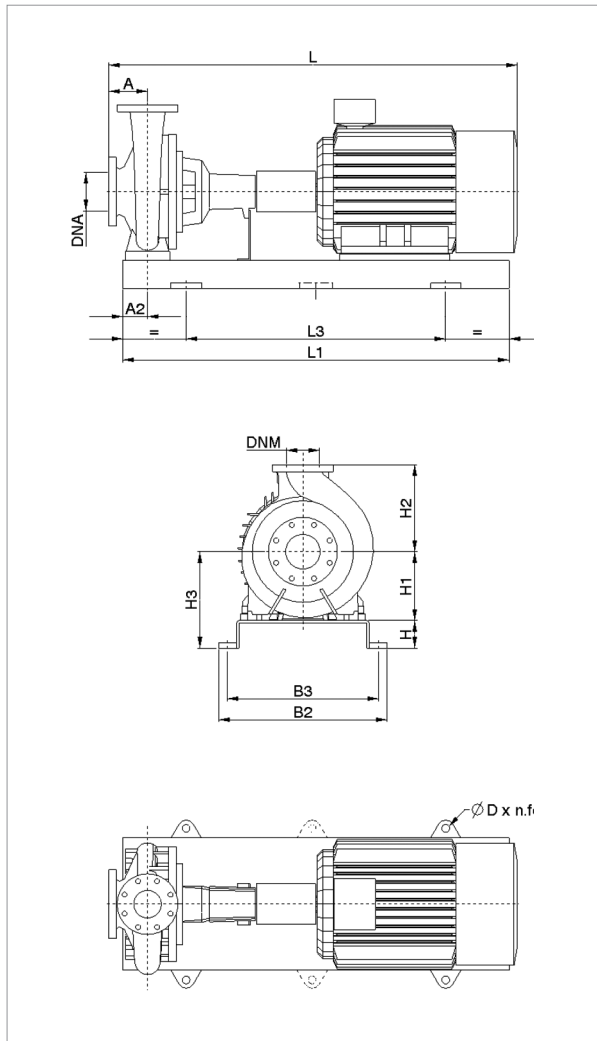
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 200-330 | 11 | 200 | 110 | 100 | 355 | 450 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 250 | 200 | 1544 | 543 | 1594 | 543 | 1725 | 558 | 1775 | 558 | 9 |
| | 15 | 200 | 110 | 100 | 355 | 450 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 250 | 200 | 1602 | 543 | 1652 | 543 | 1783 | 558 | 1833 | 558 | 9 |
| | 18.5 | 200 | 110 | 100 | 355 | 450 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 250 | 200 | 1644 | 543 | 1694 | 543 | 1825 | 558 | 1875 | 558 | 9 |
| | 22 | 200 | 110 | 100 | 355 | 450 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 250 | 200 | 1644 | 543 | 1694 | 543 | 1825 | 558 | 1875 | 558 | 9 |
| | 30 | 200 | 110 | 100 | 355 | 450 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 250 | 200 | 1719 | 543 | 1769 | 543 | 1900 | 558 | 1950 | 558 | 9 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 200-400 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 6 POLES | | | IE2 | IE3 | |
| KDN 200-400 | 15 | 180L | 3 x 400 V ~ Δ | 31.5 | 29.70 | IE2 / IE3 |
| | 18.5 | 200L | 3 x 400 V ~ Δ | 36.5 | 36 | IE2 / IE3 |
| | 22 | 200L | 3 x 400 V ~ Δ | 44 | 42.50 | IE2 / IE3 |
| | 30 | 225M | 3 x 400 V ~ Δ | 55 | 54.80 | IE2 / IE3 |
| | 37 | 250M | 3 x 400 V ~ Δ | 69 | 66.60 | IE2 / IE3 |

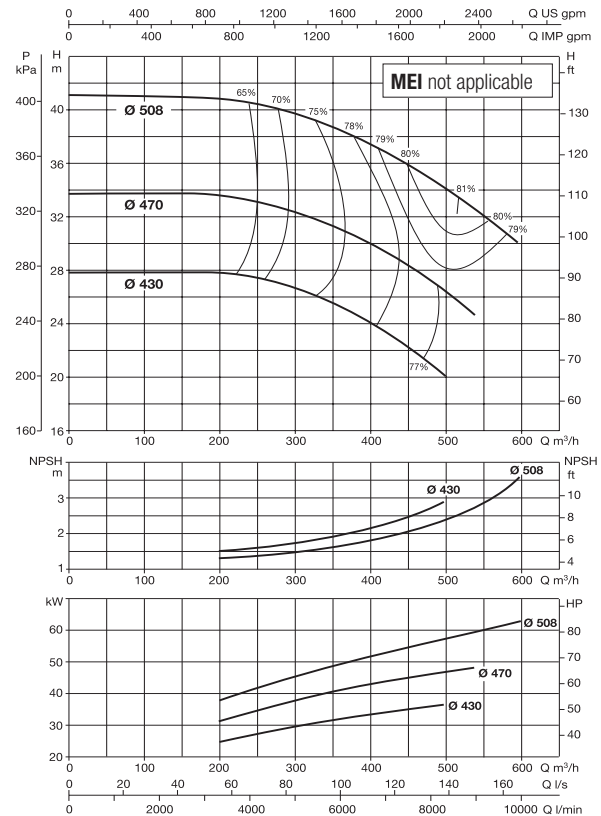
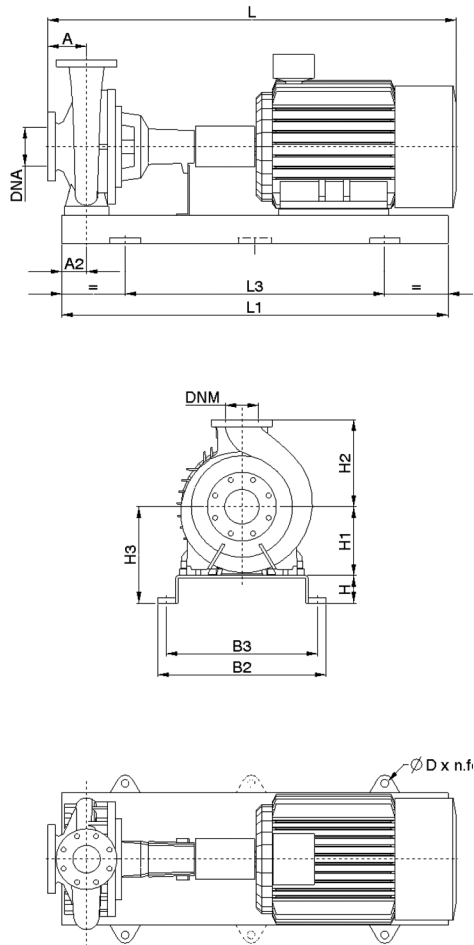
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. | |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|---------------------------|-----|-------------------|------|--------------|------|-----------------|------|--------------|------|------|--------------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | | WEIGHT kg |
| KDN 200-400 | 15 | 185 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 250 | 200 | 1587 | 573 | 1637 | 573 | 1768 | 588 | 1818 | 588 | 9 |
| | 18.5 | 185 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 250 | 200 | 1629 | 573 | 1679 | 573 | 1810 | 588 | 1860 | 588 | 9 |
| | 22 | 185 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 250 | 200 | 1629 | 573 | 1679 | 573 | 1810 | 588 | 1860 | 588 | 9 |
| | 30 | 185 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 250 | 200 | 1704 | 573 | 1754 | 573 | 1885 | 588 | 1935 | 588 | 9 |
| | 37 | 185 | 110 | 100 | 355 | 500 | 455 | 1800 | 1200 | 730 | 670 | 28x4 | 250 | 200 | 1774 | 573 | 1845 | 573 | 1955 | 588 | 2026 | 588 | 9 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 200-500 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 6 POLES | | | IE2 | IE3 | |
| KDN 200-500 | 22 | 200L | 3 x 400 V ~ Δ | 44 | 42.50 | IE2 / IE3 |
| | 30 | 225M | 3 x 400 V ~ Δ | 55 | 54.80 | IE2 / IE3 |
| | 37 | 250M | 3 x 400 V ~ Δ | 69 | 66.60 | IE2 / IE3 |
| | 45 | 280S | 3 x 400 V ~ Δ | 85.9 | 80.60 | IE2 / IE3 |
| | 55 | 280M | 3 x 400 V ~ Δ | 103 | 98.10 | IE2 / IE3 |
| | 75 | 315S | 3 x 400 V ~ Δ | 134 | 135 | IE2 / IE3 |

| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|---------------------------|-----|-------------------|------|--------------|------|-----------------|------|--------------|------|--------------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg |
| KDN 200-500 | 22 | 185 | 145 | 185 | 400 | 580 | (*) | (*) | (*) | (*) | (*) | (*) | 250 | 200 | 1935 | 1010 | 1985 | 1010 | 2115 | 1037 | 2165 | 1037 |
| | 30 | 185 | 145 | 185 | 400 | 580 | (*) | (*) | (*) | (*) | (*) | (*) | 250 | 200 | 1935 | 1070 | 1985 | 1070 | 2115 | 1097 | 2165 | 1097 |
| | 37 | 185 | 145 | 185 | 400 | 580 | (*) | (*) | (*) | (*) | (*) | (*) | 250 | 200 | 1935 | 1105 | 2006 | 1105 | 2115 | 1132 | 2186 | 1132 |
| | 45 | 185 | 145 | 185 | 400 | 580 | 585 | 1650 | 1050 | 960 | 915 | 20x4 | 250 | 200 | 1935 | 1120 | 2006 | 1120 | 2115 | 1135 | 2186 | 1135 |
| | 55 | 185 | 145 | 185 | 400 | 580 | 585 | 1650 | 1050 | 960 | 915 | 20x4 | 250 | 200 | 1935 | 1120 | 2006 | 1120 | 2115 | 1135 | 2186 | 1135 |
| | 75 | 185 | 145 | 205 | 400 | 580 | 605 | 1800 | 1200 | 960 | 915 | 20x4 | 250 | 200 | 2025 | 1600 | 2096 | 1600 | 2205 | 1615 | 2276 | 1615 |

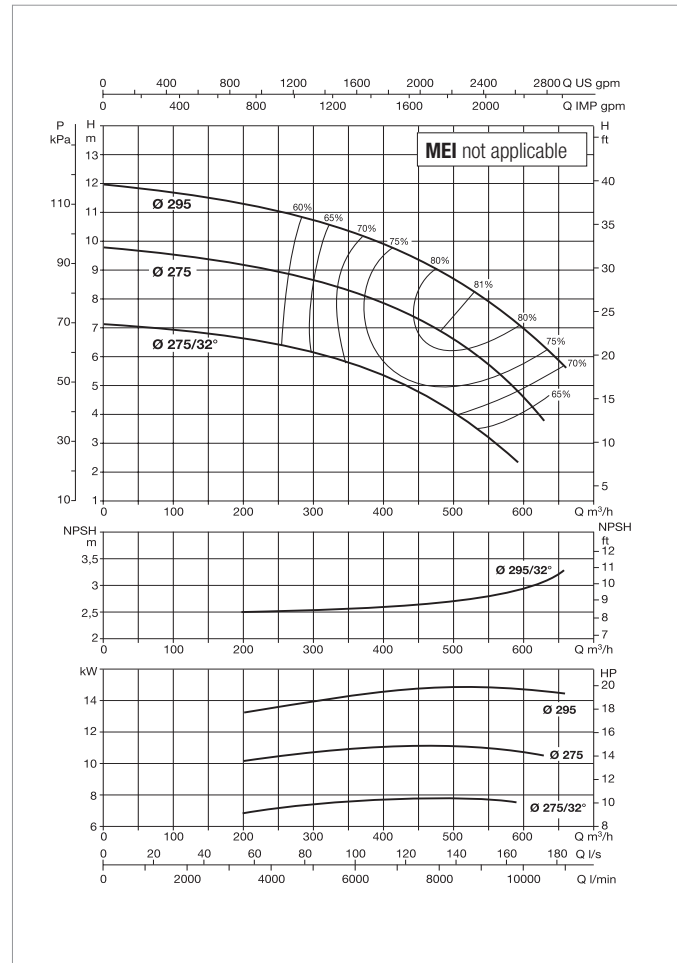
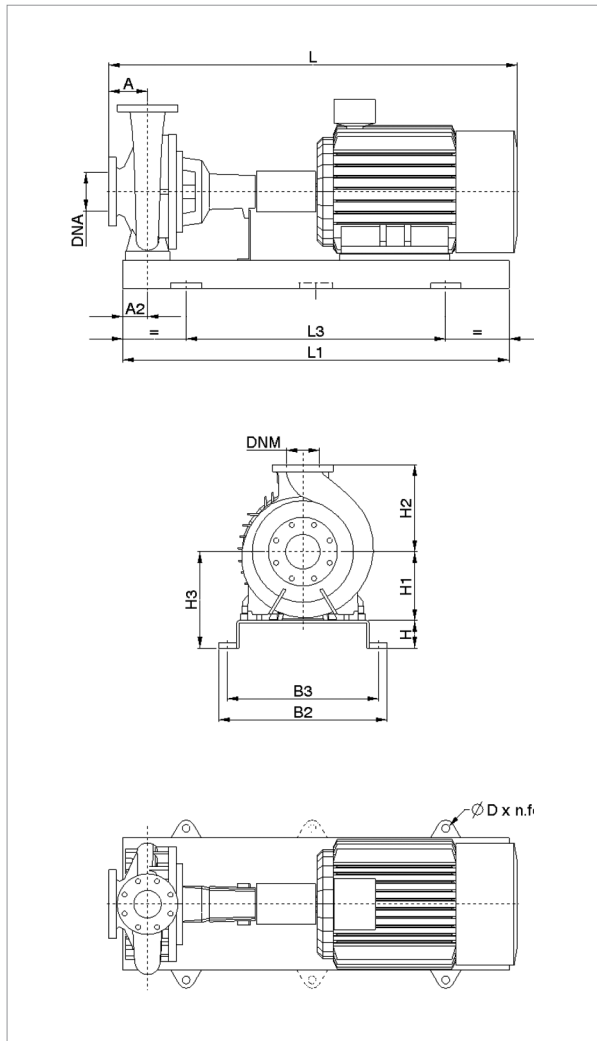
Dimension and electrical data based on sizing definition following the instructions on page 176.

(*) Data on request.

KDN 250-330A - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|--------------|-----------------|------------|-------------------|------|-------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 6 POLES | | | IE2 | IE3 | |
| KDN 250-330A | 7.5 | 160L | 3 x 400 V ~ Δ | 16.4 | 15.80 | IE2 / IE3 |
| | 11 | 160L | 3 x 400 V ~ Δ | 23.6 | 23.10 | IE2 / IE3 |
| | 15 | 180L | 3 x 400 V ~ Δ | 31.5 | 29.70 | IE2 / IE3 |

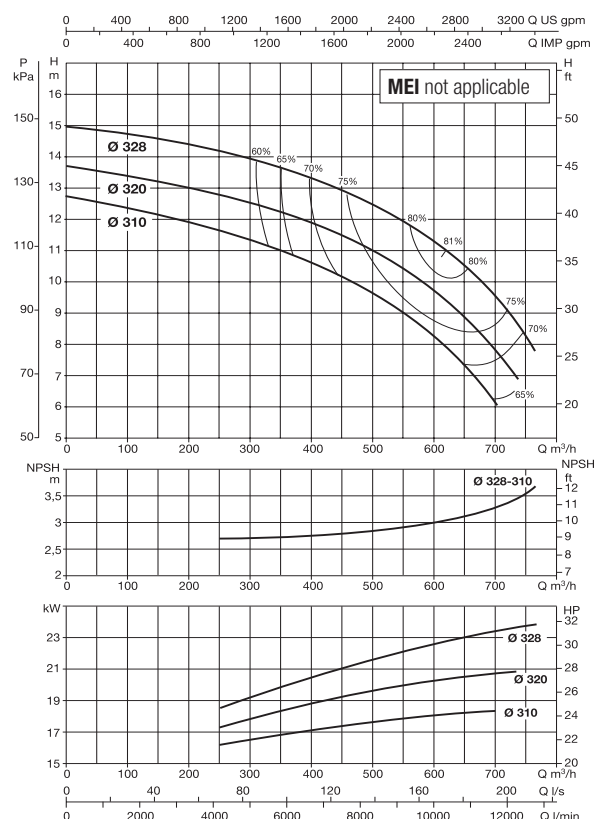
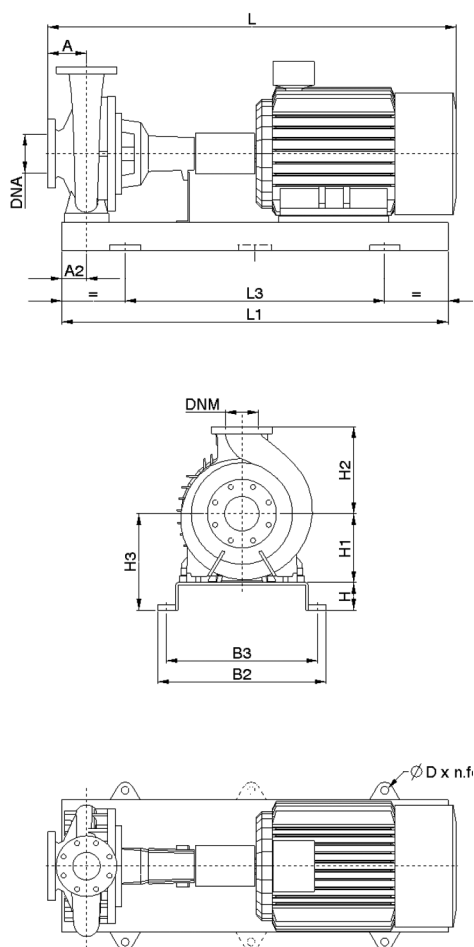
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|--------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|-----|---------------------------|-----|-------------------|-----|--------------|------|-----------------|------|--------------|----|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| KDN 250-330A | 7.5 | 250 | 135 | 120 | 400 | 525 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 924 | 647 | 974 | 647 | 1165 | 662 | 1215 | 662 | 10 | |
| | 11 | 250 | 135 | 120 | 400 | 525 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 924 | 647 | 974 | 647 | 1165 | 662 | 1215 | 662 | 10 | |
| | 15 | 250 | 135 | 120 | 400 | 525 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 924 | 647 | 974 | 647 | 1165 | 662 | 1215 | 662 | 10 | |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 250-330 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 6 POLES | | | IE2 | IE3 | |
| KDN 250-330 | 15 | 180L | 3 x 400 V ~ Δ | 31.5 | 29.70 | IE2 / IE3 |
| | 18.5 | 200L | 3 x 400 V ~ Δ | 36.5 | 36 | IE2 / IE3 |
| | 22 | 200L | 3 x 400 V ~ Δ | 44 | 42.50 | IE2 / IE3 |
| | 30 | 225M | 3 x 400 V ~ Δ | 55 | 54.80 | IE2 / IE3 |

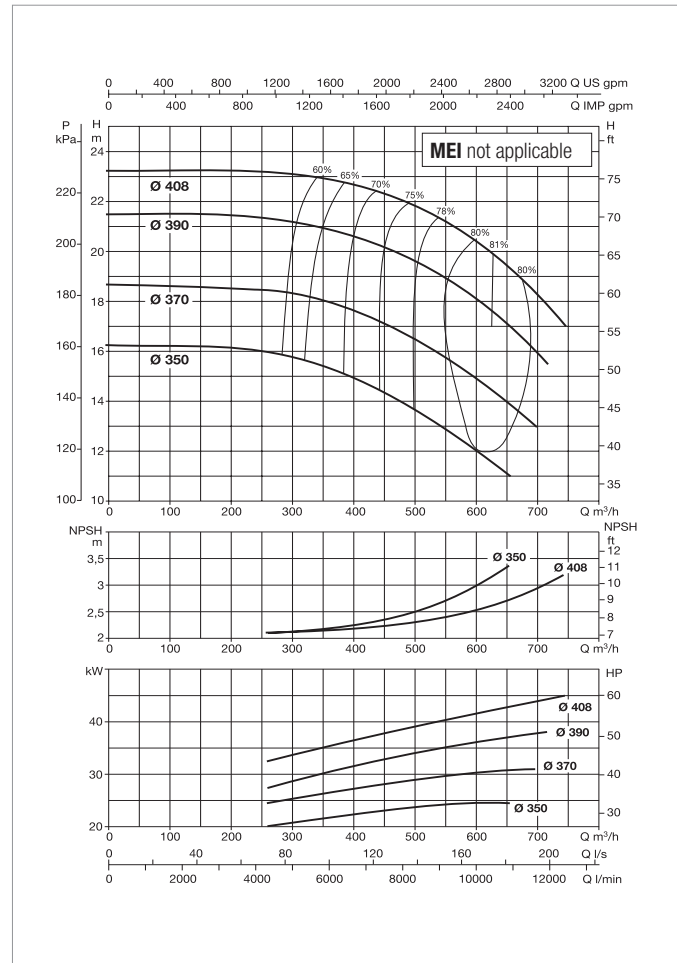
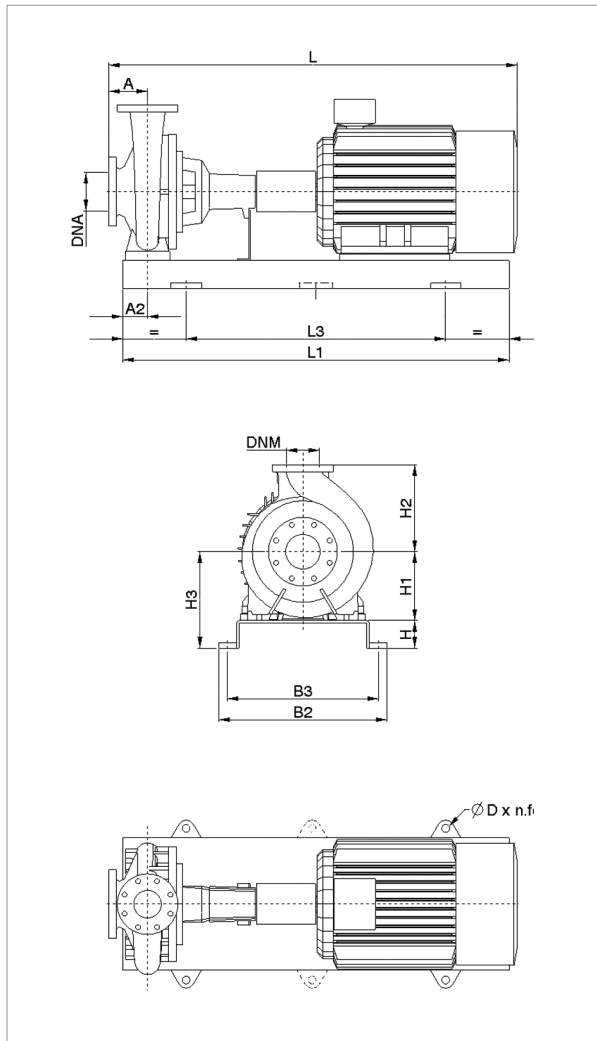
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 250-330 | 15 | 250 | 135 | 120 | 400 | 525 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 924 | 647 | 974 | 647 | 1165 | 662 | 1215 | 662 | 10 |
| | 18.5 | 250 | 135 | 120 | 400 | 525 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 924 | 647 | 974 | 647 | 1165 | 662 | 1215 | 662 | 10 |
| | 22 | 250 | 135 | 120 | 400 | 525 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 924 | 647 | 974 | 647 | 1165 | 662 | 1215 | 662 | 10 |
| | 30 | 250 | 135 | 120 | 400 | 525 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 924 | 647 | 974 | 647 | 1165 | 662 | 1215 | 662 | 10 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 250-400 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 6 POLES | | | IE2 | IE3 | |
| KDN 250-400 | 37 | 250M | 3 x 400 V ~ Δ | 69 | 66.60 | IE2 / IE3 |
| | 45 | 280S | 3 x 400 V ~ Δ | 85.9 | 80.60 | IE2 / IE3 |
| | 55 | 280M | 3 x 400 V ~ Δ | 103 | 98.10 | IE2 / IE3 |
| | 75 | 315S | 3 x 400 V ~ Δ | 134 | 135 | IE2 / IE3 |

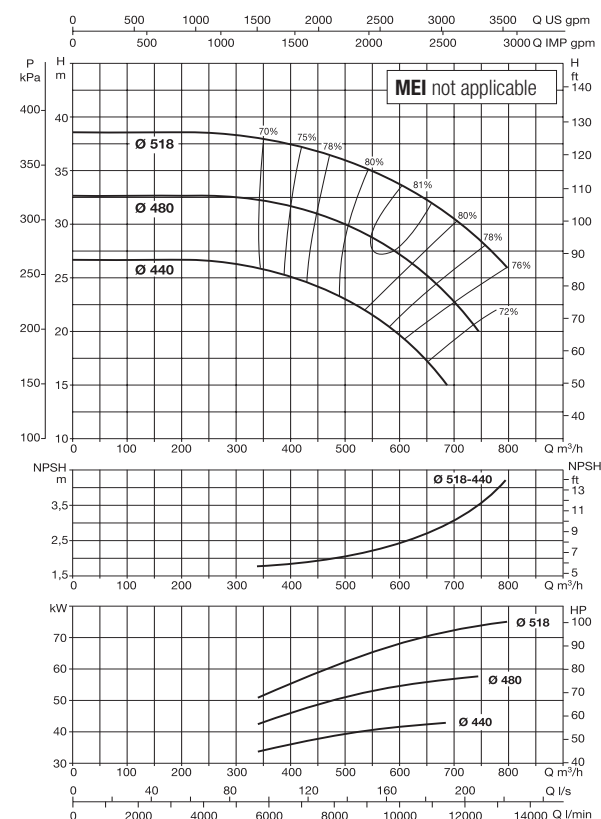
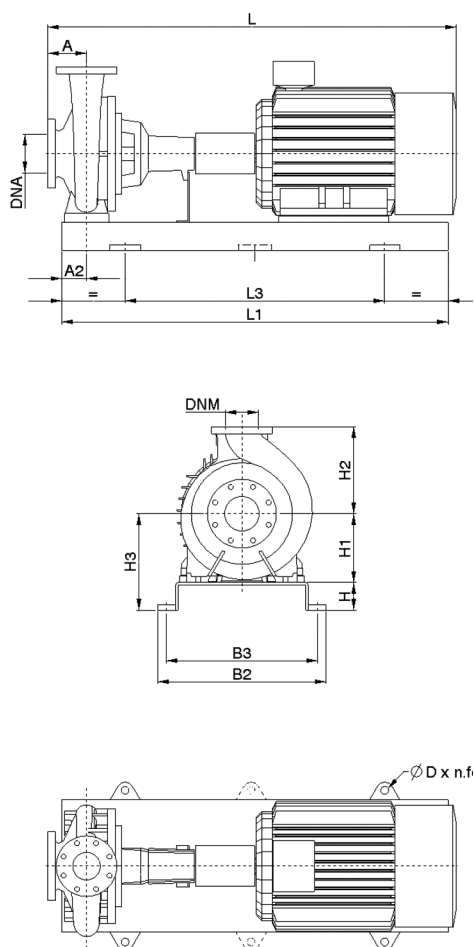
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 250-400 | 37 | 225 | 135 | 120 | 400 | 600 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 1009 | 887 | 1080 | 887 | 1190 | 902 | 1261 | 902 | 10 |
| | 45 | 225 | 135 | 120 | 400 | 600 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 1009 | 887 | 1080 | 887 | 1190 | 902 | 1261 | 902 | 10 |
| | 55 | 225 | 135 | 120 | 400 | 600 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 1009 | 887 | 1080 | 887 | 1190 | 902 | 1261 | 902 | 10 |
| | 75 | 225 | 135 | 120 | 400 | 600 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 300 | 250 | 1009 | 887 | 1080 | 887 | 1190 | 902 | 1261 | 902 | 10 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 250-500A - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|--------------|-----------------|------------|-------------------|------|-------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 6 POLES | | | IE2 | IE3 | |
| KDN 250-500A | 37 | 250M | 3 x 400 V ~ Δ | 69 | 66.60 | IE2 / IE3 |
| | 45 | 280S | 3 x 400 V ~ Δ | 85.9 | 80.60 | IE2 / IE3 |
| | 55 | 280M | 3 x 400 V ~ Δ | 103 | 98.10 | IE2 / IE3 |
| | 75 | 315S | 3 x 400 V ~ Δ | 134 | 135 | IE2 / IE3 |
| | 90 | 315M | 3 x 400 V ~ Δ | 162 | 159 | IE2 / IE3 |

| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | |
|--------------|---------------|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg |
| KDN 250-500A | 37 | 300 | 155 | 210 | 500 | 500 | (*) | (*) | (*) | (*) | (*) | (*) | 300 | 250 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |
| | 45 | 300 | 155 | 210 | 500 | 500 | (*) | (*) | (*) | (*) | (*) | (*) | 300 | 250 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |
| | 55 | 300 | 155 | 210 | 500 | 500 | (*) | (*) | (*) | (*) | (*) | (*) | 300 | 250 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |
| | 75 | 300 | 155 | 210 | 500 | 500 | (*) | (*) | (*) | (*) | (*) | (*) | 300 | 250 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |
| | 90 | 300 | 155 | 210 | 500 | 500 | (*) | (*) | (*) | (*) | (*) | (*) | 300 | 250 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |

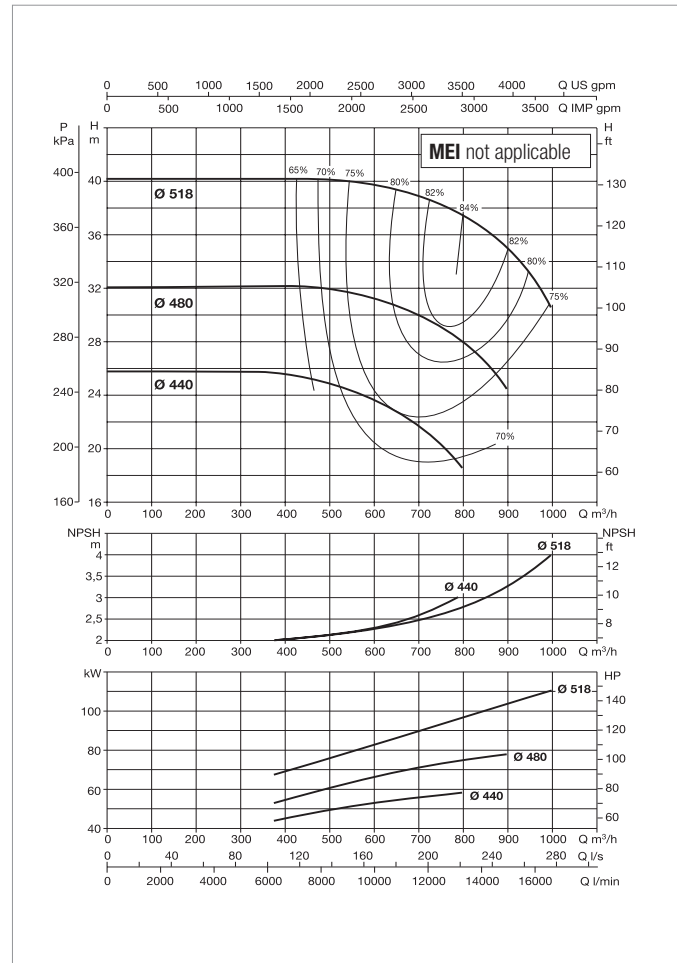
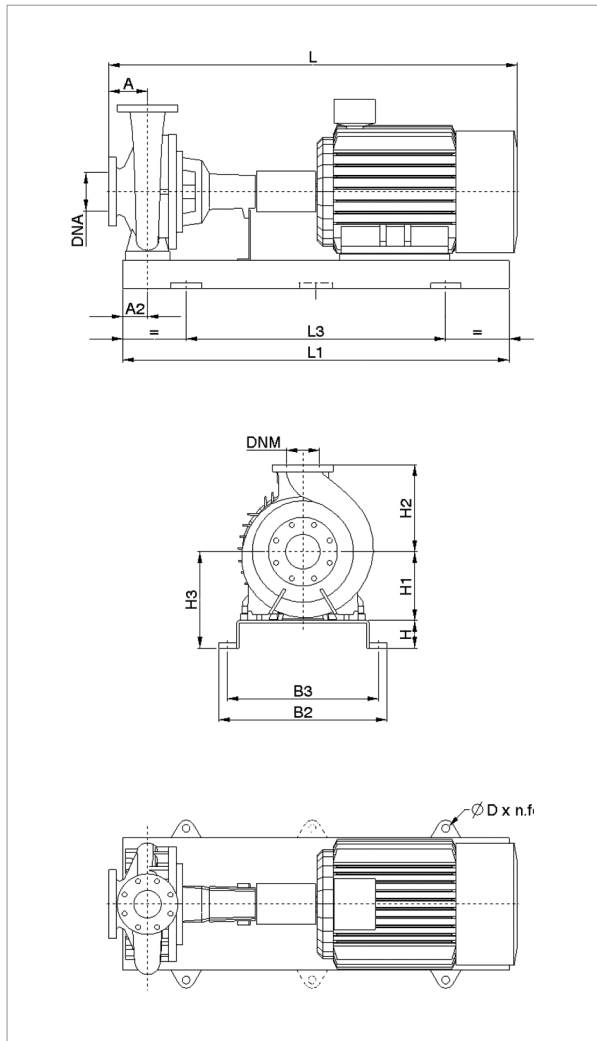
Dimension and electrical data based on sizing definition following the instructions on page 176.

(*) Data on request.

KDN 250-500 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 6 POLES | | | IE2 | IE3 | |
| KDN 250-500 | 45 | 280S | 3 x 400 V ~ Δ | 85.9 | 80.60 | IE2 / IE3 |
| | 55 | 280M | 3 x 400 V ~ Δ | 103 | 98.10 | IE2 / IE3 |
| | 75 | 315S | 3 x 400 V ~ Δ | 134 | 135 | IE2 / IE3 |
| | 90 | 315M | 3 x 400 V ~ Δ | 162 | 159 | IE2 / IE3 |
| | 110 | 315M | 3 x 400 V ~ Δ | 194 | 192 | IE2 / IE3 |
| | 132 | 315M | 3 x 400 V ~ Δ | (*) | (*) | IE2 / IE3 |

| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|-----|-----|-----|---------------------------|-----|-------------------|------|--------------|------|-----------------|------|--------------|------|--------------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg |
| KDN 250-500 | 45 | 300 | 155 | 210 | 500 | 500 | (*) | (*) | (*) | (*) | (*) | (*) | 300 | 250 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |
| | 55 | 300 | 155 | 210 | 500 | 500 | (*) | (*) | (*) | (*) | (*) | (*) | 300 | 250 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |
| | 75 | 300 | 155 | 210 | 500 | 500 | (*) | (*) | (*) | (*) | (*) | (*) | 300 | 250 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |
| | 90 | 300 | 155 | 210 | 500 | 500 | (*) | (*) | (*) | (*) | (*) | (*) | 300 | 250 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |
| | 110 | 300 | 155 | 210 | 500 | 500 | 710 | 2250 | 825 | 995 | 950 | 20x4 | 300 | 250 | 2280 | 2350 | 2368 | (*) | 2530 | 2365 | 2618 | (*) |
| | 132 | 300 | 155 | 210 | 500 | 500 | (*) | (*) | (*) | (*) | (*) | (*) | 300 | 250 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |

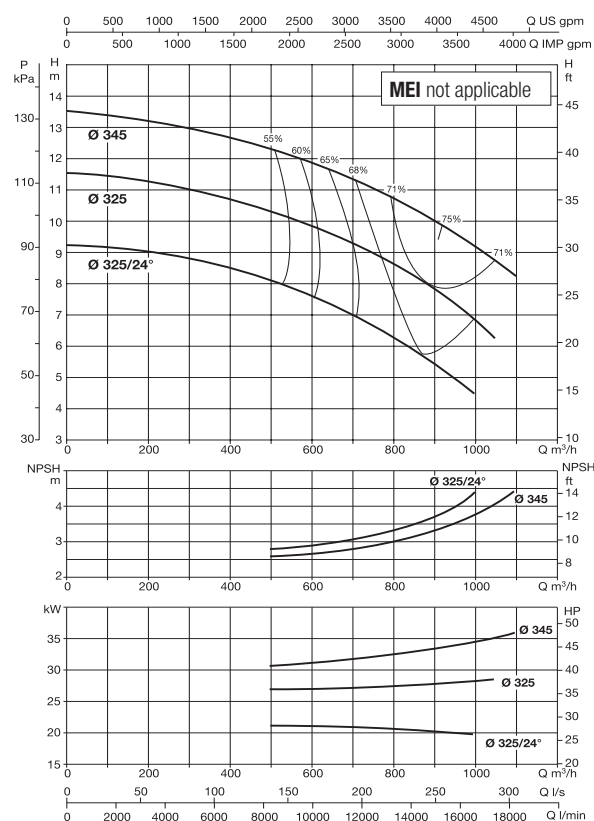
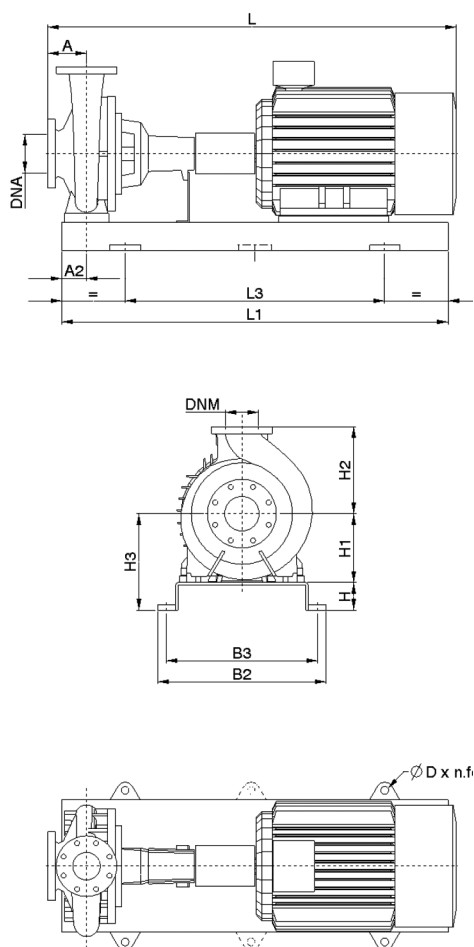
Dimension and electrical data based on sizing definition following the instructions on page 176.

(*) Data on request.

KDN 300-330 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 6 POLES | | | IE2 | IE3 | |
| KDN 300-330 | 22 | 200L | 3 x 400 V ~ Δ | 44 | 42.50 | IE2 / IE3 |
| | 30 | 225M | 3 x 400 V ~ Δ | 55 | 54.80 | IE2 / IE3 |
| | 37 | 250M | 3 x 400 V ~ Δ | 69 | 66.60 | IE2 / IE3 |

| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------------|-----|-------------------|--------------|-----|--------------|-----------------|--------------|-----|--------------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg |
| KDN 300-330 | 22 | 300 | 230 | 185 | 500 | 670 | (*) | (*) | (*) | (*) | (*) | (*) | 350 | 300 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |
| | 30 | 300 | 230 | 185 | 500 | 670 | (*) | (*) | (*) | (*) | (*) | (*) | 350 | 300 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |
| | 37 | 300 | 230 | 185 | 500 | 670 | (*) | (*) | (*) | (*) | (*) | (*) | 350 | 300 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |

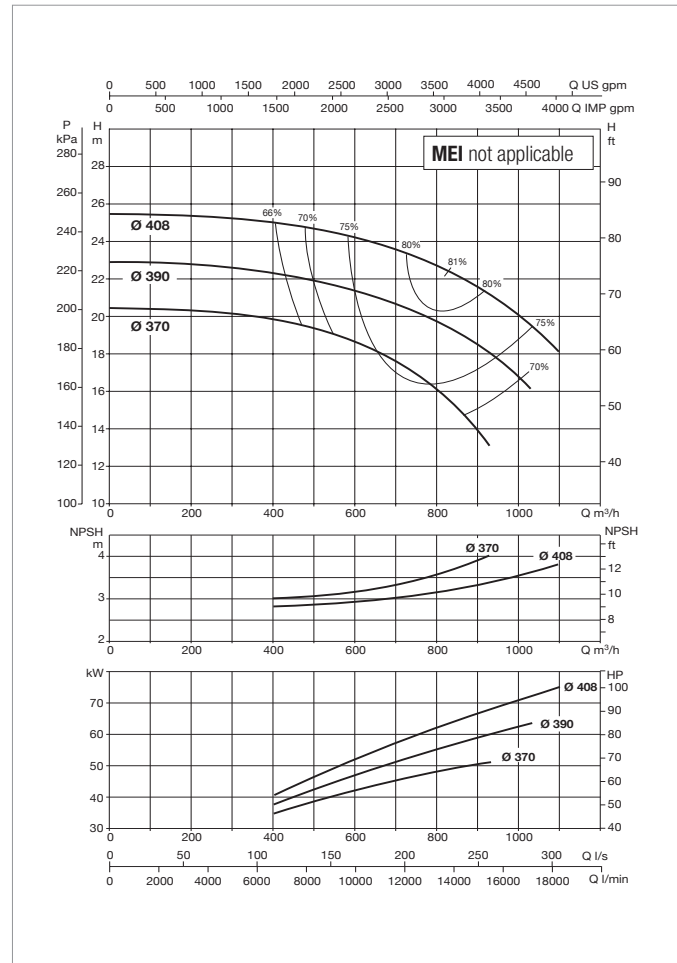
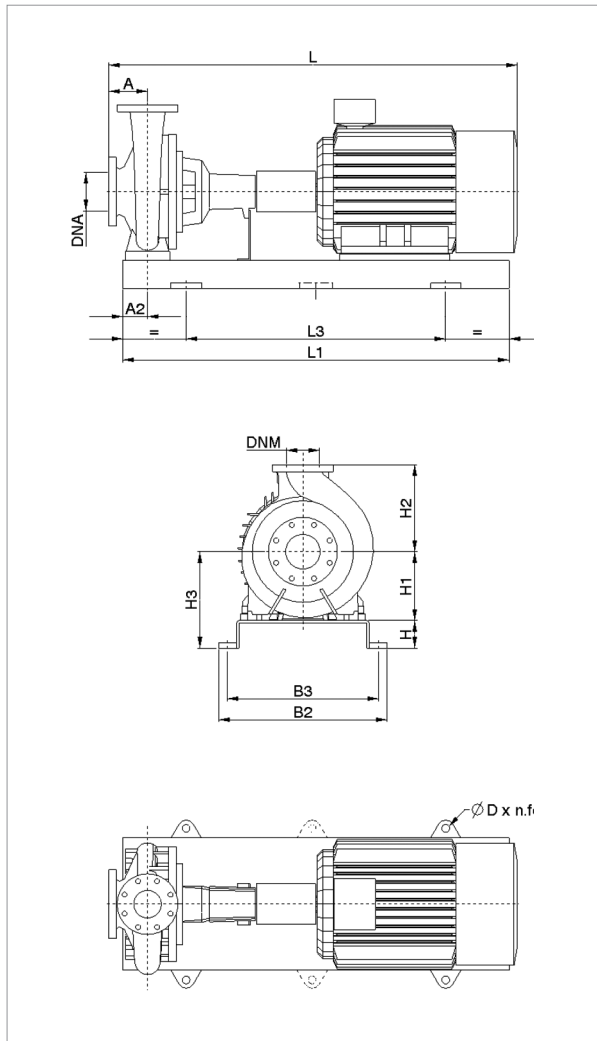
Dimension and electrical data based on sizing definition following the instructions on page 176.

(*) Data on request.

KDN 300-400 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 6 POLES | | | IE2 | IE3 | |
| KDN 300-400 | 45 | 280S | 3 x 400 V ~ Δ | 85.9 | 80.60 | IE2 / IE3 |
| | 55 | 280M | 3 x 400 V ~ Δ | 103 | 98.10 | IE2 / IE3 |
| | 75 | 315S | 3 x 400 V ~ Δ | 134 | 135 | IE2 / IE3 |
| | 90 | 315M | 3 x 400 V ~ Δ | 162 | 159 | IE2 / IE3 |
| | 110 | 315M | 3 x 400 V ~ Δ | 194 | 192 | IE2 / IE3 |

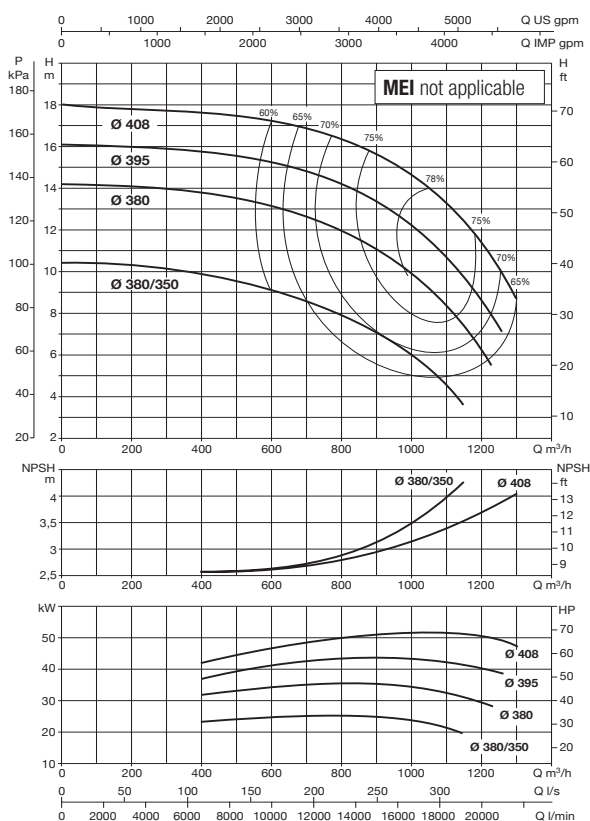
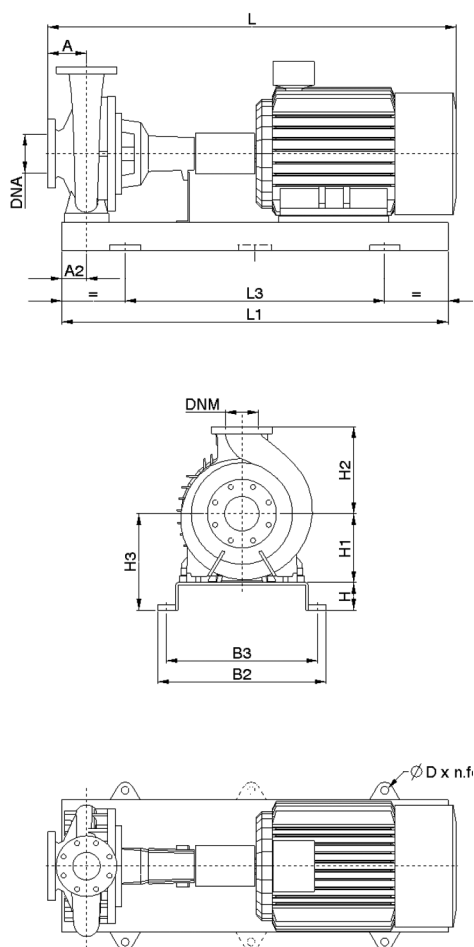
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|-------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 300-400 | 45 | 325 | 135 | 120 | 400 | 640 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 350 | 300 | 1119 | 800 | 1190 | 800 | 1360 | 815 | 1431 | 815 | 10 |
| | 55 | 325 | 135 | 120 | 400 | 640 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 350 | 300 | 1119 | 800 | 1190 | 800 | 1360 | 815 | 1431 | 815 | 10 |
| | 75 | 325 | 135 | 120 | 400 | 640 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 350 | 300 | 1119 | 800 | 1190 | 800 | 1360 | 815 | 1431 | 815 | 10 |
| | 90 | 325 | 135 | 120 | 400 | 640 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 350 | 300 | 1119 | 800 | 1190 | 800 | 1360 | 815 | 1431 | 815 | 10 |
| | 110 | 325 | 135 | 120 | 400 | 640 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 350 | 300 | 1119 | 800 | 1207 | 800 | 1360 | 815 | 1448 | 815 | 10 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 300-400M - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|--------------|-----------------|------------|-------------------|------|-------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 6 POLES | | | IE2 | IE3 | |
| KDN 300-400M | 45 | 280S | 3 x 400 V ~ Δ | 85.9 | 80.60 | IE2 / IE3 |
| | 55 | 280M | 3 x 400 V ~ Δ | 103 | 98.10 | IE2 / IE3 |
| | 75 | 315S | 3 x 400 V ~ Δ | 134 | 135 | IE2 / IE3 |
| | 90 | 315M | 3 x 400 V ~ Δ | 162 | 159 | IE2 / IE3 |

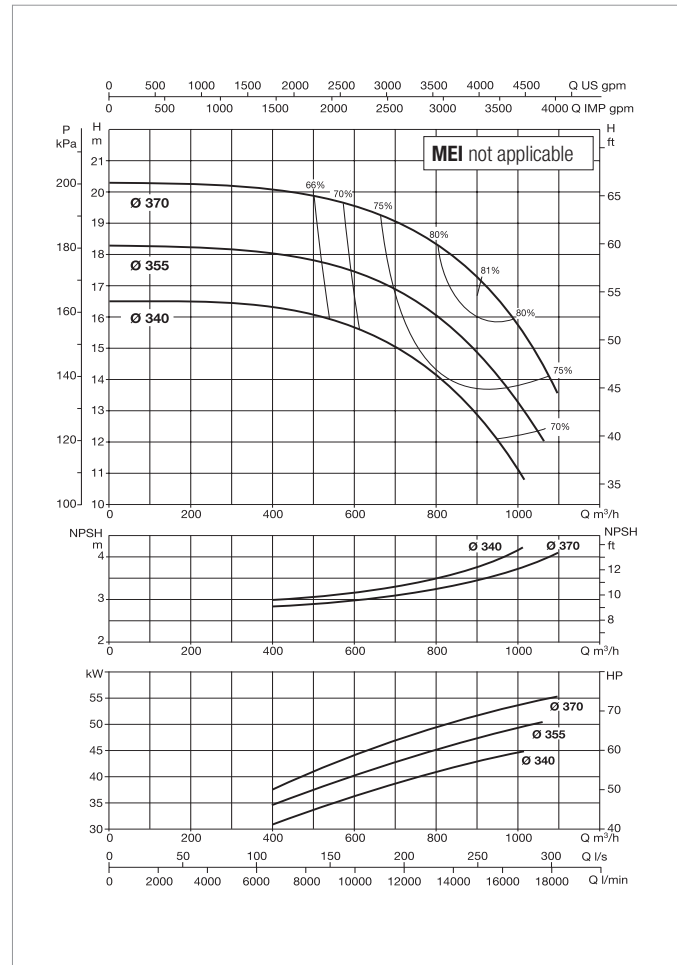
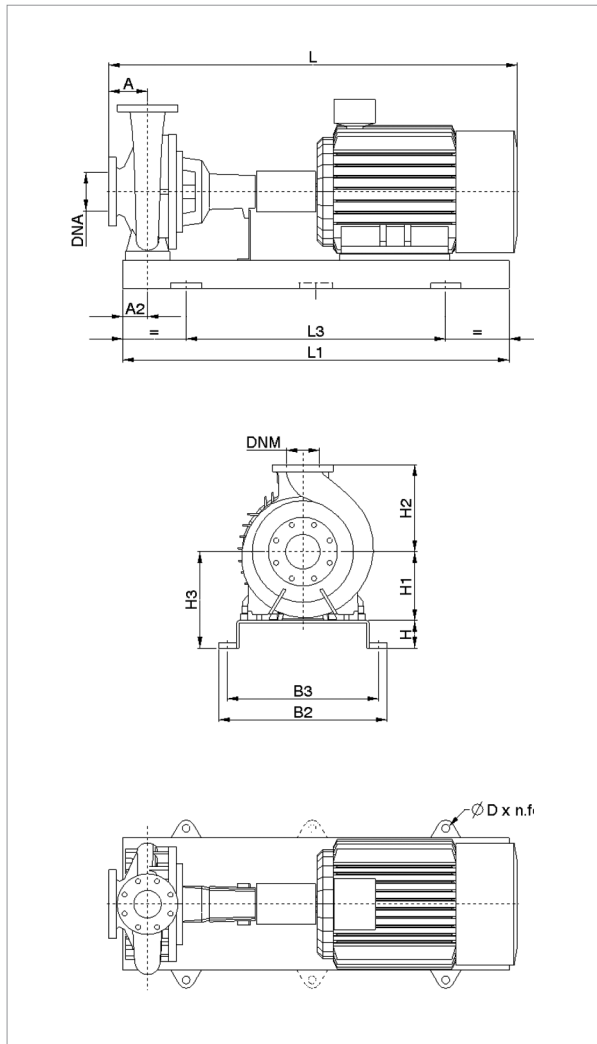
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|--------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|-----|---------------------------|------|-------------------|------|--------------|------|-----------------|------|--------------|----|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | | |
| KDN 300-400M | 45 | 325 | 135 | 120 | 400 | 640 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 350 | 300 | 1119 | 800 | 1190 | 800 | 1360 | 815 | 1431 | 815 | 10 | |
| | 55 | 325 | 135 | 120 | 400 | 640 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 350 | 300 | 1119 | 800 | 1190 | 800 | 1360 | 815 | 1431 | 815 | 10 | |
| | 75 | 325 | 135 | 120 | 400 | 640 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 350 | 300 | 1119 | 800 | 1190 | 800 | 1360 | 815 | 1431 | 815 | 10 | |
| | 90 | 325 | 135 | 120 | 400 | 640 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 350 | 300 | 1119 | 800 | 1190 | 800 | 1360 | 815 | 1431 | 815 | 10 | |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 300-400A - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|--------------|-----------------|------------|-------------------|------|-------|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 6 POLES | | | IE2 | IE3 | |
| KDN 300-400A | 45 | 280S | 3 x 400 V ~ Δ | 85.9 | 80.60 | IE2 / IE3 |
| | 55 | 280M | 3 x 400 V ~ Δ | 103 | 98.10 | IE2 / IE3 |
| | 75 | 315S | 3 x 400 V ~ Δ | 134 | 135 | IE2 / IE3 |
| | 90 | 315M | 3 x 400 V ~ Δ | 162 | 159 | IE2 / IE3 |

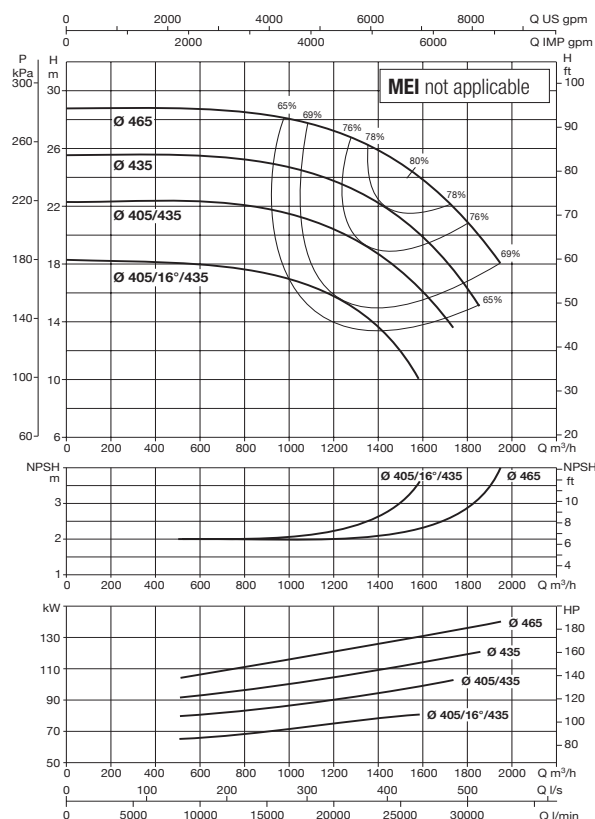
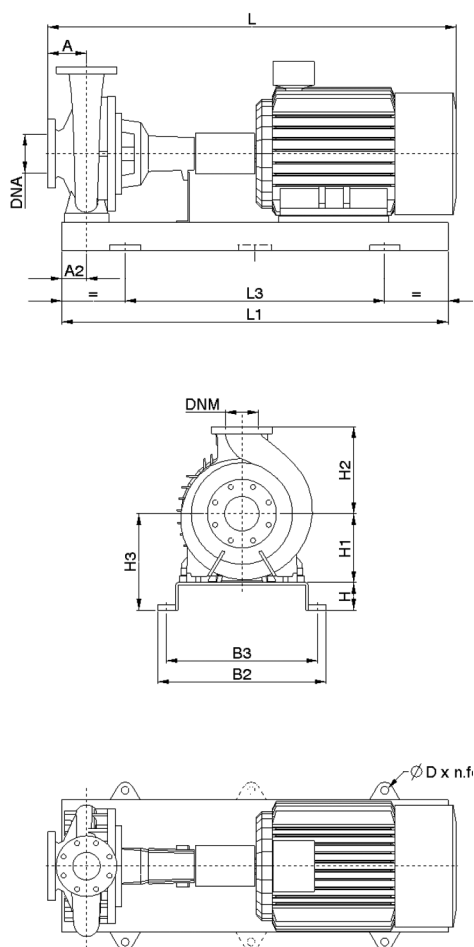
| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | | REF. |
|--------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|-----|-----|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | |
| KDN 300-400A | 45 | 325 | 135 | 120 | 400 | 640 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 350 | 300 | 1119 | 800 | 1190 | 800 | 1360 | 815 | 1431 | 815 | 10 |
| | 55 | 325 | 135 | 120 | 400 | 640 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 350 | 300 | 1119 | 800 | 1190 | 800 | 1360 | 815 | 1431 | 815 | 10 |
| | 75 | 325 | 135 | 120 | 400 | 640 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 350 | 300 | 1119 | 800 | 1190 | 800 | 1360 | 815 | 1431 | 815 | 10 |
| | 90 | 325 | 135 | 120 | 400 | 640 | 520 | 2000 | 1340 | 910 | 830 | 28x4 | 350 | 300 | 1119 | 800 | 1190 | 800 | 1360 | 815 | 1431 | 815 | 10 |

Dimension and electrical data based on sizing definition following the instructions on page 176.

KDN 350-500A - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|--------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 6 POLES | | | IE2 | IE3 | |
| KDN 350-500A | 90 | 315M | 3 x 400 V ~ Δ | 162 | 159 | IE2 / IE3 |
| | 110 | 315M | 3 x 400 V ~ Δ | 194 | 192 | IE2 / IE3 |
| | 132 | 315M | 3 x 400 V ~ Δ | (*) | (*) | IE2 / IE3 |
| | 160 | 315M | 3 x 400 V ~ Δ | (*) | (*) | IE2 / IE3 |

| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | |
|--------------|---------------|----------------------|-----|-----|-----|-----|-----|------|------|------|------|------|---------------------------|-----|-------------------|--------------|------|--------------|-----------------|--------------|------|--------------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg |
| KDN 350-500A | 90 | 380 | 295 | 240 | 600 | 600 | 840 | 2490 | 1890 | 1305 | 1260 | 20x6 | 400 | 350 | 2587 | 1080 | 2658 | 1080 | 2588 | 1095 | 2659 | 1095 |
| | 110 | 380 | 295 | 240 | 600 | 600 | 840 | 2490 | 1890 | 1305 | 1260 | 20x6 | 400 | 350 | 2587 | 1080 | 2675 | 1080 | 2588 | 1095 | 2676 | 1095 |
| | 132 | 380 | 295 | 240 | 600 | 600 | 840 | 2490 | 1890 | 1305 | 1260 | 20x6 | 400 | 350 | 2587 | 1080 | 2675 | 1080 | 2588 | 1095 | 2676 | 1095 |
| | 160 | 380 | 295 | 240 | 600 | 600 | 840 | 2700 | 2100 | 1305 | 1260 | 20x6 | 400 | 350 | 3114 | 1080 | 3202 | 1080 | 3115 | 1095 | 3203 | 1095 |

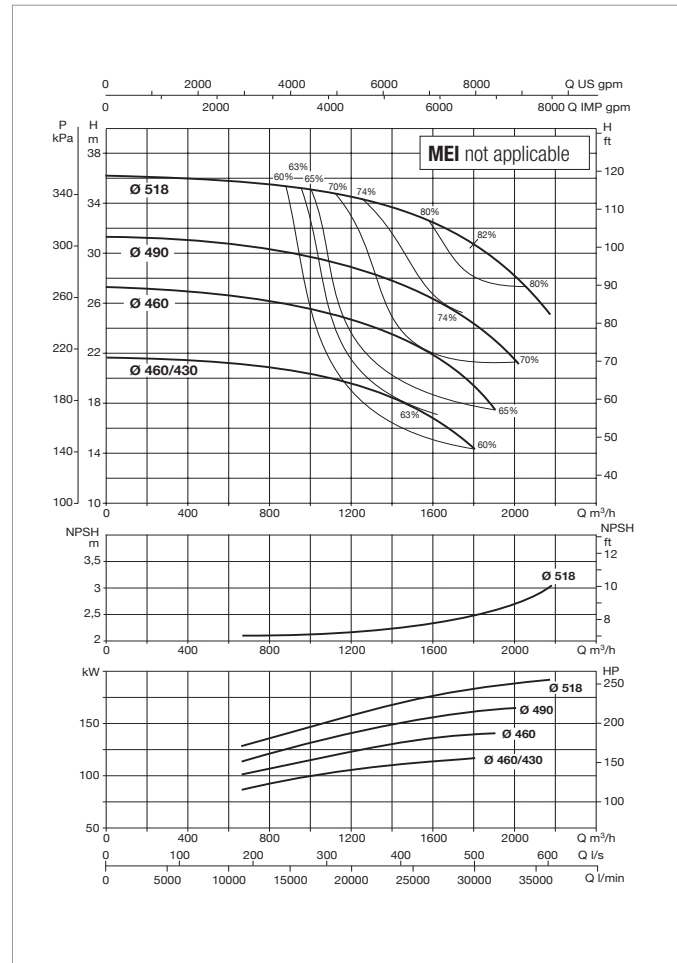
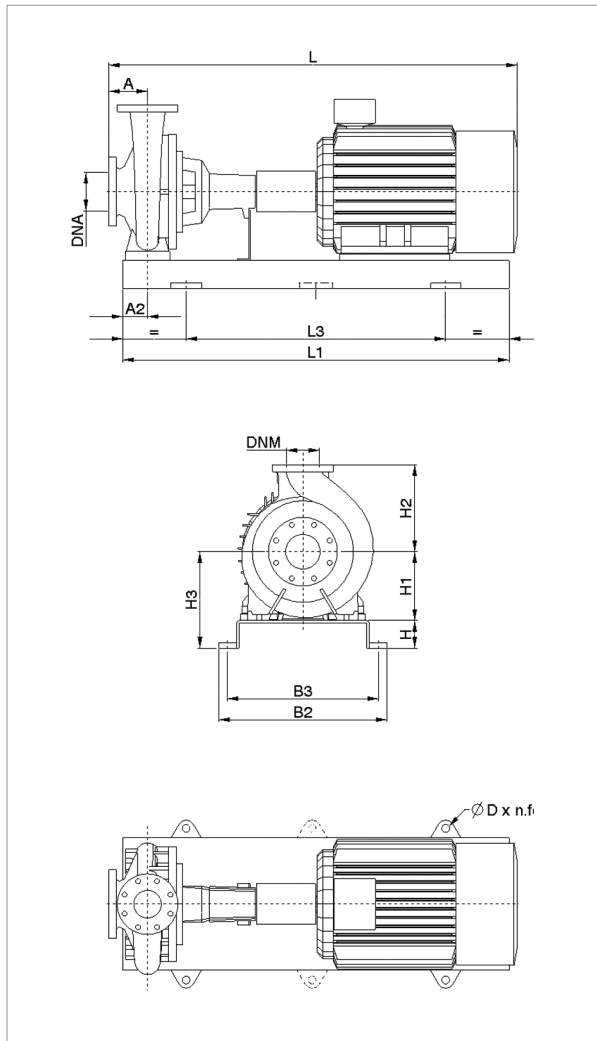
Dimension and electrical data based on sizing definition following the instructions on page 176.

(*) Data on request.

KDN 350-500 - 6 POLES - STANDARDISED CENTRIFUGAL ELECTRIC PUMPS FOR AIR CONDITIONING, REFRIGERATION, IRRIGATION, DECANTING, PRESSURISATION SYSTEMS, AND INDUSTRIAL APPLICATIONS

Pumped liquid temperature range: from -10 °C to +120°C - Maximum ambient temperature: +40°C

= 970 1/min



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | |
|-------------|-----------------|------------|-------------------|------|-----|------------|
| | POWER (kW) | MOTOR SIZE | POWER INPUT 50 Hz | In A | | MOTOR TYPE |
| | 6 POLES | | | IE2 | IE3 | |
| KDN 350-500 | 110 | 315M | 3 x 400 V ~ Δ | 194 | 192 | IE2 / IE3 |
| | 132 | 315M | 3 x 400 V ~ Δ | (*) | (*) | IE2 / IE3 |
| | 160 | 315M | 3 x 400 V ~ Δ | (*) | (*) | IE2 / IE3 |
| | 200 | 355L | 3 x 400 V ~ Δ | (*) | (*) | IE2 / IE3 |
| | 250 | 355L | 3 x 400 V ~ Δ | (*) | (*) | IE2 / IE3 |

| MODEL | POWER (kW) | UNIT DIMENSIONS (mm) | | | | | | | | | | | FLANGE DIMENSIONS (mm) | | STANDARD COUPLING | | | | SPACER COUPLING | | | |
|-------------|------------|----------------------|-----|-----|-----|-----|-----|------|------|------|------|------|------------------------|-----|-------------------|-----------|------|-----------|-----------------|-----------|------|-----------|
| | | A | A2 | H | H1 | H2 | H3 | L1 | L3 | B2 | B3 | D | DNA | DNM | IE2 | | IE3 | | IE2 | | IE3 | |
| | | | | | | | | | | | | | | | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg | L | WEIGHT kg |
| KDN 350-500 | 110 | 380 | 295 | 240 | 600 | 600 | 840 | 2490 | 1890 | 1305 | 1260 | 20x6 | 400 | 350 | 2587 | 1080 | 2675 | 1080 | 2588 | 1095 | 2676 | 1095 |
| | 132 | 380 | 295 | 240 | 600 | 600 | 840 | 2490 | 1890 | 1305 | 1260 | 20x6 | 400 | 350 | 2587 | 1080 | 2675 | 1080 | 2588 | 1095 | 2676 | 1095 |
| | 160 | 380 | 295 | 240 | 600 | 600 | 840 | 2490 | 1890 | 1305 | 1260 | 20x6 | 400 | 350 | 2587 | 1080 | 2675 | 1080 | 2588 | 1095 | 2676 | 1095 |
| | 200 | 380 | (*) | (*) | 600 | 600 | 600 | (*) | (*) | (*) | (*) | (*) | 400 | 350 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |
| | 250 | 380 | (*) | (*) | 600 | 600 | 600 | (*) | (*) | (*) | (*) | (*) | 400 | 350 | (*) | (*) | (*) | (*) | (*) | (*) | (*) | (*) |

Dimension and electrical data based on sizing definition following the instructions on page 176.

(*) Data on request.

KDN OVERSIZE - 6 POLES

STANDARDISED CENTRIFUGAL ELECTRIC PUMPS

IE2 STANDARD MOTOR ELECTRIC DATA

=970 1/min

| MOTOR TYPE | P2 NOMINAL kW | SPEED rpm | YIELD % | POWER FACTOR COS φ | POWER INPUT 50 Hz | In A | | Start-up current Ia/In | Start-up torque Ma/Mn | Maximum torque M/k/Mn | POLES |
|------------|---------------|-----------|---------|----------------------------|-------------------|------|--------|------------------------|-----------------------|-----------------------|-------|
| | | | | | | 400 | 690 | | | | |
| MEC132M2 | 5.50 | 970 | 86.3 | 0.75 | 3 x 400 Δ | 12.4 | 7.16 | 7.49 | 3.18 | 2.88 | 6 |
| MEC160M | 7.50 | 970 | 87.5 | 0.76 | 3 x 400 Δ | 16.4 | 9.47 | 6.83 | 3.13 | 2.90 | 6 |
| MEC160L | 11.00 | 970 | 88.7 | 0.76 | 3 x 400 Δ | 23.6 | 13.61 | 7.06 | 3.30 | 2.90 | 6 |
| MEC180L | 15.00 | 980 | 89.7 | 0.76 | 3 x 400 Δ | 31.5 | 18.19 | 7.00 | 2.00 | 2.10 | 6 |
| MEC200L1 | 18.50 | 980 | 90.3 | 0.81 | 3 x 400 Δ | 36.5 | 21.07 | 7.41 | 2.66 | 3.05 | 6 |
| MEC200L2 | 22.00 | 980 | 91.0 | 0.79 | 3 x 400 Δ | 44.0 | 25.41 | 8.21 | 3.54 | 3.54 | 6 |
| MEC225M | 30.00 | 980 | 91.8 | 0.86 | 3 x 400 Δ | 55.0 | 31.74 | 5.73 | 2.09 | 2.13 | 6 |
| MEC250M | 37.00 | 980 | 92.5 | 0.84 | 3 x 400 Δ | 69.0 | 39.85 | 7.98 | 3.40 | 3.49 | 6 |
| MEC280S | 45.00 | 980 | 92.8 | 0.82 | 3 x 400 Δ | 85.9 | 49.61 | 6.29 | 2.29 | 3.02 | 6 |
| MEC280M | 55.00 | 980 | 93.2 | 0.82 | 3 x 400 Δ | 103 | 59.73 | 6.34 | 2.34 | 2.99 | 6 |
| MEC315S | 75.00 | 990 | 93.8 | 0.87 | 3 x 400 Δ | 134 | 77.37 | 7.03 | 2.43 | 2.88 | 6 |
| MEC315M | 90.00 | 990 | 94.0 | 0.86 | 3 x 400 Δ | 162 | 93.53 | 7.22 | 2.61 | 2.90 | 6 |
| MEC315L1 | 110.00 | 990 | 94.3 | 0.87 | 3 x 400 Δ | 194 | 112.01 | 7.36 | 2.69 | 2.90 | 6 |

IE3 STANDARD MOTOR ELECTRIC DATA

=970 1/min

| MOTOR TYPE | P2 NOMINAL kW | SPEED rpm | YIELD % | POWER FACTOR COS φ | POWER INPUT 50 Hz | In A | | Start-up current Ia/In | Start-up torque Ma/Mn | Maximum torque M/k/Mn | POLES |
|------------|---------------|-----------|---------|----------------------------|-------------------|--------|--------|------------------------|-----------------------|-----------------------|-------|
| | | | | | | 400 | 690 | | | | |
| MEC 160M | 7.50 | 970 | 89.10 | 0.770 | 3 x 400 Δ | 15.80 | 9.13 | 6.00 | 2.40 | 2.40 | 6 |
| MEC 160L | 11.00 | 975 | 90.30 | 0.760 | 3 x 400 Δ | 23.10 | 13.35 | 6.80 | 2.90 | 2.60 | 6 |
| MEC 180L | 15.00 | 980 | 91.20 | 0.800 | 3 x 400 Δ | 29.70 | 17.17 | 7.80 | 2.90 | 3.30 | 6 |
| MEC 200L | 18.50 | 980 | 91.70 | 0.810 | 3 x 400 Δ | 36.00 | 20.81 | 7.30 | 2.80 | 2.80 | 6 |
| MEC 200L | 22.00 | 980 | 92.20 | 0.810 | 3 x 400 Δ | 42.50 | 24.57 | 7.70 | 3.00 | 2.90 | 6 |
| MEC 225M | 30.00 | 985 | 92.90 | 0.850 | 3 x 400 Δ | 54.80 | 31.68 | 6.20 | 2.10 | 2.20 | 6 |
| MEC 250M | 37.00 | 985 | 93.30 | 0.860 | 3 x 400 Δ | 66.60 | 38.50 | 8.30 | 2.90 | 3.40 | 6 |
| MEC 280S | 45.00 | 990 | 93.70 | 0.860 | 3 x 400 Δ | 80.60 | 46.59 | 7.80 | 2.70 | 3.10 | 6 |
| MEC 280M | 55.00 | 990 | 94.10 | 0.860 | 3 x 400 Δ | 98.10 | 56.71 | 8.20 | 2.90 | 3.20 | 6 |
| MEC 315S | 75.00 | 990 | 94.60 | 0.850 | 3 x 400 Δ | 135.00 | 78.03 | 7.70 | 2.40 | 3.10 | 6 |
| MEC 315M | 90.00 | 990 | 94.90 | 0.860 | 3 x 400 Δ | 159.00 | 91.91 | 7.40 | 2.30 | 3.00 | 6 |
| MEC 315L | 110.00 | 990 | 95.10 | 0.870 | 3 x 400 Δ | 192.00 | 110.98 | 6.50 | 2.00 | 2.60 | 6 |

KVC - KVCX

INTEGRAL SHAFT MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS



TECHNICAL DATA

Operating range:

from 50 to 200 l/min with head up to 113 m.

Pumped liquid: clean, free of solids and abrasives, non-viscous, non-aggressive, non-crystallised and chemically neutral, with properties similar to water.

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use (EN 60335-2-41 safety standards).

From 0°C to +40°C for other uses.

Maximum ambient temperature: +40 °C.

Maximum operating pressure: 12 bar (1200 kPa).

Protection class: IP 55

Insulation class: F

Standard voltage: single-phase 220-240 V / 50 Hz
three-phase 230-400 V / 50 Hz
IE2 ≥ 0,75 kW

Installation: fixed, vertical or horizontal position, provided that the motor is always above the pump.

Special executions on requests: alternative voltages and frequencies.

APPLICATIONS

Vertical multistage centrifugal pump suitable for small to medium user water systems. Suitable for pressurization units, filling of pressure vessels, sprinkler and watering systems, fire-fighting and washing systems, channelling of condensate and cooling water. Innovative and robust design.

CONSTRUCTION FEATURES OF THE PUMP

KVC: Technopolymer delivery and suction bodies, and in-line suction and delivery ports with threaded metal insert.

KVCX: technopolymer suction body with threaded metal insert; stainless steel threaded delivery port on pump liner.

Impellers, diffuser bodies and diffusers in technopolymer, fully rust-proof. AISI 304 stainless steel pump liner, adjustment rings and seal disc. Carbon/ceramic mechanical seal, fitted on the AISI 303 stainless-steel drive shaft extension.

CONSTRUCTION FEATURES OF THE MOTOR

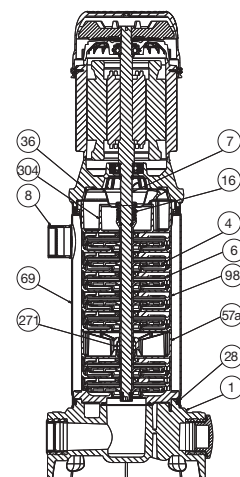
Closed asynchronous type, external ventilation cooling. Rotor running on permanently lubricated ball bearings, oversized to ensure low noise and durability. Standard built-in thermo-amperometric protection. Capacitor permanently fitted on single phase versions.

Overload protection to be provided by the user for the three-phase version. Construction according to CEI 2-3 / CEI 61-69 (EN 60335-2-41).

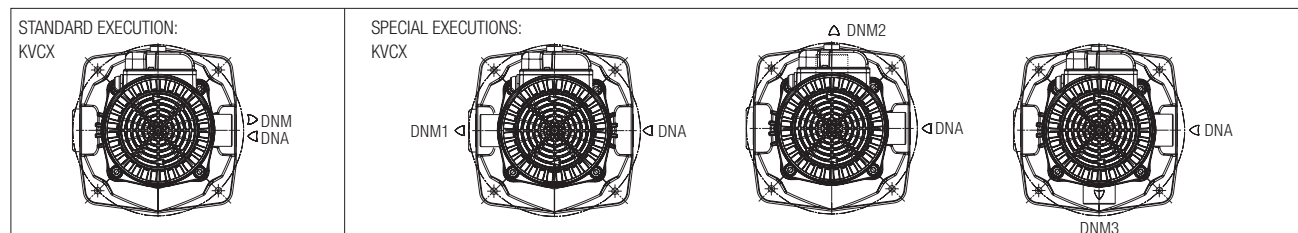
MATERIALS

| No. | PARTS* | MATERIALS |
|-----|------------------------------|--|
| 1 | PUMP BODY | TECHNOPOLYMER A |
| 4 | IMPELLER | TECHNOPOLYMER B |
| 6 | DIFFUSER | TECHNOPOLYMER B |
| 7 | SHAFT WITH ROTOR | AISI 303 STAINLESS STEEL X10 CrNi S 1089 UNI 6900/71 |
| 16 | MECHANICAL SEAL | SILICON CARBIDE/SILICON |
| 28 | OR RING | EPDM RUBBER |
| 36 | SEAL HOLDING DISC | AISI 304 STAINLESS STEEL X5 CrNi 1810 UNI 6900/71 |
| 57a | INTERMEDIATE STAGE | TECHNOPOLYMER B |
| 69 | LINER | AISI 304 STAINLESS STEEL X5 CrNi 1810 UNI 6900/71 |
| 98 | DIFFUSER BODY | TECHNOPOLYMER B |
| 271 | CENTERING BUSHING | BRONZE B14 |
| 304 | CONVEYOR | TECHNOPOLYMER B |
| 8 | DNM (standard for KVCX only) | |

* In contact with the liquid.



KVCX SUCTION AND DELIVERY PORT ORIENTATION



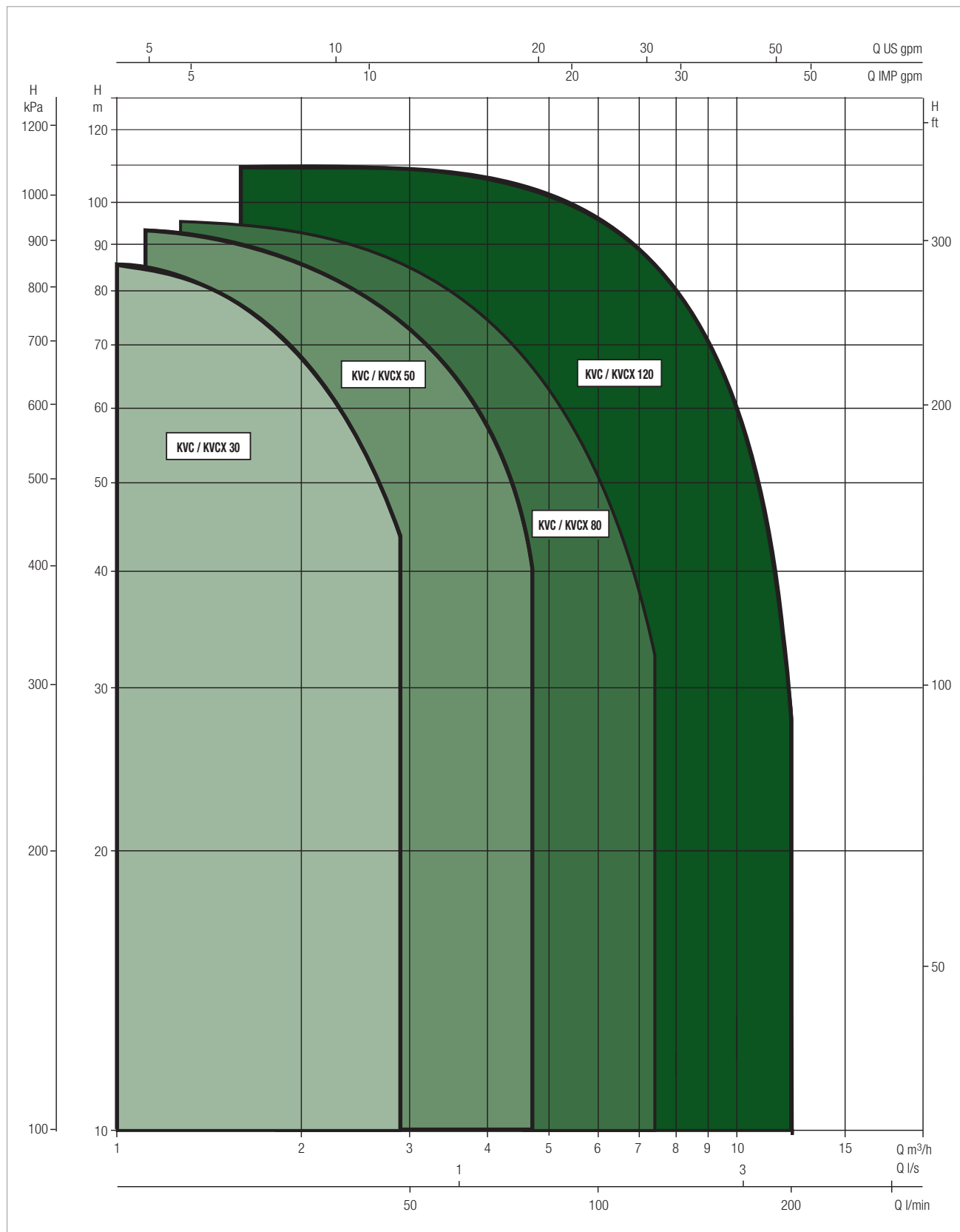
KVC - KVCX RANGE

INTEGRAL SHAFT MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE



SELECTION TABLE - KVC / KVCX 30

| MODEL | | Q=m³/h | 0 | 0.6 | 1.2 | 1.8 | 2.4 | 3 | 3.3 |
|------------------|------------------|----------|------|------|------|------|------|------|------|
| SINGLE-PHASE | THREE-PHASE | Q=l/min | 0 | 10 | 20 | 30 | 40 | 50 | 55 |
| KVC/KVCX 15/30 M | KVC/KVCX 15/30 T | H (m) | 22.4 | 21.2 | 19.2 | 16.7 | 13.8 | 9.9 | 7.6 |
| KVC/KVCX 25/30 M | KVC/KVCX 25/30 T | | 33.9 | 32.1 | 29.1 | 25.3 | 20.9 | 15.0 | 11.6 |
| KVC/KVCX 35/30 M | KVC/KVCX 35/30 T | | 45.6 | 43.2 | 39.1 | 34.1 | 28.2 | 20.2 | 15.6 |
| KVC/KVCX 45/30 M | KVC/KVCX 45/30 T | | 56.6 | 53.5 | 48.4 | 42.0 | 34.6 | 24.5 | 19.0 |
| KVC/KVCX 50/30 M | KVC/KVCX 50/30 T | | 69.8 | 66.2 | 59.9 | 52.2 | 43.1 | 30.9 | 23.9 |
| KVC/KVCX 60/30 M | KVC/KVCX 60/30 T | | 82.0 | 77.0 | 70.0 | 61.0 | 49.5 | 35.5 | 27.5 |
| KVC/KVCX 70/30 M | KVC/KVCX 70/30 T | | 95.0 | 90.0 | 81.5 | 71.0 | 58.7 | 42.0 | 32.5 |

SELECTION TABLE - KVC / KVCX 50

| MODEL | | Q=m³/h | 0 | 0.6 | 1.2 | 1.8 | 2.4 | 3 | 3.3 | 3.9 | 4.8 |
|------------------|------------------|----------|------|------|------|------|------|------|------|------|------|
| SINGLE-PHASE | THREE-PHASE | Q=l/min | 0 | 10 | 20 | 30 | 40 | 50 | 55 | 65 | 80 |
| KVC/KVCX 20/50 M | KVC/KVCX 20/50 T | H (m) | 27.4 | 26.9 | 26.0 | 24.9 | 23.1 | 21.1 | 19.8 | 16.9 | 11.4 |
| KVC/KVCX 30/50 M | KVC/KVCX 30/50 T | | 41.1 | 40.3 | 39.0 | 37.3 | 34.7 | 31.6 | 29.7 | 25.3 | 17.1 |
| KVC/KVCX 40/50 M | KVC/KVCX 40/50 T | | 54.9 | 53.7 | 52.0 | 49.7 | 46.3 | 42.1 | 39.6 | 33.7 | 22.9 |
| KVC/KVCX 55/50 M | KVC/KVCX 55/50 T | | 68.6 | 67.1 | 65.0 | 62.1 | 57.9 | 52.7 | 49.5 | 42.1 | 28.6 |
| KVC/KVCX 65/50 M | KVC/KVCX 65/50 T | | 82.3 | 80.6 | 78.0 | 74.6 | 69.4 | 63.2 | 59.4 | 50.6 | 34.3 |
| KVC/KVCX 75/50 M | KVC/KVCX 75/50 T | | 96.0 | 94.0 | 91.0 | 87.0 | 81.0 | 73.8 | 69.3 | 59.0 | 40.0 |

SELECTION TABLE - KVC / KVCX 80

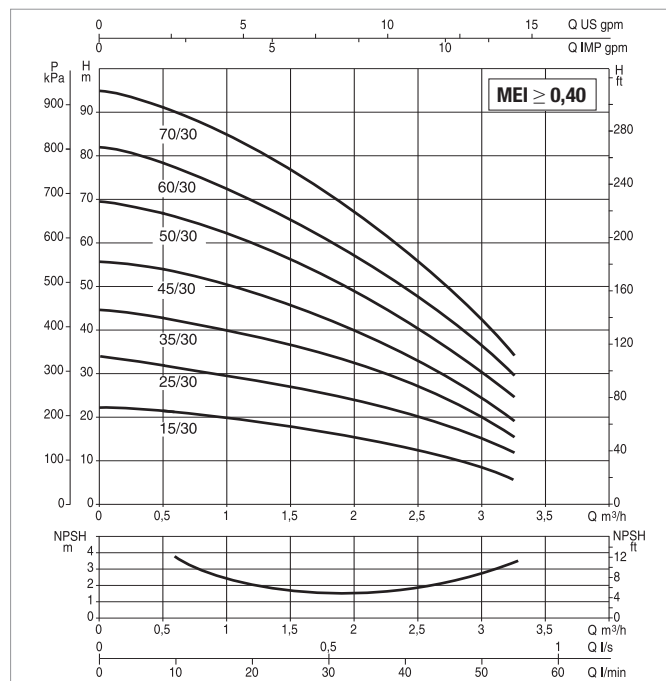
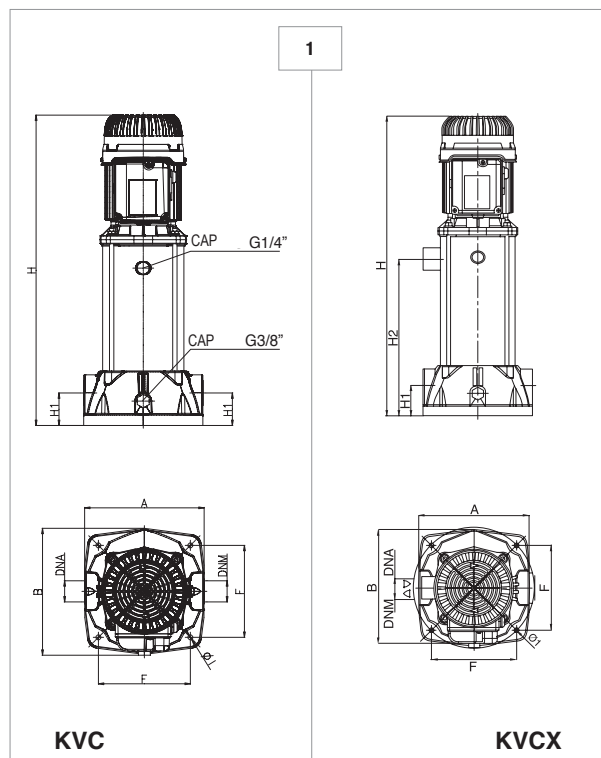
| MODEL | | Q=m³/h | 0 | 0.6 | 1.2 | 1.8 | 2.4 | 3 | 3.3 | 3.9 | 4.8 | 5.4 | 6 | 7.2 |
|------------------|------------------|----------|------|------|------|------|------|------|------|------|------|------|------|------|
| SINGLE-PHASE | THREE-PHASE | Q=l/min | 0 | 10 | 20 | 30 | 40 | 50 | 55 | 65 | 80 | 90 | 100 | 120 |
| KVC/KVCX 15/80 M | KVC/KVCX 15/80 T | H (m) | 22.8 | 22.4 | 21.7 | 21.1 | 20.3 | 19.1 | 18.3 | 16.8 | 14.0 | 11.7 | 9.5 | 4.5 |
| KVC/KVCX 20/80 M | KVC/KVCX 20/80 T | | 34.6 | 34.0 | 33.0 | 32.1 | 30.9 | 29.2 | 28.0 | 25.8 | 21.7 | 18.3 | 14.9 | 7.5 |
| KVC/KVCX 30/80 M | KVC/KVCX 30/80 T | | 46.6 | 45.8 | 44.6 | 43.4 | 41.8 | 39.5 | 38.0 | 35.2 | 29.8 | 25.5 | 21.0 | 11.0 |
| KVC/KVCX 40/80 M | KVC/KVCX 40/80 T | | 58.8 | 57.9 | 56.5 | 55.0 | 53.1 | 50.3 | 48.5 | 45.0 | 38.4 | 33.1 | 27.6 | 15.1 |
| KVC/KVCX 45/80 M | KVC/KVCX 45/80 T | | 71.3 | 70.2 | 68.7 | 66.9 | 64.7 | 61.4 | 59.4 | 55.3 | 47.5 | 41.4 | 34.9 | 19.9 |
| KVC/KVCX 55/80 M | KVC/KVCX 55/80 T | | 84.0 | 82.8 | 81.2 | 79.2 | 76.6 | 72.9 | 70.7 | 66.0 | 57.1 | 50.3 | 42.8 | 25.5 |
| — | KVC/KVCX 65/80 T | | 97.0 | 95.7 | 94.0 | 91.8 | 88.9 | 84.7 | 82.5 | 77.2 | 67.3 | 59.9 | 51.5 | 32.0 |

SELECTION TABLE - KVC / KVCX 120

| MODEL | | Q=m³/h | 0 | 0.6 | 1.2 | 1.8 | 2.4 | 3 | 3.3 | 3.9 | 4.8 | 5.4 | 6 | 7.2 | 8.4 | 9.6 | 10.8 | 12 |
|-------------------|-------------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| SINGLE-PHASE | THREE-PHASE | Q=l/min | 0 | 10 | 20 | 30 | 40 | 50 | 55 | 65 | 80 | 90 | 100 | 120 | 140 | 160 | 180 | 200 |
| KVC/KVCX 25/120 M | KVC/KVCX 25/120 T | H (m) | 30.4 | 30.3 | 30.2 | 30.0 | 29.9 | 29.6 | 29.3 | 28.7 | 27.7 | 26.9 | 25.9 | 23.2 | 19.9 | 16.4 | 12.0 | 7.0 |
| KVC/KVCX 35/120 M | KVC/KVCX 35/120 T | | 46.2 | 46.1 | 45.7 | 45.3 | 44.8 | 44.0 | 43.7 | 42.7 | 40.9 | 39.3 | 37.4 | 33.7 | 29.4 | 24.2 | 18.0 | 11.0 |
| KVC/KVCX 45/120 M | KVC/KVCX 45/120 T | | 62.4 | 62.0 | 61.4 | 60.8 | 60.1 | 59.1 | 58.6 | 57.5 | 55.3 | 53.4 | 51.4 | 46.2 | 40.6 | 34.0 | 26.3 | 17.0 |
| — | KVC/KVCX 60/120 T | | 78.0 | 77.5 | 76.7 | 75.9 | 75.1 | 73.9 | 73.3 | 71.5 | 68.3 | 65.9 | 63.2 | 58.0 | 51.0 | 43.4 | 35.0 | 24.5 |
| — | KVC/KVCX 70/120 T | | 95.0 | 94.3 | 93.4 | 92.5 | 91.4 | 89.8 | 88.9 | 86.8 | 83.2 | 80.5 | 77.9 | 71.7 | 63.9 | 54.7 | 44.0 | 31.0 |
| — | KVC/KVCX 85/120 T | | 112.7 | 111.6 | 110.3 | 109.0 | 107.6 | 105.7 | 104.5 | 101.9 | 97.5 | 94.1 | 89.9 | 81.6 | 72.1 | 61.2 | 48.9 | 34.0 |

KVC / KVCX 30 - INTEGRAL SHAFT MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURISATION SYSTEMS, PRESSURE UNITS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use - from 0 °C to +40 °C for the other uses



See hydraulic efficiency details on page 291.

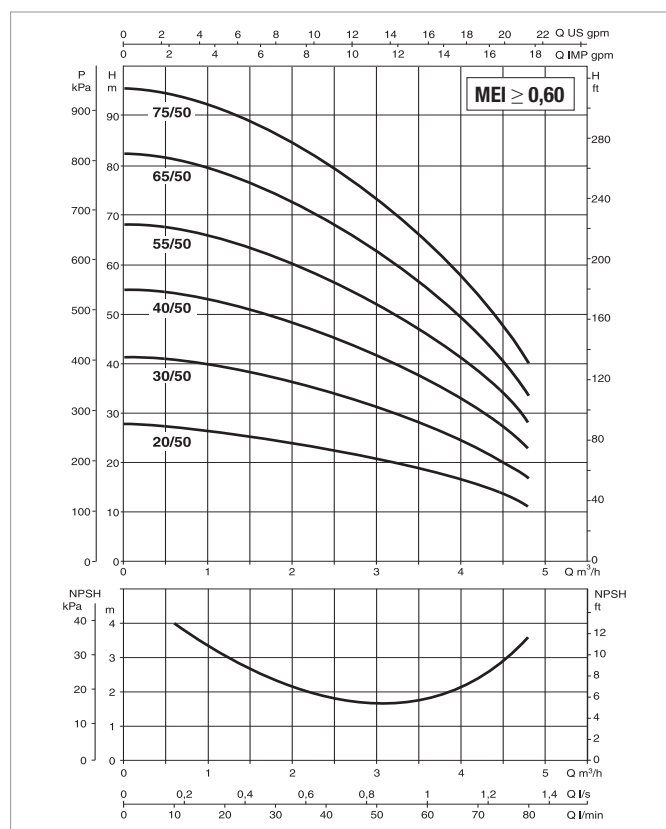
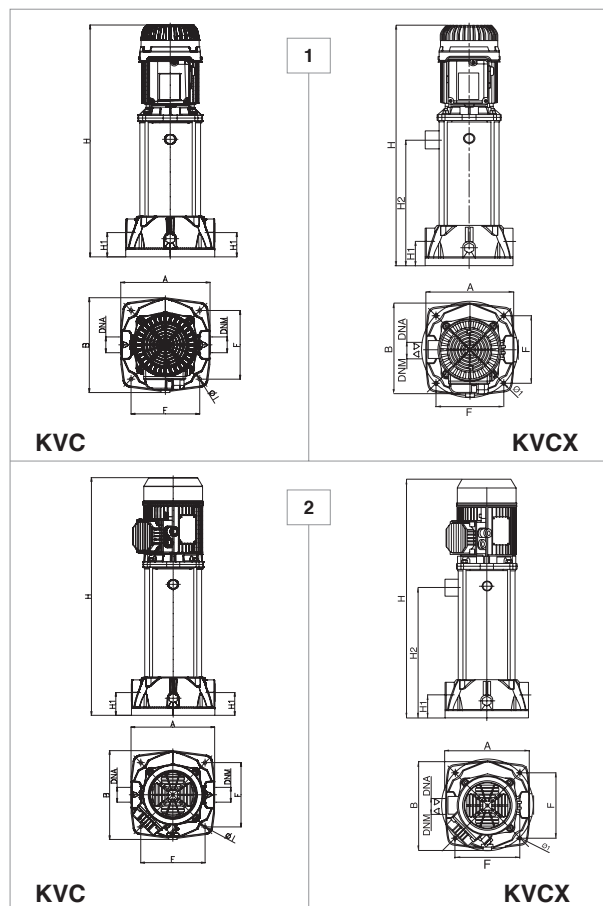
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | NO. OF IMPELLERS | POWER INPUT 50 Hz | P1 MAX kW | ELECTRICAL DATA | | | | | | | |
|------------------|------------------|----------------------|-----------------|-----------------|------|---------|------------|-----------|--------|-----------|-----|
| | | | | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | 1/min. | CAPACITOR | |
| | | | | kW | HP | | | | | µF | Vc |
| KVC-KVCX 15/30 M | 2 | 1x220-240 V ~ | 0.36 | 0.25 | 0.33 | 1.6 | — | 13.7 | 2800 | 14 | 450 |
| KVC-KVCX 15/30 T | | 3x230-400 V ~ | 0.45 | 0.25 | 0.33 | 1.4-0.8 | — | 15.9-9.2 | 2800 | — | — |
| KVC-KVCX 25/30 M | 3 | 1x220-240 V ~ | 0.52 | 0.37 | 0.5 | 2.4 | — | 13.7 | 2800 | 14 | 450 |
| KVC-KVCX 25/30 T | | 3x230-400 V ~ | 0.54 | 0.37 | 0.5 | 1.7-1.0 | — | 15.9-9.2 | 2800 | — | — |
| KVC-KVCX 35/30 M | 4 | 1x220-240 V ~ | 0.7 | 0.45 | 0.6 | 3.2 | — | 13.7 | 2800 | 14 | 450 |
| KVC-KVCX 35/30 T | | 3x230-400 V ~ | 0.64 | 0.45 | 0.6 | 2.1-1.2 | — | 15.9-9.2 | 2800 | — | — |
| KVC-KVCX 45/30 M | 5 | 1x220-240 V ~ | 0.9 | 0.55 | 0.75 | 4 | — | 13.7 | 2800 | 14 | 450 |
| KVC-KVCX 45/30 T | | 3x230-400 V ~ | 0.75 | 0.55 | 0.75 | 2.4-1.4 | — | 15.9-9.2 | 2800 | — | — |
| KVC-KVCX 50/30 M | 6 | 1x220-240 V ~ | 1.1 | 0.75 | 1 | 4.9 | — | 19.5 | 2800 | 16 | 450 |
| KVC-KVCX 50/30 T | | 3x230-400 V ~ | 0.97 | 0.75 | 1 | 3.8-2.2 | IE2 | 16 | 2800 | — | — |
| KVC-KVCX 60/30 M | 7 | 1x220-240 V ~ | 1.2 | 0.8 | 1.1 | 5.6 | — | 28 | 2800 | 20 | 450 |
| KVC-KVCX 60/30 T | | 3x230-400 V ~ | 1.2 | 0.8 | 1.1 | 3.8-2.2 | IE2 | 21.4-12.4 | 2800 | — | — |
| KVC-KVCX 70/30 M | 8 | 1x220-240 V ~ | 1.4 | 1 | 1.36 | 6.5 | — | 30 | 2800 | 25 | 450 |
| KVC-KVCX 70/30 T | | 3x230-400 V ~ | 1.4 | 1 | 1.36 | 4.4-2.6 | IE2 | 22.1-12.8 | 2800 | — | — |

| MODEL | EXTERNAL DESIGN | A | B | F | H | H1 | H2 | Ø I | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|------------|-----------------|-----|-----|-----|-----|----|-----|-----|----------|----------|--------------------|-----|-----|-------------|--------------|-------------|
| | | | | | | | | | | | L/A | L/B | H | | single-phase | three-phase |
| KVC 15/30 | 1 | 221 | 235 | 170 | 450 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 600 | 0.065 | 14 | 14 |
| KVC 25/30 | 1 | 221 | 235 | 170 | 478 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 600 | 0.065 | 14.4 | 14.4 |
| KVC 35/30 | 1 | 221 | 235 | 170 | 505 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 600 | 0.071 | 14 | 14 |
| KVC 45/30 | 1 | 221 | 235 | 170 | 533 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 600 | 0.071 | 14.4 | 14.4 |
| KVC 50/30 | 1 | 221 | 235 | 170 | 598 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 600 | 0.079 | 16.2 | 16.2 |
| KVC 60/30 | 1 | 221 | 235 | 170 | 625 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 600 | 0.079 | 17.2 | 17.2 |
| KVC 70/30 | 1 | 221 | 235 | 170 | 653 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 600 | 0.084 | 18.4 | 18.4 |
| KVCX 15/30 | 1 | 221 | 235 | 170 | 450 | 60 | 184 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 600 | 0.065 | 14 | 14 |
| KVCX 25/30 | 1 | 221 | 235 | 170 | 478 | 60 | 184 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 600 | 0.065 | 14.4 | 14.4 |
| KVCX 35/30 | 1 | 221 | 235 | 170 | 505 | 60 | 239 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 600 | 0.071 | 14 | 14 |
| KVCX 45/30 | 1 | 221 | 235 | 170 | 533 | 60 | 239 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 600 | 0.071 | 14.4 | 14.4 |
| KVCX 50/30 | 1 | 221 | 235 | 170 | 598 | 60 | 332 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 600 | 0.079 | 16.2 | 16.2 |
| KVCX 60/30 | 1 | 221 | 235 | 170 | 625 | 60 | 332 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 600 | 0.079 | 17.2 | 17.2 |
| KVCX 70/30 | 1 | 221 | 235 | 170 | 653 | 60 | 359 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 600 | 0.084 | 18.4 | 18.4 |

KVC / KVCX 50 - INTEGRAL SHAFT MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURISATION SYSTEMS, PRESSURE UNITS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use - from 0 °C to +40 °C for the other uses



See hydraulic efficiency details on page 291.

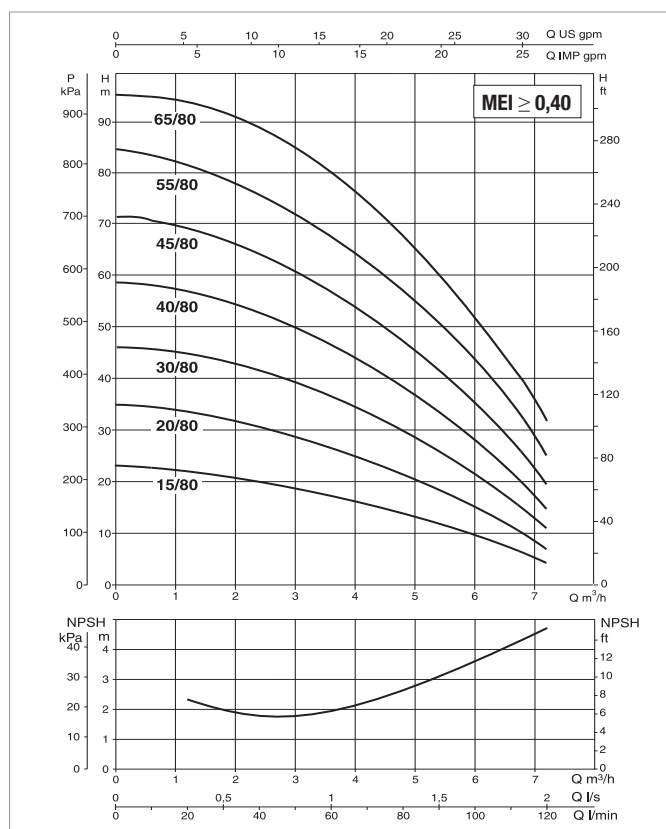
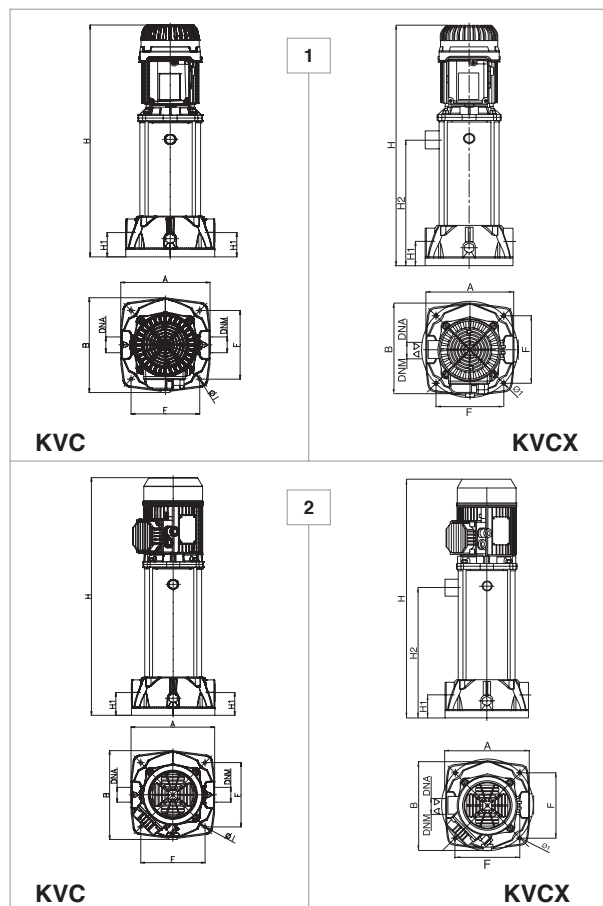
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | NO. OF IMPELLERS | POWER INPUT 50 Hz | P1 MAX kW | ELECTRICAL DATA | | | | | | | |
|------------------|------------------|----------------------|-----------------|-----------------|------|---------|------------|-----------|--------|-----------|-----|
| | | | | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | 1/min. | CAPACITOR | |
| | | | | kW | HP | | | | | µF | Vc |
| KVC-KVCX 20/50 M | 2 | 1x220-240 V ~ | 0.55 | 0.37 | 0.5 | 2.5 | — | 13.7 | 2800 | 14 | 450 |
| KVC-KVCX 20/50 T | | 3x230-400 V ~ | 0.54 | 0.37 | 0.5 | 1.7-1.0 | — | 15.9-9.2 | 2800 | — | — |
| KVC-KVCX 30/50 M | 3 | 1x220-240 V ~ | 0.9 | 0.55 | 0.75 | 4 | — | 13.7 | 2800 | 14 | 450 |
| KVC-KVCX 30/50 T | | 3x230-400 V ~ | 0.75 | 0.55 | 0.75 | 2.4-1.4 | — | 15.9-9.2 | 2800 | — | — |
| KVC-KVCX 40/50 M | 4 | 1x220-240 V ~ | 1.2 | 0.8 | 1.1 | 5.6 | — | 28 | 2800 | 20 | 450 |
| KVC-KVCX 40/50 T | | 3x230-400 V ~ | 1.2 | 0.8 | 1.1 | 3.8-2.2 | IE2 | 21.4-12.4 | 2800 | — | — |
| KVC-KVCX 55/50 M | 5 | 1x220-240 V ~ | 1.4 | 1 | 1.36 | 6.4 | — | 30 | 2800 | 25 | 450 |
| KVC-KVCX 55/50 T | | 3x230-400 V ~ | 1.4 | 1 | 1.36 | 4.4-2.6 | IE2 | 22.1-12.8 | 2800 | — | — |
| KVC-KVCX 65/50 M | 6 | 1x220-240 V ~ | 1.7 | 1.1 | 1.5 | 7.4 | — | 29.2 | 2800 | 31.5 | 450 |
| KVC-KVCX 65/50 T | | 3x230-400 V ~ | 1.7 | 1.1 | 1.5 | 7.4 | IE2 | 21 | 2800 | — | — |
| KVC-KVCX 75/50 M | 7 | 1x220-240 V ~ | 2 | 1.5 | 2 | 9 | — | 38 | 2800 | 31.5 | 450 |
| KVC-KVCX 75/50 T | | 3x230-400 V ~ | 1.9 | 1.5 | 2 | 7.7-4.3 | IE2 | 22 | 2800 | — | — |

| MODEL | EXTERNAL DESIGN | A | B | F | H | H1 | H2 | Ø I | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|------------|-----------------|-----|-----|-----|-----|----|-----|-----|----------|----------|--------------------|-----|-----|----------------|--------------|-------------|
| | | | | | | | | | | | L/A | L/B | H | | single-phase | three-phase |
| KVC 20/50 | 1 | 221 | 235 | 170 | 450 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 600 | 0.065 | 13.5 | 13.5 |
| KVC 30/50 | 1 | 221 | 235 | 170 | 478 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 600 | 0.065 | 13.7 | 13.7 |
| KVC 40/50 | 1 | 221 | 235 | 170 | 505 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 656 | 0.071 | 15.8 | 15.8 |
| KVC 55/50 | 1 | 221 | 235 | 170 | 533 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 656 | 0.071 | 17.0 | 17.0 |
| KVC 65/50 | 2 | 221 | 235 | 170 | 600 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 735 | 0.079 | 20.2 | 19.8 |
| KVC 75/50 | 2 | 221 | 235 | 170 | 627 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 735 | 0.079 | 21.2 | 20.6 |
| KVCX 20/50 | 1 | 221 | 235 | 170 | 450 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 600 | 0.065 | 13.5 | 13.5 |
| KVCX 30/50 | 1 | 221 | 235 | 170 | 478 | 60 | 184 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 600 | 0.065 | 13.7 | 13.7 |
| KVCX 40/50 | 1 | 221 | 235 | 170 | 505 | 60 | 184 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 656 | 0.071 | 15.8 | 15.8 |
| KVCX 55/50 | 1 | 221 | 235 | 170 | 533 | 60 | 239 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 656 | 0.071 | 17.0 | 17.0 |
| KVCX 65/50 | 2 | 221 | 235 | 170 | 600 | 60 | 239 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 735 | 0.079 | 20.2 | 19.8 |
| KVCX 75/50 | 2 | 221 | 235 | 170 | 627 | 60 | 332 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 735 | 0.079 | 21.2 | 20.6 |

KVC / KVCX 80 - INTEGRAL SHAFT MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURISATION SYSTEMS, PRESSURE UNITS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use - from 0 °C to +40 °C for the other uses



See hydraulic efficiency details on page 291.

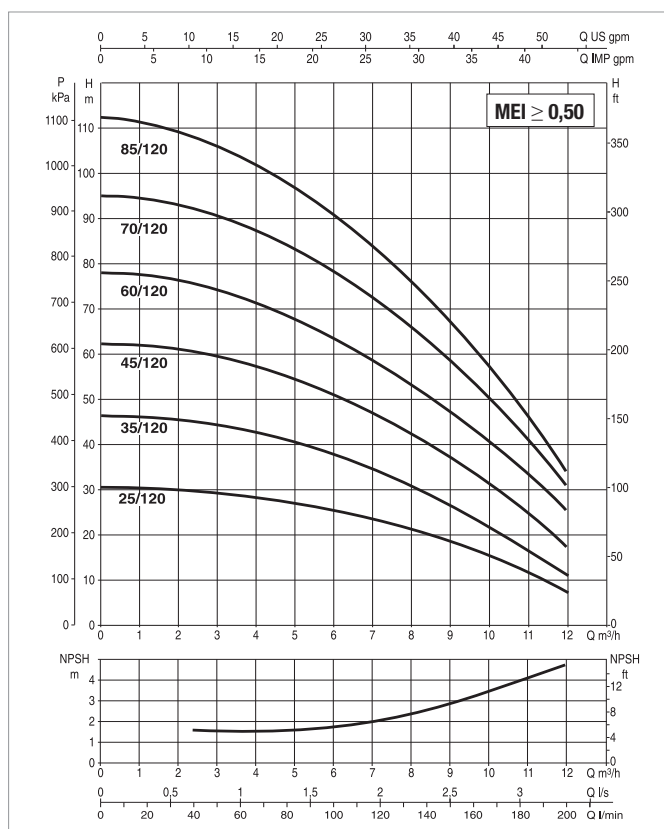
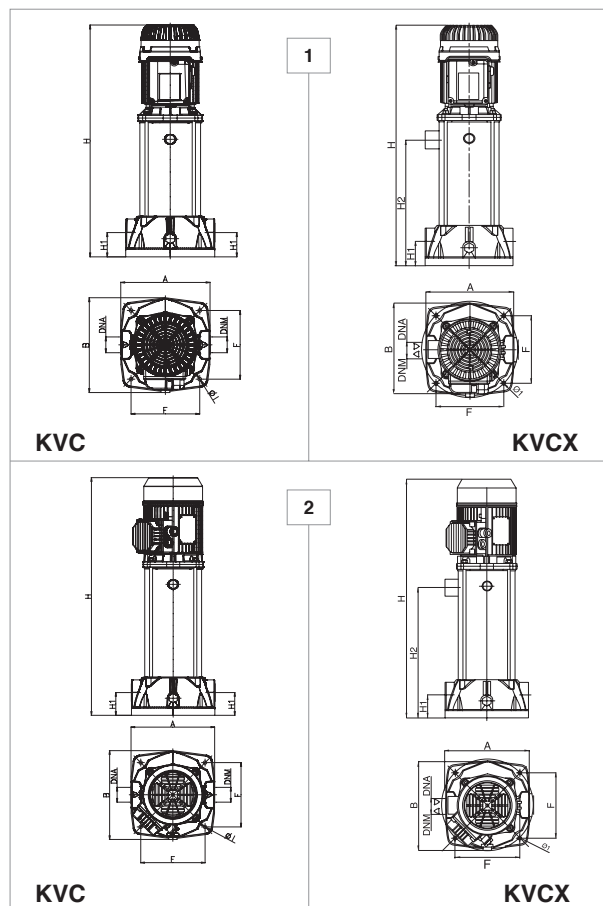
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | No. IMPELLERS | POWER INPUT 50 Hz | P1 MAX kW | ELECTRICAL DATA | | | | | | | |
|------------------|---------------|----------------------|--------------|-----------------|------|---------|------------|-----------|--------|-----------|-----|
| | | | | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | 1/min. | CAPACITOR | |
| | | | | kW | HP | | | | | µF | Vc |
| KVC-KVCX 15/80 M | 2 | 1x220-240 V ~ | 0.55 | 0.37 | 0.5 | 2.5 | — | 13.7 | 2800 | 14 | 450 |
| KVC-KVCX 15/80 T | | 3x230-400 V ~ | 0.54 | 0.37 | 0.5 | 1.7-1.0 | — | 15.9-9.2 | 2800 | — | — |
| KVC-KVCX 20/80 M | 3 | 1x220-240 V ~ | 0.9 | 0.55 | 0.75 | 4.1 | — | 13.7 | 2800 | 14 | 450 |
| KVC-KVCX 20/80 T | | 3x230-400 V ~ | 0.75 | 0.55 | 0.75 | 2.4-1.4 | — | 15.9-9.2 | 2800 | — | — |
| KVC-KVCX 30/80 M | 4 | 1x220-240 V ~ | 1.2 | 0.8 | 1.1 | 5.6 | — | 28 | 2800 | 20 | 450 |
| KVC-KVCX 30/80 T | | 3x230-400 V ~ | 1.2 | 0.8 | 1.1 | 3.8-2.2 | IE2 | 21.4-12.4 | 2800 | — | — |
| KVC-KVCX 40/80 M | 5 | 1x220-240 V ~ | 1.4 | 1 | 1.36 | 6.5 | — | 30 | 2800 | 25 | 450 |
| KVC-KVCX 40/80 T | | 3x230-400 V ~ | 1.4 | 1 | 1.36 | 4.4-2.6 | IE2 | 22.1-12.8 | 2800 | — | — |
| KVC-KVCX 45/80 M | 6 | 1x220-240 V ~ | 1.7 | 1.1 | 1.5 | 7.4 | — | 29.2 | 2800 | 31.5 | 450 |
| KVC-KVCX 45/80 T | | 3x230-400 V ~ | 1.7 | 1.1 | 1.5 | 5.4-3.1 | IE2 | 31.1-18.0 | 2800 | — | — |
| KVC-KVCX 55/80 M | 7 | 1x220-240 V ~ | 2 | 1.5 | 2 | 9 | — | 38 | 2800 | 31.5 | 450 |
| KVC-KVCX 55/80 T | | 3x230-400 V ~ | 1.9 | 1.5 | 2 | 6.2-3.6 | IE2 | 37.5-21.7 | 2800 | — | — |
| KVC-KVCX 65/80 T | 8 | 3x230-400 V ~ | 2.2 | 2.2 | 3 | 8-4.6 | IE2 | 32 | 2800 | — | — |

| MODEL | EXTERNAL DESIGN | A | B | F | H | H1 | H2 | Ø1 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|------------|-----------------|-----|-----|-----|-----|----|-----|----|----------|----------|--------------------|-----|-----|----------------|--------------|-------------|
| | | | | | | | | | | | L/A | L/B | H | | single-phase | three-phase |
| KVC 15/80 | 1 | 221 | 235 | 170 | 450 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 600 | 0.065 | 13.5 | 13.5 |
| KVC 20/80 | 1 | 221 | 235 | 170 | 478 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 600 | 0.065 | 13.7 | 13.7 |
| KVC 30/80 | 1 | 221 | 235 | 170 | 505 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 656 | 0.071 | 15.7 | 15.5 |
| KVC 40/80 | 1 | 221 | 235 | 170 | 533 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 656 | 0.071 | 17.0 | 17.0 |
| KVC 45/80 | 2 | 221 | 235 | 170 | 600 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 735 | 0.079 | 20.1 | 20.2 |
| KVC 55/80 | 2 | 221 | 235 | 170 | 627 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 735 | 0.079 | 21.2 | 20.0 |
| KVC 65/80 | 2 | 221 | 235 | 170 | 655 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 760 | 0.082 | — | 21.6 |
| KVCX 15/80 | 1 | 221 | 235 | 170 | 450 | 60 | 184 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 600 | 0.065 | 13.5 | 13.5 |
| KVCX 20/80 | 1 | 221 | 235 | 170 | 478 | 60 | 184 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 600 | 0.065 | 13.7 | 13.7 |
| KVCX 30/80 | 1 | 221 | 235 | 170 | 505 | 60 | 239 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 656 | 0.071 | 15.7 | 15.5 |
| KVCX 40/80 | 1 | 221 | 235 | 170 | 533 | 60 | 239 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 656 | 0.071 | 17.0 | 17.0 |
| KVCX 45/80 | 2 | 221 | 235 | 170 | 600 | 60 | 332 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 735 | 0.079 | 20.1 | 20.2 |
| KVCX 55/80 | 2 | 221 | 235 | 170 | 627 | 60 | 332 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 735 | 0.079 | 21.2 | 20.0 |
| KVCX 65/80 | 2 | 221 | 235 | 170 | 655 | 60 | 359 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 760 | 0.082 | — | 21.6 |

KVC / KVCX 120 - INTEGRAL SHAFT MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURISATION SYSTEMS, PRESSURE UNITS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use - from 0 °C to +40 °C for the other uses



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | ELECTRICAL DATA | | | | | | | | | | |
|-------------------|------------------|----------------------|-----------------|------------|------|----------|------------|-----------|--------|-----------|-----|
| | NO. OF IMPELLERS | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | 1/min. | CAPACITOR | |
| | | | | kW | HP | | | | | µF | Vc |
| KVC-KVCX 25/120 M | 2 | 1x220-240 V ~ | 1.5 | 1 | 1.36 | 6.5 | — | 30 | 2800 | 25 | 450 |
| KVC-KVCX 25/120 T | | 3x230-400 V ~ | 1.5 | 1 | 1.36 | 5-2.9 | IE2 | 22.1-12.8 | 2800 | — | — |
| KVC-KVCX 35/120 M | 3 | 1x220-240 V ~ | 1.9 | 1.1 | 1.5 | 7.4 | — | 30 | 2800 | 31.5 | 450 |
| KVC-KVCX 35/120 T | | 3x230-400 V ~ | 1.9 | 1.1 | 1.5 | 6-3.5 | IE2 | 31.1-18 | 2800 | — | — |
| KVC-KVCX 45/120 M | 4 | 1x220-240 V ~ | 2.6 | 1.85 | 2.5 | 12 | — | 54 | 2800 | 40 | 450 |
| KVC-KVCX 45/120 T | | 3x230-400 V ~ | 2.5 | 1.85 | 2.5 | 7.9-4.6 | IE2 | 48.4-28 | 2800 | — | — |
| KVC-KVCX 60/120 T | 5 | 3x230-400 V ~ | 3.1 | 2.2 | 3 | 9.3-5.4 | IE2 | 53-31 | 2800 | — | — |
| KVC-KVCX 70/120 T | 6 | 3x230-400 V ~ | 3.8 | 3 | 4 | 11.8-6.8 | IE2 | 78-45 | 2800 | — | — |
| KVC-KVCX 85/120 T | 7 | 3x230-400 V ~ | 4.3 | 3 | 4 | 13.5-7.8 | IE2 | 90-53 | 2800 | — | — |

| MODEL | EXTERNAL DESIGN | A | B | F | H | H1 | H2 | Ø I | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg | |
|---------------|-----------------|-----|-----|-----|-----|----|-----|-----|----------|----------|--------------------|-----|-----|----------------|--------------|-------------|
| | | | | | | | | | | | L/A | L/B | H | | single-phase | three-phase |
| KVC 25/120 * | 1 | 221 | 235 | 170 | 450 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 585 | 0.058 | 17.0 | 17.1 |
| KVC 35/120 * | 2 | 221 | 235 | 170 | 480 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 585 | 0.061 | 20.1 | 20.2 |
| KVC 45/120 * | 2 | 221 | 235 | 170 | 507 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 715 | 0.064 | 20.2 | 21.9 |
| KVC 60/120 | 2 | 221 | 235 | 170 | 610 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 715 | 0.067 | — | 21.6 |
| KVC 70/120 | 2 | 221 | 235 | 170 | 675 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 810 | 0.074 | — | 24.0 |
| KVC 85/120 | 2 | 221 | 235 | 170 | 702 | 60 | — | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 810 | 0.077 | — | 25.0 |
| KVCX 25/120 * | 1 | 221 | 235 | 170 | 450 | 60 | 184 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 585 | 0.061 | 17.0 | 17.1 |
| KVCX 35/120 * | 2 | 221 | 235 | 170 | 480 | 60 | 184 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 585 | 0.061 | 20.1 | 20.2 |
| KVCX 45/120 * | 2 | 221 | 235 | 170 | 507 | 60 | 239 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 715 | 0.067 | 20.2 | 21.9 |
| KVCX 60/120 | 2 | 221 | 235 | 170 | 610 | 60 | 239 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 715 | 0.065 | — | 21.6 |
| KVCX 70/120 | 2 | 221 | 235 | 170 | 675 | 60 | 332 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 810 | 0.076 | — | 24.0 |
| KVCX 85/120 | 2 | 221 | 235 | 170 | 702 | 60 | 332 | 9 | G 1" 1/4 | G 1" 1/4 | 300 | 360 | 810 | 0.076 | — | 25.0 |

* H only valid for the three-phase version

KV 3-6-10

MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS WITH COUPLING



TECHNICAL DATA

Operating range:

from 1,8 to 13,5 m³/h with head up to 139 metres.

Pumped liquid: clean, free of solids and abrasives, non-viscous, non-aggressive, non-crystallised and chemically neutral, with properties similar to water.

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use (EN 60335-2-41).

from -15°C to +110°C for other uses.

Maximum ambient temperature: +40 °C.

Maximum operating pressure: 18 bar (1800 kPa).

Protection class: IP 55

Insulation class: F

Standard voltage: single-phase

220-240 V / 50 Hz.

three-phase

230-400 V / 50 Hz

IE2 ≥ 0,75 kW

Installation: fixed, vertical position.

Special executions on requests: alternative voltages and frequencies.

APPLICATIONS

Vertical multistage centrifugal pump suitable for small to medium user water systems. Suitable for pressurisation units, boiler supply, hot water circulation, channelling of condensate and cooling water, fire fighting and washing systems, drinking water supply and filling of pressure vessels, sprinkler and watering systems.

CONSTRUCTION FEATURES OF THE PUMP

Cast iron delivery and suction bodies treated against corrosion. Impellers, diffuser bodies and diffusers in technopolymer. AISI 304 stainless steel pump liner and adjustment rings. Pump shaft in AISI 416 stainless steel. AISI 316 stainless steel sliding bushing.

Bronze sliding bushing guide, self-lubricated using the pumped liquid itself. Carbon/ceramic mechanical seal. Rigid coupling motor shaft to pump shaft connection. Threaded counter-flanges supplied as standard.

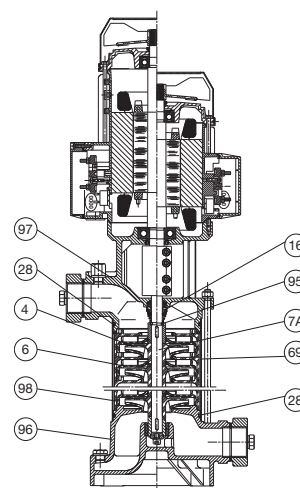
CONSTRUCTION FEATURES OF THE MOTOR

Closed asynchronous type, external ventilation cooling. Rotor running on permanently lubricated ball bearings, oversized to ensure low noise and durability. Standard built-in thermo-amperometric protection. Capacitor permanently fitted on single phase versions. Overload protection to be provided by the user for the three-phase version. Construction according to CEI 2-3 / CEI 61-69 (EN 60335-2-41).

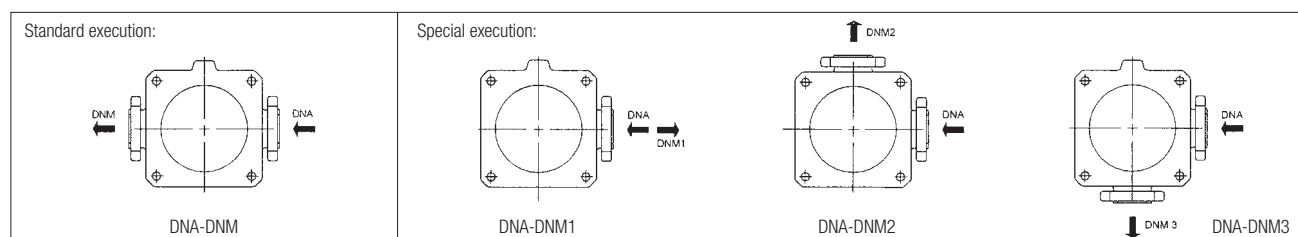
MATERIALS

| No. | PARTS* | MATERIALS |
|-----|-----------------|--|
| 4 | IMPELLER | TECHNOPOLYMER B |
| 6 | DIFFUSER | TECHNOPOLYMER B |
| 7A | PUMP SHAFT | AISI 416 STAINLESS STEEL X12 CrS 13 UNI 6900/71 |
| 16 | MECHANICAL SEAL | CARBON / CERAMIC |
| 28 | OR RING | EPDM RUBBER |
| 69 | LINER | AISI 304 STAINLESS STEEL X5 CrNi 1810 UNI 6900/71 |
| 95 | OR RING | EPDM RUBBER |
| 96 | SUCTION BODY | CAST IRON 200 UNI ISO 185 |
| 97 | DELIVERY BODY | CAST IRON 200 UNI ISO 185 |
| 98 | DIFFUSER BODY | TECHNOPOLYMER B |

* In contact with the liquid.



ORIENTATION OF THE SUCTION AND DELIVERY CONNECTORS:



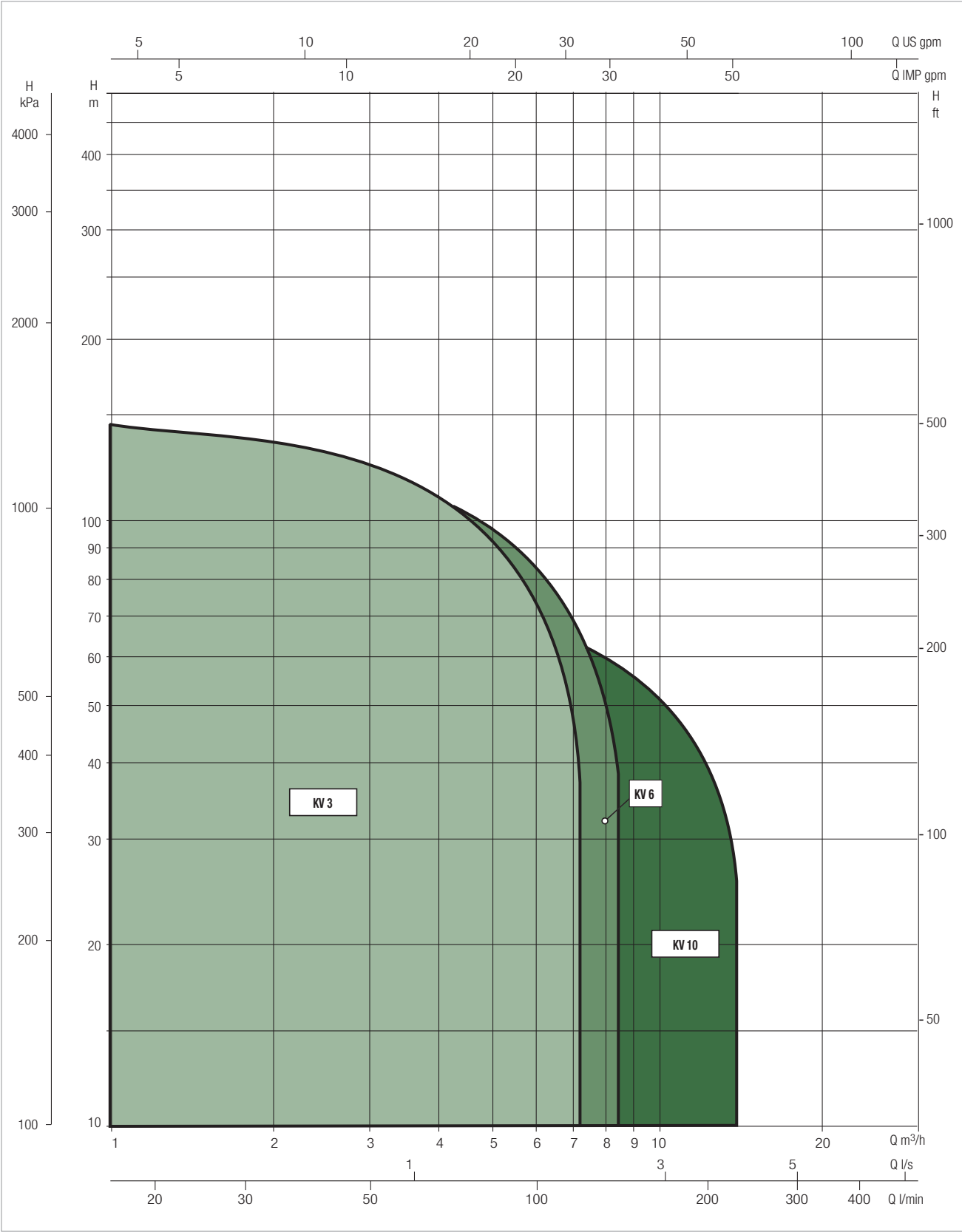
KV 3-6-10 RANGE

MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS WITH COUPLING

PERFORMANCE RANGE

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE



KV 3-6-10

MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS WITH COUPLING

SELECTION TABLE - KV 3

| MODEL | | P2 NOMINAL | | Q=m³/h | 0 | 1.8 | 3.6 | 5.4 | 7.2 |
|--------------|-------------|------------|-----|----------|-------|-------|-------|------|------|
| SINGLE-PHASE | THREE-PHASE | kW | HP | Q=l/min | 0 | 30 | 60 | 90 | 120 |
| KV 3/10 M | KV 3/10 T | 1.1 | 1.5 | H (m) | 88 | 77 | 63.5 | 45.7 | 21 |
| KV 3/12 M | KV 3/12 T | 1.5 | 2 | | 105.6 | 92.4 | 76.2 | 54.8 | 25.2 |
| KV 3/15 M | KV 3/15 T | 1.85 | 2.5 | | 132 | 115.5 | 95.3 | 68.6 | 31.5 |
| — | KV 3/18 T | 2.2 | 3 | | 158.4 | 138.6 | 114.3 | 82.3 | 37.8 |

SELECTION TABLE - KV 6

| MODEL | | P2 NOMINAL | | Q=m³/h | 0 | 1.8 | 3.6 | 5.4 | 7.2 | 8.4 |
|--------------|-------------|------------|-----|----------|-------|-------|-------|------|------|------|
| SINGLE-PHASE | THREE-PHASE | kW | HP | Q=l/min | 0 | 30 | 60 | 90 | 120 | 140 |
| KV 6/7 M | KV 6/7 T | 1.1 | 1.5 | H (m) | 62.3 | 57.8 | 51.5 | 42.5 | 29.5 | 18.6 |
| KV 6/9 M | KV 6/9 T | 1.5 | 2 | | 80.1 | 74.3 | 66.2 | 54.6 | 38 | 23.9 |
| KV 6/11 M | KV 6/11 T | 1.85 | 2.5 | | 97.9 | 90.8 | 81 | 66.8 | 46.4 | 29.2 |
| — | KV 6/15 T | 2.2 | 3 | | 133.5 | 123.8 | 110.4 | 91.1 | 63.3 | 39.8 |

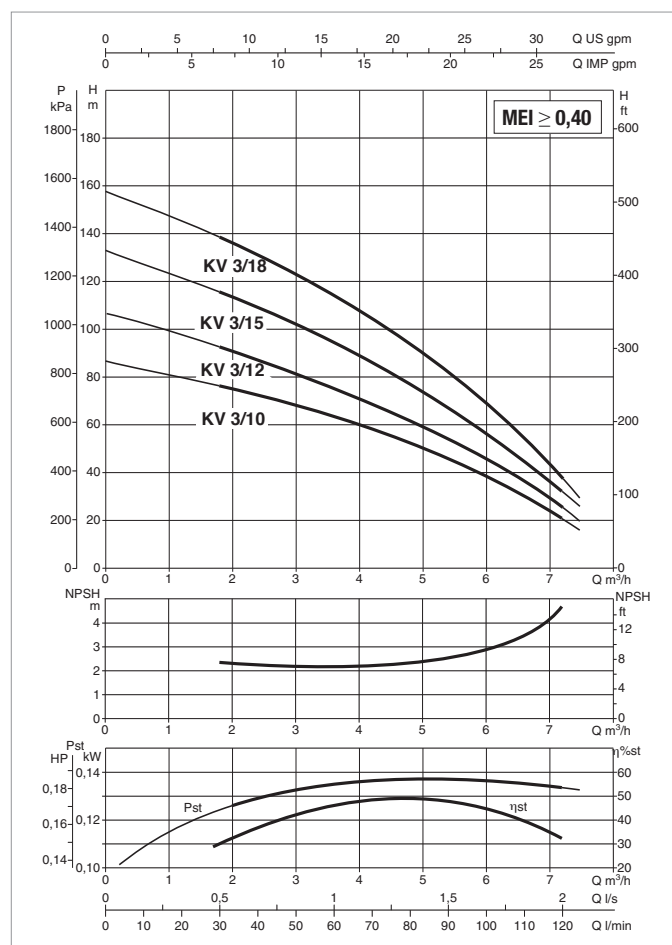
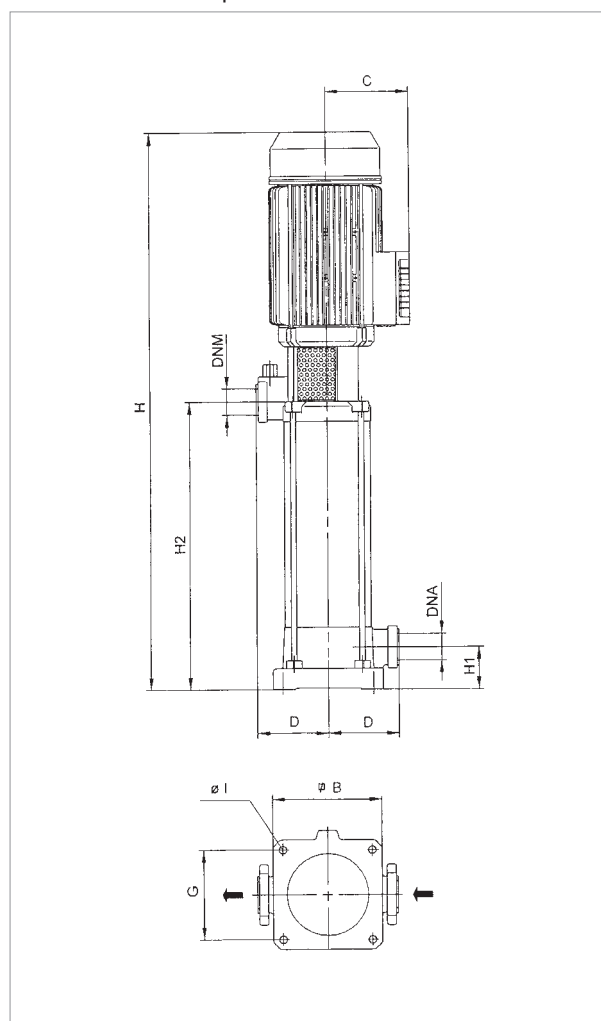
SELECTION TABLE - KV 10

| MODEL | | P2 NOMINAL | | Q=m³/h | 0 | 1.8 | 3.6 | 5.4 | 7.2 | 8.4 | 10.2 | 12 | 13.8 |
|--------------|-------------|------------|-----|----------|------|------|------|------|-----|------|------|-----|------|
| SINGLE-PHASE | THREE-PHASE | kW | HP | Q=l/min | 0 | 30 | 60 | 90 | 120 | 140 | 170 | 200 | 230 |
| KV 10/4 M | KV 10/4 T | 1.1 | 1.5 | H (m) | 38.2 | 37.4 | 36.2 | 34.4 | 32 | 29.7 | 25.5 | 20 | 12.6 |
| KV 10/5 M | KV 10/5 T | 1.5 | 2 | | 47.8 | 46.8 | 45.2 | 43 | 40 | 37.2 | 31.9 | 25 | 15.8 |
| — | KV 10/6 T | 1.85 | 2.5 | | 57.3 | 56.1 | 54.2 | 51.6 | 48 | 44.6 | 38.2 | 30 | 18.9 |
| — | KV 10/8 T | 2.2 | 3 | | 76.4 | 74.8 | 72.3 | 68.8 | 64 | 59.4 | 51 | 40 | 25.2 |

KV 3 - MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS WITH COUPLING FOR CIVIL AND INDUSTRIAL PRESSURISATION SYSTEMS, PRESSURE UNITS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use (EN 60335-2-41). From -15°C to +110°C for other uses.

Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

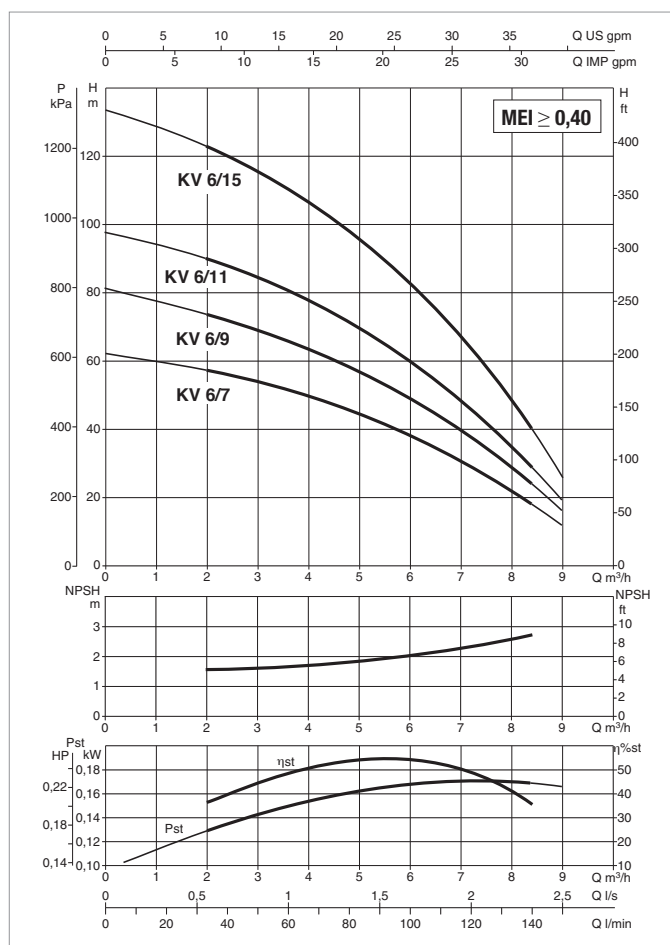
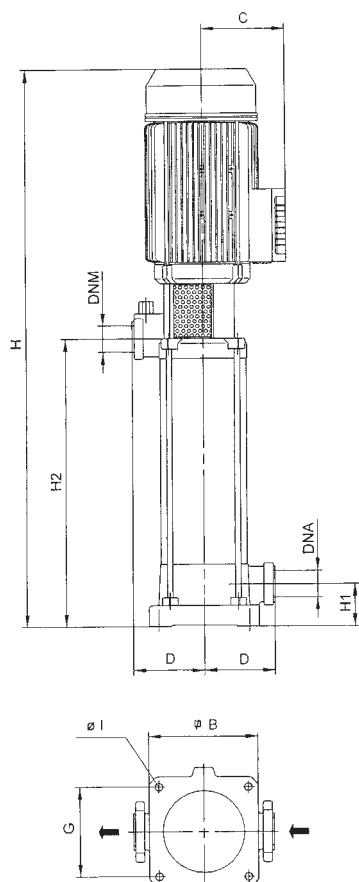
| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | 1/min. | CAPACITOR | |
|-----------|----------------------|-----------------|------------|-----|---------|---------------|---------|--------|-----------|-----|
| | | | kW | HP | | | | | μF | Vc |
| KV 3/10 M | 1x220-240 V ~ | 1.77 | 1.1 | 1.5 | 7.8 | – | 29 | 2800 | 31.5 | 450 |
| KV 3/10 T | 3x230-400 V ~ | 1.8 | 1.1 | 1.5 | 7.4 | IE2 | 21 | 2850 | – | – |
| KV 3/12 M | 1x220-240 V ~ | 2.34 | 1.5 | 2 | 9.6 | – | 38 | 2750 | 40 | 450 |
| KV 3/12 T | 3x230-400 V ~ | 2.06 | 1.5 | 2 | 7.5-4 | IE2 | 22 | 2750 | – | – |
| KV 3/15 M | 1x220-240 V ~ | 2.5 | 1.85 | 2.5 | 11.3 | – | 48 | 2850 | 40 | 450 |
| KV 3/15 T | 3x230-400 V ~ | 2.6 | 1.85 | 2.5 | 7.5-4.3 | IE2 | 57-33 | 2850 | – | – |
| KV 3/18 T | 3x230-400 V ~ | 3.3 | 2.2 | 3 | 10-5.8 | IE2 | 78-45 | 2850 | – | – |

| MODEL | B | C | D | G | I | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|-----------|-----|-----|-----|-----|----|------|----|-----|--------|--------|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | | L/A | L/B | H | | |
| KV 3/10 M | 155 | 111 | 100 | 127 | 11 | 782 | 60 | 472 | 1" 1/4 | 1" 1/4 | 972 | 232 | 232 | 0.052 | 27.2 |
| KV 3/10 T | 155 | 111 | 100 | 127 | 11 | 782 | 60 | 472 | 1" 1/4 | 1" 1/4 | 972 | 232 | 232 | 0.052 | 26.3 |
| KV 3/12 M | 155 | 116 | 100 | 127 | 11 | 846 | 60 | 536 | 1" 1/4 | 1" 1/4 | 972 | 232 | 232 | 0.052 | 30.6 |
| KV 3/12 T | 155 | 111 | 100 | 127 | 11 | 846 | 60 | 536 | 1" 1/4 | 1" 1/4 | 972 | 232 | 232 | 0.052 | 28 |
| KV 3/15 M | 155 | 116 | 100 | 127 | 11 | 942 | 60 | 632 | 1" 1/4 | 1" 1/4 | 1212 | 232 | 232 | 0.065 | 33 |
| KV 3/15 T | 155 | 116 | 100 | 127 | 11 | 942 | 60 | 632 | 1" 1/4 | 1" 1/4 | 1212 | 232 | 232 | 0.065 | 31.9 |
| KV 3/18 T | 155 | 116 | 100 | 127 | 11 | 1116 | 60 | 728 | 1" 1/4 | 1" 1/4 | 1212 | 232 | 232 | 0.065 | 35.8 |

KV 6 - MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS WITH COUPLING FOR CIVIL AND INDUSTRIAL PRESSURISATION SYSTEMS, PRESSURE UNITS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use (EN 60335-2-41). From -15°C to +110°C for other uses.

Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

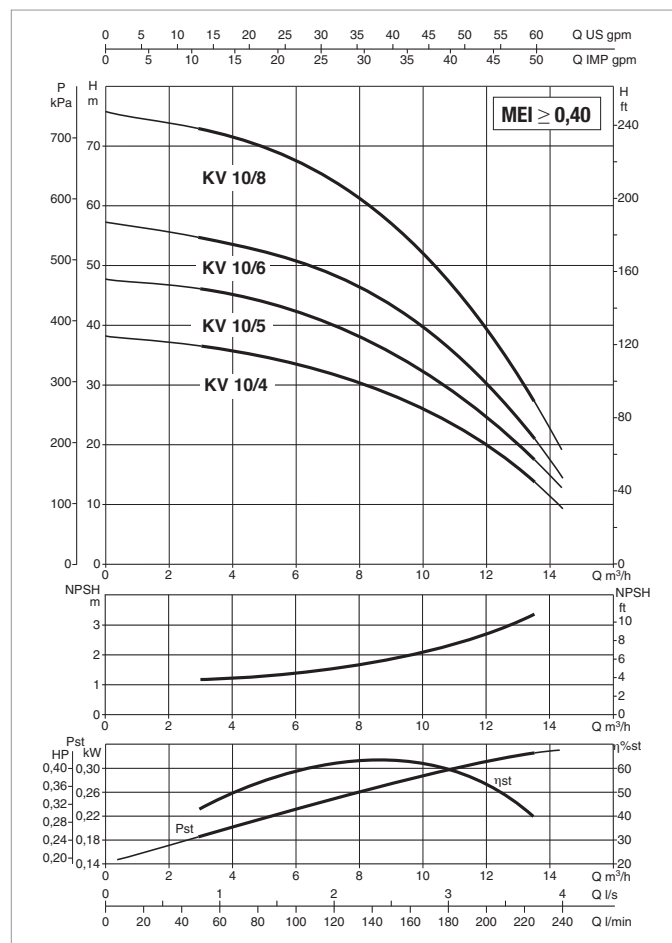
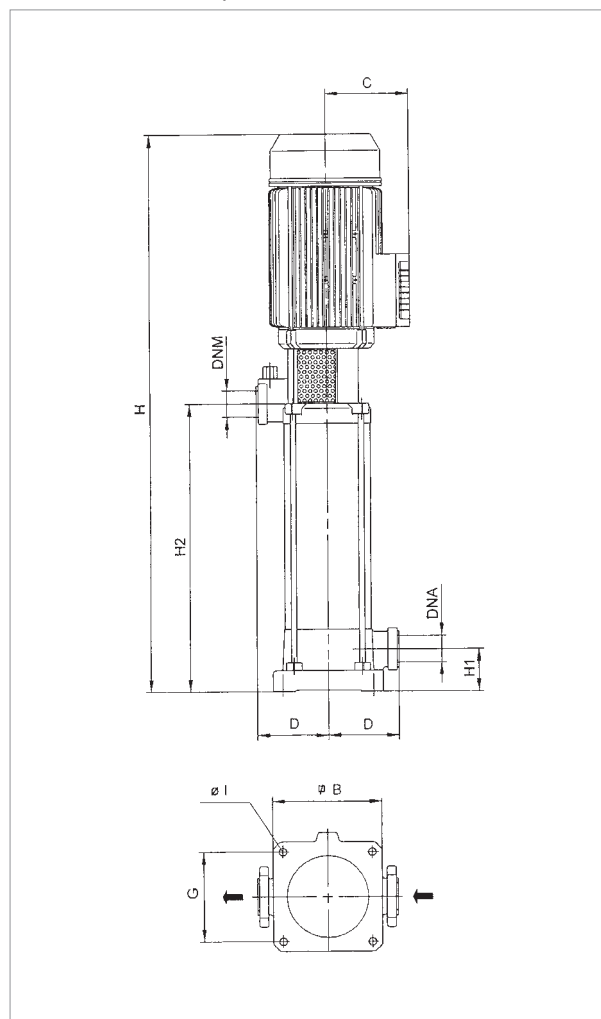
| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | 1/min. | CAPACITOR | |
|-----------|----------------------|-----------------|------------|-----|---------|---------------|---------|--------|-----------|-----|
| | | | kW | HP | | | | | μF | Vc |
| KV 6/7 M | 1x220-240 V ~ | 1.68 | 1.1 | 1.5 | 7.5 | – | 29 | 2800 | 31.5 | 450 |
| KV 6/7 T | 3x230-400 V ~ | 1.6 | 1.1 | 1.5 | 5-2.9 | IE2 | 38-22 | 2850 | – | – |
| KV 6/9 M | 1x220-240 V ~ | 2.1 | 1.5 | 2 | 9.4 | – | 38 | 2850 | 40 | 450 |
| KV 6/9 T | 3x230-400 V ~ | 2 | 1.5 | 2 | 7.5-4.2 | IE2 | 22 | 2850 | – | – |
| KV 6/11 M | 1x220-240 V ~ | 2.5 | 1.85 | 2.5 | 11.1 | – | 48 | 2850 | 40 | 450 |
| KV 6/11 T | 3x230-400 V ~ | 2.3 | 1.85 | 2.5 | 7.3-4.2 | IE2 | 43-25 | 2850 | – | – |
| KV 6/15 T | 3x230-400 V ~ | 3.3 | 2.2 | 3 | 11-6.3 | IE2 | 78-45 | 2850 | – | – |

| MODEL | B | C | D | G | I | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|-----------|-----|-----|-----|-----|----|------|----|-----|--------|--------|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | | L/A | L/B | H | | |
| KV 6/7 M | 155 | 111 | 100 | 127 | 11 | 685 | 60 | 376 | 1" 1/4 | 1" 1/4 | 972 | 232 | 232 | 0.052 | 26.1 |
| KV 6/7 T | 155 | 111 | 100 | 127 | 11 | 685 | 60 | 376 | 1" 1/4 | 1" 1/4 | 972 | 232 | 232 | 0.052 | 25.2 |
| KV 6/9 M | 155 | 116 | 100 | 127 | 11 | 750 | 60 | 440 | 1" 1/4 | 1" 1/4 | 972 | 232 | 232 | 0.052 | 29 |
| KV 6/9 T | 155 | 111 | 100 | 127 | 11 | 750 | 60 | 440 | 1" 1/4 | 1" 1/4 | 972 | 232 | 232 | 0.052 | 26.8 |
| KV 6/11 M | 155 | 116 | 100 | 127 | 11 | 815 | 60 | 504 | 1" 1/4 | 1" 1/4 | 972 | 232 | 232 | 0.052 | 31.3 |
| KV 6/11 T | 155 | 116 | 100 | 127 | 11 | 815 | 60 | 504 | 1" 1/4 | 1" 1/4 | 972 | 232 | 232 | 0.052 | 27.7 |
| KV 6/15 T | 155 | 116 | 100 | 127 | 11 | 1020 | 60 | 632 | 1" 1/4 | 1" 1/4 | 1212 | 232 | 232 | 0.065 | 34.5 |

KV 10 - MULTISTAGE VERTICAL CENTRIFUGAL ELECTRIC PUMPS WITH COUPLING FOR CIVIL AND INDUSTRIAL PRESSURISATION SYSTEMS, PRESSURE UNITS

Pumped liquid temperature range: from 0 °C to +35 °C for domestic use (EN 60335-2-41). From -15°C to +110°C for other uses.

Maximum ambient temperature: +40°C



See hydraulic efficiency details on page 291.

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

| MODEL | POWER INPUT 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | MOTOR TYPE | I st. A | 1/min. | CAPACITOR | |
|-----------|----------------------|-----------------|------------|-----|----------|---------------|---------|--------|-----------|-----|
| | | | kW | HP | | | | | μF | Vc |
| KV 10/4 M | 1x220-240 V ~ | 1.9 | 1.1 | 1.5 | 8.3 | – | 29 | 2850 | 31.5 | 450 |
| KV 10/4 T | 3x230-400 V ~ | 1.9 | 1.1 | 1.5 | 6.1-3.5 | IE2 | 38-22 | 2850 | – | – |
| KV 10/5 M | 1x220-240 V ~ | 2.4 | 1.5 | 2 | 10.4 | – | 45 | 2850 | 40 | 450 |
| KV 10/5 T | 3x230-400 V ~ | 2.3 | 1.5 | 2 | 8-4.5 | IE2 | 22 | 2850 | – | – |
| KV 10/6 M | 1x220-240 V ~ | 2.6 | 1.85 | 2.5 | 12.5 | – | 54 | 2850 | 40 | 450 |
| KV 10/6 T | 3x230-400 V ~ | 2.8 | 1.85 | 2.5 | 8.7-5 | IE2 | 57-33 | 2850 | – | – |
| KV 10/8 T | 3x230-400 V ~ | 3.7 | 2.2 | 3 | 11.8-6.8 | IE2 | 78-45 | 2850 | – | – |

| MODEL | B | C | D | G | I | H | H1 | H2 | DNA | DNM | PACKING DIMENSIONS | | | VOLUME (m³) | WEIGHT kg |
|-----------|-----|-----|-----|-----|----|-----|----|-----|--------|--------|--------------------|-----|-----|----------------|--------------|
| | | | | | | | | | | | L/A | L/B | H | | |
| KV 10/4 M | 155 | 111 | 100 | 127 | 11 | 590 | 60 | 280 | 1" 1/4 | 1" 1/4 | 712 | 232 | 232 | 0.038 | 27.2 |
| KV 10/4 T | 155 | 111 | 100 | 127 | 11 | 590 | 60 | 280 | 1" 1/4 | 1" 1/4 | 712 | 232 | 232 | 0.038 | 26.3 |
| KV 10/5 M | 155 | 116 | 100 | 127 | 11 | 625 | 60 | 312 | 1" 1/4 | 1" 1/4 | 712 | 232 | 232 | 0.038 | 30.6 |
| KV 10/5 T | 155 | 111 | 100 | 127 | 11 | 625 | 60 | 312 | 1" 1/4 | 1" 1/4 | 972 | 232 | 232 | 0.052 | 28 |
| KV 10/6 M | 155 | 116 | 100 | 127 | 11 | 738 | 60 | 344 | 1" 1/4 | 1" 1/4 | 972 | 232 | 232 | 0.052 | 33 |
| KV 10/6 T | 155 | 111 | 100 | 127 | 11 | 738 | 60 | 344 | 1" 1/4 | 1" 1/4 | 972 | 232 | 232 | 0.052 | 31.9 |
| KV 10/8 T | 155 | 116 | 100 | 127 | 11 | 798 | 60 | 408 | 1" 1/4 | 1" 1/4 | 972 | 232 | 232 | 0.052 | 35.8 |

NKV 10-15-20-32-45-65-95

VERTICAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS WITH COUPLING



TECHNICAL DATA

Operating range:

from 4 to 118 m³/h with head up to 319 meters.

Pumped liquid: clean, without solids or abrasives, non-viscous, non-aggressive, non-crystallized and chemically neutral, with properties similar to water.

Liquid temperature range: from -15°C to +120°C.

Maximum ambient temperature: +40°C.

Maximum working pressure: 25 bar (2500kPa) NKV 10-15-20-65-95
32 bar (3200kPa) NKV 32-45

Protection level: IP 55.

Insulation class: F.

Standard voltage: single-phase 230/400 V / 50 Hz
three-phase 400 V Δ / 50 Hz starting from 3.

Installation: fixed, vertical mounting.

Special version on request:
other voltages and / or power supply frequencies.
60 Hz version.

APPLICATIONS

Vertical multistage centrifugal pump suitable for medium to large user water systems. Recommended for pressurisation units, boiler supply, hot water and cooling water circulation, fire fighting and washing systems, drinking water supply and filling of pressure vessels, sprinkler and watering systems and water purification systems.

PUMP FEATURES

NKV 10-15-20

All the parts in contact with liquid are made of stainless steel.

AISI 304 microcast stainless steel internal pump body, ULTEM diffusers, AISI 431 pump shaft, impellers and pump sleeve in stainless steel AISI 304. External pump body and support in cast iron with cataphoresis paint coating. The cartridge mechanical seal is made of silicon carbide/silicon carbide, maintenance-free, and can be dismantled without removing the motor starting from 5.5 kW. Rigid motor-pump coupling.

NKV 32-45-65-95

Impellers, diffusers and sleeve in AISI 304 stainless steel to ensure durability, high efficiency and performance. Pump shaft in stainless steel AISI 431. Pump body and seal holding disc in cast iron with cataphoresis paint coating. Carbon stage body bushing, to ensure durability in case of dry operation. Oversized ball bearings, fitted on the motor support to ensure duration and eliminate axial adjustments. PTFE WRAS approved floating wear ring for consistent performance. Silicon carbide / carbon mechanical seal that can be dismantled without removing the motor starting from 5.5 kW. Rigid motor-pump coupling. Special full stainless steel version on request.

CONSTRUCTION FEATURES OF THE MOTOR

Closed with external ventilation cooling.

Rotor running on permanently lubricated ball bearings, oversized to ensure low noise and durability.

Motor protection is the responsibility of the user

Manufactured according to CEI 2-3.

Motor frame: NKV 10 - 15 - 20 : B5 - V1

NKV 32 - 45 - 65 - 95: B14 for 4kW and B5 from 5,5kW included.

DENOMINATION INDEX:

(Example)

NKV 32 / 3 - 2

Range name

Approximate flow in m³/h
at the best efficiency point

Number of stages

Number of reduced impellers

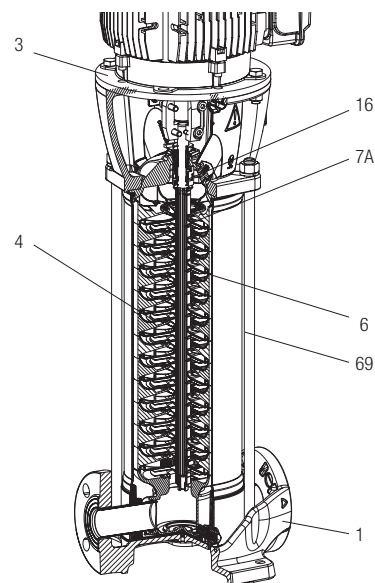
NKV 10-15-20-32-45-65-95

VERTICAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS WITH COUPLING

MATERIALS NKV 10-15-20

| N° | PARTS | MATERIALS * |
|----|---------------------|-----------------------------|
| 1 | EXTERNAL PUMP BODY | CAST IRON WITH CATAPHORESIS |
| | INTERNAL PUMP BODY* | STAINLESS STEEL AISI 304 |
| 3 | SUPPORT | CAST IRON WITH CATAPHORESIS |
| 4 | IMPELLER* | STAINLESS STEEL AISI 304 |
| 6 | DIFUSSER* | TECHNOPOLYMER "ULTEM" |
| 7A | PUMP SHAFT* | STAINLESS STEEL AISI 431 |
| 16 | MECHANICAL SEAL* | CARTRIDGE SiC/SiC/EPDM |
| 69 | EXTERNAL CASING* | STAINLESS STEEL AISI 304 |

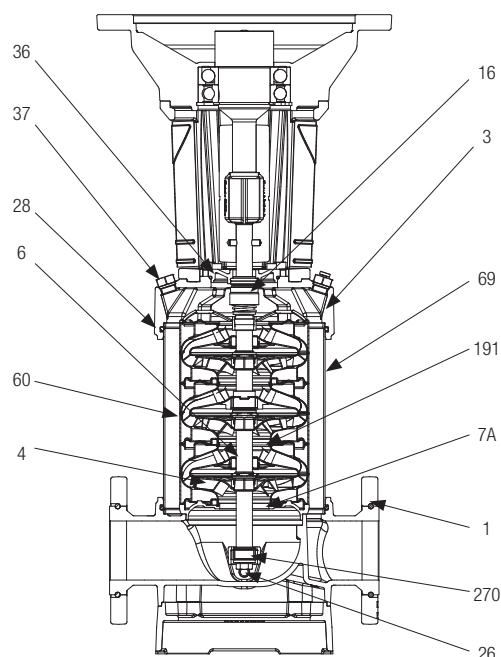
* In contact with the liquid.



MATERIALS NKV 32-45-65-95

| N° | PARTS | MATERIALS * |
|-----|--------------------------|-----------------------------|
| 1 | PUMP BODY | CAST IRON WITH CATAPHORESIS |
| 3 | FLANGE | CAST IRON WITH CATAPHORESIS |
| 4 | IMPELLER | STAINLESS STEEL AISI 304 |
| 6 | STAGE BODY AND DIFUSSER | STAINLESS STEEL AISI 304 |
| 7A | PUMP SHAFT | STAINLESS STEEL AISI 431 |
| 16 | MECHANICAL SEAL | SiC, CARBON, EPDM |
| 26 | DARIN PLUG | STAINLESS STEEL AISI 304 |
| 28 | O-RING | EPDM |
| 36 | SEAL DISK | STAINLESS STEEL AISI 316 |
| 37 | LOADING CAP | STAINLESS STEEL AISI 304 |
| 60 | INTERMEDIATE BEARING | GRAPHITE |
| 69 | EXTERNAL CASING | STAINLESS STEEL AISI 304 |
| 191 | FLOATING ADJUSTMENT RING | PTFE |
| 270 | GUIDE BUSHING | TUNGSTEN CARBIDE |

* In contact with the liquid.



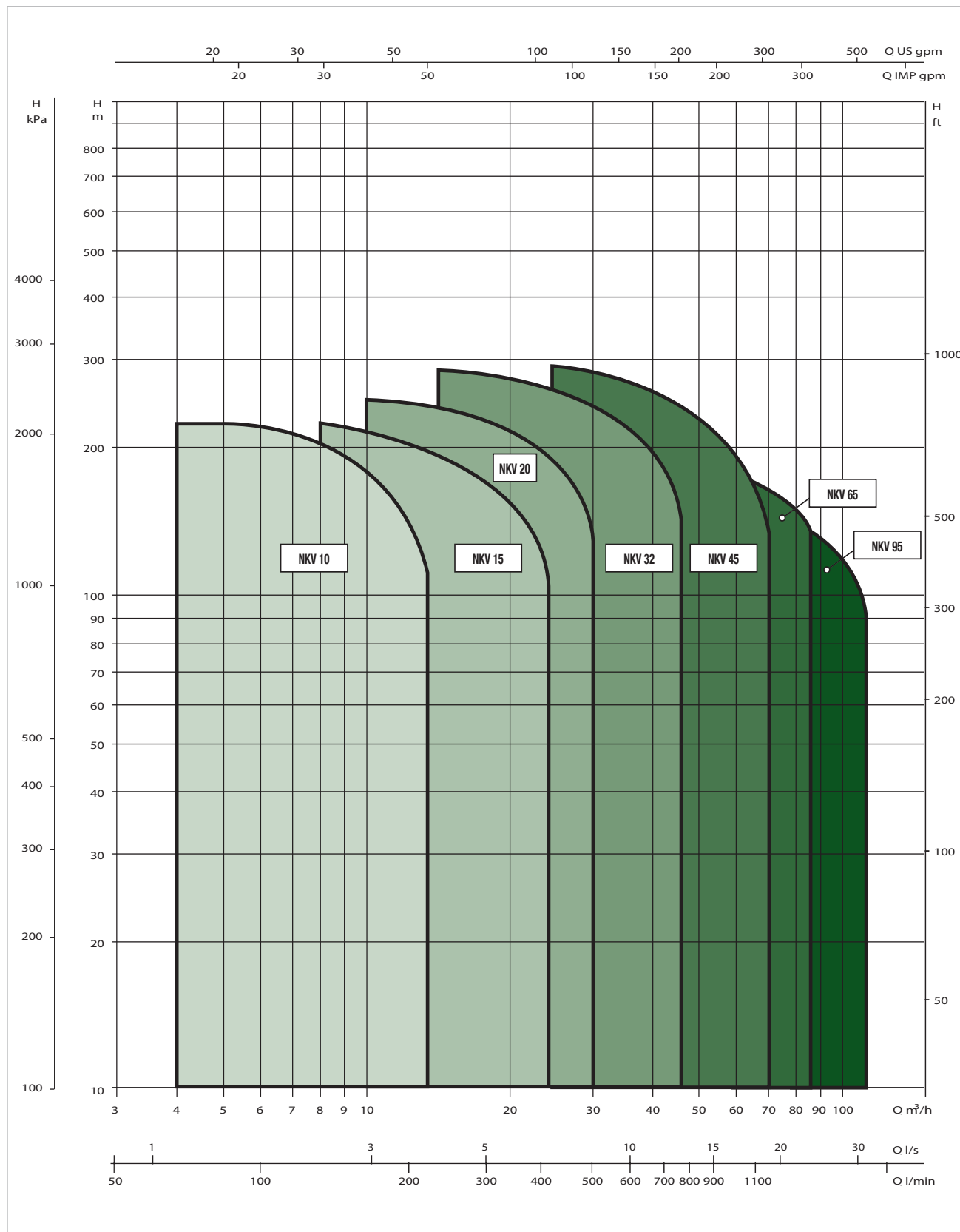
NKV RANGE

VERTICAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS WITH COUPLING

PERFORMANCE RANGE

The performance curves are based on the kinematic viscosity values = 1 mm²/s and density equal to 1000 kg/m³. Curve tolerance according to ISO 9906.

GRAPHIC SELECTION TABLE



NKV 10-15-20-32-45-65-95

VERTICAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS WITH COUPLING

SELECTION TABLE - NKV 10

| MODEL | Q=m³/h | 0 | 4 | 8 | 10 | 12 |
|-------------|----------|-------|-----|-------|-------|-------|
| | Q=l/min | 0 | 66 | 132 | 167 | 200 |
| NKV 10/2 T | H (m) | 20,2 | 20 | 18,3 | 15,8 | 12,5 |
| NKV 10/3 T | | 30,3 | 31 | 27,5 | 23,6 | 18,8 |
| NKV 10/4 T | | 40,4 | 41 | 36,7 | 31,5 | 25,1 |
| NKV 10/5 T | | 50,5 | 51 | 45,8 | 39,4 | 31,3 |
| NKV 10/6 T | | 60,5 | 61 | 55,0 | 47,3 | 37,6 |
| NKV 10/7 T | | 70,6 | 72 | 64,2 | 55,1 | 43,8 |
| NKV 10/8 T | | 80,7 | 82 | 73,3 | 63,0 | 50,1 |
| NKV 10/9 T | | 90,8 | 92 | 82,5 | 70,9 | 56,4 |
| NKV 10/10 T | | 100,9 | 102 | 91,7 | 78,8 | 62,6 |
| NKV 10/12 T | | 121,1 | 123 | 110,0 | 94,5 | 75,2 |
| NKV 10/14 T | | 141,3 | 143 | 128,3 | 110,3 | 87,7 |
| NKV 10/16 T | | 161,5 | 164 | 146,7 | 126,0 | 100,2 |
| NKV 10/18 T | | 181,6 | 184 | 165,0 | 141,8 | 112,7 |
| NKV 10/20 T | | 201,8 | 205 | 183,3 | 157,5 | 125,3 |
| NKV 10/22 T | | 222 | 225 | 202 | 173,3 | 137,8 |

SELECTION TABLE - NKV 15

| MODEL | Q=m³/h | 0 | 4 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
|-------------|----------|-------|-------|-----|-------|--------|-------|-------|-------|-------|-------|-------|
| | Q=l/min | 0 | 66 | 132 | 167 | 200 | 233 | 264 | 300 | 334 | 367 | 400 |
| NKV 15/2 T | H (m) | 27,2 | 26,7 | 26 | 26,1 | 25,5 | 24,5 | 23,2 | 21,6 | 19,8 | 17,4 | 14,6 |
| NKV 15/3 T | | 40,8 | 40,0 | 40 | 39,1 | 38,3 | 36,8 | 34,8 | 32,5 | 29,7 | 26,1 | 21,9 |
| NKV 15/4 T | | 54,4 | 53,4 | 53 | 52,1 | 51,0 | 49,0 | 46,4 | 43,3 | 39,6 | 34,8 | 29,2 |
| NKV 15/5 T | | 68,0 | 66,7 | 66 | 65,2 | 63,8 | 61,3 | 58,1 | 54,1 | 49,5 | 43,5 | 36,5 |
| NKV 15/6 T | | 81,6 | 80,1 | 79 | 78,2 | 76,5 | 73,6 | 69,7 | 64,9 | 59,4 | 52,2 | 43,8 |
| NKV 15/7 T | | 95,2 | 93,4 | 92 | 91,2 | 89,3 | 85,8 | 81,3 | 75,8 | 69,3 | 60,9 | 51,1 |
| NKV 15/8 T | | 108,8 | 106,8 | 106 | 104,3 | 102,0 | 98,1 | 92,9 | 86,6 | 79,2 | 69,6 | 58,4 |
| NKV 15/9 T | | 122,4 | 120,1 | 119 | 117,3 | 114,8 | 110,3 | 104,5 | 97,4 | 89,1 | 78,4 | 65,7 |
| NKV 15/10 T | | 136,0 | 133,5 | 132 | 130,4 | 127,5 | 122,6 | 116,1 | 108,2 | 99,0 | 87,1 | 73,0 |
| NKV 15/12 T | | 163,2 | 160,2 | 158 | 156,4 | 153,0 | 147,1 | 139,3 | 129,9 | 118,8 | 104,5 | 87,6 |
| NKV 15/14 T | | 190,4 | 186,9 | 185 | 182,5 | 178,5 | 171,6 | 162,6 | 151,5 | 138,6 | 121,9 | 102,2 |
| NKV 15/16 T | | 217,6 | 213,6 | 211 | 208,6 | 204,0 | 196,1 | 185,8 | 173,2 | 158,4 | 139,3 | 116,8 |
| NKV 15/17 T | | 231,2 | 226,9 | 225 | 221,6 | 216,75 | 208,4 | 197,4 | 184 | 168,3 | 148 | 124,1 |

SELECTION TABLE - NKV 20

| MODEL | Q=m³/h | 0 | 4 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 29 |
|-------------|----------|-------|-------|-------|-------|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| | Q=l/min | 0 | 66 | 132 | 167 | 200 | 233 | 264 | 300 | 334 | 367 | 400 | 433 | 483 |
| NKV 20/2 T | H (m) | 29,3 | 28,8 | 28,8 | 28,6 | 28 | 27,6 | 26,9 | 25,9 | 24,6 | 22,9 | 21,2 | 19,1 | 15,8 |
| NKV 20/3 T | | 43,9 | 43,2 | 43,1 | 42,9 | 42 | 41,5 | 40,4 | 38,8 | 36,9 | 34,4 | 31,8 | 28,7 | 23,6 |
| NKV 20/4 T | | 58,6 | 57,6 | 57,5 | 57,2 | 56 | 55,3 | 53,8 | 51,8 | 49,2 | 45,9 | 42,4 | 38,2 | 31,5 |
| NKV 20/5 T | | 73,2 | 71,9 | 71,9 | 71,5 | 71 | 69,1 | 67,3 | 64,7 | 61,5 | 57,4 | 52,9 | 47,8 | 39,4 |
| NKV 20/6 T | | 87,9 | 86,3 | 86,3 | 85,8 | 85 | 82,9 | 80,7 | 77,7 | 73,8 | 68,8 | 63,5 | 57,4 | 47,3 |
| NKV 20/7 T | | 102,5 | 100,7 | 100,6 | 100,1 | 99 | 96,8 | 94,2 | 90,6 | 86,1 | 80,3 | 74,1 | 66,9 | 55,2 |
| NKV 20/8 T | | 117,2 | 115,1 | 115,0 | 114,4 | 113 | 110,6 | 107,6 | 103,6 | 98,4 | 91,8 | 84,7 | 76,5 | 63,1 |
| NKV 20/9 T | | 131,8 | 129,5 | 129,4 | 128,8 | 127 | 124,4 | 121,1 | 116,5 | 110,8 | 103,2 | 95,3 | 86,0 | 70,9 |
| NKV 20/10 T | | 146,5 | 143,9 | 143,8 | 143,1 | 141 | 138,2 | 134,5 | 129,5 | 123,1 | 114,7 | 105,9 | 95,6 | 78,8 |
| NKV 20/12 T | | 175,8 | 172,7 | 172,5 | 171,7 | 169 | 165,9 | 161,4 | 155,4 | 147,7 | 137,6 | 127,1 | 114,7 | 94,6 |
| NKV 20/14 T | | 205,1 | 201,4 | 201,3 | 200,3 | 198 | 193,5 | 188,3 | 181,3 | 172,3 | 160,6 | 148,2 | 133,8 | 110,4 |
| NKV 20/16 T | | 234,4 | 230,2 | 230,0 | 228,9 | 226 | 221,2 | 215,2 | 207,2 | 196,9 | 183,5 | 169,4 | 152,9 | 126,1 |
| NKV 20/17 T | | 249 | 244,6 | 244,4 | 243,2 | 240 | 235 | 228,7 | 220,1 | 209,2 | 195 | 180 | 162,5 | 134 |

NKV 10-15-20-32-45-65-95

VERTICAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS WITH COUPLING

SELECTION TABLE - NKV 32

| MODEL | Q=m³/h | 0 | 15 | 18 | 22 | 25 | 30 | 35 | 40 | 45 |
|---------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | Q=l/min | 0 | 250 | 300 | 367 | 417 | 500 | 583 | 667 | 750 |
| NKV 32/2-2 T | H (m) | 36 | 33,5 | 32,5 | 30,5 | 29,5 | 26,5 | 22,5 | 18 | 12,5 |
| NKV 32/2 T | | 48,5 | 43,5 | 42,5 | 41 | 39,5 | 36,5 | 33,5 | 29 | 23,5 |
| NKV 32/3-2 T | | 60 | 54,5 | 53 | 50,5 | 48 | 44 | 38 | 31,5 | 23,5 |
| NKV 32/3 T | | 73 | 65 | 63,5 | 61 | 59 | 55 | 50 | 43,5 | 35,5 |
| NKV 32/4-2 T | | 84,5 | 76,5 | 74 | 70,5 | 68 | 62 | 55 | 46 | 35 |
| NKV 32/4 T | | 98 | 88 | 86 | 83 | 80,5 | 75 | 69 | 60 | 49,5 |
| NKV 32/5-2 T | | 109,5 | 99,5 | 97 | 93 | 89,5 | 83 | 74 | 63 | 49,5 |
| NKV 32/5 T | | 122,5 | 109,5 | 107 | 103,5 | 100 | 93,5 | 85,5 | 75 | 61,5 |
| NKV 32/6-2 T | | 134 | 121,5 | 118,5 | 113,5 | 109,5 | 101,5 | 91 | 78 | 61,5 |
| NKV 32/6 T | | 146,5 | 131 | 128 | 123,5 | 119,5 | 111,5 | 102 | 89 | 73 |
| NKV 32/7-2 T | | 158 | 142,5 | 139 | 133,5 | 128,5 | 119 | 107 | 91,5 | 72,5 |
| NKV 32/7 T | | 171 | 152,5 | 149 | 144 | 139,5 | 130 | 119 | 103,5 | 85 |
| NKV 32/8-2 T | | 182,5 | 164,5 | 160 | 154 | 148,5 | 137,5 | 124 | 106 | 84,5 |
| NKV 32/8 T | | 194,5 | 174 | 169,5 | 164 | 158,5 | 147,5 | 134,5 | 117 | 95,5 |
| NKV 32/9-2 T | | 208,5 | 188,5 | 184 | 177 | 171 | 159 | 144 | 124,5 | 100,5 |
| NKV 32/9 T | | 221 | 198 | 194 | 187,5 | 181,5 | 169,5 | 155,5 | 136 | 112 |
| NKV 32/10-2 T | | 233 | 210 | 205 | 197,5 | 191 | 177,5 | 161 | 139 | 112 |
| NKV 32/10 T | | 246,5 | 221,5 | 217 | 210 | 203,5 | 190,5 | 175 | 153,5 | 126,5 |
| NKV 32/11-2 T | | 258 | 233,5 | 228,5 | 220,5 | 213 | 198,5 | 180,5 | 156,5 | 127 |
| NKV 32/11 T | | 271 | 243,5 | 238 | 230,5 | 223,5 | 209 | 192 | 168 | 138,5 |
| NKV 32/12-2 T | | 282,5 | 255,5 | 249,5 | 241 | 233 | 217 | 197,5 | 171 | 139 |
| NKV 32/12 T | | 295 | 265,5 | 259,5 | 251 | 243 | 227,5 | 208,5 | 182,5 | 150,5 |
| NKV 32/13-2 T | | 307 | 277,5 | 271 | 261,5 | 252,5 | 235,5 | 214 | 185,5 | 151 |
| NKV 32/13 T | | 319,5 | 287 | 280,5 | 271,5 | 263 | 246 | 225,5 | 197 | 162,5 |

SELECTION TABLE - NKV 45

| MODEL | Q=m³/h | 0 | 15 | 18 | 22 | 25 | 30 | 35 | 40 | 45 | 54 | 60 | 65 | 70 |
|---------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| | Q=l/min | 0 | 250 | 300 | 367 | 417 | 500 | 583 | 667 | 750 | 900 | 1000 | 1083 | 1166 |
| NKV 45/2-2 T | H (m) | 38,5 | 37,5 | 37 | 36,5 | 35,5 | 34,5 | 33 | 31 | 28,5 | 23 | 18,5 | 14,5 | 10 |
| NKV 45/2 T | | 48,5 | 47,5 | 47 | 46 | 45,5 | 44 | 43 | 41,5 | 39 | 34 | 30,5 | 26,5 | 23 |
| NKV 45/3-2 T | | 63 | 62 | 61,5 | 60,5 | 59,5 | 58 | 56 | 53,5 | 50 | 42 | 36 | 30 | 24 |
| NKV 45/3 T | | 73,5 | 72 | 71 | 70 | 69 | 67 | 65,5 | 63 | 60 | 52,5 | 47 | 41 | 34 |
| NKV 45/4-2 T | | 87,5 | 86 | 85 | 83,5 | 82 | 80 | 77,5 | 74 | 69,5 | 59,5 | 51 | 43 | 34 |
| NKV 45/4 T | | 97,5 | 96 | 94,5 | 93 | 91,5 | 89 | 86,5 | 84 | 79,5 | 69,5 | 62 | 54,5 | 45 |
| NKV 45/5-2 T | | 112 | 109,5 | 108,5 | 106,5 | 105 | 102 | 99 | 94,5 | 89 | 76,5 | 66 | 56 | 45 |
| NKV 45/5 T | | 122 | 119,5 | 118 | 115,5 | 114 | 111 | 108 | 104,5 | 99 | 86,5 | 77 | 67,5 | 56 |
| NKV 45/6-2 T | | 137,5 | 135 | 133,5 | 131 | 129 | 126 | 122 | 117,5 | 110,5 | 95,5 | 83,5 | 72 | 58 |
| NKV 45/6 T | | 147,5 | 145 | 143,5 | 140,5 | 138,5 | 135 | 131,5 | 127 | 121 | 106 | 95 | 83,5 | 71 |
| NKV 45/7-2 T | | 162,5 | 160 | 158 | 155,5 | 153 | 149,5 | 145 | 139,5 | 132 | 115 | 101 | 87,5 | 73 |
| NKV 45/7 T | | 172,5 | 170 | 168 | 165 | 162,5 | 158,5 | 154,5 | 149,5 | 142,5 | 125,5 | 112 | 99 | 83 |
| NKV 45/8-2 T | | 187 | 184 | 182 | 178,5 | 176 | 171,5 | 167 | 160,5 | 152 | 132 | 116,5 | 101 | 83 |
| NKV 45/8 T | | 197 | 194 | 191,5 | 188 | 185,5 | 181 | 176,5 | 170,5 | 162,5 | 142,5 | 127,5 | 112,5 | 94 |
| NKV 45/9-2 T | | 211,5 | 208 | 205,5 | 202 | 199 | 194 | 188,5 | 181,5 | 172 | 149,5 | 132 | 114,5 | 94 |
| NKV 45/9 T | | 221,5 | 218 | 215,5 | 211,5 | 208 | 203 | 198 | 191,5 | 182 | 160 | 143 | 126 | 106 |
| NKV 45/10-2 T | | 235,5 | 231,5 | 229 | 225 | 221,5 | 216 | 210 | 202 | 191,5 | 166,5 | 147 | 127,5 | 106 |
| NKV 45/10 T | | 246 | 242 | 239 | 234 | 230,5 | 225 | 219 | 212 | 201,5 | 177 | 158 | 139 | 117 |
| NKV 45/11-2 T | | 261 | 256,5 | 254 | 249 | 245,5 | 239,5 | 233 | 224,5 | 213 | 186 | 164,5 | 143,5 | 119 |
| NKV 45/11 T | | 271 | 267 | 263,5 | 258,5 | 255 | 249 | 242,5 | 234,5 | 223,5 | 196,5 | 175,5 | 155 | 130 |
| NKV 45/12-2 T | | 285,5 | 280,5 | 277,5 | 272,5 | 268,5 | 261,5 | 254,5 | 245,5 | 232,5 | 203 | 179,5 | 156,5 | 130 |
| NKV 45/12 T | | 295,5 | 290,5 | 287,5 | 282 | 277,5 | 271 | 264 | 255,5 | 243 | 213,5 | 191 | 168,5 | 142 |
| NKV 45/13-2 T | | 309,5 | 304,5 | 301 | 295,5 | 291 | 284 | 276 | 266 | 252,5 | 220,5 | 195 | 170 | 142 |

NKV 10-15-20-32-45-65-95

VERTICAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS WITH COUPLING

SELECTION TABLE - NKV 65

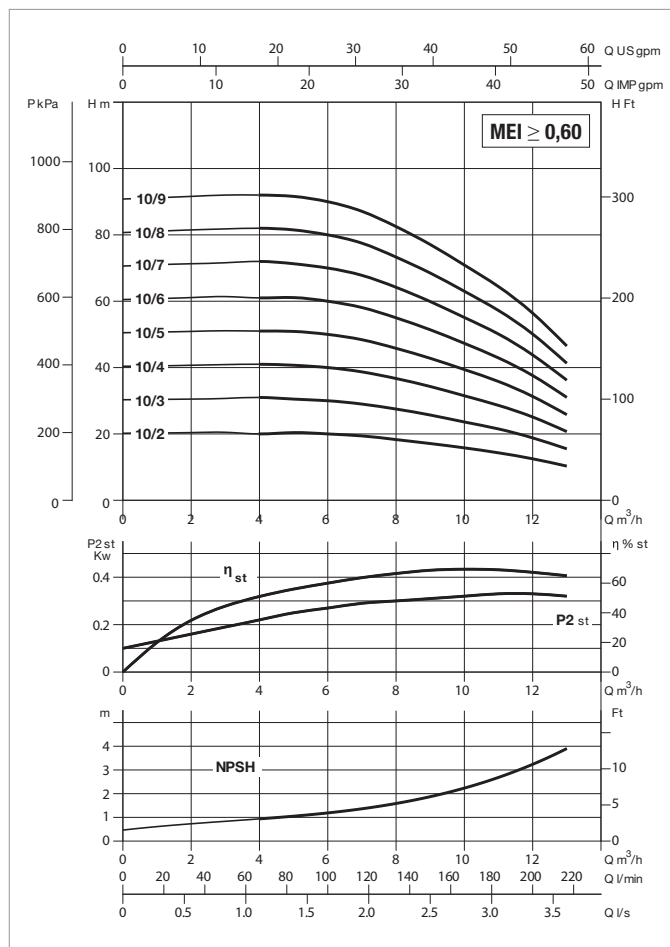
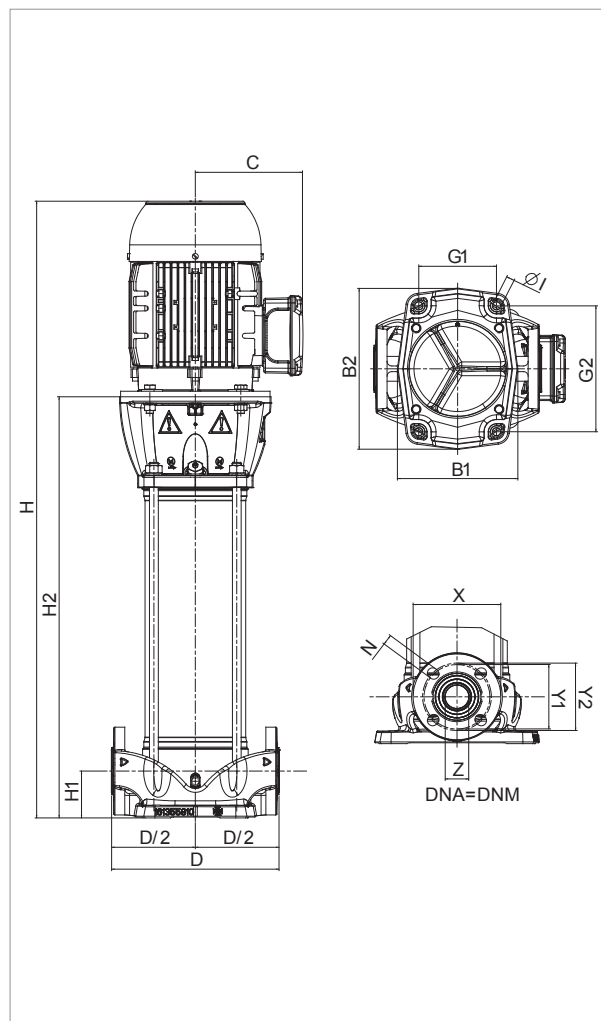
| MODEL | Q=m³/h | 0 | 30 | 36 | 42 | 45 | 54 | 60 | 72 | 78 | 85 |
|--------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | Q=l/min | 0 | 500 | 600 | 700 | 750 | 900 | 1000 | 1200 | 1300 | 1417 |
| NKV 65/2-2 T | H (m) | 39 | 37,5 | 36,5 | 35,5 | 35 | 33 | 31 | 25 | 22 | 17,5 |
| NKV 65/2 T | | 56,5 | 51 | 49,5 | 48,5 | 48 | 46 | 45 | 41 | 38,5 | 34,5 |
| NKV 65/3-2 T | | 67,5 | 63,5 | 62 | 60,5 | 59,5 | 56,5 | 54 | 46,5 | 42 | 35,5 |
| NKV 65/3 T | | 84,5 | 76 | 74 | 72,5 | 71,5 | 69 | 67 | 61,5 | 57,5 | 51,5 |
| NKV 65/4-2 T | | 95,5 | 88,5 | 86 | 84 | 83 | 79 | 75,5 | 66 | 60,5 | 52 |
| NKV 65/4 T | | 113,5 | 102,5 | 100 | 97,5 | 96,5 | 92,5 | 90,5 | 83 | 78 | 70 |
| NKV 65/5-2 T | | 125 | 116 | 113 | 110,5 | 109 | 104,5 | 101 | 90 | 83 | 72,5 |
| NKV 65/5 T | | 142 | 129 | 125,5 | 122,5 | 121 | 116,5 | 114 | 105 | 98,5 | 88,5 |
| NKV 65/6-2 T | | 153 | 141,5 | 137,5 | 134,5 | 133 | 127,5 | 123 | 110 | 102 | 89,5 |
| NKV 65/6 T | | 170 | 154 | 150 | 147 | 145 | 139,5 | 136 | 125 | 117,5 | 105,5 |
| NKV 65/7-2 T | | 181,5 | 166,5 | 162,5 | 158,5 | 156,5 | 150 | 145 | 130,5 | 120,5 | 106,5 |
| NKV 65/7 T | | 199 | 180,5 | 175,5 | 172 | 169,5 | 163,5 | 159,5 | 147 | 138 | 124 |
| NKV 65/8-2 T | | 210 | 193 | 188 | 184 | 181,5 | 174 | 168,5 | 152 | 141,5 | 125 |
| NKV 65/8 T | | 227 | 206 | 200 | 196 | 193,5 | 186 | 181,5 | 167 | 157 | 141 |

SELECTION TABLE - NKV 95

| MODEL | Q=m³/h | 0 | 45 | 54 | 60 | 72 | 78 | 85 | 96 | 108 | 118 |
|--------------|----------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| | Q=l/min | 0 | 750 | 900 | 1000 | 1200 | 1300 | 1417 | 1600 | 1800 | 1967 |
| NKV 95/2-2 T | H (m) | 44,5 | 43 | 42 | 41 | 38,5 | 36,5 | 34 | 28,5 | 21,5 | 15 |
| NKV 95/2 T | | 62 | 55,5 | 53 | 51,5 | 49 | 47,5 | 45 | 41 | 35 | 28,5 |
| NKV 95/3-2 T | | 75,5 | 70,5 | 68 | 66,5 | 62,5 | 59,5 | 56 | 48,5 | 38,5 | 28,5 |
| NKV 95/3 T | | 93,5 | 84 | 80,5 | 78 | 74 | 72 | 69 | 62,5 | 53,5 | 44 |
| NKV 95/4-2 T | | 108 | 100 | 97 | 94,5 | 89 | 85,5 | 81 | 71,5 | 59 | 46 |
| NKV 95/4 T | | 125,5 | 112,5 | 108 | 105 | 99,5 | 96,5 | 92,5 | 84 | 72 | 60 |
| NKV 95/5-2 T | | 139 | 127,5 | 123,5 | 120 | 113,5 | 109 | 103,5 | 92 | 76 | 60 |
| NKV 95/5 T | | 156 | 140 | 134,5 | 130,5 | 123,5 | 120 | 114,5 | 104,5 | 89 | 74 |
| NKV 95/6-2 T | | 170,5 | 156 | 150,5 | 146,5 | 138,5 | 134 | 127 | 113,5 | 94,5 | 75,5 |
| NKV 95/6 T | | 188 | 169 | 161,5 | 157 | 149 | 144,5 | 138,5 | 126 | 108 | 89,5 |

NKV 10 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da - 15°C a +120°C - Maximum working pressure: 25 bar (2500 kPa)



For hydraulic efficiency see pag. 291

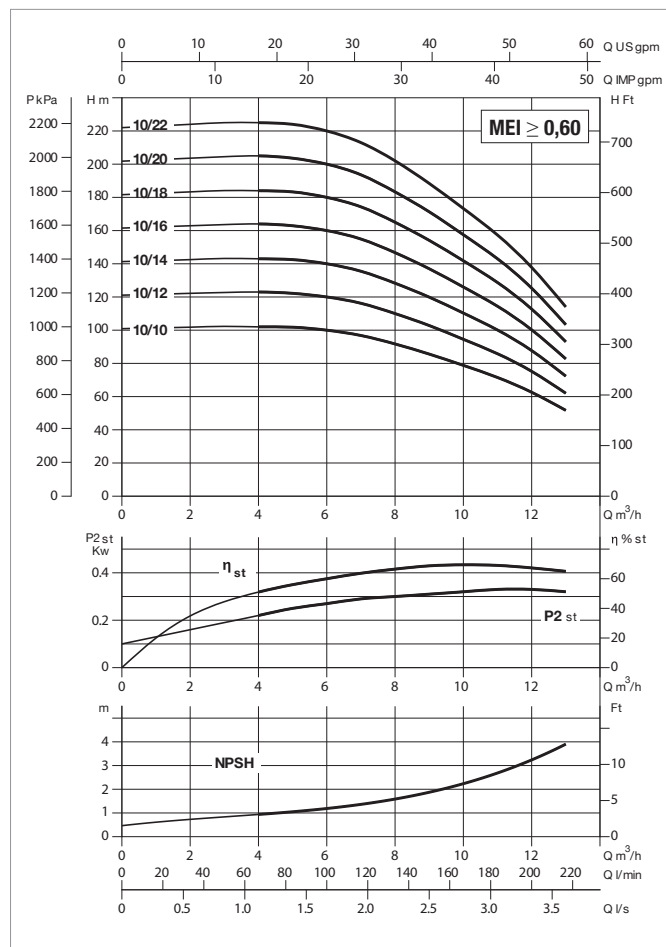
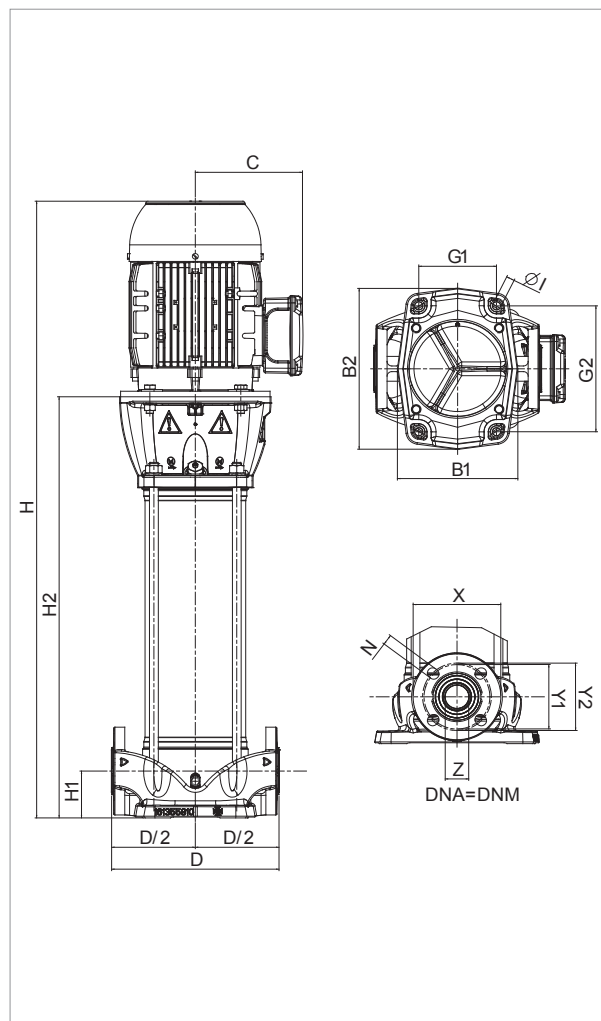
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

| MODEL | VOLTAGE 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | | MOTOR TYPE | Ist A | | RPM |
|------------|-------------------|--------------|------------|-------|-----------|-----|---------------|-------------|-----|------|
| | | | kW | HP | IE2 | IE3 | | IE2 | IE3 | |
| NKV 10/2 T | 3 x 230 - 400 V ~ | 0,8 | 0,75 | 1,02 | 2,81/1,62 | - | IE2 | 22,25/12,85 | - | 2880 |
| NKV 10/3 T | 3 x 230 - 400 V ~ | 1,2 | 1,10 | 1,496 | 4,07/2,36 | - | IE2 | 32,23/18,69 | - | 2870 |
| NKV 10/4 T | 3 x 230 - 400 V ~ | 1,6 | 1,50 | 2,04 | 5,8/3,35 | - | IE2 | 51,35/29,65 | - | 2880 |
| NKV 10/5 T | 3 x 230 - 400 V ~ | 2,0 | 2,2 | 2,992 | 8,23/4,75 | - | IE2 | 68,37/39,47 | - | 2870 |
| NKV 10/6 T | 3 x 230 - 400 V ~ | 2,4 | 2,2 | 2,992 | 8,23/4,75 | - | IE2 | 68,37/39,47 | - | 2870 |
| NKV 10/7 T | 3 x 400 V ~ | 2,7 | 3,0 | 4,08 | 5,85 | - | IE2 | 52,24 | - | 2880 |
| NKV 10/8 T | 3 x 400 V ~ | 3,1 | 3,0 | 4,08 | 5,85 | - | IE2 | 52,24 | - | 2880 |
| NKV 10/9 T | 3 x 400 V ~ | 3,4 | 3,0 | 4,08 | 5,85 | - | IE2 | 52,24 | - | 2880 |

| MODEL | STAGE N° | B1 | B2 | G1 | G2 | I | C | | D | D/2 | H | | H1 | H2 | DNA = DNM (DN 40) | | | | | PACK. DIMENSIONS | | | VOL. mc | WEIGHT Kg | |
|------------|-------------|-----|-----|-----|-----|------|-----|-----|-----|-----|-------|-----|----|-------|-------------------|-----|-----|----|------|------------------|-----|-----|------------|-----------|-----|
| | | | | | | | IE2 | IE3 | | | IE2 | IE3 | | | X | Y1 | Y2 | Z | N | L/A | L/B | H | | IE2 | IE3 |
| NKV 10/2 T | 2 | 201 | 274 | 130 | 215 | 13,5 | 145 | - | 280 | 140 | 611,4 | - | 80 | 356,4 | 150 | 110 | 115 | 40 | 17,5 | 800 | 400 | 400 | 0,128 | 43,41 | - |
| NKV 10/3 T | 3 | 201 | 274 | 130 | 215 | 13,5 | 145 | - | 280 | 140 | 644,4 | - | 80 | 389,4 | 150 | 110 | 115 | 40 | 17,5 | 800 | 400 | 400 | 0,128 | 44,94 | - |
| NKV 10/4 T | 4 | 201 | 274 | 130 | 215 | 13,5 | 155 | - | 280 | 140 | 692,4 | - | 80 | 422,4 | 150 | 110 | 115 | 40 | 17,5 | 800 | 400 | 400 | 0,128 | 49,81 | - |
| NKV 10/5 T | 5 | 201 | 274 | 130 | 215 | 13,5 | 155 | - | 280 | 140 | 750,4 | - | 80 | 455,4 | 150 | 110 | 115 | 40 | 17,5 | 800 | 400 | 400 | 0,128 | 54,62 | - |
| NKV 10/6 T | 6 | 201 | 274 | 130 | 215 | 13,5 | 155 | - | 280 | 140 | 783,4 | - | 80 | 488,4 | 150 | 110 | 115 | 40 | 17,5 | 800 | 400 | 400 | 0,128 | 55,46 | - |
| NKV 10/7 T | 7 | 201 | 274 | 130 | 215 | 13,5 | 180 | - | 280 | 140 | 863,4 | - | 80 | 538,4 | 150 | 110 | 115 | 40 | 17,5 | 960 | 400 | 370 | 0,142 | 65,54 | - |
| NKV 10/8 T | 8 | 201 | 274 | 130 | 215 | 13,5 | 180 | - | 280 | 140 | 896,4 | - | 80 | 571,4 | 150 | 110 | 115 | 40 | 17,5 | 960 | 400 | 370 | 0,142 | 66,36 | - |
| NKV 10/9 T | 9 | 201 | 274 | 130 | 215 | 13,5 | 180 | - | 280 | 140 | 929,4 | - | 80 | 604,4 | 150 | 110 | 115 | 40 | 17,5 | 960 | 400 | 370 | 0,142 | 67,25 | - |

NKV 10 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da - 15°C a +120°C - Maximum working pressure: 25 bar (2500 kPa)



For hydraulic efficiency see pag. 291

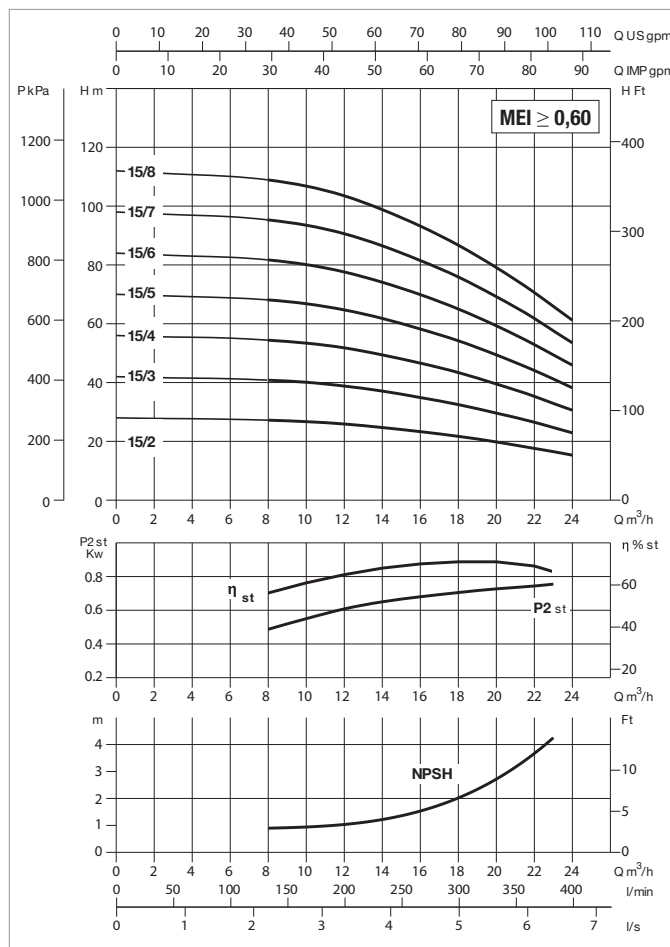
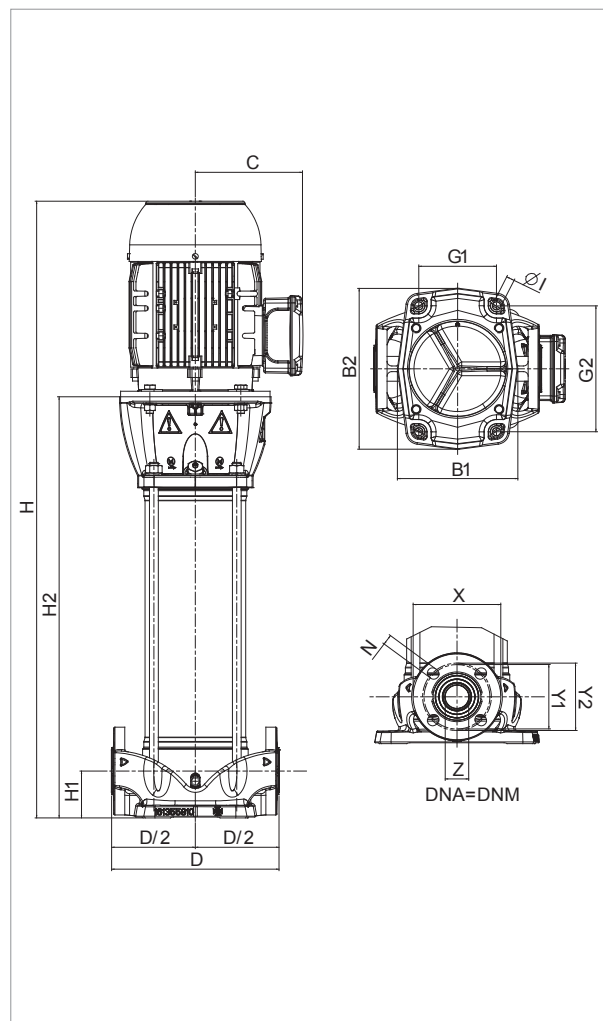
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

| MODEL | VOLTAGE 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | | MOTOR TYPE | Ist A | | RPM |
|-------------|------------------|--------------|------------|------|------|------|---------------|--------|-----|------|
| | | | kW | HP | IE2 | IE3 | | IE2 | IE3 | |
| NKV 10/10 T | 3 x 400 V ~ | 3,8 | 4,0 | 5,44 | 8,05 | - | IE2 | 73,58 | - | 2910 |
| NKV 10/12 T | 3 x 400 V ~ | 4,5 | 4,0 | 5,44 | 8,05 | - | IE2 | 73,58 | - | 2910 |
| NKV 10/14 T | 3 x 400 V ~ | 5,2 | 5,5 | 7,48 | 10,4 | - | IE2 | 80,81 | - | 2910 |
| NKV 10/16 T | 3 x 400 V ~ | 6,0 | 5,5 | 7,48 | 10,4 | - | IE2 | 80,81 | - | 2910 |
| NKV 10/18 T | 3 x 400 V ~ | 6,7 | 7,5 | 10,2 | 14,8 | 13,4 | IE2 / IE3 | 106,68 | 114 | 2900 |
| NKV 10/20 T | 3 x 400 V ~ | 7,5 | 7,5 | 10,2 | 14,8 | 13,4 | IE2 / IE3 | 106,68 | 114 | 2900 |
| NKV 10/22 T | 3 x 400 V ~ | 8,2 | 7,5 | 10,2 | 14,8 | 13,4 | IE2 / IE3 | 106,68 | 114 | 2900 |

| MODEL | STAGE N° | B1 | B2 | G1 | G2 | I | C | | D | D/2 | H | | H1 | H2 | DNA = DNM (DN 40) | | | | | PACK. DIMENSIONS | | | VOL. mc | WEIGHT Kg | |
|-------------|-------------|-----|-----|-----|-----|------|-----|-----|-----|-----|--------|--------|----|--------|-------------------|-----|-----|----|------|------------------|-----|-----|------------|-----------|-----|
| | | | | | | | IE2 | IE3 | | | IE2 | IE3 | | | X | Y1 | Y2 | Z | N | L/A | L/B | H | | IE2 | IE3 |
| NKV 10/10 T | 10 | 201 | 274 | 130 | 215 | 13,5 | 190 | - | 280 | 140 | 977,4 | - | 80 | 637,4 | 150 | 110 | 115 | 40 | 17,5 | 1150 | 500 | 400 | 0,230 | 77,05 | - |
| NKV 10/12 T | 12 | 201 | 274 | 130 | 215 | 13,5 | 190 | - | 280 | 140 | 1043,4 | - | 80 | 703,4 | 150 | 110 | 115 | 40 | 17,5 | 1150 | 500 | 400 | 0,230 | 78,70 | - |
| NKV 10/14 T | 14 | 201 | 274 | 130 | 215 | 13,5 | 210 | - | 280 | 140 | 1238,8 | - | 80 | 848,8 | 150 | 110 | 115 | 40 | 17,5 | 1360 | 500 | 530 | 0,360 | 107,32 | - |
| NKV 10/16 T | 16 | 201 | 274 | 130 | 215 | 13,5 | 210 | - | 280 | 140 | 1304,8 | - | 80 | 914,8 | 150 | 110 | 115 | 40 | 17,5 | 1360 | 500 | 530 | 0,360 | 109 | - |
| NKV 10/18 T | 18 | 201 | 274 | 130 | 215 | 13,5 | 210 | 188 | 280 | 140 | 1370,8 | 1239,8 | 80 | 980,8 | 150 | 110 | 115 | 40 | 17,5 | 1650 | 500 | 580 | 0,479 | 116,66 | 116 |
| NKV 10/20 T | 20 | 201 | 274 | 130 | 215 | 13,5 | 210 | 188 | 280 | 140 | 1436,8 | 1305,8 | 80 | 1046,8 | 150 | 110 | 115 | 40 | 17,5 | 1650 | 500 | 580 | 0,479 | 118,34 | 98 |
| NKV 10/22 T | 22 | 201 | 274 | 130 | 215 | 13,5 | 210 | 188 | 280 | 140 | 1502,8 | 1371,8 | 80 | 1112,8 | 150 | 110 | 115 | 40 | 17,5 | 1650 | 500 | 580 | 0,479 | 120,02 | 108 |

NKV 15 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: from $-15\text{ }^{\circ}\text{C}$ to $+120\text{ }^{\circ}\text{C}$ - Maximum working pressure: 25 bar (2500 kPa)



For hydraulic efficiency see pag. 291

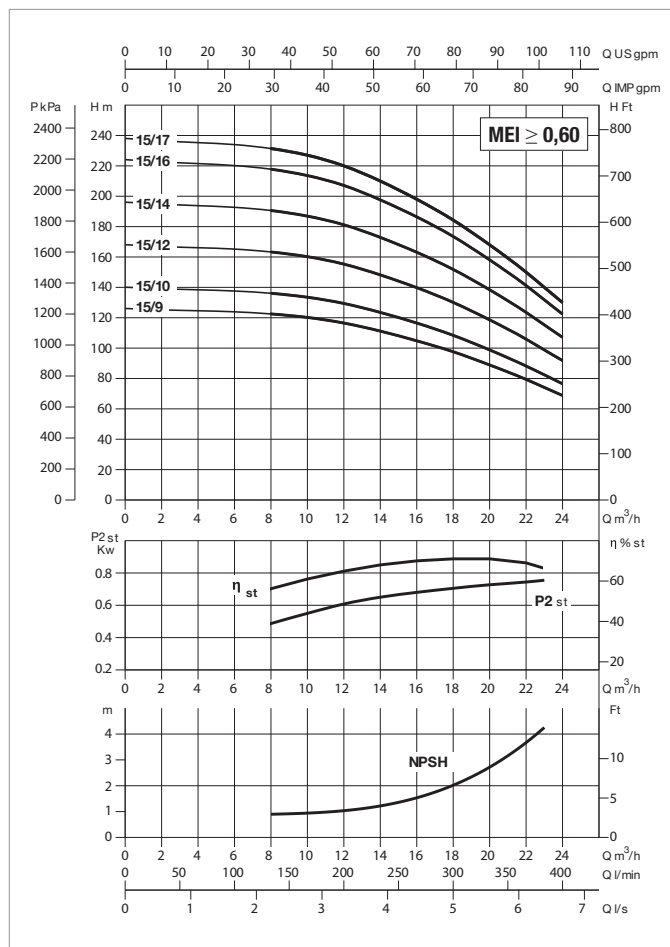
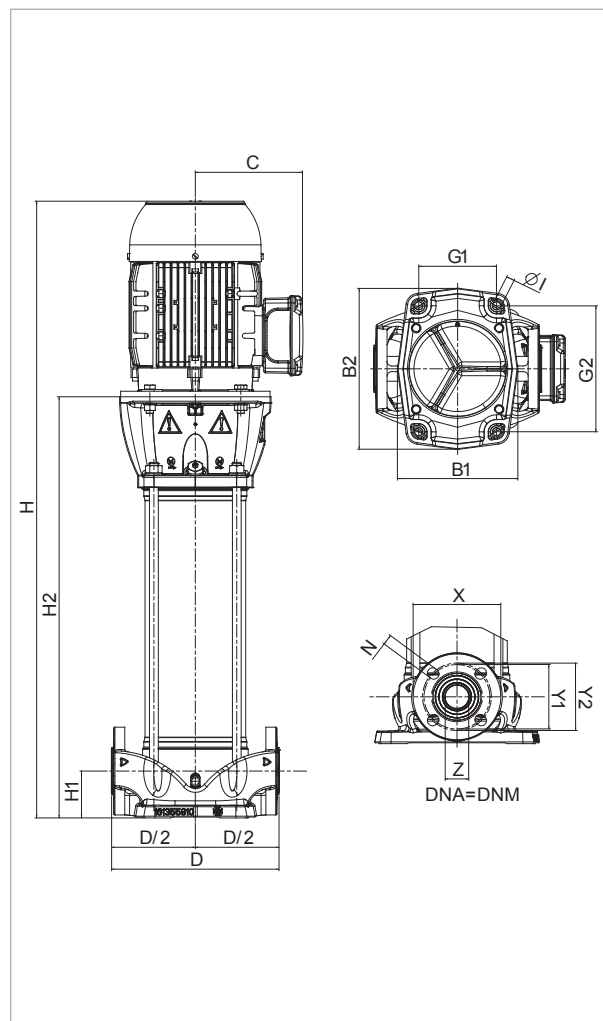
The performance curves are based on kinematic viscosity values = $1\text{ mm}^2/\text{s}$ and density equivalent to $1000\text{ kg}/\text{m}^3$. Tolerance of curves to ISO 9906.

| MODEL | VOLTAGE 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | | MOTOR TYPE | Ist A | | RPM |
|------------|-------------------|--------------|------------|-------|-----------|------|---------------|-------------|-----|------|
| | | | kW | HP | IE2 | IE3 | | IE2 | IE3 | |
| NKV 15/2 T | 3 x 230 - 400 V ~ | 1,8 | 2,20 | 2,992 | 8,23/4,75 | - | IE2 | 68,37/39,47 | - | 2870 |
| NKV 15/3 T | 3 x 400 V ~ | 2,6 | 3 | 4,08 | 5,85 | - | IE2 | 52,24 | - | 2880 |
| NKV 15/4 T | 3 x 400 V ~ | 3,5 | 4 | 5,44 | 8,05 | - | IE2 | 73,58 | - | 2910 |
| NKV 15/5 T | 3 x 400 V ~ | 4,4 | 4 | 5,44 | 8,05 | - | IE2 | 73,58 | - | 2910 |
| NKV 15/6 T | 3 x 400 V ~ | 5,2 | 5,5 | 7,48 | 10,4 | - | IE2 | 80,81 | - | 2910 |
| NKV 15/7 T | 3 x 400 V ~ | 6,0 | 5,5 | 7,48 | 10,4 | - | IE2 | 80,81 | - | 2910 |
| NKV 15/8 T | 3 x 400 V ~ | 6,9 | 7,5 | 10,2 | 14,8 | 13,4 | IE2 / IE3 | 106,68 | 114 | 2900 |

| MODEL | STAGE N° | B1 | B2 | G1 | G2 | I | C | | D | D/2 | H | | H1 | H2 | DNA = DNM (DN 50) | | | | PACK. DIMENSIONS | | | VOL. mc | WEIGHT Kg | |
|------------|-------------|-----|-----|-----|-----|------|-----|-----|-----|-----|--------|--------|----|-------|-------------------|-----|----|----|------------------|-----|-----|------------|-----------|-----|
| | | | | | | | IE2 | IE3 | | | IE2 | IE3 | | | X | Y | Z | N | L/A | L/B | H | | IE2 | IE3 |
| NKV 15/2 T | 2 | 201 | 274 | 130 | 215 | 13,5 | 155 | - | 300 | 150 | 651,4 | - | 90 | 356,4 | 165 | 125 | 67 | 18 | 800 | 400 | 400 | 0,128 | 54,68 | - |
| NKV 15/3 T | 3 | 201 | 274 | 130 | 215 | 13,5 | 180 | - | 300 | 150 | 731,4 | - | 90 | 406,4 | 165 | 125 | 67 | 18 | 800 | 400 | 400 | 0,128 | 64,67 | - |
| NKV 15/4 T | 4 | 201 | 274 | 130 | 215 | 13,5 | 190 | - | 300 | 150 | 779,4 | - | 90 | 439,4 | 165 | 125 | 67 | 18 | 800 | 400 | 400 | 0,128 | 74,93 | - |
| NKV 15/5 T | 5 | 201 | 274 | 130 | 215 | 13,5 | 190 | - | 300 | 150 | 812,4 | - | 90 | 472,4 | 165 | 125 | 67 | 18 | 960 | 400 | 370 | 0,142 | 76,19 | - |
| NKV 15/6 T | 6 | 201 | 274 | 130 | 215 | 13,5 | 210 | - | 300 | 150 | 974,8 | - | 90 | 584,8 | 165 | 125 | 67 | 18 | 1150 | 500 | 400 | 0,230 | 104,31 | - |
| NKV 15/7 T | 7 | 201 | 274 | 130 | 215 | 13,5 | 210 | - | 300 | 150 | 1007,8 | - | 90 | 617,8 | 165 | 125 | 67 | 18 | 1150 | 500 | 400 | 0,230 | 105,62 | - |
| NKV 15/8 T | 8 | 201 | 274 | 130 | 215 | 13,5 | 210 | 188 | 300 | 150 | 1040,8 | 1063,5 | 90 | 650,8 | 165 | 125 | 67 | 18 | 1360 | 500 | 400 | 0,230 | 112,83 | 106 |

NKV 15 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da - 15°C TO +120°C - Maximum working pressure: 25 bar (2500 kPa)



For hydraulic efficiency see pag. 291

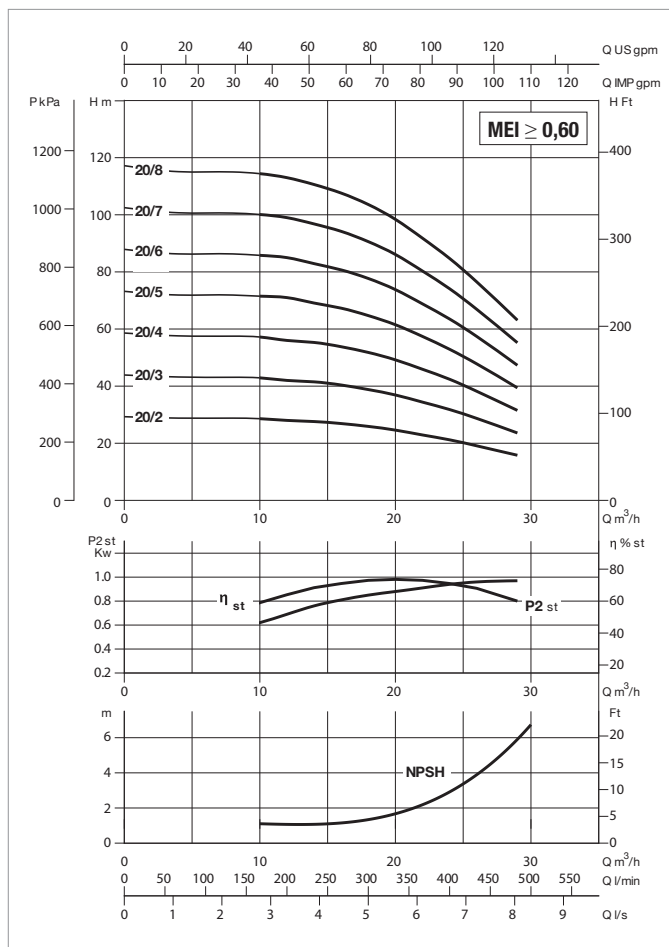
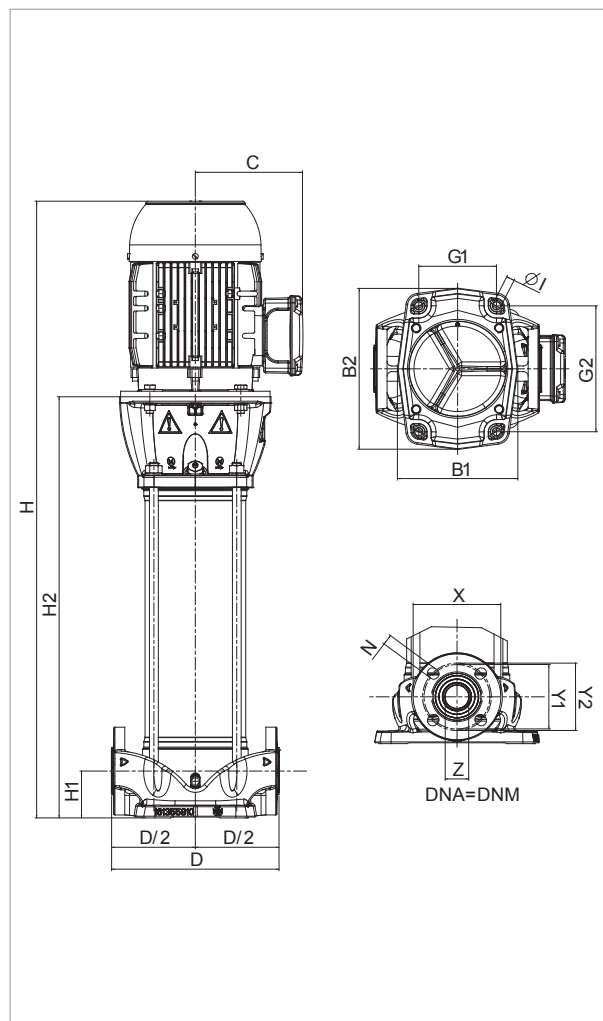
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

| MODEL | VOLTAGE 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | | MOTOR TYPE | Ist A | | RPM |
|-------------|------------------|--------------|------------|-------|------|------|---------------|--------|-----|------|
| | | | kW | HP | IE2 | IE3 | | IE2 | IE3 | |
| NKV 15/9 T | 3 x 400 V ~ | 7,7 | 7,5 | 10,2 | 14,8 | 13,4 | IE2 / IE3 | 106,68 | 114 | 2900 |
| NKV 15/10 T | 3 x 400 V ~ | 8,5 | 11 | 14,96 | 22,4 | 19,4 | IE2 / IE3 | 126,05 | 147 | 2930 |
| NKV 15/12 T | 3 x 400 V ~ | 10,2 | 11 | 14,96 | 22,4 | 19,4 | IE2 / IE3 | 126,05 | 147 | 2930 |
| NKV 15/14 T | 3 x 400 V ~ | 11,8 | 11 | 14,96 | 22,4 | 19,4 | IE2 / IE3 | 126,05 | 147 | 2930 |
| NKV 15/16 T | 3 x 400 V ~ | 13,4 | 15 | 20,4 | 29,5 | 26,5 | IE2 / IE3 | 189,81 | 204 | 2940 |
| NKV 15/17 T | 3 x 400 V ~ | 14,3 | 15 | 20,4 | 29,5 | 26,5 | IE2 / IE3 | 189,81 | 204 | 2940 |

| MODEL | STAGE N° | B1 | B2 | G1 | G2 | I | C | | D | D/2 | H | | H1 | H2 | DNA = DNM (DN 50) | | | | PACK. DIMENSIONS | | | VOL. mc | WEIGHT Kg | |
|-------------|-------------|-----|-----|-----|-----|------|-----|-----|-----|-----|--------|--------|----|--------|-------------------|-----|----|----|------------------|-----|-----|------------|-----------|-----|
| | | | | | | | IE2 | IE3 | | | IE2 | IE3 | | | X | Y | Z | N | L/A | L/B | H | | IE2 | IE3 |
| NKV 15/9 T | 9 | 201 | 274 | 130 | 215 | 13,5 | 210 | 188 | 300 | 150 | 1073,8 | 1113 | 90 | 683,8 | 165 | 125 | 67 | 18 | 1150 | 500 | 400 | 0,230 | 114,07 | 103 |
| NKV 15/10 T | 10 | 201 | 274 | 130 | 215 | 13,5 | 255 | 242 | 300 | 150 | 1251 | 1297,5 | 90 | 746 | 165 | 125 | 67 | 18 | 1360 | 500 | 530 | 0,360 | 170,30 | 194 |
| NKV 15/12 T | 12 | 201 | 274 | 130 | 215 | 13,5 | 255 | 242 | 300 | 150 | 1317 | 1396,5 | 90 | 812 | 165 | 125 | 67 | 18 | 1360 | 500 | 530 | 0,360 | 172,77 | 185 |
| NKV 15/14 T | 14 | 201 | 274 | 130 | 215 | 13,5 | 255 | 242 | 300 | 150 | 1383 | 1495,5 | 90 | 878 | 165 | 125 | 67 | 18 | 1650 | 500 | 580 | 0,479 | 175,31 | 195 |
| NKV 15/16 T | 16 | 201 | 274 | 130 | 215 | 13,5 | 255 | 242 | 300 | 150 | 1449 | 1594,5 | 90 | 944 | 165 | 125 | 67 | 18 | 1650 | 500 | 580 | 0,479 | 185,78 | 162 |
| NKV 15/17 T | 17 | 201 | 274 | 130 | 215 | 13,5 | 255 | 242 | 300 | 150 | 1762,5 | 1644 | 90 | 1257,5 | 165 | 125 | 67 | 18 | 1850 | 500 | 580 | 0,537 | 187,02 | 193 |

NKV 20 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: from - 15 °C to +120 °C - Maximum working pressure: 25 bar (2500 kPa)



For hydraulic efficiency see pag. 291

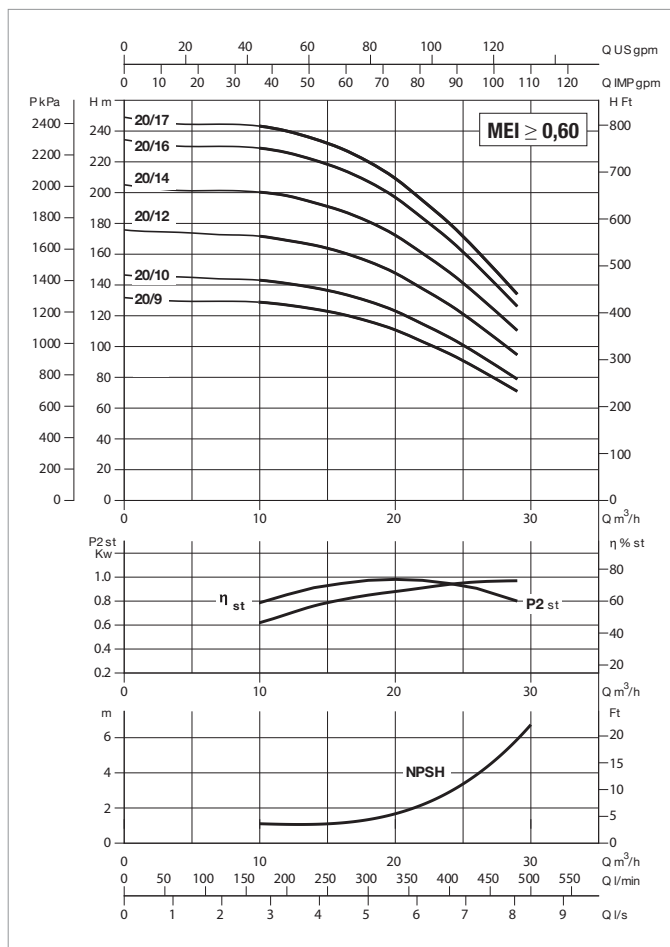
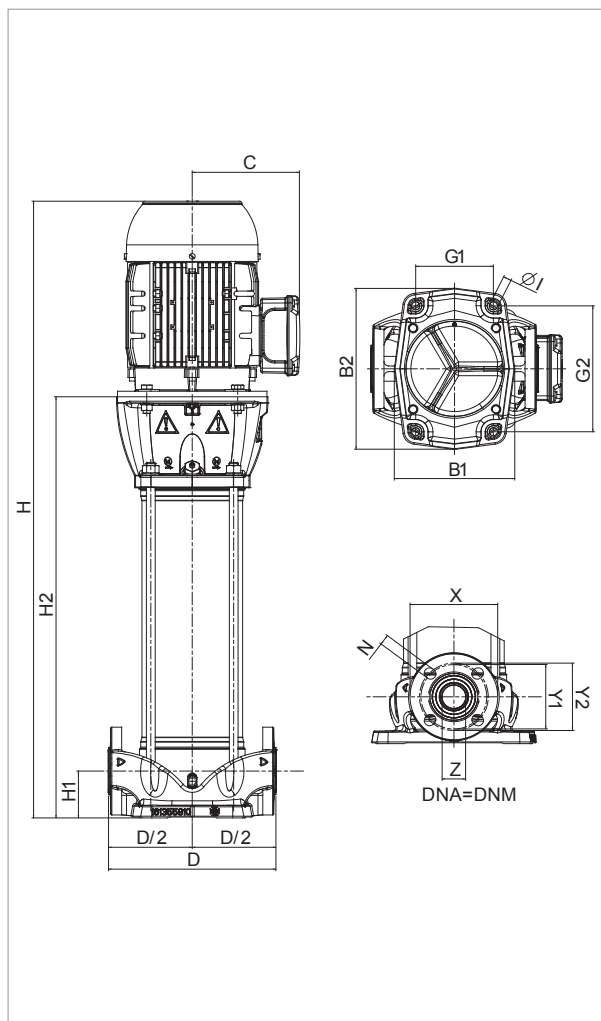
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

| MODEL | VOLTAGE 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | | MOTOR TYPE | Ist A | | RPM |
|------------|-------------------|--------------|------------|-------|-----------|------|---------------|-------------|-----|------|
| | | | kW | HP | IE2 | IE3 | | IE2 | IE3 | |
| NKV 20/2 T | 3 x 230 - 400 V ~ | 2,3 | 2,2 | 2,99 | 8,23/4,75 | - | IE2 | 68,37/39,47 | - | 2870 |
| NKV 20/3 T | 3 x 400 V ~ | 3,4 | 4 | 5,44 | 8,05 | - | IE2 | 73,58 | - | 2910 |
| NKV 20/4 T | 3 x 400 V ~ | 4,4 | 5,5 | 7,48 | 10,4 | - | IE2 | 80,81 | - | 2910 |
| NKV 20/5 T | 3 x 400 V ~ | 5,5 | 5,5 | 7,48 | 10,4 | - | IE2 | 80,81 | - | 2910 |
| NKV 20/6 T | 3 x 400 V ~ | 6,7 | 7,5 | 10,2 | 14,8 | 13,4 | IE2 / IE3 | 106,68 | 114 | 2900 |
| NKV 20/7 T | 3 x 400 V ~ | 7,8 | 7,5 | 10,2 | 14,8 | 13,4 | IE2 / IE3 | 106,68 | 114 | 2900 |
| NKV 20/8 T | 3 x 400 V ~ | 8,7 | 11 | 14,96 | 22,4 | 19,4 | IE2 / IE3 | 126,05 | 147 | 2930 |

| MODEL | STAGE N° | B1 | B2 | G1 | G2 | I | C | | D | D/2 | H | | H1 | H2 | DNA = DNM (DN 50) | | | | PACK. DIMENSIONS | | | VOL. mc | WEIGHT Kg | |
|------------|-------------|-----|-----|-----|-----|------|-----|-----|-----|-----|--------|--------|----|-------|-------------------|-----|----|----|------------------|-----|-----|------------|-----------|-----|
| | | | | | | | IE2 | IE3 | | | IE2 | IE3 | | | X | Y | Z | N | L/A | L/B | H | | IE2 | IE3 |
| NKV 20/2 T | 2 | 201 | 274 | 130 | 215 | 13,5 | 155 | - | 300 | 150 | 651,4 | - | 90 | 356,4 | 165 | 125 | 67 | 18 | 800 | 400 | 400 | 0,128 | 45 | - |
| NKV 20/3 T | 3 | 201 | 274 | 130 | 215 | 13,5 | 190 | - | 300 | 150 | 746,4 | - | 90 | 406,4 | 165 | 125 | 67 | 18 | 800 | 400 | 400 | 0,128 | 60 | - |
| NKV 20/4 T | 4 | 201 | 274 | 130 | 215 | 13,5 | 210 | - | 300 | 150 | 908,8 | - | 90 | 518,8 | 165 | 125 | 67 | 18 | 960 | 400 | 370 | 0,142 | 74 | - |
| NKV 20/5 T | 5 | 201 | 274 | 130 | 215 | 13,5 | 210 | - | 300 | 150 | 941,8 | - | 90 | 551,8 | 165 | 125 | 67 | 18 | 960 | 400 | 370 | 0,142 | 76 | - |
| NKV 20/6 T | 6 | 201 | 274 | 130 | 215 | 13,5 | 210 | 188 | 300 | 150 | 974,8 | 964,5 | 90 | 584,8 | 165 | 125 | 67 | 18 | 1150 | 500 | 400 | 0,230 | 83 | 95 |
| NKV 20/7 T | 7 | 201 | 274 | 130 | 215 | 13,5 | 210 | 188 | 300 | 150 | 1007,8 | 1014 | 90 | 617,8 | 165 | 125 | 67 | 18 | 1150 | 500 | 400 | 0,230 | 84 | 103 |
| NKV 20/8 T | 8 | 201 | 274 | 130 | 215 | 13,5 | 255 | 242 | 300 | 150 | 1185 | 1198,5 | 90 | 680 | 165 | 125 | 67 | 18 | 1360 | 500 | 530 | 0,360 | 116 | 191 |

NKV 20 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da - 15°C TO +120°C - Maximum working pressure: 25 bar (2500 kPa)



For hydraulic efficiency see pag. 291

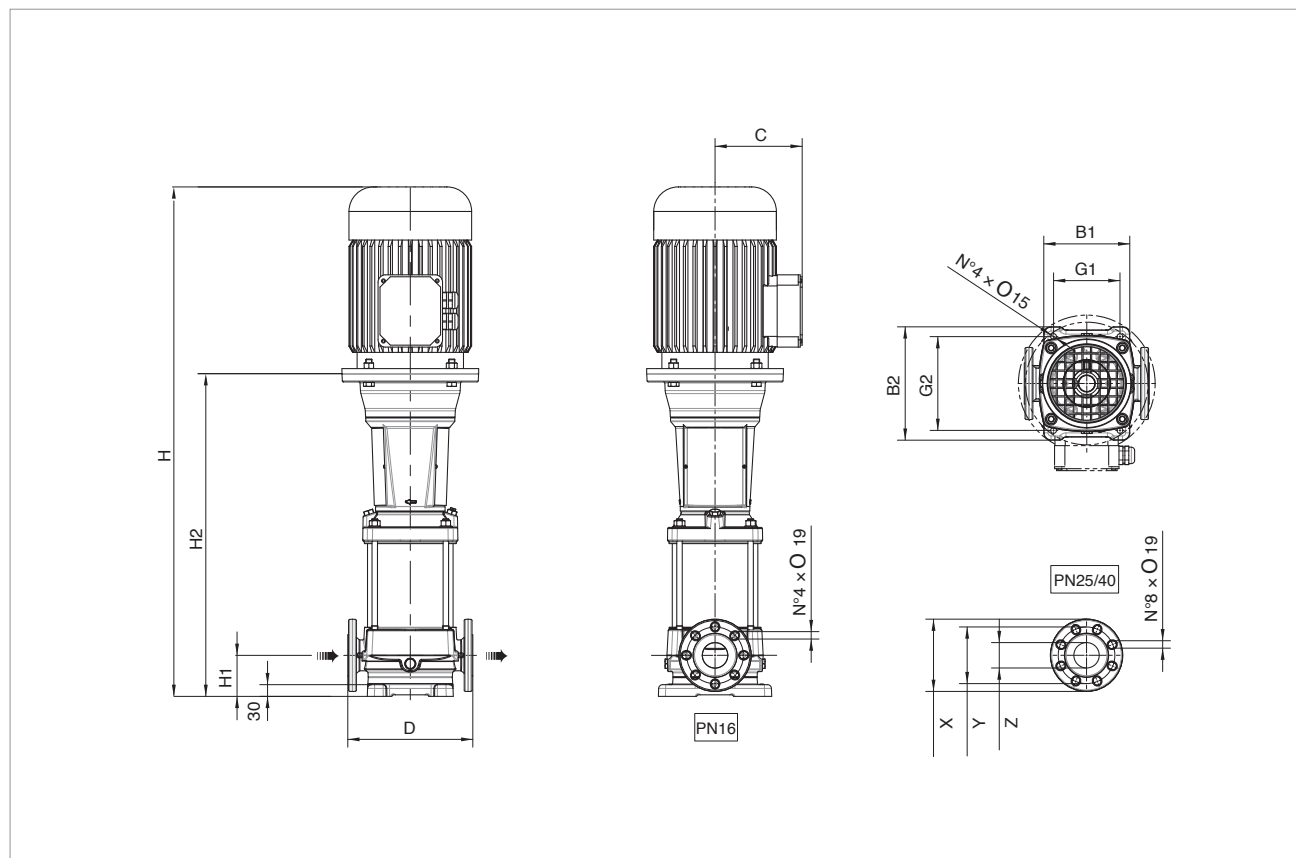
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

| MODEL | VOLTAGE 50 Hz | P1 MAX kW | P2 NOMINAL | | In A | | MOTOR TYPE | Ist A | | RPM |
|-------------|------------------|--------------|------------|-------|------|------|---------------|--------|-----|------|
| | | | kW | HP | IE2 | IE3 | | IE2 | IE3 | |
| NKV 20/9 T | 3 x 400 V ~ | 9,8 | 11 | 14,96 | 22,4 | 19,4 | IE2 / IE3 | 126,05 | 147 | 2930 |
| NKV 20/10 T | 3 x 400 V ~ | 10,9 | 11 | 14,96 | 22,4 | 19,4 | IE2 / IE3 | 126,05 | 147 | 2930 |
| NKV 20/12 T | 3 x 400 V ~ | 13,0 | 15 | 20,4 | 29,5 | 26,5 | IE2 / IE3 | 189,81 | 204 | 2940 |
| NKV 20/14 T | 3 x 400 V ~ | 15,2 | 15 | 20,4 | 29,5 | 26,5 | IE2 / IE3 | 189,81 | 204 | 2940 |
| NKV 20/16 T | 3 x 400 V ~ | 17,1 | 18,5 | 25,16 | 35,5 | 32 | IE2 / IE3 | 239,91 | 262 | 2940 |
| NKV 20/17 T | 3 x 400 V ~ | 18,2 | 18,5 | 25,16 | 35,5 | 32 | IE2 / IE3 | 239,91 | 262 | 2940 |

| MODEL | STAGE N° | B1 | B2 | G1 | G2 | I | C | | D | D/2 | H | | H1 | H2 | DNA = DNM (DN 50) | | | | PACK. DIMENSIONS | | | VOL. mc | WEIGHT Kg | |
|-------------|-------------|-----|-----|-----|-----|------|-----|-----|-----|-----|--------|--------|----|--------|-------------------|-----|----|----|------------------|-----|-----|------------|-----------|-----|
| | | | | | | | IE2 | IE3 | | | IE2 | IE3 | | | X | Y | Z | N | L/A | L/B | H | | IE2 | IE3 |
| NKV 20/9 T | 9 | 201 | 274 | 130 | 215 | 13,5 | 255 | 242 | 300 | 150 | 1218 | 1248 | 90 | 713 | 165 | 125 | 67 | 18 | 1360 | 500 | 530 | 0,360 | 117 | 137 |
| NKV 20/10 T | 10 | 201 | 274 | 130 | 215 | 13,5 | 255 | 242 | 300 | 150 | 1251 | 1297,5 | 90 | 746 | 165 | 125 | 67 | 18 | 1360 | 500 | 530 | 0,360 | 128 | 177 |
| NKV 20/12 T | 12 | 201 | 274 | 130 | 215 | 13,5 | 255 | 242 | 300 | 150 | 1317 | 1396,5 | 90 | 812 | 165 | 125 | 67 | 18 | 1360 | 500 | 530 | 0,360 | 141 | 187 |
| NKV 20/14 T | 14 | 201 | 274 | 130 | 215 | 13,5 | 255 | 242 | 300 | 150 | 1383 | 1495,5 | 90 | 878 | 165 | 125 | 67 | 18 | 1650 | 500 | 580 | 0,479 | 143 | 194 |
| NKV 20/16 T | 16 | 201 | 274 | 130 | 215 | 13,5 | 255 | 242 | 300 | 150 | 1504 | 1638,5 | 90 | 944 | 165 | 125 | 67 | 18 | 1850 | 500 | 580 | 0,479 | 161 | 185 |
| NKV 20/17 T | 17 | 201 | 274 | 130 | 215 | 13,5 | 255 | 242 | 300 | 150 | 1817,5 | 1688 | 90 | 1257,5 | 165 | 125 | 67 | 18 | 1850 | 500 | 580 | 0,537 | 162 | 220 |

NKV 32 - EVERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da - 15°C to +120°C - Maximum working pressure: 32 bar (3200 kPa)

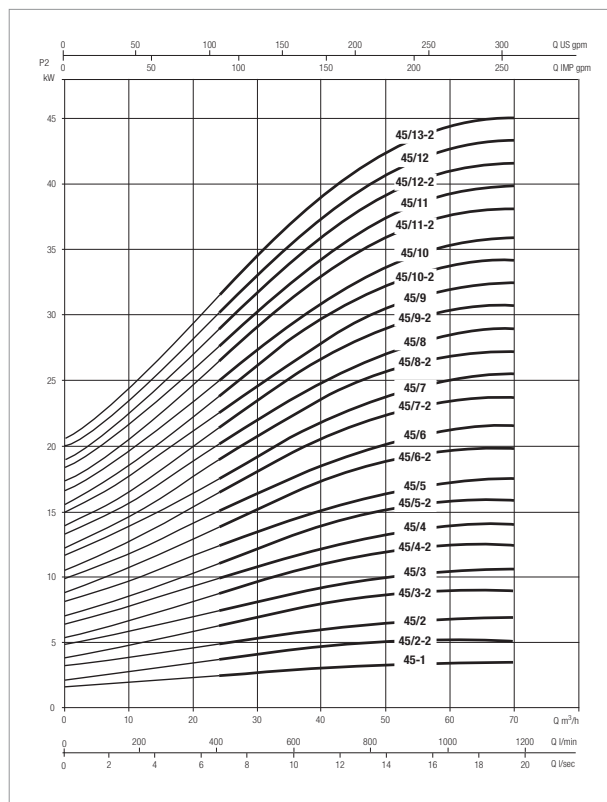
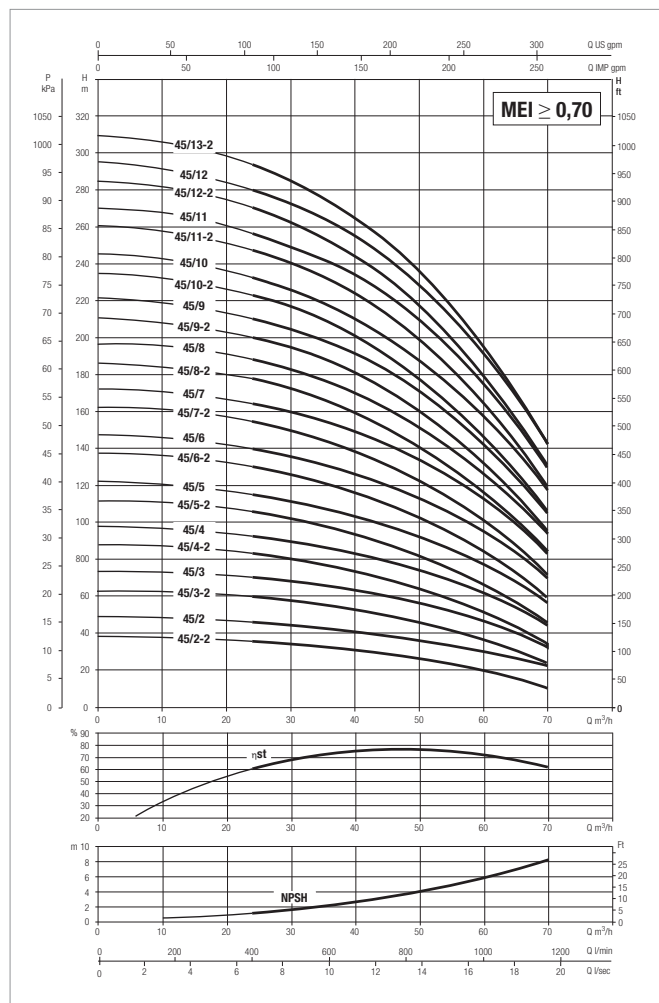


Version F: The pump is supplied without counter flanges (optional accessories, including joints and bolts).

| MODEL | STAGE N° | B1 | B2 | G1 | G2 | C | | D | H | | H1 | H2 | DNA = DNM (DN 65) | | | WEIGHT Kg | |
|---------------|----------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|------|-------------------|-----|----|-----------|-----|
| | | | | | | IE2 | IE3 | | IE2 | IE3 | | | X | Y | Z | IE2 | IE3 |
| NKV 32/2-2 T | 2 | 220 | 290 | 170 | 240 | 145 | - | 320 | 887 | - | 105 | 537 | 185 | 145 | 65 | 93 | - |
| NKV 32/2 T | 2 | 220 | 290 | 170 | 240 | 161 | - | 320 | 1115 | - | 105 | 724 | 185 | 145 | 65 | 140 | - |
| NKV 32/3-2 T | 3 | 220 | 290 | 170 | 240 | 161 | - | 320 | 1196 | - | 105 | 806 | 185 | 145 | 65 | 144 | - |
| NKV 32/3 T | 3 | 220 | 290 | 170 | 240 | 161 | 188 | 320 | 1196 | 1243 | 105 | 806 | 185 | 145 | 65 | 151 | 125 |
| NKV 32/4-2 T | 4 | 220 | 290 | 170 | 240 | 161 | 188 | 320 | 1298 | 1325 | 105 | 888 | 185 | 145 | 65 | 158 | 132 |
| NKV 32/4 T | 4 | 220 | 290 | 170 | 240 | 198 | 242 | 320 | 1413 | 1345 | 105 | 908 | 185 | 145 | 65 | 206 | 203 |
| NKV 32/5-2 T | 5 | 220 | 290 | 170 | 240 | 198 | 242 | 320 | 1495 | 1427 | 105 | 990 | 185 | 145 | 65 | 210 | 207 |
| NKV 32/5 T | 5 | 220 | 290 | 170 | 240 | 198 | 242 | 320 | 1495 | 1495 | 105 | 990 | 185 | 145 | 65 | 224 | 214 |
| NKV 32/6-2 T | 6 | 220 | 290 | 170 | 240 | 198 | 242 | 320 | 1577 | 1577 | 105 | 1072 | 185 | 145 | 65 | 228 | 218 |
| NKV 32/6 T | 6 | 220 | 290 | 170 | 240 | 198 | 242 | 320 | 1577 | 1577 | 105 | 1072 | 185 | 145 | 65 | 228 | 218 |
| NKV 32/7-2 T | 7 | 220 | 290 | 170 | 240 | 198 | 242 | 320 | 1659 | 1659 | 105 | 1154 | 185 | 145 | 65 | 232 | 222 |
| NKV 32/7 T | 7 | 220 | 290 | 170 | 240 | 238 | 242 | 320 | 1714 | 1703 | 105 | 1154 | 185 | 145 | 65 | 253 | 243 |
| NKV 32/8-2 T | 8 | 220 | 290 | 170 | 240 | 238 | 242 | 320 | 1796 | 1785 | 105 | 1236 | 185 | 145 | 65 | 257 | 247 |
| NKV 32/8 T | 8 | 220 | 290 | 170 | 240 | 238 | 242 | 320 | 1796 | 1785 | 105 | 1236 | 185 | 145 | 65 | 257 | 247 |
| NKV 32/9-2 T | 9 | 220 | 290 | 170 | 240 | 238 | 260 | 320 | 1898 | 1898 | 105 | 1318 | 185 | 145 | 65 | 291 | 283 |
| NKV 32/9 T | 9 | 220 | 290 | 170 | 240 | 238 | 260 | 320 | 1898 | 1898 | 105 | 1318 | 185 | 145 | 65 | 291 | 283 |
| NKV 32/10-2 T | 10 | 220 | 290 | 170 | 240 | 238 | 260 | 320 | 1985 | 1980 | 105 | 1400 | 185 | 145 | 65 | 298 | 290 |
| NKV 32/10 T | 10 | 220 | 290 | 170 | 240 | 297 | 292 | 320 | 2065 | 2075 | 105 | 1405 | 185 | 145 | 65 | 357 | 363 |
| NKV 32/11-2 T | 11 | 220 | 290 | 170 | 240 | 297 | 292 | 320 | 2147 | 2157 | 105 | 1487 | 185 | 145 | 65 | 361 | 367 |
| NKV 32/11 T | 11 | 220 | 290 | 170 | 240 | 297 | 292 | 320 | 2147 | 2157 | 105 | 1487 | 185 | 145 | 65 | 361 | 367 |
| NKV 32/12-2 T | 12 | 220 | 290 | 170 | 240 | 297 | 292 | 320 | 2229 | 2239 | 105 | 1569 | 185 | 145 | 65 | 365 | 371 |
| NKV 32/12 T | 12 | 220 | 290 | 170 | 240 | 297 | 292 | 320 | 2229 | 2239 | 105 | 1569 | 185 | 145 | 65 | 365 | 371 |
| NKV 32/13-2 T | 13 | 220 | 290 | 170 | 240 | 297 | 292 | 320 | 2311 | 2321 | 105 | 1651 | 185 | 145 | 65 | 369 | 375 |
| NKV 32/13 T | 13 | 220 | 290 | 170 | 240 | 297 | 292 | 320 | 2311 | 2321 | 105 | 1651 | 185 | 145 | 65 | 369 | 375 |

NKV 45 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da - 15°C to +120°C - Maximum working pressure: 32 bar (3200 kPa)



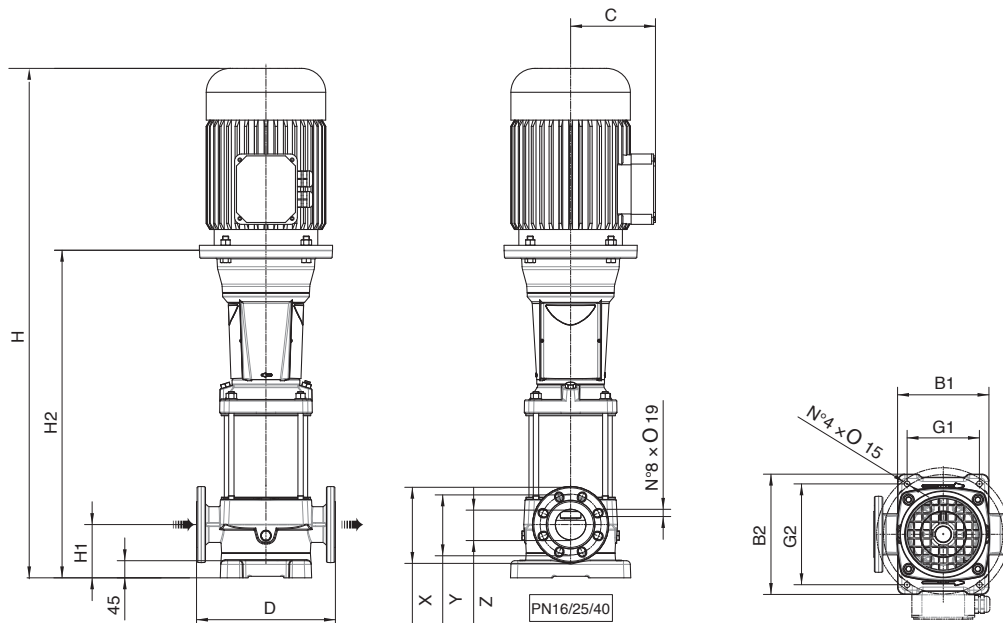
For hydraulic efficiency see pag. 291

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

| MODEL | VOLTAGE 50 Hz | P2 NOMINAL | | MOTOR TYPE | In A | | Ist A | | 1/min | RPM | |
|---------------|------------------|------------|-----|---------------|------|------|-------|-----|-------|------|------|
| | | kW | HP | | IE2 | IE3 | IE2 | IE3 | | max | min |
| NKV 45/2-2 T | 3 x 400 V Δ | 5,5 | 7,5 | MEC 132S | 10,4 | - | 81 | - | 2910 | 2980 | 2910 |
| NKV 45/2 T | 3 x 400 V Δ | 7,5 | 10 | MEC 132S | 14 | 13,4 | 107 | 114 | 2900 | 2980 | 2900 |
| NKV 45/3-2 T | 3 x 400 V Δ | 11 | 15 | MEC 160M | 20,2 | 19,4 | 126 | 147 | 2930 | 2980 | 2930 |
| NKV 45/3 T | 3 x 400 V Δ | 11 | 15 | MEC 160M | 20,2 | 19,4 | 126 | 147 | 2930 | 2980 | 2930 |
| NKV 45/4-2 T | 3 x 400 V Δ | 15 | 20 | MEC 160M | 27 | 26,5 | 190 | 204 | 2940 | 2980 | 2940 |
| NKV 45/4 T | 3 x 400 V Δ | 15 | 20 | MEC 160M | 27 | 26,5 | 190 | 204 | 2940 | 2980 | 2940 |
| NKV 45/5-2 T | 3 x 400 V Δ | 18,5 | 25 | MEC 160L | 33 | 32 | 240 | 262 | 2940 | 2990 | 2940 |
| NKV 45/5 T | 3 x 400 V Δ | 18,5 | 25 | MEC 160L | 33 | 32 | 240 | 262 | 2940 | 2990 | 2940 |
| NKV 45/6-2 T | 3 x 400 V Δ | 22 | 30 | MEC 180M | 39,5 | 38 | 329 | 331 | 2960 | 2990 | 2960 |
| NKV 45/6 T | 3 x 400 V Δ | 22 | 30 | MEC 180M | 39,5 | 38 | 329 | 331 | 2960 | 2990 | 2960 |
| NKV 45/7-2 T | 3 x 400 V Δ | 30 | 40 | MEC 200L | 64 | 52 | 405 | 468 | 2950 | 2990 | 2950 |
| NKV 45/7 T | 3 x 400 V Δ | 30 | 40 | MEC 200L | 52 | 52 | 405 | 468 | 2950 | 2990 | 2950 |
| NKV 45/8-2 T | 3 x 400 V Δ | 30 | 40 | MEC 200L | 52 | 52 | 405 | 468 | 2950 | 2990 | 2950 |
| NKV 45/8 T | 3 x 400 V Δ | 30 | 40 | MEC 200L | 52 | 52 | 405 | 468 | 2950 | 2990 | 2950 |
| NKV 45/9-2 T | 3 x 400 V Δ | 37 | 50 | MEC 200L | 64 | 63 | 488 | 567 | 2960 | 2990 | 2960 |
| NKV 45/9 T | 3 x 400 V Δ | 37 | 50 | MEC 200L | 64 | 63 | 488 | 567 | 2960 | 2990 | 2960 |
| NKV 45/10-2 T | 3 x 400 V Δ | 37 | 50 | MEC 200L | 64 | 63 | 488 | 567 | 2960 | 2990 | 2960 |
| NKV 45/10 T | 3 x 400 V Δ | 37 | 50 | MEC 200L | 64 | 63 | 488 | 567 | 2960 | 2990 | 2960 |
| NKV 45/11-2 T | 3 x 400 V Δ | 45 | 60 | MEC 225M | 64 | 76 | 528 | 631 | 2960 | 2990 | 2960 |
| NKV 45/11 T | 3 x 400 V Δ | 45 | 60 | MEC 225M | 78,5 | 76 | 528 | 631 | 2960 | 2990 | 2960 |
| NKV 45/12-2 T | 3 x 400 V Δ | 45 | 60 | MEC 225M | 78,5 | 76 | 528 | 631 | 2960 | 2990 | 2960 |
| NKV 45/12 T | 3 x 400 V Δ | 45 | 60 | MEC 225M | 78,5 | 76 | 528 | 631 | 2960 | 2990 | 2960 |
| NKV 45/13-2 T | 3 x 400 V Δ | 45 | 60 | MEC 225M | 78,5 | 76 | 528 | 631 | 2960 | 2990 | 2960 |

NKV 45 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da - 15°C a +120°C - Maximum working pressure: 32 bar (3200 kPa)

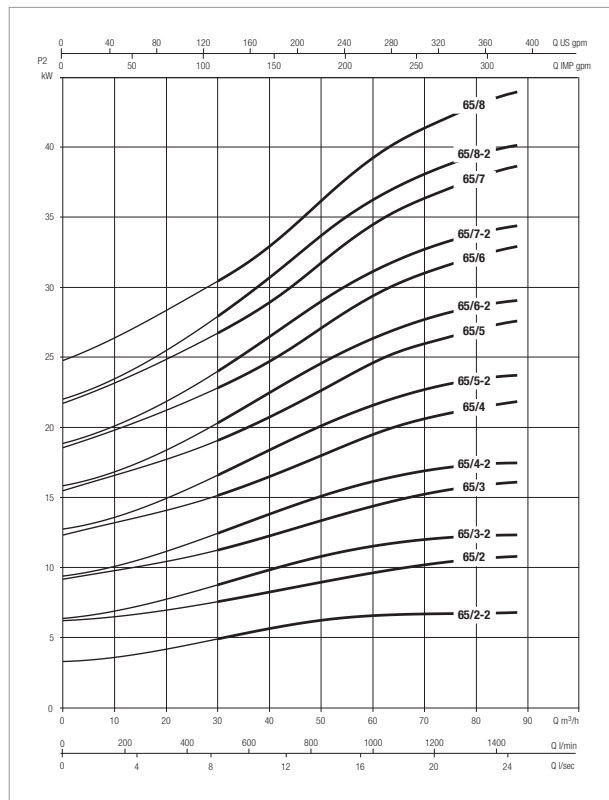
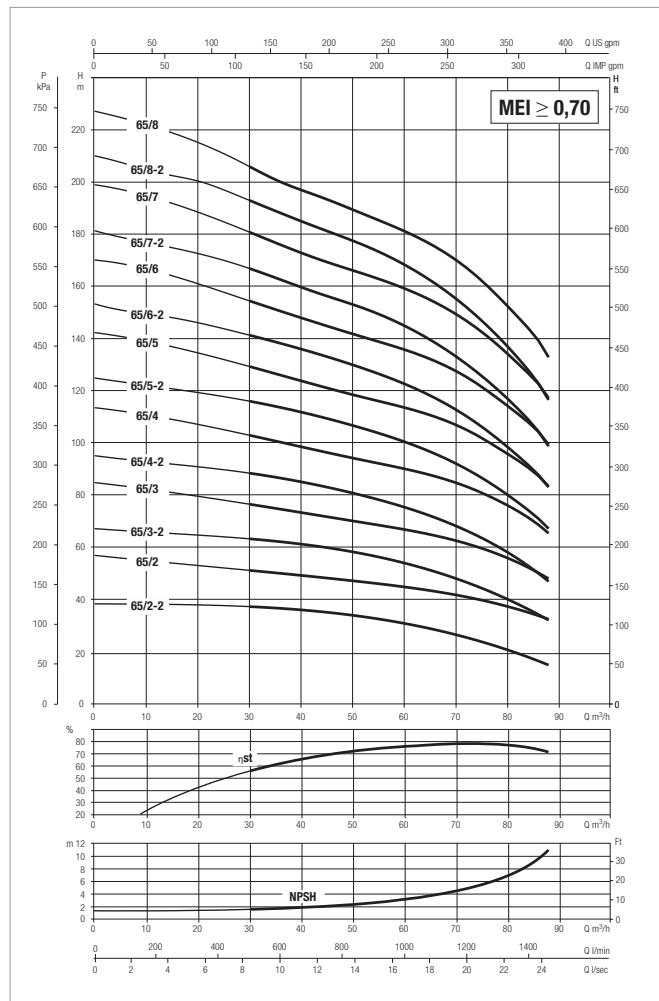


Version F: The pump is supplied without counter flanges (optional accessories, including joints and bolts).

| MODEL | STAGE N° | B1 | B2 | G1 | G2 | C | | D | H | | H1 | H2 | DNA = DNM (DN 80) | | | WEIGHT Kg | |
|---------------|----------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|------|-------------------|-----|----|-----------|-----|
| | | | | | | IE2 | IE3 | | IE2 | IE3 | | | X | Y | Z | IE2 | IE3 |
| NKV 45/2-2 T | 2 | 240 | 316 | 190 | 265 | 161 | - | 365 | 1149 | - | 140 | 759 | 200 | 160 | 80 | 146 | - |
| NKV 45/2 T | 2 | 240 | 316 | 190 | 265 | 161 | 188 | 365 | 1149 | 1196 | 140 | 759 | 200 | 160 | 80 | 153 | 127 |
| NKV 45/3-2 T | 3 | 240 | 316 | 190 | 265 | 198 | 242 | 365 | 1366 | 1298 | 140 | 861 | 200 | 160 | 80 | 208 | 205 |
| NKV 45/3 T | 3 | 240 | 316 | 190 | 265 | 198 | 242 | 365 | 1366 | 1298 | 140 | 861 | 200 | 160 | 80 | 208 | 205 |
| NKV 45/4-2 T | 4 | 240 | 316 | 190 | 265 | 198 | 242 | 365 | 1448 | 1448 | 140 | 943 | 200 | 160 | 80 | 226 | 216 |
| NKV 45/4 T | 4 | 240 | 316 | 190 | 265 | 198 | 242 | 365 | 1448 | 1448 | 140 | 943 | 200 | 160 | 80 | 226 | 216 |
| NKV 45/5-2 T | 5 | 240 | 316 | 190 | 265 | 238 | 242 | 365 | 1585 | 1574 | 140 | 1025 | 200 | 160 | 80 | 251 | 241 |
| NKV 45/5 T | 5 | 240 | 316 | 190 | 265 | 238 | 242 | 365 | 1585 | 1574 | 140 | 1025 | 200 | 160 | 80 | 251 | 241 |
| NKV 45/6-2 T | 6 | 240 | 316 | 190 | 265 | 238 | 260 | 365 | 1687 | 1687 | 140 | 1107 | 200 | 160 | 80 | 284 | 276 |
| NKV 45/6 T | 6 | 240 | 316 | 190 | 265 | 238 | 260 | 365 | 1687 | 1687 | 140 | 1107 | 200 | 160 | 80 | 284 | 276 |
| NKV 45/7-2 T | 7 | 240 | 316 | 190 | 265 | 297 | 292 | 365 | 1854 | 1864 | 140 | 1194 | 200 | 160 | 80 | 350 | 356 |
| NKV 45/7 T | 7 | 240 | 316 | 190 | 265 | 297 | 292 | 365 | 1854 | 1864 | 140 | 1194 | 200 | 160 | 80 | 350 | 356 |
| NKV 45/8-2 T | 8 | 240 | 316 | 190 | 265 | 297 | 292 | 365 | 1936 | 1946 | 140 | 1276 | 200 | 160 | 80 | 354 | 360 |
| NKV 45/8 T | 8 | 240 | 316 | 190 | 265 | 297 | 292 | 365 | 1936 | 1946 | 140 | 1276 | 200 | 160 | 80 | 354 | 360 |
| NKV 45/9-2 T | 9 | 240 | 316 | 190 | 265 | 297 | 292 | 365 | 2018 | 2028 | 140 | 1358 | 200 | 160 | 80 | 375 | 384 |
| NKV 45/9 T | 9 | 240 | 316 | 190 | 265 | 297 | 292 | 365 | 2018 | 2028 | 140 | 1358 | 200 | 160 | 80 | 375 | 384 |
| NKV 45/10-2 T | 10 | 240 | 316 | 190 | 265 | 297 | 292 | 365 | 2100 | 2110 | 140 | 1440 | 200 | 160 | 80 | 379 | 388 |
| NKV 45/10 T | 10 | 240 | 316 | 190 | 265 | 297 | 292 | 365 | 2100 | 2110 | 140 | 1440 | 200 | 160 | 80 | 379 | 388 |
| NKV 45/11-2 T | 11 | 240 | 316 | 190 | 265 | 333 | 315 | 365 | 2227 | 2232 | 140 | 1522 | 200 | 160 | 80 | 441 | 449 |
| NKV 45/11 T | 11 | 240 | 316 | 190 | 265 | 333 | 315 | 365 | 2227 | 2232 | 140 | 1522 | 200 | 160 | 80 | 441 | 449 |
| NKV 45/12-2 T | 12 | 240 | 316 | 190 | 265 | 333 | 315 | 365 | 2309 | 2314 | 140 | 1604 | 200 | 160 | 80 | 445 | 453 |
| NKV 45/12 T | 12 | 240 | 316 | 190 | 265 | 333 | 315 | 365 | 2309 | 2314 | 140 | 1604 | 200 | 160 | 80 | 445 | 453 |
| NKV 45/13-2 T | 13 | 240 | 316 | 190 | 265 | 333 | 315 | 365 | 2391 | 2396 | 140 | 1686 | 200 | 160 | 80 | 449 | 457 |

NKV 65 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da - 15°C a +120°C - Maximum working pressure: 25 bar (2500 kPa)



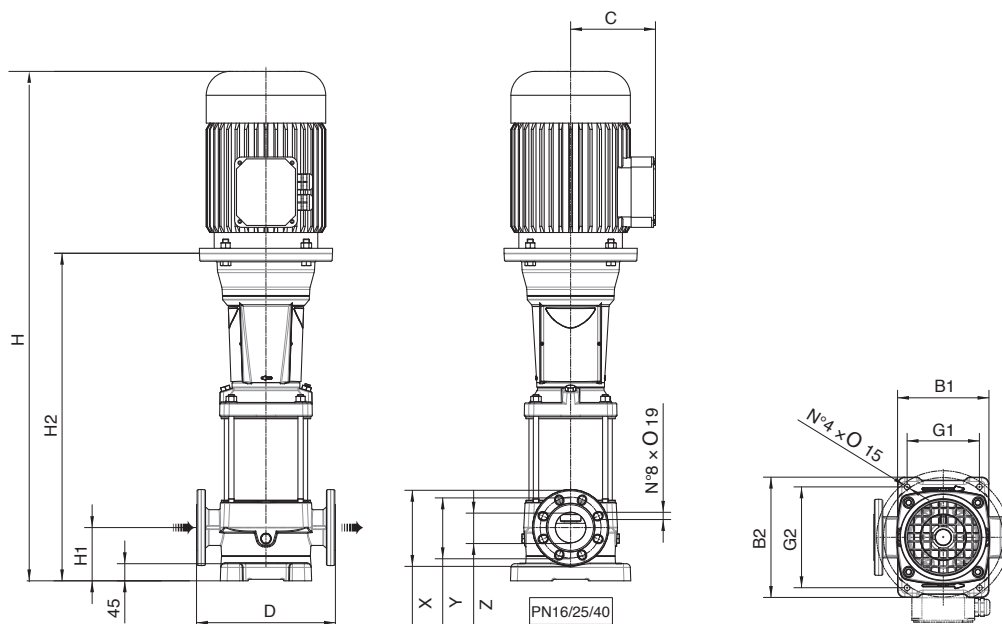
For hydraulic efficiency see pag. 291

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

| MODEL | VOLTAGE 50 Hz | P2 NOMINAL | | MOTOR TYPE | In A | | Ist A | | 1/min | RPM | |
|--------------|------------------|------------|----|---------------|------|------|-------|-----|-------|------|------|
| | | kW | HP | | IE2 | IE3 | IE2 | IE3 | | max | min |
| NKV 65/2-2 T | 3 x 400 V Δ | 7,5 | 10 | MEC 132S | 14 | 13,4 | 107 | 114 | 2900 | 2980 | 2900 |
| NKV 65/2 T | 3 x 400 V Δ | 11 | 15 | MEC 160M | 20,2 | 19,4 | 126 | 147 | 2930 | 2980 | 2930 |
| NKV 65/3-2 T | 3 x 400 V Δ | 15 | 20 | MEC 160M | 27 | 26,5 | 190 | 204 | 2940 | 2980 | 2940 |
| NKV 65/3 T | 3 x 400 V Δ | 18,5 | 25 | MEC 160L | 33 | 32 | 240 | 262 | 2940 | 2990 | 2940 |
| NKV 65/4-2 T | 3 x 400 V Δ | 18,5 | 25 | MEC 160L | 33 | 32 | 240 | 262 | 2940 | 2990 | 2940 |
| NKV 65/4 T | 3 x 400 V Δ | 22 | 30 | MEC 180M | 39,5 | 38 | 329 | 331 | 2960 | 2990 | 2960 |
| NKV 65/5-2 T | 3 x 400 V Δ | 30 | 40 | MEC 200L | 52 | 52 | 405 | 468 | 2950 | 2990 | 2950 |
| NKV 65/5 T | 3 x 400 V Δ | 30 | 40 | MEC 200L | 52 | 52 | 405 | 468 | 2950 | 2990 | 2950 |
| NKV 65/6-2 T | 3 x 400 V Δ | 30 | 40 | MEC 200L | 52 | 52 | 405 | 468 | 2950 | 2990 | 2950 |
| NKV 65/6 T | 3 x 400 V Δ | 37 | 50 | MEC 200L | 64 | 63 | 488 | 567 | 2960 | 2990 | 2960 |
| NKV 65/7-2 T | 3 x 400 V Δ | 37 | 50 | MEC 200L | 64 | 63 | 488 | 567 | 2960 | 2990 | 2960 |
| NKV 65/7 T | 3 x 400 V Δ | 45 | 60 | MEC 225M | 78,5 | 76 | 528 | 631 | 2960 | 2990 | 2960 |
| NKV 65/8-2 T | 3 x 400 V Δ | 45 | 60 | MEC 225M | 78,5 | 76 | 528 | 631 | 2960 | 2990 | 2960 |
| NKV 65/8 T | 3 x 400 V Δ | 45 | 60 | MEC 225M | 78,5 | 76 | 528 | 631 | 2960 | 2990 | 2960 |

NKV 65 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da - 15°C a +120°C - Maximum working pressure: 25 bar (2500 kPa)

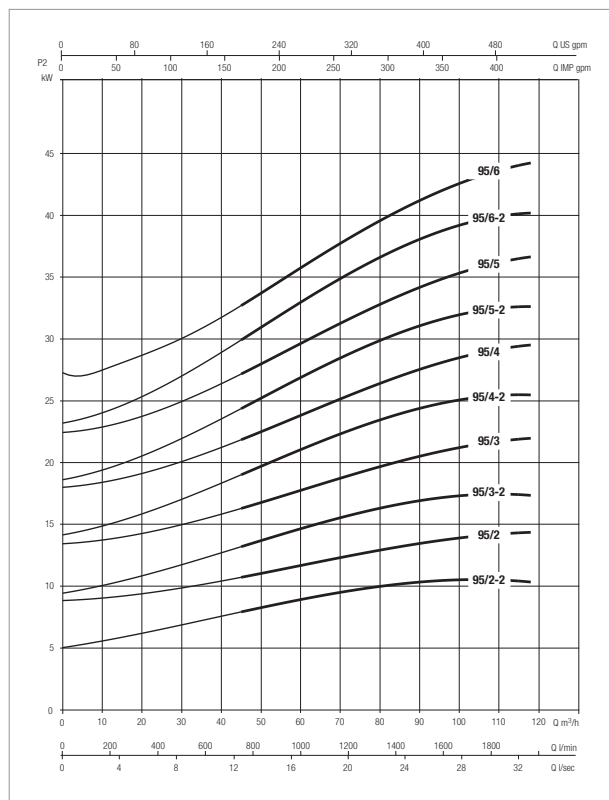
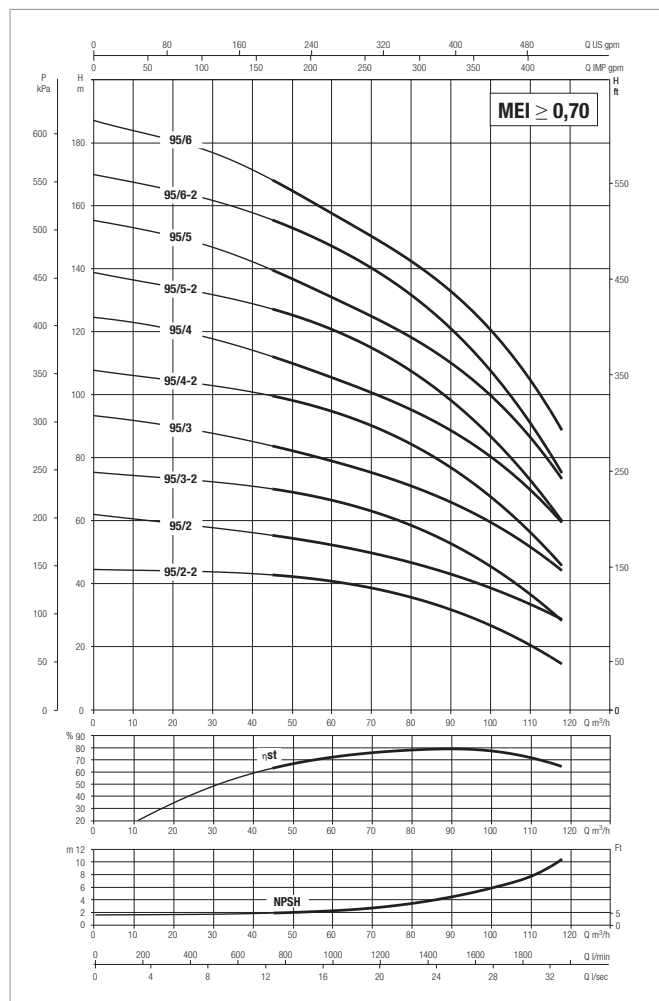


Version F: The pump is supplied without counter flanges (optional accessories, including joints and bolts).

| MODEL | STAGE N° | B1 | B2 | G1 | G2 | C | | D | H | | H1 | H2 | DNA = DNM (DN 100) | | | WEIGHT Kg | |
|--------------|-------------|-----|-----|-----|-----|-----|-----|-----|--------|--------|-----|--------|--------------------|-----|-----|-----------|-----|
| | | | | | | IE2 | IE3 | | IE2 | IE3 | | | X | Y | Z | IE2 | IE3 |
| NKV 65/2-2 T | 2 | 240 | 316 | 190 | 265 | 161 | 161 | 365 | 1219,2 | 1266,2 | 140 | 829,2 | 230 | 180 | 100 | 108 | 84 |
| NKV 65/2 T | 2 | 240 | 316 | 190 | 265 | 198 | 198 | 365 | 1354,2 | 1354,2 | 140 | 849,2 | 230 | 180 | 100 | 178 | 155 |
| NKV 65/3-2 T | 3 | 240 | 316 | 190 | 265 | 198 | 198 | 365 | 1446,3 | 1446,3 | 140 | 941,3 | 230 | 180 | 100 | 198 | 171 |
| NKV 65/3 T | 3 | 240 | 316 | 190 | 265 | 238 | 235 | 365 | 1501,3 | 1490,3 | 140 | 941,3 | 230 | 180 | 100 | 243,9 | 213 |
| NKV 65/4-2 T | 4 | 240 | 316 | 190 | 265 | 238 | 235 | 365 | 1593,4 | 1582,4 | 140 | 1033,4 | 230 | 180 | 100 | 243,9 | 213 |
| NKV 65/4 T | 4 | 240 | 316 | 190 | 265 | 238 | 238 | 365 | 1613,4 | 1613,4 | 140 | 1033,4 | 230 | 180 | 100 | 293,7 | 255 |
| NKV 65/5-2 T | 5 | 240 | 316 | 190 | 265 | 297 | 300 | 365 | 1790,5 | 1800,5 | 140 | 1130,5 | 230 | 180 | 100 | 472 | 471 |
| NKV 65/5 T | 5 | 240 | 316 | 190 | 265 | 297 | 300 | 365 | 1790,5 | 1800,5 | 140 | 1130,5 | 230 | 180 | 100 | 472 | 471 |
| NKV 65/6-2 T | 6 | 240 | 316 | 190 | 265 | 297 | 300 | 365 | 1882,6 | 1892,6 | 140 | 1222,6 | 230 | 180 | 100 | 472 | 471 |
| NKV 65/6 T | 6 | 240 | 316 | 190 | 265 | 297 | 300 | 365 | 1882,6 | 1892,6 | 140 | 1222,6 | 230 | 180 | 100 | 503 | 517 |
| NKV 65/7-2 T | 7 | 240 | 316 | 190 | 265 | 297 | 300 | 365 | 1974,7 | 1984,7 | 140 | 1314,7 | 230 | 180 | 100 | 503 | 517 |
| NKV 65/7 T | 7 | 240 | 316 | 190 | 265 | 333 | 335 | 365 | 2019,7 | 2024,7 | 140 | 1314,7 | 230 | 180 | 100 | 624 | 653 |
| NKV 65/8-2 T | 8 | 240 | 316 | 190 | 265 | 333 | 335 | 365 | 2111,8 | 2116,8 | 140 | 1406,8 | 230 | 180 | 100 | 624 | 653 |
| NKV 65/8 T | 8 | 240 | 316 | 190 | 265 | 333 | 335 | 365 | 2111,8 | 2116,8 | 140 | 1406,8 | 230 | 180 | 100 | 624 | 653 |

NKV 95 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da - 15°C a +120°C - Maximum working pressure: 25 bar (2500 kPa)



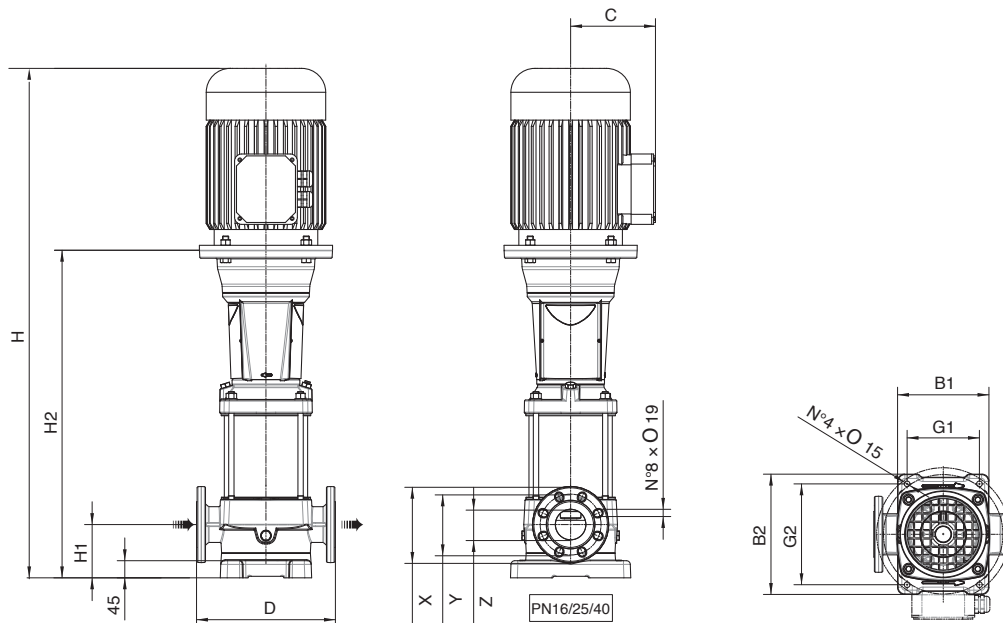
For hydraulic efficiency see pag. 291

The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

| MODEL | VOLTAGE 50 Hz | P2 NOMINAL | | MOTOR TYPE | In A | | Ist A | | 1/min | RPM | |
|--------------|------------------|------------|----|---------------|------|------|-------|-----|-------|------|------|
| | | kW | HP | | IE2 | IE3 | IE2 | IE3 | | max | min |
| NKV 95/2-2 T | 3 x 400 V Δ | 11 | 15 | MEC 160M | 20,2 | 19,4 | 126 | 147 | 2930 | 2980 | 2930 |
| NKV 95/2 T | 3 x 400 V Δ | 15 | 20 | MEC 160M | 27 | 26,5 | 190 | 204 | 2940 | 2980 | 2940 |
| NKV 95/3-2 T | 3 x 400 V Δ | 18,5 | 25 | MEC 160L | 33 | 32 | 240 | 262 | 2940 | 2990 | 2940 |
| NKV 95/3 T | 3 x 400 V Δ | 22 | 30 | MEC 180M | 39,5 | 38 | 329 | 331 | 2960 | 2990 | 2960 |
| NKV 95/4-2 T | 3 x 400 V Δ | 30 | 40 | MEC 200L | 52 | 52 | 405 | 468 | 2950 | 2990 | 2950 |
| NKV 95/4 T | 3 x 400 V Δ | 30 | 40 | MEC 200L | 52 | 52 | 405 | 468 | 2950 | 2990 | 2950 |
| NKV 95/5-2 T | 3 x 400 V Δ | 37 | 50 | MEC 200L | 64 | 63 | 488 | 567 | 2960 | 2990 | 2960 |
| NKV 95/5 T | 3 x 400 V Δ | 37 | 50 | MEC 200L | 64 | 63 | 488 | 567 | 2960 | 2990 | 2960 |
| NKV 95/6-2 T | 3 x 400 V Δ | 45 | 60 | MEC 225M | 78,5 | 76 | 528 | 631 | 2960 | 2990 | 2960 |
| NKV 95/6 T | 3 x 400 V Δ | 45 | 60 | MEC 225M | 78,5 | 76 | 528 | 631 | 2960 | 2990 | 2960 |

NKV 95 - VERTICAL AXIS MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS FOR CIVIL AND INDUSTRIAL PRESSURIZATION UNITS

Liquid temperature range: da - 15°C a +120°C - Maximum working pressure: 25 bar (2500 kPa)



Version F: The pump is supplied without counter flanges (optional accessories, including joints and bolts).

| MODEL | STAGE N° | B1 | B2 | G1 | G2 | C | | D | H | | H1 | H2 | DNA = DNM (DN 100) | | | WEIGHT Kg | |
|--------------|-------------|-----|-----|-----|-----|-----|-----|-----|--------|--------|-----|--------|--------------------|-----|-----|-----------|-----|
| | | | | | | IE2 | IE3 | | IE2 | IE3 | | | X | Y | Z | IE2 | IE3 |
| NKV 95/2-2 T | 2 | 260 | 341 | 199 | 280 | 198 | 198 | 380 | 1354,2 | 1354,2 | 140 | 849,2 | 230 | 180 | 100 | 20,2 | 186 |
| NKV 95/2 T | 2 | 260 | 341 | 199 | 280 | 198 | 198 | 380 | 1354,2 | 1354,2 | 140 | 849,2 | 230 | 180 | 100 | 27 | 196 |
| NKV 95/3-2 T | 3 | 260 | 341 | 199 | 280 | 238 | 235 | 380 | 1501,3 | 1490,3 | 140 | 941,3 | 230 | 180 | 100 | 33 | 217 |
| NKV 95/3 T | 3 | 260 | 341 | 199 | 280 | 238 | 238 | 380 | 1521,3 | 1521,3 | 140 | 941,3 | 230 | 180 | 100 | 39,5 | 238 |
| NKV 95/4-2 T | 4 | 260 | 341 | 199 | 280 | 297 | 300 | 380 | 1698,4 | 1708,4 | 140 | 1038,4 | 230 | 180 | 100 | 52 | 343 |
| NKV 95/4 T | 4 | 260 | 341 | 199 | 280 | 297 | 300 | 380 | 1698,4 | 1708,4 | 140 | 1038,4 | 230 | 180 | 100 | 52 | 343 |
| NKV 95/5-2 T | 5 | 260 | 341 | 199 | 280 | 297 | 300 | 380 | 1790,5 | 1800,5 | 140 | 1130,5 | 230 | 180 | 100 | 64 | 379 |
| NKV 95/5 T | 5 | 260 | 341 | 199 | 280 | 297 | 300 | 380 | 1790,5 | 1800,5 | 140 | 1130,5 | 230 | 180 | 100 | 64 | 379 |
| NKV 95/6-2 T | 6 | 260 | 341 | 199 | 280 | 333 | 335 | 380 | 1927,6 | 1932,6 | 140 | 1222,6 | 230 | 180 | 100 | 78,5 | 455 |
| NKV 95/6 T | 6 | 260 | 341 | 199 | 280 | 333 | 335 | 380 | 1927,6 | 1932,6 | 140 | 1222,6 | 230 | 180 | 100 | 78,5 | 455 |



HYDRAULIC EFFICIENCY

EU 547/2012 REGULATION - MEI

GENERAL INFORMATION

The MEI index (Minimum Efficiency Index) was issued with the objective of defining a performance threshold value applicable to all the water pumps found on the market. The MEI index takes into account the size of the pump, its specific speed, and its speed of rotation.

The regulation applies to centrifugal pumps used for pumping clean waters included in the following categories:

- Axial suction pumps with support (ESOB)
- Horizontal monobloc axial suction pumps (ESCC)
- In-line monobloc axial suction pumps (ESCCI)
- Multistage vertical pumps (MS-V)
- Multistage submerged pumps (MSS)

MEI is a dimensionless indicator for hydraulic performance, and a measure of the quality of the sizing of the pump in relation to the performance.

The higher the MEI value, the better is the sizing of the pump in relation to the performance, and the lower is the annual energy consumption due to the use of the pump. In theory, the upper limit of the MEI values is open, and only depends on physical and technological limitations.

The minimum efficiency index (MEI) is based on the maximum diameter of the impeller. Multistage vertical water pumps must be tested in the 3-stage version.

The value of reference for the more efficient water pumps is $MEI \geq 0,70$.

The efficiency of a pump with turned impeller is generally lower to that of a pump with full impeller diameter. The turning of the impeller adapts the pump to a fixed point of operation, resulting in lower energy consumption.

The operation of this water pump with variable operating points can be more efficient and economical if controlled, for example, by means of a variable speed motor adapting the operation of the pump to the system.

The information on the efficiency of reference can be found at the address: www.dabpumps.com. In alternative contact your local sales representatives.

The $MEI=0,7$ and $MEI=0,4$ efficiency charts for the different types of pumps can be found at the website: www.europump.org/efficiencycharts

| PUMP MODEL | IMPELLER | MEI |
|-------------|----------|----------------|
| K 20/41 | – | not applicable |
| K 30/70 | – | |
| K 36/100 | Full | $\geq 0,70$ |
| K 30/100 | Turned | |
| K 12/200 | Full | $\geq 0,70$ |
| K 55/200 T | Full | $\geq 0,70$ |
| K 36/200 T | Turned | |
| K 40/200 T | Turned | |
| K 14/400 | Full | $\geq 0,40$ |
| K 28/500 | Full | $\geq 0,70$ |
| K 11/500 T | Turned | |
| K 18/500 T | Turned | |
| K 50/400 T | Full | $\geq 0,50$ |
| K 40/400 T | Turned | |
| K 50/800 T | Full | $\geq 0,60$ |
| K 30/800 T | Turned | |
| K 40/800 T | Turned | |
| K 35/1200 T | Full | $\geq 0,60$ |
| K 20/1200 T | Turned | |
| K 25/1200 T | Turned | |

HYDRAULIC EFFICIENCY

EU 547/2012 REGULATION - MEI

| PUMP MODEL | IMPELLER | MEI |
|----------------------------|----------|--------|
| NKM-G 32-125.1/140 T 0,25 | Full | ≥ 0,40 |
| NKP-G 32-125.1/140 T 2,2 | Full | ≥ 0,40 |
| NKP-G 32-125.1/102 T 0,75 | Turned | |
| NKP-G 32-125.1/115 T 1,1 | Turned | |
| NKP-G 32-125.1/125 T 1,5 | Turned | |
| NKM-G 32-160.1/169 T 0,37 | Full | ≥ 0,40 |
| NKP-G 32-160.1/177 | Full | ≥ 0,40 |
| NKP-G 32-160.1/155 T 2,2 | Turned | |
| NKP-G 32-160.1/166 T 3 | Turned | |
| NKM-G 32-200.1/200 T 0,55 | Full | ≥ 0,40 |
| NKP-G 32-200.1/205 T 5,5 | Full | ≥ 0,40 |
| NKP-G 32-200.1/188 T 4 | Turned | |
| NKM-G 32-125/142 T 0,37 | Full | ≥ 0,40 |
| NKP-G 32-125/142 T 3 | Full | ≥ 0,40 |
| NKP-G 32-125/110 T 1,1 | Turned | |
| NKP-G 32-125/120 T 1,5 | Turned | |
| NKP-G 32-125/130 T 2,2 | Turned | |
| NKM-G 32-160/169 T 0,55 | Full | ≥ 0,40 |
| NKP-G 32-160/177 T 5,5 | Full | ≥ 0,40 |
| NKP-G 32-160/151 T 3 | Turned | |
| NKP-G 32-160/163 T 4 | Turned | |
| NKM-G 32-200/219 T 1,1 | Full | ≥ 0,60 |
| NKM-G 32-200/200 T 0,75 | Turned | |
| NKP-G 32-200/210 T 7,5 | Full | ≥ 0,50 |
| NKP-G 32-200/190 T 5,5 | Turned | |
| NKM-G 40-125/142 T 0,55 | Full | ≥ 0,40 |
| NKM-G 40-125/115 T 0,25 | Turned | |
| NKM-G 40-125/130 T 0,37 | Turned | |
| NKP-G 40-125/139 1 A T 4 | Full | ≥ 0,40 |
| NKP-G 40-125/107 7 A T 1,5 | Turned | |
| NKP-G 40-125/120 5 A T 2,2 | Turned | |
| NKP-G 40-125/130 3 A T 3 | Turned | |
| NKM-G 40-160/166 T 0,75 | Full | ≥ 0,40 |
| NKM-G 40-160/153 T 0,55 | Turned | |
| NKP-G 40-160/172 T 7,5 | Full | ≥ 0,50 |
| NKP-G 40-160/158 T 5,5 | Turned | |
| NKM-G 40-200/219 T 1,5 | Full | ≥ 0,60 |
| NKM-G 40-200/200 T 1,1 | Turned | |
| NKP-G 40-200/210 T 11 | Full | ≥ 0,40 |

| PUMP MODEL | IMPELLER | MEI |
|-------------------------|----------|--------|
| NKM-G 40-250/260 T 3 | Full | ≥ 0,60 |
| NKM-G 40-250/245 T 2,2 | Turned | |
| NKP-G 40-250/260 T 22 | Full | ≥ 0,50 |
| NKP-G 40-250/230 T 15 | Turned | |
| NKP-G 40-250/245 T 18,5 | Turned | |
| NKM-G 50-125/141 T 0,75 | Full | ≥ 0,40 |
| NKM-G 50-125/130 T 0,55 | Turned | |
| NKP-G 50-125/144 T 6,9 | Full | ≥ 0,40 |
| NKP-G 50-125/115 T 3 | Turned | |
| NKP-G 50-125/125 T 4 | Turned | |
| NKP-G 50-125/135 T 5,5 | Turned | ≥ 0,60 |
| NKM-G 50-160/177 T 1,5 | Full | |
| NKM-G 50-160/161 T 1,1 | Turned | ≥ 0,40 |
| NKP-G 50-160/169 T 11 | Full | |
| NKP-G 50-160/153 T 7,5 | Turned | |
| NKM-G 50-200/219 T 3 | Full | ≥ 0,60 |
| NKM-G 50-200/210 T 2,2 | Turned | |
| NKP-G 50-200/219 T 22 | Full | ≥ 0,50 |
| NKP-G 50-200/200 T 15 | Turned | |
| NKP-G 50-200/210 T 18,5 | Turned | |
| NKM-G 50-250/263 T 4 | Full | ≥ 0,60 |
| NKP-G 50-250/257 T 30 | Full | ≥ 0,40 |
| NKP-G 50-250/230 T 22 | Turned | |
| NKM-G 65-125/144 T 1,1 | Full | ≥ 0,40 |
| NKM-G 65-125/130 T 0,75 | Turned | |
| NKP-G 65-125/137 T 7,5 | Full | ≥ 0,40 |
| NKP-G 65-125/120 T 4 | Turned | |
| NKP-G 65-125/127 T 5,5 | Turned | |
| NKM-G 65-160/177 T 2,2 | Full | ≥ 0,60 |
| NKM-G 65-160/153 T 1,1 | Turned | |
| NKM-G 65-160/165 T 1,5 | Turned | |
| NKP-G 65-160/173 T 15 | Full | ≥ 0,50 |
| NKP-G 65-160/157 T 11 | Turned | |
| NKM-G 65-200/219 T 4 | Full | ≥ 0,60 |
| NKM-G 65-200/210 T 3 | Turned | |
| NKP-G 65-200/219 T 30 | Full | ≥ 0,70 |
| NKP-G 65-200/190 T 18,5 | Turned | |
| NKP-G 65-200/200 T 22 | Turned | |
| NKM-G 65-250/263 T 5,5 | Full | ≥ 0,50 |
| NKM-G 65-315/309 T 11 | Full | ≥ 0,40 |
| NKM-G 65-315/279 T 7,5 | Turned | |

HYDRAULIC EFFICIENCY

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| PUMP MODEL | IMPELLER | MEI |
|----------------------------|----------|----------------|
| NKM-G 80-160/177 T 3 | Full | $\geq 0,40$ |
| NKM-G 80-160/153-136 T 1,5 | Turned | |
| NKM-G 80-160/163 T 2,2 | Turned | |
| NKP-G 80-160/169 T 22 | Full | $\geq 0,40$ |
| NKP-G 80-160/147-127 T 11 | Turned | |
| NKP-G 80-160/153 T 15 | Turned | |
| NKP-G 80-160/163 T 18,5 | Turned | |
| NKM-G 80-200/222 T 5,5 | Full | $\geq 0,40$ |
| NKM-G 80-200/200 T 4 | Turned | |
| NKP-G 80-200/190 T 30 | Full | $\geq 0,40$ |
| NKM-G 80-250/270 T 11 | Full | $\geq 0,40$ |
| NKM-G 80-250/240 T 7,5 | Turned | |
| NKM-G 80-315/334 T 22 | Full | $\geq 0,50$ |
| NKM-G 80-315/305 T 15 | Turned | |
| NKM-G 80-315/320 T 18,5 | Turned | |
| NKM-G 100-200/214 T 7,5 | Full | $\geq 0,40$ |
| NKM-G 100-200/200 T 5,5 | Turned | |
| NKM-G 100-250/270 T 15 | Full | $\geq 0,40$ |
| NKM-G 100-250/250 T 11 | Turned | |
| NKM-G 100-315/316 T 22 | Full | $\geq 0,40$ |
| NKM-G 100-315/300 T 18,5 | Turned | |
| NKM-G 125-250/266 T 22 | Full | $\geq 0,40$ |
| NKM-G 125-250/243 T 15 | Turned | |
| NKM-G 125-250/256 T 18,5 | Turned | |
| NKM-G 150-200/218 T 11 | – | not applicable |

| PUMP MODEL | IMPELLER | MEI |
|---------------------|----------|-------------|
| KDN 32-125.1/140 4P | Full | $\geq 0,40$ |
| KDN 32-125.1/105 4P | Turned | |
| KDN 32-125.1/110 4P | Turned | |
| KDN 32-125.1/115 4P | Turned | |
| KDN 32-125.1/120 4P | Turned | |
| KDN 32-125.1/125 4P | Turned | |
| KDN 32-125.1/130 4P | Turned | |
| KDN 32-125.1/135 4P | Turned | $\geq 0,40$ |
| KDN 32-125.1/140 2P | Full | |
| KDN 32-125.1/105 2P | Turned | |
| KDN 32-125.1/110 2P | Turned | |
| KDN 32-125.1/115 2P | Turned | |
| KDN 32-125.1/120 2P | Turned | |
| KDN 32-125.1/125 2P | Turned | |
| KDN 32-125.1/130 2P | Turned | $\geq 0,40$ |
| KDN 32-125.1/135 2P | Turned | |
| KDN 32-160.1/177 4P | Full | |
| KDN 32-160.1/137 4P | Turned | |
| KDN 32-160.1/145 4P | Turned | |
| KDN 32-160.1/153 4P | Turned | |
| KDN 32-160.1/161 4P | Turned | |
| KDN 32-160.1/169 4P | Turned | $\geq 0,40$ |
| KDN 32-160.1/177 2P | Full | |
| KDN 32-160.1/137 2P | Turned | |
| KDN 32-160.1/145 2P | Turned | |
| KDN 32-160.1/153 2P | Turned | |
| KDN 32-160.1/161 2P | Turned | |
| KDN 32-160.1/169 2P | Turned | |
| KDN 32-200.1/207 4P | Full | $\geq 0,50$ |
| KDN 32-200.1/170 4P | Turned | |
| KDN 32-200.1/180 4P | Turned | |
| KDN 32-200.1/190 4P | Turned | |
| KDN 32-200.1/200 4P | Turned | |
| KDN 32-200.1/207 2P | Full | $\geq 0,40$ |
| KDN 32-200.1/170 2P | Turned | |
| KDN 32-200.1/180 2P | Turned | |
| KDN 32-200.1/190 2P | Turned | |
| KDN 32-200.1/200 2P | Turned | |

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| PUMP MODEL | IMPELLER | MEI |
|-------------------|----------|--------|
| KDN 32-125/142 4P | Full | ≥ 0,50 |
| KDN 32-125/115 4P | Turned | |
| KDN 32-125/120 4P | Turned | |
| KDN 32-125/125 4P | Turned | |
| KDN 32-125/130 4P | Turned | |
| KDN 32-125/135 4P | Turned | |
| KDN 32-125/142 2P | Full | ≥ 0,40 |
| KDN 32-125/115 2P | Turned | |
| KDN 32-125/120 2P | Turned | |
| KDN 32-125/125 2P | Turned | |
| KDN 32-125/130 2P | Turned | |
| KDN 32-125/135 2P | Turned | |
| KDN 32-160/177 4P | Full | ≥ 0,40 |
| KDN 32-160/137 4P | Turned | |
| KDN 32-160/145 4P | Turned | |
| KDN 32-160/153 4P | Turned | |
| KDN 32-160/161 4P | Turned | |
| KDN 32-160/169 4P | Turned | |
| KDN 32-160/177 2P | Full | ≥ 0,40 |
| KDN 32-160/137 2P | Turned | |
| KDN 32-160/145 2P | Turned | |
| KDN 32-160/153 2P | Turned | |
| KDN 32-160/161 2P | Turned | |
| KDN 32-160/169 2P | Turned | |
| KDN 32-200/219 4P | Full | ≥ 0,60 |
| KDN 32-200/170 4P | Turned | |
| KDN 32-200/180 4P | Turned | |
| KDN 32-200/190 4P | Turned | |
| KDN 32-200/200 4P | Turned | |
| KDN 32-200/210 4P | Turned | |
| KDN 32-200/219 2P | Full | ≥ 0,60 |
| KDN 32-200/170 2P | Turned | |
| KDN 32-200/180 2P | Turned | |
| KDN 32-200/190 2P | Turned | |
| KDN 32-200/200 2P | Turned | |
| KDN 32-200/210 2P | Turned | |

| PUMP MODEL | IMPELLER | MEI |
|-------------------|----------|--------|
| KDN 40-125/142 4P | Full | ≥ 0,40 |
| KDN 40-125/115 4P | Turned | |
| KDN 40-125/120 4P | Turned | |
| KDN 40-125/125 4P | Turned | |
| KDN 40-125/130 4P | Turned | |
| KDN 40-125/135 4P | Turned | |
| KDN 40-125/142 2P | Full | ≥ 0,40 |
| KDN 40-125/115 2P | Turned | |
| KDN 40-125/120 2P | Turned | |
| KDN 40-125/125 2P | Turned | |
| KDN 40-125/130 2P | Turned | |
| KDN 40-125/135 2P | Turned | |
| KDN 40-160/177 4P | Full | ≥ 0,40 |
| KDN 40-160/137 4P | Turned | |
| KDN 40-160/145 4P | Turned | |
| KDN 40-160/153 4P | Turned | |
| KDN 40-160/161 4P | Turned | |
| KDN 40-160/169 4P | Turned | |
| KDN 40-160/177 2P | Full | ≥ 0,50 |
| KDN 40-160/137 2P | Turned | |
| KDN 40-160/145 2P | Turned | |
| KDN 40-160/153 2P | Turned | |
| KDN 40-160/161 2P | Turned | |
| KDN 40-160/169 2P | Turned | |
| KDN 40-200/219 4P | Full | ≥ 0,60 |
| KDN 40-200/170 4P | Turned | |
| KDN 40-200/180 4P | Turned | |
| KDN 40-200/190 4P | Turned | |
| KDN 40-200/200 4P | Turned | |
| KDN 40-200/210 4P | Turned | |
| KDN 40-200/219 2P | Full | ≥ 0,50 |
| KDN 40-200/170 2P | Turned | |
| KDN 40-200/180 2P | Turned | |
| KDN 40-200/190 2P | Turned | |
| KDN 40-200/200 2P | Turned | |
| KDN 40-200/210 2P | Turned | |

HYDRAULIC EFFICIENCY

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| PUMP MODEL | IMPELLER | MEI |
|-------------------|----------|--------|
| KDN 40-250/260 4P | Full | ≥ 0,40 |
| KDN 40-250/220 4P | Turned | |
| KDN 40-250/230 4P | Turned | |
| KDN 40-250/240 4P | Turned | |
| KDN 40-250/250 4P | Turned | |
| KDN 40-250/260 2P | Full | ≥ 0,40 |
| KDN 40-250/220 2P | Turned | |
| KDN 40-250/230 2P | Turned | |
| KDN 40-250/240 2P | Turned | |
| KDN 40-250/250 2P | Turned | |
| KDN 50-125/144 4P | Full | ≥ 0,40 |
| KDN 50-125/115 4P | Turned | |
| KDN 50-125/120 4P | Turned | |
| KDN 50-125/125 4P | Turned | |
| KDN 50-125/130 4P | Turned | |
| KDN 50-125/135 4P | Turned | |
| KDN 50-125/139 4P | Turned | |
| KDN 50-125/144 2P | Full | ≥ 0,40 |
| KDN 50-125/115 2P | Turned | |
| KDN 50-125/120 2P | Turned | |
| KDN 50-125/125 2P | Turned | |
| KDN 50-125/130 2P | Turned | |
| KDN 50-125/135 2P | Turned | |
| KDN 50-125/139 2P | Turned | |
| KDN 50-160/177 4P | Full | ≥ 0,60 |
| KDN 50-160/137 4P | Turned | |
| KDN 50-160/145 4P | Turned | |
| KDN 50-160/153 4P | Turned | |
| KDN 50-160/161 4P | Turned | |
| KDN 50-160/169 4P | Turned | |
| KDN 50-160/177 2P | Full | ≥ 0,50 |
| KDN 50-160/137 2P | Turned | |
| KDN 50-160/145 2P | Turned | |
| KDN 50-160/153 2P | Turned | |
| KDN 50-160/161 2P | Turned | |
| KDN 50-160/169 2P | Turned | |

| PUMP MODEL | IMPELLER | MEI |
|-----------------------|----------|--------|
| KDN 50-200/219 4P | Full | ≥ 0,60 |
| KDN 50-200/170 4P | Turned | |
| KDN 50-200/180 4P | Turned | |
| KDN 50-200/190 4P | Turned | |
| KDN 50-200/200 4P | Turned | |
| KDN 50-200/210 4P | Turned | ≥ 0,40 |
| KDN 50-200/219 2P | Full | |
| KDN 50-200/170 2P | Turned | |
| KDN 50-200/180 2P | Turned | |
| KDN 50-200/190 2P | Turned | |
| KDN 50-200/200 2P | Turned | ≥ 0,60 |
| KDN 50-200/210 2P | Turned | |
| KDN 50-250/263 4P | Full | |
| KDN 50-250/220 4P | Turned | |
| KDN 50-250/230 4P | Turned | |
| KDN 50-250/240 4P | Turned | ≥ 0,50 |
| KDN 50-250/250 4P | Turned | |
| KDN 50-250/263 2P | Full | |
| KDN 50-250/220 2P | Turned | |
| KDN 50-250/230 2P | Turned | |
| KDN 50-250/240 2P | Turned | |
| KDN 50-250/250 2P | Turned | ≥ 0,40 |
| KDN 65-125/144 4P | Full | |
| KDN 65-125/120-110 4P | Turned | |
| KDN 65-125/120 4P | Turned | |
| KDN 65-125/125 4P | Turned | |
| KDN 65-125/130 4P | Turned | ≥ 0,40 |
| KDN 65-125/135 4P | Turned | |
| KDN 65-125/140 4P | Turned | |
| KDN 65-125/144 2P | Full | |
| KDN 65-125/120-110 2P | Turned | |
| KDN 65-125/120 2P | Turned | ≥ 0,40 |
| KDN 65-125/125 2P | Turned | |
| KDN 65-125/130 2P | Turned | |
| KDN 65-125/135 2P | Turned | |
| KDN 65-125/140 2P | Turned | |

HYDRAULIC EFFICIENCY

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| PUMP MODEL | IMPELLER | MEI |
|-------------------|----------|--------|
| KDN 65-160/177 4P | Full | ≥ 0,60 |
| KDN 65-160/137 4P | Turned | |
| KDN 65-160/145 4P | Turned | |
| KDN 65-160/153 4P | Turned | |
| KDN 65-160/161 4P | Turned | |
| KDN 65-160/169 4P | Turned | ≥ 0,50 |
| KDN 65-160/177 2P | Full | |
| KDN 65-160/137 2P | Turned | |
| KDN 65-160/145 2P | Turned | |
| KDN 65-160/153 2P | Turned | |
| KDN 65-160/161 2P | Turned | ≥ 0,60 |
| KDN 65-160/169 2P | Turned | |
| KDN 65-200/219 4P | Full | |
| KDN 65-200/170 4P | Turned | |
| KDN 65-200/180 4P | Turned | |
| KDN 65-200/190 4P | Turned | ≥ 0,60 |
| KDN 65-200/200 4P | Turned | |
| KDN 65-200/210 4P | Turned | |
| KDN 65-200/219 2P | Full | |
| KDN 65-200/170 2P | Turned | |
| KDN 65-200/180 2P | Turned | ≥ 0,60 |
| KDN 65-200/190 2P | Turned | |
| KDN 65-200/200 2P | Turned | |
| KDN 65-200/210 2P | Turned | |
| KDN 65-250/263 4P | Full | ≥ 0,50 |
| KDN 65-250/220 4P | Turned | |
| KDN 65-250/230 4P | Turned | |
| KDN 65-250/240 4P | Turned | |
| KDN 65-250/250 4P | Turned | |
| KDN 65-250/263 2P | Full | ≥ 0,50 |
| KDN 65-250/220 2P | Turned | |
| KDN 65-250/230 2P | Turned | |
| KDN 65-250/240 2P | Turned | |
| KDN 65-250/250 2P | Turned | |

| PUMP MODEL | IMPELLER | MEI |
|-----------------------|----------|--------|
| KDN 65-315/320 4P | Full | ≥ 0,50 |
| KDN 65-315/260 4P | Turned | |
| KDN 65-315/275 4P | Turned | |
| KDN 65-315/290 4P | Turned | |
| KDN 65-315/305 4P | Turned | |
| KDN 65-315/320 2P | Full | ≥ 0,50 |
| KDN 65-315/260 2P | Turned | |
| KDN 65-315/275 2P | Turned | |
| KDN 65-315/290 2P | Turned | |
| KDN 65-315/305 2P | Turned | |
| KDN 80-160/177 4P | Full | ≥ 0,50 |
| KDN 80-160/147-127 4P | Turned | |
| KDN 80-160/153-136 4P | Turned | |
| KDN 80-160/153 4P | Turned | |
| KDN 80-160/161 4P | Turned | |
| KDN 80-160/169 4P | Turned | ≥ 0,40 |
| KDN 80-160/177 2P | Full | |
| KDN 80-160/147-127 2P | Turned | |
| KDN 80-160/153-136 2P | Turned | |
| KDN 80-160/153 2P | Turned | |
| KDN 80-160/161 2P | Turned | ≥ 0,50 |
| KDN 80-160/169 2P | Turned | |
| KDN 80-200/222 4P | Full | |
| KDN 80-200/170 4P | Turned | |
| KDN 80-200/180 4P | Turned | |
| KDN 80-200/190 4P | Turned | ≥ 0,40 |
| KDN 80-200/200 4P | Turned | |
| KDN 80-200/210 4P | Turned | |
| KDN 80-200/222 2P | Full | |
| KDN 80-200/170 2P | Turned | |
| KDN 80-200/180 2P | Turned | ≥ 0,40 |
| KDN 80-200/190 2P | Turned | |
| KDN 80-200/200 2P | Turned | |
| KDN 80-200/210 2P | Turned | |

HYDRAULIC EFFICIENCY

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| PUMP MODEL | IMPELLER | MEI |
|--------------------|----------|--------|
| KDN 80-250/270 4P | Full | ≥ 0,40 |
| KDN 80-250/220 4P | Turned | |
| KDN 80-250/230 4P | Turned | |
| KDN 80-250/240 4P | Turned | |
| KDN 80-250/250 4P | Turned | |
| KDN 80-250/260 4P | Turned | ≥ 0,40 |
| KDN 80-250/270 2P | Full | |
| KDN 80-250/220 2P | Turned | |
| KDN 80-250/230 2P | Turned | |
| KDN 80-250/240 2P | Turned | |
| KDN 80-250/250 2P | Turned | ≥ 0,40 |
| KDN 80-250/260 2P | Turned | |
| KDN 80-315/334 4P | Full | |
| KDN 80-315/275 4P | Turned | |
| KDN 80-315/290 4P | Turned | |
| KDN 80-315/305 4P | Turned | ≥ 0,40 |
| KDN 80-315/320 4P | Turned | |
| KDN 80-315/290 2P | Full | |
| KDN 80-315/275 2P | Turned | |
| KDN 100-200/219 4P | Full | ≥ 0,40 |
| KDN 100-200/180 4P | Turned | |
| KDN 100-200/190 4P | Turned | |
| KDN 100-200/200 4P | Turned | |
| KDN 100-200/210 4P | Turned | |
| KDN 100-200/219 2P | Full | ≥ 0,40 |
| KDN 100-200/180 2P | Turned | |
| KDN 100-200/190 2P | Turned | |
| KDN 100-200/200 2P | Turned | |
| KDN 100-200/210 2P | Turned | |

| PUMP MODEL | IMPELLER | MEI |
|------------------------|----------|----------------|
| KDN 100-250/270 4P | Full | ≥ 0,40 |
| KDN 100-250/220 4P | Turned | |
| KDN 100-250/230 4P | Turned | |
| KDN 100-250/240 4P | Turned | |
| KDN 100-250/250 4P | Turned | |
| KDN 100-250/260 4P | Turned | ≥ 0,40 |
| KDN 100-250/260 2P | Full | |
| KDN 100-250/220 2P | Turned | |
| KDN 100-250/230 2P | Turned | |
| KDN 100-250/240 2P | Turned | |
| KDN 100-250/250 2P | Turned | ≥ 0,40 |
| KDN 100-315/334 4P | Full | |
| KDN 100-315/275 4P | Turned | |
| KDN 100-315/290 4P | Turned | |
| KDN 100-315/305 4P | Turned | |
| KDN 100-315/320 4P | Turned | ≥ 0,40 |
| KDN 125-250/269 4P | Full | |
| KDN 125-250/220 4P | Turned | |
| KDN 125-250/230 4P | Turned | |
| KDN 125-250/240 4P | Turned | |
| KDN 125-250/250 4P | Turned | not applicable |
| KDN 125-250/260 4P | Turned | |
| KDN 150-200/218 4P | Full | |
| KDN 150-200/210-170 4P | Turned | |
| KDN 150-200/218-182 4P | Turned | |
| KDN 150-200/218-200 4P | Turned | |

HYDRAULIC EFFICIENCY

EU 547/2012 REGULATION - MEI

| PUMP MODEL | NUMBER OF STAGES | MEI | η PL | η BEP | η OL | |
|-------------|------------------|-------------|-------------|------------|-----------|-------|
| KVC 25/30 M | 3 | $\geq 0,40$ | 31.30 | 34.00 | 33.56 | |
| KVC 25/30 T | | | 32.38 | 34.30 | 33.85 | |
| KVC 15/30 M | 2 | | 35.93 | 38.72 | 38.51 | |
| KVC 15/30 T | | | 29.86 | 31.50 | 31.20 | |
| KVC 35/30 M | 4 | | 35.95 | 38.50 | 37.99 | |
| KVC 35/30 T | | | 34.43 | 37.02 | 36.55 | |
| KVC 45/30 M | 5 | | 34.29 | 36.35 | 36.08 | |
| KVC 45/30 T | | | 35.00 | 37.44 | 37.00 | |
| KVC 50/30 M | 6 | | 29.03 | 30.86 | 30.56 | |
| KVC 50/30 T | | | 30.67 | 32.77 | 32.21 | |
| KVC 60/30 M | 7 | | 28.82 | 30.95 | 30.56 | |
| KVC 60/30 T | | | 30.25 | 32.28 | 31.96 | |
| KVC 70/30 M | 8 | | 35.16 | 37.89 | 37.32 | |
| KVC 70/30 T | | | 30.29 | 32.40 | 31.98 | |
| KVC 30/50 M | 3 | $\geq 0,60$ | 40.75 | 43.10 | 42.76 | |
| KVC 30/50 T | | | 40.19 | 43.10 | 42.60 | |
| KVC 20/50 M | 2 | | 41.40 | 42.95 | 42.35 | |
| KVC 20/50 T | | | 38.53 | 41.47 | 41.04 | |
| KVC 40/50 M | 4 | | 40.73 | 43.34 | 42.91 | |
| KVC 40/50 T | | | 38.85 | 41.40 | 40.92 | |
| KVC 55/50 M | 5 | | 38.90 | 41.70 | 41.20 | |
| KVC 55/50 T | | | 38.97 | 41.61 | 41.15 | |
| KVC 65/50 M | 6 | | 37.53 | 39.21 | 38.75 | |
| KVC 65/50 T | | | 36.52 | 40.13 | 39.42 | |
| KVC 75/50 M | 7 | | 36.39 | 38.91 | 38.35 | |
| KVC 75/50 T | | | 36.51 | 39.61 | 39.05 | |
| KVC 20/80 M | 3 | | $\geq 0,40$ | 45.00 | 47.70 | 47.37 |
| KVC 20/80 T | | | | 45.45 | 47.80 | 47.29 |
| KVC 15/80 M | 2 | 43.13 | | 46.70 | 45.99 | |
| KVC 15/80 T | | 41.78 | | 44.09 | 43.43 | |
| KVC 30/80 M | 4 | 44.06 | | 46.30 | 45.84 | |
| KVC 30/80 T | | 42.16 | | 45.10 | 44.44 | |
| KVC 40/80 M | 5 | 43.43 | | 46.97 | 46.80 | |
| KVC 40/80 T | | 41.94 | | 44.40 | 43.89 | |
| KVC 45/80 M | 6 | 41.91 | | 43.96 | 43.57 | |
| KVC 45/80 T | | 41.06 | | 43.74 | 43.31 | |
| KVC 55/80 M | 7 | 41.05 | | 43.00 | 42.63 | |
| KVC 55/80 T | | 40.75 | | 43.51 | 43.05 | |
| KVC 65/80 T | 8 | 41.08 | | 44.02 | 43.48 | |

HYDRAULIC EFFICIENCY

HYDRAULIC EFFICIENCY

EU 547/2012 REGULATION - MEI

| PUMP MODEL | NUMBER OF STAGES | MEI | η_{PL} | η_{BEP} | η_{OL} |
|--------------|------------------|-------------|-------------|--------------|-------------|
| KVC 35/120 M | 3 | $\geq 0,50$ | 49.31 | 51.00 | 50.76 |
| KVC 35/120 T | | | 49.83 | 51.80 | 51.38 |
| KVC 25/120 M | 2 | | 45.13 | 46.90 | 46.75 |
| KVC 25/120 T | | | 42.16 | 44.54 | 44.20 |
| KVC 45/120 M | 4 | | 47.59 | 49.50 | 48.96 |
| KVC 45/120 T | | | 47.47 | 49.30 | 49.00 |
| KVC 60/120 T | 5 | | 47.81 | 49.44 | 48.97 |
| KVC 70/120 T | 6 | | 47.58 | 49.00 | 48.61 |
| KVC 85/120 T | 7 | | 49.23 | 50.84 | 50.20 |

| PUMP MODEL | NUMBER OF STAGES | MEI | η_{PL} | η_{BEP} | η_{OL} |
|------------|------------------|-------------|-------------|--------------|-------------|
| KV 3/10 M | 10 | $\geq 0,40$ | 47.83 | 52.40 | 51.69 |
| KV 3/10 T | | | 48.71 | 52.30 | 51.44 |
| KV 3/12 M | 12 | | 49.22 | 53.67 | 52.94 |
| KV 3/12 T | | | 45.09 | 48.45 | 47.97 |
| KV 3/15 M | 15 | | 46.57 | 50.40 | 49.75 |
| KV 3/15 T | | | 47.81 | 52.55 | 51.54 |
| KV 3/18 T | 18 | | 48.11 | 41.91 | 51.17 |
| KV 6/7 M | 7 | $\geq 0,40$ | 50.28 | 54.00 | 53.47 |
| KV 6/7 T | | | 50.66 | 54.57 | 53.74 |
| KV 6/9 M | 9 | | 50.52 | 55.10 | 54.34 |
| KV 6/9 T | | | 45.85 | 49.42 | 49.11 |
| KV 6/11 M | 11 | | 49.10 | 52.67 | 52.16 |
| KV 6/11 T | | | 48.37 | 51.58 | 51.06 |
| KV 6/15 T | 15 | | 51.09 | 55.20 | 54.44 |
| KV 10/4 M | 4 | $\geq 0,40$ | 53.89 | 55.88 | 55.60 |
| KV 10/4 T | | | 53.72 | 57.24 | 56.93 |
| KV 10/5 M | 5 | | 54.72 | 57.27 | 56.81 |
| KV 10/5 T | | | 54.92 | 57.35 | 56.73 |
| KV 10/6 M | 6 | | 57.77 | 60.20 | 59.48 |
| KV 10/6 T | | | 57.97 | 60.30 | 59.88 |
| KV 10/8 T | 8 | | 57.41 | 60.77 | 60.59 |

HYDRAULIC EFFICIENCY

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| PUMP MODEL | NUMBER OF STAGES | MEI | η_{PL} | η_{BEP} | η_{OL} |
|------------|------------------|-------------|-------------|--------------|-------------|
| NKV 10/3 | 3 | $\geq 0,60$ | 63.39 | 66.41 | 65.77 |
| NKV 10/2 | 2 | | 64.88 | 67.70 | 67.39 |
| NKV 10/4 | 4 | | 63.30 | 65.89 | 65.29 |
| NKV 10/5 | 5 | | 65.48 | 69.58 | 68.81 |
| NKV 10/6 | 6 | | 66.55 | 68.40 | 67.76 |
| NKV 10/7 | 7 | | 66.11 | 68.52 | 67.86 |
| NKV 10/8 | 8 | | 64.66 | 67.13 | 66.08 |
| NKV 10/9 | 9 | | 66.77 | 68.94 | 68.26 |
| NKV 10/10 | 10 | | 66.44 | 69.13 | 68.43 |
| NKV 10/12 | 12 | | 65.97 | 68.88 | 67.71 |
| NKV 10/14 | 14 | | 63.80 | 66.29 | 65.51 |
| NKV 10/16 | 16 | | 62.88 | 65.32 | 64.69 |
| NKV 10/18 | 18 | | 64.39 | 66.91 | 66.19 |
| NKV 10/20 | 20 | | 64.45 | 66.82 | 66.19 |
| NKV 10/22 | 22 | | 65.23 | 67.61 | 66.72 |

| PUMP MODEL | NUMBER OF STAGES | MEI | η_{PL} | η_{BEP} | η_{OL} |
|------------|------------------|-------------|-------------|--------------|-------------|
| NKV 15/3 | 3 | $\geq 0,60$ | 68.74 | 72.03 | 71.26 |
| NKV 15/2 | 2 | | 67.43 | 71.35 | 70.68 |
| NKV 15/4 | 4 | | 70.15 | 72.54 | 71.91 |
| NKV 15/5 | 5 | | 70.40 | 74.23 | 73.48 |
| NKV 15/6 | 6 | | 70.19 | 73.29 | 72.46 |
| NKV 15/7 | 7 | | 69.81 | 73.65 | 72.91 |
| NKV 15/8 | 8 | | 68.06 | 71.49 | 70.86 |
| NKV 15/9 | 9 | | 69.77 | 73.07 | 72.30 |
| NKV 15/10 | 10 | | 66.95 | 70.35 | 69.67 |
| NKV 15/12 | 12 | | 70.09 | 74.28 | 73.55 |
| NKV 15/14 | 14 | | 69.44 | 72.75 | 72.00 |
| NKV 15/16 | 16 | | 70.90 | 74.76 | 74.01 |
| NKV 15/17 | 17 | | 70.55 | 74.26 | 73.35 |

HYDRAULIC EFFICIENCY

EU 547/2012 REGULATION - MEI

| PUMP MODEL | NUMBER OF STAGES | MEI | η_{PL} | η_{BEP} | η_{OL} |
|------------|------------------|-------------|-------------|--------------|-------------|
| NKV 20/3 | 3 | $\geq 0,60$ | 70.47 | 71.40 | 70.59 |
| NKV 20/2 | 2 | | 67.45 | 73.36 | 72.50 |
| NKV 20/4 | 4 | | 66.24 | 69.74 | 69.33 |
| NKV 20/5 | 5 | | 72.31 | 74.50 | 73.90 |
| NKV 20/6 | 6 | | 70.37 | 73.40 | 72.90 |
| NKV 20/7 | 7 | | 70.13 | 74.04 | 73.38 |
| NKV 20/8 | 8 | | 69.63 | 72.06 | 71.60 |
| NKV 20/9 | 9 | | 71.68 | 74.41 | 73.68 |
| NKV 20/10 | 10 | | 70.44 | 73.42 | 72.96 |
| NKV 20/12 | 12 | | 71.47 | 74.11 | 73.45 |
| NKV 20/14 | 14 | | 71.33 | 75.51 | 74.86 |
| NKV 20/16 | 16 | | 71.04 | 74.50 | 74.00 |
| NKV 20/17 | 17 | | 71.67 | 74.66 | 74.14 |

| PUMP MODEL | NUMBER OF STAGES | MEI | η_{PL} | η_{BEP} | η_{OL} |
|-------------|------------------|-------------|-------------|--------------|-------------|
| NKV 32/3 | 3 | $\geq 0,70$ | 70.08 | 74.12 | 73.16 |
| NKV 32/2-2 | 2 | | 65.89 | 69.98 | 69.26 |
| NKV 32/2 | 2 | | 70.08 | 74.12 | 73.16 |
| NKV 32/3-2 | 3 | | 67.38 | 71.10 | 70.20 |
| NKV 32/4-2 | 4 | | 68.05 | 71.78 | 70.92 |
| NKV 32/4 | 4 | | 70.08 | 74.12 | 73.16 |
| NKV 32/5-2 | 5 | | 68.40 | 72.20 | 71.44 |
| NKV 32/5 | 5 | | 70.08 | 74.12 | 73.16 |
| NKV 32/6-2 | 6 | | 68.62 | 72.49 | 71.81 |
| NKV 32/6 | 6 | | 70.08 | 74.12 | 73.16 |
| NKV 32/7-2 | 7 | | 68.82 | 72.70 | 72.04 |
| NKV 32/7 | 7 | | 70.08 | 74.12 | 73.16 |
| NKV 32/8-2 | 8 | | 68.96 | 72.86 | 72.22 |
| NKV 32/8 | 8 | | 70.08 | 74.12 | 73.16 |
| NKV 32/9-2 | 9 | | 69.06 | 72.98 | 72.37 |
| NKV 32/9 | 9 | | 70.08 | 74.12 | 73.16 |
| NKV 32/10-2 | 10 | | 69.15 | 73.09 | 72.47 |
| NKV 32/10 | 10 | | 70.08 | 74.12 | 73.16 |
| NKV 32/11-2 | 11 | | 69.24 | 73.17 | 72.55 |
| NKV 32/11 | 11 | | 70.08 | 74.12 | 73.16 |
| NKV 32/12-2 | 12 | | 69.29 | 73.25 | 72.63 |
| NKV 32/12 | 12 | | 70.08 | 74.12 | 73.16 |
| NKV 32/13-2 | 13 | | 69.37 | 73.31 | 72.66 |
| NKV 32/13 | 13 | | 70.08 | 74.12 | 73.16 |

HYDRAULIC EFFICIENCY

EU 547/2012 REGULATION - MEI

| PUMP MODEL | NUMBER OF STAGES | MEI | η_{PL} | η_{BEP} | η_{OL} |
|-------------|------------------|-------------|-------------|--------------|-------------|
| NKV 45/3 | 3 | $\geq 0,70$ | 73.47 | 76.37 | 75.25 |
| NKV 45/2-2 | 2 | | 69.13 | 71.65 | 70.46 |
| NKV 45/2 | 2 | | 73.47 | 76.37 | 75.25 |
| NKV 45/3-2 | 3 | | 69.79 | 73.42 | 72.55 |
| NKV 45/4-2 | 4 | | 70.11 | 74.21 | 73.56 |
| NKV 45/4 | 4 | | 73.47 | 76.37 | 75.25 |
| NKV 45/5-2 | 5 | | 70.36 | 74.67 | 74.14 |
| NKV 45/5 | 5 | | 73.47 | 76.37 | 75.25 |
| NKV 45/6-2 | 6 | | 70.50 | 74.96 | 74.52 |
| NKV 45/6 | 6 | | 73.47 | 76.37 | 75.25 |
| NKV 45/7-2 | 7 | | 70.56 | 75.16 | 74.80 |
| NKV 45/7 | 7 | | 73.47 | 76.37 | 75.25 |
| NKV 45/8-2 | 8 | | 70.67 | 75.32 | 75.00 |
| NKV 45/8 | 8 | | 73.47 | 76.37 | 75.25 |
| NKV 45/9-2 | 9 | | 70.70 | 75.43 | 75.16 |
| NKV 45/9 | 9 | | 73.47 | 76.37 | 75.25 |
| NKV 45/10-2 | 10 | | 70.73 | 75.52 | 75.28 |
| NKV 45/10 | 10 | | 73.47 | 76.37 | 75.25 |
| NKV 45/11-2 | 11 | | 70.82 | 75.60 | 75.38 |
| NKV 45/11 | 11 | | 73.47 | 76.37 | 75.25 |
| NKV 45/12-2 | 12 | | 70.84 | 75.66 | 75.46 |
| NKV 45/12 | 12 | | 73.47 | 76.37 | 75.25 |
| NKV 45/13-2 | 13 | | 70.85 | 75.71 | 75.54 |

| PUMP MODEL | NUMBER OF STAGES | MEI | η_{PL} | η_{BEP} | η_{OL} |
|------------|------------------|-------------|-------------|--------------|-------------|
| NKV 65/3 | 3 | $\geq 0,70$ | 73.71 | 78.96 | 77.11 |
| NKV 65/2-2 | 2 | | 70.92 | 77.97 | 77.08 |
| NKV 65/2 | 2 | | 73.71 | 78.96 | 77.11 |
| NKV 65/3-2 | 3 | | 72.27 | 77.22 | 76.17 |
| NKV 65/4-2 | 4 | | 72.52 | 77.33 | 76.58 |
| NKV 65/4 | 4 | | 73.71 | 78.96 | 77.11 |
| NKV 65/5-2 | 5 | | 73.15 | 77.48 | 76.31 |
| NKV 65/5 | 5 | | 73.71 | 78.96 | 77.11 |
| NKV 65/6-2 | 6 | | 73.78 | 77.69 | 75.76 |
| NKV 65/6 | 6 | | 73.71 | 78.96 | 77.11 |
| NKV 65/7-2 | 7 | | 73.84 | 77.87 | 75.86 |
| NKV 65/7 | 7 | | 73.71 | 78.96 | 77.11 |
| NKV 65/8-2 | 8 | | 73.87 | 78.00 | 75.94 |
| NKV 65/8 | 8 | | 73.71 | 78.96 | 77.11 |

HYDRAULIC EFFICIENCY


EU 547/2012 REGULATION - MEI

| PUMP MODEL | NUMBER OF STAGES | MEI | η_{PL} | η_{BEP} | η_{OL} |
|------------|------------------|-------------|-------------|--------------|-------------|
| NKV 95/3 | 3 | $\geq 0,70$ | 74.38 | 79.43 | 77.94 |
| NKV 95/2-2 | 2 | | 72.37 | 78.87 | 77.79 |
| NKV 95/2 | 2 | | 74.38 | 79.43 | 77.94 |
| NKV 95/3-2 | 3 | | 73.03 | 78.58 | 77.65 |
| NKV 95/4-2 | 4 | | 73.56 | 78.64 | 77.44 |
| NKV 95/4 | 4 | | 74.38 | 79.43 | 77.94 |
| NKV 95/5-2 | 5 | | 73.82 | 78.74 | 77.41 |
| NKV 95/5 | 5 | | 74.38 | 79.43 | 77.94 |
| NKV 95/6-2 | 6 | | 73.90 | 78.83 | 77.51 |
| NKV 95/6 | 6 | | 74.38 | 79.43 | 77.94 |

ACCESSORIES


ACCESSORIES


CENTRIFUGAL PUMPS

| COUNTER-FLANGE KIT | MODEL | COUNTER FLANGES AND GASKETS | THREADED | MATERIAL | PN | NKM-GE - NKP-GE NKM-G- NKP-G | KDNE - KDN |
|--|----------|-----------------------------|--------------|----------|------------------|---------------------------------|------------|
|  <p>DN 32</p> | DN 32 | 1 x DN 32 + 1 x DN 50 | Threaded | STEEL | 16 | • | • |
| | DN 40 | 1 x DN 40 + 1 x DN 65 | Threaded | STEEL | 16 | • | • |
| | DN 50 | 1 x DN 50 + 1 x DN 65 | Threaded | STEEL | 16 | • | • |
| | DN 65 | 1 x DN 65 + 1 x DN 80 | Threaded | STEEL | 16 | • | • |
| | DN 32 | 1 x DN 32 + 1 x DN 50 | To be welded | STEEL | 16 | • | • |
| | DN 40 | 1 x DN 40 + 1 x DN 65 | To be welded | STEEL | 16 | • | • |
| | DN 50 | 1 x DN 50 + 1 x DN 65 | To be welded | STEEL | 16 | • | • |
| | DN 50/1 | 1 x DN 50 + 1 x DN 80 | To be welded | STEEL | 16 | | • |
| | DN 65 | 1 x DN 65 + 1 x DN 80 | To be welded | STEEL | 16 | • | • |
| | DN 65/1 | 1 x DN 65 + 1 x DN 100 | To be welded | STEEL | 16 | | • |
| | DN 80 | 1 x DN 80 + 1 x DN 100 | To be welded | STEEL | 16 | • | • |
| | DN 80/1 | 1 x DN 80 + 1 x DN 125 | To be welded | STEEL | 16 | | • |
| | DN 100 | 1 x DN 100 + 1 x DN 125 | To be welded | STEEL | 16 | • | • |
| | DN 125 | 1 x DN 125 + 1 x DN 150 | To be welded | STEEL | 16 | • | • |
| | DN 150 | 1 x DN 150 + 1 x DN 200 | To be welded | STEEL | 16 (10 x DN 200) | • | • |
| | DN 200 | 1 x DN 200 + 1 x DN 250 | To be welded | STEEL | 16 (10 x DN 200) | | • |
| | DN 250/1 | 1 x DN 250 + 1 x DN 300 | To be welded | STEEL | 16 | | • |
| | DN 300 | 1 x DN 300 + 1 x DN 350 | To be welded | STEEL | 16 | | • |
| | DN 350 | 1 x DN 350 + 1 x DN 400 | To be welded | STEEL | 16 | | • |

The kit includes the suction and delivery counter-flanges with gaskets, screws and bolts required for the size of the relevant pump.

ACCESSORIES - VERTICAL CENTRIFUGAL PUMPS

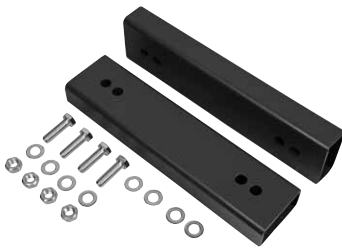
| COUNTER-FLANGE KIT | MODEL | COUNTER FLANGES AND GASKETS | THREADED | MATERIAL | PN | NKV 10-15-20 | NKV 32 - 45 | NKV 65- 95 |
|--|--------|-----------------------------|----------|----------|----|--------------|-------------|------------|
|  <p>DN 40</p> | DN 40 | 2 x DN 40 | Threaded | STEEL | 40 | • | | |
| | DN 50 | 2 x DN 50 | Threaded | STEEL | 40 | • | | |
| | DN 65 | 2 x DN 65 | Threaded | STEEL | 40 | | • | |
| | DN 80 | 2 x DN 80 | Threaded | STEEL | 40 | | • | • |
| | DN 100 | 2 x DN 100 | Threaded | STEEL | 25 | | | • |

| PORTS | MODEL | KVC | KVCX |
|---|---------------|-----|------|
|  | MT 1" ¼ PORTS | • | • |

Ports must be ordered separately, one for the suction, and one for the delivery

ACCESSORIES

CENTRIFUGAL PUMPS

| SPACER KIT | MODEL | FOR PUMP TYPE | P2 kW | DIMENSIONS A x B x H mm | NKM-G 4 POLES | NKP-G 2 POLES |
|--|------------------------|-------------------------|----------|----------------------------|---------------|---------------|
|  <p>SPACER KIT nr 5</p> | SPACER KIT nr 1 | NKM-G 65-315/309/1¼ | 11 | 90 x 335 x 65 | • | |
| | SPACER KIT nr 5 | NKM-G 80-250/270/1¼ | 11 | 80 x 290 x 40 | • | |
| | SPACER KIT nr 2 | NKM-G 80-315/305/15/4 | 15 | 90 x 335 x 90 | • | |
| | SPACER KIT nr 3 | NKM-G 80-315/320/18,5/4 | 18.5 | 100 x 320 x 70 | • | |
| | | NKM-G 80-315/334/22/4 | 22 | | | |
| | SPACER KIT nr 1 | NKM-G100-250/250/1¼ | 11 | 90 x 335 x 65 | • | |
| | | NKM-G100-250/270/15/4 | 15 | | | |
| | SPACER KIT nr 3 | NKM-G100-315/300/18.5/4 | 18.5 | 100 x 320 x 70 | • | |
| | | NKM-G100-315/316/22/4 | 22 | | | |
| | SPACER KIT nr 2 | NKM-G125-250/243/15/4 | 15 | 90 x 335 x 90 | • | |
| | SPACER KIT nr 3 | NKM-G125-250/256/18,5/4 | 18.5 | 100 x 320 x 70 | • | |
| | | NKM-G125-250/266/22/4 | 22 | | | |
| | SPACER KIT nr 4 | NKM-G150-200/218/1¼ | 11 | 80 x 290 x 120 | • | |
| | SPACER KIT nr 6 | NKP-G 32-125/142/ 3/2 | 3 | 50 x 100 x 20 | | • |
| | | NKP-G 32-160/177/5,5/2 | 5.5 | | | |
| | | NKP-G 40-125/130/ 3/2 | 3 | | | |
| | | NKP-G 40-125/139/ 4/2 | 4 | | | |
| | | NKP-G 40-160/158/ 5,5/2 | 5.5 | | | |
| | | NKP-G 40-160/172/ 7,5/2 | 7.5 | | | |
| | SPACER KIT nr 7 | NKP-G 40-200/210/1½ | 11 | 70 x 332 x 20 | | • |
| | | NKP-G 40-250/230/15/2 | 15 | | | |
| | | NKP-G 40-250/245/18,5/2 | 18.5 | | | |
| | SPACER KIT nr 6 | NKP-G 50-125/135/ 5,5/2 | 5.5 | 50 x 100 x 20 | | • |
| | | NKP-G 50-125/144/ 7,5/2 | 7.5 | | | |
| | SPACER KIT nr 7 | NKP-G 50-160/169/1½ | 11 | 70 x 332 x 20 | | • |
| | | NKP-G 50-200/200/15/2 | 15 | | | |
| | | NKP-G 50-200/210/18,5/2 | 18.5 | | | |
| | | NKP-G 65-160/157/1½ | 11 | | | |
| | | NKP-G 65-160/173/15/2 | 15 | | | |
| | | NKP-G 65-200/190/18,5/2 | 18.5 | | | |
| | | NKP-G 80-160/147-127/1½ | 11 | | | |
| | | NKP-G 80-160/153/15/2 | 15 | | | |
| | | NKP-G 80-160/163/18,5/2 | 18.5 | | | |
| | SPACER KIT nr 8 | NKP-G 80-200/190/30/2 | 30 | 70 x 125 x 20 | | • |

Available on request, separately from the pump. Used to place the pump in the horizontal position during installation, to compensate for the different pump / motor axis heights. The kits include two spacers with sizes A (width), B (length), and H (height) as shown in the table.

Spacers with H size exceeding 20 mm are supplied with screws, nuts, and washers to secure the pump/motor to the spacer.

TECHNICAL APPENDIX

CONVERSION TABLE FOR UNITS OF MEASURE

| CHARACTERISTIC | SYSTEM UNIT OF MEASURE | UNIT OF MEASURE | SYMBOL | CONVERSIONS | | |
|---|-----------------------------|--|---|---|--|---|
| | | | | SYSTEM | INTERNATIONAL SYSTEM (SI) | IMPERIAL SYSTEM |
| LENGTH | Technical and International | metre decimetre centimetre millimetre | m dm cm mm | 1 dm = 0,1 m 1 cm = 0,01 m 1 mm = 0,001 m | | 1 m = 3,28 ft 1 dm = 3,937 in 1 cm = 0,3937 in |
| | Imperial | inch foot yard | 1", in 1", ft yd | 1" = 25,4 mm 1" ft = 0,3048 m 1 yd = 0,9144 m | | 1 ft = 12" 1 yd = 3 ft = 26" |
| AREA | Technical and International | metres squared centimetres squared millimetres squared | m ² cm ² mm ² | 1 cm ² = 0,0001 m ² 1 mm ² = 0,01 cm ² | | 1 m ² = 1,196 sq.yd 1 m ² = 10,764 sq.ft 1 cm ² = 0,155 sq.in |
| | Imperial | square inch square foot square yard | sq.in sq.ft sq.yd | 1 sq.in = 6,45 cm ² 1 sq.ft = 0,0929 m ² 1 sq.yd = 0,836 m ² | | 1 sq.ft = 144 sq.in 1 sq.yd = 1,296 sq.in 1 sq.yd = 9 sq.ft |
| VOLUME | Technical and International | metre cubed decimetre cubed centimetre cubed litre cubed | m ³ cm ³ mm ³ l | 1 m ³ = 1.000 dm ³ 1 cm ³ = 0,001 m = 1.000 cm ³ 1 mm ³ = 0,001 dm ³ 1 l = dm ³ | | 1 dm ³ = 0,22 Imp.gal 1 dm ³ = 0,264 US.gal 1 dm ³ = 61,0 cu.in |
| | Imperial | cubic inch cubic feet Imperial gallons U.S. gallons | cu.in cu.ft Imp.gal USA.gal | 1 cu.in = 16,39 cm ³ 1 cu.ft = 28,34 m ³ 1 Imp.gal = 4,546 m ³ 1 US.gal = 3,785 dm ³ | | 1 Imp.gal = 1,201 US.gal 1 US.gal = 0,833 Imp.gal |
| TEMPERATURE | Technical and International | degrees Centigrade degrees Kelvin | °C °K | °C = °K-273 °K = °C + 273 | | °C = 5/9 x (°F - 32) °K = 5/9 x (°F - 32) + 273 |
| | Imperial | degrees Fahrenheit | °F | °F = 9/5 x °C + 32 | | — |
| freezing point of water at atmospheric pressure: boiling point of water at atmospheric pressure: | | | | 0°C = 273 °K = 032 °F 100°C = 373 °K = 212 °F | | |
| WEIGHT and FORCE | Technical | kilogram | kg | — | 1 kg = 9,81 N | 1 kg = 2,203 lb |
| | International | Newton | N | 1 N = 0,102 kg | — | 1 N = 0,22546 lb |
| | Imperial | pound | lb | 1 lb = 0,454 kg | 1 lb = 4,452 N | — |
| SPECIFIC WEIGHT | Technical | kilogram per decimetre cubed | kg/dm ³ | — | 1 kg/dm ³ = 9,807 N/dm ³ | 1 kg/dm ³ = 62,46 lb/cu.ft |
| | International | Newton per decimetre cubed | N/dm ³ | 1 N/dm ³ = 0,102 kg/dm ³ | — | 1 N/dm ³ = 6,36 lb/cu.ft |
| | Imperial | pound per cubic foot | lb/dm ³ | 1 lb/cu.ft = 0,01600 kg/dm ³ | 1 lb/cu.ft = 0,160 N/dm ³ | — |
| PRESSURE | Technical | atmospheres | kg/cm ² | — | 1 kg/cm ² = 98,067 kPa 1 kg/cm ² = 0,9807 bar | 1 kg/cm ² = 14,22 psi |
| | International | Pascal kiloPascal bar | Pa kPa bar | 1 kPa = 0,0102 kg/cm ² 1 bar = 1,02 kg/cm ² | 1 kPa = 1.000 Pa 1 bar = 100.000 Pa | 1 kPa = 0,145 psi 1 bar = 14,50 psi |
| | Imperial | pounds per square inch | psi | 1 psi = 0,0703 kg/cm ² | 1 psi = 0,06895 bar 1 psi = 6,894 kPa | — |
| FLOW | Technical | litres per minute litres per second metres cubed per hour | l/min l/s m ³ /h | 1 l/min = 0,0167 l/s 1 l/s = 3,6 m ³ /h 1 m ³ /h = 16,667 l/min | 1 l/s = 0,001 m ³ /s | 1 l/min = 0,22 Imp.g.p.m. 1 l/min = 0,264 US.g.p.m. 1 m ³ /h = 3,666 Imp.g.p.m. 1 m ³ /h = 4,403 US.g.p.m. |
| | International | metres cubed per second | m ³ /s | 1 m ³ /s = 1.000 l/s 1 m ³ /s = 3.600 m ³ /h | — | 1 m ³ /s = 13,198 Imp.g.p.m. 1 m ³ /s = 15,852 US.g.p.m. |
| | Imperial | imperial gallons per minute U.S. gallons per minute | Imp.g.p.m. US.g.p.m. | 1 Imp.g.p.m. = 4,546 l/min 1 Imp.g.p.m. = 0,273 m ³ /h 1 US.g.p.m. = 3,785 l/min 1 US.g.p.m. = 0,227 m ³ /h | — | 1 Imp.g.p.m. = 1,201 US.g.p.m. 1 US.g.p.m. = 0,833 Imp.g.p.m. |
| TORQUE | Technical | kilogram metre | kgm | — | 1 kgm = 9,807 Nm | 1 kgm = 7,233 ft.lb |
| | International | Newton metre | Nm | 1 Nm = 0,102 kgm | — | 1 Nm = 0,7376 ft.lb |
| | Imperial | foot pound | ft.lb | 1 ft.lb = 0,138 kgm | 1 ft.lb = 1,358 Nm | — |
| WORK and ENERGY | Technical | kilogram metre vapour-horsepower hour | kgm CVh | | 1 kgm = 9,807 J 1 CVh = 0,736 kWh | 1 kgm = 7,233 ft.lb 1 Nm = 0,986 HP.hr. |
| | International | Joule kiloWatt hour | J kWhq | 1 J = 0,102 kgm kWh = 1,36 CVh | — | 1 Nm = 0,7376 ft.lb 1 Nm = 0,7376 ft.lb |
| | Imperial | foot pound Horsepower hour | ft.lb HP.hr. | 1 ft.lb = 0,138 kgm 1 HP.hr. = 1,014 CVh | 1 ft.lb = 0,358 Nm 1 HP.hr. = 0,746 kWh | — |
| POWER | Technical | Horse power | HP | 1 HP = 0,736 kW | 1 HP = 736 W | — |
| | International | Watt kiloWatt | W kW | 1 W = 0,00136 Hp 1 kW = 1,36 Hp | 1 kW = 1.000 W | — |
| KINETIC VISCOSITY | Technical | stokes centistokes | 1 St 1 cSt | 1 St = 1 cm ² /s 1 cSt = 0,01 St | 1 St = 0.0001 m ² /s | 1 St = 0.00107 ft ² /s |
| | International | m ² /s | m ² /s | 1 m ² /s = 10.000 St | 1 m ² /s = 10.000 cm ² /s | 1 m ² /s = 10.764 ft ² /s |
| | Imperial | square foot per second | ft ² /s | 1 ft ² /s = 929 St | 1 ft ² /s = 0.0929 m ² /s | — |

GENERAL INFORMATION

FUNDAMENTAL TERMS USED IN PUMPS

The following is a list of fundamental terms used in pumps and an explanation of their meanings. Their knowledge is necessary in order to discuss hydraulic pumps. All measurements are given in Technical units. Reference should be made to the chart for their international and Anglo-Saxon equivalents.

HEAD

Head means height, difference in level, gradient. For example if a pump has a flow of Q litres per second and a head of 30 metres, it means that it is capable of raising Q litres of liquid by 30 metres every second (therefore achieving a 30 metre gradient). For each given pump, the head is determined by its construction, such as the external diameter of the impeller and the speed of rotation, but it is not affected by the pumped liquid. This means that the pump as such can raise by 30 metres Q litres per second of water, petrol, mercury, etc.; the only difference in the three cases will be the power of the motor required.

SPECIFIC WEIGHT OF A LIQUID OR FLUID

The specific weight of a liquid or fluid is the weight per unit volume of the liquid/fluid. Specific weight is usually measured in kg/dm³ or kg/l, remembering that 1 dm³ equals 1 litre.

PRESSURE

Pressure means weight per unit of area (e.g. kg/cm²), and it should not be confused with head. In the case of liquids, the pressure that the liquid exerts on a surface is given by the product of the head (or height) of the liquid, multiplied by its specific weight. For this reason, the column of several km of air on the earth's surface produces at sea level a pressure of about 1kg/cm² (equal to approx. 1 atmosphere). If the same column were of water rather than air, the pressure would be some 700 to 800 times greater, due to the fact that water has a specific weight approximately 700-800 times greater than that of air.

Bearing in mind that a column of water 10 m high is equivalent to approx. 1 kg/cm², if we placed a manometer on the delivery of the pump, the following pressure increases would be measured:

- | | |
|--|---|
| a) with petrol (specific weight 0,7 kg/dm ³) | = 00,7 x 0,001 x 30 x 100 = 2,1 kg/cm ² |
| b) with water (specific weight 1,0 kg/dm ³) | = 00,1 x 0,001 x 30 x 100 = 3,0 kg/cm ² |
| c) with mercury (specific weight 13,6 kg/dm ³) | = 13,6 x 0,001 x 30 x 100 = 40,8 kg/cm ² |

FLOW

Flow means the quantity of liquid or fluid that passes through a point, such as the delivery outlet of a pump, or a cross section of a pipe, in the set unit of time.

This can be measured in litres per minute (l/min), litres per second (l/s), cubic metres per hour (m³/h) etc.

It should be noted that there is a perfect analogy between the flow of water through a pipe and the flow of electricity through a wire. It is sufficient to remember that hydraulic head is equivalent to electrical potential or voltage, and hydraulic flow is equivalent to electric current or amperes in electrotechnics. Even their behaviour is the same. Just as a thin wire restricts the flow of electricity more than one with a larger section, in the same way, a pipe of a smaller diameter offers a greater resistance to the flow of a liquid than one of a larger one. Just as the passage of electric current through the wire to a cable needs a voltage difference, in the same way, the flow of a liquid or fluid through a pipe needs a certain head.

There will never be a movement of liquid between two points of a perfectly horizontal pipe, and with the liquid at the same head in both points. This is due to the fact that, in the same way as the cable exerts a certain resistance to the passage of the electric current (electric resistance), the pipe also exerts a certain resistance to the passage of the fluid, the extent of which depends on the quality of the pipe (material, shape, presence of scale) and its section, and therefore the speed at which the fluid runs through the pipe. This resistance is called head loss.

HEAD LOSS

Head loss is that part of the head, possessed by the liquid, which is lost when passing through a pipe, a valve, a filter, etc. This loss cannot be recovered, as it is lost due to friction. Going back to the analogy between electrical and hydraulic phenomena, just as the losses in a cable increase in proportion with the current, so head losses are proportionally greater as the speed of the liquid increases. This means that the more the flow is restricted by scaled pipes, clogged filters, partially closed valves etc. the greater the head loss will be.

PUMP

A pump is a machine used to give a certain head to a liquid that passes through it. The head can be used to raise the liquid to a higher level, or to make it flow inside a pipe, or even in the open air, so that it covers a certain distance. The characteristics of a pump are:

- Flow** (the quantity of liquid that is moved through the pump in a unit of time)
- Head** (that is the height at which the pump is capable lifting the flow)

Based on the existing relationship between the flow and the head, it is possible to have:

- Pumps with small flow and large head (piston pumps, rotary pumps, small centrifugal pumps).
- Pumps with medium flow and medium head (centrifugal pumps in general).
- Pumps with large flow and small head (helico-centrifugal pumps, propeller pumps).

Centrifugal pumps, helico-centrifugal pumps and propeller pumps have a rotary motion and their speed is universally measured in revolutions per minute (rpm). With these machines operating at a given speed, for each given value of flow, there is only one value of head. This means that in order to increase or decrease the performance of these types of pumps, the operating speed must be varied accordingly. Basically, the liquid passing through the pump is supplied with energy that is related to the head and the speed of the liquid itself. This energy supplied within the unit of time is known as delivered power.

DELIVERED POWER

The delivered power is the power delivered by the pump to the liquid. The value of this delivered power depends on three factors: flow, head, and specific weight of the pumped liquid. The higher these three factors, the higher is the power delivered by the pump. For example, a pump delivering petrol does less work than when delivering sulphuric acid, because the specific weights of the two liquids are different.

In order to pump a liquid, a pump must be driven by a motor. In the vast majority of cases, this is either an electric, or an internal combustion motor. Electric motors use electric power, while internal combustion motors (engines) use oil or oil derivative fuels. The power that the pump needs in order to operate is called absorbed power.

DELIVERED POWER CALCULATION

Delivered power is normally expressed in kW or HP, indicating with:

Q = the flow

H = the head in metres of the column of liquid (m.c.l.)

γ = the specific weight of the liquid

The delivered power (P3) is calculated using one of the following equations:

$$P3 = \frac{\gamma \text{ (kg/dm}^3\text{)} \times Q \text{ (l/s)} \times H \text{ (m.c.l.)}}{75} \text{ in HP}$$

$$P3 = \frac{\gamma \text{ (kg/dm}^3\text{)} \times Q \text{ (m}^3\text{/h)} \times H \text{ (m.c.l.)}}{270} \text{ in HP}$$

$$P3 = \frac{\gamma \text{ (kg/dm}^3\text{)} \times Q \text{ (l/s)} \times H \text{ (m.c.l.)}}{102} \text{ in kW}$$

$$P3 = \frac{\gamma \text{ (kg/dm}^3\text{)} \times Q \text{ (l/min)} \times H \text{ (m.c.l.)}}{4500} \text{ in HP}$$

$$P3 = \frac{\gamma \text{ (kg/dm}^3\text{)} \times Q \text{ (m}^3\text{/h)} \times H \text{ (m.c.l.)}}{367} \text{ in kW}$$

$$P3 = \frac{\gamma \text{ (kg/dm}^3\text{)} \times Q \text{ (l/min)} \times H \text{ (m.c.l.)}}{6120} \text{ in kW}$$

ABSORBED POWER

Absorbed power is the power that the pump absorbs from the motor, to give to the liquid the delivered power discussed above.

Not all the absorbed power becomes delivered power, as some power is lost through friction, and even more within the pump itself, due to hydraulic losses. It is therefore clear that the delivered power is always less than the absorbed power, and the relation between the two is a number always lower than 1. This number is known as the efficiency.

YIELD

The efficiency is obtained by dividing the delivered power by the absorbed power, and is normally expressed as a percentage. For example, an efficiency of 75 % of a pump indicates that only 75 % of the absorbed power is converted into delivered power, with the remaining 25 % being lost due to friction. Therefore, the higher the efficiency of a pump, the smaller the portion of absorbed power being lost. If one then considers that the cost of energy relates to the absorbed power, it immediately becomes apparent just how important efficiency is. If we compare two pumps with the same 1 HP delivered power, but with an efficiency of 50 % for the first, and 60 % for the second, we can assume that the first one will need 2 HP to supply 1, while the second will only need 1,67 HP to achieve the same result. This means that the efficiency of a pump expresses, better than any other parameter, the quality of the pump and the related savings in terms of operating costs.

CALCULATION OF POWER OUTPUTS

P1: is the power absorbed by the motor in kW (generally indicated by the wattmeter).

P2: the power delivered by the motor in kW. This is measured at the brake (it basically is the power absorbed by the pump).

P3: the power delivered by the pump in kW.

$$\text{Power output of the motor } \eta = \frac{P_2}{P_1}$$

$$\text{Power output of the motor } \eta = \frac{P_3}{P_2}$$

$$\text{Power output of the motor } \eta = \frac{P_3}{P_1}$$

THE HEAD OF A PUMP AND ITS MEASUREMENT

The head of a pump is always the differential head, or that given by the pump itself. This is generally expressed in metres. In order to ascertain the head of a surface pump, during its operation it is necessary to measure the value of the head both at the suction and at the delivery of the pump itself, making sure that the readings are taken at the same level, which is called the reference plane. Two cases are possible, depending on installation:

1) the value of the head at the suction is negative (i.e. below zero shown on the manometer): in this case, the level of the liquid collected is lower than the level of the suction inlet.

2) the value of the head at the suction is positive (i.e. above zero shown on the manometer) in this case, the level of the liquid collected is higher than the level of the suction inlet (flooded suction).

In the first case the head of the pump is given by the sum of the two readings, while in the second it is given by subtracting the value of the head at the suction inlet from the value at the delivery outlet.

Finally, it is necessary to make sure that the readings at the suction and the delivery have been taken from apertures of the same diameter, so that they are not distorted by a difference in the speed of the liquid at the point of measurement. Any correction is made by calculating the dynamic head, or that part of the head linked with the speed of the liquid, which means that part of the head that the liquid possesses at the measuring section, due to the fact that it is moving. The dynamic head H_d , expressed in metres, is calculated using the following formula:

$$H_d = \frac{v^2}{2g}$$

where: v = speed of the fluid at the measuring point, given in m/s

g = acceleration of gravity (9,81), expressed in m/s²

$2g = 2 \times 9,81 = 19,62 \text{ m/s}^2$

The correction of the head is given by the difference between the dynamic head at the delivery, and the dynamic head at the suction. It is therefore clear that if the readings upstream and downstream the pump have been taken on pipes of the same diameter, and therefore with the liquid flowing at the same speed, the correction is zero.

To find the head of submersible impeller pumps, it is sufficient, during operation, to measure the head at the delivery port. In this case, the head of the pump is then given by adding the value read to the dynamic head (at the delivery outlet), and to the difference in level between the free surface of the liquid collected and the manometer.

VARIATION IN PUMP HEAD IN RELATION TO SPEED VARIATION

The performance of a pump is directly connected to its speed in rpm (n). Providing that there is no cavitation, the law of similarity may be used, which is expressed as follows:

$$Q_x = Q \times \frac{n_x}{n}$$

$$H_x = H \times \left(\frac{n_x}{n} \right)^2$$

$$P_{2-x} = P_2 \times \left(\frac{n_x}{n} \right)^3$$

For example, when doubling the number of revolutions (n_x) one obtains:

Q_x = the value of the flow doubles

H_x = the value of the head is 4 times higher

P_{2-x} = the value of the absorbed power is 8 times higher

$Q - H - P_2$ are the values at speed n

$Q_x - H_x - P_{2-x}$ are the values at speed n_x .

PRACTICAL NOTES ON NPSH

NPSH stands for Net Positive Suction Head.

The physical meaning of this expression is the absolute pressure that must exist at the suction port of the pump in order to pump the liquid without causing cavitation.

This can occur when the absolute pressure falls to values likely to allow the formation of vapour bubbles within the fluid, causing the pump to work with reduced head.

Therefore, NPSH can also be seen as the pressure required to compensate load losses in the path between the suction port and the point with the lowest pressure of the impeller.

All this demonstrates the importance of checking that the pump is not producing cavitation, as in addition to creating high noise similar to metal hammering, cavitation will also quickly damage the impeller.

A special formula associates the NPSH value required by the pump with the conditions of the system and with the type of liquid, allowing to calculate the minimum pressure required at the suction, and consequently to determine the position in which to locate the pump in relation to the free surface of the liquid to be pumped.

The general NPSH formula is:

$$NPSH = Z1 + \left(\frac{p1 + pb - pv}{\gamma} \times 10 \right) - Hr$$

$$Z1 = NPSH - \left(\frac{p1 + pb - pv}{\gamma} \times 10 \right) + Hr$$

where:

Z1 = the difference in level (in m) between the axis of the pump and the free surface of the liquid to be pumped.

p1 = the possible pressure (in kg/cm²) on the surface of the liquid in the tank from which it is collected. If the liquid is collected from an open tank and the surface of the liquid is in contact with the atmosphere, p1 will be equal to 0.

pb = atmospheric pressure (in kg/cm²) at the site of installation.

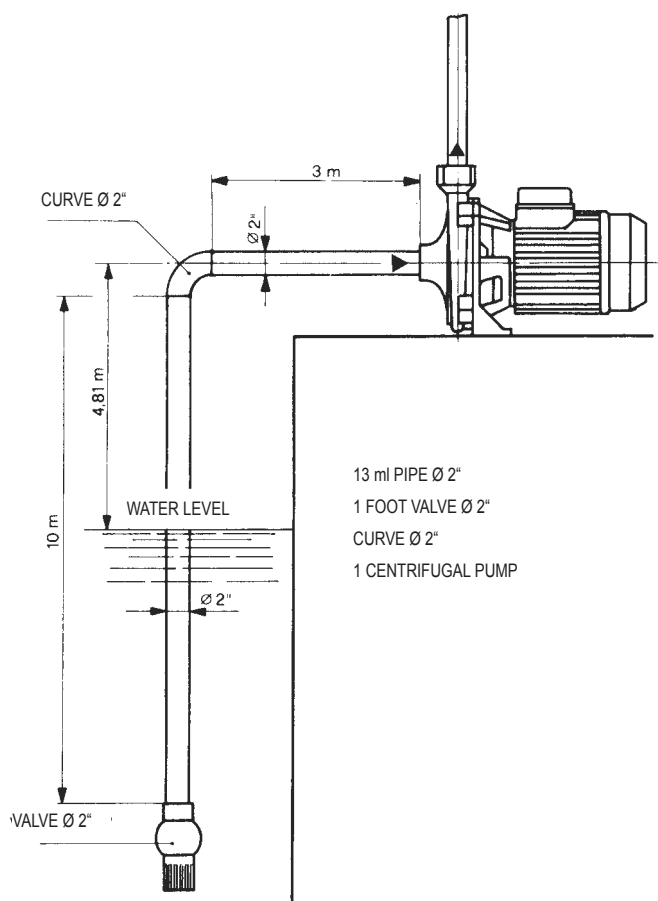
pv = the vapour tension (in kg/cm²) of the liquid at pumping temperature.

γ = the specific weight (in kg/dm³) of the liquid at pumping temperature.

10 = conversion factor of the units of measure used.

Hr = head loss (in m) in the suction pipework.

To give a practical example, the diagram below is of a system (see the Figure) for a centrifugal pump, for which a flow rate Q of 235 l/min is required, under four different conditions.



CALCULATION OF THE HEAD LOSS AT THE SUCTION (Hr)

Flow rate : $Q = 235 \text{ l/min} = 0,00392 \text{ m}^3/\text{s}$

Cross section area of the pipe : $S = 19,6 \text{ cm}^2 = 0,00196 \text{ m}^2$

Velocity of the water in the pipe : $V = Q/S = \frac{0,00392}{0,00196} = 2 \text{ m/s}$

The head losses (see table 1 & 2) are:

- 2" foot valve = 0,610 m

- Curve (assume $\frac{d}{R} = 1$) = 0,058 m

- Suction piping (10 m + 3 m) = 1,370 m

- Total loss at the suction = 2,040 m

Let's now consider the four different conditions, notwithstanding the Hr head losses, and assuming an NPSH for the pump equal to 3,25 m, at the flow rate being considered. The atmospheric pressure p_b can be read from the diagram, the vapour tension p_v and the specific weight can be found on table 3.

1st case: system at sea level and water at 20 °C.

$$3,25 = Z_1 + \left(\frac{1,033 - 0,0238}{0,9982} \times 10 \right) - 2,04$$

$$Z_1 = 3,25 - \left(\frac{1,033 - 0,0238}{0,9982} \times 10 \right) + 2,04 = - 4,82$$

Which means that the pump, for the flow rate being considered, can collect water at 20° from a maximum depth of 4,82 m. It must be noted that a for flow rate greater than 235 l/min, when increasing the value of the NPSH of the pump and the head loss at the suction, the maximum suction depth will be less 4,82m. The opposite happens for flow rates lower than 235 l/min. From this, it follows that in order to bring the pump back to regular operation, it is often sufficient to partially close the delivery valve and reduce the flow rate.

2nd case: system at sea level and water at 60 °C.

$$3,25 = Z_1 + \left(\frac{1,033 - 0,2031}{0,9831} \times 10 \right) - 2,04$$

$$Z_1 = 3,25 - \left(\frac{1,033 - 0,2031}{0,9831} \times 10 \right) + 2,04 = - 3,15$$

Which means that the pump, for the flow rate being considered, can collect water at 60° from a maximum depth of 3,15 m.

3rd case: system at sea level and water at 90°C.

$$3,25 = Z_1 + \left(\frac{1,033 - 0,7149}{0,9653} \times 10 \right) - 2,04$$

$$Z_1 = 3,25 - \left(\frac{1,033 - 0,7149}{0,9653} \times 10 \right) + 2,04 = - 1,99$$

Which means that the free surface of the water at 90 °C for the flow rate considered must be 1,99 metres higher than the axis of the pump.

4th case: system at 1500 m above sea level and water at 50 °C.

$$3,25 = Z_1 + \left(\frac{0,860 - 0,1258}{0,9880} \times 10 \right) - 2,04$$

$$Z_1 = 3,25 - \left(\frac{0,860 - 0,1258}{0,9880} \times 10 \right) + 2,04 = - 2,14$$

Which means that the pump, for the flow rate being considered, in a system at 1500 metres above sea level can collect water at 50 °C from a maximum depth of 2,14 metres.

Note: it's always wise to include a safety margin (0,5m for cold water) to allow for errors and unforeseen variations in the estimated values. Such a margin is even more important with liquids near boiling point, as small temperature changes can produce large differences in operating conditions. For example, in case 3, if the temperature of the water were at any time to reach 95°C, instead of 90 °C, the necessary pump suction pressure would no longer be 1,99 metres, but would increase from 1,99 metres to 3,51 metres.

NOTES ON THE MOTORS OF ELECTRIC PUMPS

| INDEX OF SYMBOLS USED | |
|-----------------------|--|
| P_1 | : POWER ABSORBED BY THE MOTOR IN kW. |
| P_2 | : POWER DELIVERED BY THE MOTOR IN kW OR HP. |
| $V \sim$ | = AC POWER INPUT VOLTAGE AT THE MAINS. |
| Hz | = FREQUENCY IN CYCLES PER SECOND OF THE POWER INPUT VOLTAGE. |
| I | = CURRENT ABSORBED BY THE MOTOR IN AMPERES. |
| $\cos\varphi$ | = POWER FACTOR. |
| $n^{1/min}$ | = SPEED OF ROTATION IN RPM. |
| η | = OUTPUT POWER (RELATION BETWEEN DEVELOPED POWER AND ABSORBED POWER P_2/P_1). |
| p | = NUMBER OF POLES OF THE MOTOR. |
| C_n | = NOMINAL TORQUE OF THE MOTOR. |

NO-LOAD SPEED OF ROTATION

The no-load speed of single-phase and three-phase electric induction motors is given by the formula:

$$n^{1/min} = \frac{120 \times \text{Hz}}{p}$$

No-load speed of rotation $n^{1/min}$

| FREQUENCY Hz | 2 POLES | 4 POLES |
|--------------|---------|---------|
| 50 | 3000 | 1500 |
| 60 | 3600 | 1800 |

The full-load speed is 2 to 7 % lower than the no-load speed (2 to 7 % sliding).

CURRENT ABSORBED

$$\text{Single-phase: } I = \frac{1000 \times P_2 \text{ (kW)}}{V \times \cos\varphi \times \eta} \quad \text{or: } I = \frac{736 \times P_2 \text{ (HP)}}{V \times \cos\varphi \times \eta}$$

$$\text{Three-phase: } I = \frac{1000 \times P_2 \text{ (kW)}}{1.73 \times V \times \cos\varphi \times \eta} \quad \text{or: } I = \frac{736 \times P_2 \text{ (HP)}}{1.73 \times V \times \cos\varphi \times \eta}$$

ABSORBED POWER

$$\text{Single-phase: } P_1 \text{ (kW)} = \frac{V \times I \times \cos\varphi}{1000}$$

$$\text{Three-phase: } P_1 \text{ (kW)} = \frac{1.73 \times V \times I \times \cos\varphi}{1000}$$

POWER DELIVERED AT THE MOTOR AXIS

$$\text{Single-phase: } P_2 \text{ (kW)} = \frac{V \times I \times \cos\varphi \times \eta}{1000} \quad \text{or: } P_2 \text{ (HP)} = \frac{V \times I \times \cos\varphi \times \eta}{736}$$

$$\text{Three-phase: } P_2 \text{ (kW)} = \frac{1.73 \times V \times I \times \cos\varphi \times \eta}{1000} \quad \text{or: } P_2 \text{ (HP)} = \frac{1.73 \times V \times I \times \cos\varphi \times \eta}{736}$$

YIELD

$$\eta = \frac{P_2 \text{ (kW)}}{P_1 \text{ (kW)}}$$

POWER FACTOR

$$\text{Single-phase: } \cos\varphi = \frac{P_2 (\text{kW}) \times 1000}{V \times I \times \eta}$$

$$\text{or: } \cos\varphi = \frac{P_1 (\text{kW}) \times 1000}{V \times I}$$

$$\text{Three-phase: } \cos\varphi = \frac{P_2 (\text{kW}) \times 1000}{1,73 \times V \times I \times \eta}$$

$$\text{or: } \cos\varphi = \frac{P_1 (\text{kW}) \times 1000}{1,73 \times V \times I}$$

TORQUE FACTOR

$$C_n = \frac{P_2 (\text{kW}) \times 1000}{1.027 \times n^{1/\min}} \text{ in kgm}$$

$$C_n = \frac{P_2 (\text{HP}) \times 736}{1.027 \times n^{1/\min}} \text{ in kgm}$$

$$C_n = \frac{702 \times \text{HP}}{n^{1/\min}} \text{ in decaNewtonmetres}$$

RELATIONSHIP BETWEEN KW AND HP

$$1 \text{ HP} = 0,736 \text{ kW}$$

$$1 \text{ kW} = 1,36 \text{ HP}$$

$$\frac{\text{HP}}{1.36} = \text{kW}$$

$$\text{kW} \times 1,36 = \text{HP}$$

STARTING CURRENT (ISP)

The starting current (at switch on) of a motor is 4 to 8 times greater than the nominal current, depending on the power of the motor.

$$I_{sp} = I_n \times 4 \div 8$$

DETAILS ON CAPACITORS

The approximate current absorbed by a capacitor is:

$$I = \frac{6,28 \times F \times C \times V}{1,000,000}$$

Where:

I = current in Amps absorbed by the capacitor.

F = frequency in Hz of the applied voltage.

C = capacity of capacitor μF .

V = applied voltage.

Example:

The current absorbed by a 14 μF capacitor connected to a 220 Volt - 50 Hz power input is:

$$I = \frac{6,28 \times 50 \times 14 \times 220}{1,000,000} = 0,96 \text{ Amperes}$$

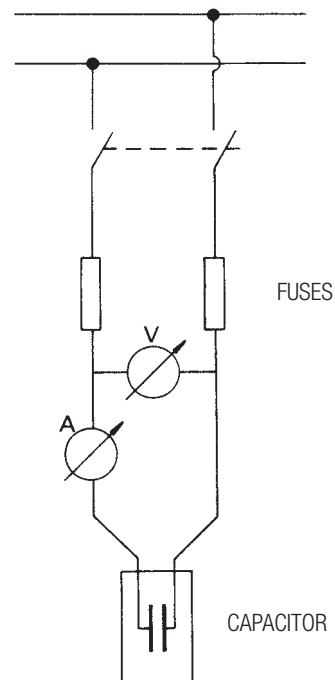
The approximate capacity of a capacitor is determined by:

$$C = \frac{I}{6,28 \times F \times V} \times 1,000,000$$

Example:

The capacity of a capacitor absorbing 1,4 Amps connected to a 220 Volt - 50 Hz power input is:

$$C = \frac{1.4}{6,28 \times 50 \times 220} \times 1,000,000 = 20,2 \mu\text{F}$$



STAR-DELTA START-UP

The normally delta Δ connected motor is connected to the network using a star type connection. The current and the starting torque are both reduced to 1/3 of the value they would be if delta Δ connected.

PROTECTION

It is recommended that motors are connected to the power input network using appropriate three-fuse thermal magnetic circuit breakers, or in any case circuit breakers complying with current local regulations.


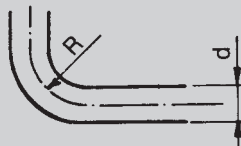
HEAD LOSS

In centimetres of column water for each metre of straight pipe

| V | Q h | PIPE DIAMETER IN mm. | | | | | | | | | | | | | | | | | |
|-----|--------|----------------------|------|-------|-------|-------|------|------|------|------|------|------|------|------|--------|-------|-------|---------|-------|
| | | 20 | 25 | 30 | 40 | 50 | 65 | 80 | 100 | 125 | 150 | 175 | 200 | 250 | 300 | 350 | 400 | 450 | 500 |
| 0.5 | Q | 9.4 | 14.7 | 21.2 | 37.7 | 59.0 | 115 | 151 | 235 | 369 | 530 | 723 | 940 | 1480 | 2120 | 2880 | 3770 | 4780 | 5890 |
| | h | 2.4 | 1.9 | 1.5 | 1.0 | 0.8 | 0.56 | 0.46 | 0.36 | 0.28 | 0.23 | 0.19 | 0.16 | 0.13 | 0.105 | 0.089 | 0.076 | 0.067 | 0.06 |
| 0.6 | Q | 11.3 | 17.7 | 25.4 | 45.3 | 70.7 | 138 | 181 | 282 | 442 | 636 | 887 | 1130 | 1770 | 2540 | 3460 | 4520 | 5730 | 7060 |
| | h | 3.3 | 2.6 | 2.1 | 1.5 | 1.12 | 0.78 | 0.65 | 0.5 | 0.39 | 0.32 | 0.27 | 0.23 | 0.18 | 0.15 | 0.12 | 0.11 | 0.096 | 0.086 |
| 0.7 | Q | 13.2 | 20.6 | 29.7 | 52.9 | 82.5 | 161 | 211 | 329 | 516 | 742 | 1010 | 1315 | 2070 | 2960 | 4040 | 5270 | 6690 | 8250 |
| | h | 4.4 | 3.4 | 2.7 | 1.9 | 1.5 | 1.0 | 0.86 | 0.67 | 0.52 | 0.43 | 0.36 | 0.31 | 0.24 | 0.2 | 0.17 | 0.15 | 0.13 | 0.12 |
| 0.8 | Q | 15.05 | 23.6 | 33.9 | 60.4 | 94.5 | 184 | 241 | 377 | 590 | 848 | 1155 | 1505 | 2360 | 3390 | 4620 | 6030 | 7650 | 9420 |
| | h | 5.6 | 4.3 | 3.4 | 2.5 | 1.9 | 1.3 | 1.1 | 0.86 | 0.67 | 0.55 | 0.46 | 0.4 | 0.31 | 0.26 | 0.22 | 0.19 | 0.17 | 0.15 |
| 0.9 | Q | 16.95 | 26.5 | 38.2 | 68.0 | 106.0 | 207 | 272 | 423 | 664 | 955 | 1300 | 1695 | 2660 | 3810 | 5200 | 6780 | 8600 | 10600 |
| | h | 6.9 | 5.3 | 4.3 | 3.0 | 2.4 | 1.7 | 1.4 | 1.1 | 0.84 | 0.69 | 0.58 | 0.5 | 0.39 | 0.32 | 0.27 | 0.24 | 0.21 | 0.19 |
| 1.0 | Q | 18.8 | 29.5 | 42.4 | 75.5 | 117.7 | 230 | 302 | 471 | 737 | 1060 | 1445 | 1880 | 2950 | 4230 | 5770 | 7530 | 9550 | 11770 |
| | h | 8.3 | 6.4 | 5.1 | 3.7 | 2.9 | 2.1 | 1.7 | 1.3 | 1.0 | 0.84 | 0.71 | 0.61 | 0.48 | 0.4 | 0.34 | 0.29 | 0.26 | 0.23 |
| 1.1 | Q | 20.7 | 32.4 | 46.6 | 83.0 | 129.5 | 252 | 332 | 518 | 81 | 1165 | 1585 | 2070 | 3250 | 4650 | 6350 | 8290 | 10500 | 12950 |
| | h | 9.9 | 7.6 | 6.2 | 4.4 | 3.4 | 2.4 | 2.0 | 1.6 | 1.2 | 1.0 | 0.85 | 0.74 | 0.58 | 0.48 | 0.4 | 0.35 | 0.31 | 0.28 |
| 1.2 | Q | 22.6 | 35.4 | 50.9 | 90.6 | 141.0 | 276 | 362 | 565 | 885 | 1272 | 1730 | 2260 | 3550 | 5080 | 6930 | 9040 | 11450 | 14140 |
| | h | 11.7 | 9.0 | 7.2 | 5.2 | 4.0 | 2.9 | 2.4 | 1.9 | 1.5 | 1.2 | 1.0 | 0.87 | 0.69 | 0.56 | 0.48 | 0.42 | 0.37 | 0.32 |
| 1.3 | Q | 24.5 | 38.3 | 55.0 | 98.0 | 153.0 | 299 | 392 | 612 | 960 | 1378 | 1875 | 2450 | 3840 | 5500 | 7500 | 9800 | 12400 | 15320 |
| | h | 13.5 | 10.4 | 8.4 | 6.0 | 4.7 | 3.3 | 2.8 | 2.2 | 1.71 | 1.4 | 1.15 | 1.0 | 0.8 | 0.66 | 0.56 | 0.49 | 0.43 | 0.38 |
| 1.4 | Q | 26.35 | 41.3 | 59.3 | 105.5 | 165.0 | 302 | 422 | 660 | 1032 | 1473 | 2020 | 2635 | 4140 | 5920 | 8090 | 10530 | 13370 | 16500 |
| | h | 15.4 | 11.9 | 9.6 | 6.9 | 5.4 | 3.8 | 3.2 | 2.5 | 2.0 | 1.6 | 1.3 | 1.17 | 0.92 | 0.76 | 0.64 | 0.56 | 0.5 | 0.44 |
| 1.5 | Q | 28.25 | 44.2 | 63.6 | 113.0 | 176.5 | 345 | 452 | 707 | 1106 | 1590 | 2165 | 2825 | 4430 | 6350 | 8660 | 11300 | 14320 | 17680 |
| | h | 17.4 | 13.5 | 10.9 | 7.8 | 6.1 | 4.4 | 3.6 | 2.8 | 2.25 | 1.82 | 1.5 | 1.34 | 1.05 | 0.87 | 0.74 | 0.64 | 0.57 | 0.51 |
| 1.6 | Q | 30.1 | 47.1 | 67.8 | 121.0 | 188.5 | 368 | 483 | 753 | 1180 | 1695 | 2310 | 3010 | 4730 | 6770 | 9240 | 12055 | 5015270 | 18850 |
| | h | 19.6 | 15.3 | 12.4 | 8.9 | 6.9 | 4.9 | 4.1 | 3.2 | 2.55 | 2.05 | 1.7 | 1.53 | 1.18 | 0.99 | 0.84 | 0.72 | 0.64 | 0.58 |
| 1.7 | Q | 32.0 | 50.1 | 72.0 | 128.0 | 200.0 | 392 | 513 | 800 | 1253 | 1802 | 2455 | 3200 | 5020 | 7190 | 9820 | 12800 | 16230 | 20030 |
| | h | 21.9 | 17.2 | 13.9 | 10.0 | 7.8 | 5.4 | 4.6 | 3.6 | 2.85 | 2.3 | 1.95 | 1.7 | 1.33 | 1.11 | 0.94 | 0.81 | 0.73 | 0.65 |
| 1.8 | Q | 33.9 | 53.0 | 76.3 | 136.0 | 212.0 | 415 | 543 | 848 | 1327 | 1905 | 2600 | 3390 | 5320 | 7610 | 10380 | 13550 | 17200 | 21200 |
| | h | 24.2 | 19.1 | 15.4 | 11.1 | 8.7 | 6.0 | 5.1 | 4.0 | 3.15 | 2.6 | 2.2 | 1.9 | 1.48 | 1.24 | 1.05 | 0.91 | 0.81 | 0.73 |
| 1.9 | Q | 35.8 | 56.0 | 80.5 | 143.5 | 224.0 | 438 | 573 | 895 | 1400 | 2015 | 2740 | 3580 | 5610 | 8040 | 10960 | 14300 | 18150 | 22400 |
| | h | 26.8 | 21.0 | 17.0 | 12.3 | 9.6 | 6.8 | 5.6 | 4.4 | 3.45 | 2.85 | 2.45 | 2.1 | 1.64 | 1.38 | 1.17 | 1.01 | 0.9 | 0.81 |
| 2.0 | Q | 37.7 | 59.0 | 84.8 | 151.0 | 235.5 | 461 | 603 | 943 | 1475 | 2120 | 2885 | 3765 | 5910 | 8460 | 11540 | 15060 | 19100 | 23570 |
| | h | 29.6 | 23.0 | 18.6 | 13.4 | 10.5 | 7.5 | 6.2 | 4.9 | 3.8 | 3.17 | 2.7 | 2.33 | 1 | 1.52 | 1.3 | 1.12 | 0.99 | 0.89 |
| 2.1 | Q | 39.5 | 62.0 | 89.0 | 158.5 | 247.5 | 484 | 633 | 990 | 1548 | 225 | 3030 | 3955 | 6200 | 8890 | 12100 | 15810 | 20050 | 24750 |
| | h | 32.2 | 25.1 | 20.4 | 14.8 | 11.5 | 8.2 | 6.8 | 5.4 | 4.2 | 3.5 | 2.95 | 2.55 | 2.0 | 1.68 | 1.43 | 1.22 | 1.08 | 0.98 |
| 2.2 | Q | 41.5 | 64.9 | 93.2 | 176.0 | 259.0 | 507 | 663 | 1036 | 1620 | 2330 | 3175 | 4145 | 6500 | 9300 | 12700 | 16570 | 21000 | 25930 |
| | h | 35.0 | 27.3 | 22.3 | 16.2 | 12.5 | 9.1 | 7.4 | 5.9 | 4.6 | 3.85 | 3.25 | 2.8 | 22 | 1.85 | 1.56 | 1.34 | 1.18 | 1.08 |
| 2.3 | Q | 43.3 | 67.9 | 97.5 | 173.5 | 271.0 | 530 | 694 | 1082 | 1695 | 2440 | 3320 | 4330 | 6800 | 9730 | 13270 | 17310 | 21950 | 27100 |
| | h | 38.0 | 29.7 | 24.2 | 17.7 | 13.6 | 9.8 | 8.1 | 6.4 | 5.0 | 4.15 | 3.5 | 3.05 | 2.4 | 2.03 | 1.7 | 1.46 | 1.28 | 1.18 |
| 2.4 | Q | 45.2 | 70.8 | 101.5 | 181.0 | 282.5 | 553 | 724 | 1130 | 1770 | 2545 | 3460 | 4520 | 7090 | 10140 | 13850 | 18090 | 22900 | 28300 |
| | h | 42.1 | 32.1 | 26.2 | 19.1 | 14.7 | 10.6 | 8.8 | 6.9 | 5.45 | 4.55 | 3.8 | 3.3 | 2.62 | 2.21 | 1.85 | 1.58 | 1.38 | 1.28 |
| 2.5 | Q | 47.1 | 73.7 | 105.8 | 189.0 | 294.5 | 576 | 755 | 1178 | 1843 | 2650 | 3610 | 4710 | 7390 | 10570 | 14420 | 18820 | 23880 | 29450 |
| | h | 45.0 | 34.7 | 28.3 | 20.5 | 16.0 | 11.4 | 9.6 | 7.5 | 5.9 | 4.9 | 4.1 | 3.58 | 2.84 | 2.4 | 2.0 | 1.7 | 1.5 | 1.4 |
| 2.6 | Q | 49.0 | 76.6 | 110.0 | 196.0 | 306.0 | 599 | 785 | 1225 | 1915 | 2755 | 3755 | 4900 | 7680 | 11000 | 15000 | 19590 | 24820 | 30630 |
| | h | 48.3 | 37.3 | 30.4 | 22.2 | 17.2 | 12.3 | 10.4 | 8.1 | 6.35 | 5.25 | 4.4 | 3.85 | 3.07 | 2.59 | 2.17 | 1.84 | 1.62 | 1.51 |
| 2.7 | Q | 50.9 | 79.6 | 114.3 | 204.0 | 318.0 | 622 | 815 | 1271 | 1990 | 2860 | 3900 | 5090 | 7980 | 111410 | 15590 | 20340 | 25800 | 31820 |
| | h | 51.7 | 40.0 | 32.5 | 23.8 | 18.5 | 13.2 | 11.2 | 8.7 | 6.85 | 5.65 | 4.75 | 4.15 | 3.3 | 2.78 | 2.34 | 1.98 | 1.74 | 1.62 |
| 2.8 | Q | 52.7 | 82.6 | 118.5 | 211.5 | 330.0 | 645 | 845 | 1320 | 2060 | 2970 | 4040 | 5280 | 8270 | 11830 | 16160 | 21090 | 26730 | 33000 |
| | h | 55.2 | 42.5 | 34.8 | 25.5 | 19.9 | 14.0 | 12.0 | 9.3 | 7.35 | 6.05 | 5.10 | 4.45 | 3.56 | 2.98 | 2.51 | 2.13 | 1.88 | 1.74 |
| 2.9 | Q | 54.6 | 85.5 | 123.0 | 219.0 | 342.0 | 668 | 875 | 1365 | 2140 | 3075 | 4190 | 5460 | 8560 | 12250 | 16730 | 21480 | 27700 | 34200 |
| | h | 58.7 | 45.1 | 37.1 | 27.1 | 21.3 | 15.2 | 12.8 | 10.0 | 7.85 | 6.45 | 5.5 | 4.75 | 3.82 | 3.18 | 2.7 | 2.3 | 2.03 | 1.87 |
| 3.0 | Q | 56.5 | 88.5 | 127.0 | 226.5 | 354.0 | 691 | 905 | 1414 | 2210 | 3180 | 4330 | 5650 | 8850 | 12690 | 17310 | 22600 | 28650 | 35350 |
| | h | 62.9 | 47.9 | 39.6 | 28.8 | 22.6 | 16.3 | 13.6 | 10.7 | 8.4 | 6.9 | 5.9 | 5.1 | 4.1 | 3.4 | 2.9 | 2.5 | 2.2 | 2.0 |

HEAD LOSS

in cm of column of water in bends, gate valves, and foot valves

| VELOCITY OF WATER IN m/s | SHARP EDGED BENDS | | | | | NORMAL BENDS | | | | | GATE VALVE | FOOT VALVE | NON-RETURN VALVE | HEAD LOSS ON EXIT FROM PIPES $V^2/2g$ |
|--------------------------|---|---------------------|---------------------|---------------------|---------------------|--|---------------------|---------------------|-------------------|---------------------|------------|------------|------------------|--|
| |  | | | | |  | | | | | | | | |
| | $\alpha = 30^\circ$ | $\alpha = 40^\circ$ | $\alpha = 60^\circ$ | $\alpha = 80^\circ$ | $\alpha = 90^\circ$ | $\frac{d}{R} = 0,4$ | $\frac{d}{R} = 0,6$ | $\frac{d}{R} = 0,8$ | $\frac{d}{R} = 1$ | $\frac{d}{R} = 1,5$ | | | | |
| 0,10 | 0,03 | 0,04 | 0,05 | 0,07 | 0,08 | 0,07 | 0,08 | 0,01 | 0,0155 | 0,027 | 0,03 | 30 | 30 | 0,05 |
| 0,15 | 0,06 | 0,73 | 0,1 | 0,14 | 0,17 | 0,016 | 0,019 | 0,024 | 0,033 | 0,06 | 0,033 | 31 | 31 | 0,12 |
| 0,2 | 0,11 | 0,13 | 0,18 | 0,26 | 0,31 | 0,028 | 0,033 | 0,04 | 0,059 | 0,11 | 0,058 | 31 | 31 | 0,21 |
| 0,25 | 0,17 | 0,21 | 0,28 | 0,4 | 0,48 | 0,044 | 0,052 | 0,063 | 0,091 | 0,17 | 0,09 | 31 | 31 | 0,32 |
| 0,3 | 0,25 | 0,3 | 0,41 | 0,6 | 0,7 | 0,063 | 0,074 | 0,09 | 0,13 | 0,25 | 0,13 | 31 | 31 | 0,46 |
| 0,35 | 0,33 | 0,4 | 0,54 | 0,8 | 0,93 | 0,085 | 0,10 | 0,12 | 0,18 | 0,33 | 0,18 | 31 | 31 | 0,62 |
| 0,4 | 0,43 | 0,52 | 0,71 | 1,0 | 1,2 | 0,11 | 0,13 | 0,16 | 0,23 | 0,43 | 0,23 | 32 | 31 | 0,82 |
| 0,5 | 0,67 | 0,81 | 1,1 | 1,6 | 1,9 | 0,18 | 0,21 | 0,26 | 0,37 | 0,67 | 0,37 | 33 | 32 | 1,27 |
| 0,6 | 0,97 | 1,2 | 1,6 | 2,3 | 2,8 | 0,25 | 0,29 | 0,36 | 0,52 | 0,97 | 0,52 | 34 | 32 | 1,84 |
| 0,7 | 1,35 | 1,65 | 2,2 | 3,2 | 3,9 | 0,34 | 0,40 | 0,48 | 0,70 | 1,35 | 0,7 | 35 | 32 | 2,5 |
| 0,8 | 1,7 | 2,1 | 2,8 | 4,0 | 4,8 | 0,45 | 0,53 | 0,64 | 0,93 | 1,7 | 0,95 | 36 | 33 | 3,3 |
| 0,9 | 2,2 | 2,7 | 6 | 5,2 | 6,2 | 0,57 | 0,67 | 0,82 | 1,18 | 2,2 | 1,2 | 37 | 34 | 4,2 |
| 1,0 | 2,7 | 3,3 | 4,5 | 6,4 | 7,6 | 0,7 | 0,82 | 1,0 | 1,45 | 2,7 | 1,45 | 38 | 35 | 5,1 |
| 1,5 | 6,0 | 7,3 | 10,0 | 14,0 | 17,0 | 1,6 | 1,9 | 2,3 | 3,3 | 6,0 | 3,3 | 47 | 40 | 11,5 |
| 2,0 | 11,0 | 14,0 | 18,0 | 26,0 | 31,0 | 2,8 | 3,3 | 4,0 | 5,8 | 11,0 | 5,8 | 61 | 48 | 20,4 |
| 2,5 | 17,0 | 21,0 | 28,0 | 40,0 | 48,0 | 4,4 | 5,2 | 6,3 | 9,1 | 17,0 | 9,1 | 78 | 58 | 32,0 |
| 3,0 | 25,0 | 30,0 | 41,0 | 60,0 | 70,0 | 6,3 | 7,4 | 9,0 | 13,0 | 25,0 | 13,0 | 100 | 71 | 46,0 |
| 3,5 | 33,0 | 40,0 | 55,0 | 78,0 | 93,0 | 8,5 | 10,0 | 12,0 | 18,0 | 33,0 | 18,0 | 123 | 85 | 62,0 |
| 4,0 | 43,0 | 52,0 | 70,0 | 100,0 | 120,0 | 11,0 | 13,0 | 16,0 | 23,0 | 42,0 | 23,0 | 150 | 100 | 82,0 |
| 4,5 | 55,0 | 67,0 | 90,0 | 130,0 | 160,0 | 14,0 | 21,0 | 26,0 | 37,0 | 55,0 | 37,0 | 190 | 120 | 103,0 |
| 5,0 | 67,0 | 82,0 | 110,0 | 160,0 | 190,0 | 18,0 | 29,0 | 36,0 | 52,0 | 67,0 | 52,0 | 220 | 140 | 127,0 |

Q = flow rate in l/min

v = velocity of water in metres per second

d = diameter of pipes in m metres

h = head loss in cm of water column for each metre of pipework, calculated according to the Lang formula:

$$h = \lambda \times \frac{100}{d} \times \frac{v^2}{2g} \quad \lambda = 0,02 + \frac{0,0018}{\sqrt{v \times d}}$$

The only loss in bends is that due to the contraction of the liquid stream when changing direction (the development of the curves must therefore be included in the length of the pipework); the head loss for gate valves has been determined through technical tests.

The head loss for gate valves and normal bends is equal to that of 5 m of straight pipework, while that of non-return valves is equal to 15 m.

The values given are for pipes with a completely smooth internal surface. In case of rough or scaled pipes, allowances must be made accordingly.

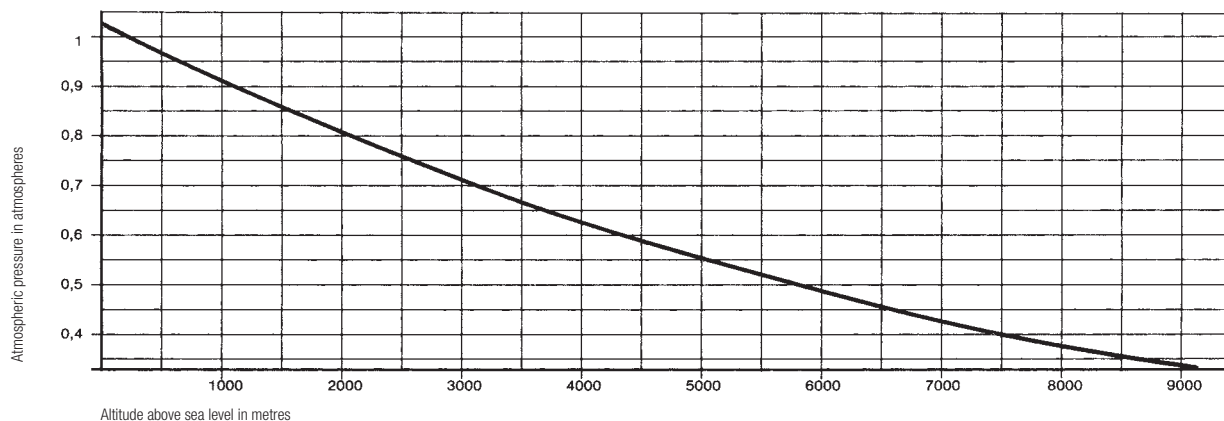
TECHNICAL APPENDIX

CENTRIFUGAL PUMPS

VAPOUR TENSION AND SPECIFIC WEIGHT OF WATER AS A FUNCTION OF TEMPERATURE

| t °C | pv kg/cm ² | γ kg/dm ³ | t °C | pv kg/cm ² | γ kg/dm ³ | t °C | pv kg/cm ² | γ kg/dm ³ | t °C | pv kg/cm ² | γ kg/dm ³ |
|---------|--------------------------|-------------------------|---------|--------------------------|-------------------------|---------|--------------------------|-------------------------|---------|--------------------------|-------------------------|
| 00 | 0.0062 | 0.9998 | 41 | 0.793 | 0.9917 | 082 | 0.5234 | 0.9705 | 170 | 008.076 | 0.8973 |
| 01 | 0.0067 | 0.9999 | 42 | 0.836 | 0.9913 | 083 | 0.5447 | 0.9698 | 175 | 009.101 | 0.8920 |
| 02 | 0.0072 | 0.9999 | 43 | 0.881 | 0.9909 | 084 | 0.5667 | 0.9693 | 180 | 010.225 | 0.8869 |
| 03 | 0.0077 | 1.0000 | 44 | 0.0928 | 0.9905 | 085 | 0.5897 | 0.9687 | 185 | 011.456 | 0.8814 |
| 04 | 0.0083 | 1.0000 | 45 | 0.0977 | 0.9900 | 086 | 0.6129 | 0.9680 | 190 | 012.800 | 0.8760 |
| 05 | 0.0089 | 1.0000 | 46 | 0.1028 | 0.9898 | 087 | 0.6372 | 0.9673 | 195 | 014.265 | 0.8703 |
| 06 | 0.0095 | 0.9999 | 47 | 0.1082 | 0.9883 | 088 | 0.6623 | 0.9667 | 200 | 015.857 | 0.8646 |
| 07 | 0.0102 | 0.9999 | 48 | 0.1138 | 0.9889 | 089 | 0.6882 | 0.9659 | 205 | 017.858 | 0.8587 |
| 08 | 0.0109 | 0.9998 | 49 | 0.1197 | 0.9885 | 090 | 0.7149 | 0.9653 | 210 | 019.456 | 0.8528 |
| 09 | 0.0117 | 0.9997 | 50 | 0.1258 | 0.9880 | 091 | 0.7425 | 0.9646 | 215 | 021.477 | 0.8465 |
| 10 | 0.0125 | 0.9996 | 51 | 0.1322 | 0.9876 | 092 | 0.7710 | 0.9640 | 220 | 023.659 | 0.8403 |
| 11 | 0.0134 | 0.9995 | 52 | 0.1388 | 0.9871 | 093 | 0.8004 | 0.9632 | 225 | 026.007 | 0.8339 |
| 12 | 0.0143 | 0.9994 | 53 | 0.1457 | 0.9866 | 094 | 0.8307 | 0.9625 | 230 | 028.531 | 0.8272 |
| 13 | 0.0153 | 0.9993 | 54 | 0.1530 | 0.9861 | 095 | 0.8619 | 0.9619 | 235 | 031.239 | 0.8206 |
| 14 | 0.0163 | 0.9992 | 55 | 0.1605 | 0.9857 | 096 | 0.8942 | 0.9611 | 240 | 034.140 | 0.8136 |
| 15 | 0.0174 | 0.9990 | 56 | 0.1683 | 0.9852 | 097 | 0.9271 | 0.9604 | 245 | 037.244 | 0.8064 |
| 16 | 0.0185 | 0.9989 | 57 | 0.1765 | 0.9847 | 098 | 0.9616 | 0.9596 | 250 | 040.560 | 0.7992 |
| 17 | 0.0197 | 0.9987 | 58 | 0.1850 | 0.9842 | 099 | 0.9969 | 0.9590 | 255 | 044.100 | 0.7918 |
| 18 | 0.0210 | 0.9985 | 59 | 0.1939 | 0.9836 | 100 | 1.0032 | 0.9583 | 260 | 047.870 | 0.7840 |
| 19 | 0.0224 | 0.9984 | 60 | 0.2031 | 0.9831 | 102 | 1.1092 | 0.9568 | 265 | 051.880 | 0.7759 |
| 20 | 0.0238 | 0.9982 | 61 | 0.2127 | 0.9826 | 104 | 1.1898 | 0.9554 | 270 | 056.140 | 0.7678 |
| 21 | 0.0253 | 0.9979 | 62 | 0.2227 | 0.9821 | 106 | 1.2751 | 0.9540 | 275 | 060.660 | 0.7593 |
| 22 | 0.0269 | 0.9977 | 63 | 0.2330 | 0.9816 | 108 | 1.6354 | 0.9525 | 280 | 065.460 | 0.7506 |
| 23 | 0.0286 | 0.9974 | 64 | 0.2438 | 0.9810 | 110 | 1.4609 | 0.9510 | 285 | 070.540 | 0.7416 |
| 24 | 0.0304 | 0.9972 | 65 | 0.2550 | 0.9804 | 112 | 1.5618 | 0.9495 | 290 | 075.920 | 0.7323 |
| 25 | 0.0323 | 0.9970 | 66 | 0.2666 | 0.9800 | 114 | 1.6684 | 0.9479 | 286 | 081.600 | 0.7227 |
| 26 | 0.0343 | 0.9966 | 67 | 0.2787 | 0.9794 | 116 | 1.7809 | 0.9464 | 300 | 087.610 | 0.7214 |
| 27 | 0.0363 | 0.9964 | 68 | 0.2912 | 0.9788 | 118 | 1.8995 | 0.9448 | 305 | 093.950 | 0.7017 |
| 28 | 0.0385 | 0.9961 | 69 | 0.3042 | 0.9782 | 120 | 2.0245 | 0.9431 | 310 | 100.640 | 0.6906 |
| 29 | 0.0408 | 0.9957 | 70 | 0.3177 | 0.9777 | 122 | 2.1561 | 0.9414 | 315 | 107.690 | 0.6793 |
| 30 | 0.0432 | 0.9955 | 71 | 0.3317 | 0.9771 | 124 | 2.2947 | 0.9398 | 320 | 115.130 | 0.6671 |
| 31 | 0.0458 | 0.9952 | 72 | 0.3463 | 0.9765 | 126 | 2.4404 | 0.9381 | 325 | 122.950 | 0.6540 |
| 32 | 0.0485 | 0.9949 | 73 | 0.3613 | 0.9759 | 128 | 2.5935 | 0.9365 | 330 | 131.180 | 0.6402 |
| 33 | 0.0513 | 0.9946 | 74 | 0.3869 | 0.9754 | 130 | 2.7544 | 0.9348 | 335 | 139.850 | 0.6257 |
| 34 | 0.0542 | 0.9942 | 75 | 0.3931 | 0.9748 | 135 | 3.1920 | 0.9305 | 340 | 148.960 | 0.6093 |
| 35 | 0.0573 | 0.9939 | 76 | 0.4098 | 0.9742 | 140 | 3.6850 | 0.9260 | 345 | 157.540 | 0.5910 |
| 36 | 0.0606 | 0.9934 | 77 | 0.4274 | 0.9737 | 145 | 4.2370 | 0.9216 | 350 | 168.630 | 0.5724 |
| 37 | 0.0640 | 0.9932 | 78 | 0.4451 | 0.9730 | 150 | 4.8540 | 0.9169 | 355 | 179.240 | 0.5512 |
| 38 | 0.0675 | 0.9928 | 79 | 0.4637 | 0.9724 | 155 | 5.5400 | 0.9121 | 360 | 190.420 | 0.5243 |
| 39 | 0.0713 | 0.9925 | 80 | 0.4829 | 0.9718 | 160 | 6.3020 | 0.9073 | 365 | 202.210 | 0.4926 |
| 40 | 0.0752 | 0.9921 | 81 | 0.5028 | 0.9712 | 165 | 7.1460 | 0.9023 | 370 | 214.680 | 0.4484 |

ATMOSPHERIC PRESSURE AT VARIOUS HEIGHTS



TECHNICAL APPENDIX

CENTRIFUGAL PUMPS

FLOW RATE OF WATER FROM NOZZLES AND FIRE HOSES IN l/s AS A FUNCTION OF THE PRESSURE MEASURED UPSTREAM THE NOZZLE, IN METRES OF COLUMN OF WATER.

| Ø NOZZLE IN mm | PRESSURE in m.c.w. | | | | | | | | | | | | |
|-------------------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 |
| 1 | 0.0068 | 0.0083 | 0.0096 | 0.0107 | 0.0118 | 0.0127 | 0.0136 | 0.0144 | 0.0152 | 0.0159 | 0.0167 | 0.0174 | 0.018 |
| 2 | 0.273 | 0.0334 | 0.0386 | 0.0432 | 0.0473 | 0.0511 | 0.0546 | 0.0579 | 0.0611 | 0.064 | 0.0668 | 0.696 | 0.0722 |
| 3 | 0.614 | 0.0751 | 0.0868 | 0.097 | 0.1063 | 0.1148 | 0.1228 | 0.13 | 0.137 | 0.144 | 0.15 | 0.156 | 0.162 |
| 4 | 0.109 | 0.133 | 0.154 | 0.175 | 0.189 | 0.204 | 0.218 | 0.231 | 0.244 | 0.255 | 0.267 | 0.278 | 0.288 |
| 5 | 1.171 | 0.209 | 0.242 | 0.271 | 0.296 | 0.32 | 0.342 | 0.363 | 0.383 | 0.401 | 0.419 | 0.4336 | 0.453 |
| 6 | 0.246 | 0.301 | 0.348 | 0.389 | 0.426 | 0.455 | 0.492 | 0.522 | 0.55 | 0.577 | 0.603 | 0.627 | 0.652 |
| 7 | 0.334 | 0.408 | 0.472 | 0.527 | 0.578 | 0.625 | 0.667 | 0.708 | 0.747 | 0.783 | 0.817 | 0.851 | 0.883 |
| 8 | 0.436 | 0.534 | 0.616 | 0.689 | 0.755 | 0.815 | 0.871 | 0.925 | 0.975 | 1.022 | 1.067 | 1.11 | 1.152 |
| 9 | 0.553 | 0.677 | 0.782 | 0.875 | 0.958 | 1.035 | 1.107 | 1.172 | 1.236 | 1.297 | 1.355 | 1.41 | 1.461 |
| 10 | 0.684 | 0.836 | 0.966 | 1.08 | 1.183 | 1.27 | 1.368 | 1.448 | 1.523 | 1.6 | 1.672 | 1.742 | 1.808 |
| 11 | 0.83 | 1.017 | 1.173 | 1.313 | 1.439 | 1.555 | 1.66 | 1.76 | 1.855 | 1.99 | 2.03 | 2.117 | 2.196 |
| 12 | 0.982 | 1.2 | 1.387 | 1.55 | 1.7 | 1.87 | 1.964 | 2.08 | 2.19 | 2.3 | 2.4 | 2.5 | 2.59 |
| 13 | 1.154 | 1.412 | 1.63 | 1.825 | 2.0 | 2.16 | 2.31 | 2.45 | 2.58 | 2.7 | 2.83 | 2.94 | 3.05 |
| 14 | 1.337 | 1.635 | 1.89 | 2.113 | 2.313 | 2.5 | 2.67 | 2.834 | 2.99 | 3.135 | 3.27 | 3.41 | 2.538 |
| 15 | 1.535 | 1.88 | 2.17 | 2.417 | 2.66 | 2.87 | 3.07 | 3.25 | 3.43 | 3.6 | 3.76 | 3.91 | 4.06 |
| 16 | 1.742 | 2.132 | 2.464 | 2.757 | 3.02 | 3.26 | 3.486 | 3.7 | 3.9 | 4.08 | 4.27 | 4.45 | 4.62 |
| 17 | 1.97 | 2.413 | 2.787 | 3.119 | 3.417 | 3.686 | 3.947 | 4.18 | 4.41 | 4.62 | 4.83 | 58.025 | 5.21 |
| 18 | 2.21 | 2.703 | 3.125 | 3.499 | 3.83 | 4.13 | 4.42 | 4.68 | 4.94 | 5.18 | 5.42 | 5.64 | 5.85 |
| 20 | 2.73 | 3.34 | 3.86 | 4.32 | 4.73 | 5.11 | 5.46 | 5.78 | 6.11 | 6.4 | 6.78 | 6.96 | 7.23 |
| 22 | 3.298 | 4.04 | 4.66 | 5.22 | 5.72 | 6.17 | 6.75 | 7.0 | 7.48 | 7.74 | 8.07 | 8.4 | 8.8 |
| 25 | 4.265 | 5.22 | 6.02 | 6.74 | 7.38 | 7.87 | 8.52 | 9.04 | 9.53 | 9.99 | 10.42 | 10.85 | 11.25 |
| 26 | 4.6 | 5.64 | 6.5 | 7.27 | 7.97 | 8.61 | 9.2 | 9.76 | 10.28 | 10.69 | 11.27 | 11.71 | 12.16 |
| 28 | 5.36 | 6.56 | 7.56 | 8.46 | 9.28 | 10.2 | 10.7 | 11.36 | 11.9 | 12.55 | 13.12 | 13.64 | 14.09 |
| 32 | 6.97 | 8.55 | 9.85 | 11.02 | 12.08 | 13.05 | 13.93 | 14.8 | 15.6 | 16.7 | 17.2 | 17.79 | 18.44 |
| 35 | 8.358 | 10.23 | 11.8 | 13.2 | 14.45 | 15.6 | 16.7 | 17.7 | 18.68 | 19.59 | 20.43 | 21.26 | 22.09 |
| 45 | 13.8 | 16.9 | 19.5 | 21.82 | 23.9 | 25.84 | 27.6 | 29.3 | 30.9 | 32.39 | 33.8 | 35.2 | 26.5 |
| 55 | 20.3 | 25.2 | 28.5 | 32.6 | 35.7 | 38.6 | 41.2 | 44.0 | 46.1 | 48.3 | 50.5 | 52.6 | 54.5 |
| 65 | 28.5 | 34.8 | 40.2 | 45.0 | 49.3 | 53.4 | 56.9 | 60.5 | 63.6 | 66.6 | 69.7 | 72.6 | 75.4 |
| 75 | 38.3 | 46.9 | 54.2 | 60.6 | 66.4 | 71.7 | 76.6 | 81.4 | 85.6 | 90.0 | 93.9 | 97.7 | 101.4 |
| 85 | 49.4 | 60.5 | 69.7 | 77.0 | 85.5 | 92.4 | 98.7 | 104.7 | 110.3 | 115.7 | 121.0 | 125.0 | 130.5 |
| 95 | 61.5 | 75.4 | 87.0 | 97.4 | 106.5 | 115.2 | 123.0 | 130.5 | 137.6 | 143.3 | 150.8 | 1570.0 | 162.8 |

| Ø NOZZLE IN mm | PRESSURE in m.c.w. | | | | | | | | | | | | |
|-------------------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 |
| 1 | 0.0068 | 0.0083 | 0.0096 | 0.0107 | 0.0118 | 0.0127 | 0.0136 | 0.0144 | 0.0152 | 0.0159 | 0.0167 | 0.0174 | 0.018 |
| 2 | 0.273 | 0.0334 | 0.0386 | 0.0432 | 0.0473 | 0.0511 | 0.0546 | 0.0579 | 0.0611 | 0.064 | 0.0668 | 0.696 | 0.0722 |
| 3 | 0.614 | 0.0751 | 0.0868 | 0.097 | 0.1063 | 0.1148 | 0.1228 | 0.13 | 0.137 | 0.144 | 0.15 | 0.156 | 0.162 |
| 4 | 0.109 | 0.133 | 0.154 | 0.175 | 0.189 | 0.204 | 0.218 | 0.231 | 0.244 | 0.255 | 0.267 | 0.278 | 0.288 |
| 5 | 1.171 | 0.209 | 0.242 | 0.271 | 0.296 | 0.32 | 0.342 | 0.363 | 0.383 | 0.401 | 0.419 | 0.4336 | 0.453 |
| 6 | 0.246 | 0.301 | 0.348 | 0.389 | 0.426 | 0.455 | 0.492 | 0.522 | 0.55 | 0.577 | 0.603 | 0.627 | 0.652 |
| 7 | 0.334 | 0.408 | 0.472 | 0.527 | 0.578 | 0.625 | 0.667 | 0.708 | 0.747 | 0.783 | 0.817 | 0.851 | 0.883 |
| 8 | 0.436 | 0.534 | 0.616 | 0.689 | 0.755 | 0.815 | 0.871 | 0.925 | 0.975 | 1.022 | 1.067 | 1.11 | 1.152 |
| 9 | 0.553 | 0.677 | 0.782 | 0.875 | 0.958 | 1.035 | 1.107 | 1.172 | 1.236 | 1.297 | 1.355 | 1.41 | 1.461 |
| 10 | 0.684 | 0.836 | 0.966 | 1.08 | 1.183 | 1.27 | 1.368 | 1.448 | 1.523 | 1.6 | 1.672 | 1.742 | 1.808 |
| 11 | 0.83 | 1.017 | 1.173 | 1.313 | 1.439 | 1.555 | 1.66 | 1.76 | 1.855 | 1.99 | 2.03 | 2.117 | 2.196 |
| 12 | 0.982 | 1.2 | 1.387 | 1.55 | 1.7 | 1.87 | 1.964 | 2.08 | 2.19 | 2.3 | 2.4 | 2.5 | 2.59 |
| 13 | 1.154 | 1.412 | 1.63 | 1.825 | 2.0 | 2.16 | 2.31 | 2.45 | 2.58 | 2.7 | 2.83 | 2.94 | 3.05 |
| 14 | 1.337 | 1.635 | 1.89 | 2.113 | 2.313 | 2.5 | 2.67 | 2.834 | 2.99 | 3.135 | 3.27 | 3.41 | 2.538 |
| 15 | 1.535 | 1.88 | 2.17 | 2.417 | 2.66 | 2.87 | 3.07 | 3.25 | 3.43 | 3.6 | 3.76 | 3.91 | 4.06 |
| 16 | 1.742 | 2.132 | 2.464 | 2.757 | 3.02 | 3.26 | 3.486 | 3.7 | 3.9 | 4.08 | 4.27 | 4.45 | 4.62 |
| 17 | 1.97 | 2.413 | 2.787 | 3.119 | 3.417 | 3.686 | 3.947 | 4.18 | 4.41 | 4.62 | 4.83 | 58.025 | 5.21 |
| 18 | 2.21 | 2.703 | 3.125 | 3.499 | 3.83 | 4.13 | 4.42 | 4.68 | 4.94 | 5.18 | 5.42 | 5.64 | 5.85 |
| 20 | 2.73 | 3.34 | 3.86 | 4.32 | 4.73 | 5.11 | 5.46 | 5.78 | 6.11 | 6.4 | 6.78 | 6.96 | 7.23 |
| 22 | 3.298 | 4.04 | 4.66 | 5.22 | 5.72 | 6.17 | 6.75 | 7.0 | 7.48 | 7.74 | 8.07 | 8.4 | 8.8 |
| 25 | 4.265 | 5.22 | 6.02 | 6.74 | 7.38 | 7.87 | 8.52 | 9.04 | 9.53 | 9.99 | 10.42 | 10.85 | 11.25 |
| 26 | 4.6 | 5.64 | 6.5 | 7.27 | 7.97 | 8.61 | 9.2 | 9.76 | 10.28 | 10.69 | 11.27 | 11.71 | 12.16 |
| 28 | 5.36 | 6.56 | 7.56 | 8.46 | 9.28 | 10.2 | 10.7 | 11.36 | 11.9 | 12.55 | 13.12 | 13.64 | 14.09 |
| 32 | 6.97 | 8.55 | 9.85 | 11.02 | 12.08 | 13.05 | 13.93 | 14.8 | 15.6 | 16.7 | 17.2 | 17.79 | 18.44 |
| 35 | 8.358 | 10.23 | 11.8 | 13.2 | 14.45 | 15.6 | 16.7 | 17.7 | 18.68 | 19.59 | 20.43 | 21.26 | 22.09 |
| 45 | 13.8 | 16.9 | 19.5 | 21.82 | 23.9 | 25.84 | 27.6 | 29.3 | 30.9 | 32.39 | 33.8 | 35.2 | 26.5 |
| 55 | 20.3 | 25.2 | 28.5 | 32.6 | 35.7 | 38.6 | 41.2 | 44.0 | 46.1 | 48.3 | 50.5 | 52.6 | 54.5 |
| 65 | 28.5 | 34.8 | 40.2 | 45.0 | 49.3 | 53.4 | 56.9 | 60.5 | 63.6 | 66.6 | 69.7 | 72.6 | 75.4 |
| 75 | 38.3 | 46.9 | 54.2 | 60.6 | 66.4 | 71.7 | 76.6 | 81.4 | 85.6 | 90.0 | 93.9 | 97.7 | 101.4 |
| 85 | 49.4 | 60.5 | 69.7 | 77.0 | 85.5 | 92.4 | 98.7 | 104.7 | 110.3 | 115.7 | 121.0 | 125.0 | 130.5 |
| 95 | 61.5 | 75.4 | 87.0 | 97.4 | 106.5 | 115.2 | 123.0 | 130.5 | 137.6 | 143.3 | 150.8 | 1570.0 | 162.8 |

TECHNICAL APPENDIX

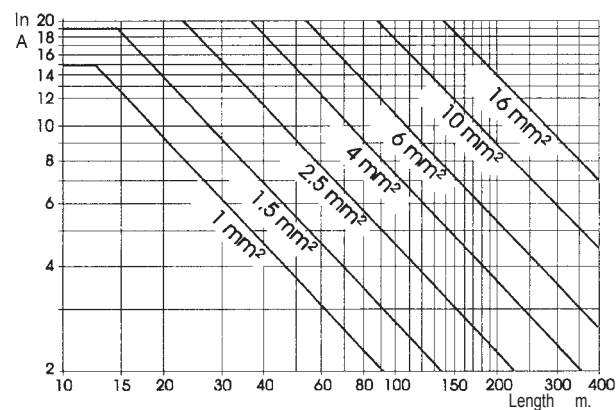
CENTRIFUGAL PUMPS

TABLE OF EQUIVALENT STANDARDS FOR MATERIALS

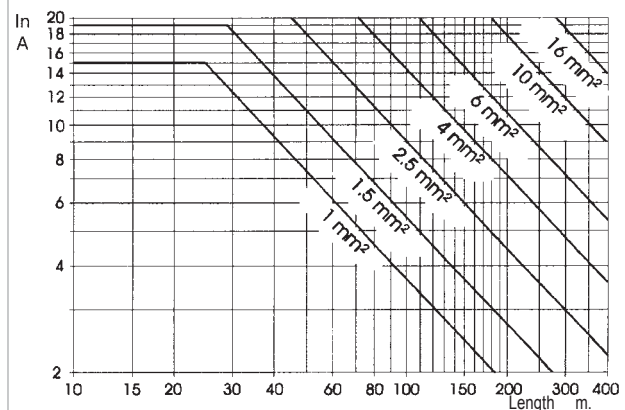
| MATERIAL | UNI | | DIN | | ISO | AISI | ASTM |
|-----------|--------------------|-------------|---------------|-----------|----------------------|-----------|---------------|
| STEEL | X 30Cr13 | UNI 6900/71 | X 30Cr13 | DIN 17440 | – | AISI 420B | – |
| | X 12CrS13 | UNI 6900/71 | X 12CrS13 | DIN 17440 | – | AISI 416 | – |
| | X 20Cr13 | UNI 6900/71 | X 20Cr13 | DIN 17440 | – | AISI 420A | S 42000 A 276 |
| | X 10CrNiS1809 | UNI 6900/71 | X 10CrNiS1809 | DIN 17440 | XIII-17 ISO 683/XIII | AISI 303 | S 30300 A 276 |
| | X 5CrNi 1810 | UNI 6900/71 | X 5CrNi 1810 | DIN 17440 | XIII-11 ISO 683/XIII | AISI 304 | S 30400 A 276 |
| CAST IRON | X 10CrS17 | UNI 6900/71 | X 10CrS17 | DIN 17440 | XIII-84 ISO 683/XIII | AISI 430F | – |
| | G 20 | UNI ISO 185 | GG 20 | DIN 1691 | Grade 20 ISO R 185 | – | Class 25 A 48 |
| BRASS | G 25 | UNI ISO 185 | GG 25 | DIN 1691 | Grade 20 ISO R 185 | – | Class 35 A 48 |
| | G CuZn38Al 1Fe 1Mn | UNI 6138/68 | – | – | – | – | B 30 C 86550 |
| BRONZE | P CuZn40 Pb2 | UNI 5705 | P CuZn40 Pb2 | DIN 17660 | – | – | C 37740 |
| | G CuSn12 | UNI 7013/72 | G CuSn12 | DIN 17006 | CuSn 12 ISO 1338 | – | B 205 C 90700 |

CHART FOR THE SELECTION OF THE POWER INPUT CABLE IN RELATION TO LENGTH

Voltage 1 x 230 V ~ direct start
3 % voltage drop
Ambient temperature 30 °C













Voltage 3 x 400 V ~ direct start
3 % voltage drop
Ambient temperature 30 °C



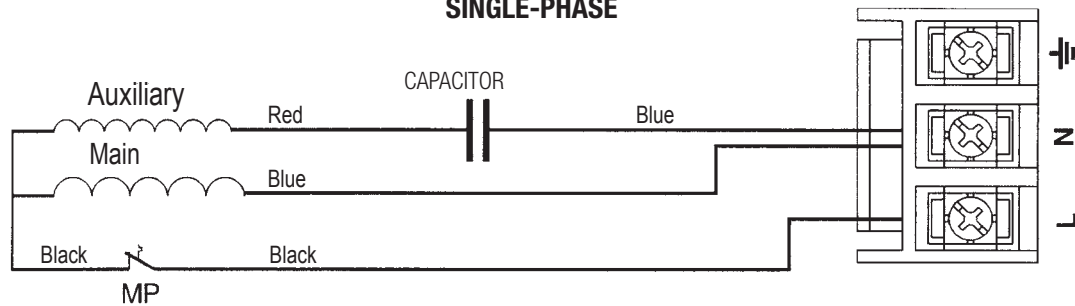
EXPLANATION OF PUMP DATA PLATES

| No. | SERIAL NUMBER | - |
|--------|-----------------------------------|-------|
| Q | FLOW | m³/h |
| H | HEAD | m |
| H max | MAXIMUM HEAD | m |
| H min | MINIMUM HEAD | m |
| – | REVOLUTIONS PER MINUTE | 1/min |
| – | ABSORBED POWER | kWass |
| – | NOMINAL DEVELOPED POWER | HP |
| – | VOLTAGE | V ~ |
| – | FREQUENCY | Hz |
| – | CURRENT | A |
| – | PROTECTION CLASS (IEC) | IP |
| I.C.L. | INSULATION CLASS | µF Vc |
| – | CAPACITY AND VOLTAGE OF CAPACITOR | µF Vc |
| | MAXIMUM IMMERSION | m |
| Lwa | NOISE LEVEL | dB |

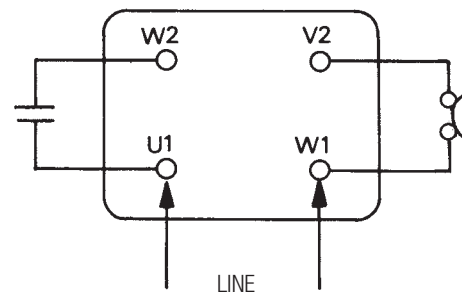
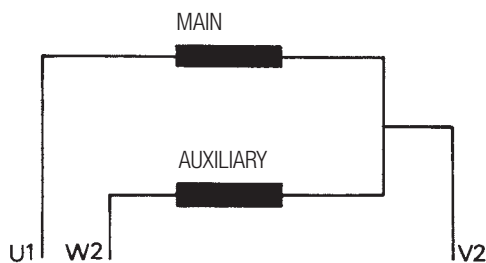
| | | | |
|---|-------------------|------|---------------------|
| <div>DAB</div> <div>WATER • TECHNOLOGY</div> <div>DAB PUMPS S.p.A. Via Marco Polo, 14 35035 Mestrino (PD) - Italy</div> | | | |
| | | N. | TF S1 |
| Q | m ³ /h | H | m HP |
| Hmax | m | Hmin | m I.C.L. F kW ass |
| | | | |
| 1/min | IP | Hz | µF V~ MADE IN ITALY |
| <div><div></div><div></div><div>1110</div><div>15 EN ISO 9908</div></div> | | | |

WIRING DIAGRAMS FOR ELECTRIC MOTORS

SINGLE-PHASE



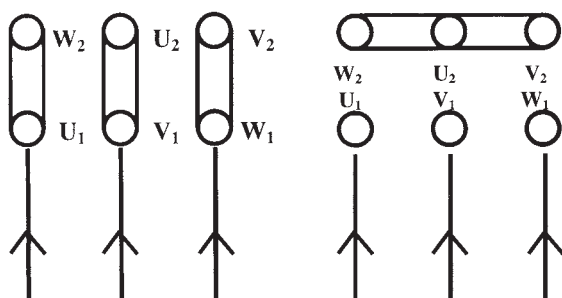
Overload protection inside the winding - MEC 63-71 M



Overload protection inside the terminal board - MEC 80 M

THREE-PHASE

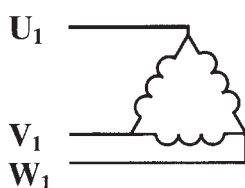
3 ~ 230/400 V



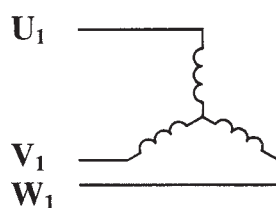
Power input line
230 V

400 V

TRIANGLE connection

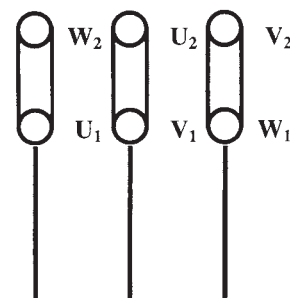


STAR connection



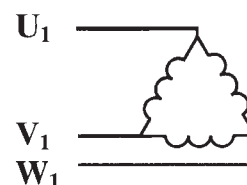
Clockwise rotation when viewed from the fan end

3 ~ 400 Δ V



Power input line

DELTA connection



DNA[®]

PUMPS SELECTOR

On-line product selection



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