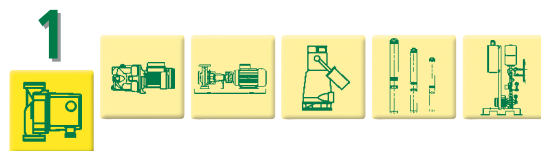


WET ROTOR CIRCULATORS AND IN-LINE PUMPS



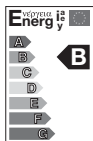
DWT GROUP
PUMPS • MOTORS • ELECTRONICS

TECHNICAL CATALOGUE SECTIONS:

- 1  **WET ROTOR CIRCULATORS AND IN-LINE PUMPS**
- 2  SELF-PRIMING AND MULTISTAGE CENTRIFUGAL PUMPS
- 3  CENTRIFUGAL PUMPS
- 4  SUBMERSIBLE PUMPS
- 5  SUBMERGED PUMPS
- 6  BOOSTER SETS

CONTENTS

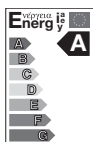
CIRCULATORS WET ROTOR



VA - VB - VD - VS
A - B - D
BMH - BPH - DMH - DPH

pag. 2-78

CIRCULATORS ELECTRONIC WET ROTOR



AC
VEA - VEB - DEB
BPH - E - DPH - E - DIALOGUE

pag. 79-117

CIRCULATORS SPHERICAL IMPELLER

BWZ - BW

pag. 118-120

IN LINE PUMPS

ALM - ALP - KLM - KLP
DKLM - DKLP - CM - DCM - CP - DCP
CONTROL AND PROTECTION SYSTEMS

pag. 121-178

IN LINE PUMPS CONSTANT DIFFERENTIAL PRESSURE TYPE

KLME - KLPE
DKLME - DKLPE - CME - CPE

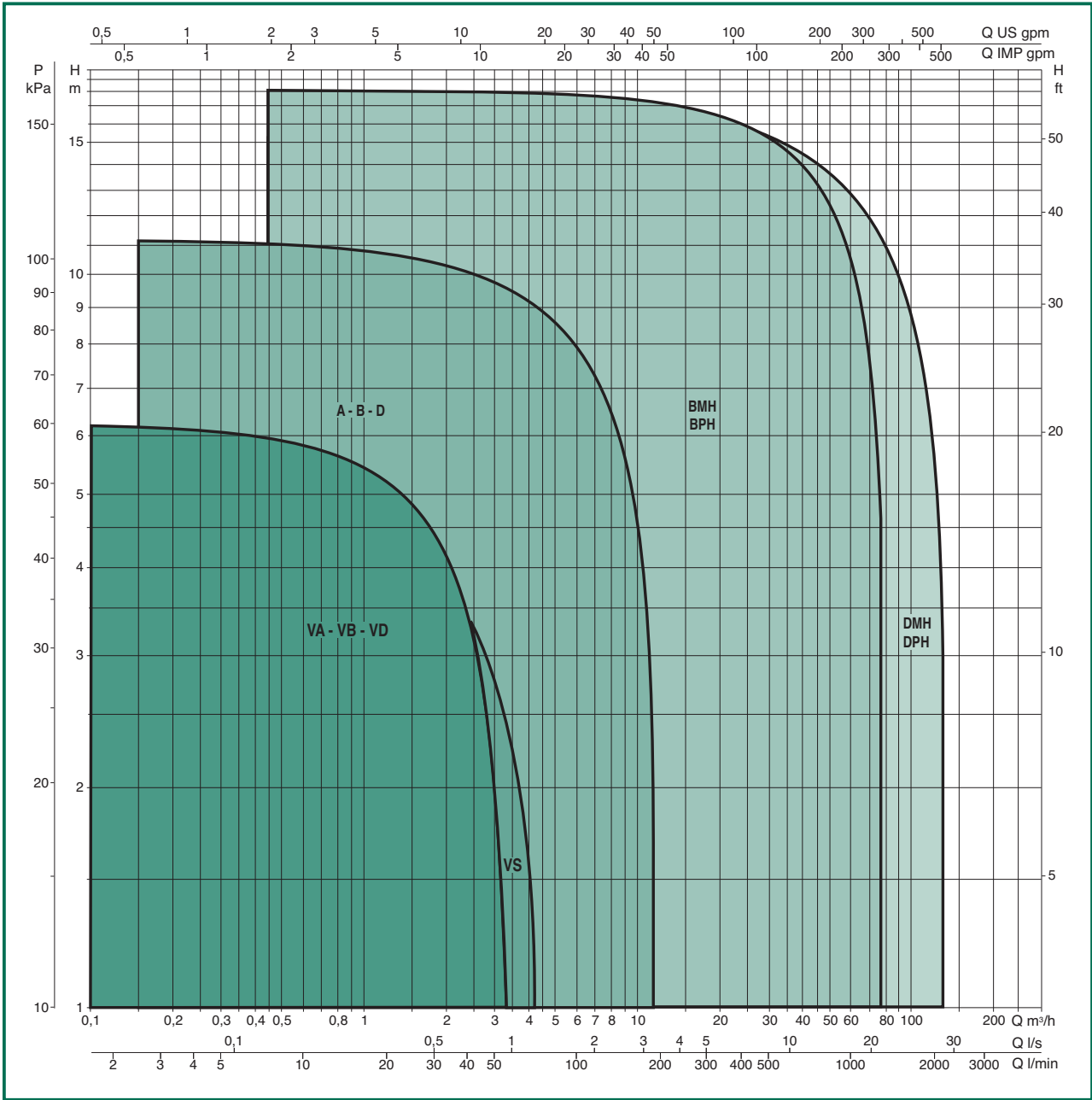
pag. 179-209

CIRCULATORS WET ROTOR

PERFORMANCE RANGE

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.

GRAPHIC SELECTION TABLE



PERFORMANCE RANGE

NUMERICAL SELECTION TABLE

SINGLE Single-phase - Three-phase	TWIN Single-phase - Three-phase	P1 Max W	Q m³/h l/min	0	0,6	1,2	1,8	2,4	3	4,2	5,4	7,2	9,6	12	14,4	18	24	30	36	42	54	72
				0	10	20	30	40	50	70	90	120	160	200	240	300	400	500	600	700	900	1200
VA 25 - VSA 25	-	57	H (m)	2,7	2,5	2,2	1,8	1,3	0,6													
VA 35 - VSA 35	-	71		4,3	3,9	3,4	2,9	2,1	1,4													
VA 55 - VSA 55	VD 55/220.32	82		5,4	4,8	4	3,2	2,4	1,4	0,2												
VA 65 - VSA 65	-	102		6,1	5,4	4,6	3,9	3,1	2,4													
VB 35/120	-	71		4,3	3,9	3,4	2,9	2,1	1,4													
VB 55/120	-	82		5,4	4,8	4	3,2	2,4	1,4	0,2												
VB 65/120	VD 65/220.32	102		6,1	5,4	4,6	3,9	3,1	2,4													
VS 8/150	-	40	H (m)	0,83	0,73	0,52	0,21															
VS 16/150	-	54		1,81	1,78	1,62	1,41	0,6	0,6													
VS 35/150	-	71		4,31	3,9	3,4	2,8	2,1	1,4													
VS 65/150	-	103		6	5,4	4,6	3,9	3,1	2,1													
A 50/180 M - XM B 50/250.40 M	D 50/250.40 M	184	H (m)	5,7	5,6	5,4	5,3	5,1	4,8	4,2		2,6										
A 56/180 M - XM B 56/250.40 M	D 56/250.40 M	271		6,35	6,3	6,2	6,18	6	5,9	5,5		4,2		1,2								
A 80/180 M - XM B 80/250.40 M	D 80/250.40 M	256		8,25	8	7,6	7,4	7,2	6,9	6,3		3,8										
A 110/180 XM B 110/250.40 M	D 110/250.40 M	410		11,3	11	10,8	10,5	10	9,8	9,2		7		1,6								
A 50/180 XT B 50/250.40 T	D 50/250.40 T	201		5,9	5,85	5,8	5,6	5,5	5,2	4,6		2,9										
A 50/180 T	-	197		5,6	5,6	5,6	5,5	5,43	5,4	4,9		2,8										
A 56/180 XT B 56/250.40 T	D 56/250.40 T	291		6,4	6,3	6,2	6,1	6	5,9	5,7		4,4										
A 56/180 T	-	297		6,42	6,42	6,41	6,4	6,4	6,4	6,1		4,8										
A 80/180 XT B 80/250.40 T	D 80/250.40 T	272		8,2	7,9	7,6	7,3	7	6,8	6,1		3,7										
A 80/180 T	-	271		8,2	7,9	7,6	7,3	7	6,8	6,1		3,7										
A 110/180 XT B 110/250.40 T	D 110/250.40 T	403		11,3	11	10,8	10,5	10	9,8	9,2		7		1,6								
BPH 60/250.40 M	DPH 60/250.40 M	316	H (m)	7,2			6,8	6,7	6,5	6,2	5,8	5	3,7	2								
BPH 120/250.40 M	DPH 120/250.40 M	510		11			10,3	10,1	9,8	9,2	8,6	7,65	6,2	4,35	2,4							
BPH 60/280.50 M	DPH 60/280.50 M	595		7,65			7,5	7,45	7,4	7,3	7,2	6,98	6,7	6,2	5,75	4,6	2,3					
BPH 60/340.65 M	DPH 60/340.65 M	735		6,8			6,79	6,75	6,7	6,6	6,57	6,5	6,35	6,2	5,95	5,5	4,35	2,85	1,2			
BMH 30/250.40 T	DMH 30/250.40 T	192		3,3			3,1	2,95	2,85	2,5	2,1	1,15										
BPH 60/250.40 T	DPH 60/250.40 T	348		7,65			7,4	7,3	7,2	6,8	6,4	5,45	3,9	2,25								
BPH 120/250.40 T	DPH 120/250.40 T	536		12				11	10,7	10,1	9,5	8,4	6,8	4,7	2,2							
BMH 30/280.50 T	DMH 30/280.50 T	255		3,15				3,02	3	2,93	2,85	2,65	2,3	1,75	1,2							
BMH 60/280.50 T	DMH 60/280.50 T	410		5,83				5,65	5,6	5,49	5,35	5,1	4,75	4,2	3,65	2,62						
BPH 60/280.50 T	DPH 60/280.50 T	589		7,95				7,75	7,7	7,6	7,5	7,35	6,92	6,45	5,85	4,65	2,4					
BPH 120/280.50 M	DPH 120/280.50 M	870		11,3						10,8	10,5	10,3	9,9	9,4	8,5	7,2	4,8	2,1				
BPH 120/280.50 T	DPH 120/280.50 T	898		11,7						11,3	11	10,75	10,25	9,6	8,9	7,75	5,4	2,6				
BPH 150/280.50 T	DPH 150/280.50 T	1130		15						14,6	14,4	14	13,6	12,7	11,8	10,5	7,5					
BPH 180/280.50 T	DPH 180/280.50 T	1630		18,4								17,4	17	16,4	15,6	14,4	12	8,8	5,2			
BMH 30/340.65 T	DMH 30/340.65 T	270		3,15						3,09	3,02	2,98	2,85	2,55	2,25	1,65						
BMH 60/340.65 T	DMH 60/340.65 T	445		5,4						5,15	5,05	4,9	4,7	4,45	4,1	3,45	2,25					
BPH 60/340.65 T	DPH 60/340.65 T	756		7,4						7,35	7,3	7,24	7,1	6,9	6,65	6,15	4,9	3,3	1,4			
BPH 120/340.65 T	DPH 120/340.65 T	1275		10,9						10,75	10,68	10,6	10,5	10,38	10,2	9,8	8,7	7,15	5,2	3		
BPH 150/340.65 T	DPH 150/340.65 T	2800		14,9						14,88	14,83	14,75	14,65	14,55	14,3	13,88	12,65	11	9,35	7,15		
BPH 180/340.65 T	DPH 180/340.65 T	2760		17,9								17,8	17,7	17,5	17,3	16,8	15,7	14,1	12,1	10		
BMH 30/360.80 T	DMH 30/360.80 T	484		3,9								3,85	3,8	3,75	3,65	3,48	3,1	2,45	1,75			
BMH 60/360.80 T	DMH 30/360.80 T	763		5,7								5,66	5,61	5,59	5,5	5,4	5	4,55	3,9	3,1		
BPH 120/360.80 T	DPH 120/360.80 T	1820		11,8								11,65	11,58	11,5	11,4	11,25	10,75	10,2	9,39	8,37	5,65	
BPH 150/360.80 T	DPH 150/360.80 T	2710		15,3								15,1	15,06	14,99	14,92	14,75	14,5	14	13,4	12,4	10,3	6
BPH 180/360.80 T	DPH 180/360.80 T	2310		17,5								17,4	17,25	17,1	16,8	16,25	15	13,7	12	10,1	5,5	

Hydraulic values are assumed at maximum speed and are referred to individual models.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS



GENERAL DATA

Applications

Pump for hot water circulation in domestic central heating and air conditioning systems of the closed circuit pressurized type or open circuit type.

Construction features

Enbloc body composed of hydraulic section in cast iron and wet rotor motor. Motor casing in die cast aluminium. Impeller in technopolymer. Motor shaft in hardened stainless steel held in graphite bearings lubricated by the pumping medium.

Rotor protective jacket, stator jacket, and closing flange in stainless steel.

Ceramic thrust ring, ethylene-propylene seal rings and brass air breather plug. The two-pole asynchronous wet-rotor motor is resistance protected and does not require any form of overload protection.

Three-speed operation.

Protection rating: IP 44

Insulation class: F

Cable gland: PG 11

Installation: with horizontal motor shaft.

Standard voltage input: single-phase 230 V / 50 Hz

Special versions on request - alternative voltages and/or frequencies

– Designation index:
(example)

VA = circulator with threaded ports

VB = circulator with
DN 25 oval flanges

VD = twin circulator

maximum head (dm)

centre distance (mm)

standard (no ref.)

1/2"

X

32

= 1" 1/2 threaded ports

= 1" threaded ports

= 2" threaded ports

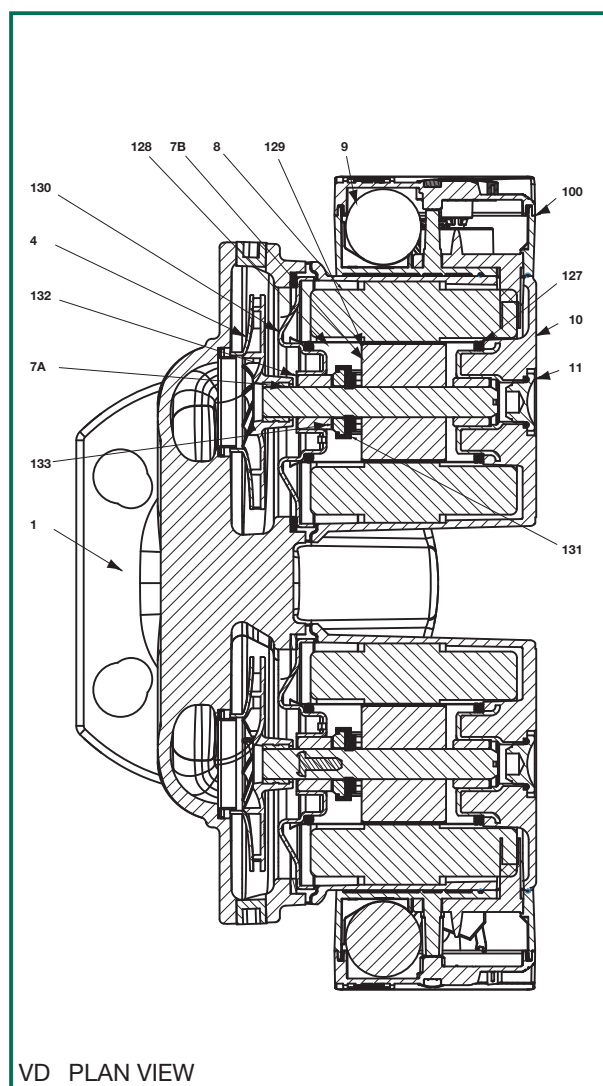
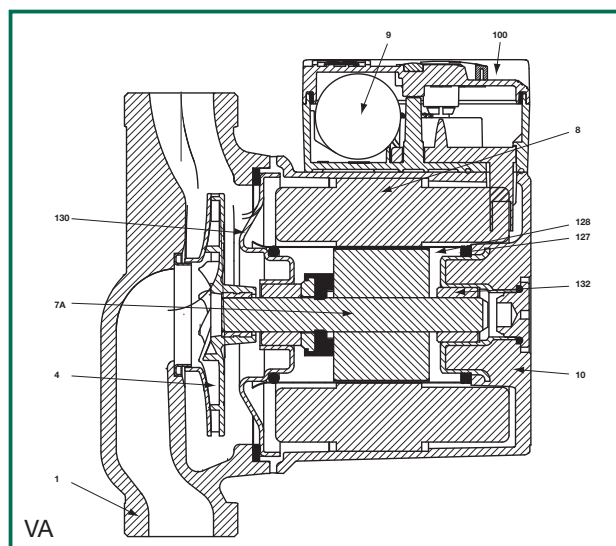
= DN32/PN6/10 flanged ports

VA 55 / 180 X

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

TECHNICAL DATA

No.	PARTS	MATERIALS
1	PUMP BODY	CAST IRON
4	IMPELLER	TECHNOPOLYMER
7A	MOTOR SHAFT	STAINLESS STEEL
7B	ROTOR	—
8	STATOR	—
9	CAPACITOR	—
10	MOTOR CASING	DIE CAST ALUMINIUM
11	BREATHER PLUG	BRASS
100	TERMINAL BOX	—
127	SEAL RING	ETHYLENE POLYPROPYLENE
128	STATOR JACKET	STAINLESS STEEL
129	ROTOR JACKET	STAINLESS STEEL
130	CLOSING FLANGE	STAINLESS STEEL
131	THRUST RING SUPPORT	ETHYLENE PROPYLENE
132	BUSHINGS	GRAPHITE
133	THRUST RING	CERAMIC



Operating range:

Liquid temperature range:

Liquid quality requirements:

Maximum working pressure:

Minimum suction pressure:

Installation:

SPECIAL executions on request:

Optional accessories:

VA - VB - VD: from 0.5 to 3.6 m³/h with head of up to 6 m.

VA - VB - VD: from -10°C to +110°C

clean, free of solids and mineral oils, non-viscous,
chemically neutral and approximating the properties of water
(max. glycol contents 30%).

VA - VB - VD 10 bar (1000 kPa)

the values are given in the relative tables.

with HORIZONTAL MOTOR SHAFT on discharge or return pipe,
with suction port as close as possible to expansion vessel, above
maximum boiler level and as far as possible from bends, elbows,
and circuit branches to avoid water turbulence with consequent
noise.

alternative voltages and/or frequencies

1/4" F - 1" F - 1 1/4" F - 1 1/4" M unions

DN20-DN25-DN32 oval counter-flanges

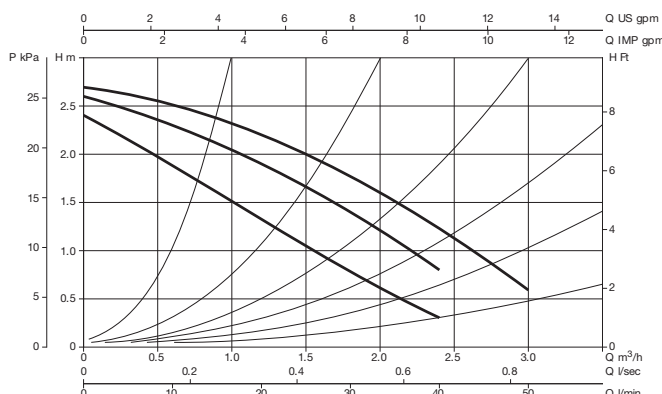
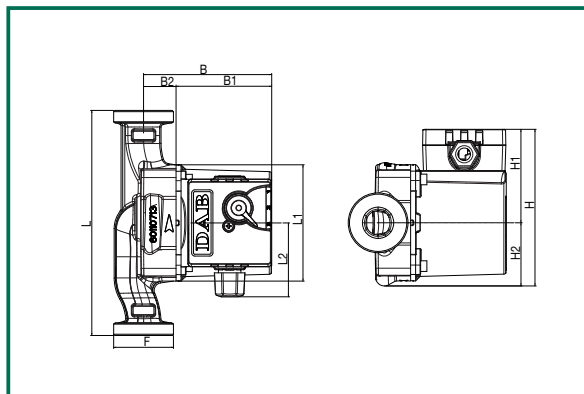
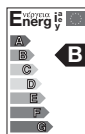
DN32/PN6 round counter-flanges

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.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

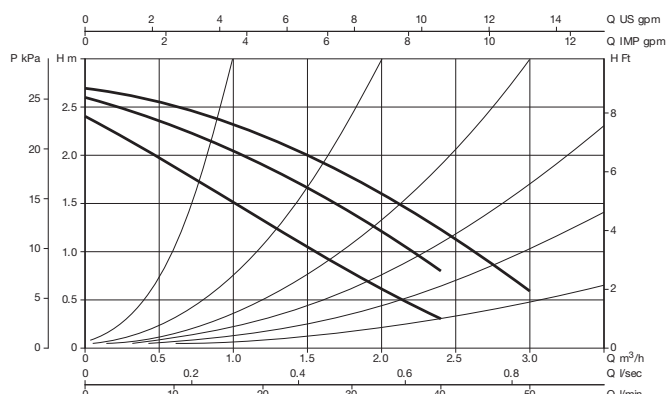
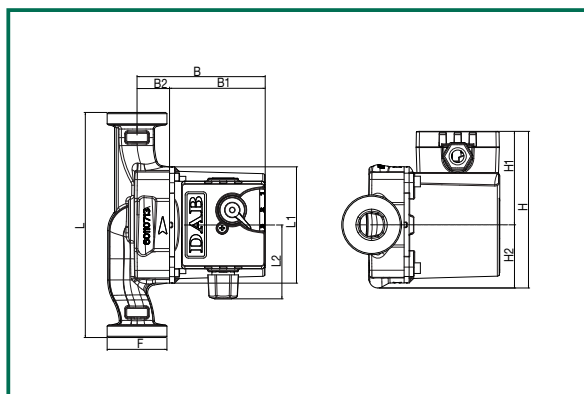
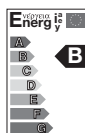
VA 25/130 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	I _n A	CAPACITOR μF	V _c	
VA 25/130	1x230 V ~	130	1" F	3/4" F - 1 1/4" M	3	2655	43	0,19	1,5	450	t° +90°C m.c.a. 1,5
					2	2380	38	0,17			
					1	1680	31	0,15			

VA 25/180 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

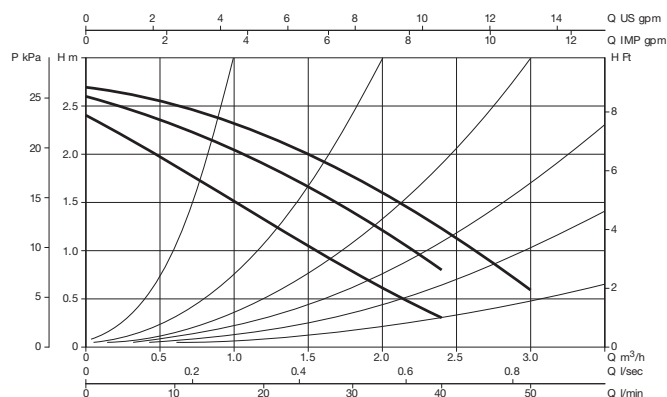
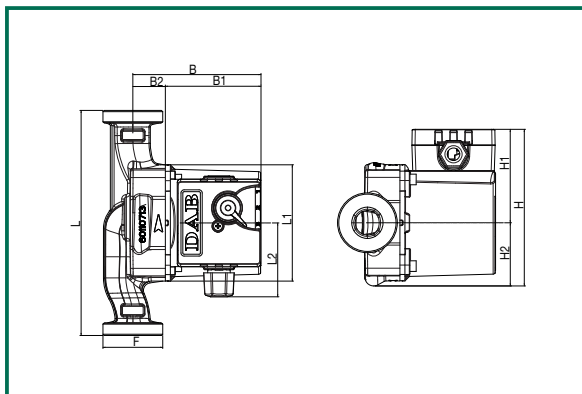
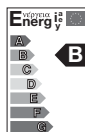
MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	I _n A	CAPACITOR μF	V _c	
VA 25/180	1x230 V ~	180	1" F	3/4" F - 1 1/4" M	3	2655	43	0,19	1,5	450	t° +90°C m.c.a. 1,5
					2	2380	38	0,17			
					1	1680	31	0,15			

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.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

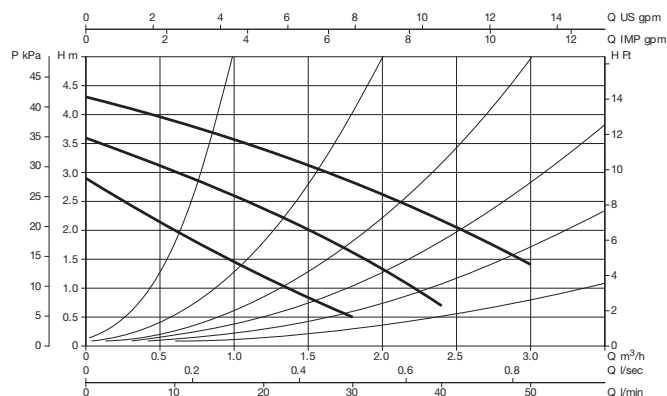
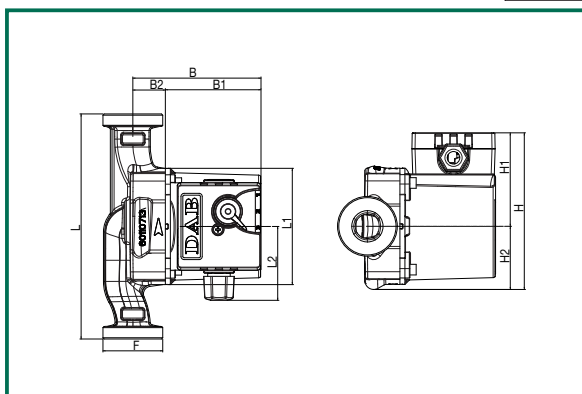
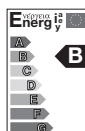
VA 25/180X SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
VA 25/180X	1x230 V ~	180	1" 1/4 F	3	2655	43	0,19	1,5	450	t° +90°C m.c.a. 1,5
				2	2380	38	0,17			
				1	1680	31	0,15			

VA 35/130 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
VA 35/130	1x230 V ~	130	1" F	3/4" F - 1 1/4" M	3	2465	56	0,25	1,7	450	t° +90°C m.c.a. 1,5
					2	1930	50	0,22			
					1	1150	35	0,16			

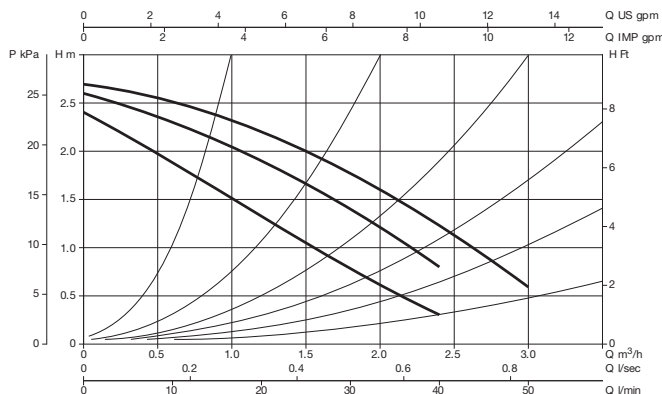
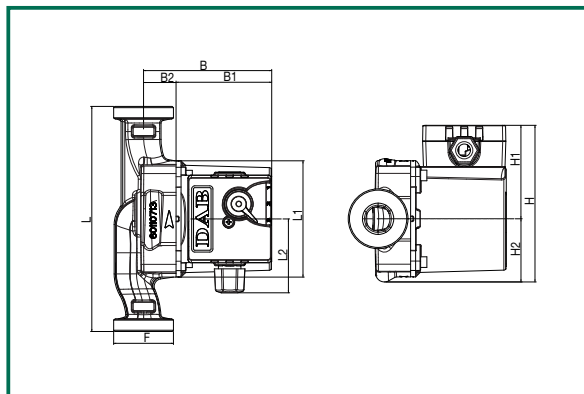
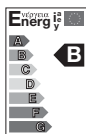
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

VA 35/130 - 1/2"

SINGLE WITH UNIONS

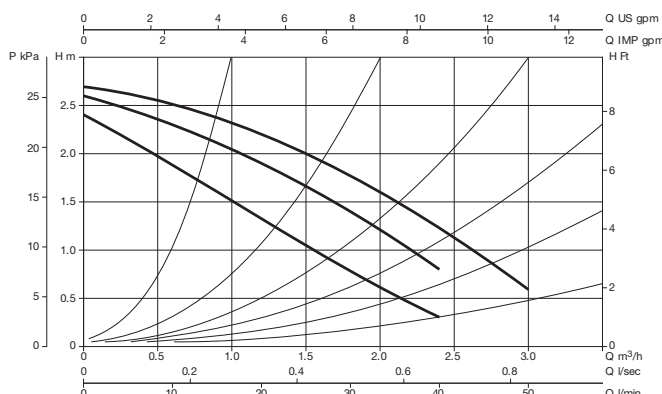
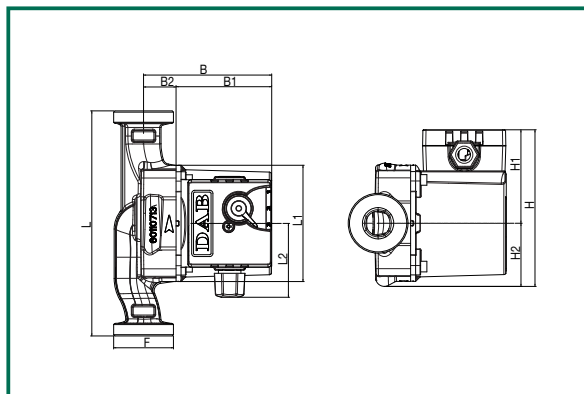
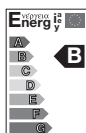


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	I _n A	CAPACITOR μF V _C		
VA 35/130 ½"	1x230 V ~	130	—	—	3	2465	56	0,25	1,7	450	t° +90°C m.c.a. 1,5
					2	1930	50	0,22			
					1	1150	35	0,16			

VA 35/180

SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

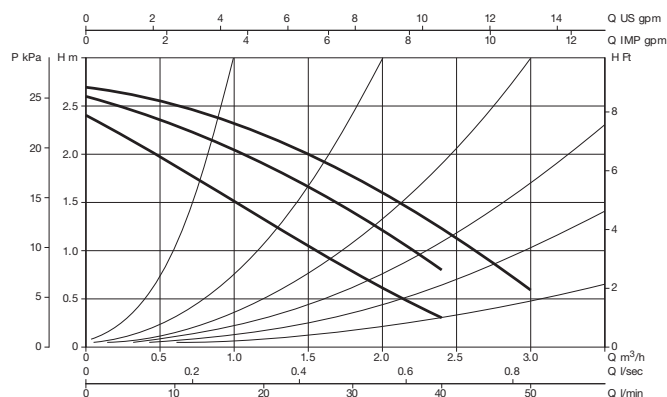
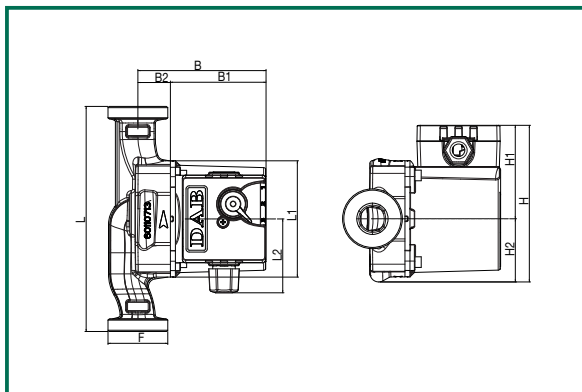
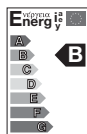
MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	I _n A	CAPACITOR μF V _C		
VA 35/180	1x230 V ~	180	1" F	¾" F - 1 ¼" M	3	2465	56	0,25	1,7	450	t° +90°C m.c.a. 1,5
					2	1930	50	0,22			
					1	1150	35	0,16			

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.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

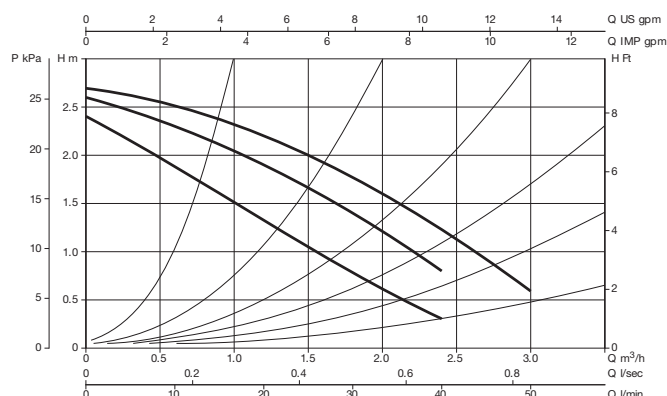
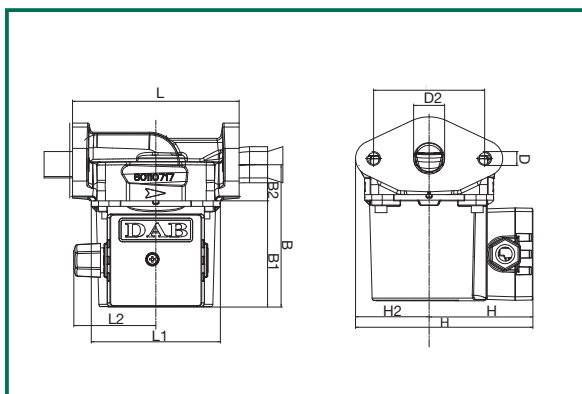
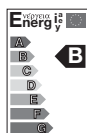
VA 35/180X SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m³	WEIGHT kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
VA 35/180X	1x230 V ~	180	1 1/4" F	3	2465	56	0,25	1,7	450	t° +90°C m.c.a. 1,5
				2	1930	50	0,22			
				1	1150	35	0,16			

VB 35/120 SINGLE WITH OVAL FLANGES



L	L1	L2	B	B1	B2	H	H1	H2	D2	D1	I	PACK DIMENSIONS			VOLUME m³	WEIGHT Kg
120	98	60	104	78	26	124	75	49	25	M10	78	135	135	150	0,0027	2,7

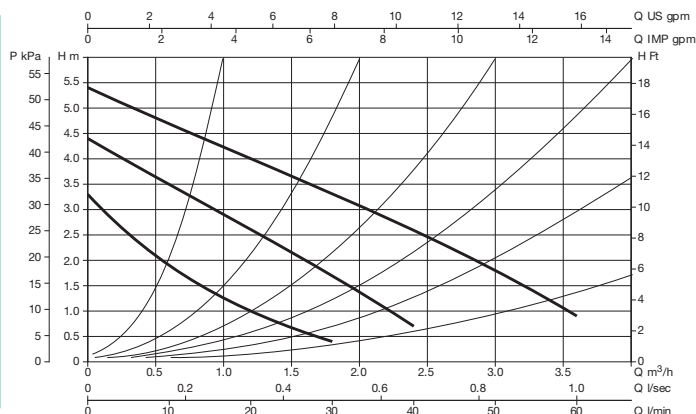
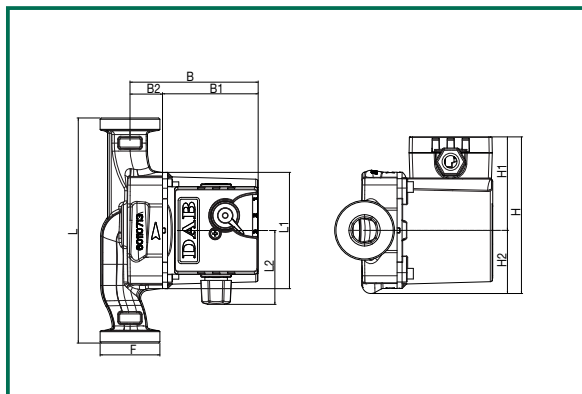
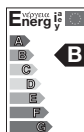
MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
VB 35/120	1x230 V ~	120	DN 25	DN 20 DN 32	3	2465	56	0,25	1,7	450	t° +90°C m.c.a. 1,5
					2	1930	50	0,22			
					1	1150	35	0,16			

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.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

VA 55/130 SINGLE WITH UNIONS

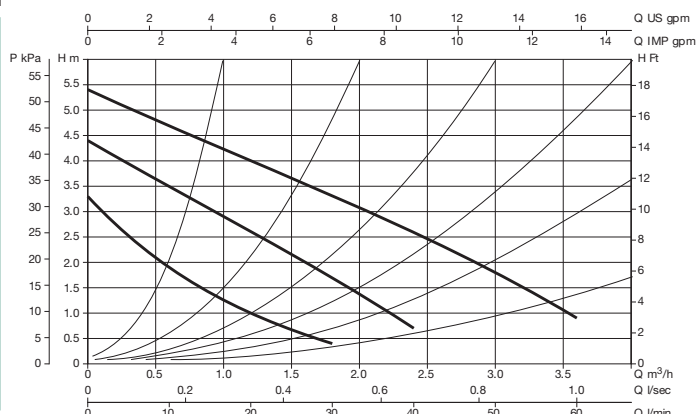
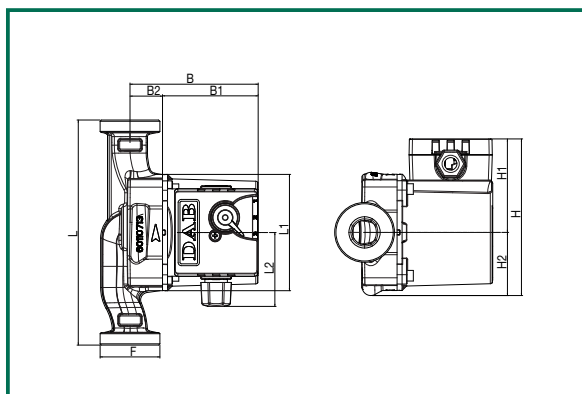
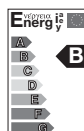


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	I _n A	CAPACITOR μF	V _c	
VA 55/130	1x230 V ~	130	1" F	3/4" F - 1 1/4" M	3	2400	70	0,3	1,7	450	t° +90°C m.c.a. 1,5
					2	1600	58	0,26			
					1	930	36	0,17			

VA 55/130 - 1/2"

SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

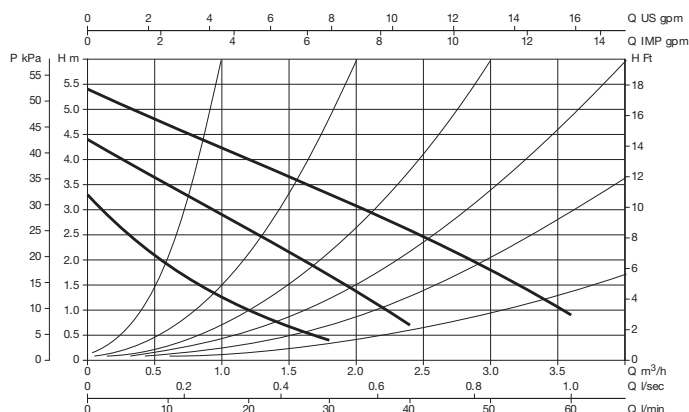
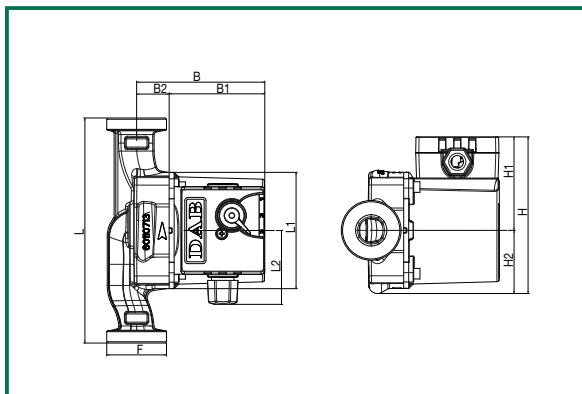
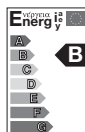
MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	I _n A	CAPACITOR μF	V _c	
VA 55/130 1/2"	1x230 V ~	130	-	-	3	2400	70	0,3	1,7	450	t° +90°C m.c.a. 1,5
					2	1600	58	0,26			
					1	930	36	0,17			

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.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

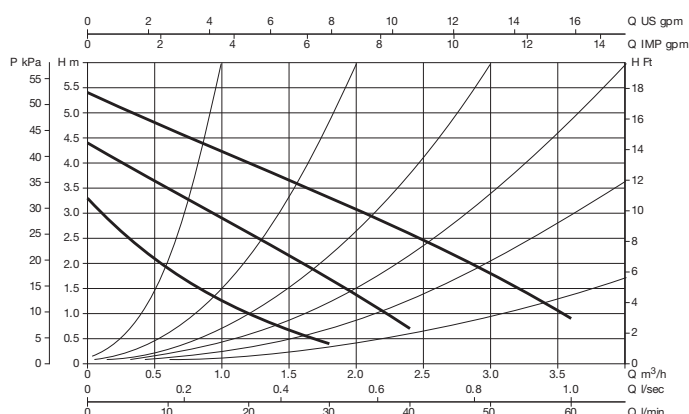
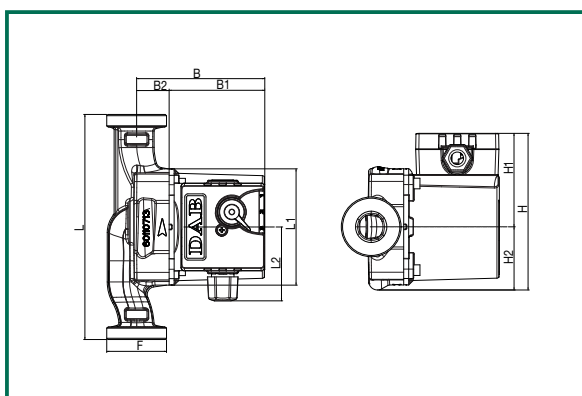
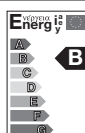
VA 55/180 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA					MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	I _n A	CAPACITOR μF V _c	
VA 55/180	1x230 V ~	180	1" F	3/4" F - 1 1/4" M	3	2400	70	0,3	1,7 450	t° +90°C m.c.a. 1,5
					2	1600	58	0,26		
					1	930	36	0,17		

VA 55/180X SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

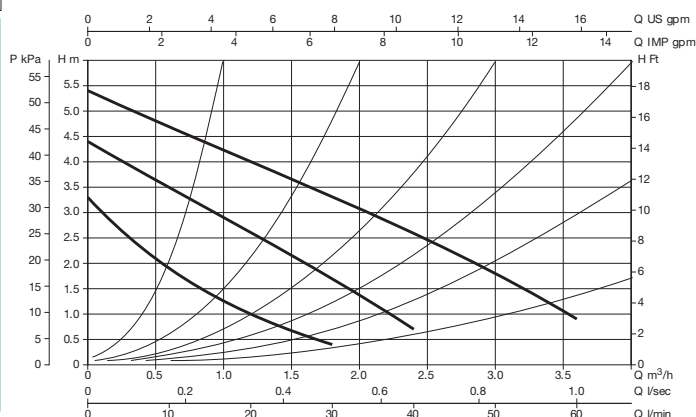
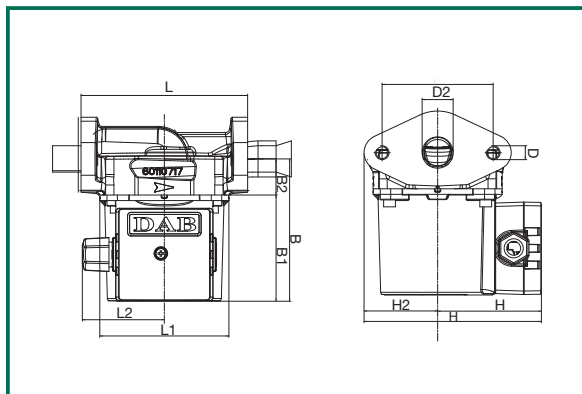
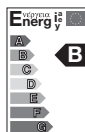
MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA					MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	I _n A	CAPACITOR μF V _c	
VA 55/180X	1x230 V ~	180	1 1/4" F	3	2400	70	0,3	1,7 450	t° +90°C m.c.a. 1,5
				2	1600	58	0,26		
				1	930	36	0,17		

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.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

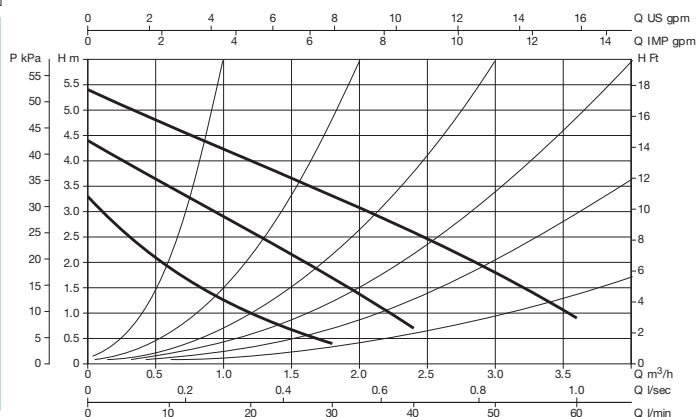
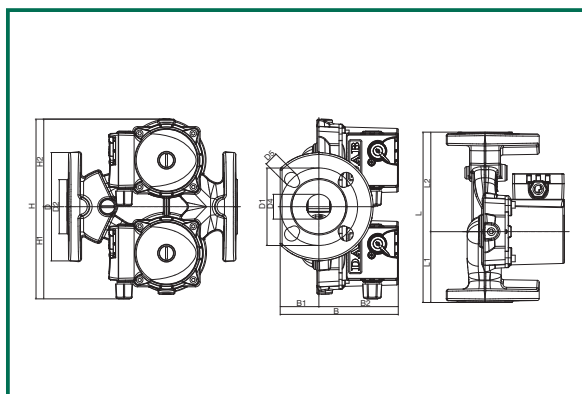
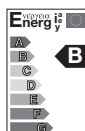
VB 55/120 SINGLE WITH OVAL FLANGES



L	L1	L2	B	B1	B2	H	H1	H2	D2	D1	I	PACK DIMENSIONS			VOLUME	WEIGHT
												L	B	H	m ³	Kg
120	98	60	104	78	26	124	75	49	25	M10	80	135	135	150	0,0027	2,7

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
VB 55/120	1x230 V ~	120	DN 25	DN 20 DN 32	3	2400	70	0,3	1,7	450	t° +90°C m.c.a. 1,5
					2	1600	58	0,26			
					1	930	36	0,17			

VD 55/220.32 TWIN FLANGED



L	L1	L2	B	B1	B2	D	D1 PN6/PN10	D2	D4	D5 PN6/PN10	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
														B	L	H	m ³	Kg
220	91,5	128,5	150	50	100	140	90 100	70	32	14 18	230	115	115	160	253	238	0,0096	8,2

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA*						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
VD 55/220.32	1x230 V ~	220	DN 32 / PN 6 / PN 10	3	2400	70	0,3	1,7	450	t° +90°C m.c.a. 1,5
				2	1600	58	0,26			
				1	930	36	0,17			

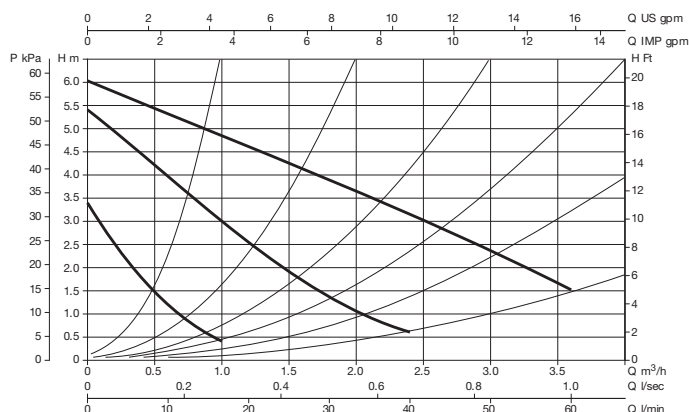
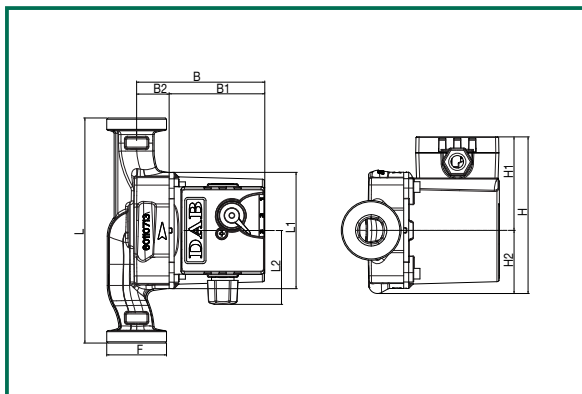
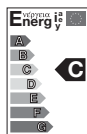
*Electrical and hydraulic data refer to operation of just one motor.

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.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

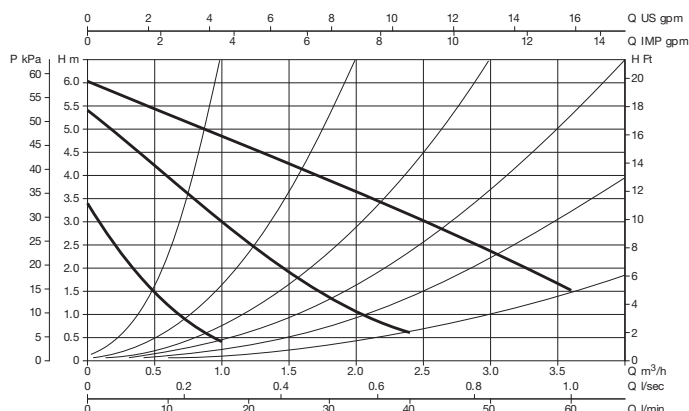
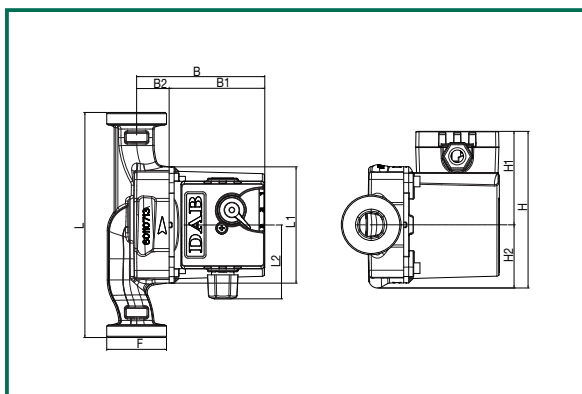
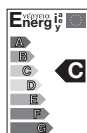
VA 65/130 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	I _n A	CAPACITOR μF	V _c	
VA 65/130	1x230 V ~	130	1" F	3/4" F - 1 1/4" M	3	2310	78	0,34	2	450	t° +90°C m.c.a. 2,5
					2	1532	59	0,26			
					1	880	37	0,17			

VA 65/130 1/2" SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

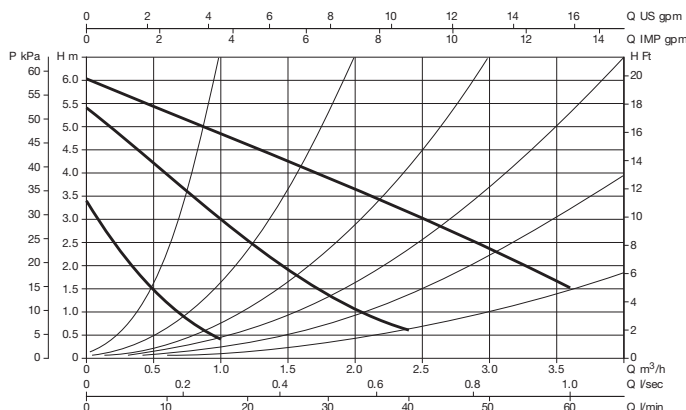
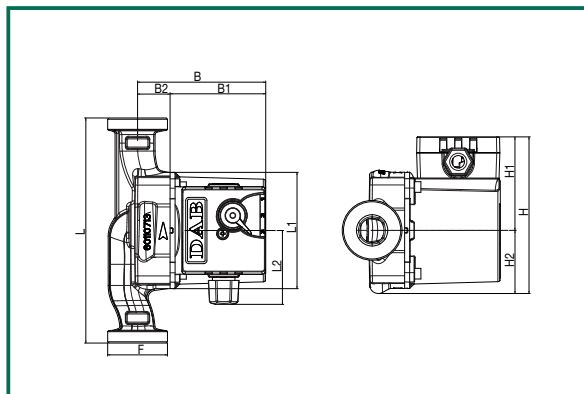
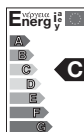
MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	I _n A	CAPACITOR μF	V _c	
VA 65/130 1/2"	1x230 V ~	130	-	-	3	2310	78	0,34	2	450	t° +90°C m.c.a. 2,5
					2	1532	59	0,26			
					1	880	37	0,17			

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.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

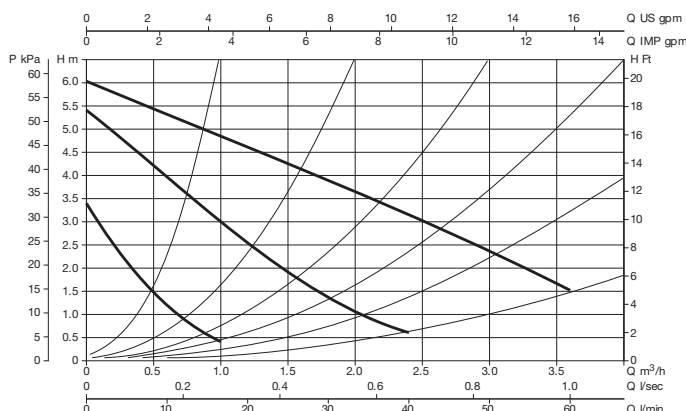
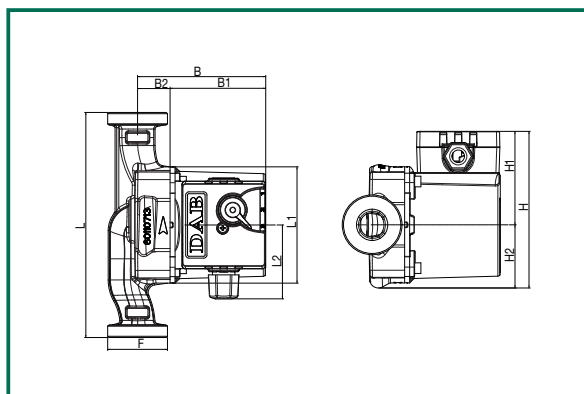
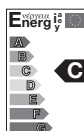
VA 65/180 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	I _n A	CAPACITOR μF	V _c	
VA 65/180	1x230 V ~	180	1" F	3/4" F - 1 1/4" M	3	2310	78	0,34	2	450	t° +90°C m.c.a. 2,5
					2	1532	59	0,26			
					1	880	37	0,17			

VA 65/180X SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

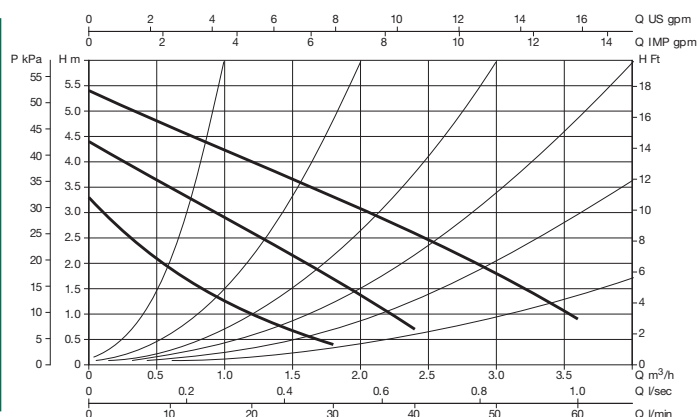
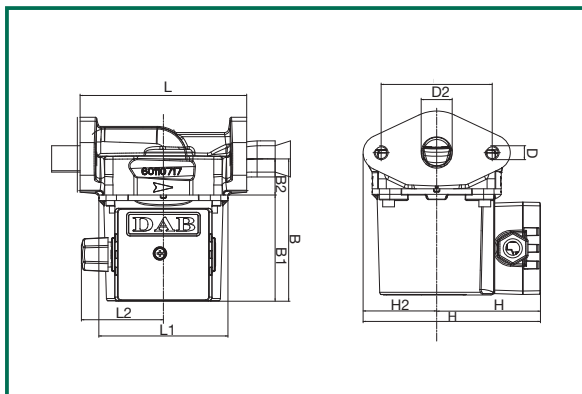
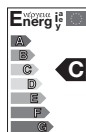
MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	I _n A	CAPACITOR μF	V _c	
VA 65/180X	1x230 V ~	180	1 1/4" F	3	2310	78	0,34	2	450	t° +90°C m.c.a. 2,5
				2	1532	59	0,26			
				1	880	37	0,17			

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.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

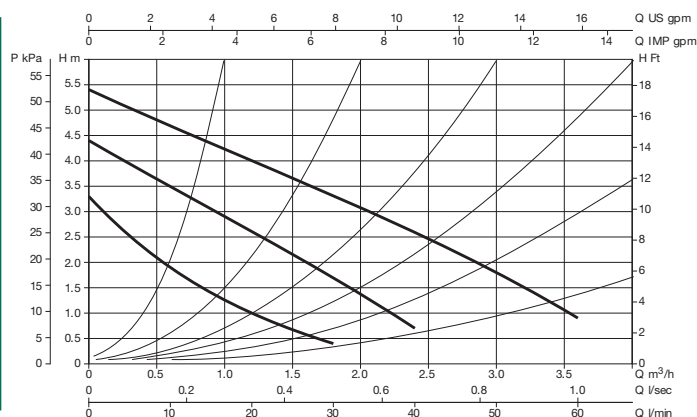
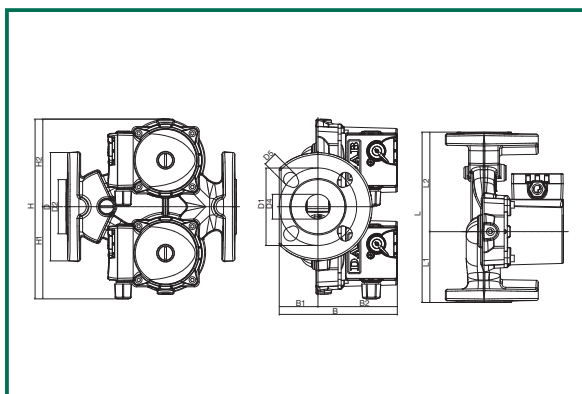
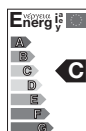
VB 65/120 SINGLE WITH OVAL FLANGES



L	L1	L2	B	B1	B2	D2	D1	I	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
												L	B	H	m ³	Kg
120	98	60	104	78	26	26	M10	80	124	75	49	135	135	150	0,0027	2,7

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
VB 65/120	1x230 V ~	120	DN 25	DN 20 DN 32	3	2310	78	0,34	2	450	t° +90°C m.c.a. 2,5
					2	1532	59	0,26			
					1	880	37	0,17			

VD 65/220.32 TWIN FLANGED



L	L1	L2	B	B1	B2	D	D1 PN6/PN10	D2	D4	D5 PN6/PN10	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
														B	L	H	m ³	Kg
220	91,5	128,5	150	50	100	140	90 100	70	31	14 18	230	115	115	160	253	238	0,0096	8,2

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA*						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
VD 65/220.32	1x230 V ~	220	DN 32 / PN 6 / PN 10	3	2310	78	0,34	2	450	t° +90°C m.c.a. 2,5
				2	1532	59	0,26			
				1	880	37	0,17			

*Electrical and hydraulic data refer to operation of just one motor.

CIRCULATORS FOR DOMESTIC HOT WATER SYSTEMS



GENERAL DATA

Applications

Pump for hot water circulation in domestic central heating and air conditioning systems of the closed circuit pressurized type or open circuit type.

Construction features

Enbloc body composed of hydraulic section in bronze and wet rotor motor. Motor casing in die cast aluminium. Impeller in technopolymer. Motor shaft in hardened stainless steel held in graphite bearings lubricated by the pumping medium.

Rotor protective jacket, stator jacket, and closing flange in stainless steel.

Ceramic thrust ring, silicone seals and brass air breather plug. The two-pole asynchronous wet-rotor motor is resistance protected and does not require any form of overload protection.

Three-speed operation.

Protection rating: IP 44

Insulation class: F

Cable gland: PG 11

Installation: with horizontal motor shaft.

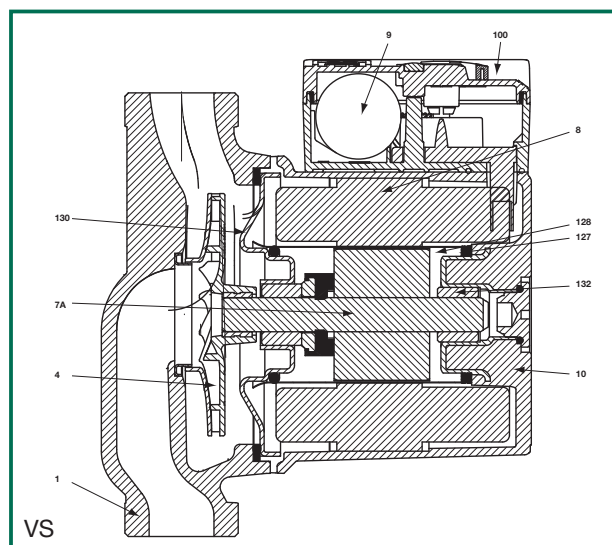
Standard voltage input: single-phase 230 V / 50 Hz

Special versions on request - alternative voltages and/or frequencies

CIRCULATORS FOR DOMESTIC HOT WATER SYSTEMS

TECHNICAL DATA

No.	PARTS	MATERIALS
1	PUMP BODY	BRONZE
4	IMPELLER	TECHNOPOLYMER
7A	MOTOR SHAFT	CERAMIC
7B	ROTOR	—
8	STATOR	—
9	CAPACITOR	—
10	MOTOR CASING	DIE CAST ALUMINIUM
11	BREATHER PLUG	BRASS
100	TERMINAL BOX	—
127	SEAL RING	ETHYLENE POLYPROPYLENE
128	STATOR JACKET	STAINLESS STEEL
129	ROTOR JACKET	STAINLESS STEEL
130	CLOSING FLANGE	STAINLESS STEEL
131	THRUST RING SUPPORT	ETHYLENE POLYPROPYLENE
132	BUSHINGS	GRAPHITE
133	THRUST RING	CERAMIC



– Designation index:
(example)

VS 8 / 150

VS = domestic hot water circulator _____

maximum head (dm) _____

centre distance (mm) _____

Operating range:

from 0.6 to 3.7 m³/h with head of up to 6 m.

Liquid temperature range:

from -10°C to +85°C for DHW applications and +110°C for other uses
To avoid the formation of lime scale avoid exceeding 65°C and
install an anti-scale system when water hardness exceeds 15°f.

Liquid quality requirements:

clean, free of solid contaminants and mineral oils, non-viscous,
chemically neutral, close to the properties of water
(max. glycol contents 30%).

Maximum working pressure:

10 bar (1000 kPa).

Minimum suction pressure:

the values are given in the relative tables.

Installation:

with HORIZONTAL MOTOR SHAFT

Special executions on request:

alternative voltages and/or frequencies

Accessories:

1/2" F - 3/4" F - 1" F unions
solder unions for copper pipes:

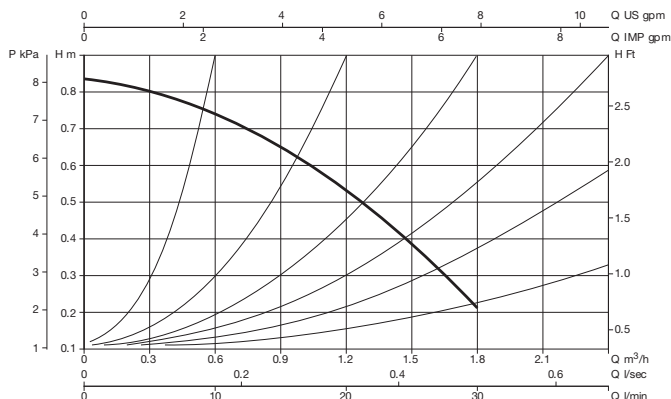
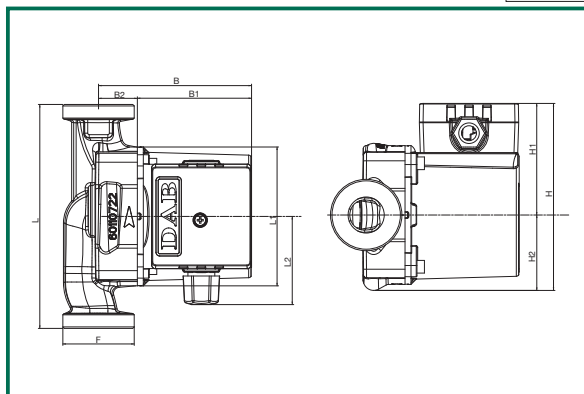
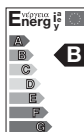
Ø 22 mm
Ø 28 mm

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.

CIRCULATORS FOR DOMESTIC HOT WATER SYSTEMS

Liquid temperature range: from -10°C to +85°C
Maximum working pressure: 10 bar (1000 kPa)

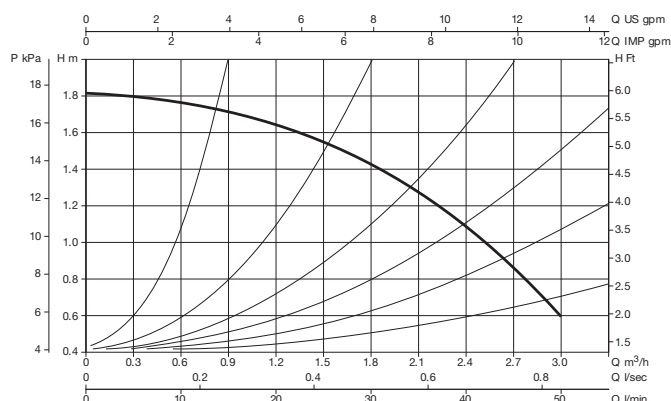
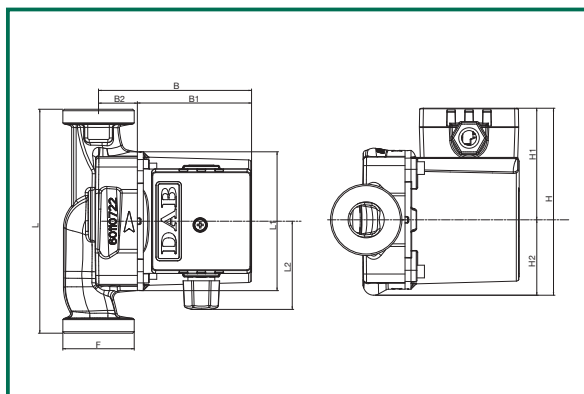
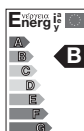
VS 8/150 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m³	WEIGHT Kg
150	98	60	104	78	26	124	75	49	1 1/2" G	L	B	H	0,0038	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA					MINIMUM SUCTION PRESSURE
				No. rpm	P1 MAX W	In A	CAPACITOR µF	Vc	
VS 8/150	1x230 V ~	150	BRASS: 1/2" F - 3/4" F - 1" F COPPER: Ø 22 - Ø 28	1340	22	0,14	1,5	450	t° +90°C m.c.a. 1,5

VS 16/150 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m³	WEIGHT Kg
150	98	60	104	78	26	124	75	49	1 1/2" G	L	B	H	0,0038	2,6

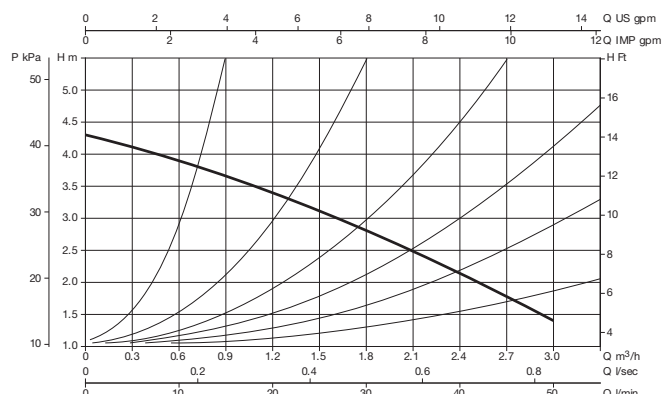
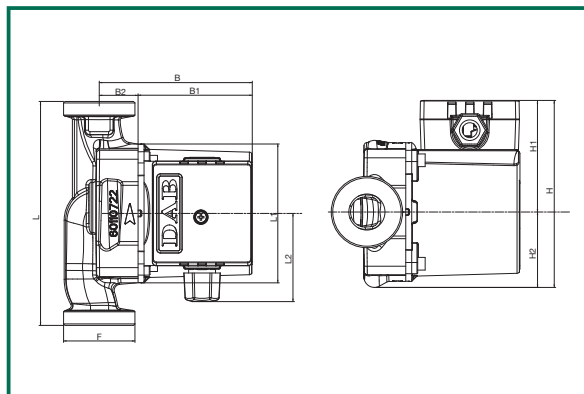
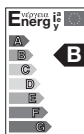
MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA					MINIMUM SUCTION PRESSURE
				No. rpm	P1 MAX W	In A	CAPACITOR µF	Vc	
VS 16/150	1x230 V ~	150	BRASS: 1/2" F - 3/4" F - 1" F COPPER: Ø 22 - Ø 28	2784	41	0,19	1,5	450	t° +90°C m.c.a. 1,5

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.

CIRCULATORS FOR DOMESTIC HOT WATER SYSTEMS

Liquid temperature range: from -10°C to +85°C
Maximum working pressure: 10 bar (1000 kPa)

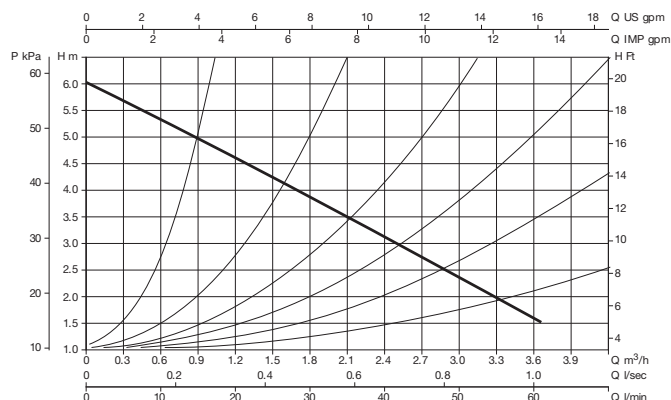
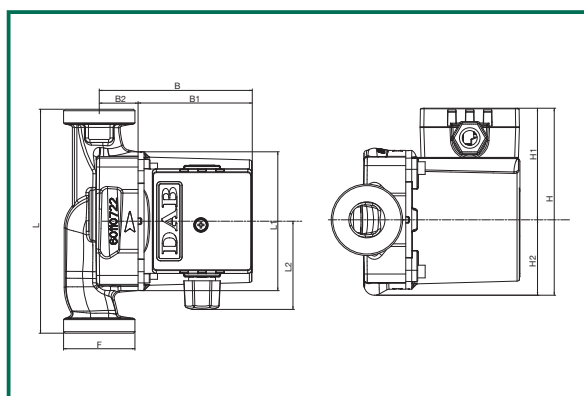
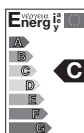
VS 35/150 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
150	98	60	104	78	26	124	75	49	1 1/2" G	L	B	H	0,0038	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA					MINIMUM SUCTION PRESSURE
				No. rpm	P1 MAX W	In A	CAPACITOR μF	V _c	
VS 35/150	1x230 V ~	150	BRASS: 1/2" F - 3/4" F - 1" F COPPER: Ø 22 - Ø 28	2470	55	0,24	1,7	450	t° +90°C m.c.a. 1,5

VS 65/150 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
150	98	60	104	78	26	124	75	49	1 1/2" G	L	B	H	0,0038	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA					MINIMUM SUCTION PRESSURE
				No. rpm	P1 MAX W	In A	CAPACITOR μF	V _c	
VS 65/150	1x230 V ~	150	BRASS: 1/2" F - 3/4" F - 1" F COPPER: Ø 22 - Ø 28	2317	77	0,34	2	450	t° +90°C m.c.a. 1,5

CIRCULATORS FOR SOLAR PANEL HEATING SYSTEMS



GENERAL DATA

Applications

Pump for circulation of fluid media in solar panel powered heating systems.
VSA wet rotor circulators can function perfectly also with high glycol concentrations (up to 60%).

Construction features

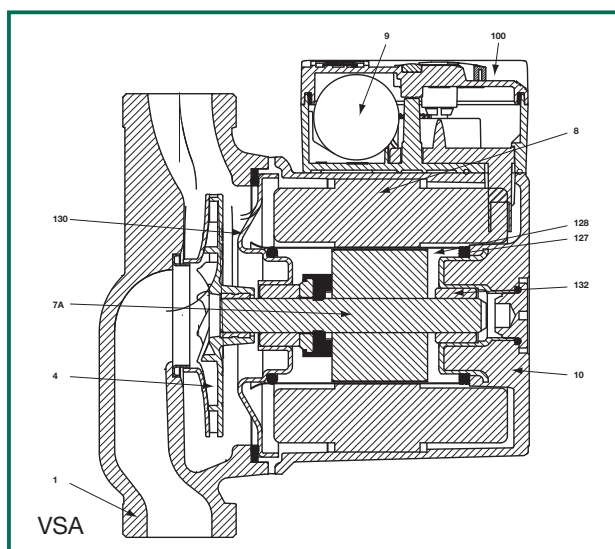
Enbloc body composed of hydraulic section in cast iron and wet rotor motor. Special electrophoresic coating of the pump body to ensure resistance to glycol attack. Motor casing in die cast aluminium. Rotor in technopolymer, motor shaft in hardened stainless steel held in graphite bearings lubricated by the pumping medium.
Rotor protective jacket, stator jacket, and closing flange in stainless steel.
Ceramic thrust ring, silicone seals and brass air breather plug.
Two-pole asynchronous motor with squirrel cage rotor designed to run at three alternative speeds on the basis of the setting of a selector on the terminal board in order to adapt circulator operation to the characteristics of the system.

– Designation index:		VSA 55 / 180 X	
(example)	VSA = circulator with threaded ports		
	maximum head (dm)	_____	
	centre distance (mm)	_____	
	standard (no ref.) = 1" 1/2 threaded ports		
	1/2"	= 1" threaded ports	
	X	= 2" threaded ports	
	32	= DN32/PN6/10 flanged ports	

CIRCULATORS FOR SOLAR PANEL HEATING SYSTEMS

TECHNICAL DATA

No.	PARTS	MATERIALS
1	PUMP BODY	CAST IRON
4	IMPELLER	TECHNOPOLYMER
7A	MOTOR SHAFT	STAINLESS STEEL
7B	ROTOR	—
8	STATOR	—
9	CAPACITOR	—
10	MOTOR CASING	DIE CAST ALUMINIUM
11	BREATHER PLUG	BRASS
100	TERMINAL BOX	—
127	SEAL RING	ETHYLENE POLYPROPYLENE
128	STATOR JACKET	STAINLESS STEEL
129	ROTOR JACKET	STAINLESS STEEL
130	CLOSING FLANGE	STAINLESS STEEL
131	THRUST RING SUPPORT	ETHYLENE PROPYLENE
132	BUSHINGS	GRAPHITE
133	THRUST RING	CERAMIC



Operating range:

from 0 to 3.6 m³/h with head of up to 6 m.

Liquid temperature range:

from -10°C to +110°C (TF110)

All models are designed to withstand temperature peaks of up to 140°C

Liquid quality requirements:

clean, free of solids and mineral oils, non-viscous, chemically neutral and approximating the properties of water (max. glycol contents 60%).

Maximum working pressure:

10 bar (1000 kPa)

Installation:

with HORIZONTAL MOTOR SHAFT

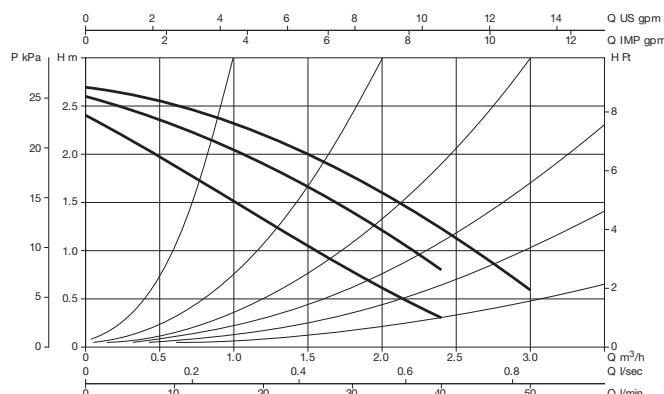
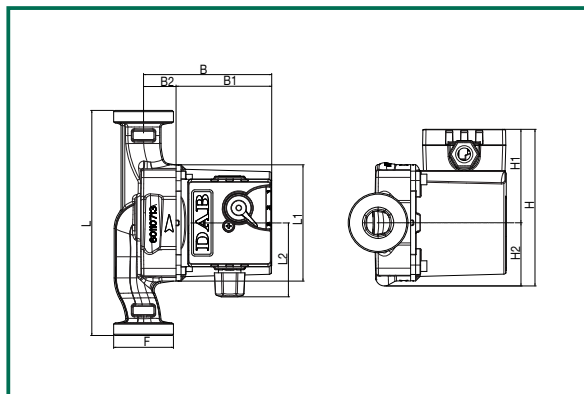
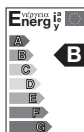
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR SOLAR PANEL HEATING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

VSA 25/130

SINGLE WITH UNIONS

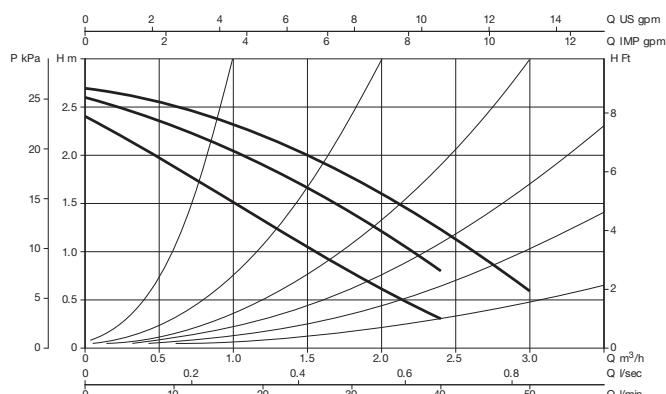
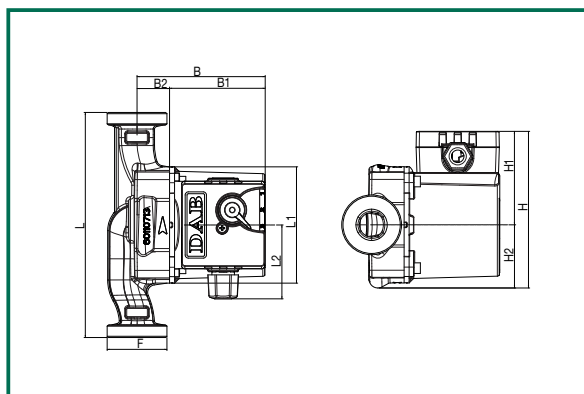
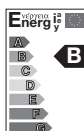


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
VSA 25/130	1x230 V ~	130	1" F	3/4" F - 1 1/4" M	3	2655	43	0,19	1,5	450	t° +90°C m.c.a. 1,5
					2	2380	38	0,17			
					1	1680	31	0,15			

VSA 25/180

SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

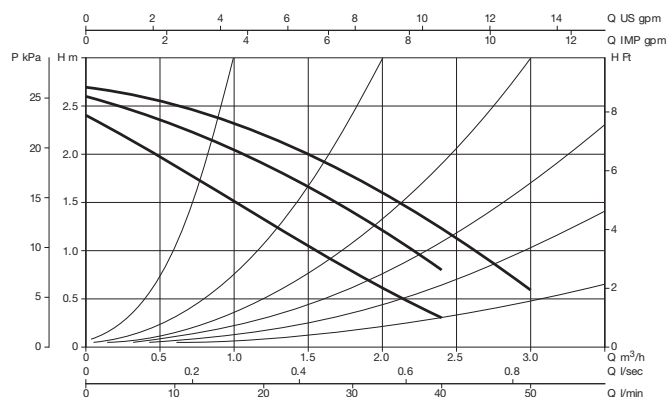
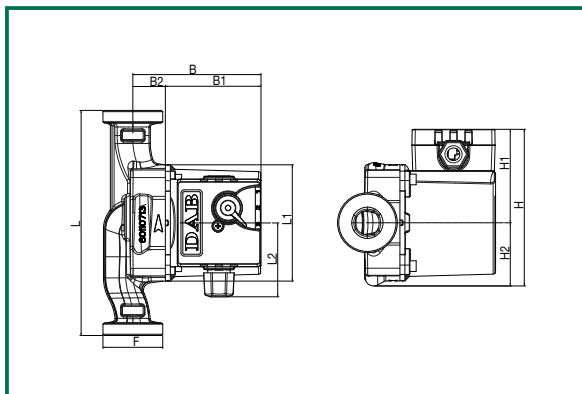
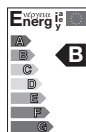
MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
VSA 25/180	1x230 V ~	180	1" F	3/4" F - 1 1/4" M	3	2655	43	0,19	1,5	450	t° +90°C m.c.a. 1,5
					2	2380	38	0,17			
					1	1680	31	0,15			

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.

CIRCULATORS FOR SOLAR PANEL HEATING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

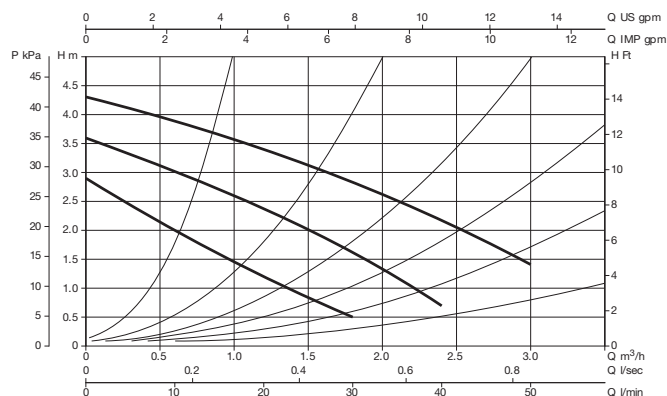
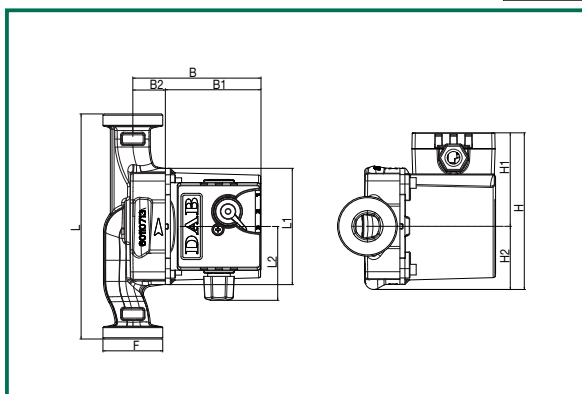
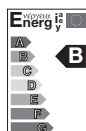
VSA 25/180X SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
VSA 25/180X	1x230 V ~	180	1" 1/4 F	3	2655	43	0,19	1,5	450	t° +90°C m.c.a. 1,5
				2	2380	38	0,17			
				1	1680	31	0,15			

VSA 35/130 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
VSA 35/130	1x230 V ~	130	1" F	3/4" F - 1 1/4" M	3	2465	56	0,25	1,7	450	t° +90°C m.c.a. 1,5
					2	1930	50	0,22			
					1	1150	35	0,16			

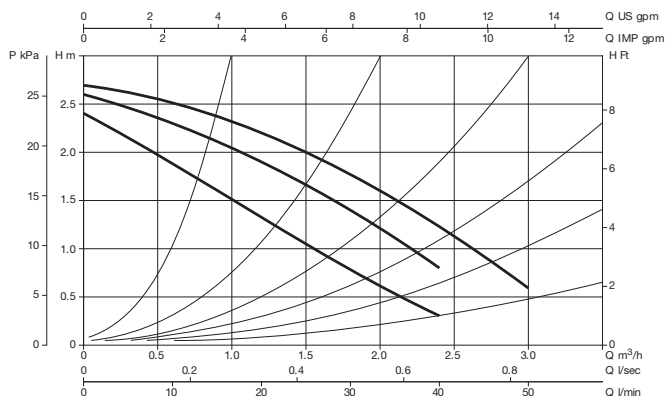
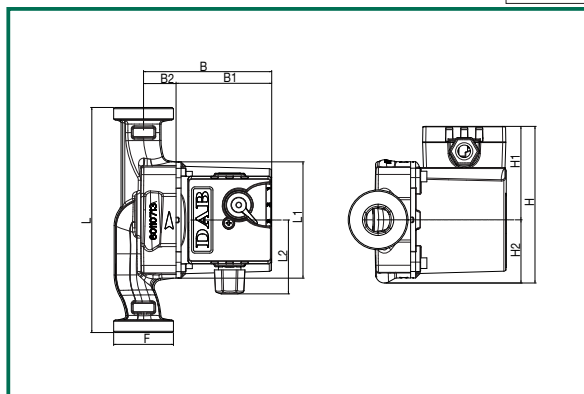
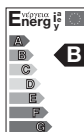
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR SOLAR PANEL HEATING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

VSA 35/130 - 1/2"

SINGLE WITH UNIONS

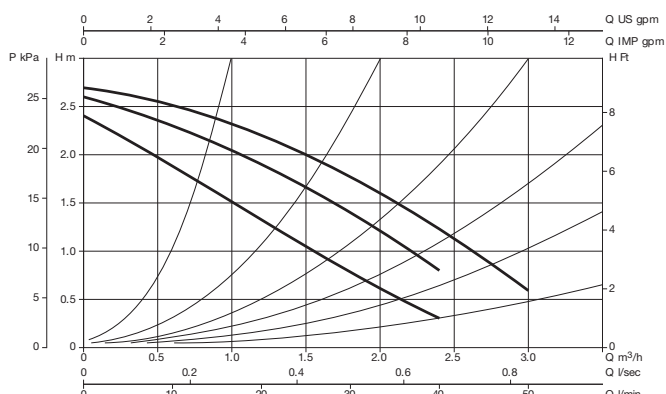
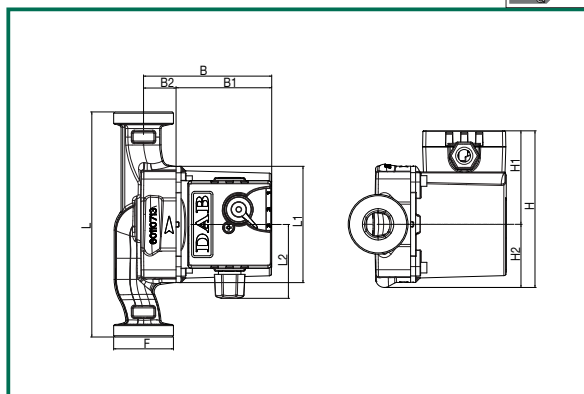
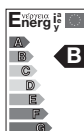


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
										L	B	H		
130	93	59	102,5	76,5	26	125,5	75	50,5	48	135	135	150	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
VSA 35/130 1/2"	1x230 V ~	130	-	-	3	2465	56	0,25	1,7	450	t° +90°C m.c.a. 1,5
					2	1930	50	0,22			
					1	1150	35	0,16			

VSA 35/180

SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
										L	B	H		
180	93	59	102,5	76,5	26	125,5	75	50,5	48	130	190	150	0,0037	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
VSA 35/180	1x230 V ~	180	1" F	3/4" F - 1 1/4" M	3	2465	56	0,25	1,7	450	t° +90°C m.c.a. 1,5
					2	1930	50	0,22			
					1	1150	35	0,16			

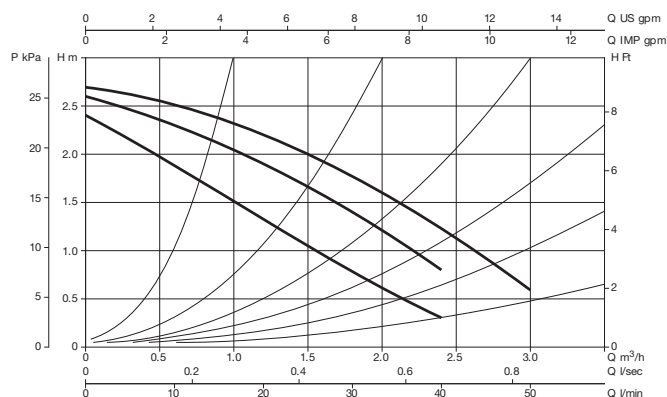
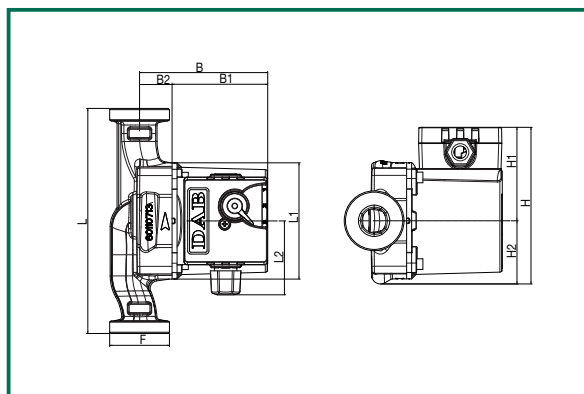
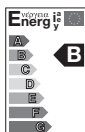
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR SOLAR PANEL HEATING SYSTEMS

Liquid temperature range: from -10°C to +110°C

Maximum working pressure: 10 bar (1000 kPa)

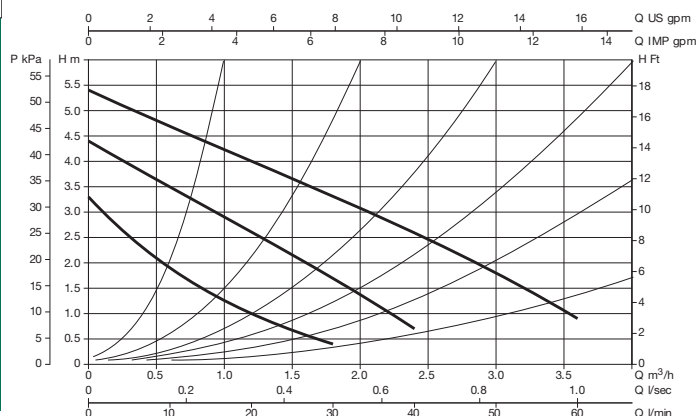
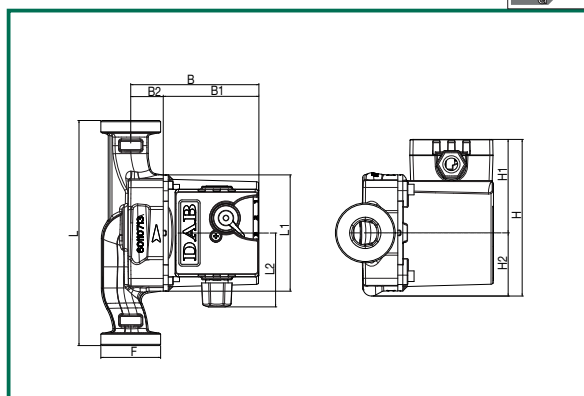
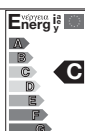
VSA 35/180X SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
VSA 35/180X	1x230 V ~	180	1 1/4" F	3	2465	56	0,25	1,7	450	t° +90°C m.c.a. 1,5
				2	1930	50	0,22			
				1	1150	35	0,16			

VSA 55/130 SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
VSA 55/130	1x230 V ~	130	1" F	¾" F - 1 ¼" M	3	2400	70	0,3	1,7	450	t° +90°C m.c.a. 1,5
					2	1600	58	0,26			
					1	930	36	0,17			

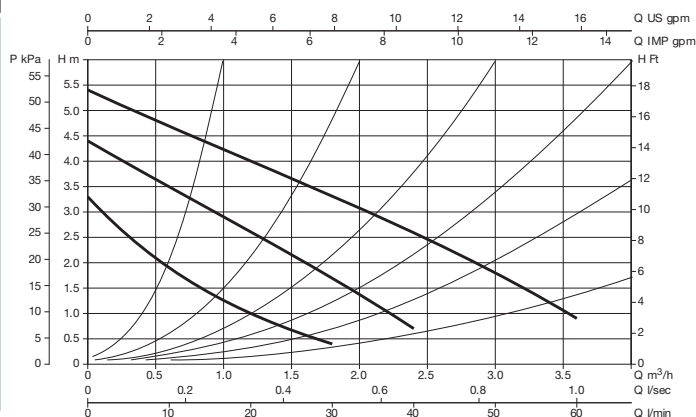
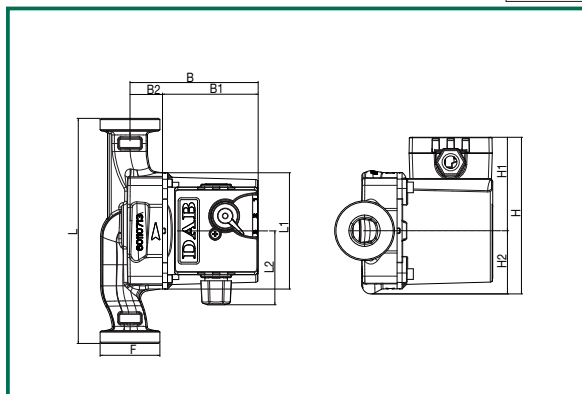
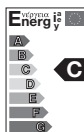
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR SOLAR PANEL HEATING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

VSA 55/130 - 1/2"

SINGLE WITH UNIONS

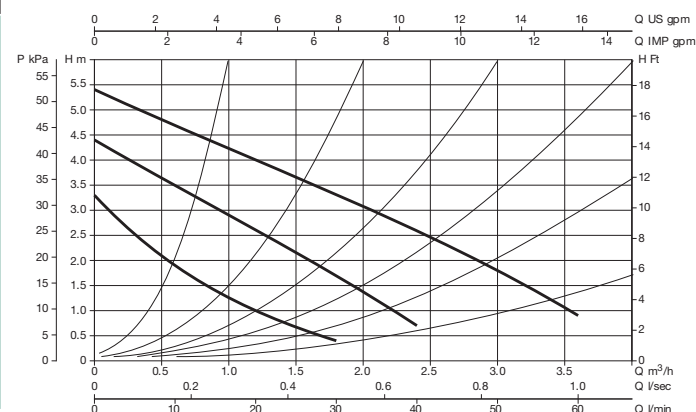
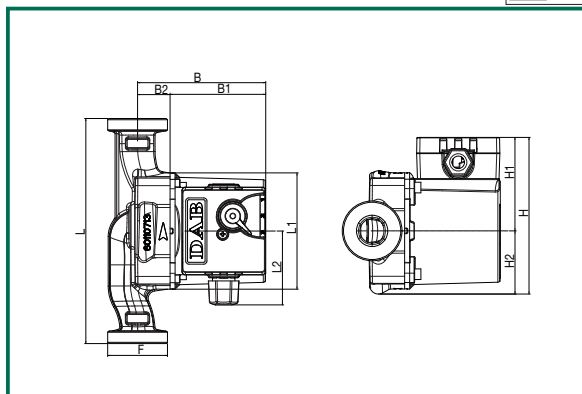
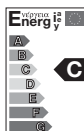


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m³	WEIGHT kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR µF	Vc	
VSA 55/130 1/2"	1x230 V ~	130	—	—	3 2 1	2400 1600 930	70 58 36	0,3 0,26 0,17	1,7	450	t° +90°C m.c.a. 1,5

VSA 55/180

SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m³	WEIGHT kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR µF	Vc	
VSA 55/180	1x230 V ~	180	1" F	3/4" F - 1 1/4" M	3 2 1	2400 1600 930	70 58 36	0,3 0,26 0,17	1,7	450	t° +90°C m.c.a. 1,5

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.

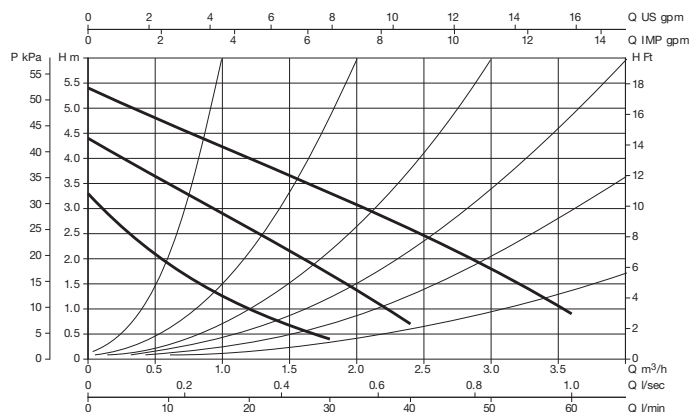
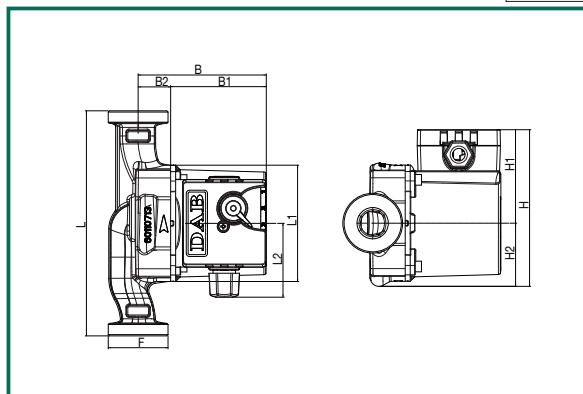
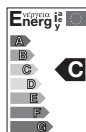
CIRCULATORS FOR SOLAR PANEL HEATING SYSTEMS

Liquid temperature range: from -10°C to +110°C

Maximum working pressure: 10 bar (1000 kPa)

VSA 55/180X

SINGLE WITH UNIONS

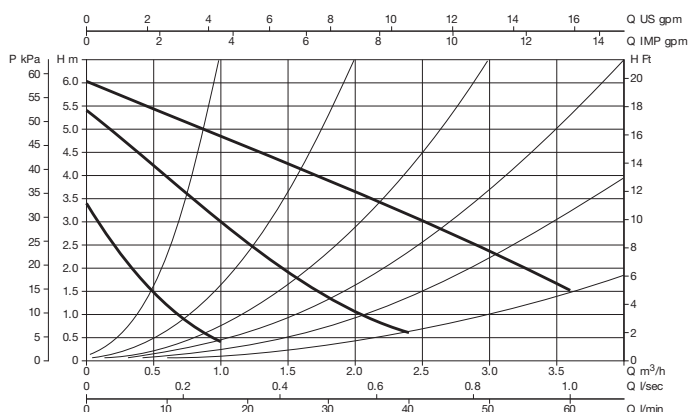
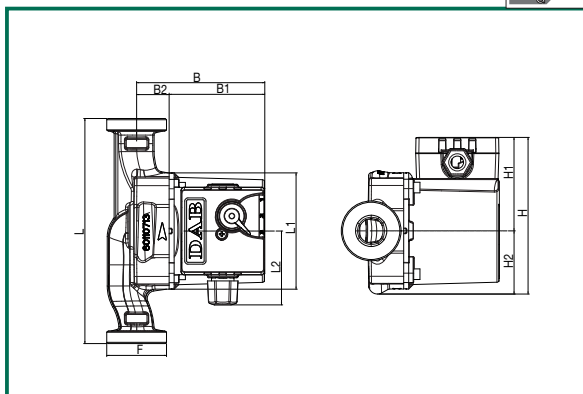
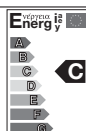


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
180	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0037	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
VSA 55/180X	1x230 V ~	180	1 1/4" F	3	2400	70	0,3	1,7	450	t° +90°C m.c.a. 1,5
				2	1600	58	0,26			
				1	930	36	0,17			

VSA 65/130

SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
130	93	59	102,5	76,5	26	125,5	75	50,5	48	L	B	H	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
VSA 65/130	1x230 V ~	130	1" F	3/4" F - 1 1/4" M	3	2310	78	0,34	2	450	t° +90°C m.c.a. 2,5
					2	1532	59	0,26			
					1	880	37	0,17			

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.

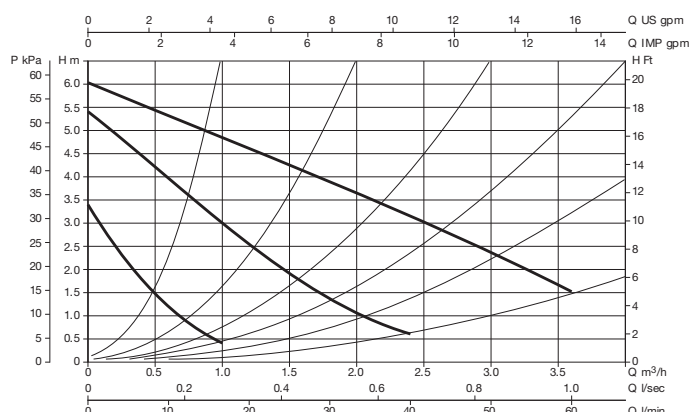
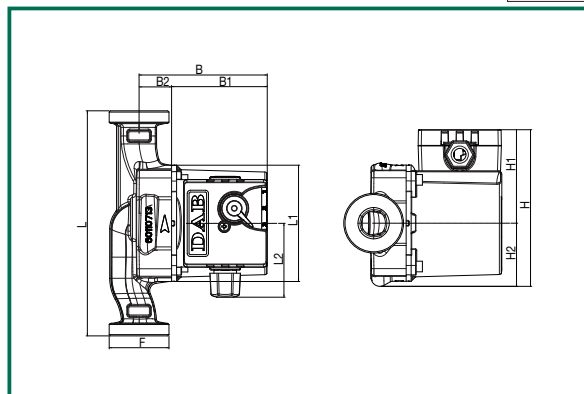
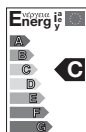
CIRCULATORS FOR SOLAR PANEL HEATING SYSTEMS

Liquid temperature range: from -10°C to +110°C

Maximum working pressure: 10 bar (1000 kPa)

VSA 65/130 1/2"

SINGLE WITH UNIONS

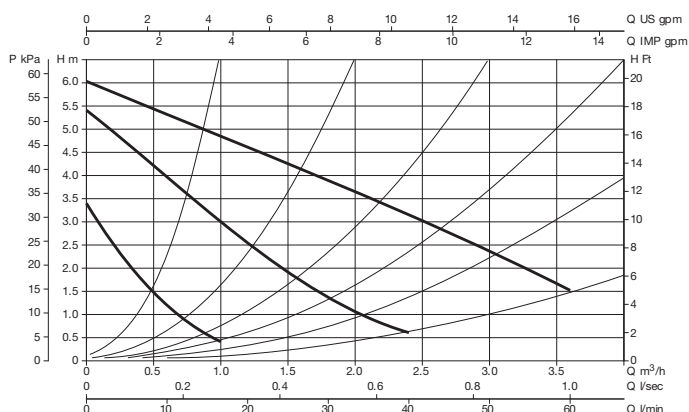
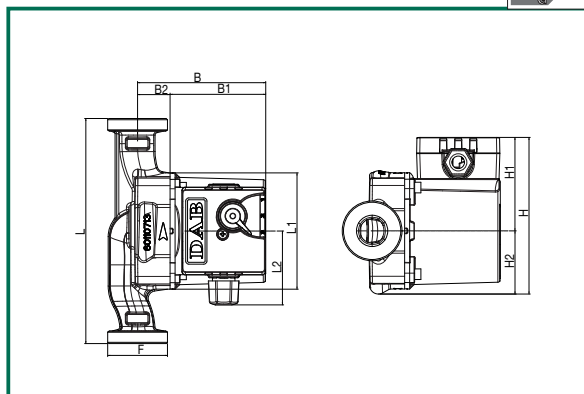
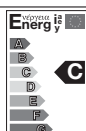


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
										L	B	H		
130	93	59	102,5	76,5	26	125,5	75	50,5	48	135	135	150	0,0027	2,5

MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
VSA 65/130 1/2"	1x230 V ~	130	-	-	3	2310	78	0,34	2	450	t° +90°C m.c.a. 2,5
					2	1532	59	0,26			
					1	880	37	0,17			

VSA 65/180

SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT kg
										L	B	H		
180	93	59	102,5	76,5	26	125,5	75	50,5	48	130	190	150	0,0037	2,6

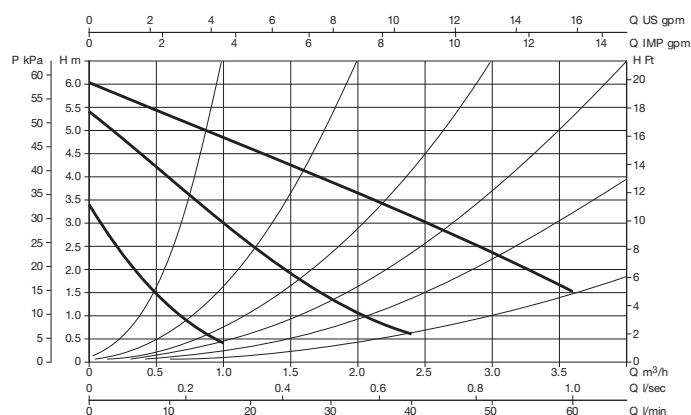
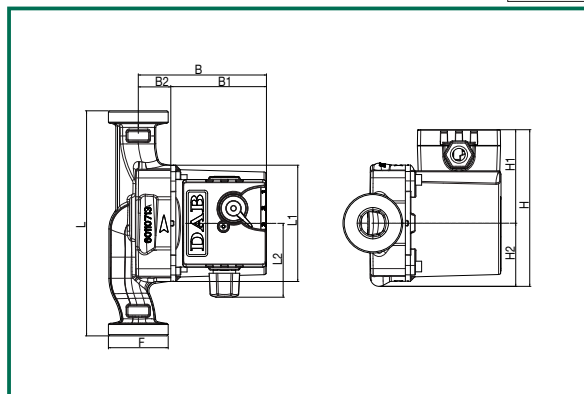
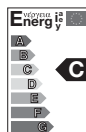
MODEL	POWER SUPPLY 50 Hz	CENTRE-DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
VSA 65/180	1x230 V ~	180	1" F	3/4" F - 1 1/4" M	3	2310	78	0,34	2	450	t° +90°C m.c.a. 2,5
					2	1532	59	0,26			
					1	880	37	0,17			

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.

CIRCULATORS FOR SOLAR PANEL HEATING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

VSA 65/180X SINGLE WITH UNIONS



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m³	WEIGHT kg
										L	B	H		
180	93	59	102,5	76,5	26	125,5	75	50,5	48	130	190	150	0,0037	2,6

MODEL	POWER SUPPLY 50 Hz	CENTRE- DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
VSA 65/180X	1x230 V ~	180	1¼" F	3	2310	78	0,34	2	450	t° +90°C m.c.a. 2,5
				2	1532	59	0,26			
				1	880	37	0,17			

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS



A



D



B



GENERAL DATA

Applications

Pump for hot or cold water circulation in small community central heating and air conditioning systems for both civil and industrial applications, of the closed circuit pressurized or open circuit type.

Construction features

Pump body in cast iron and motor in die cast aluminium.

Impeller in technopolymer, motor shaft in hardened stainless steel held in graphite bearings lubricated by the pumping medium.

Pump body with threaded ports.

Rotor protective jacket, stator jacket, and closing flange in stainless steel.

The two-pole asynchronous wet rotor motor features three-speed operation.

Integral thermal probe in single-phase version.

Protection rating: IP 44

Insulation class: F

Cable gland: PG 11

Installation: with horizontal motor shaft

Standard voltage input: single-phase 230 V / 50 Hz

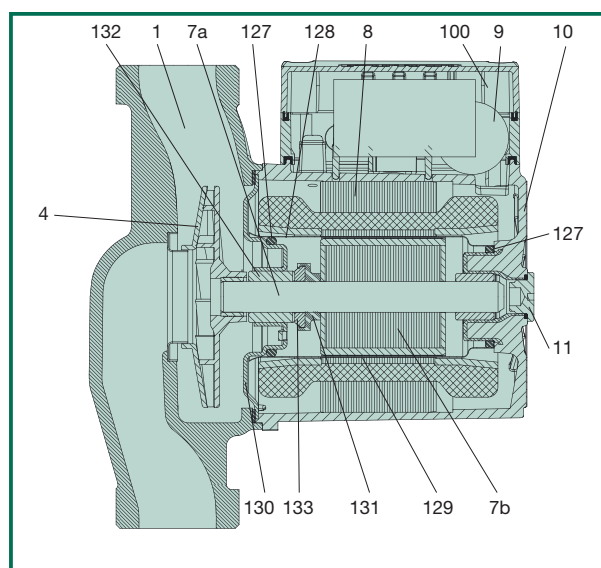
three-phase 400 V / 50 Hz

This product complies with European standard EN 60335-2-51

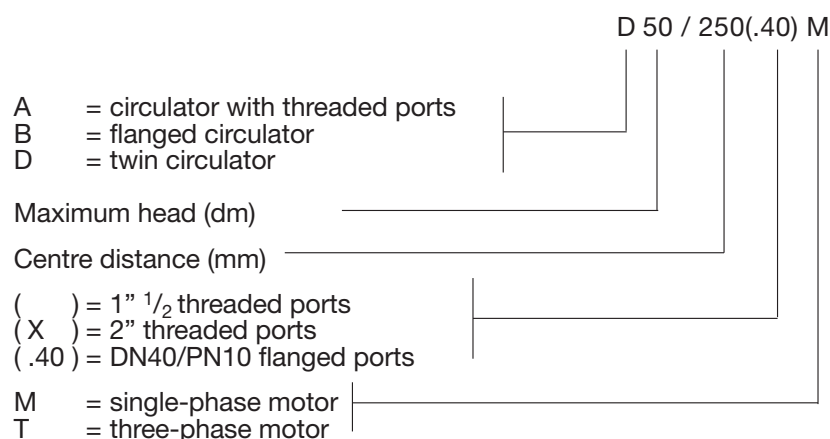
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

TECHNICAL DATA

N.	PARTS	MATERIALS
1	PUMP BODY	CAST IRON
4	IMPELLER	TECHNOPOLYMER
7A	MOTOR SHAFT	STAINLESS STEEL
7B	ROTOR	—
8	STATOR	—
9	CAPACITOR	—
10	MOTOR CASING	DIE CAST ALUMINIUM
11	BREATHING PLUG	BRASS
100	TERMINAL BOX	—
127	SEAL RING	ETHYLENE PROPYLENE
128	STATOR JACKET	STAINLESS STEEL
129	ROTOR JACKET	STAINLESS STEEL
130	CLOSING FLANGE	STAINLESS STEEL
131	THRUST RING SUPPORT	ETHYLENE PROPYLENE
132	BUSHINGS	GRAPHITE
133	THRUST RING	CERAMIC



– Designation index:
(example)



Operating range:

from 1 to 12 m³/h with head of up to 11 m.

Liquid temperature range:

from -10°C to +110°C

Liquid quality requirements:

clean, free of solid contaminants and mineral oils, non-viscous, chemically neutral, close to the properties of water
(max. glycol contents 30%).

Maximum working pressure:

10 bar (1000 kPa).

Minimum suction pressure:

the values are given in the relative tables.

Installation:

with HORIZONTAL MOTOR SHAFT on discharge or return pipe, with suction port as close as possible to expansion vessel, above maximum boiler level and as far as possible from bends, elbows, and circuit branches to avoid water turbulence with consequent noise.

SPECIAL executions on request:

alternative voltages and/or frequencies

Accessories:

1/2" F - 3/4" F - 1" F - 1 1/4" F - 1 1/4" M unions
 DN40/PN10 counter-flanges

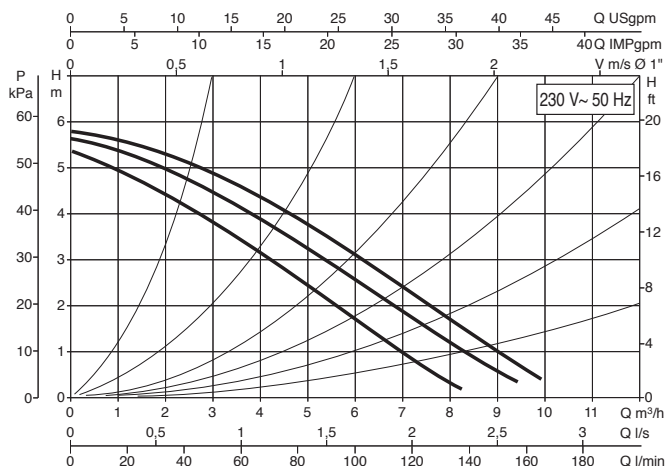
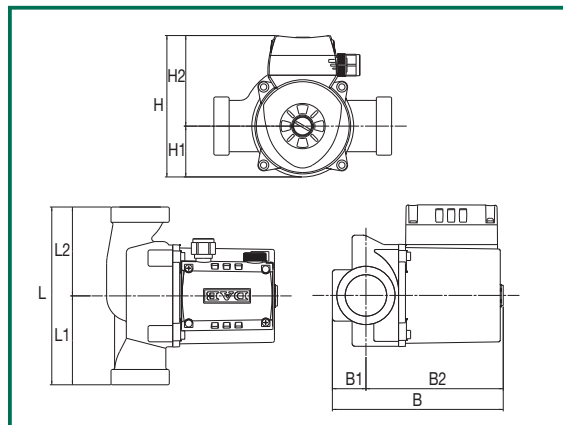
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

A 50/180 XM

SINGLE WITH UNIONS - SINGLE-PHASE

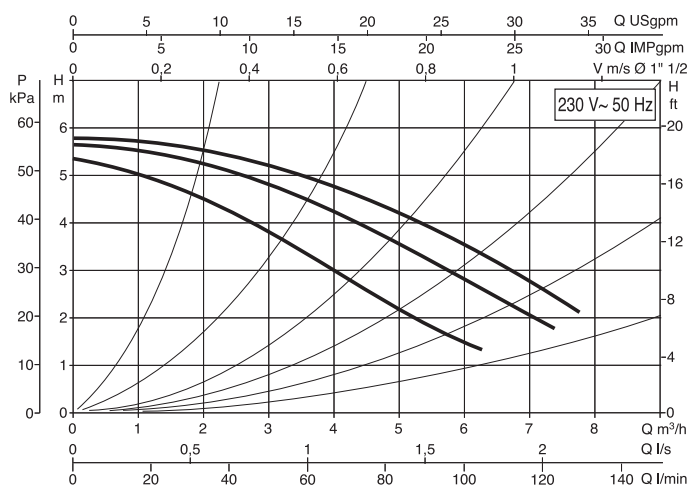
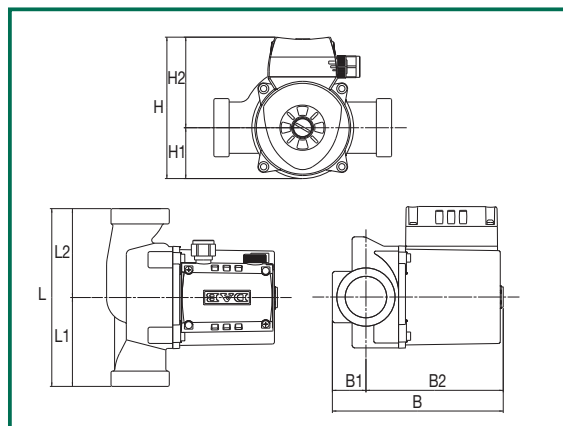


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	90	90	173	34	139	143	52	92	2" G	L	B	H	0,066	5,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
A 50/180 XM	1x230 V ~	180	1 1/4 ”	3	2791	184	0,92	4	400	t° +90°C m.c.a. 1,5
				2	2651	189	0,92			
				1	2297	168	0,80			

A 50/180 M

SINGLE WITH UNIONS - SINGLE-PHASE



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	90	90	173	34	139	143	52	92	1" 1/2	L	B	H	0,066	5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
A 50/180 M	1x230 V ~	180	1"	3	2766	195	0,95	4	400	t° +90°C m.c.a. 1,5
				2	2616	194	0,95			
				1	2215	180	0,85			

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.

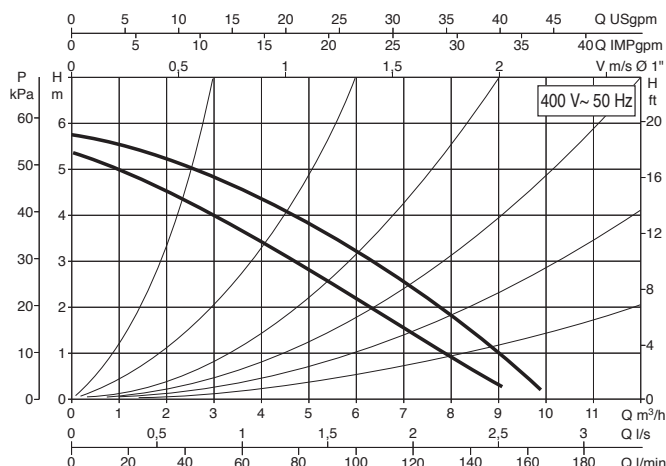
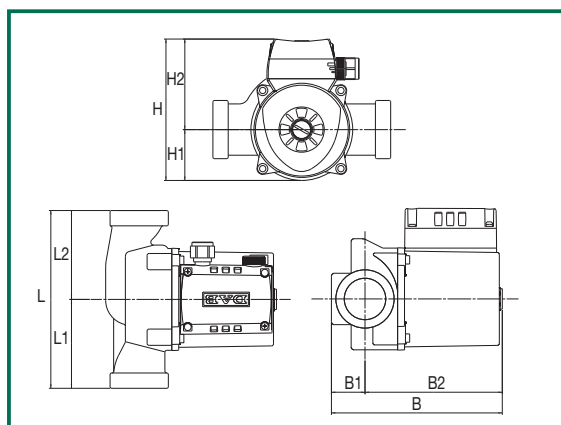
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C

Maximum working pressure: 10 bar (1000 kPa)

A 50/180 XT

SINGLE WITH UNIONS - THREE-PHASE

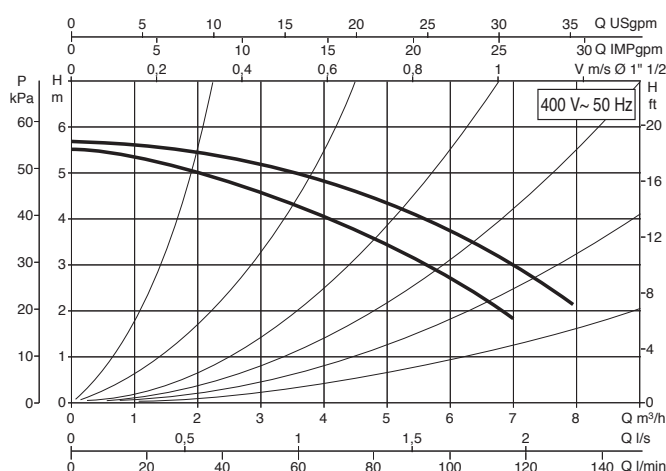
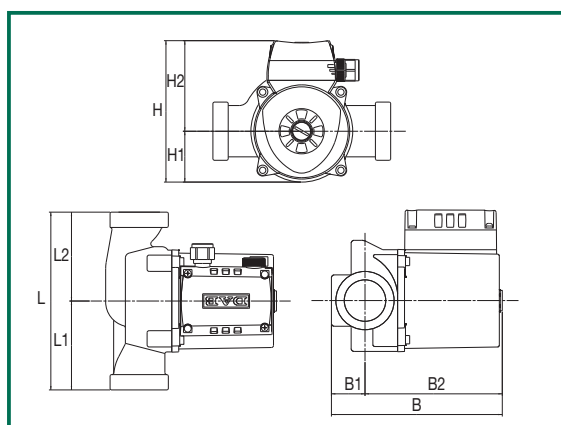


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	90	90	173	34	139	143	52	92	2" G	L	B	H	0,066	5,2

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
A 50/180 XT	3x400 V ~	180	1" 1/4	2 1	2838 2520	201 129	0,50 0,23	—	—	t° +90°C m.c.a. 1,5

A 50/180 T

SINGLE WITH UNIONS - THREE-PHASE



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	90	90	173	34	139	143	52	92	1" 1/2	L	B	H	0,066	5,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
A 50/180 T	3x400 V ~	180	1"	2 1	2827 2502	197 139	0,52 0,25	—	—	t° +90°C m.c.a. 1,5

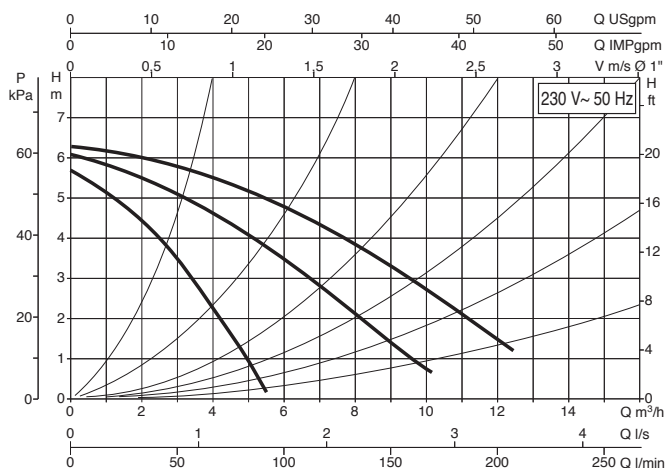
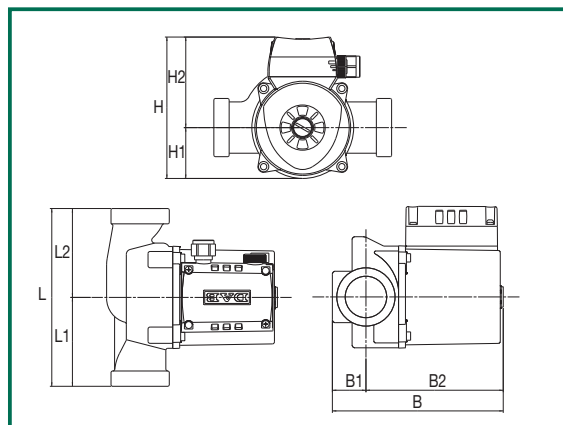
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

A 56/180 XM

SINGLE WITH UNIONS - SINGLE-PHASE

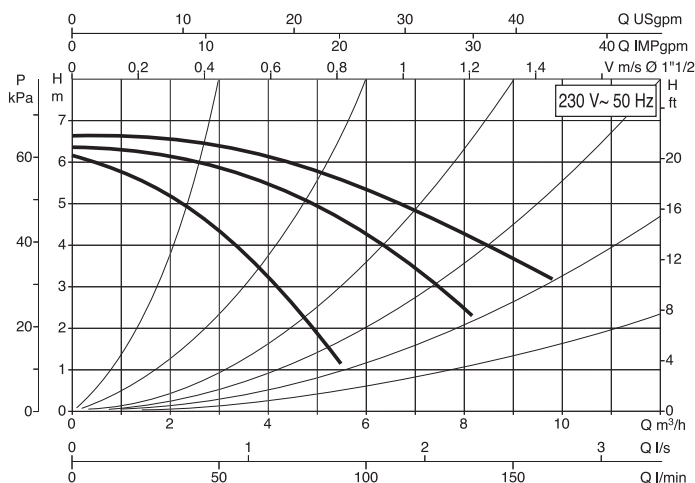
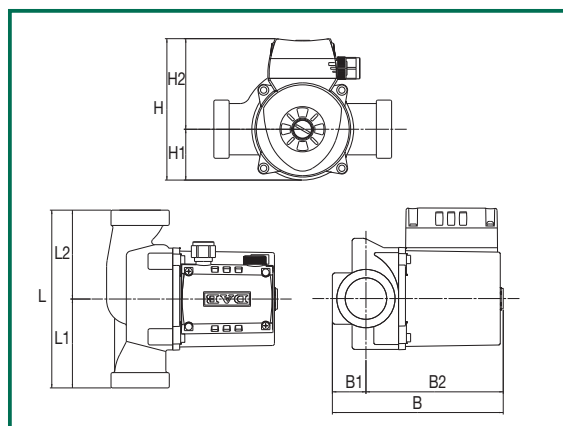


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	90	90	173	34	139	143	52	92	2" G	L	B	H	0,066	5,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
A 56/180 XM	1x230 V ~	180	1" 1/4	3	2658	271	1,18	7	400	t° +90°C m.c.a. 1,5
				2	2117	294	1,32			
				1	1394	224	1,00			

A 56/180 M

SINGLE WITH UNIONS - SINGLE-PHASE



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	90	90	173	34	139	143	52	92	1" 1/2	L	B	H	0,066	5,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
A 56/180 M	1x230 V ~	180	1"	3	2636	282	1,23	7	400	t° +90°C m.c.a. 1,5
				2	2226	287	1,30			
				1	1485	228	1,06			

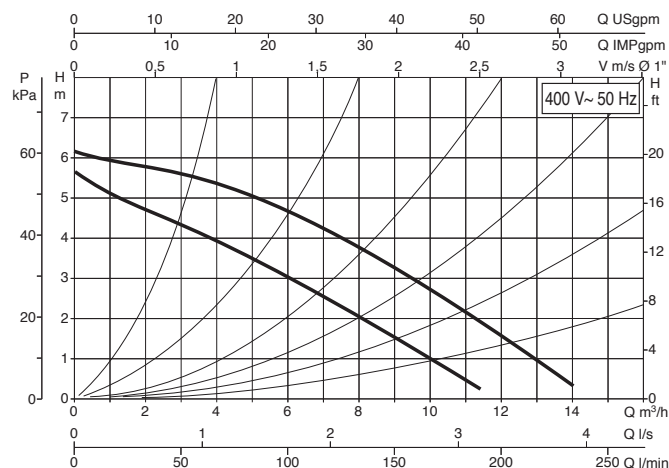
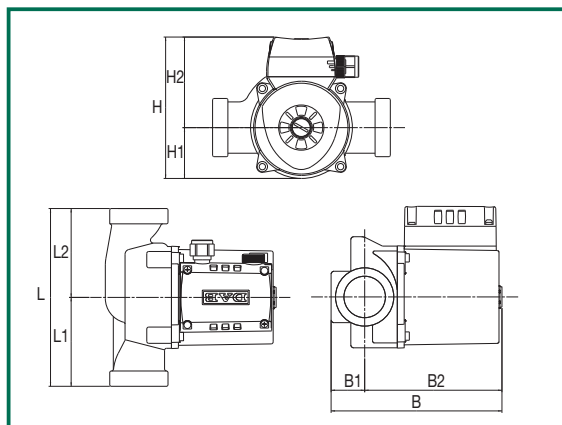
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

A 56/180 XT

SINGLE WITH UNIONS - THREE-PHASE

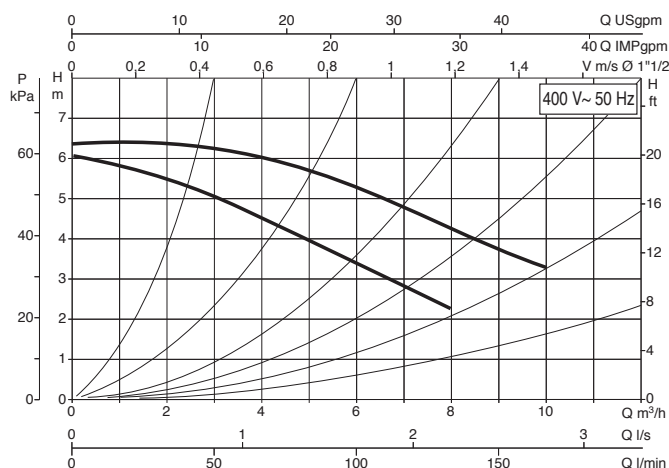
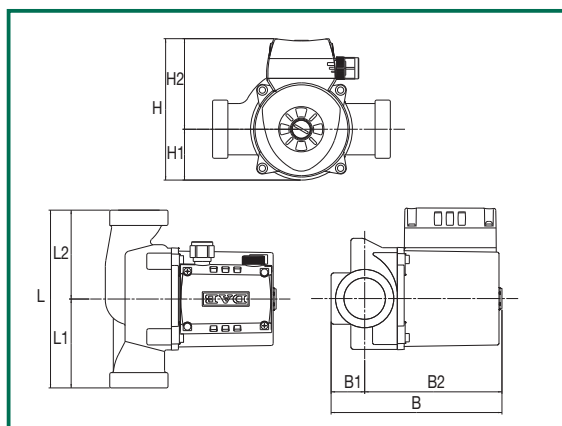


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	90	90	173	34	139	143	52	92	2" G	L	B	H	0,066	5,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF V _C		
A 56/180 XT	3x400 V ~	180	1" 1/4	2 1	2708 2178	291 200	0.60 0.32	—	—	t° +90°C m.c.a. 1,5

A 56/180 T

SINGLE WITH UNIONS - THREE-PHASE



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	90	90	173	34	139	143	52	92	1" 1/2	L	B	H	0,066	5,2

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
A 56/180 T	3x400 V ~	180	1"	2 1	2704 2178	294 200	0,60 0,33	—	—	t° +90°C m.c.a. 1,5

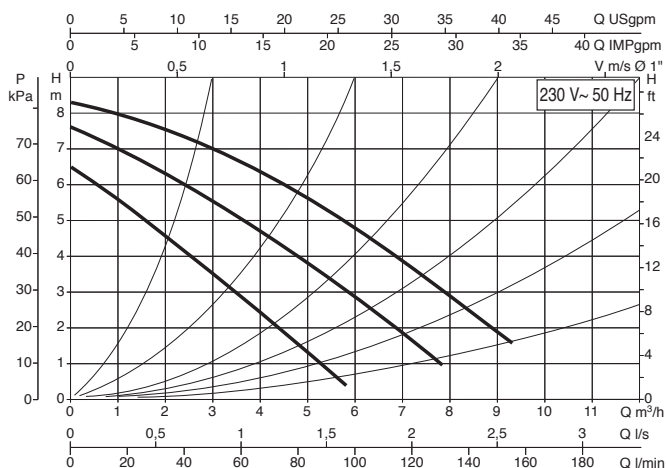
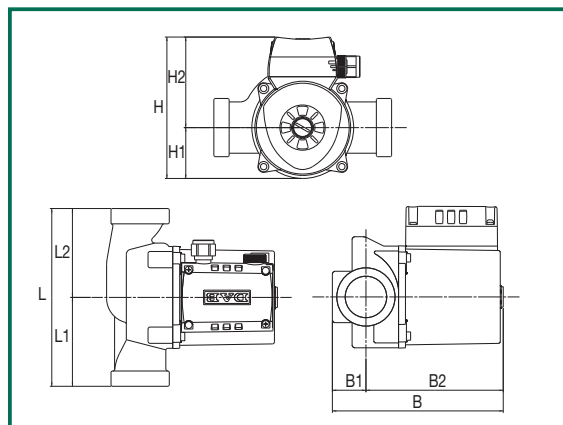
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

A 80/180 XM

SINGLE WITH UNIONS - SINGLE-PHASE

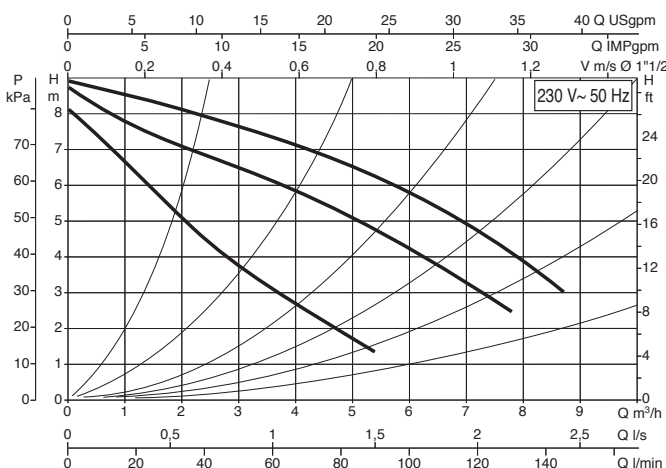
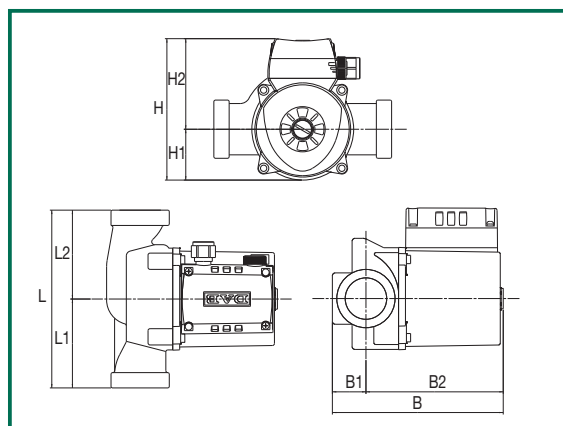


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	90	90	173	34	139	143	52	92	2" G	L	B	H	0,066	5,2

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
A 80/180 XM	1x230 V ~	180	1" 1/4	3	2683	256	1,12	7	400	t° +90°C m.c.a. 2,5
				2	2374	260	1,17			
				1	1688	218	1,00			

A 80/180 M

SINGLE WITH UNIONS - SINGLE-PHASE



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	90	90	173	34	139	143	52	92	1" 1/2	L	B	H	0,066	5,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
A 80/180 M	1x230 V ~	180	1"	3	2674	264	1,15	7	400	t° +90°C m.c.a. 2,5
				2	2356	262	1,20			
				1	1615	223	1,00			

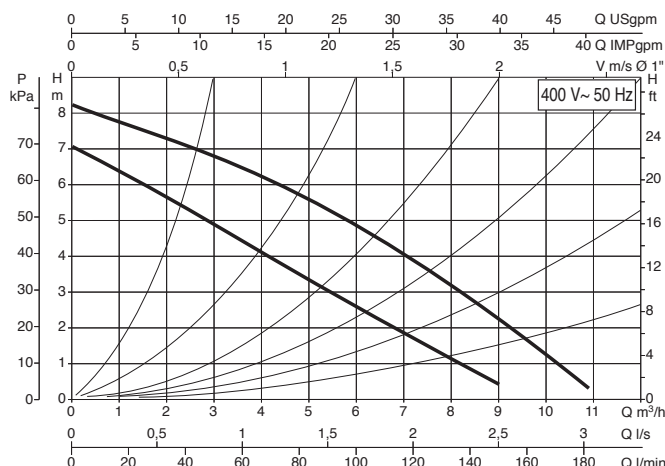
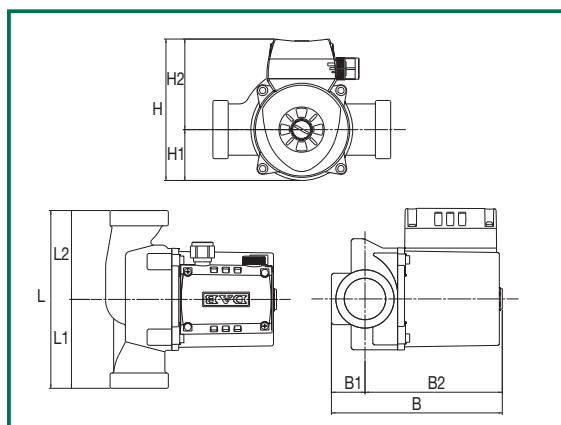
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

A 80/180 XT

SINGLE WITH UNIONS - THREE-PHASE

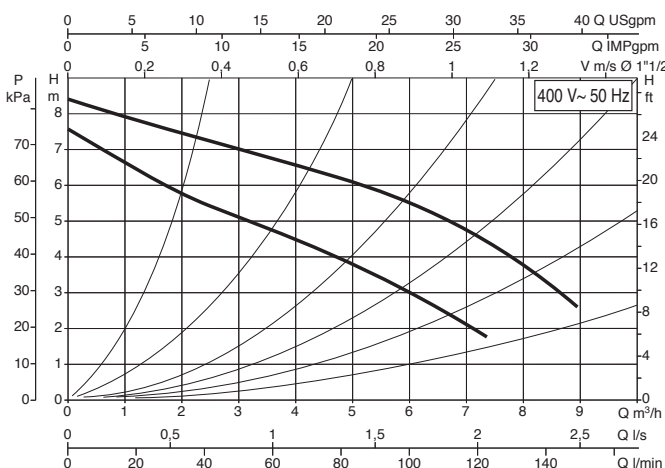
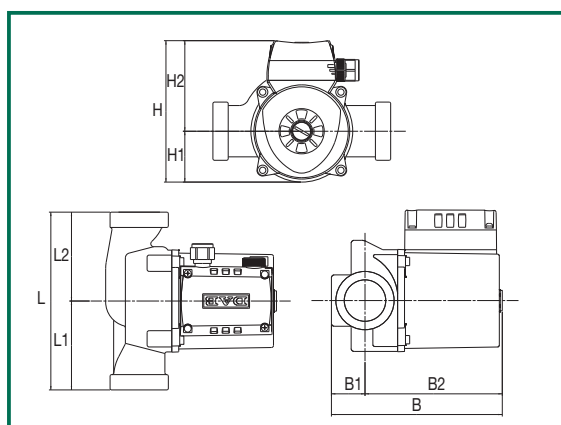


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	90	90	173	34	139	143	52	92	2" G	L	B	H	0,066	5,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
A 80/180 XT	3x400 V ~	180	1" 1/4	2 1	2727 2227	272 186	0,57 0,30	—	—	t° +90°C m.c.a. 2,5

A 80/180 T

SINGLE WITH UNIONS - THREE-PHASE



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	90	90	173	34	139	143	52	92	1" 1/2	L	B	H	0,066	5,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
A 80/180 T	3x400 V ~	180	1"	2 1	2724 2226	271 187	0,57 0,31	—	—	t° +90°C m.c.a. 2,5

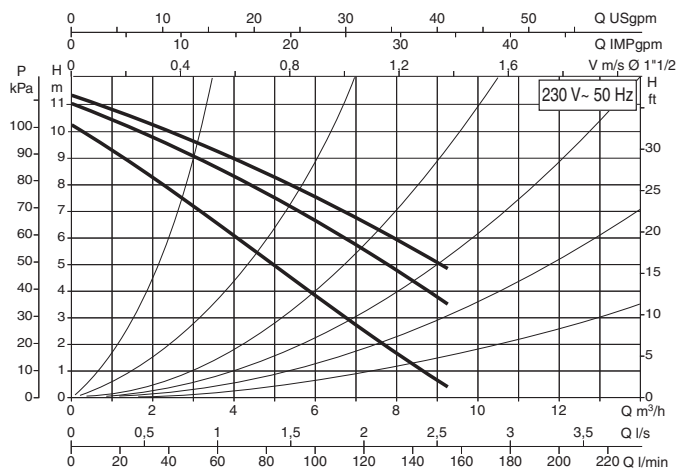
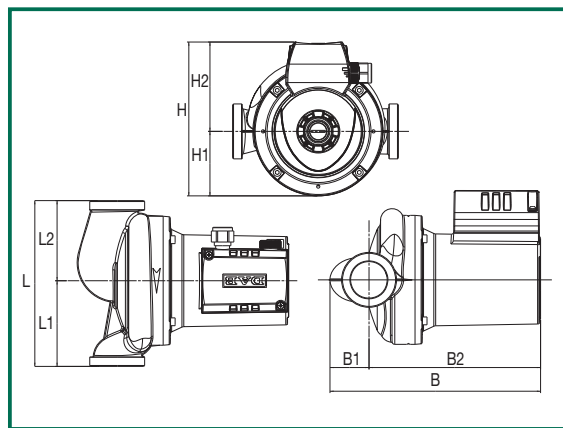
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

A 110/180 M

SINGLE WITH UNIONS - SINGLE-PHASE

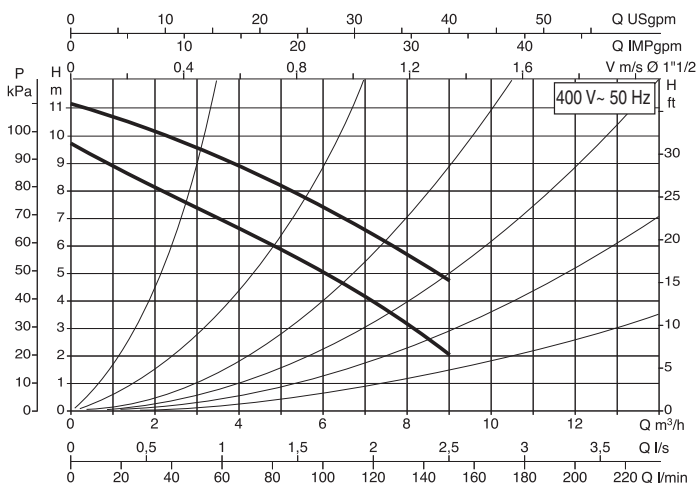
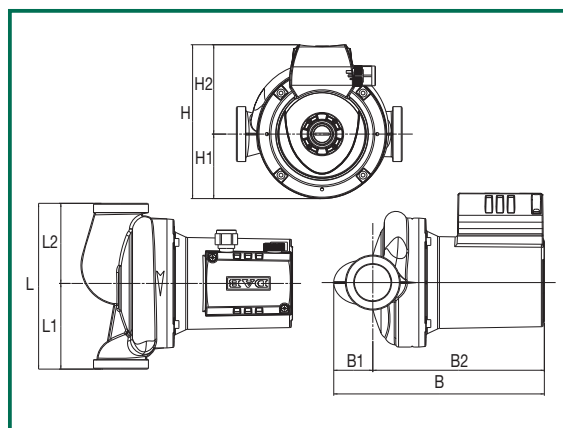


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	93	87	229	42	186	167	70	97	1 1/2" G	L	B	H	0,066	5,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE	
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc		
A 110/180 M	1x230 V ~	180	2" G	3	2746	410	1,6	12	450	t° +90°C m.c.a. 2,5	
				2	2552	393	1,8				
				1	2052	361	1,7				

A 110/180 T

SINGLE WITH UNIONS - THREE-PHASE



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	93	87	229	186	42	163	70	93	1 1/2" G	L	B	H	0,066	5,2

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE	
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc		
A 110/180 T	3x400 V ~	180	2" G	2	2753	402	0,87	-	-	t° +90°C m.c.a. 2,5	
				1	2338	286	0,48				

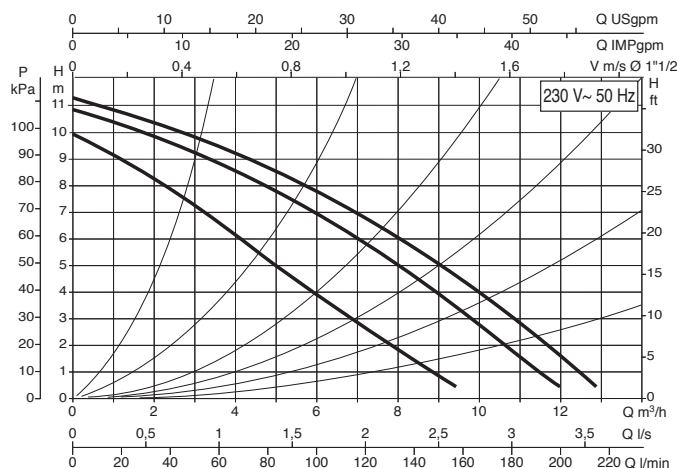
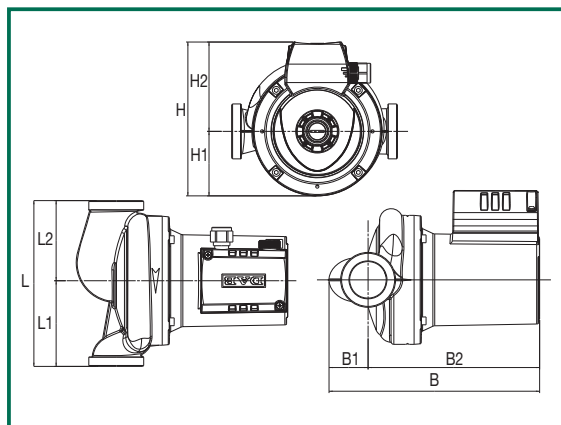
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906..

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

A 110/180 XM

SINGLE WITH UNIONS - SINGLE-PHASE

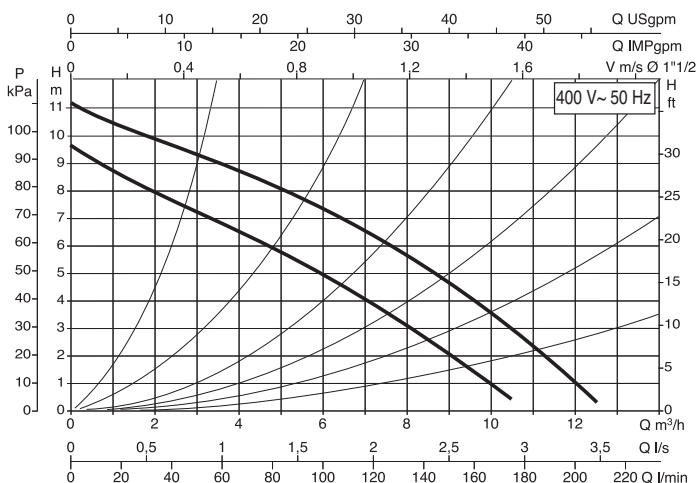
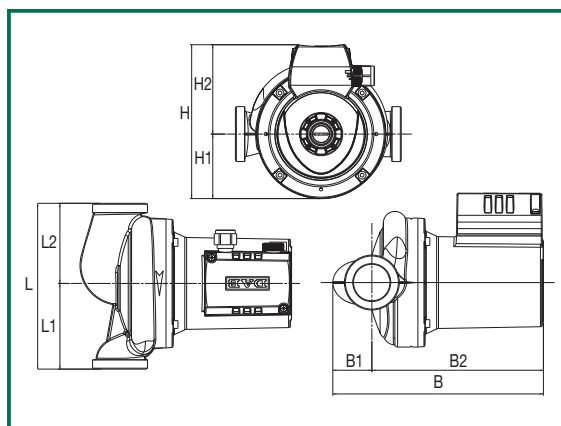


L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	93	87	229	42	186	167	70	97	2" G	L	B	H	0,066	5,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
A 110/180 XM	1x230 V ~	180	1" 1/4	3	2746	410	1,7	12	450	t° +90°C m.c.a. 2,5
				2	2552	393	1,8			
				1	2052	361	1,6			

A 110/180 XT

SINGLE WITH UNIONS - THREE-PHASE



L	L1	L2	B	B1	B2	H	H1	H2	F	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
180	93	87	229	186	42	163	70	93	2" G	L	B	H	0,066	5,2

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR μF	Vc	
A 110/180 XT	3x400 V ~	180	2" G	2	2759	403	0,90	-	-	t° +90°C m.c.a. 2,5
				1	2341	289	0,48			

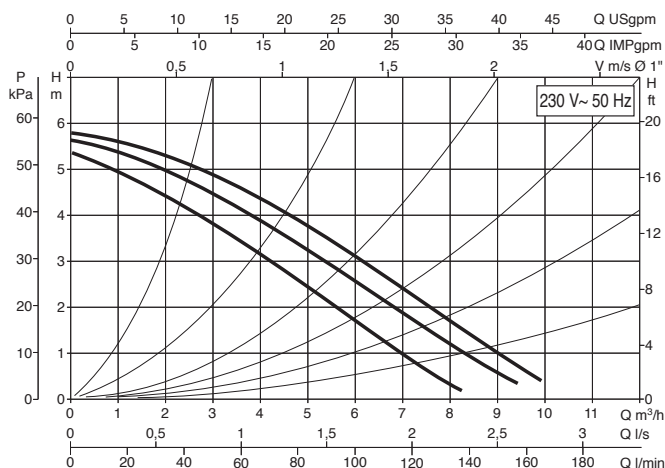
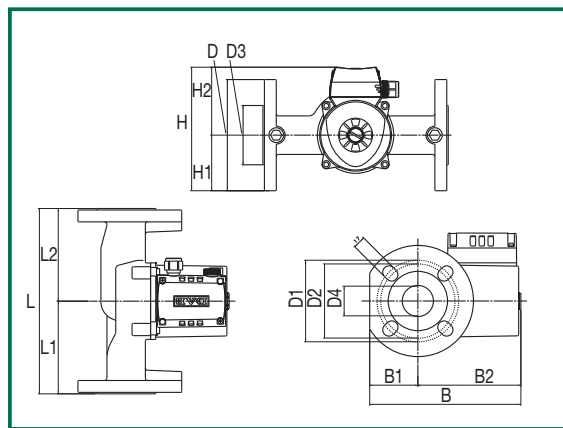
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

B 50/250.40 M

SINGLE FLANGED - SINGLE-PHASE

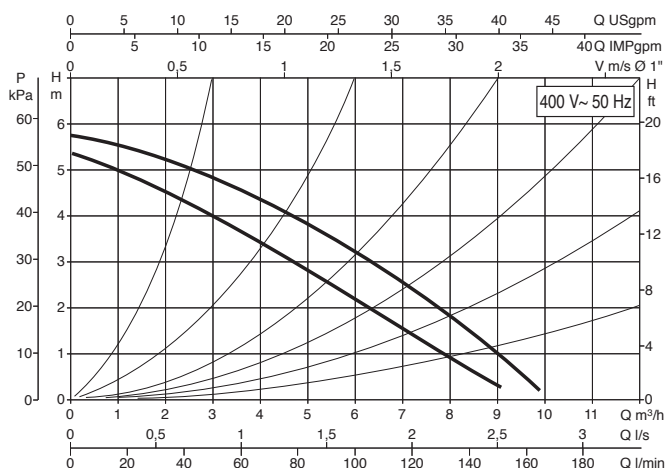
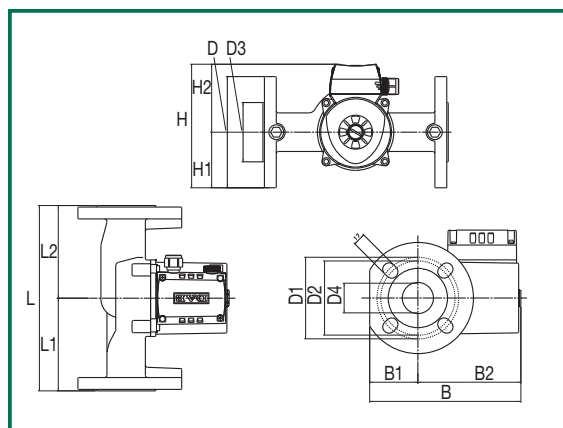


L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	204	65	139	150	110	100	80	40	167	75	92	DN40/PN10	302	202	283	0,013	9,1

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
B 50/250.40 M	1x230 V ~	250	DN 40	3	2766	195	0,95	4	400	t° +90°C m.c.a. 1,5
				2	2616	194	0,95			
				1	2215	180	0,85			

B 50/250.40 T

SINGLE FLANGED - THREE-PHASE



L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	204	65	139	150	110	100	80	40	167	75	92	DN40/PN10	302	202	283	0,013	9,3

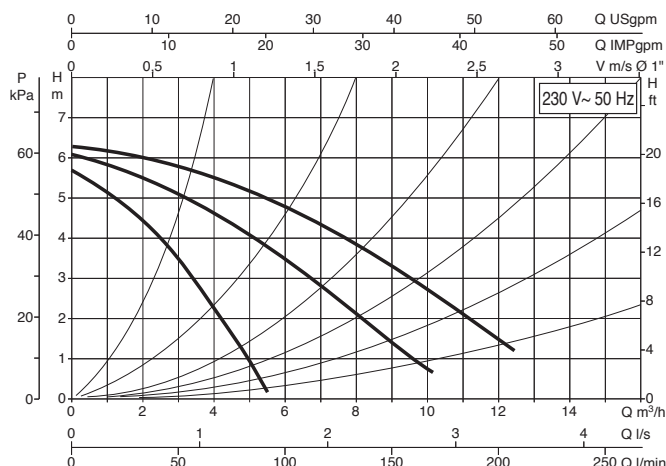
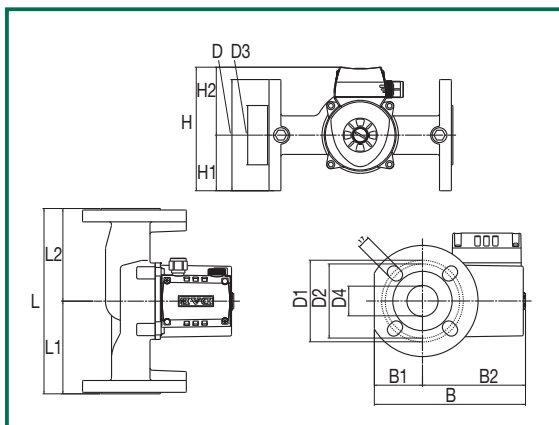
MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A	CAPACITOR µF Vc		
B 50/250.40 T	3x400 V ~	250	DN 40	2	2838	201	0,5	-	-	t° +90°C m.c.a. 1,5
				1	2520	129	0,23			

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.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

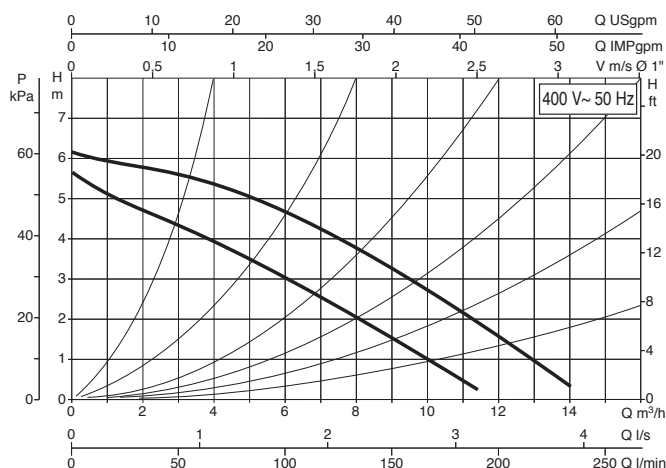
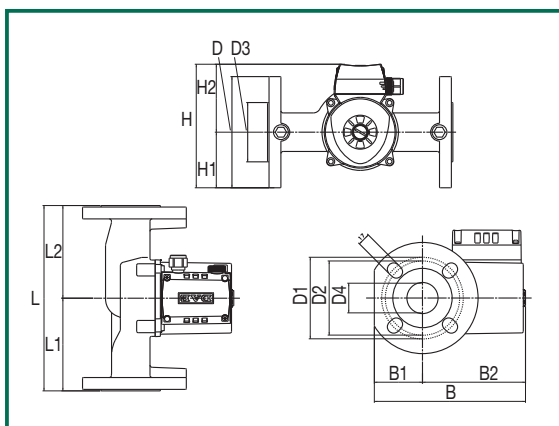
B 56/250.40 M SINGLE FLANGED - SINGLE-PHASE



L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	204	65	139	150	110	100	80	40	167	75	92	DN40/PN10	302	202	283	0,013	9,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						CAPACITOR		MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A			μF	Vc	
B 56/250.40 M	1x230 V ~	250	DN 40	3	2658	271	1,18			7	400	t° +90°C m.c.a. 1,5
				2	2117	294	1,32					
				1	1394	224	1					

B 56/250.40 T SINGLE FLANGED - THREE-PHASE



L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	204	65	139	150	110	100	80	40	167	75	92	DN40/PN10	302	202	283	0,013	9,2

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						CAPACITOR		MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A			μF	Vc	
B 56/250.40 T	3x400 V ~	250	DN 40	2	2708	291	0,6			-	-	t° +90°C m.c.a. 1,5
				1	2178	200	0,32					

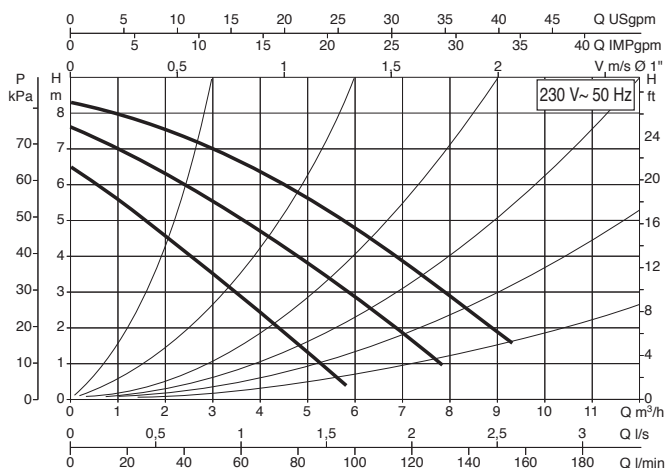
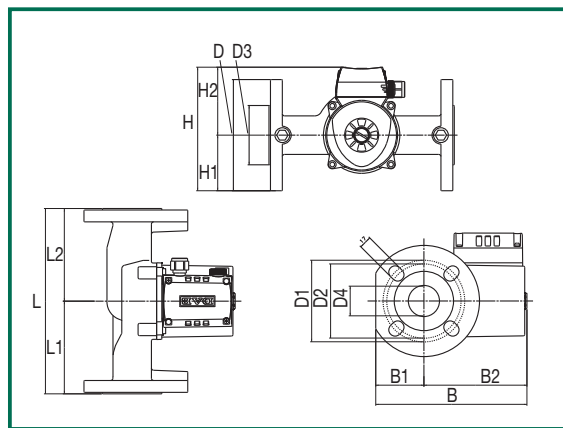
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

B 80/250.40 M

SINGLE FLANGED - SINGLE-PHASE

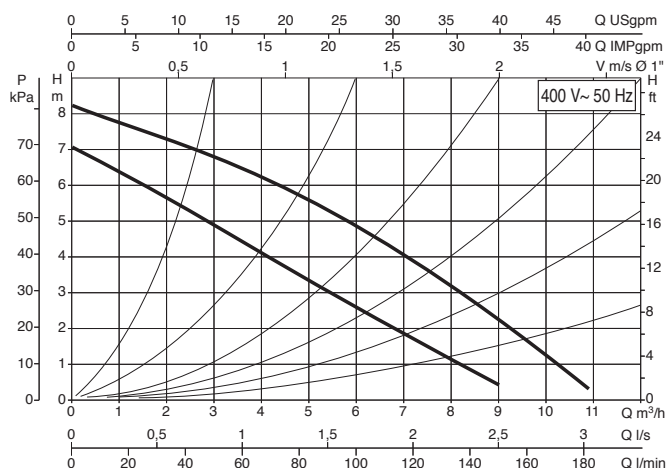
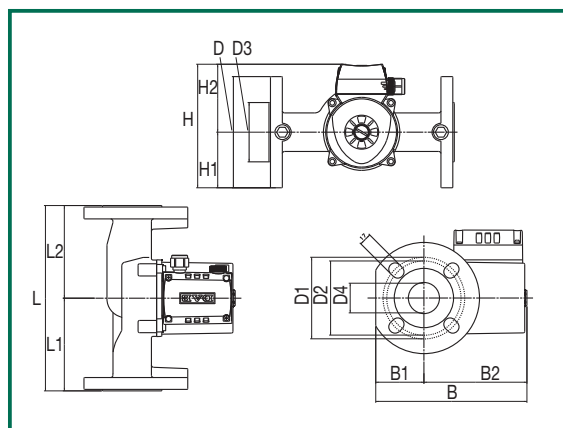


L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	204	65	139	150	110	100	80	40	167	75	92	DN40/PN10	302	202	283	0,013	9,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						CAPACITOR		MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	I _n A			μF	V _c	
B 80/250.40 M	1x230 V ~	250	DN 40	3	2683	256	1,12			7	400	t° +90°C m.c.a. 2,5
				2	2374	260	1,17					
				1	1688	218	1,00					

B 80/250.40 T

SINGLE FLANGED - THREE-PHASE



L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	204	65	139	150	110	100	80	40	167	75	92	DN40/PN10	302	202	283	0,013	9,3

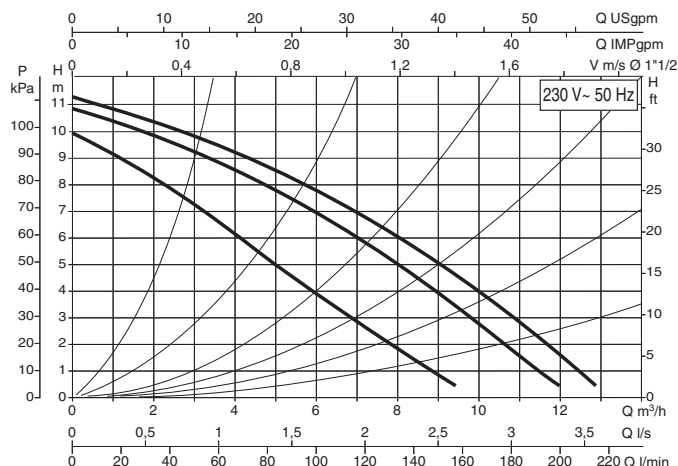
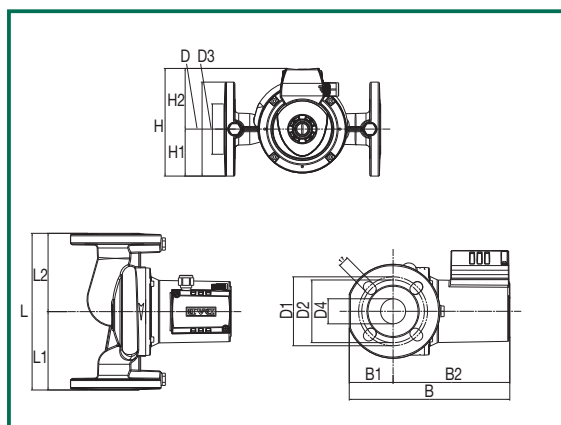
MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						CAPACITOR		MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	I _n A			μF	V _c	
B 80/250.40 T	3x400 V ~	250	DN 40	2	2724	271	0,57			-	-	t° +90°C m.c.a. 2,5
				1	2226	187	0,31					

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.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

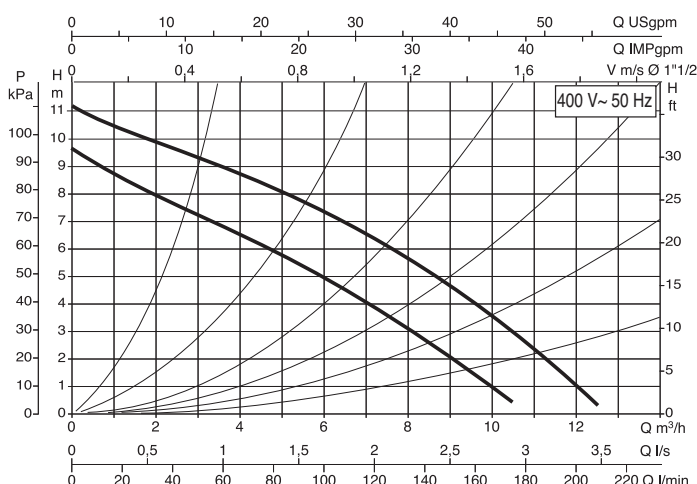
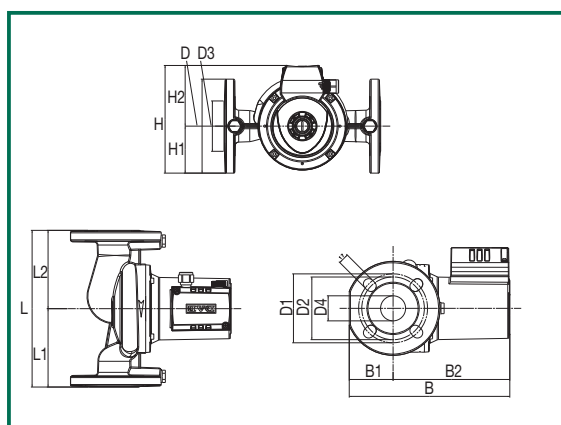
B 110/250.40 M SINGLE FLANGED - SINGLE-PHASE



L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	256	70	186	150	110	100	80	40	172	75	97	DN40/PN10	302	202	283	0,013	9,2

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						CAPACITOR		MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A			μF	Vc	
B 110/250.40 M	1x230 V ~	250	DN 40	3	2746	410	1,77			12	450	t° +90°C m.c.a. 2,5
				2	2552	393	1,78					
				1	2052	361	1,64					

B 110/250.40 T SINGLE FLANGED - THREE-PHASE



L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	256	70	186	150	110	100	80	40	168	75	93	DN40/PN10	302	202	283	0,013	9,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA						CAPACITOR		MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A			μF	Vc	
B 110/250.40 T	3x400 V ~	250	DN 40	2	2759	403	0,90			-	-	t° +90°C m.c.a. 2,5
				1	2341	289	0,48					

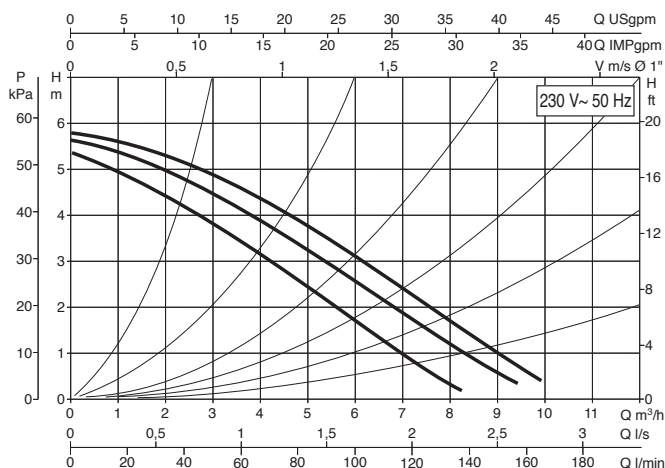
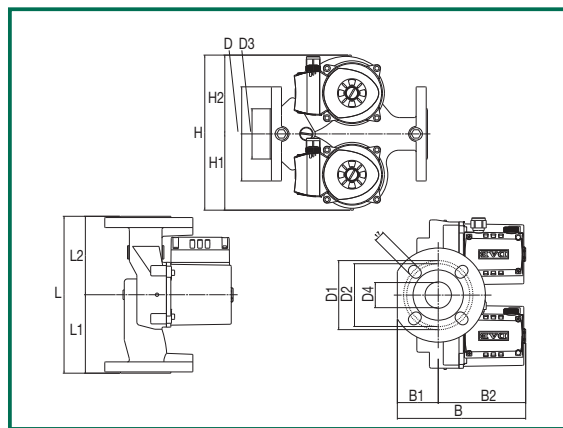
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

D 50/250.40 M

TWIN FLANGED - SINGLE-PHASE



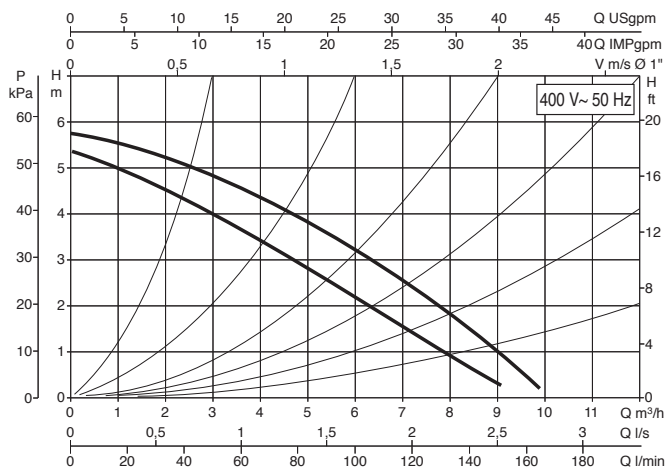
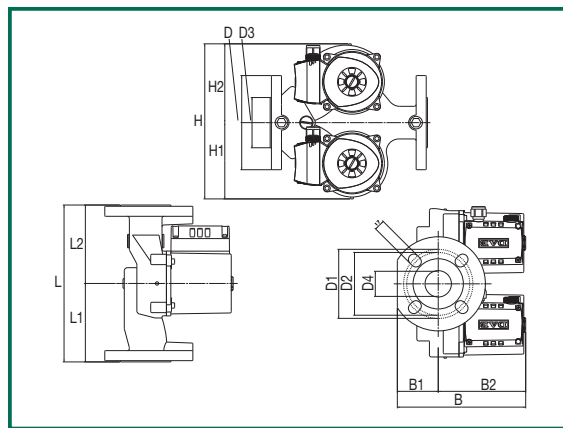
L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	204	65	139	150	110	100	80	40	247	122	126	DN40/PN10	355	298	283	0,018	15,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA*						CAPACITOR		MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A			μF	Vc	
D 50/250.40 M	1x230 V ~	250	DN 40 - PN 10	3	2766	195	0,95					t° +90°C m.c.a. 1,5
				2	2616	194	0,95			4	400	
				1	2215	180	0,85					

* Electrical and hydraulic data refer to operation of just one motor.

D 50/250.40 T

TWIN FLANGED - THREE-PHASE



L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	204	65	139	150	110	100	80	40	247	122	126	DN40/PN10	355	298	283	0,018	15,8

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA*						CAPACITOR		MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A			μF	Vc	
D 50/250.40 T	3x400 V ~	250	DN 40 - PN 10	2	2838	201	0,50					t° +90°C m.c.a. 1,5
				1	2520	129	0,23			-	-	

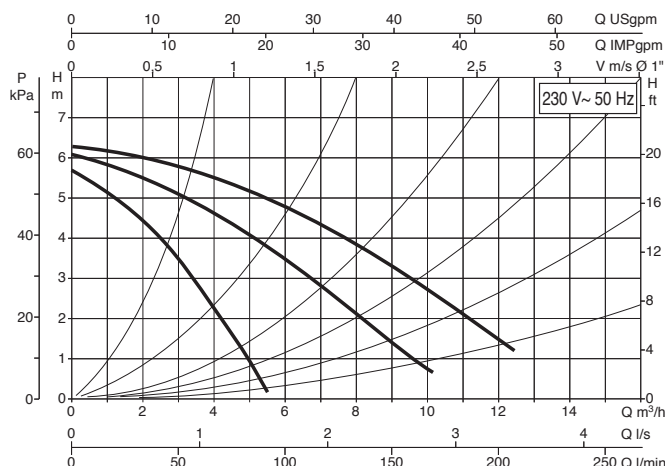
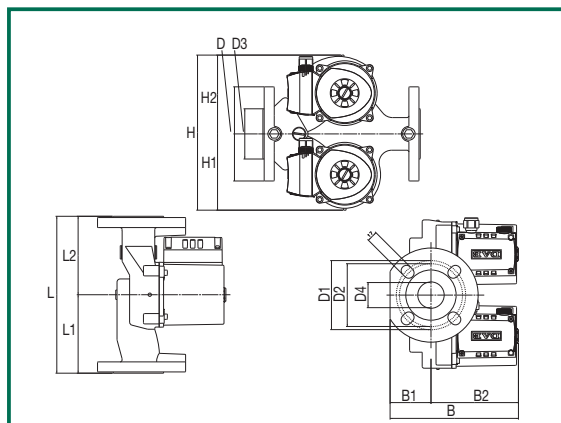
* Electrical and hydraulic data refer to operation of just one motor.

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.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

D 56/250.40 M TWIN FLANGED - SINGLE-PHASE

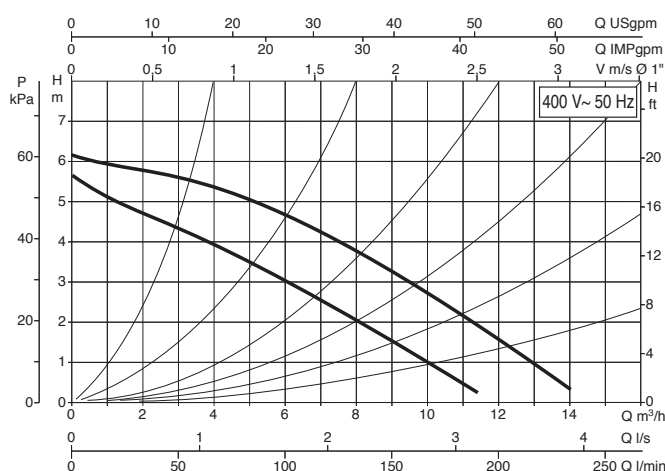
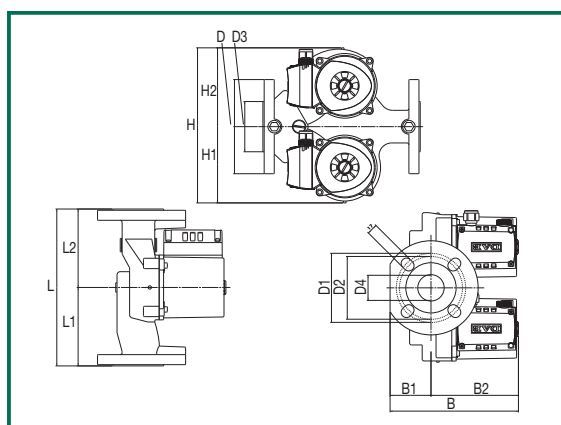


L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	204	65	139	150	110	100	80	40	247	122	126	DN40/PN10	355	298	283	0,018	15,8

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA*						CAPACITOR		MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A			μF	Vc	
D 56/250.40 M	1x230 V ~	250	DN 40 - PN 10	3	2658	271	1,18			7	400	t° +90°C m.c.a. 1,5
				2	2117	294	1,32					
				1	1394	224	1,00					

* Electrical and hydraulic data refer to operation of just one motor.

D 56/250.40 T TWIN FLANGED - THREE-PHASE



L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	204	65	139	150	110	100	80	40	247	122	126	DN40/PN10	355	298	283	0,018	15,4

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA*						CAPACITOR		MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A			μF	Vc	
D 56/250.40 T	3x400 V ~	250	DN 40 - PN 10	2	2708	291	0,60			-	-	t° +90°C m.c.a. 1,5
				1	2178	200	0,33					

* Electrical and hydraulic data refer to operation of just one motor.

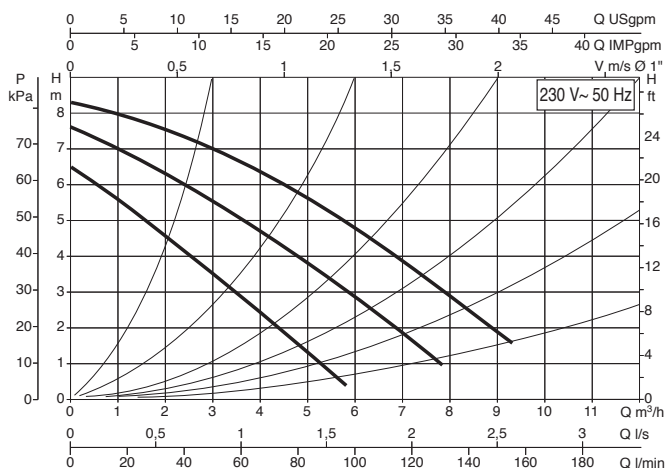
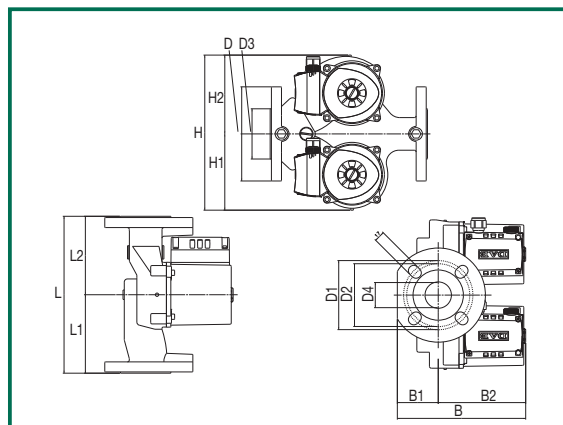
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

D 80/250.40 M

TWIN FLANGED - SINGLE-PHASE



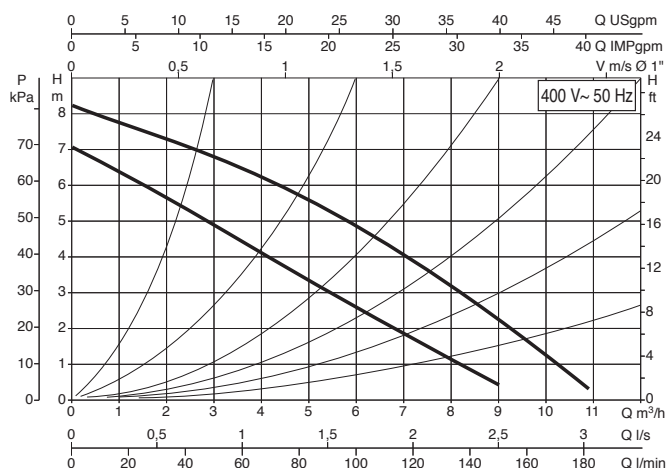
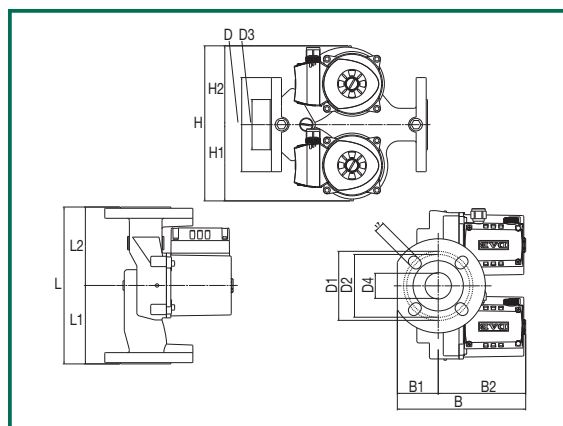
L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	204	65	139	150	110	100	80	40	247	122	126	DN40/PN10	355	298	283	0,018	15,8

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA*						CAPACITOR		MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A			μF	Vc	
D 80/250.40 M	1x230 V ~	250	DN 40 - PN 10	3	2683	256	1,12					t° +90°C m.c.a. 2,5
				2	2374	260	1,17			7	400	
				1	1688	218	1,00					

* Electrical and hydraulic data refer to operation of just one motor.

D 80/250.40 T

TWIN FLANGED - THREE-PHASE



L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	125	125	204	65	139	150	110	100	80	40	247	122	126	DN40/PN10	355	298	283	0,018	15,8

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA*						CAPACITOR		MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A			μF	Vc	
D 80/250.40 T	3x400 V ~	250	DN 40 - PN 10	2	2724	271	0,57					t° +90°C m.c.a. 2,5
				1	2226	187	0,31			-	-	

* Electrical and hydraulic data refer to operation of just one motor.

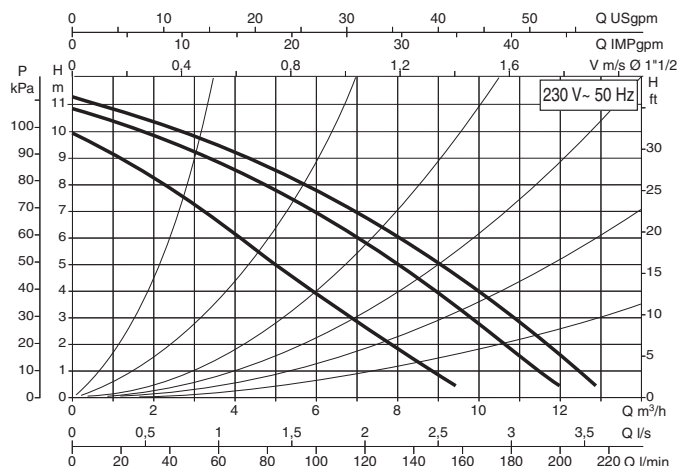
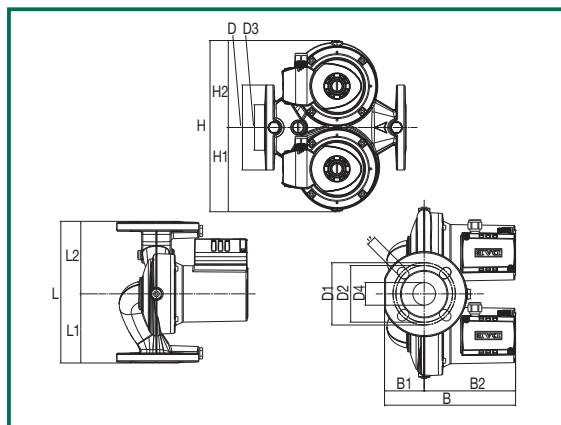
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

D 110/250.40 M

TWIN FLANGED - SINGLE-PHASE



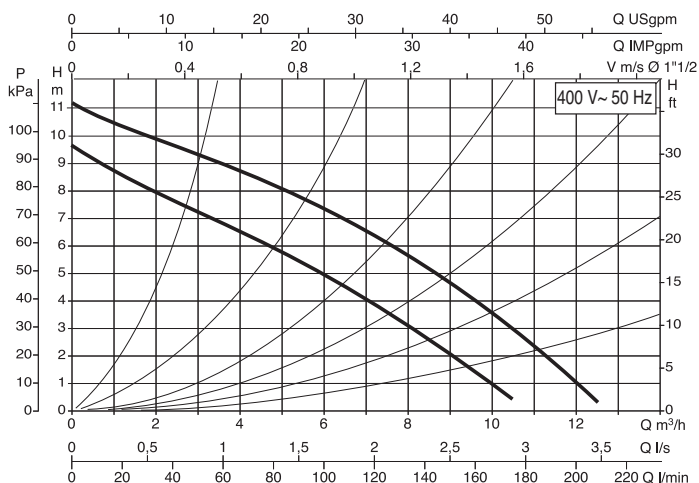
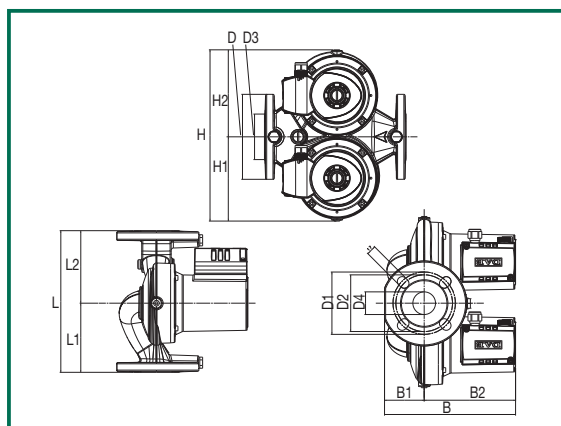
L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	122	128	231	70	161	150	110	100	80	40	302	149	154	DN40/PN10	355	298	283	0,018	16

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA*						CAPACITOR		MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A			μF	Vc	
D 110/250.40 M	1x230 V ~	250	DN 40 - PN 10	3	2746	410	1,77			12	450	t° +90°C m.c.a. 2,5
				2	2552	393	1,78					
				1	2052	361	1,64					

* Electrical and hydraulic data refer to operation of just one motor.

D 110/250.40 T

TWIN FLANGED - THREE-PHASE

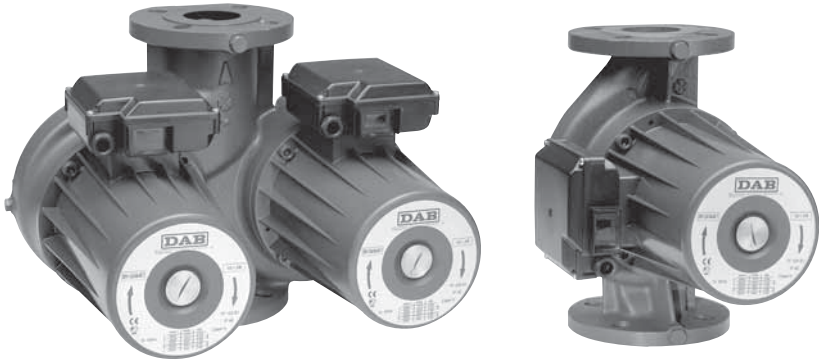


L	L1	L2	B	B1	B2	D	D1	D2	D3	D4	H	H1	H2	F	PACK DIMENSIONS			VOLUME	WEIGHT
															L	B	H	m ³	Kg
250	122	128	231	70	161	150	110	100	80	40	302	149	154	DN40/PN10	355	298	283	0,018	15,8

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST	ELECTRICAL DATA*						CAPACITOR		MINIMUM SUCTION PRESSURE
				SPEED	rpm	P1 MAX W	In A			μF	Vc	
D 110/250.40 T	3x400 V ~	250	DN 40 - PN 10	2	2759	403	0,90			-	-	t° +90°C m.c.a. 2,5
				1	2341	289	0,48					

* Electrical and hydraulic data refer to operation of just one motor.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS



DMH-DPH

BMH-BPH

GENERAL DATA

Applications

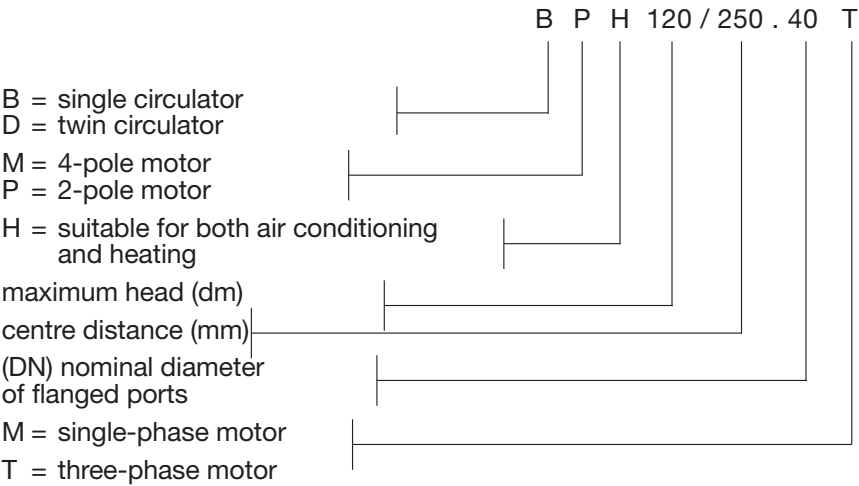
Water circulator pump for community civil and industrial heating and air conditioning systems. All models are available in both single and twin versions.

Construction features

Enbloc body composed of hydraulic section in cast iron and wet rotor motor.
Motor casing in aluminium. Flanged suction and discharge ports equipped with threaded fittings for pressure gauges. Rotor in technopolymer, motor shaft in hardened stainless steel held in graphite bearings lubricated by the pumping medium. Rotor protective jacket and stator jacket in stainless steel. Ceramic thrust ring, ethylene propylene seals and brass air breather plug. Four-pole asynchronous motor for versions BMH and DMH, two-pole motor for versions BPH and DPH. The Single-Phase Circulator is designed to operate at three speeds at 230 V, while the Three-Phase Circulator is designed to operate at two speeds at 230 V and at three speeds at 400 V. In both types, speed is adjusted on the basis of the setting of a selector on the terminal board in order to adapt circulator operation to the characteristics of the system.
Integral thermal in single-phase version. For the three-phase version the motor must be connected via an external contactor. The contactor must be connected to the motor's integral thermal probe to protect it against overload conditions at all speeds.
The twin version features an automatic swing check valve incorporated in the discharge port to avoid water recirculating through the unit when it is not running; moreover, a blank flange is supplied as standard to allow either of the two motors to be removed for servicing. Standard execution of the pump body is PN10, which is compatible with PN6 counter-flanges for interchangeability of pumps in existing systems.
Circulator protection rating: IP 44 both single-phase and three-phase
Insulation class: H - Cable gland: PG 11
Standard voltage input: single-phase 230V, 50Hz
three-phase 230/400V, 50Hz

This product complies with European standard EN 60335-2-51

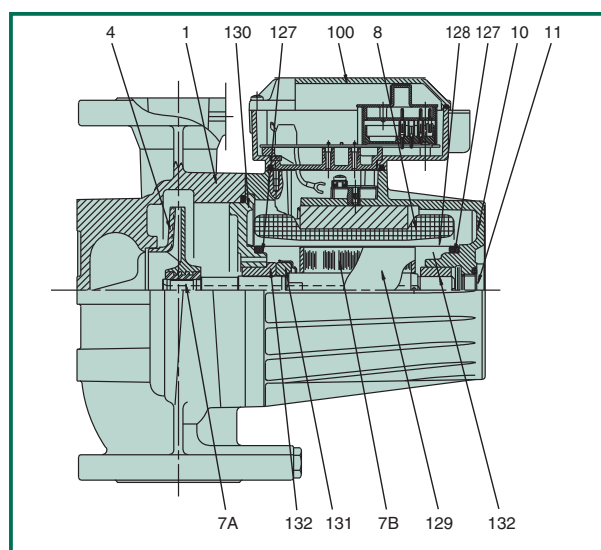
– Designation index:
(example)



CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

TECHNICAL DATA

N.	PARTS	MATERIALS
1	PUMP BODY	CAST IRON 200 UNI ISO 185
4	IMPELLER	TECHNOPOLYMER B
7A	MOTOR SHAFT	AISI 420 C Quenched and Tempered STAINLESS STEEL
7B	ROTOR	—
8	STATOR	—
10	MOTOR CASING	DIE CAST ALUMINIUM
11	BREATHING PLUG	BRASS P Cu Zn 40 Pb2 UNI 5705
100	TERMINAL BOX	—
127	SEAL RING	ETHYLENE PROPYLENE (EPDM)
128	STATOR JACKET	321 AISI Quenched and Tempered STAINLESS STEEL – AISI 304
129	ROTOR JACKET	321 AISI Quenched and Tempered STAINLESS STEEL – AISI 304
130	CLOSING FLANGE	CAST IRON 200 UNI ISO 185
131	THRUST RING SUPPORT	AISI 304 L STAINLESS STEEL
132	BUSHINGS	CARBON EC 941



Operating range:

from 1.5 to 78 m³/h with head of up to 18 m.

Liquid temperature range:

For three-phase versions: from -10°C to +120°C

For models BPH – DPH 150/340.65 T and BPH – DPH 150/360.80 T;

BPH – DPH 150-180/280.50 T; BPH – DPH 180/340.65;

BPH – DPH 180/360.80 T:

from -10°C to +110°C

For model BPH 120/280.50 M from -10 °C to +90 °C

For single-phase versions: from -10 °C to +110 °C

Liquid quality requirements:

clean, free of solid contaminants and mineral oils, non-viscous, chemically neutral, close to the properties of water. (max. glycol contents 30%).

Maximum working pressure:

10 bar (1000 kPa)

Standard flanging:

DN 40, DN 50, DN 65, DN 80 in PN 6 / PN 10 (4 slots)

Minimum suction pressure:

the values are given in the relative tables.

Installation:

with HORIZONTAL MOTOR SHAFT on discharge or return pipe, with suction port as close as possible to expansion vessel, above boiler level and as far as possible from bends, elbows, and circuit branches to avoid water turbulence with consequent noise.

Special executions on request:

alternative voltages and/or frequencies.

Flanging DN 80 in PN 10 / PN 16 (8 holes)

Accessories:

DN 40 - DN 50 - DN 65 - DN 80 threaded counter-flanges in PN 10.

TERMINAL BOARD POSITION

Single		Twin	
DN 40-50-65-80	DN 65-80	DN 65-80	DN 40-50-65-80

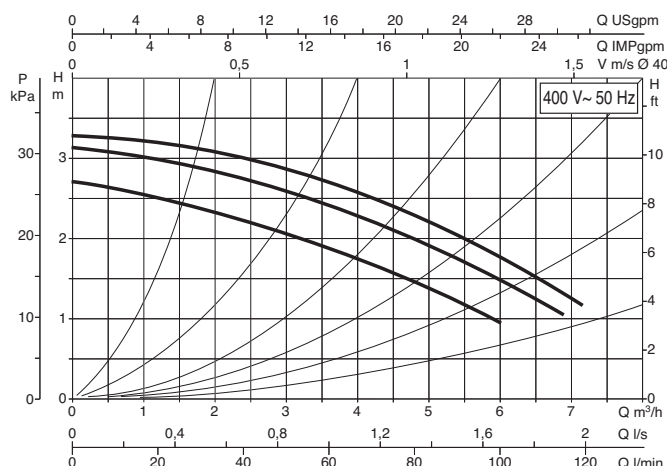
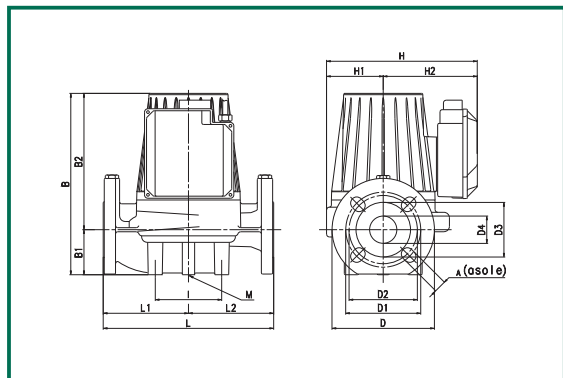
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum working pressure: 10 bar (1000 kPa)

BMH 30/250.40 T

SINGLE FLANGED - THREE-PHASE (1400 rpm)



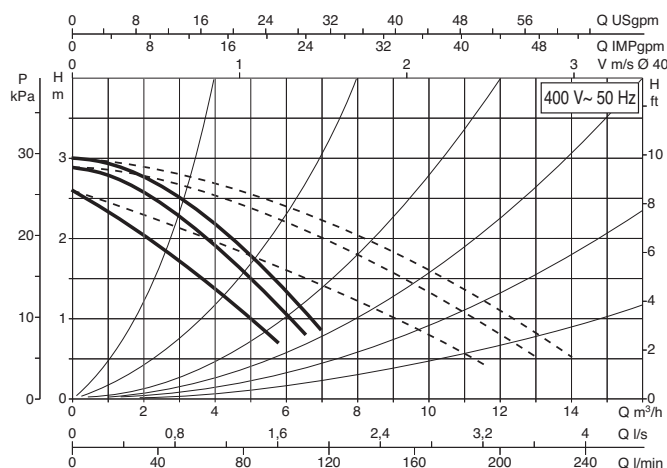
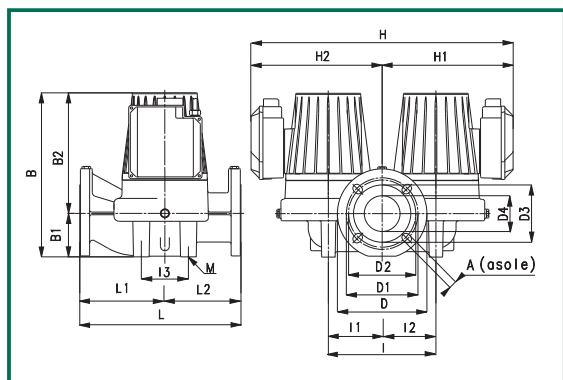
Hydraulic characteristics at 230 V are shown from page 50.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
250	125	125	18	266	66	200	150	110	100	80	40	100	-	-	-	M10	221	83	138	360	295	320	0,033	17,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
BMH 30/250.40 T	3x230 V ~	250	DN 40 - PN 10	2	1340	100	0.48	t°	75°	90°	110°	120°
				1	1260	88	0.39					
	3			1440	192	0.78						
	2			1430	155	0.58						
	1			1260	88	0.23						
	1			1260	88	0.23						
	3x400 V ~							m.c.a.	0.9	4	-	18

DMH 30/250.40 T

TWIN FLANGED - THREE-PHASE (1400 rpm)



Hydraulic characteristics at 230 V are shown from page 50.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
250	105	145	18	271	66	205	150	110	100	80	40	200	100	100	100	M12	476	238	238	520	300	295	0,046	32

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
DMH 30/250.40 T	3x230 V ~	250	DN 40 - PN 10	2	1340	100	0.48	t°	75°	90°	110°	120°			
				1	1260	88	0.39								
	3x400 V ~				3	1440	192						0.78		
					2	1430	155						0.58		
					1	1260	88						0.23		
								m.c.a.	0.9	4	-	18			

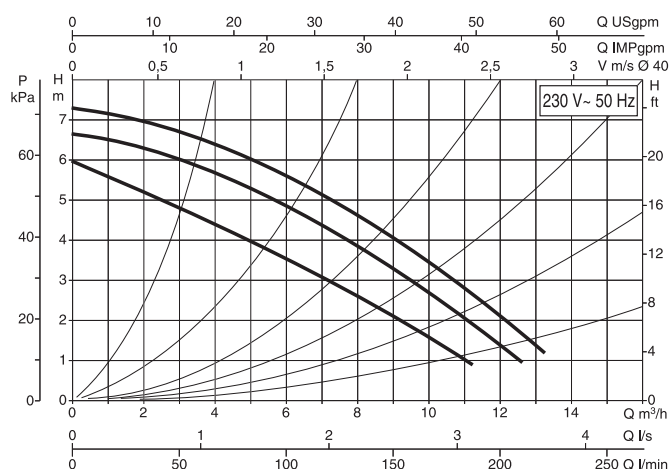
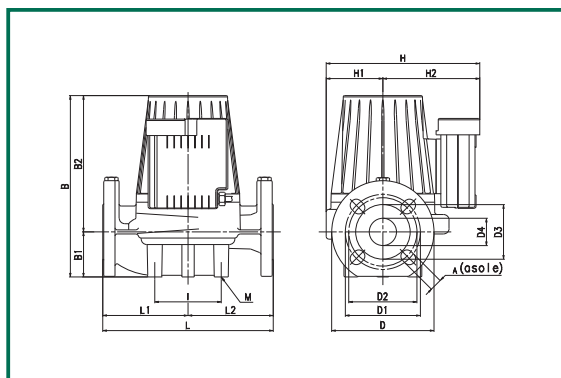
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

BPH 60/250.40 M

SINGLE FLANGED - SINGLE-PHASE (2800 rpm)

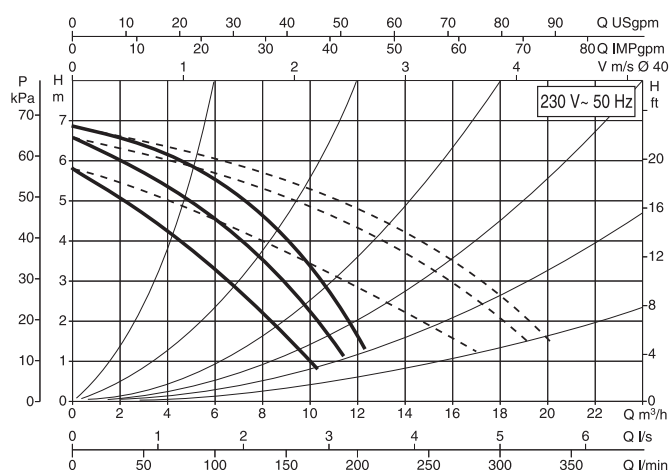
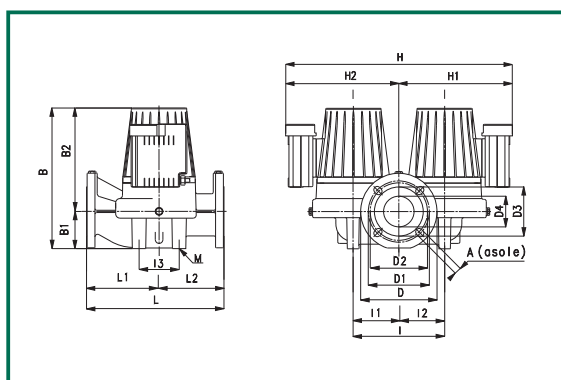


L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
250	125	125	18	266	66	200	150	110	100	80	40	100	—	—	—	M10	221	83	138	360	295	320	0,033	17,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A	t°	75°	90°	110°	120°
BPH 60/250.40 M	— 1x230 V ~	250	DN 40 - PN 10	—	—	—	—	—	—	—	—	—
				3	2830	316	1.43	—	—	—	—	—
				2	2750	309	1.53	—	—	—	—	—
				1	2410	292	1.51	—	—	—	—	—

DPH 60/250.40 M

TWIN FLANGED - SINGLE-PHASE (2800 rpm)



L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
250	105	145	18	271	66	205	150	110	100	80	40	200	100	100	100	M12	476	238	238	520	300	295	0,046	32

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A	t°	75°	90°	110°	120°
DPH 60/250.40 M	— 1x230 V ~	250	DN 40 - PN 10	—	—	—	—	—	—	—	—	—
				3	2830	316	1.43	—	—	—	—	—
				2	2750	309	1.53	—	—	—	—	—
				1	2410	292	1.51	—	—	—	—	—

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.

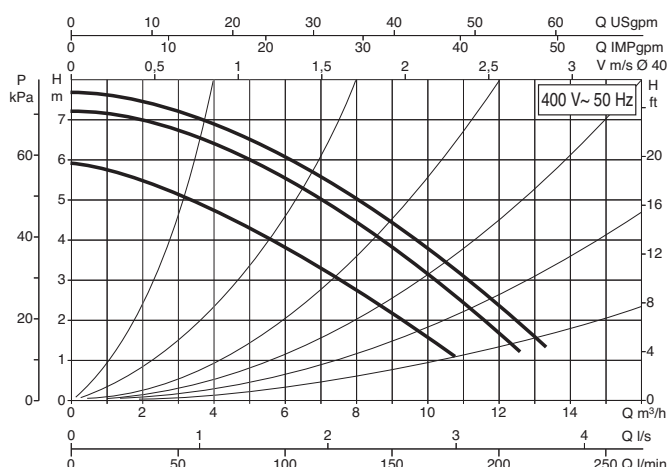
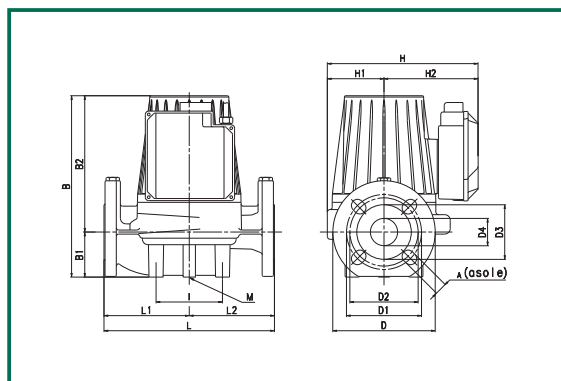
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C

Maximum working pressure: 10 bar (1000 kPa)

BPH 60/250.40 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



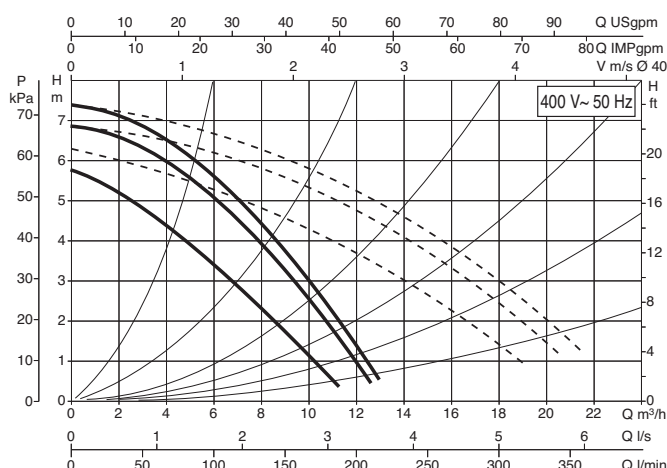
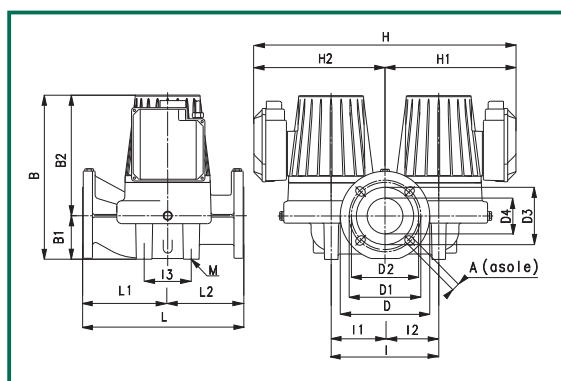
Hydraulic characteristics at 230 V are shown from page 52.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
250	125	125	18	266	66	200	150	110	100	80	40	100	-	-	-	M10	221	83	138	360	295	320	0,033	17,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE								
				SPEED	rpm	P1 MAX W	In A									
BPH 60/250.40 T	3x230 V ~	250	DN 40 - PN 10	2	2570	253	0.81	t°	75°	90°	110°	120°				
				1	2420	229	0.72									
	3			2850	348	0.99	m.c.a.						1.6	4	-	19
	2			2810	316	0.75										
	1			2430	232	0.42										

DPH 60/250.40 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 52.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
250	105	145	18	271	66	205	150	110	100	80	40	200	100	100	100	M12	476	238	238	520	300	295	0,046	32

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE												
				SPEED	rpm	P1 MAX W	In A													
DPH 60/250.40 T	3x230 V ~	250	DN 40 - PN 10	2	2570	253	0.81	t°	75°	90°	110°	120°								
				1	2420	229	0.72													
	3x400 V ~				3	2850	348						0.99	m.c.a.	1.6	4	-	19		
					2	2810	316						0.75							
					1	2430	232						0.42							

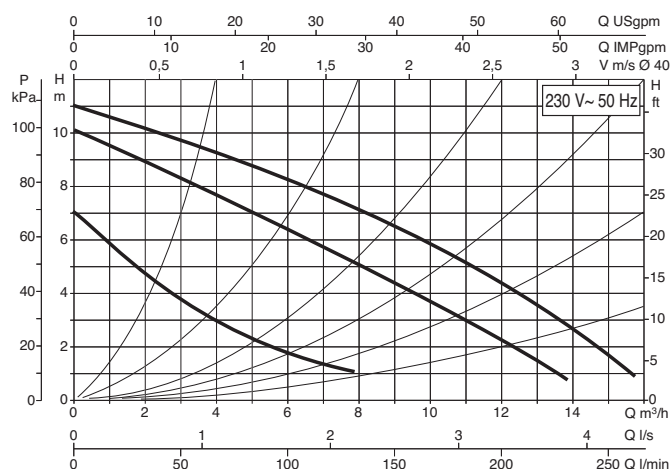
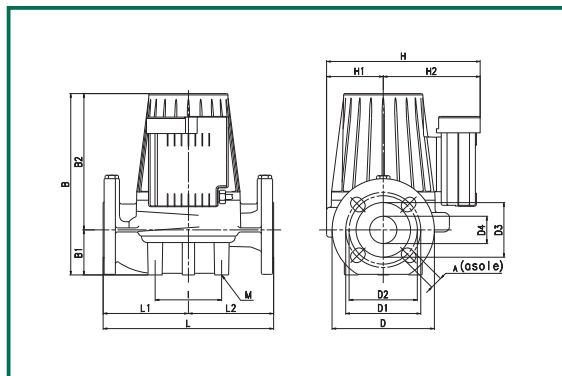
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

BPH 120/250.40 M

SINGLE FLANGED - SINGLE-PHASE (2800 rpm)

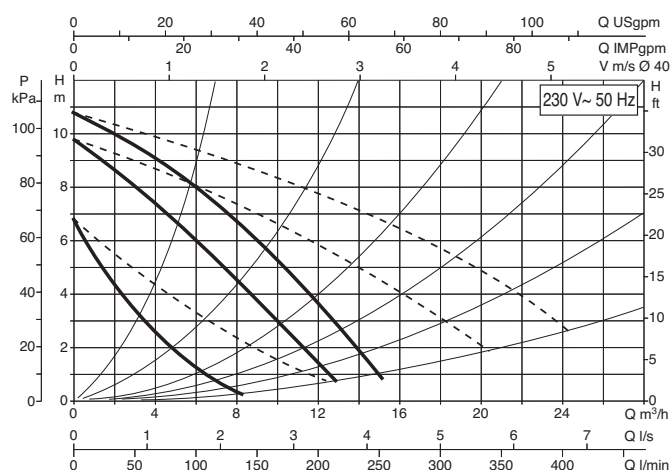
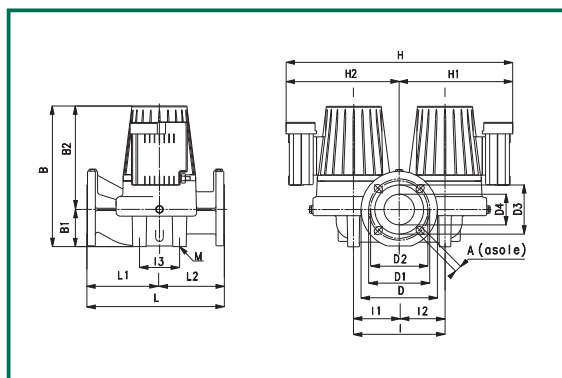


L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
250	125	125	18	266	66	200	150	110	100	80	40	100	—	—	—	M10	221	83	138	360	295	320	0,033	17,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A	t°	75°	90°	110°	120°
BPH 120/250.40 M	— 1x230 V ~	250	DN 40 - PN 10	—	—	—	—	—	—	—	—	—
				3	2650	510	2.24	—	—	—	—	—
				2	2320	498	2.35	m.c.a.	6	9	18	—
				1	1520	376	1.96	—	—	—	—	—

DPH 120/250.40 M

TWIN FLANGED - SINGLE-PHASE (2800 rpm)



L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
250	105	145	18	271	66	205	150	110	100	80	40	200	100	100	100	M12	476	238	238	520	300	295	0,046	32

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A	t°	75°	90°	110°	120°
DPH 120/250.40 M	— 1x230 V ~	250	DN 40 - PN 10	—	—	—	—	—	—	—	—	—
				3	2650	510	2.24	—	—	—	—	—
				2	2320	498	2.35	m.c.a.	6	9	18	—
				1	1520	376	1.96	—	—	—	—	—

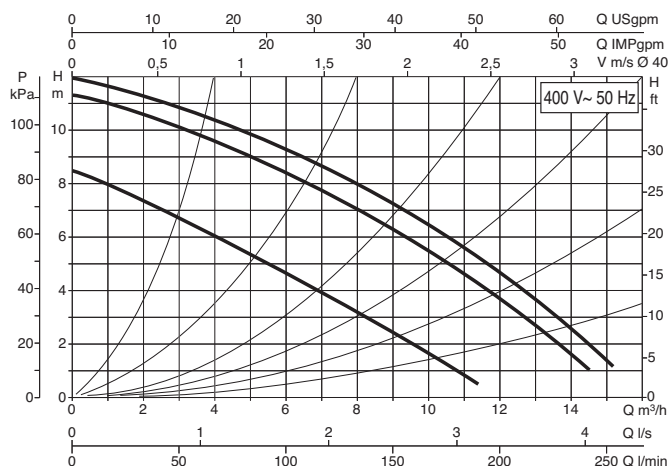
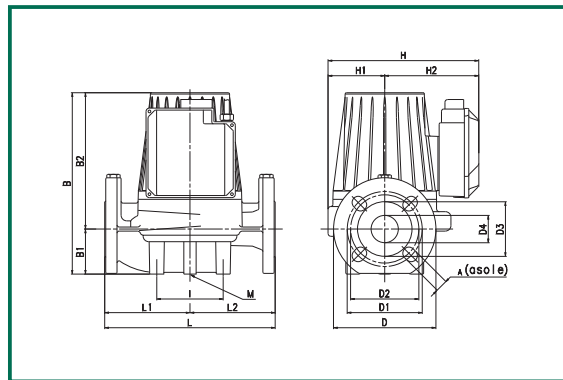
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum working pressure: 10 bar (1000 kPa)

BPH 120/250.40 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



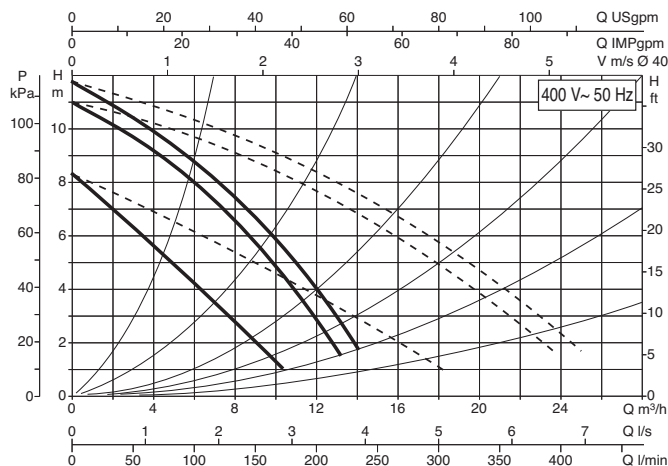
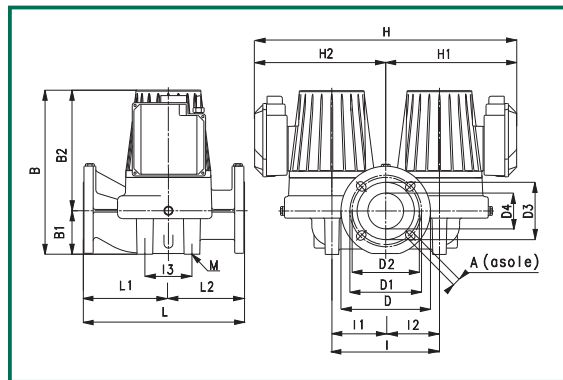
Hydraulic characteristics at 230 V are shown from page 54.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
250	125	125	18	266	66	200	150	110	100	80	40	100	-	-	-	M10	221	83	138	360	295	320	0,033	17,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
BPH 120/250.40 T	3x230 V ~	250	DN 40 - PN 10	2	2300	395	1.2	t°	75°	90°	110°	120°
				1	2070	340	1.07					
	3			2780	536	1.16						
	2			2710	499	0.98						
	1			2080	339	0.62						
	1			2080	339	0.62						
								m.c.a.	6	9	-	23

DPH 120/250.40 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 54.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
250	105	145	18	271	66	205	150	110	100	80	40	200	100	100	100	M12	476	238	238	520	300	295	0,046	32

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
DPH 120/250.40 T	3x230 V ~	250	DN 40 - PN 10	2	2300	395	1.2	t°	75°	90°	110°	120°			
				1	2070	340	1.07								
	3x400 V ~				3	2780	536						1.16		
					2	2710	499						0.98		
					1	2080	339						0.62		
m.c.a.															

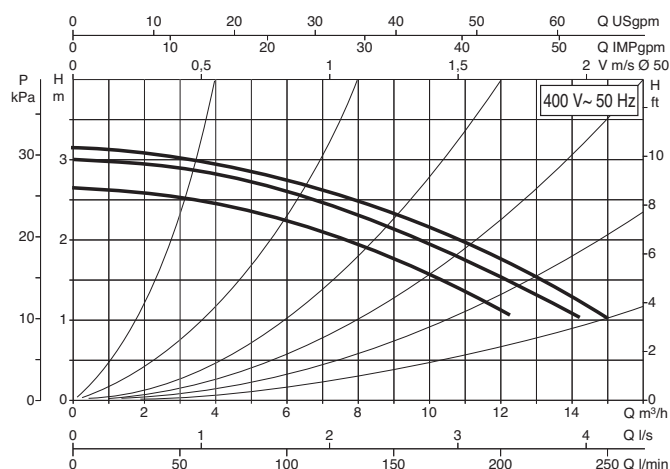
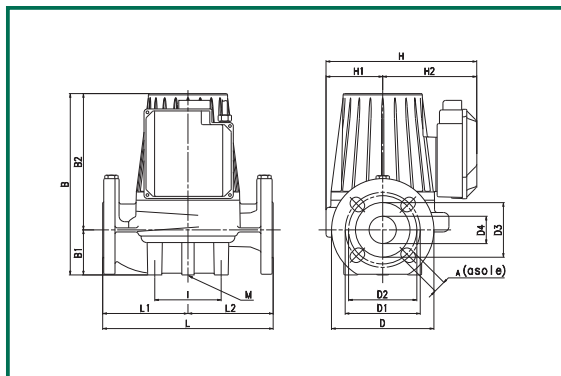
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum working pressure: 10 bar (1000 kPa)

BMH 30/280.50 T

SINGLE FLANGED - THREE-PHASE (1400 rpm)



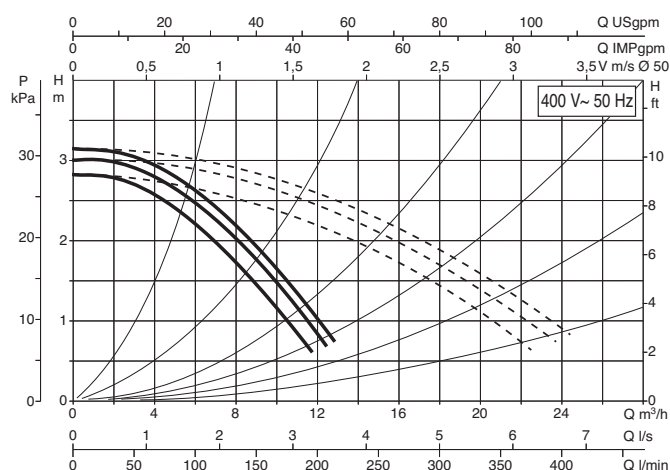
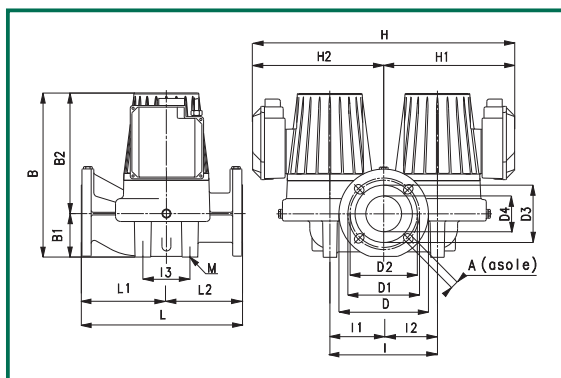
Hydraulic characteristics at 230 V are shown from page 55.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
280	140	140	18	312	73	239	165	125	110	90	50	100	-	-	-	M10	254	96	158	360	295	320	0,033	24

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
BMH 30/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	1390	148	0.7	t°	75°	90°	110°	120°			
				1	1340	134	0.55								
	3x400 V ~				3	1460	255						1.12		
					2	1450	216						0.83		
					1	1350	131						0.32		
								m.c.a.	0.9	4	-	18			

DMH 30/280.50 T

TWIN FLANGED - THREE-PHASE (1400 rpm)



Hydraulic characteristics at 230 V are shown from page 55.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
280	130	150	18	305	73	232	165	125	110	90	50	240	120	120	120	M14	552	276	276	590	335	430	0,084	51,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
DMH 30/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	1390	148	0.7	t°	75°	90°	110°	120°
				1	1340	134	0.55					
	3x400 V ~			3	1460	255	1.12	m.c.a.	0.9	4	-	18
				2	1450	216	0.83					
				1	1350	131	0.32					

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.

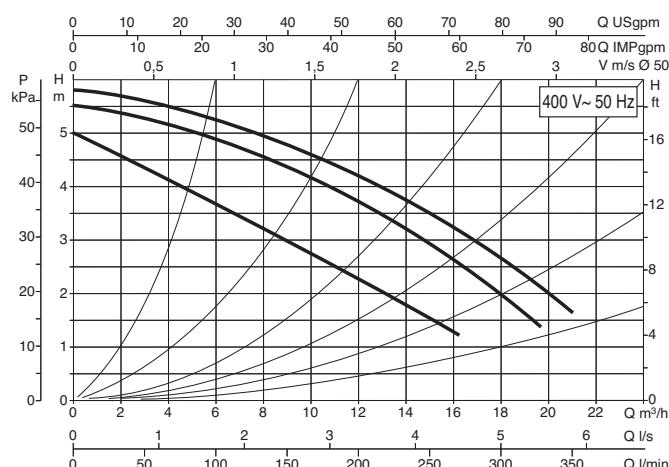
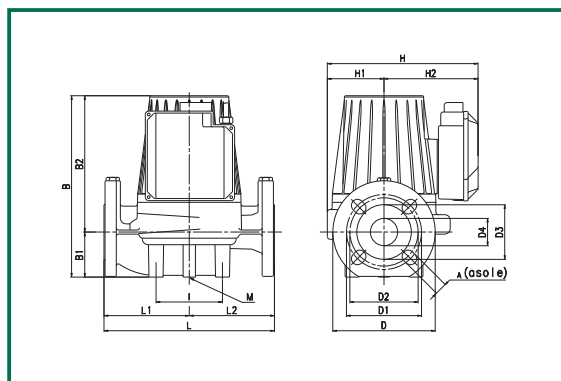
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C

Maximum working pressure: 10 bar (1000 kPa)

BMH 60/280.50 T

SINGLE FLANGED - THREE-PHASE (1400 rpm)



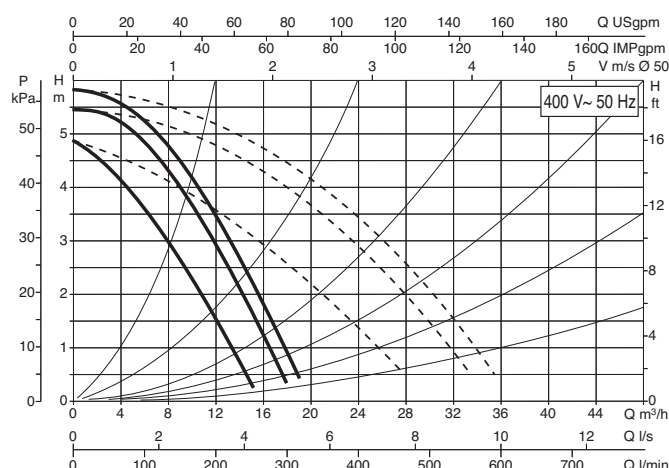
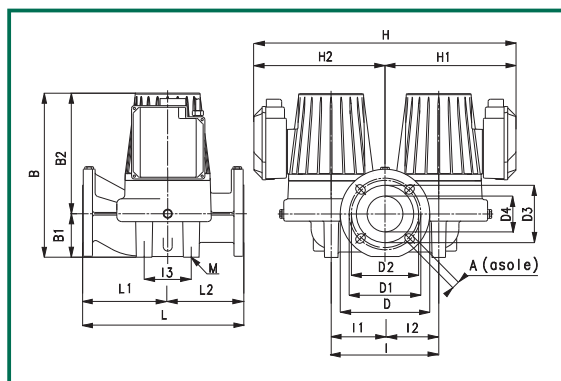
Hydraulic characteristics at 230 V are shown from page 56.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
280	140	140	18	312	73	239	165	125	110	90	50	100	-	-	-	M10	254	96	158	360	295	320	0,033	24

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE								
				SPEED	rpm	P1 MAX W	In A									
BMH 60/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	1210	272	0.94	t°	75°	90°	110°	120°				
				1	1120	240	0.8									
	3			1400	410	1.2	m.c.a.						4	7.5	-	21
	2			1360	367	0.95										
	1			1130	235	0.46										

DMH 60/280.50 T

TWIN FLANGED - THREE-PHASE (1400 rpm)



Hydraulic characteristics at 230 V are shown from page 56.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
280	130	150	18	308	73	235	165	125	110	90	50	240	120	120	120	M14	556	278	278	590	335	430	0,084	44,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE												
				SPEED	rpm	P1 MAX W	In A													
DMH 60/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	1210	272	0.94	t°	75°	90°	110°	120°								
				1	1120	240	0.8													
	3x400 V ~				3	1400	410						1.2	m.c.a.	4	7.5	-	21		
					2	1360	367						0.95							
					1	1130	235						0.46							

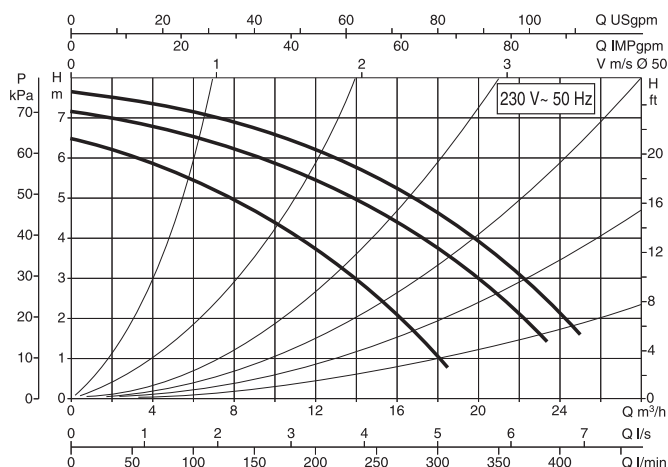
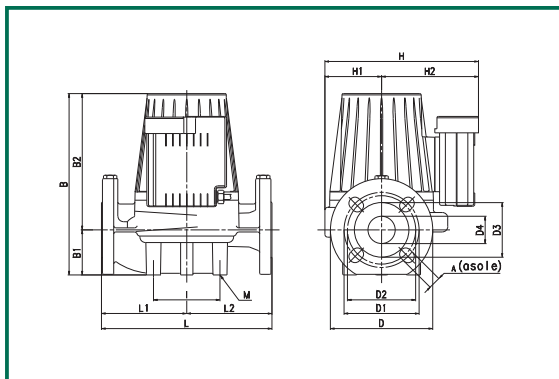
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

BPH 60/280.50 M

SINGLE FLANGED - SINGLE-PHASE (2800 rpm)

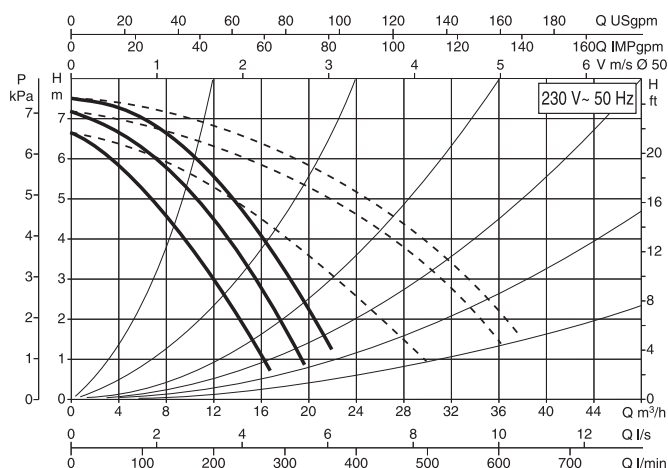
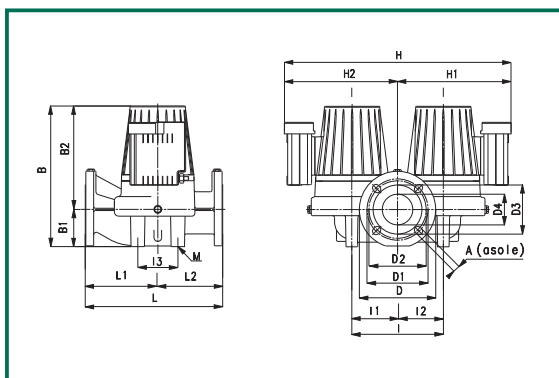


L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
280	140	140	18	312	73	239	165	125	110	90	50	100	-	-	-	M10	254	156	158	360	295	320	0,033	24

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
BPH 60/280.50 M	—	280	DN 50 - PN 10	—	—	—	—	t°	75°	90°	110°	120°
	1x230 V ~			3	2840	595	2.79					
				2	2730	540	2.45					
				1	2200	506	2.58					

DPH 60/280.50 M

TWIN FLANGED - SINGLE-PHASE (2800 rpm)



L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
280	130	150	18	308	73	235	165	125	110	90	50	240	120	120	120	M14	554	278	278	590	335	430	0,084	44,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
DPH 60/280.50 M	—	280	DN 50 - PN 10	—	—	—	—	t°	75°	90°	110°	120°
	1x230 V ~			3	2840	595	2.79					
				2	2730	540	2.45					
				1	2200	506	2.58					

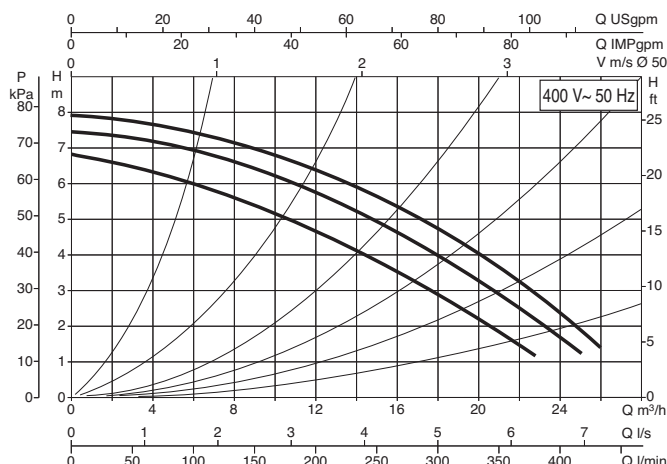
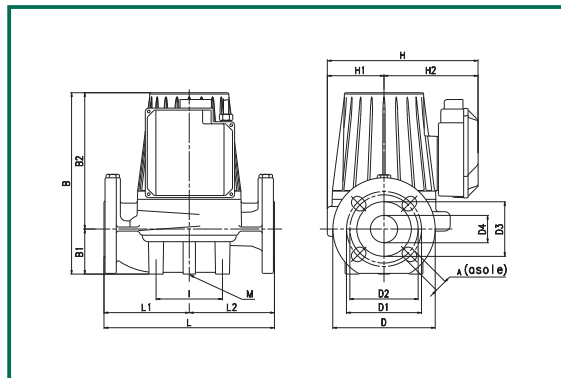
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum working pressure: 10 bar (1000 kPa)

BPH 60/280.50 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



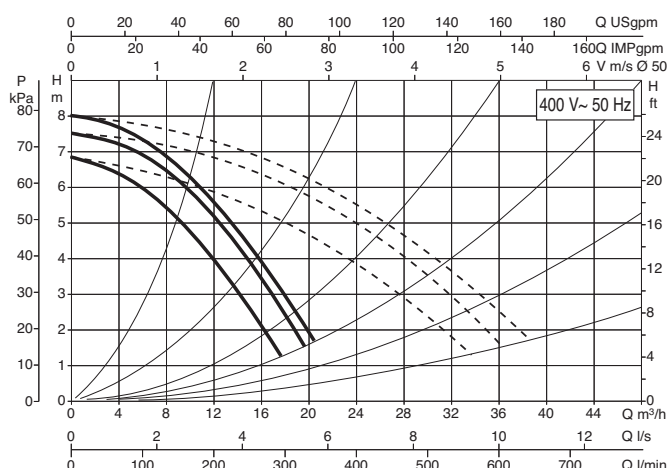
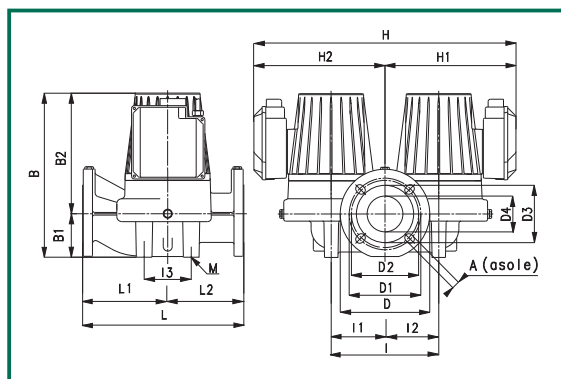
Hydraulic characteristics at 230 V are shown from page 58.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
280	140	140	18	312	73	239	165	125	110	90	50	100	-	-	-	M10	254	156	158	360	295	320	0,033	24

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE								
				SPEED	rpm	P1 MAX W	In A									
BPH 60/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	2670	464	1.35	t°	75°	90°	110°	120°				
				1	2570	432	1.23									
	3			2890	589	1.31	m.c.a.						1.6	6	-	19
	2			2860	546	1.1										
	1			2570	423	0.71										

DPH 60/280.50 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 58.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
280	130	150	18	308	73	235	165	125	110	90	50	240	120	120	120	M14	554	278	278	590	335	430	0,084	44,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE								
				SPEED	rpm	P1 MAX W	In A									
DPH 60/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	2670	464	1.35	t°	75°	90°	110°	120°				
				1	2570	432	1.23									
	3			2890	589	1.31	m.c.a.						1.6	6	-	19
	2			2860	546	1.1										
	1			2570	423	0.71										

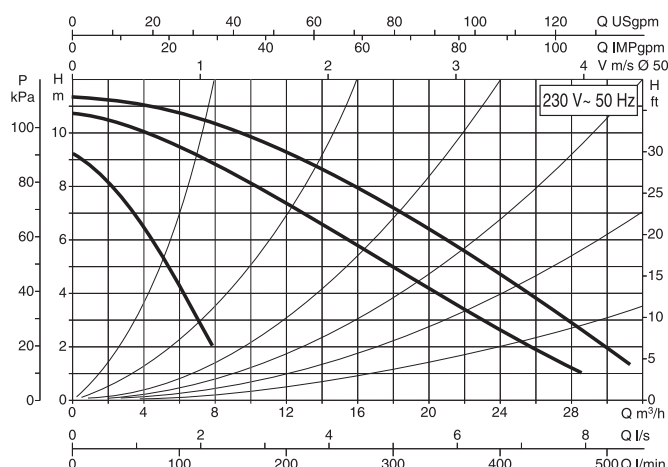
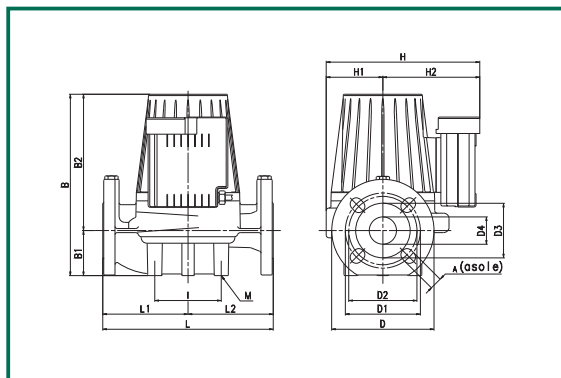
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +90°C
Maximum working pressure: 10 bar (1000 kPa)

BPH 120/280.50 M

SINGLE FLANGED - SINGLE-PHASE (2800 rpm)

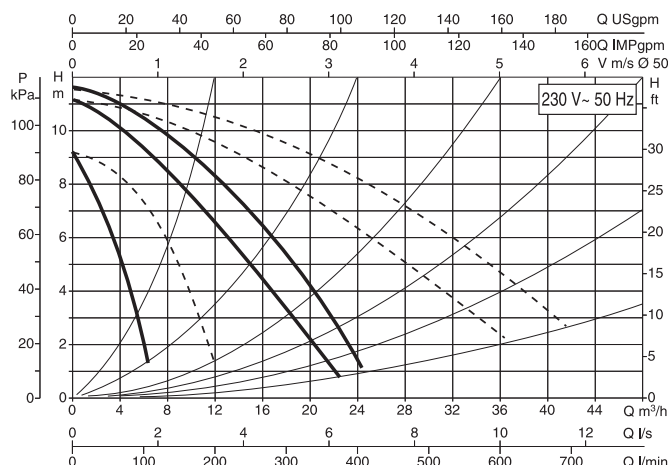
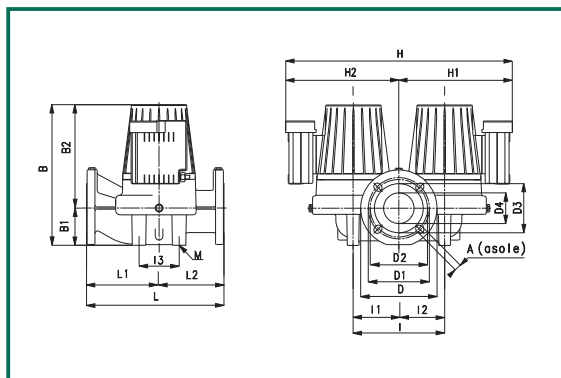


L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
280	140	140	18	312	73	239	165	125	110	90	50	100	-	-	-	M10	254	96	158	360	295	320	0,033	24

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
BPH 120/280.50 M	1x230 V ~	280	DN 50 - PN 10	-	-	-	-	t°	75°	90°	110°	120°
				3	2690	870	3,97	m.c.a.	2	5	-	20
				2	2360	800	3,69					
				1	1340	590	3,12					

DPH 120/280.50 M

TWIN FLANGED - SINGLE-PHASE (2800 rpm)



L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
280	130	150	18	308	73	235	165	125	110	90	50	240	120	120	120	M14	556	278	278	590	335	430	0,084	44,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
DPH 120/280.50 M	1x230 V ~	280	DN 50 - PN 10	-	-	-	-	t°	75°	90°	110°	120°
				3	2690	870	3,97	m.c.a.	2	5	-	20
				2	2360	800	3,69					
				1	1340	590	3,12					

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.

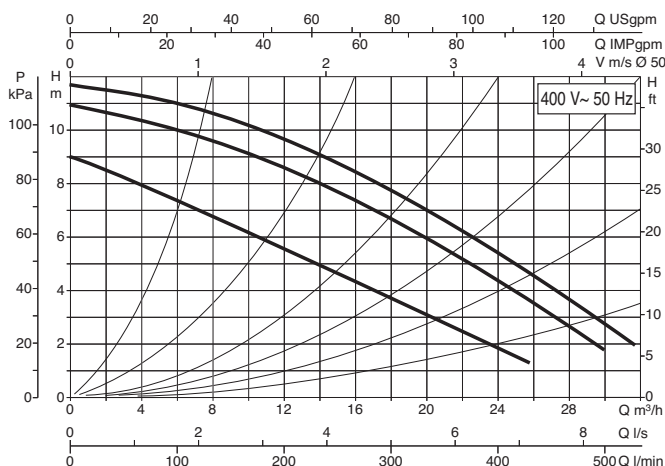
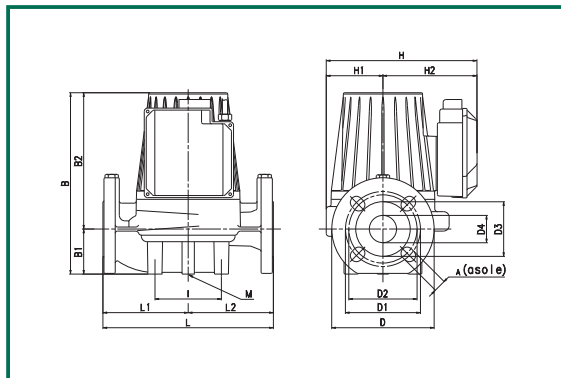
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C

Maximum working pressure: 10 bar (1000 kPa)

BPH 120/280.50 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



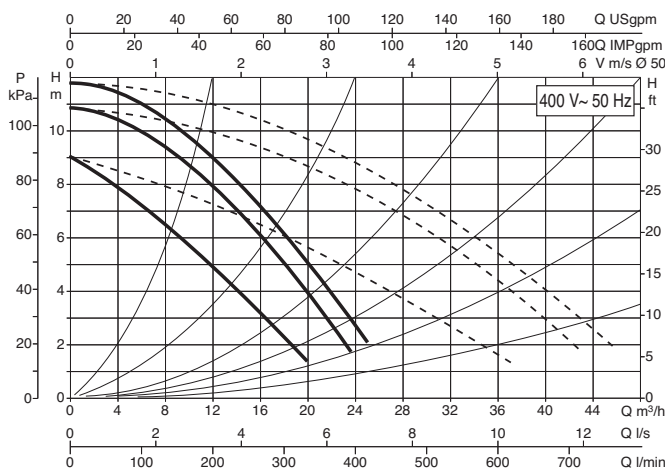
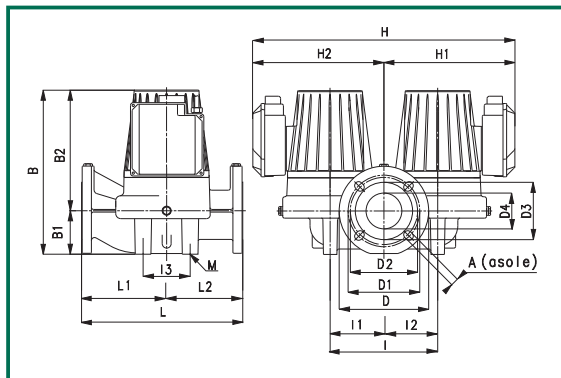
Hydraulic characteristics at 230 V are shown from page 60.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
280	140	140	18	312	73	239	165	125	110	90	50	100	-	-	-	M10	254	96	158	360	295	320	0,033	26

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE								
				SPEED	rpm	P1 MAX W	In A									
BPH 120/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	2430	683	1.95	t°	75°	90°	110°	120°				
				1	2240	605	1.75									
	3			2810	898	1.67	m.c.a.						2	5	-	20
	2			2740	840	1.47										
	1			2260	603	1										

DPH 120/280.50 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 60.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
280	130	150	18	308	73	235	165	125	110	90	50	240	120	120	120	M14	556	278	278	590	335	430	0,084	49

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE								
				SPEED	rpm	P1 MAX W	In A									
DPH 120/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	2430	683	1.95	t°	75°	90°	110°	120°				
				1	2240	605	1.75									
	3			2810	898	1.67	m.c.a.						2	5	-	20
	2			2740	840	1.47										
	1			2260	603	1										

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.

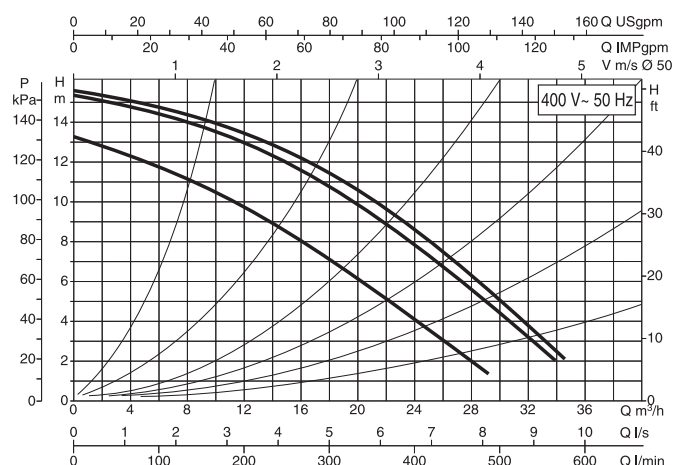
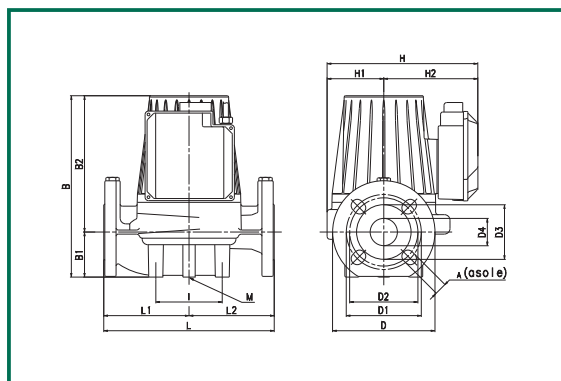
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C

Maximum working pressure: 10 bar (1000 kPa)

BPH 150/280.50 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



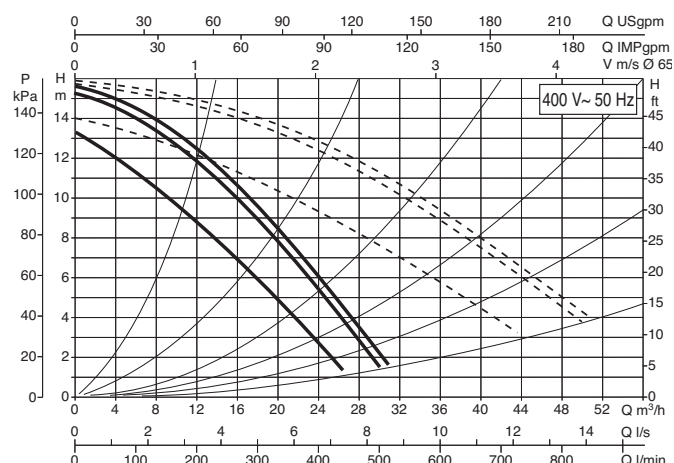
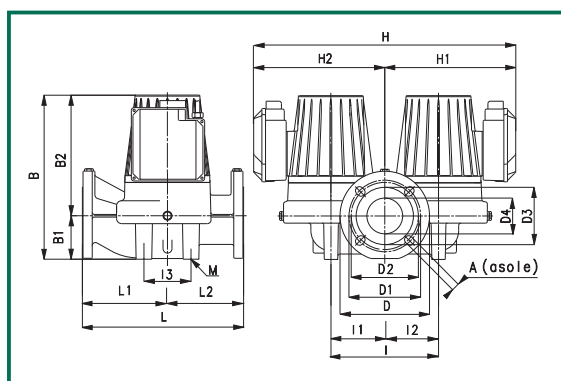
Hydraulic characteristics at 230 V are shown from page 61.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
280	140	140	18	362	73	289	165	125	110	90	50	100	-	-	-	M10	254	96	158	360	295	320	0,033	26

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
BPH 150/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	2553	1130	3.22	t°	75°	90°	110°	120°			
				1	2420	1032	3								
	3x400 V ~				3	2850	1470						2.9		
					2	2802	1360						2.5		
					1	2425	1030						1.7		
								m.c.a.	2	5	-	20			

DPH 150/280.50 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 61.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
280	130	150	18	358	73	285	165	125	110	90	50	240	120	120	120	M14	556	278	278	590	335	430	0,084	49

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
DPH 150/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	2553	1130	3.22	t°	75°	90°	110°	120°			
				1	2420	1032	3								
	3x400 V ~				3	2850	1470						2.9		
					2	2802	1360						2.5		
					1	2425	1030						1.7		

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.

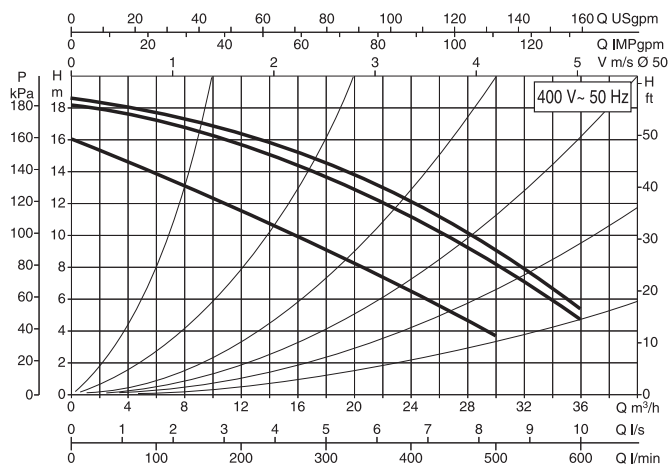
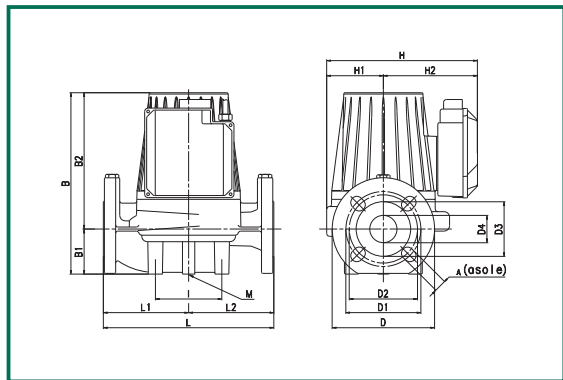
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C

Maximum working pressure: 10 bar (1000 kPa)

BPH 180/280.50 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



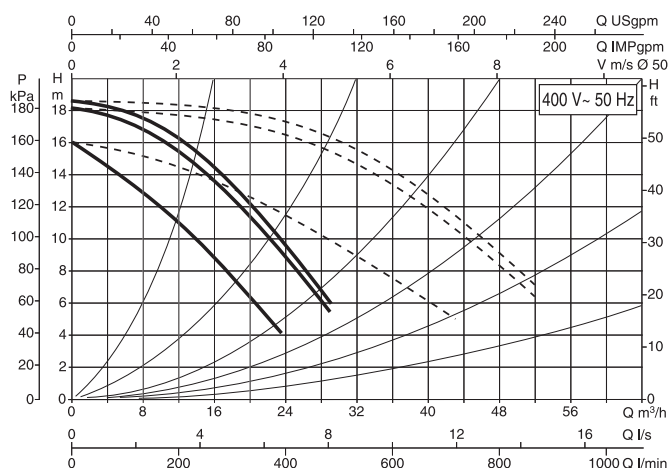
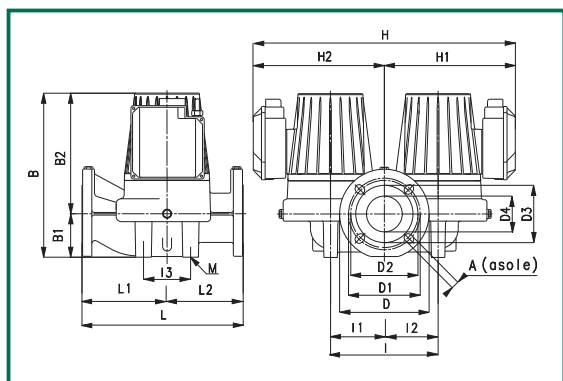
Hydraulic characteristics at 230 V are shown from page 62.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
280	140	140	18	362	73	289	165	125	110	90	50	100	-	-	-	M10	254	96	158	360	295	320	0,033	26

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE											
				SPEED	rpm	P1 MAX W	In A												
BPH 180/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	2520	1230	3,5	t°	75°	90°	110°	120°							
				1	2340	1120	3,2												
	3x400 V ~			3	2830	1630	3						m.c.a.	2	5	-	20		
				2	2780	1540	2,70												
				1	2360	1130	1,85												

DPH 180/280.50 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 62.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
280	130	150	18	358	73	285	165	125	110	90	50	240	120	120	120	M14	556	278	278	590	335	430	0,084	49

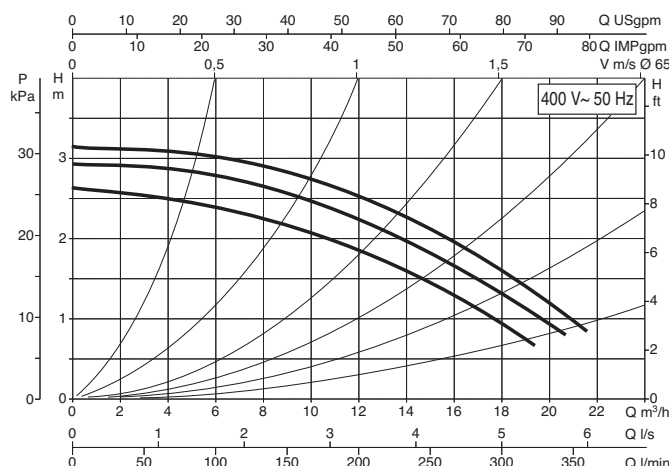
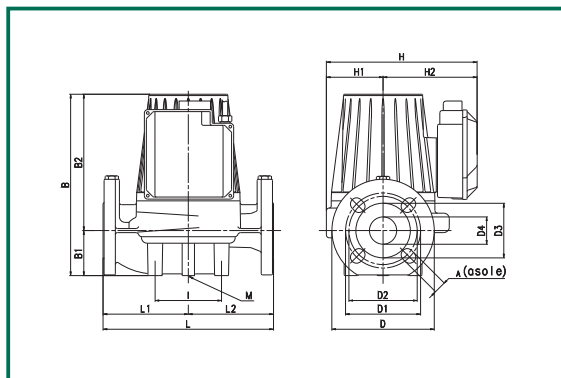
MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE								
				SPEED	rpm	P1 MAX W	In A									
DPH 180/280.50 T	3x230 V ~	280	DN 50 - PN 10	2	2520	1230	3,5	t°	75°	90°	110°	120°				
				1	2340	1120	3,2									
	3			2830	1630	3	m.c.a.						2	5	-	20
	2			2780	1540	2,70										
	1			2360	1130	1,85										

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.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum working pressure: 10 bar (1000 kPa)

BMH 30/340.65 T SINGLE FLANGED - THREE-PHASE (1400 rpm)

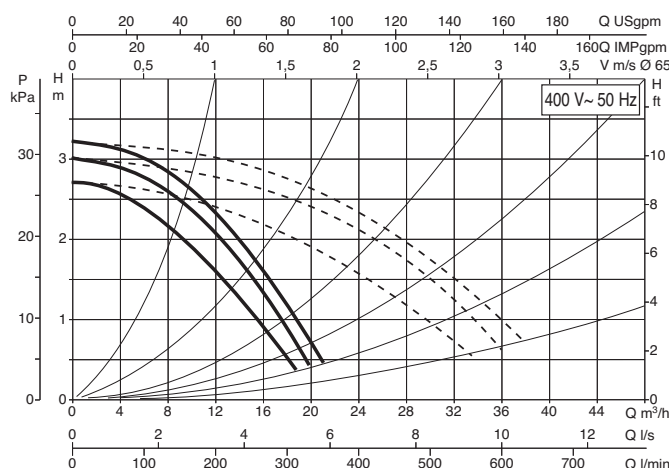
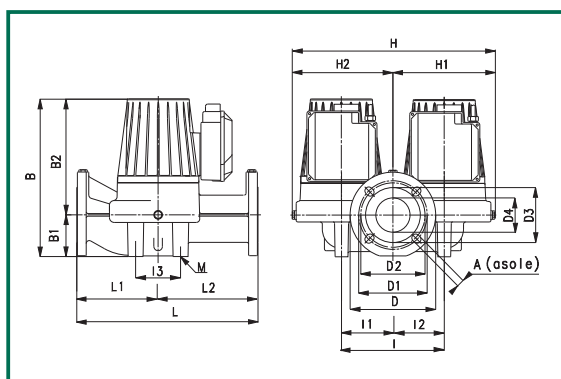


Hydraulic characteristics at 230 V are shown from page 63.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
340	170	170	18	334	82	252	185	145	130	110	65	100	-	-	-	M12	259	100	159	435	295	400	0,051	27,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE												
				SPEED	rpm	P1 MAX W	In A													
BMH 30/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	1360	170	0.73	t°	75°	90°	110°	120°								
				1	1310	154	0.60													
	3x400 V ~				3	1450	270						1.12	m.c.a.	4	7.5	-	21		
					2	1430	233						0.84							
					1	1310	150						0.35							

DMH 30/340.65 T TWIN FLANGED - THREE-PHASE (1400 rpm)



Hydraulic characteristics at 230 V are shown from page 63.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
340	138,5	201,5	18	328	82	246	185	145	130	110	65	240	120	120	140	M14	476	238	238	590	420	505	0,125	57

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
DMH 30/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	1360	170	0.73	t°	75°	90°	110°	120°			
				1	1310	154	0.60								
	3x400 V ~				3	1450	270						1.12		
					2	1430	233						0.84		
					1	1310	150						0.35		

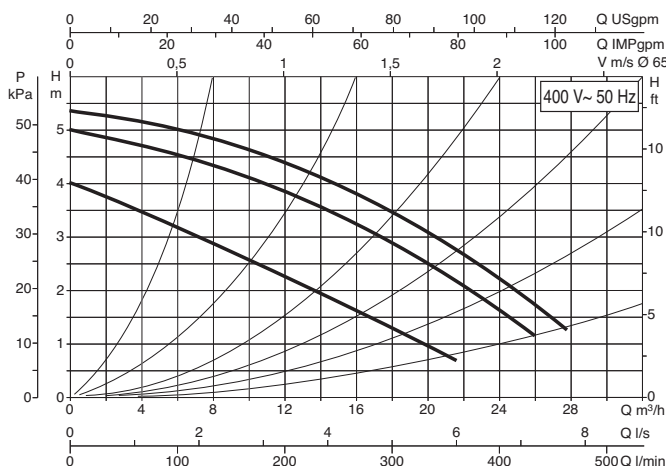
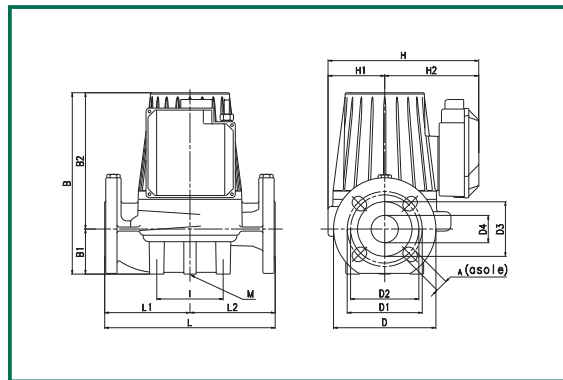
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum working pressure: 10 bar (1000 kPa)

BMH 60/340.65 T

SINGLE FLANGED - THREE-PHASE (1400 rpm)



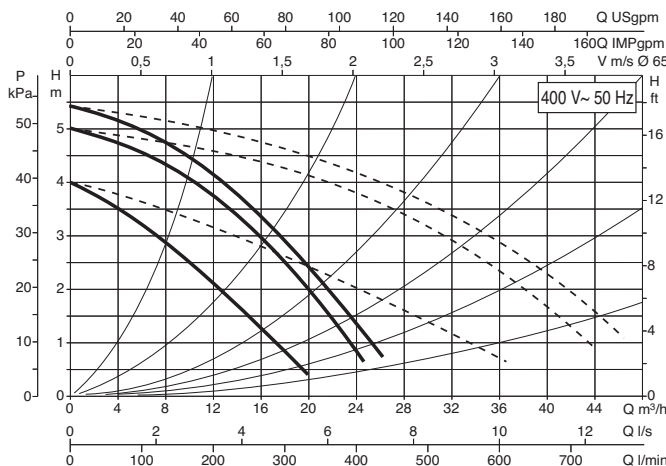
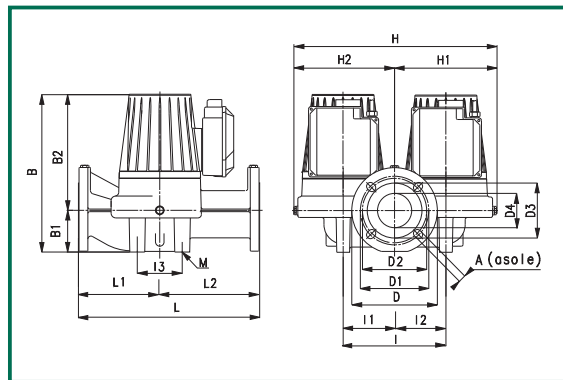
Hydraulic characteristics at 230 V are shown from page 64.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
340	170	170	18	334	82	252	185	145	130	110	65	100	—	—	—	M12	259	100	159	435	295	400	0,051	27,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE												
				SPEED	rpm	P1 MAX W	In A													
BMH 60/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	1170	295	1	t°	75°	90°	110°	120°								
				1	1070	257	0.85													
	3x400 V ~				3	1380	445						1.2	m.c.a.	4	7.5	—	21		
					2	1350	403						0.97							
					1	1090	255						0.49							

DMH 60/340.65 T

TWIN FLANGED - THREE-PHASE (1400 rpm)



Hydraulic characteristics at 230 V are shown from page 64.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
340	138,5	201,5	18	331	82	249	185	145	130	110	65	240	120	120	140	M14	476	238	238	590	420	505	0,125	50

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE								
				SPEED	rpm	P1 MAX W	In A									
DMH 60/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	1170	295	1	t°	75°	90°	110°	120°				
				1	1070	257	0.85									
	3			1380	445	1.2	m.c.a.						4	7.5	—	21
	2			1350	403	0.97										
	1			1090	255	0.49										

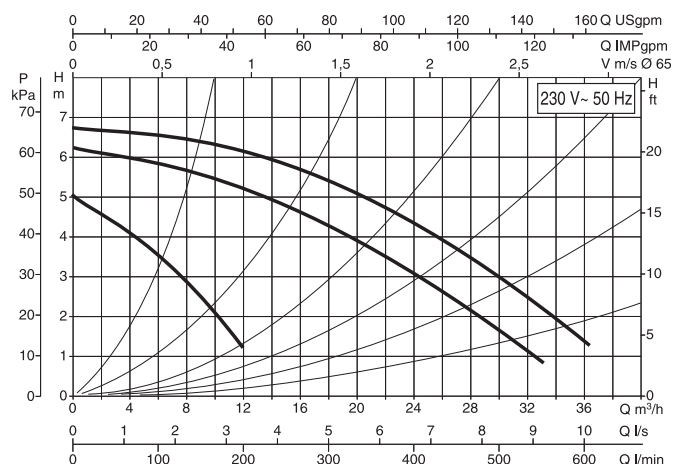
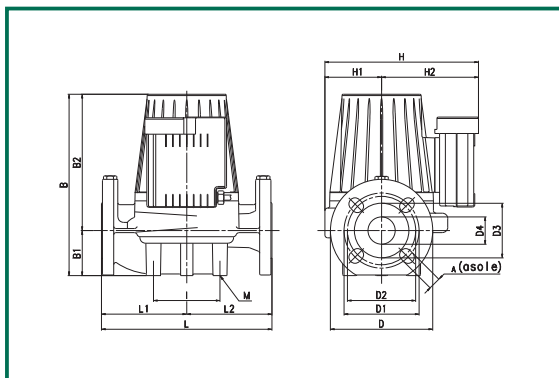
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

BPH 60/340.65 M

SINGLE FLANGED - SINGLE-PHASE (2800 rpm)

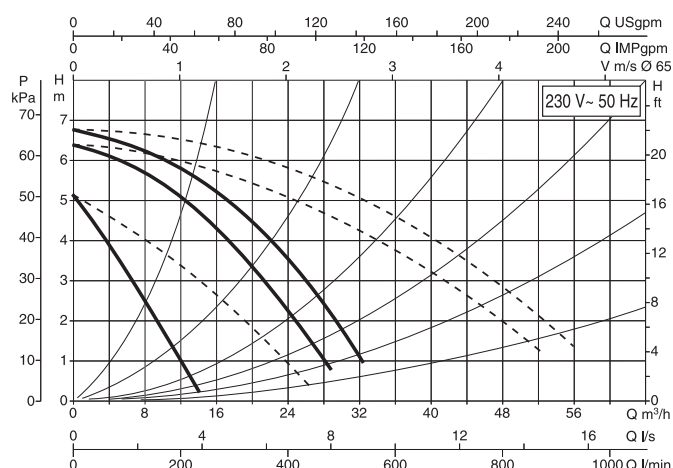
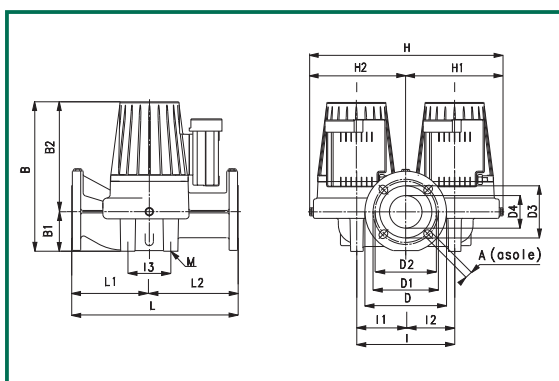


L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
340	170	170	18	334	82	252	185	145	130	110	65	100	-	-	-	M12	259	100	159	435	295	400	0,051	27,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
BPH 60/340.65 M	1x230 V ~	340	DN 65 - PN 10	-	-	-	-	t°	75°	90°	110°	120°
				3	2780	735	3.37	m.c.a.	1	4	13	-
				2	2580	685	3.13					
				1	1460	564	3.12					

DPH 60/340.65 M

TWIN FLANGED - SINGLE-PHASE (2800 rpm)



L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
340	138,5	201,5	18	331	82	249	185	145	130	110	65	240	120	120	140	M14	476	238	238	590	420	505	0,125	50

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
DPH 60/340.65 M	1x230 V ~	340	DN 65 - PN 10	-	-	-	-	t°	75°	90°	110°	120°
				3	2780	735	3.37	m.c.a.	1	4	13	-
				2	2580	685	3.13					
				1	1460	564	3.12					

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.

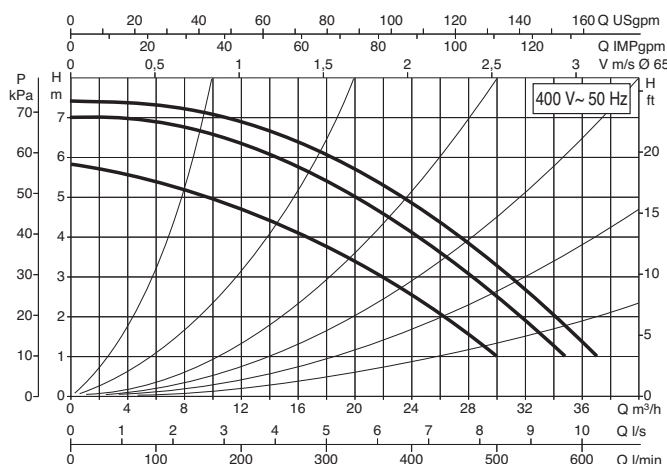
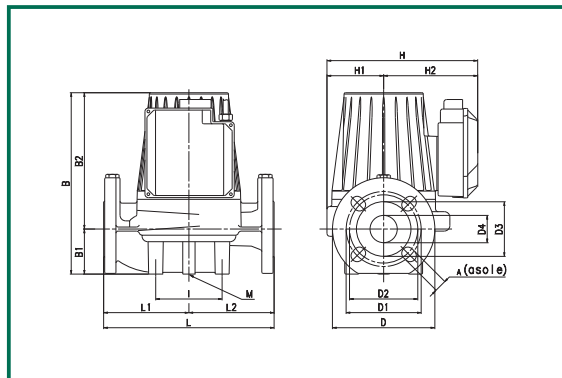
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C

Maximum working pressure: 10 bar (1000 kPa)

BPH 60/340.65 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



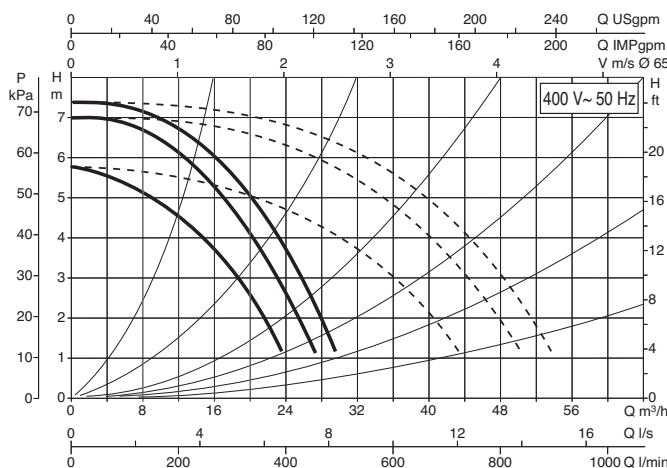
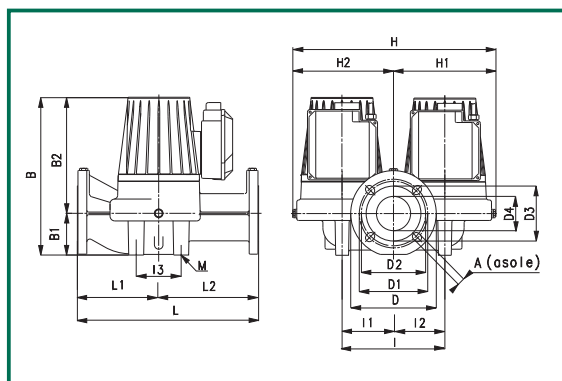
Hydraulic characteristics at 230 V are shown from page 66.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
340	170	170	18	334	82	252	185	145	130	110	65	100	-	-	-	M12	259	100	159	435	295	400	0,051	30,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE												
				SPEED	rpm	P1 MAX W	In A													
BPH 60/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	2550	582	1.67	t°	75°	90°	110°	120°								
				1	2380	532	1.53													
	3x400 V ~				3	2850	756						1.5	m.c.a.	1	4	-	18		
					2	2800	705						1.3							
					1	2400	535						0.9							

DPH 60/340.65 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 66.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
340	138,5	201,5	18	331	82	249	185	145	130	110	65	240	120	120	140	M14	476	238	238	590	420	505	0,125	54,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE												
				SPEED	rpm	P1 MAX W	In A													
DPH 60/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	2550	582	1.67	t°	75°	90°	110°	120°								
				1	2380	532	1.53													
	3x400 V ~				3	2850	756						1.5	m.c.a.	1	4	-	18		
					2	2800	705						1.3							
					1	2400	535						0.9							

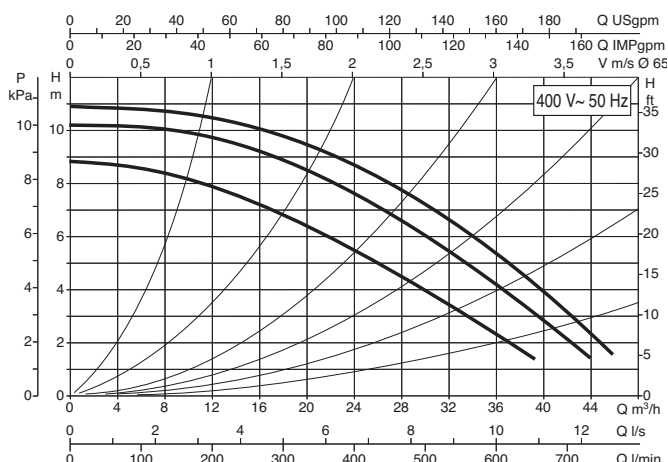
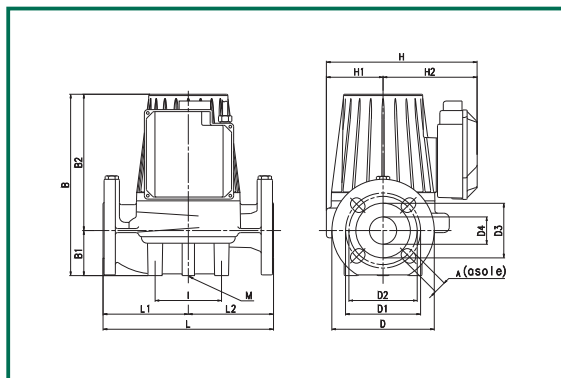
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum working pressure: 10 bar (1000 kPa)

BPH 120/340.65 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



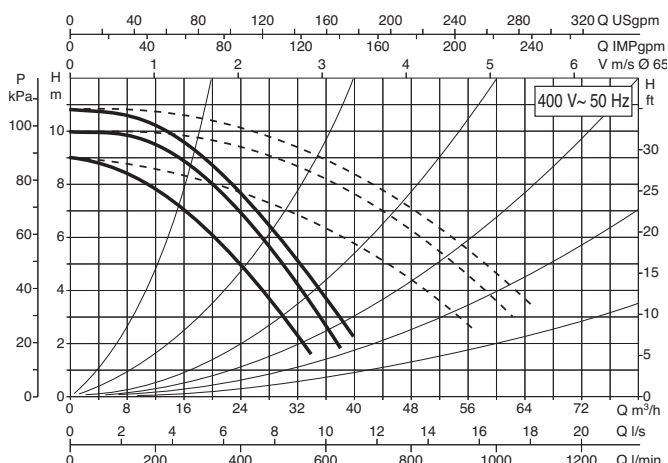
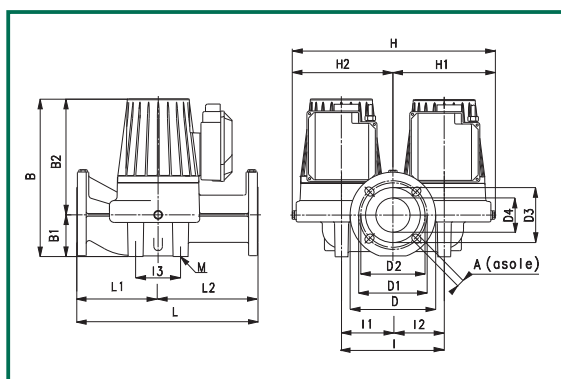
Hydraulic characteristics at 230 V are shown from page 67.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
340	170	170	18	384	82	302	185	145	130	110	65	100	-	-	-	M12	259	100	159	435	295	400	0,051	32,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
BPH 120/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	2630	1001	2.85	t°	75°	90°	110°	120°			
				1	2500	940	2.66								
	3x400 V ~				3	2880	1275						2.64		
					2	2830	1200						2.25		
					1	2520	934						1.52		

DPH 120/340.65 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 67.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
340	138,5	201,5	18	381	82	299	185	145	130	110	65	240	120	120	140	M14	476	238	238	590	420	505	0,125	59

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
DPH 120/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	2630	-1001	2.85	t°	75°	90°	110°	120°			
				1	2500	940	2.66								
	3x400 V ~				3	2880	1275						2.64		
					2	2830	1200						2.25		
					1	2520	934						1.52		

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.

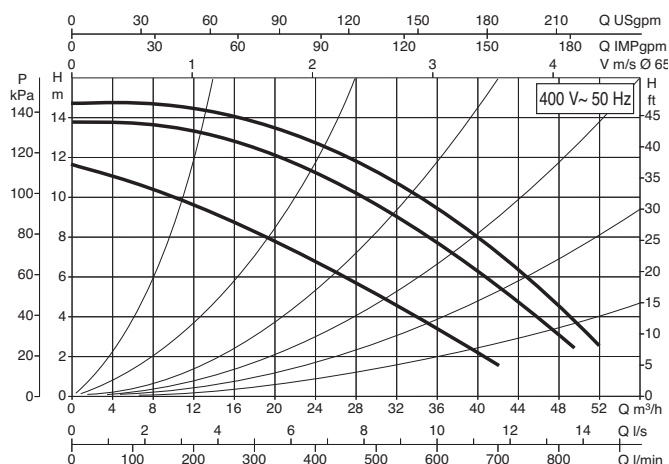
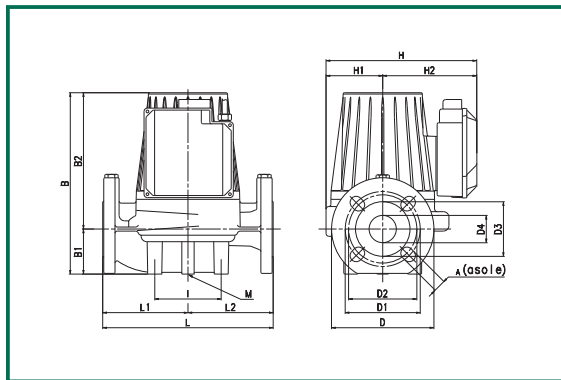
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C

Maximum working pressure: 10 bar (1000 kPa)

BPH 150/340.65 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



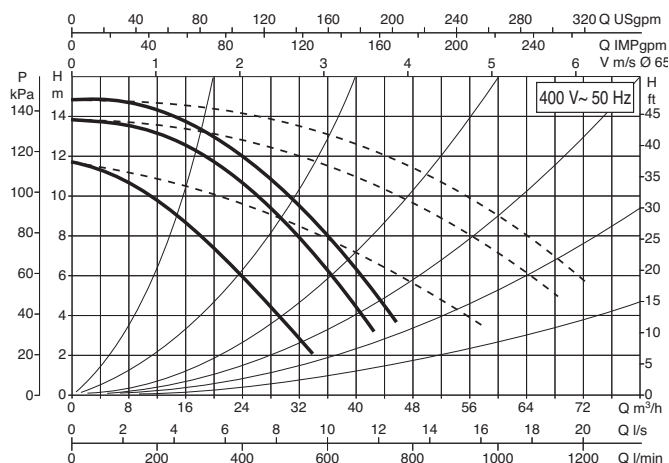
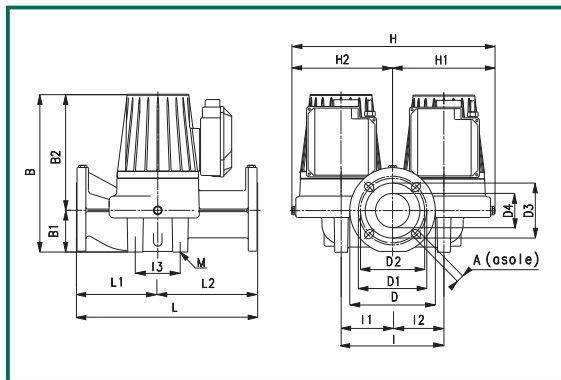
Hydraulic characteristics at 230 V are shown from page 68.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
340	170	170	18	384	82	302	185	145	130	110	65	100	-	-	-	M12	259	100	159	435	295	400	0,051	32,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
BPH 150/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	2410	1345	3.8	t°	75°	90°	110°	120°
				1	2250	1188	3.36					
	3x400 V ~			3	2800	1796	3.25	m.c.a.	7	11	18	-
				2	2730	1690	2.93					
				1	2250	1210	2					

DPH 150/340.65 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 68.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
340	138,5	201,5	18	381	82	299	185	145	130	110	65	240	120	120	140	M14	476	238	238	590	420	505	0,125	59

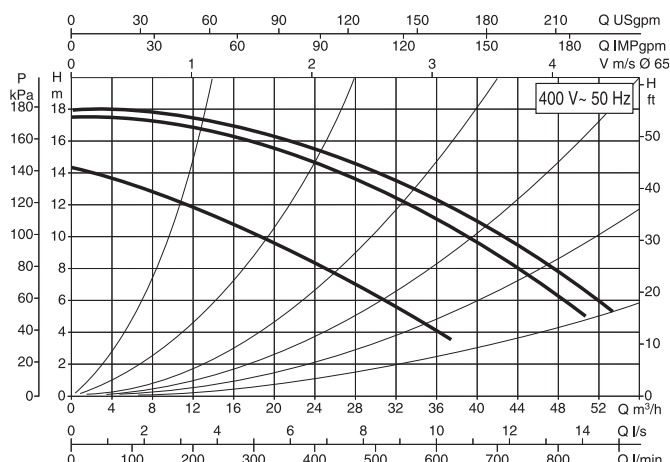
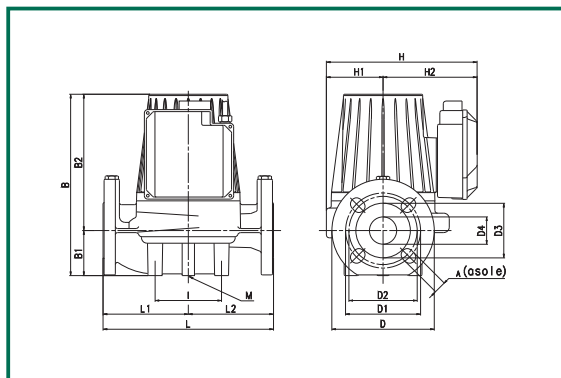
MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
DPH 150/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	2410	1345	3.8	t°	75°	90°	110°	120°
				1	2250	1188	3.36					
	3x400 V ~			3	2800	1796	3.25	m.c.a.	7	11	18	-
				2	2730	1690	2.93					
				1	2250	1210	2					

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

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

BPH 180/340.65 T SINGLE FLANGED - THREE-PHASE (2800 rpm)

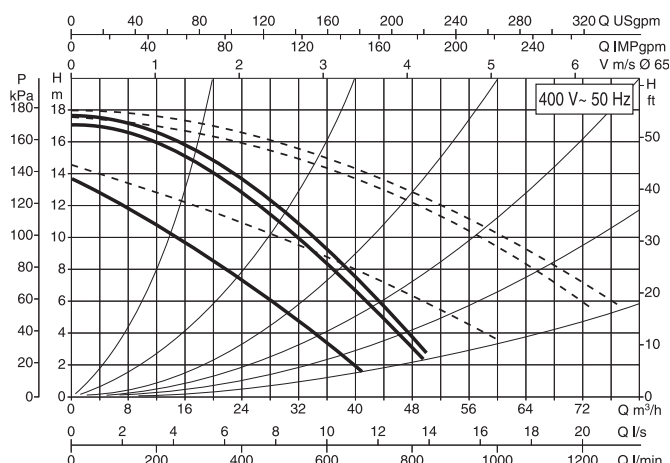
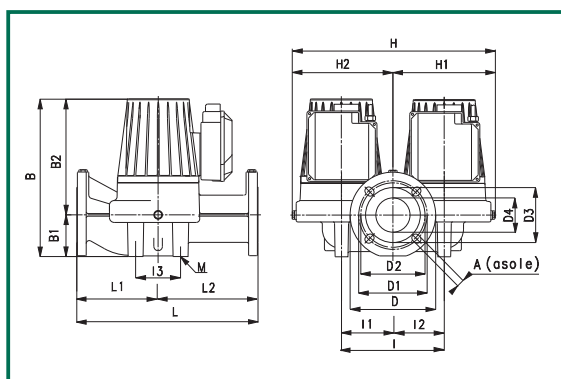


Hydraulic characteristics at 230 V are shown from page 69.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
340	170	170	18	384	82	302	185	145	130	110	65	100	-	-	-	M12	259	100	159	435	295	400	0,051	32,5

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
BPH 180/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	2380	1670	4,7	t°	75°	90°	110°	120°			
				1	2170	1490	4,25								
	3x400 V ~				3	2780	2310						4		
					2	2700	2210						3,5		
					1	2200	1490						2,4		

DPH 180/340.65 T TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 69.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
340	138,5	201,5	18	381	82	299	185	145	130	110	65	240	120	120	140	M14	476	238	238	590	420	505	0,125	59

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
DPH 180/340.65 T	3x230 V ~	340	DN 65 - PN 10	2	2380	1670	4,7	t°	75°	90°	110°	120°
				1	2170	1490	4,25					
	3x400 V ~			3	2780	2310	4	m.c.a.	7	11	18	-
				2	2700	2210	3,5					
				1	2200	1490	2,4					

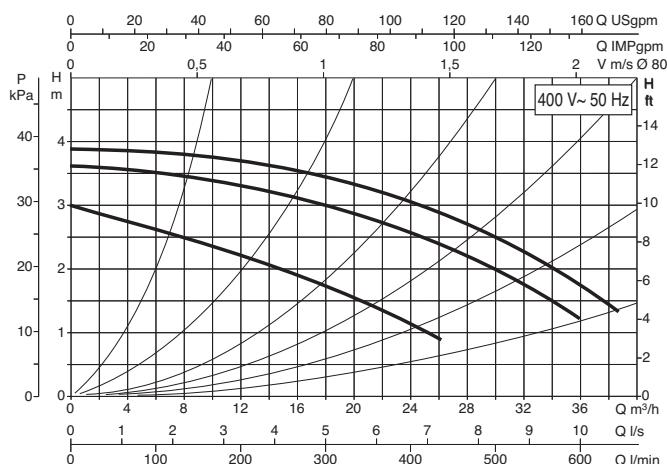
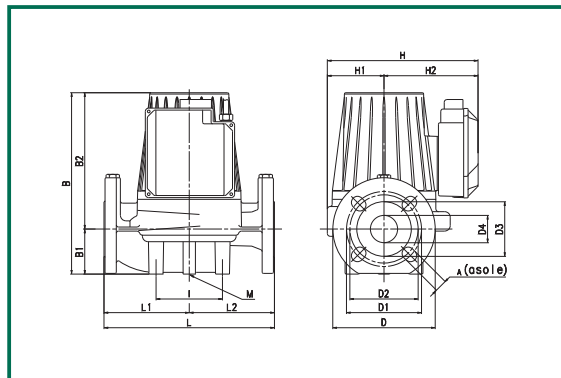
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum working pressure: 10 bar (1000 kPa)

BMH 30/360.80 T

SINGLE FLANGED - THREE-PHASE (1400 rpm)



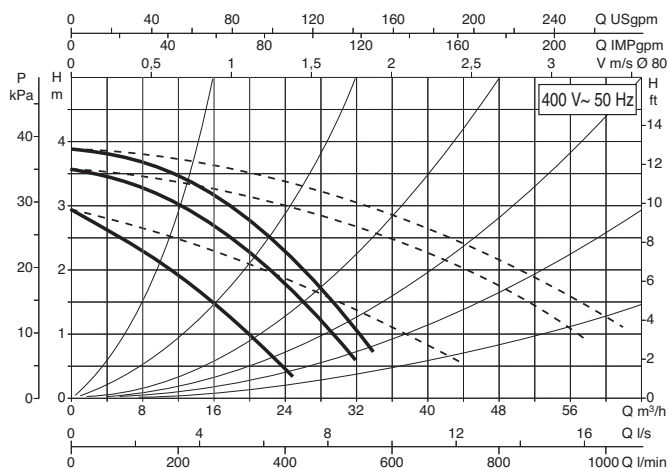
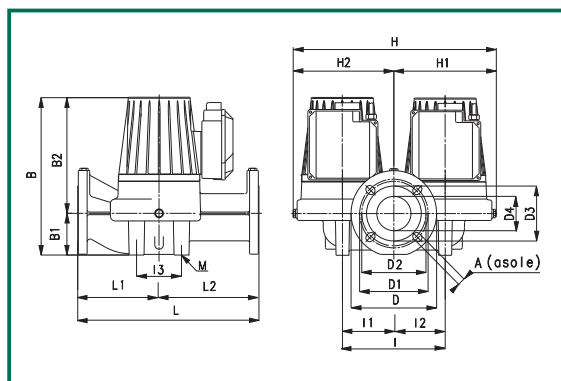
Hydraulic characteristics at 230 V are shown from page 70.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
360	170	190	18	354	97	254	200	160	150	130	80	115	-	-	-	M12	297	100	159	435	295	400	0,051	31

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE								
				SPEED	rpm	P1 MAX W	In A									
BMH 30/360.80 T	3x230 V ~	360	DN 80 - PN 10	2	1110	313	1.05	t°	75°	90°	110°	120°				
				1	1010	268	0.88									
	3			1370	484	1.23	m.c.a.						4	7.5	-	21
	2			1330	437	1										
	1			1030	266	0.51										

DMH 30/360.80 T

TWIN FLANGED - THREE-PHASE (1400 rpm)



Hydraulic characteristics at 230 V are shown from page 70.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m³	Kg
360	160	200	18	345	97	248	200	160	150	130	80	240	120	120	150	M14	480	240	240	590	420	505	0,125	54,5

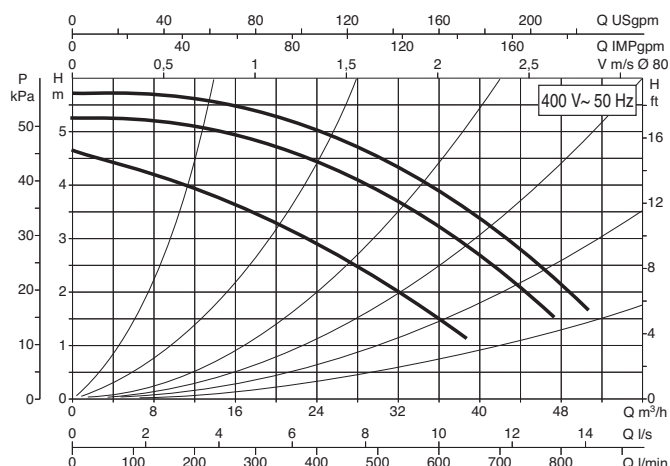
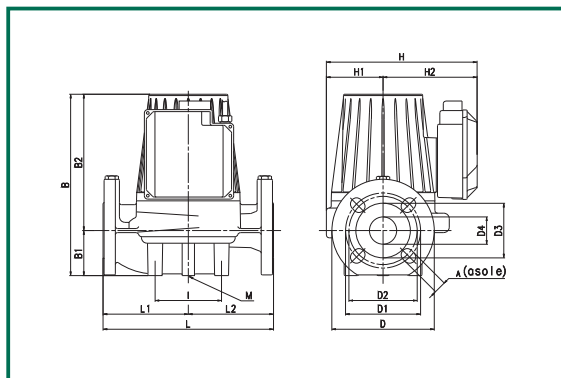
MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE												
				SPEED	rpm	P1 MAX W	In A													
DMH 30/360.80 T	3x230 V ~	360	DN 80 - PN 10	2	1110	313	1.05	t°	75°	90°	110°	120°								
				1	1010	268	0.88													
	3x400 V ~				3	1370	484						1.23	m.c.a.	4	7.5	-	21		
					2	1330	437						1							
					1	1030	266						0.51							

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.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum working pressure: 10 bar (1000 kPa)

BMH 60/360.80 T SINGLE FLANGED - THREE-PHASE (1400 rpm)

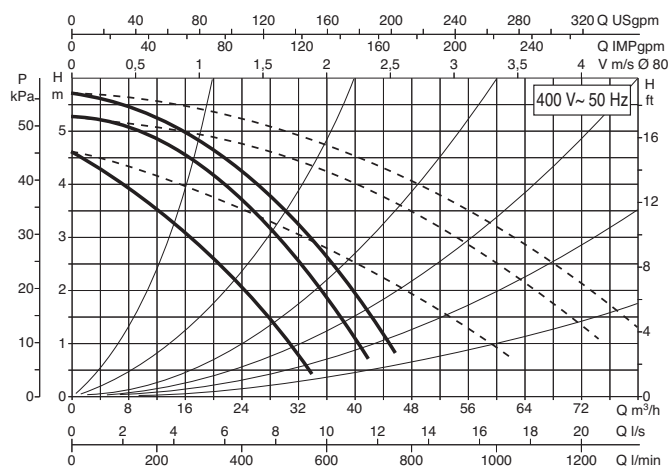
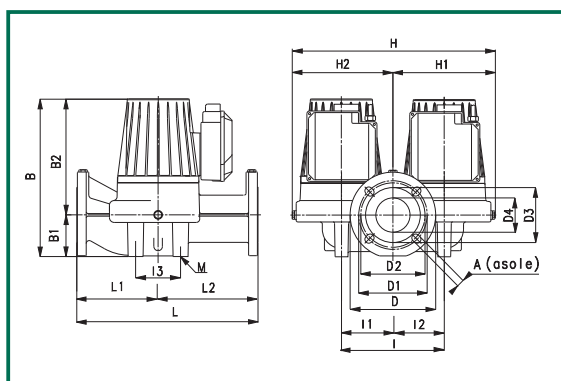


Hydraulic characteristics at 230 V are shown from page 71.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
360	170	190	18	404	97	307	200	160	150	130	80	115	-	-	-	M12	259	100	159	435	295	400	0,051	40

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
BMH 60/360.80 T	3x230 V ~	360	DN 80 - PN 10	2	1180	535	1.82	t°	75°	90°	110°	120°			
				1	1100	465	1.55								
	3x400 V ~				3	1390	763						2.04		
					2	1350	663						1.65		
					1	1100	465						0.89		

DMH 60/360.80 T TWIN FLANGED - THREE-PHASE (1400 rpm)



Hydraulic characteristics at 230 V are shown from page 71.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
360	160	200	18	390	97	298	200	160	150	130	80	240	120	120	150	M14	480	240	240	590	420	505	0,125	72

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
DMH 60/360.80 T	3x230 V ~	360	DN 80 - PN 10	2	1180	535	1.82	t°	75°	90°	110°	120°			
				1	1100	465	1.55								
	3x400 V ~				3	1390	763						2.04		
					2	1350	675						1.65		
					1	1100	465						0.89		

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.

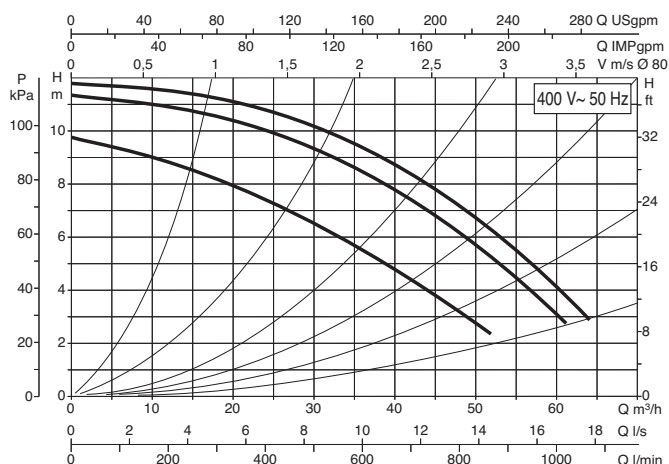
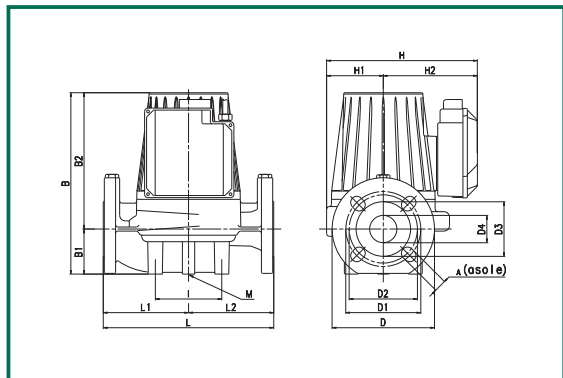
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C

Maximum working pressure: 10 bar (1000 kPa)

BPH 120/360.80 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



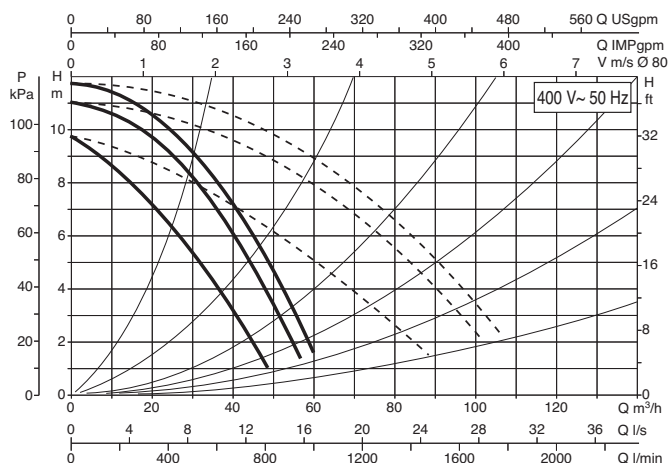
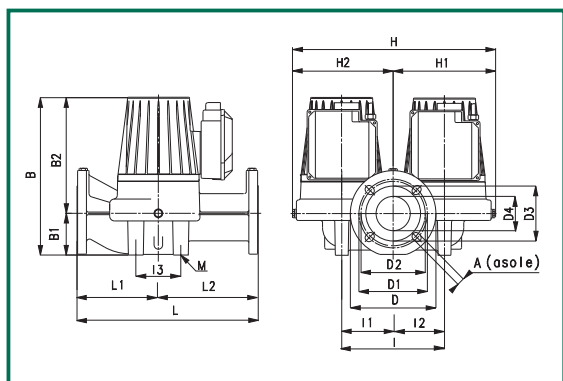
Hydraulic characteristics at 230 V are shown from page 72.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
360	170	190	18	404	97	307	200	160	150	130	80	115	-	-	-	M12	259	100	159	435	295	400	0,051	40

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE												
				SPEED	rpm	P1 MAX W	In A													
BPH 120/360.80 T	3x230 V ~	360	DN 80 - PN 10	2	2500	1410	3.95	t°	75°	90°	110°	120°								
				1	2340	1292	3.6													
	3x400 V ~				3	2830	1820						3.3	m.c.a.	6	10	-	22		
					2	2780	1710						2.93							
					1	2350	1302						2.13							

DPH 120/360.80 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 72.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
360	160	200	18	390	97	298	200	160	150	130	80	240	120	120	150	M14	480	240	240	590	420	505	0,125	72

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE												
				SPEED	rpm	P1 MAX W	In A													
DPH 120/360.80 T	3x230 V ~	360	DN 80 - PN 10	2	2500	1410	3.95	t°	75°	90°	110°	120°								
				1	2340	1292	3.6													
	3x400 V ~				3	2830	1820						3.3	m.c.a.	6	10	-	22		
					2	2780	1710						2.93							
					1	2350	1302						2.13							

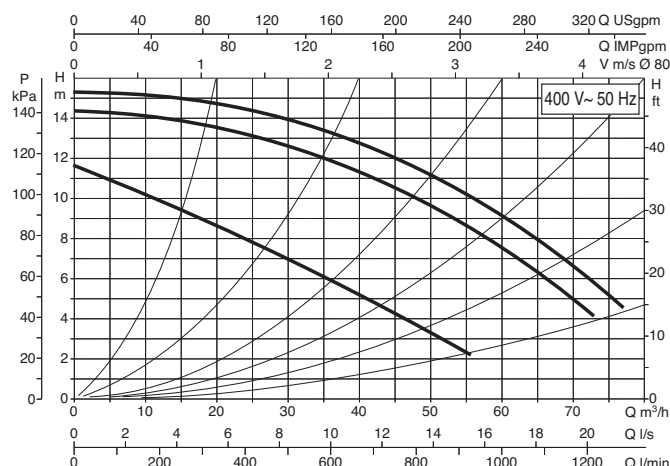
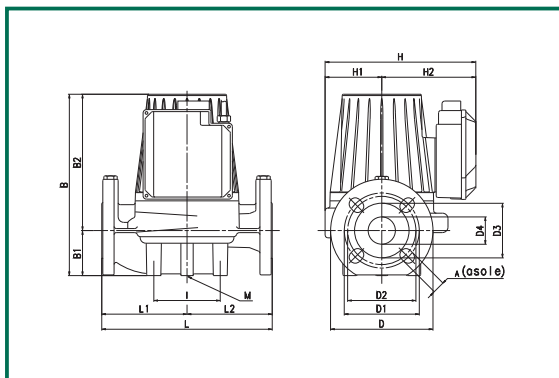
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

BPH 150/360.80 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



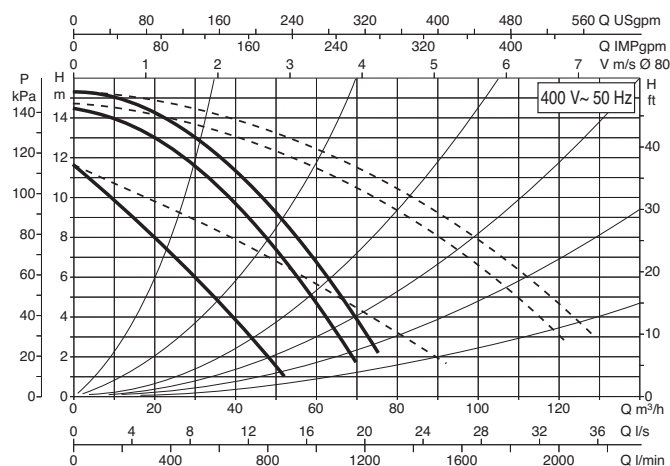
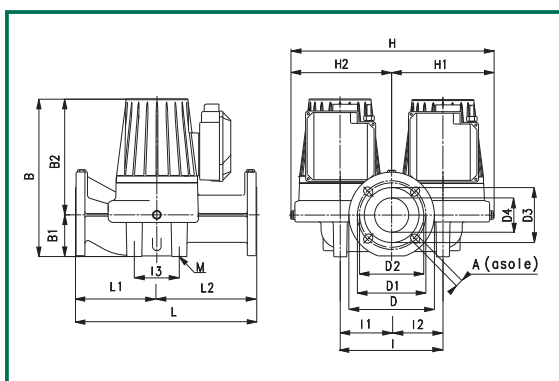
Hydraulic characteristics at 230 V are shown from page 73.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
360	170	190	18	404	97	307	200	160	150	130	80	115	-	-	-	M12	259	100	159	435	295	400	0,051	40

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
BPH 150/360.80 T	3x230 V ~	360	DN 80 - PN 10	2	2140	1984	5.62	t°	75°	90°	110°	120°			
				1	1900	1695	4.82								
	3x400 V ~				3	2710	2870						4.64		
					2	2610	2686						4.32		
					1	1940	1710						2.85		

DPH 150/360.80 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 73.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
360	160	200	18	390	97	298	200	160	150	130	80	240	120	120	150	M14	480	240	240	590	420	505	0,125	72

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE							
				SPEED	rpm	P1 MAX W	In A								
DPH 150/360.80 T	3x230 V ~	360	DN 80 - PN 10	2	2140	1984	5.62	t°	75°	90°	110°	120°			
				1	1900	1695	4.82								
	3x400 V ~				3	2710	2870						4.64		
					2	2610	2686						4.32		
					1	1940	1710						2.85		

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.

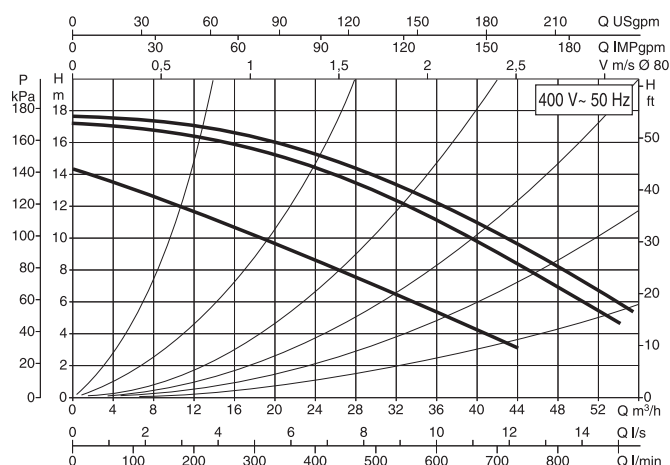
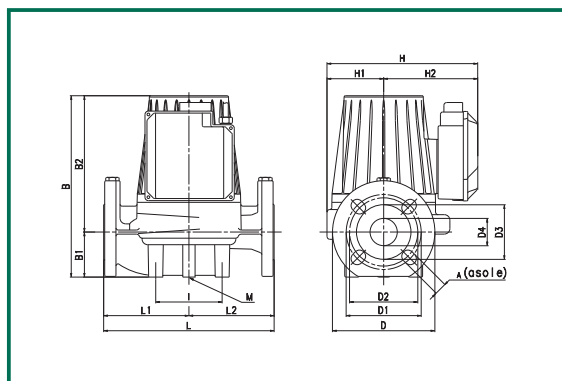
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +110°C

Maximum working pressure: 10 bar (1000 kPa)

BPH 180/360.80 T

SINGLE FLANGED - THREE-PHASE (2800 rpm)



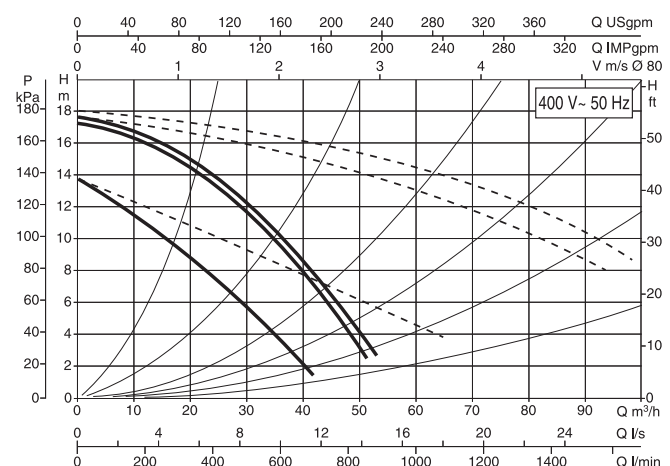
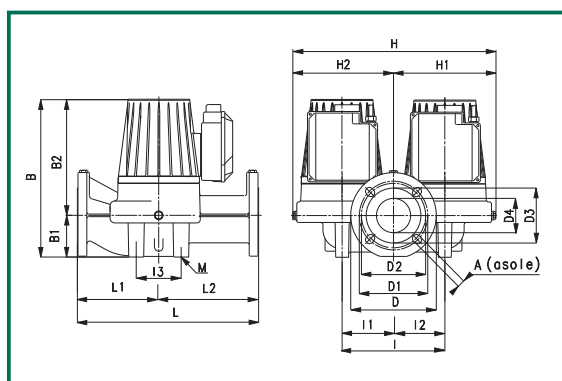
Hydraulic characteristics at 230 V are shown from page 74.

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
360	170	190	18	404	97	307	200	160	150	130	80	115	-	-	-	M12	259	100	159	435	295	400	0,051	40

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE								
				SPEED	rpm	P1 MAX W	In A									
BPH 180/360.80 T	3x230 V ~	360	DN 80 - PN 10	2	2380	1670	4,7	t°	75°	90°	110°	120°				
				1	2170	1490	4,25									
	3			2780	2310	4	m.c.a.						7	11	18	-
	2			2700	2210	3,5										
	1			2200	1490	2,4										

DPH 180/360.80 T

TWIN FLANGED - THREE-PHASE (2800 rpm)



Hydraulic characteristics at 230 V are shown from page 74.

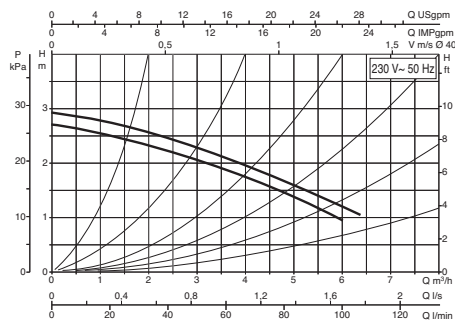
L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	PACK DIMENSIONS			VOLUME	WEIGHT
																				L	B	H	m ³	Kg
360	160	200	18	390	97	298	200	160	150	130	80	240	120	120	150	M14	480	240	240	590	420	505	0,125	72

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	COUNTER- FLANGES ON REQUEST	ELECTRICAL DATA				MINIMUM SUCTION PRESSURE				
				SPEED	rpm	P1 MAX W	In A					
DPH 180/360.80 T	3x230 V ~	360	DN 80 - PN 10	2	2380	1670	4,7	t°	75°	90°	110°	120°
				1	2170	1490	4,25					
	3x400 V ~			3	2780	2310	4	m.c.a.	7	11	18	-
				2	2700	2210	3,5					
				1	2200	1490	2,4					

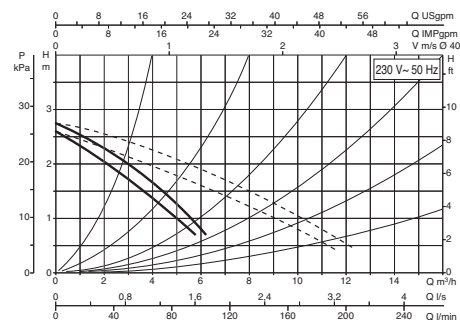
CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS

HYDRAULIC CHARACTERISTICS AT 230 V ~ 50Hz – THREE-PHASE

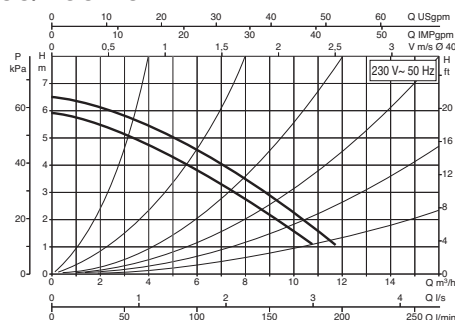
BMH 30/250.40 T



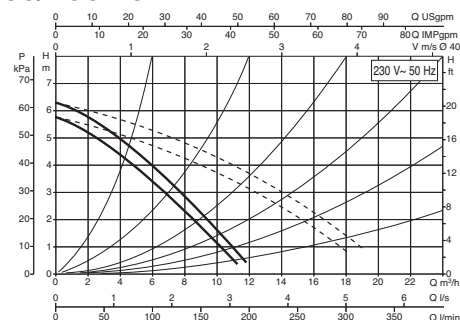
DMH 30/250.40 T



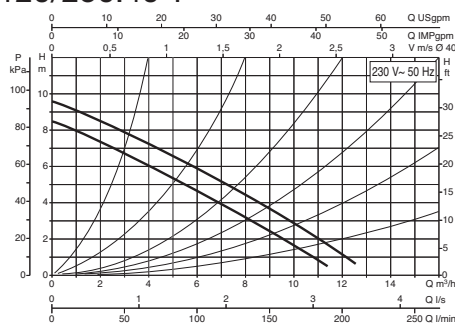
BPH 60/250.40 T



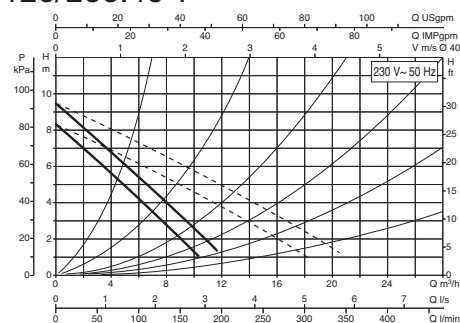
DPH 60/250.40 T



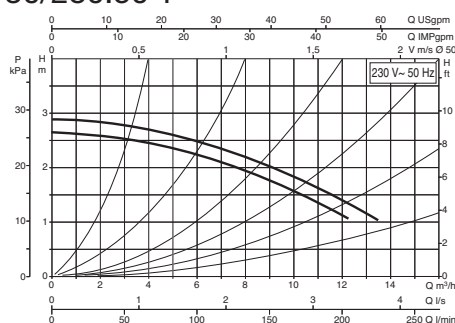
BPH 120/250.40 T



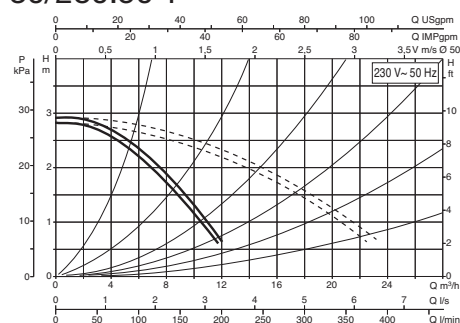
DPH 120/250.40 T



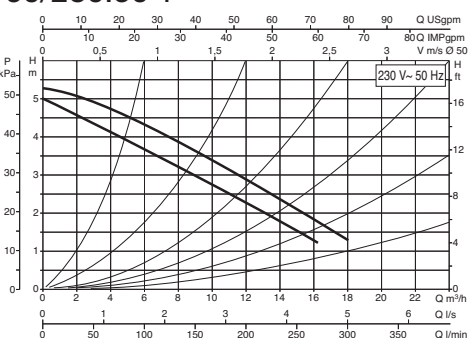
BMH 30/280.50 T



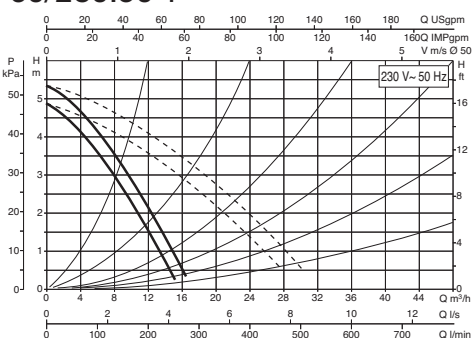
DMH 30/280.50 T



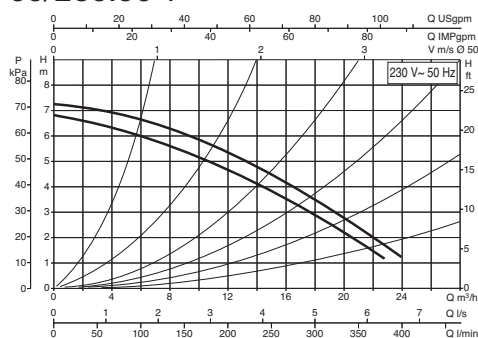
BMH 60/280.50 T



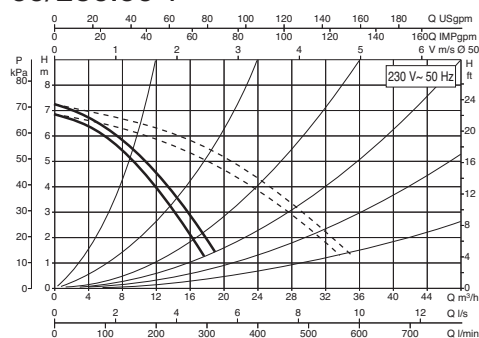
DMH 60/280.50 T



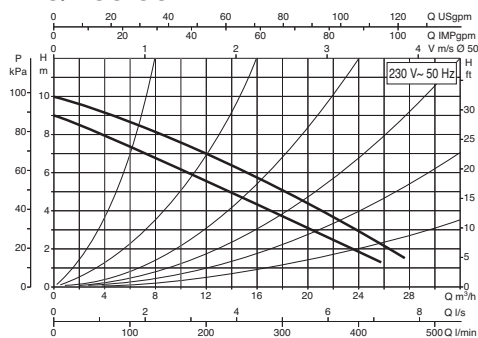
BPH 60/280.50 T



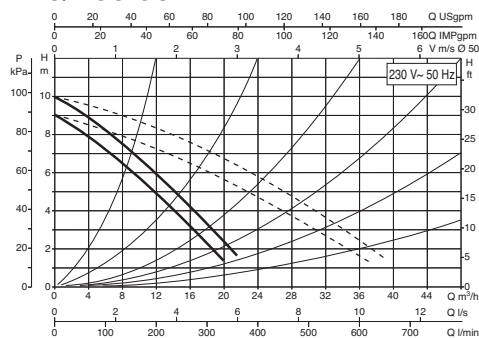
DPH 60/280.50 T



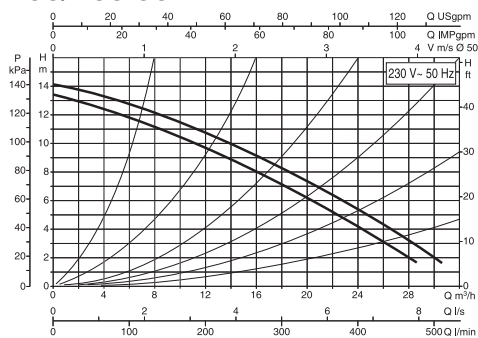
BPH 120/280.50 T



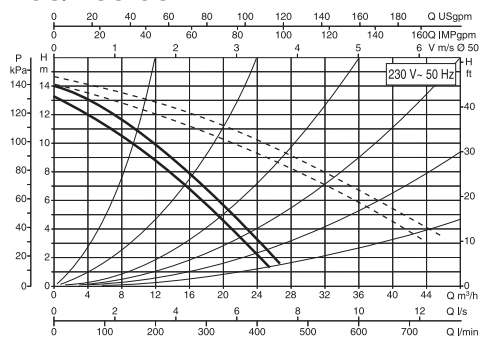
DPH 120/280.50 T



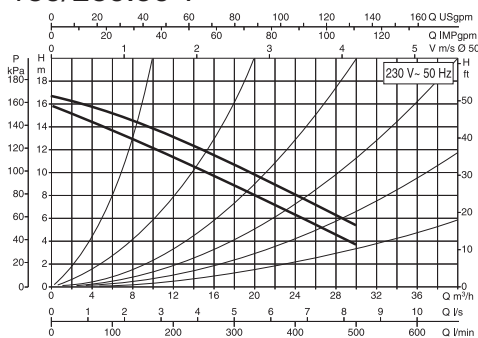
BPH 150/280.50 T



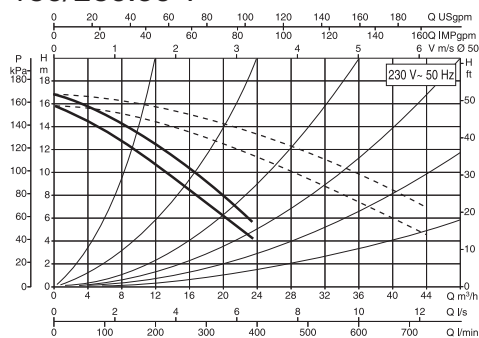
DPH 150/280.50 T



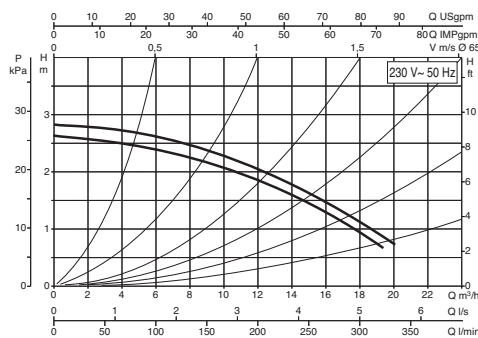
BPH 180/280.50 T



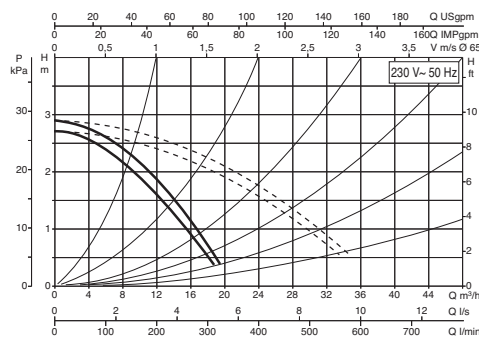
DPH 180/280.50 T



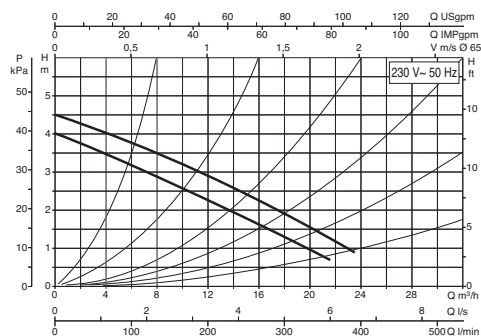
BMH 30/340.65 T



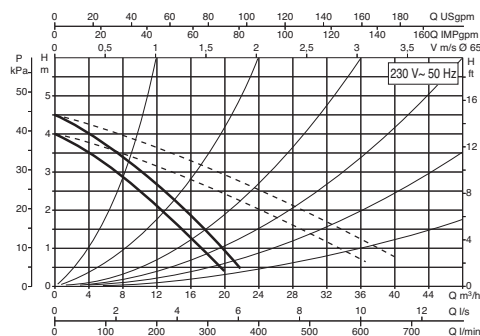
DMH 30/340.65 T



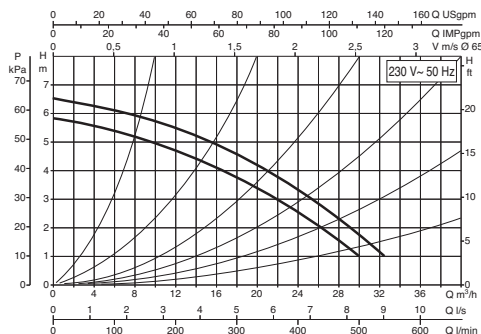
BMH 60/340.65 T



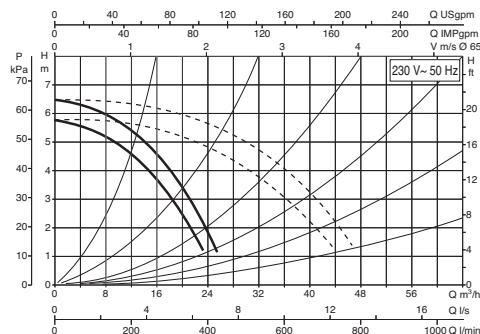
DMH 60/340.65 T



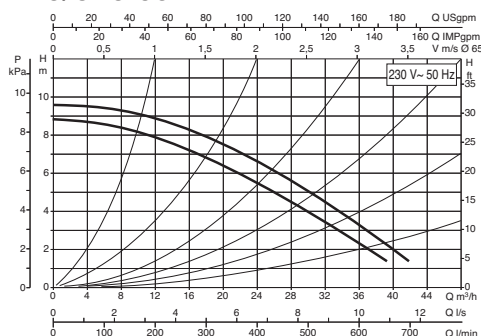
BPH 60/340.65 T



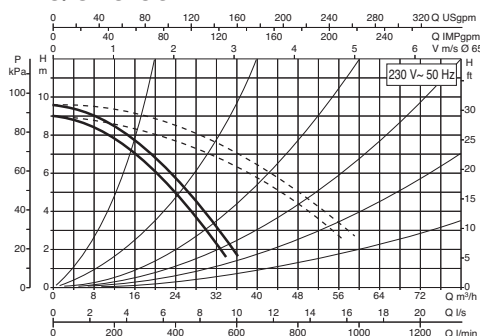
DPH 60/340.65 T



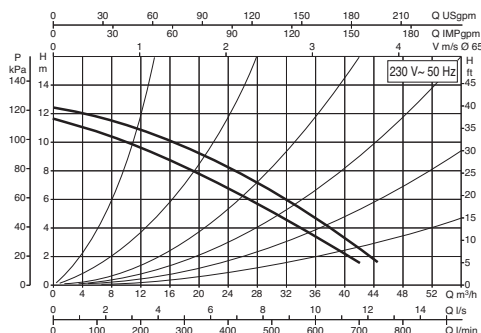
BPH 120/340.65 T



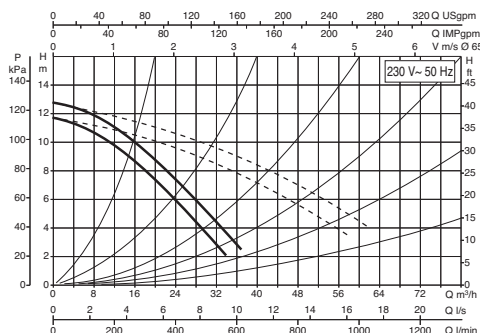
DPH 120/340.65 T



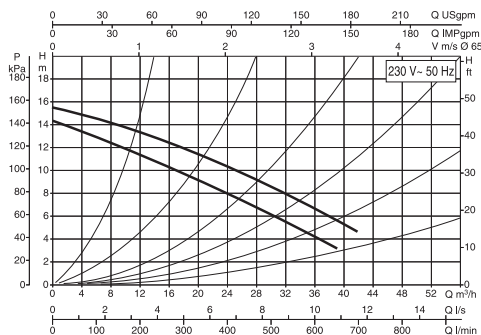
BPH 150/340.65 T



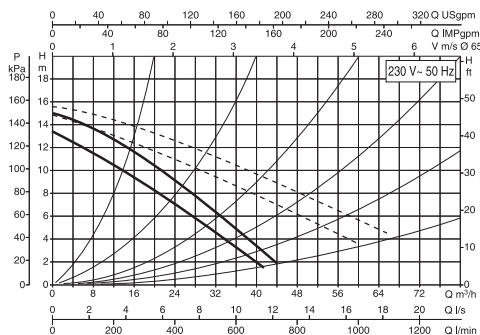
DPH 150/340.65 T



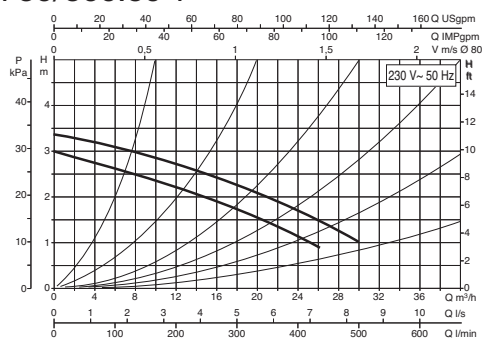
BPH 180/340.65 T



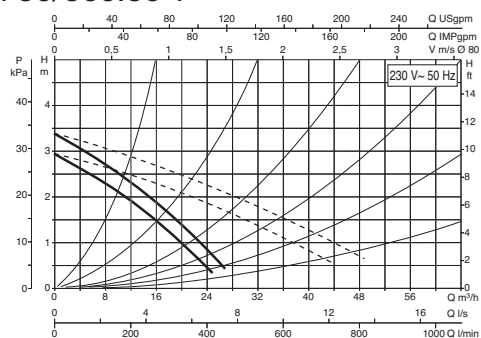
DPH 180/340.65 T



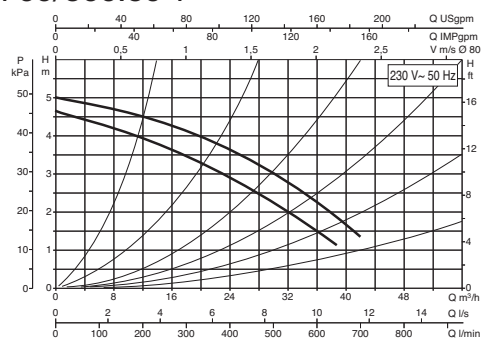
BMH 30/360.80 T



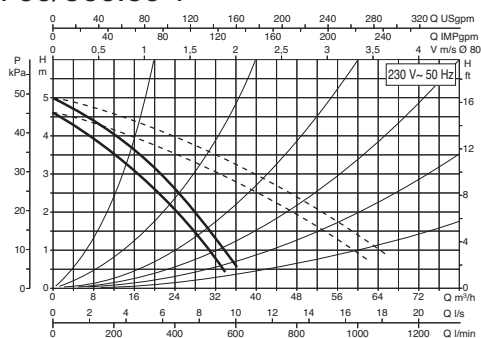
DMH 30/360.80 T



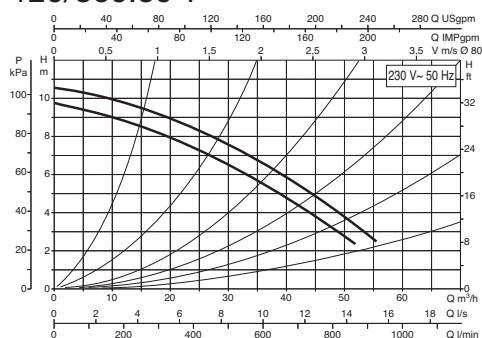
BMH 60/360.80 T



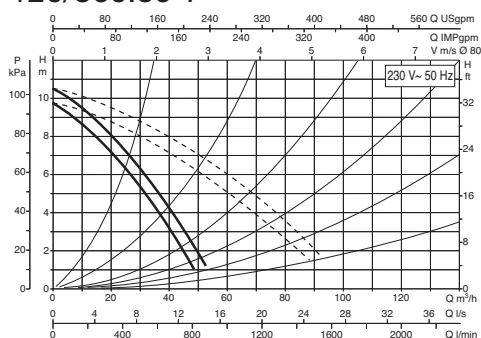
DMH 60/360.80 T



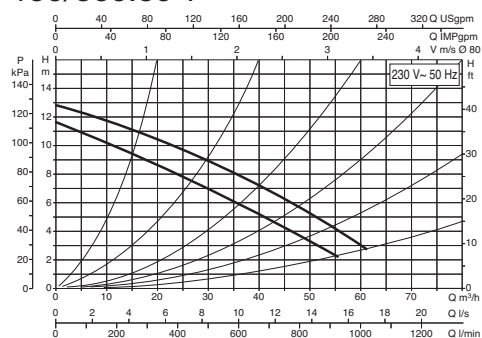
BPH 120/360.80 T



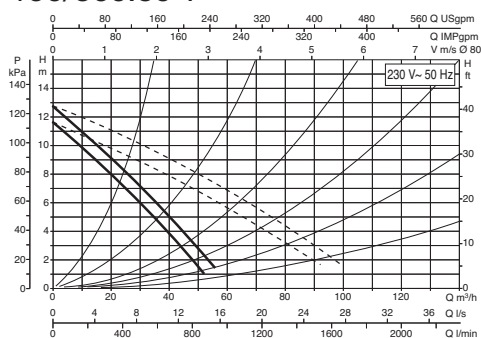
DPH 120/360.80 T



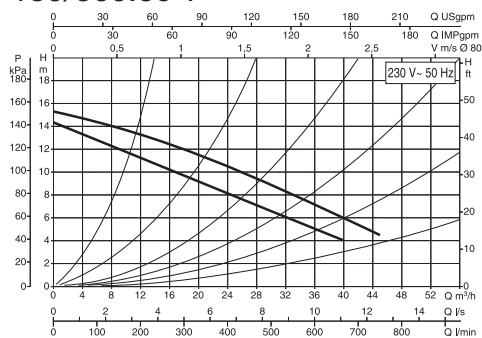
BPH 150/360.80 T



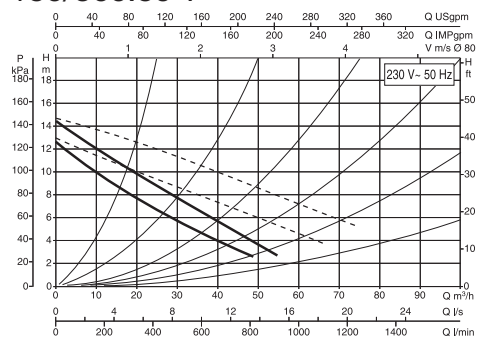
DPH 150/360.80 T



BPH 180/360.80 T



DPH 180/360.80 T

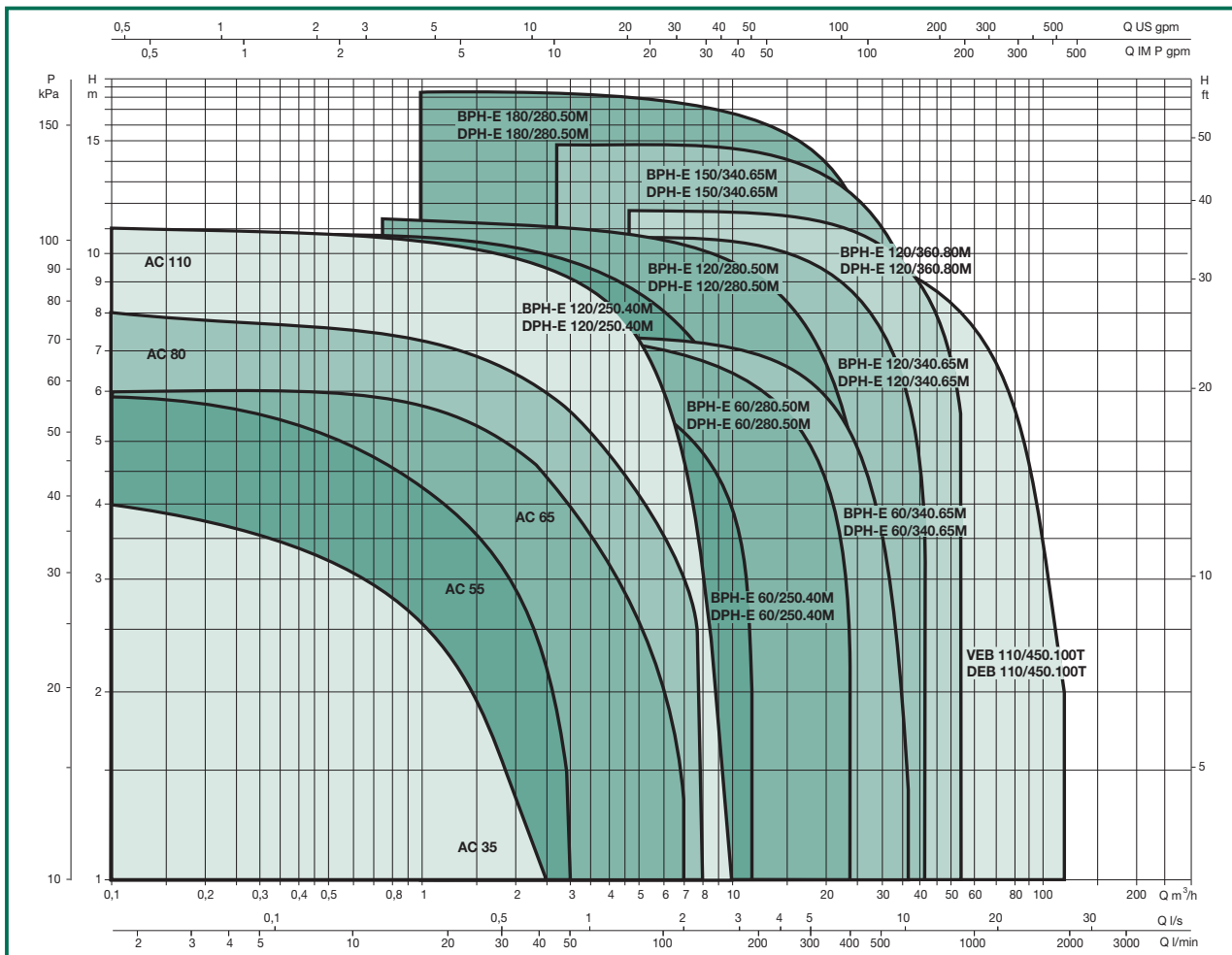


ELECTRONIC CIRCULATORS WET ROTOR TYPE

PERFORMANCE RANGE

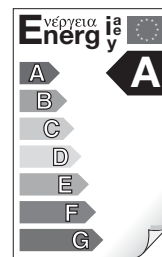
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

GRAPHIC AND NUMERICAL SELECTION TABLES



SINGLE	TWIN	P1	Q																					
Single-phase - Three-phase	Single-phase - Three-phase	Max W	m³/h l/min	0 0	0,6 10	1,2 20	1,8 30	2,4 40	3 50	4,2 70	5,4 90	7,2 120	9,6 160	12 200	14,4 240	18 300	24 400	30 500	36 600	42 700	54 900	72 1200	80 1333	120 2000
AC 35/180	-	22	H (m)	4,2	3,4	2,5	1,5	1,0																
AC 35/180 X	-	22		4,2	3,4	2,5	1,5	1,0																
AC 35/130	-	22		4,2	3,4	2,5	1,5	1,0																
AC 55/180	-	45		5,9	5,6	4,4	3,3	2,4	1,4															
AC 55/180 X	-	45		5,9	5,6	4,4	3,3	2,4	1,4															
AC 55/130	-	45		5,9	5,6	4,4	3,3	2,4	1,4															
AC 65/180	-	70		6	6	5,9	5,4	4,7	4	3,1	2,4	1												
AC 65/180 X	-	70		6	6	5,9	5,4	4,7	4	3,1	2,4	1												
AC 80/180	-	107		8	8	7,9	7,4	6,8	6,2	5,1	4,3	2,7												
AC 80/180 X	-	107		8	8	7,9	7,4	6,8	6,2	5,1	4,3	2,7												
AC 110/180 X	-	174	11	11	10,8	10,6	10,2	9,9	8,7	6,9	5,1	2,9												
VEA 40/190 XM	-	230	H (m)	4					3,3	3	2,7	2,2	1,6	0,8										
VEB 110/450.100 T	DEB 110/450.100 T	2800	H (m)	11,5												10,5	10,3	9,9	9,5	9	8	6,2	5,3	2
BPH-E 60/250.40 M	DPH-E 60/250.40 M	344	H (m)	7,2			6,8	6,7	6,5	6,2	5,8	5	3,7	2			10,5							
BPH-E 120/250.40 M	DPH-E 120/250.40 M	528		11			10,3	10,1	9,8	9,2	8,6	7,65	6,2	4,35	2,4									
BPH-E 60/280.50 M	DPH-E 60/280.50 M	606		7,65			7,5	7,45	7,4	7,3	7,2	6,98	6,7	6,2	5,75	4,6	2,3							
BPH-E 120/280.50 M	DPH-E 120/280.50 M	893		11,3						10,8	10,5	10,3	9,9	9,4	8,5	7,2	4,8	2,1						
BPH-E 180/280.50 M	DPH-E 180/280.50 M	1693		18,4								17,4	17	16,4	15,6	14,4	12	8,8	5,2					
BPH-E 60/340.65 M	DPH-E 60/340.65 M	744		7,4						7,35	7,3	7,24	7,1	6,9	6,65	6,15	4,9	3,3	1,4					
BPH-E 120/340.65 M	DPH-E 120/340.65 M	1262		10,9						10,75	10,68	10,6	10,5	10,38	10,2	9,8	8,7	7,15	5,2	3				
BPH-E 150/340.65 M	DPH-E 150/340.65 M	1767		14,9						14,88	14,83	14,75	14,65	14,55	14,3	13,88	12,65	11	9,35	7,15				
BPH-E 120/360.80 M	DPH-E 120/360.80 M	1789		11,8									11,65	11,58	11,5	11,4	11,25	10,75	10,2	9,39	8,37	5,65		

ELECTRONIC CIRCULATORS FOR HEATING SYSTEMS



GENERAL DATA

Applications

Low power consumption pump for circulation of hot water, suitable for all types of domestic heating systems.

Benefits

Thanks to the advanced technology employed, the **permanent magnet synchronous motor**, and the **frequency converter**, the new range of AC circulators ensures high efficiency in all applications, bringing appreciable benefits in terms of energy saving. That's why the entire series of **AC** circulators is included in energy efficiency class A. The circulator features an electronic device that detects the changes demanded by the heating system and automatically adapts circulator performance accordingly, always ensuring optimal efficiency and minimum energy consumption. Straightforward operation and an easy-to-ready control panel with display that shows the real power consumption in Watts at each moment of operation.

The AC series circulator can function in three different control modes:

- proportional pressure



- constant pressure



- constant speed

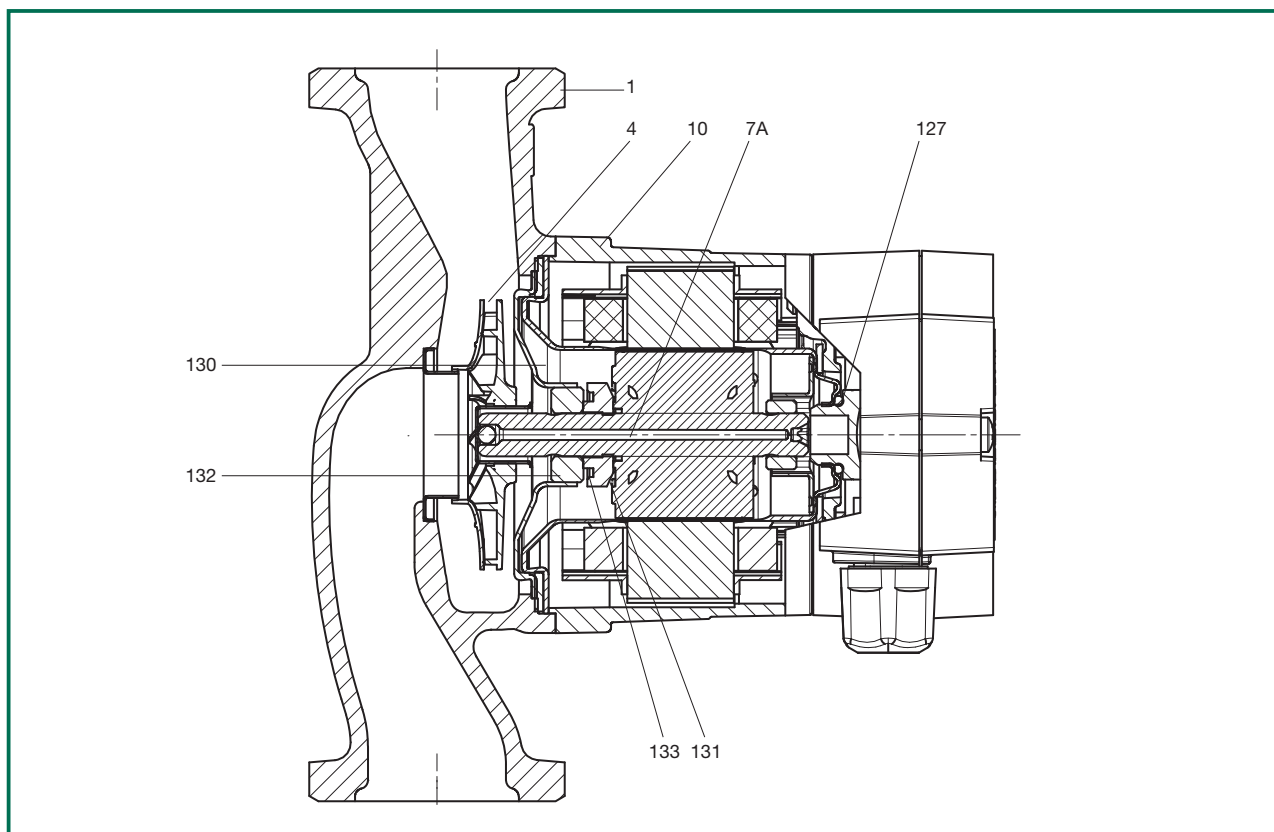


Facility for operation in economy mode (automatic night-time reduction Aut C.).

Thanks to the internal protection of the motor, the pump does not require any form of external protection cutout.

ELECTRONIC CIRCULATORS FOR HEATING SYSTEMS

TECHNICAL DATA



N.	PARTS	MATERIALS
1	PUMP BODY	CAST IRON
4	IMPELLER	TECHNOPOLYMER
7A	MOTOR SHAFT	CERAMIC
10	MOTOR CASING	ALUMINIUM
127	SEAL RING EPDM	EPDM
130	CLOSING FLANGE	STAINLESS STEEL
131	THRUST RING SUPPORT	EPDM
132	BUSHINGS	CERAMIC
133	THRUST RING	GRAPHITE

Operating range AC 35 - AC 55 - AC 65 - AC 80 - AC 110:

Liquid temperature range:

Working pressure:

Protection rating:

Insulation class:

Installation:

Standard power supply:

Liquid quality requirements:

from 0.4 to 10.2 m³/h with head of up to 11 m.

from +2°C to +110°C

10 bar (1000 kPa).

IP 44

F

with horizontal motor shaft

single-phase 1 x 230 V / 50 Hz

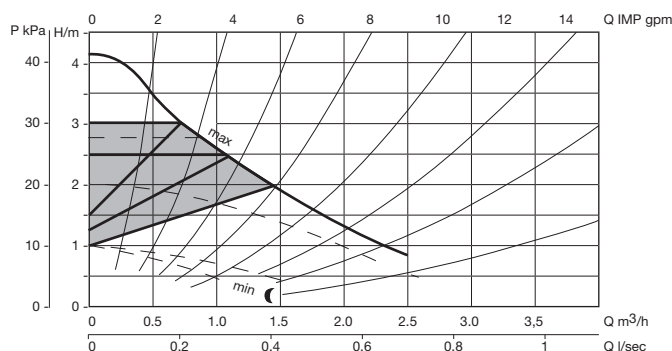
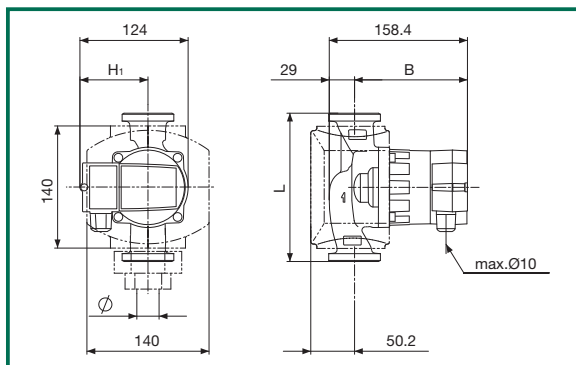
Clean, free of solids and mineral oils,
non-viscous, chemically neutral,
and approximating the properties of water
(max. glycol contents 50%)

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.

ELECTRONIC CIRCULATORS FOR HEATING SYSTEMS

Liquid temperature range: from +2°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

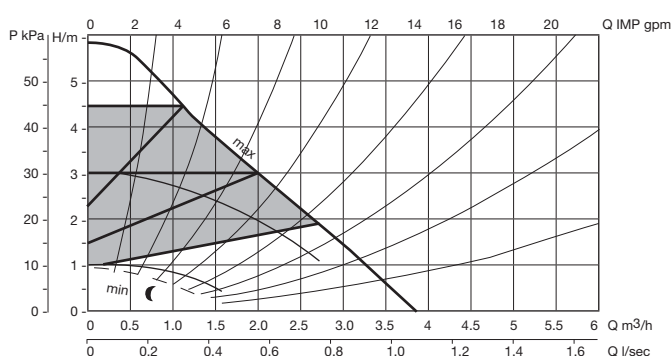
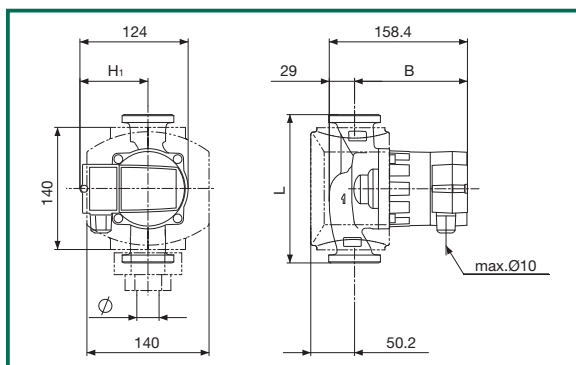
AC 35 SINGLE WITH UNIONS



MODEL	L	B	H1	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
				L	B	H		
AC 35/130	130	129,4	78	188	145	180	0,0038	2,3
AC 35/180	180	129,4	78	188	145	180	0,0038	2,3
AC 35/180X	180	129,4	78	188	145	180	0,0038	2,3

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA					MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	P1 MAX W	In A	CAPACITOR μF	Vc	
AC 35/130	1x230 V ~	130	1" F	3/4" F - 1 1/4" M	MIN MAX	5 22	0,05 0,19	—	—	t° +90°C m.c.a. 4,5
AC 35/180	1x230 V ~	180	1" F	3/4" F - 1 1/4" M	MIN MAX	5 22	0,05 0,19	—	—	t° +90°C m.c.a. 4,5
AC 35/180X	1x230 V ~	180	2" G	1 1/4" F	MIN MAX	5 22	0,05 0,19	—	—	t° +90°C m.c.a. 4,5

AC 55 SINGLE WITH UNIONS



MODEL	L	B	H1	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
				L	B	H		
AC 55/130	130	129,4	78	188	145	180	0,0038	2,3
AC 55/180	180	129,4	78	188	145	180	0,0038	2,3
AC 55/180X	180	129,4	78	188	145	180	0,0038	2,3

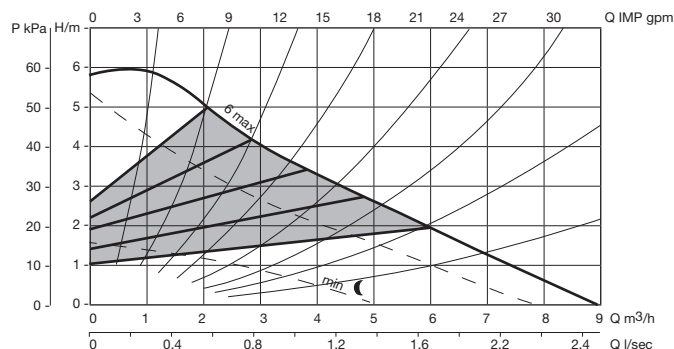
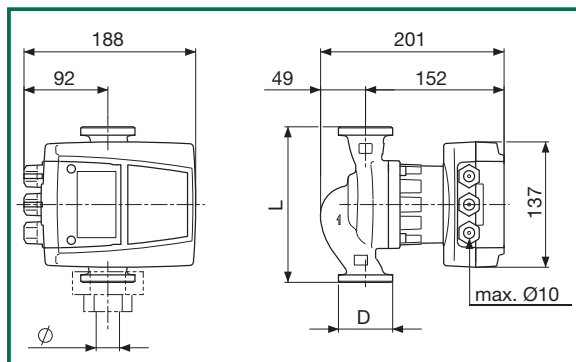
MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA					MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	P1 MAX W	In A	CAPACITOR μF	Vc	
AC 55/130	1x230 V ~	130	1" F	3/4" F - 1 1/4" M	MIN MAX	5 45	0,05 0,38	—	—	t° +90°C m.c.a. 4,5
AC 55/180	1x230 V ~	180	1" F	3/4" F - 1 1/4" M	MIN MAX	5 45	0,05 0,38	—	—	t° +90°C m.c.a. 4,5
AC 55/180X	1x230 V ~	180	2" G	1 1/4" F	MIN MAX	5 45	0,05 0,38	—	—	t° +90°C m.c.a. 4,5

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.

ELECTRONIC CIRCULATORS FOR HEATING SYSTEMS

Liquid temperature range: from +2°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

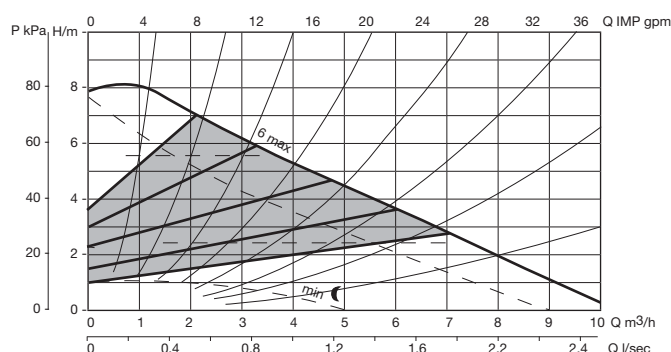
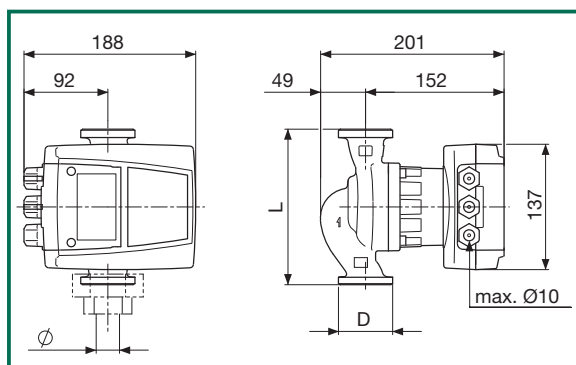
AC 65 SINGLE WITH UNIONS



MODEL	L	B	H1	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
AC 65/180	180	152	92	230	187	200	0,012	3,8
AC 65/180X	180	152	92	230	187	200	0,012	3,8

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA					MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	P1 MAX W	In A	CAPACITOR μF Vc		
AC 65/180	1x230 V ~	180	1" F	¾" F - 1 ¼" M	MIN MAX	8 70	0,1 0,5	—	—	t° +90°C m.c.a. 4,5
AC 65/180X	1x230 V ~	180	2" G	1 ¼" F	MIN MAX	8 70	0,1 0,5	—	—	t° +90°C m.c.a. 4,5

AC 80 SINGLE WITH UNIONS



MODEL	L	B	H1	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
AC 80/180	180	152	92	230	187	200	0,012	3,8
AC 80/180X	180	152	92	230	187	200	0,012	3,8

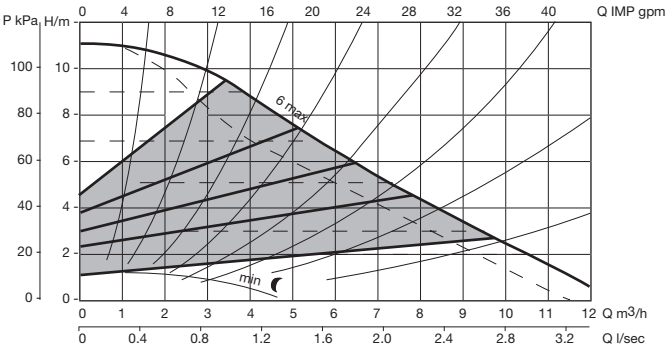
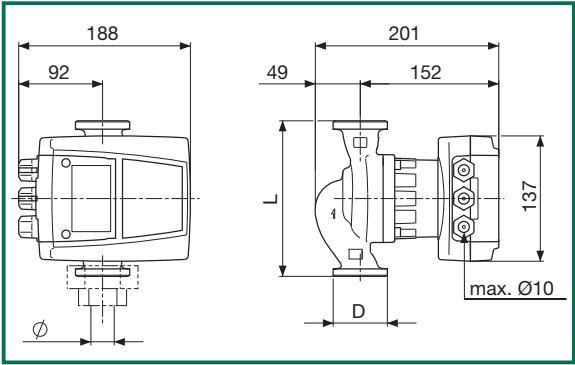
MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA					MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	P1 MAX W	In A	CAPACITOR μF Vc		
AC 80/180	1x230 V ~	180	1" F	¾" F - 1 ¼" M	MIN MAX	8 107	0,1 0,8	—	—	t° +90°C m.c.a. 4,5
AC 80/180X	1x230 V ~	180	2" G	1 ¼" F	MIN MAX	8 107	0,1 0,8	—	—	t° +90°C m.c.a. 4,5

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.

ELECTRONIC CIRCULATORS FOR HEATING SYSTEMS

Liquid temperature range: from +2°C to +110°C
Maximum working pressure: 10 bar (1000 kPa)

AC 110 SINGLE WITH UNIONS



MODEL	L	B	H1	PACK DIMENSIONS			VOLUME m ³	WEIGHT Kg
				L	B	H		
AC 110/180X	180	152	92	230	187	200	0,012	3,8

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	UNIONS ON REQUEST		ELECTRICAL DATA					MINIMUM SUCTION PRESSURE
			STANDARDIZED	SPECIAL	SPEED	P1 MAX W	In A	CAPACITOR µF Vc		
AC 110/180X	1x230 V ~	180	2" G	1 1/4" F	MIN MAX	8 174	0,1 1,25	-	-	t° +90°C m.c.a. 4,5

ELECTRONIC CIRCULATORS FOR HEATING SYSTEMS



GENERAL DATA

Applications

The VE circulator features an electronic control device that detects the changes in performance demanded by the heating system (equipped with automatic thermostatic valves) and automatically adapts circulator performance accordingly, always ensuring optimal efficiency, low noise operation, and minimum energy consumption. When the system requires the maximum available flow rate, the circulator self-adjusts to maximum speed and operates at full power. When the capacity of the system is reduced, either by manual actions performed by the user or due to automatic operation of the thermostatic valves, the electronic controller detects the required flow rate reduction and reduces the speed (and hence flow rate) of the circulator accordingly, while keeping the head virtually constant (with a conventional circulator this parameter would tend to increase under similar conditions).

Construction features

Wet rotor circulator.

Cast iron pump body.

Motor shaft and rotor protective jacket in stainless steel.

Thanks to the internal protection of the motor, the pump does not require any form of external protection cutout.

The pump always starts with medium power (high torque) irrespective of whether the current setting is normal duty or night-time reduction (min.).

Voltage-free contact for service and fault signalling.

Facility for operation at economy speed (min. 1).

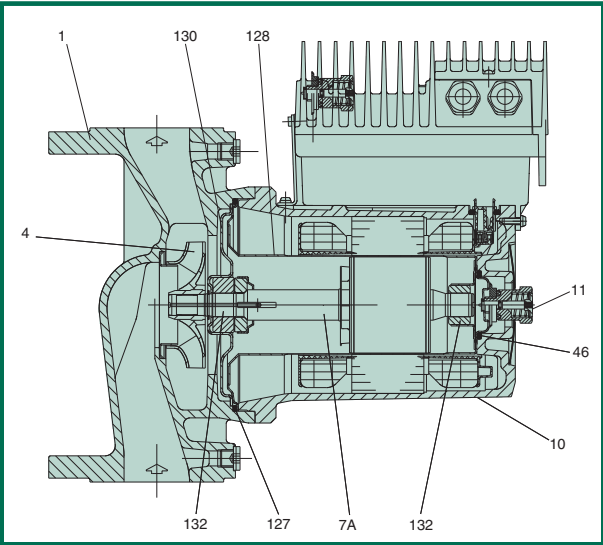
On request: analogue module for external setup of rotation speed via 0-10 V or 0-20 mA input.

This product complies with European standard EN 60335-2-51.

ELECTRONIC CIRCULATORS FOR HEATING SYSTEMS

TECHNICAL DATA

N.	PARTS	MATERIALS
1	PUMP BODY	CAST IRON 200 UNI ISO 185
4	IMPELLER	TECHNOPOLYMER
7A	MOTOR SHAFT	STAINLESS STEEL
10	MOTOR CASING	ALUMINIUM
11	BREATHER PLUG	BRASS PCu Zn 40 Pb2 UNI 570S
127	SEAL RING	EPDM
46	SEAL RING	EPDM
128	STATOR JACKET	STAINLESS STEEL
130	CLOSING FLANGE	STAINLESS STEEL
132	BUSHINGS	CERAMIC



– Designation index: (example)

VEA = circulator with threaded ports
VEB = flanged circulator

maximum head (dm)

centre distance (mm)

(DN) flanged ports nominal diameter
X = 2" threaded ports

M = single-phase motor
T = three-phase motor

VEA 40 / 190 . X M

Operating range:

from 0.5 to 115 m³/h with head of up to 10.5 m.

Liquid temperature range:

from +15°C to +95°C

Liquid quality requirements:

clean, free of solid contaminants and mineral oils, non-viscous, chemically neutral, close to the properties of water..

Maximum working pressure:

6 bar (600 kPa).
(Special executions on request 16 bar (1600 kPa).

Insulation class:

H

Cable gland:

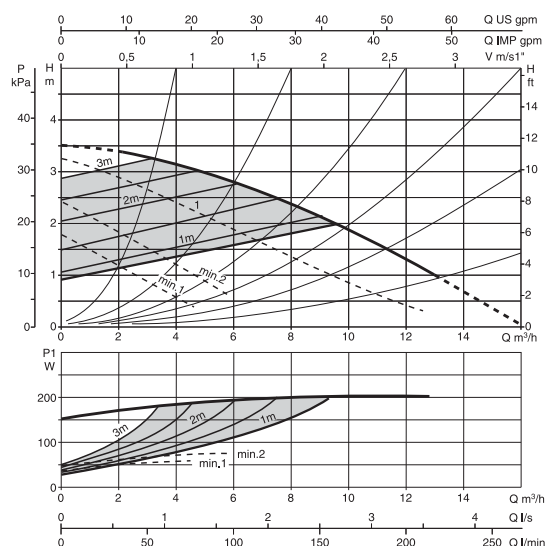
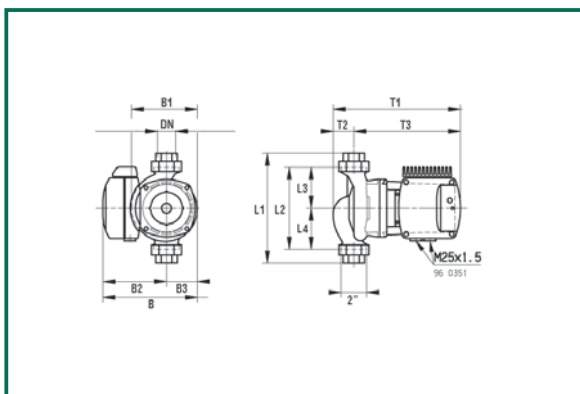
PG 16

Protection rating:

☉ corresponding to IP42

VEA 40/190 XM

SINGLE WITH UNIONS - SINGLE-PHASE



MODEL	DN	B	B1	B2	B3	L1	L2	L3	L4	T1	T2	T3	WEIGHT (kg)
VEA 40/190 XM	2" G	220	153	148	72	255	190	95	95	296	48	248	15

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	ELECTRICAL DATA				CAPACITOR	
			SPEED	rpm	P1 MAX W	In A	μF	Vc
VEA 40/190 XM	1x230 V ~	190	MIN adjustment	600	32	0,2	8	450
			MAX adjustment	1460	200	0,9		
			min1	600	30	0,2		

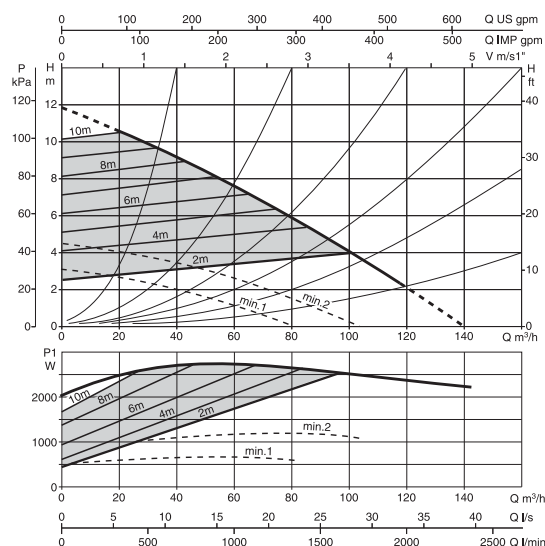
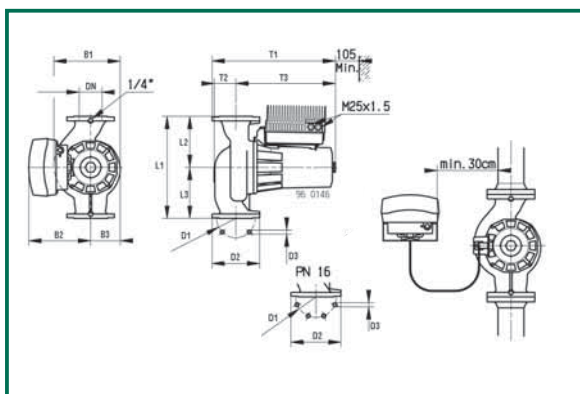
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

ELECTRONIC CIRCULATORS FOR HEATING SYSTEMS

Liquid temperature range: from +15°C to +95°C
Maximum working pressure: 6 bar (600 kPa) - 16 bar (1600 kPa) on request

VEB 110/450.100 T

SINGLE FLANGED - THREE-PHASE



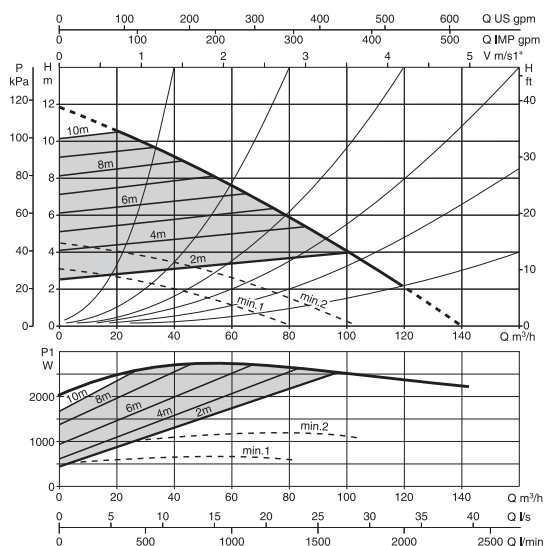
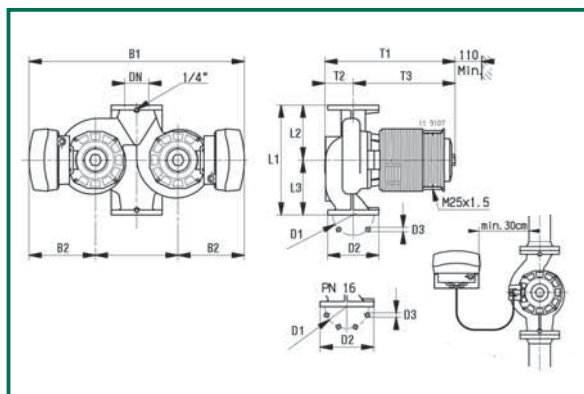
MODEL	DN	B1	B2	B3	PN 6			PN 16			L1	L2	L3	T1	T2	T3	WEIGHT (kg)
					D1	D2	D3	D1	D2	D3							
VEB 110/450.100 T	100	294	273	131	170	210	18	180	220	18	450	225	225	545	96	440	75

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	ELECTRICAL DATA			
			SPEED	rpm	P1 MAX W	In A
VEB 110/450.100 T	3x400 V ~	450	MIN adjustment	800	400	1,0
			MAX adjustment	1700	2800	6,0
			min1	800	400	1,0

* Only on request

DEB 110/450.100 T

TWIN FLANGED - THREE-PHASE



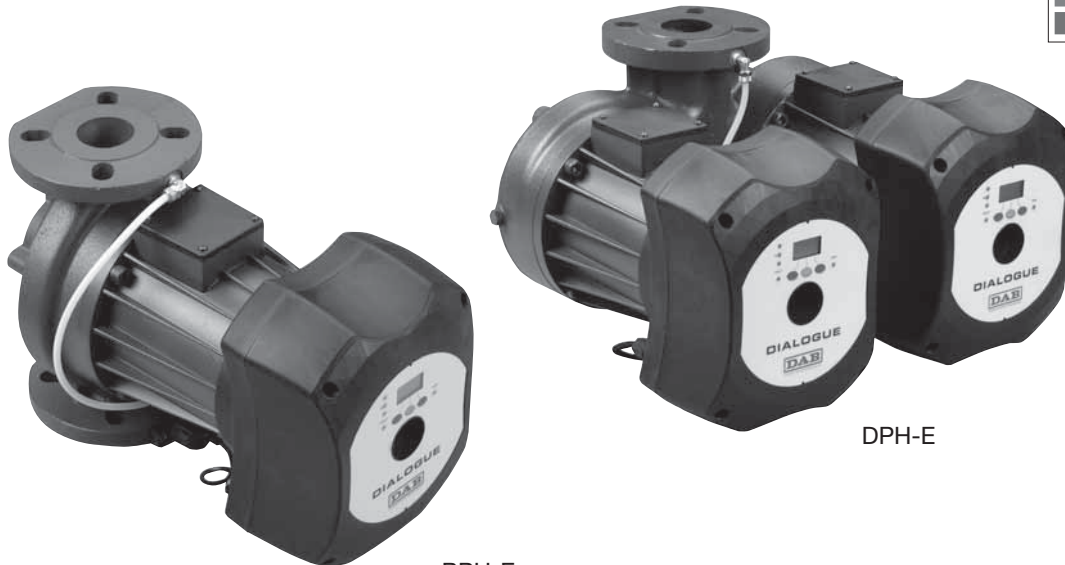
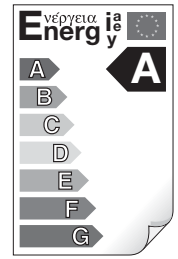
MODEL	DN	B1	B2	B3	PN 6			PN 16			L1	L2	PN 16	T1	T2	T3	WEIGHT (kg)
DEB 110/450.100 T	100	886	273		D1	D2	D3	D1	D2	D3	450	225	225	535	117	419	152

MODEL	POWER SUPPLY 50 Hz	CENTRE DISTANCE mm	ELECTRICAL DATA			
			SPEED	rpm	P1 MAX W	In A
DEB 110/450.100 T	3x400 V ~	450	MIN adjustment	800	400	1,0
			MAX adjustment	1700	2800	6,0
			min1	800	400	1,0

* Only on request

Hydraulic data refer to a single pump in operation.

ELECTRONIC CIRCULATORS FOR HEATING AND AIR CONDITIONING SYSTEMS



BPH-E

DPH-E

GENERAL DATA

Applications

DIALOGUE electronic circulators can be used in heating, ventilation, and air conditioning systems for residential and commercial buildings including:

- Large residential buildings
- Clinics and hospitals
- Real estate assets
- Condominiums and apartment blocks
- Schools
- Office buildings
- Homes

All models are available in both single and twin versions

APPLICATIONS IN HEATING

The heating required in various applications changes significantly during the day/night due to the ambient temperature and changing occupancy levels. This situation is compounded by the different requirements of the various rooms and opening or closing of the various circuit branches in complex installations. Electronically controlled wet rotor pumps constantly ensure, in almost all correctly sized installations, sufficient power and, simultaneously, lower noise emissions, greater comfort and a significant reduction in running costs. In order to further reduce losses in the circulator pump body, for the single version we recommend the use of insulating covers, which are ordered as accessories and supplied separately.

APPLICATIONS IN AIR CONDITIONING

Unlike conventional electronic pumps, electronic circulators can be used also in air conditioning systems in which the temperature of the pumped liquid is lower than the room temperature. In these conditions condensate tends to form on the exterior of the circulator, although this does not impair proper operation of either the electronic or mechanical sections. The unit is designed and sized in such a way as to allow the condensate to drain without damaging the construction components. In the case of thermal insulation of the circulator body using the optional insulating covers (only for the single version – the insulation must be made to measure for the twin version) use special caution to avoid obstructing the drainage labyrinths in order to avoid impairing operation.

CONSTRUCTION FEATURES

Enbloc circulator composed of cast iron hydraulic section and wet rotor asynchronous motor. Motor casing in aluminium. Scroll type pump body featuring high hydraulic efficiency thanks to highly precise design and smooth internal surfaces. In-line suction and discharge ports, flanged and equipped with threaded fittings for pressure and temperature readings.

Rotor in technopolymer, motor shaft in hardened stainless steel held in graphite bearings lubricated by the pumping medium. Rotor protective jacket and stator jacket in stainless steel. Ceramic thrust ring, ethylene propylene seals and brass air breather plug. Asynchronous two-pole motor. The twin version features an automatic swing check valve incorporated in the discharge port to avoid water recirculating through the unit when it is not running; moreover, a blank flange is supplied as standard to allow either of the two motors to be removed for servicing. Standard execution of the pump body is PN10, which is compatible with PN6 counter-flanges for interchangeability of pumps in existing systems. A DN 80 PN 16 (eight holes) version can be supplied on request

Circulator protection rating: IP 44

Insulation class: H

Standard voltage input: single-phase 230V 50/60Hz

This product complies with European standards EN 61800-3 – EN 60335-1 – EN 60335-2-51

DIALOGUE CONSTRUCTION CHARACTERISTICS (Electronic device)

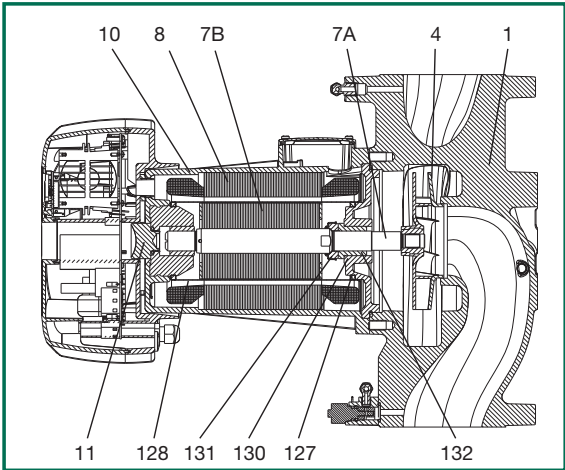
The circulators are controlled by a device based on NPT type IGBTs of the latest generation for greater efficiency and robustness. Specific features include:

- sine wave modulated PWM
- High carrier frequency to eliminate all audio band noise
- Dedicated 32-bit DSP processor
- Optimised space vector algorithm

An intuitive and functional user interface ensures ease of calibration for all users. The backlit easy-to-read display on the control panel, three easy navigation keys, a hierarchical menu in line with the latest trends in the field of mobile telephony, and a very wide choice of functions, mean that BPH-E circulators are truly revolutionary products. Reliable and rugged construction plus modern and innovative styling complete the product also from an aesthetic standpoint.

DATI TECNICI

N.	PARTS	MATERIALS
1	PUMP BODY	CAST IRON 200 UNI ISO 185
4	IMPELLER	TECHNOPOLYMER B
7A	MOTOR SHAFT	AISI 420 C Quenched and Tempered STAINLESS STEEL
7B	ROTOR	—
8	STATOR	—
10	MOTOR CASING	DIE CAST ALUMINIUM
11	BREATHER PLUG	BRASS P Cu Zn 40 Pb2 UNI 5705
127	SEAL RING	ETHYLENE PROPYLENE (EPDM)
128	STATOR JACKET	STAINLESS STEEL AISI 321 quenched and tempered – AISI 304
130	CLOSING FLANGE	CAST IRON 200 UNI ISO 185
131	THRUST RING SUPPORT	AISI 304 L STAINLESS STEEL
132	BUSHINGS	CARBON EC 941

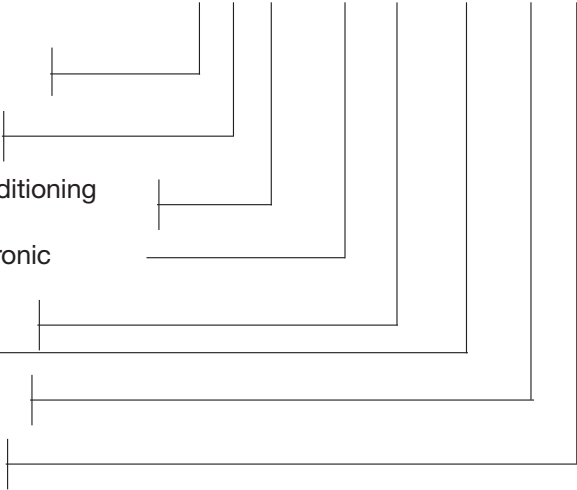


DESIGNATION INDEX:
(example)

B P H - E 120 / 250 . 40 M

- B = single circulator
- D = twin circulator
- M = 4-pole motor
- P = 2-pole motor
- H = suitable for both air conditioning and heating
- E = **DIALOGUE** electronic

- maximum head (dm)
- centre distance (mm)
- (DN) nominal diameter of flanged ports
- M = single-phase motor



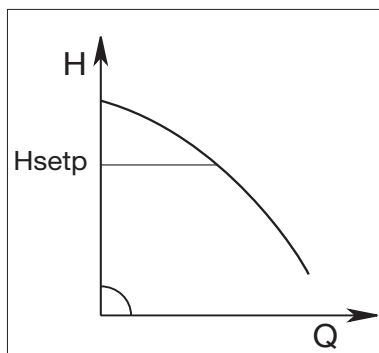
Operating range:	from 13.8 to 59.76 m ³ /h with head of up to 18.2 m.
Liquid temperature range:	from -10°C to +120°C
Liquid quality requirements:	clean, free of solids and mineral oils, non-viscous, chemically neutral and approximating the properties of water (max. glycol contents 30%)
Maximum working pressure:	10 bar (1000 kPa)
Standard flanging:	DN 40, DN 50, DN 65, PN 10 (4 slots), DN 80 in PN 6 / 10 (4 slots)
Minimum suction pressure:	the values are given in the relative tables.
Special executions on request:	Flanging DN 80 in PN 10 / PN 16 (8 holes)
Accessories:	DN 40 - DN 50 - DN 65 - DN 80 threaded counter-flanges in PN 10.
Electromagnetic compatibility:	BPH-E and DPH-E circulators comply with standard EN 61800-3, in category C2, in terms of electromagnetic compatibility. Electromagnetic emissions - Residential environment (containment measures may be necessary in certain cases). Conducted emissions - Residential environment (containment measures may be necessary in certain cases). Models with power rating below 1 kW require a 2.4 mH external input filter as prescribed by EN 61000-3-2.

OPERATING MODES

All functions listed below can be consulted by all users (irrespective of the level of expertise) simply by scrolling through the Dialogue menu. Calibration and parameter editing are protected and reserved for expert users.

1 - ΔP -c constant differential pressure control mode

Control mode ΔP -c keeps system differential pressure constant at the user-settable value of H setp despite changes in flow rate.



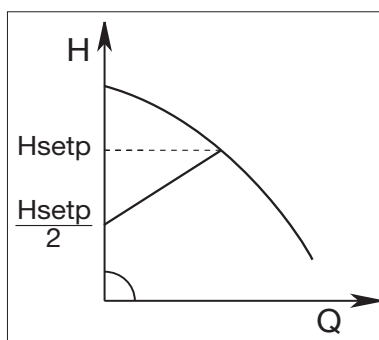
This control mode is particularly useful in the following types of installations:

- a. Two-pipe central heating systems with two thermostatic valves and with:**
 - head of less than 2 metres;
 - natural circulation;
 - low pressure drops in sections of the system carrying the entirety of the water flow rate;
- b. Under-floor central heating systems with thermostatic valves**
- c. Single-pipe central heating systems with thermostatic valves and calibration valves**
- d. Installations having primary circuit pumps with low pressure drops**

2 - ΔP -v proportional differential pressure control mode

Control mode ΔP -v provides linear variation of the head delivery value from Hsetp to Hsetp/2 in accordance with changes in flow rate.

This control mode is particularly useful in the following types of installations:



- a. Two-pipe central heating systems with two thermostatic valves and with:**
 - head of more than 4 metres;
 - very long circuit piping;
 - valves with broad operating range;
 - differential pressure regulators;
 - high pressure drops in sections of the system carrying the entirety of the water flow rate;
 - low differential temperature.
- b. under-floor central heating systems and systems with thermostatic valves and significant pressure drops in the boiler circuit.**
- c. Installations having primary circuit pumps with high pressure drops.**

Examples of set-point input with $\Delta P-v$

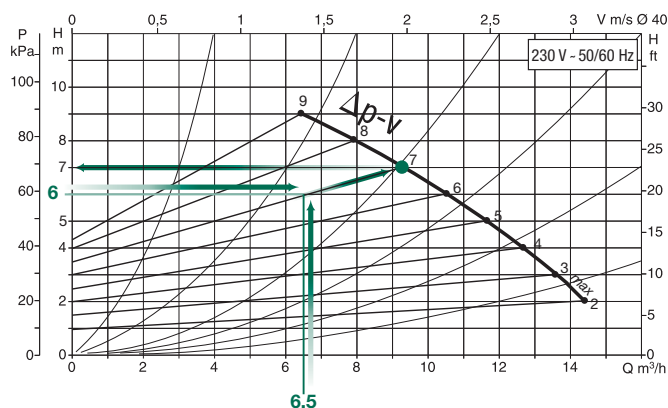
The following operating point is required:

$$Q = 6,5 \text{ m}^3/\text{h}$$

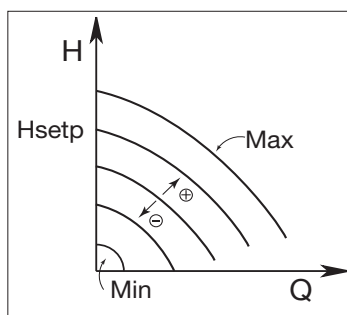
$$H = 6 \text{ m}$$

PROCEDURE:

1. In the graph, find the required operating point and then find the nearest DIALOGUE curve to it (in this case the point lies precisely on the curve)
2. Follow the curve until intersecting the circulator limit curve.
3. The head reading found at this limit point will be the set-point head to be entered to obtain the required operating point.



3 - Constant curve (speed??) control mode



Setting constant speed control automatically inhibits electronic module control strategies. Pump speed can be adjusted manually to a constant value directly from the front panel or by means of a remote control utilising an 0-10V signal, where:

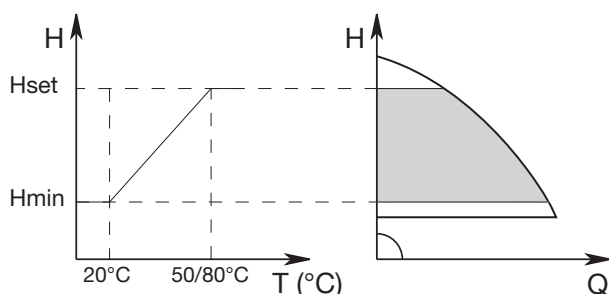
$V \leq 3$ Volt, pump speed is 846 rpm (min. speed)

$V = 10$ Volt, pump speed is 2820 rpm (max. speed)

Linear interpolation of pump speeds for V between 3 and 10 Volt

This type of control mode is particularly suitable when replacing circulators in existing installations.

4 - Constant differential pressure control mode with proportional control in relation to water temperature



The circulator head set-point is reduced in accordance with the water temperature.

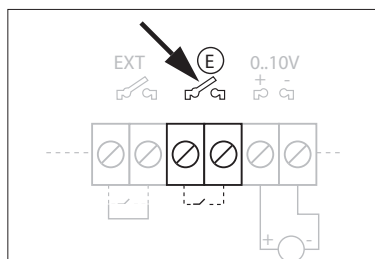
Liquid temperature can be set to 80°C or 50°C.

This control mode is particularly useful in the following types of installations:

- in variable flow rate installations (two-pipe central heating systems), in which a further reduction of circulator performance is provided in accordance with lowering of the circulating liquid temperature, in the presence of reduced heating demand.
- in constant flow rate installations (single-pipe and under-floor central heating systems), wherein the performance of the circulator can be adjusted only by activating the temperature influence function..

This function is set on the control panel **DIALOGUE**.

ECONOMY FUNCTION



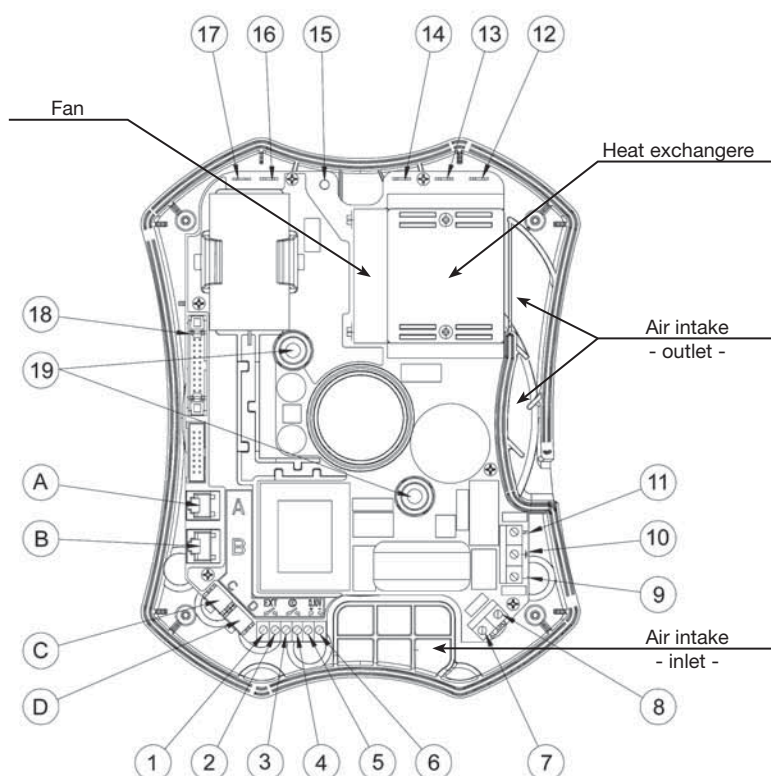
The economy function can be set directly on the control panel, by setting a reduction value (f.rid) the maximum value of which is 50%

In all previously listed settings, the value

Hset

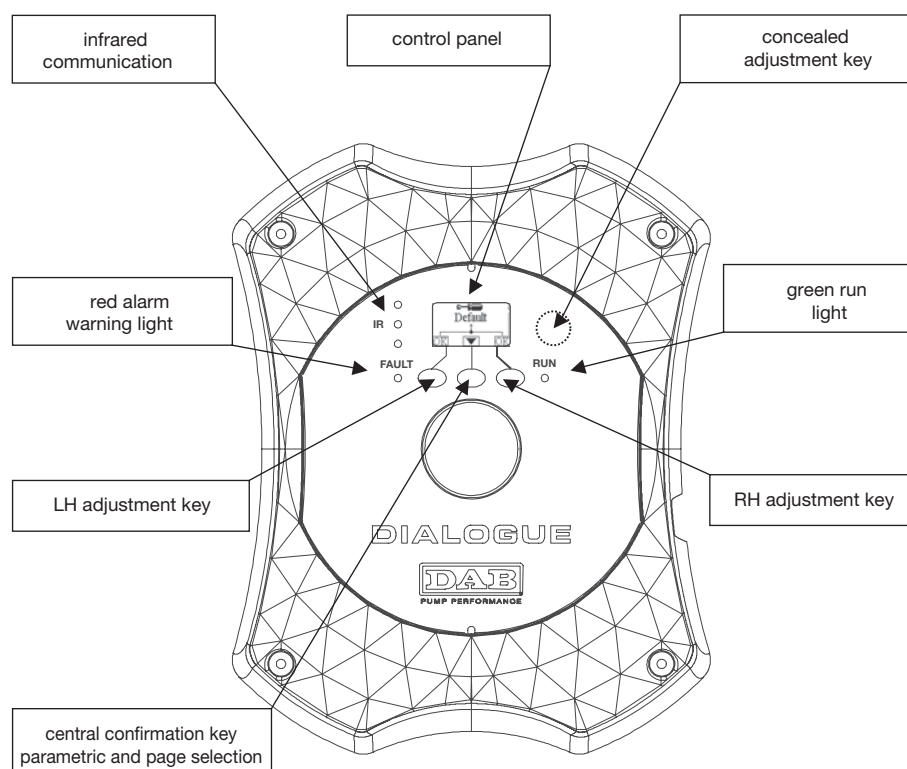
must be replaced with an
 $Hset \times f.rid$

CONNECTION DIAGRAM



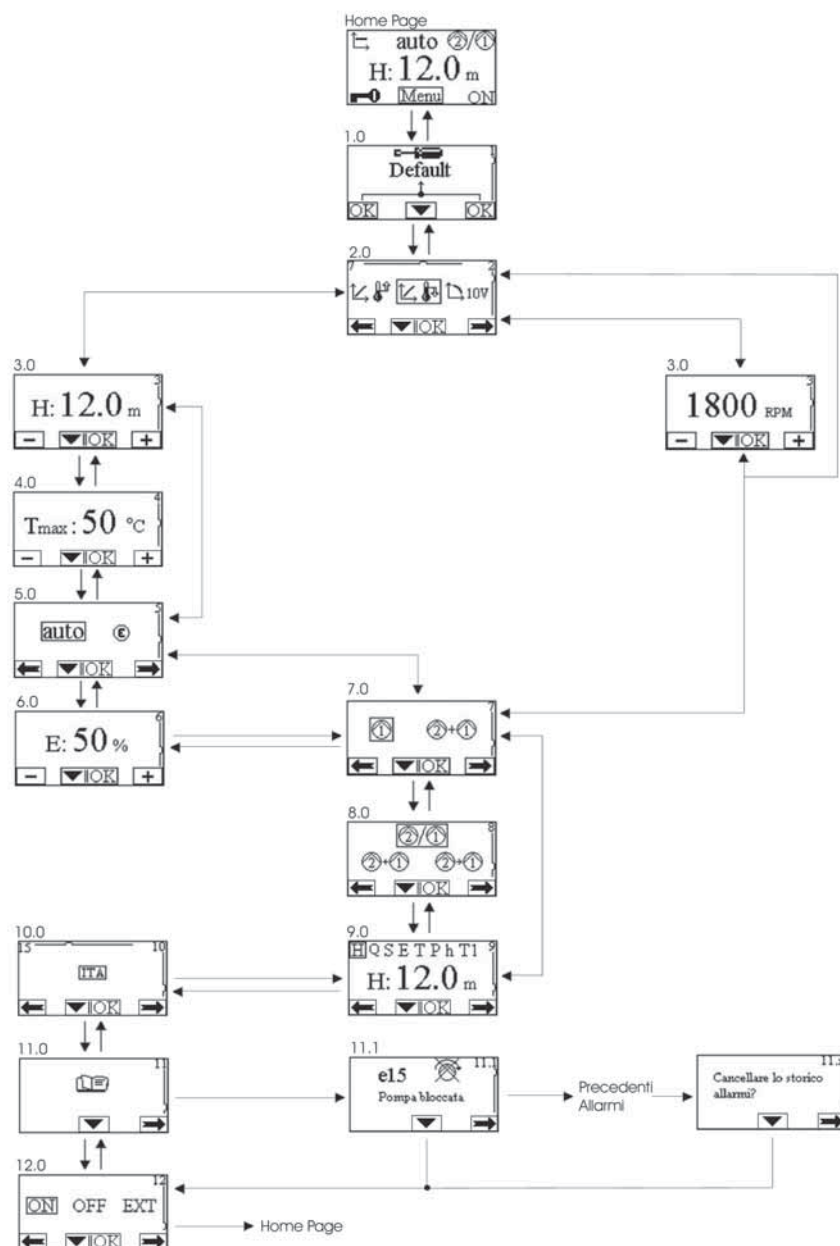
Ref.	Function
A	RS 485 remote serial connector
B	Connector for twin circulators
C	Connector for remote sensor (optional)
D	Connector for circulator integral sensor (standard equipment)
1-2 (exit)	Terminals for connection of a remote control
3-4 (E)	Terminals for economy function input
5-6 (0-10V)	Terminals for 0-10V dc analogue input ref. 5 = +10V ref. 6 = 0V
7-8 (ALARM)	Terminals for 250V ac 5A remote alarm contact
9-10-11	Terminals for 1x230V 50-60Hz power feeding line ref. 9 = Line ref. 10 = Earth ref. 11 = Neutral
12-13-14	Fastons for motor cables connection ref. 12 = red wire ref. 13 = green wire ref. 14 = white wire
15	Motor earthing screw
16-17	Fastons for motor protector connection - white wire
18	Dialogue display connector
19	Dialogue fixing screws

CONTROL PANEL DESCRIPTION



DIALOGUE DISPLAY - THE SETTING PACOPPERTERS

The settings are made when passing from one page to another, in the circulator configuration menu.



DISPLAYABLE QUANTITIES DESCRIPTION

Symbol	Description
H Q S E T P h T1	Shows paCOPPERTers
H	Head in metres
Q	Flow rate in m³/h $Q < Q_{min}$ when Q is less than 30% of Q_{max} $Q = 0$ only when the Dialogue is switched off.
S	Speed in revs/minute (rpm)
E	Analog input 0-10V
T	Liquid temperature in °C – input D
P	Power in kW
h	Working hours
T1	Liquid temperature in °C – input C
TMAX	Maximum liquid temperature in °C depending on regulation

Status

Symbol	Description
	Single circulator or nr. 1
	Circulator nr. 2
	Alternate twin circul. (24 h. one motor/24 h. the other motor)
	Principal/reserve twin circulators
	Simultaneous twin circulators
ON	Circulator on
OFF	Circulator off
EXT	Circulator controlled by remote signal (ref. terminals 1-2)

Operating mode

Symbol	Description
auto	Auto
Ⓔ	Economy mode

Regulation mode

Symbol	Description
	Regulation with Δp -c (constant pressure)
	Regulation with Δp -c depending on temperature with positive increase
	Regulation with Δp -c depending on temperature with negative increase
	Regulation with Δp -v (variable pressure)
	Regulation with Δp -v depending on temperature with positive increase
	Regulation with Δp -v depending on temperature with negative increase
	Servomotor regulation with speed set on the display.
	Servomotor regulation with speed set by remote signal 0-10V

Miscellaneous

Symbol	Description
	Control panel blocked
	Multifunction key for confirming paCOPPERters and scrolling pages

ALARMS MANAGEMENT

The **DIALOGUE** device can remotely reactivate the alarms that have occurred in the pump itself through a clean contact (250Vac – 5 Amp). These alarms are also memorised in the resident memory for subsequent consultation. The alarms archive can also be cancelled to perform dedicated tests.

ALARMS DISPLAY

Symbol	Alarm type
	E01 Pump blocked
	E02 Internal error V18"
	E03 Low mains voltage" (LP)
	E04 High mains voltage" (HP)
	E06 Critical overheating of electronic parts"
	W01 Sensor signal absent"
	W02 Twin communication absent"
	W03 Overheating of electronic parts"
	W04 Fault in cooling systems"
	W05 Current overload protection"

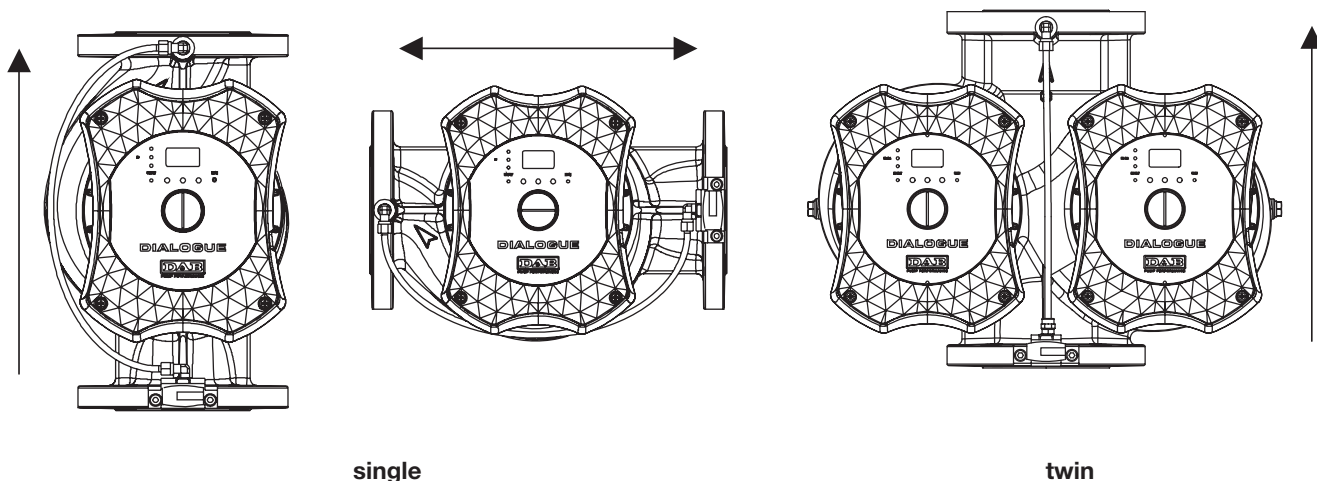
W05 I_{max} : Motor current overload protection

The circulators in the BPH-E and DPH-E series contain a current limitation system to protect the electro-pumps against any current overloads. The maximum current that can be supplied is set for each size. If this current exceeds the set value, the protection intervenes, reducing the operating frequency (a **Warning W05** is generated in the alarm log). If this current does not fall within the predetermined values, the pump goes into a **blocking error E01** (the fixed red "FAULT" light is lit and the alarm relay closes) and attempts to restart every 10 minutes.

TROUBLESHOOTING

Error condition		
Display indication	Description	Reset sequence
E01	Pumpblocked	- Free the pump by hand.
E02	InternalerrorV18	- Disconnect power supply to Dialogue. After having waited 5 minutes, restore power supply to Dialogue. If the error persists, change the Dialogue.
E03	Low mains voltage (LP)	- Disconnect power supply to Dialogue. After having waited 5 minutes, restore power supply to Dialogue. Check that the mains voltage is correct, if necessary restore the data plate value.
E04	High mains voltage (HP)	- Disconnect power supply to Dialogue. After having waited 5 minutes, restore power supply to Dialogue. Check that the mains voltage is correct, if necessary restore the data plate value.
E06	Critical overheating of electronic parts	- Disconnect power supply to Dialogue. After having waited 5 minutes, open the cover of the Dialogue. Clean the air sockets and the cooling body with dry air (fig.3 page 5) Close the cover of the Dialogue.
W01	Sensor signal absent	- Check the sensor connection (ref. D). If the sensor is faulty, change it.
W02	Twin communication absent	- Check that the twin communication cable is intact. Check that the circulator is fed.
W03	Overheating of electronic parts	- Disconnect power supply to Dialogue. After having waited 5 minutes, open the cover of the Dialogue. Clean the air sockets and the cooling body with dry air (fig.3 page 5) Close the cover of the Dialogue.
W04	Faulty cooling systems	- Check that the fan is clean and that it moves freely. Change the Dialogue.
W05	Overload protection	- Check that the circulator turns freely. Check that the addition of antifreeze does not exceed the maximum amount of 30%.

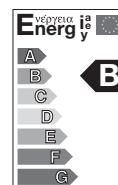
INSTALLATION



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.

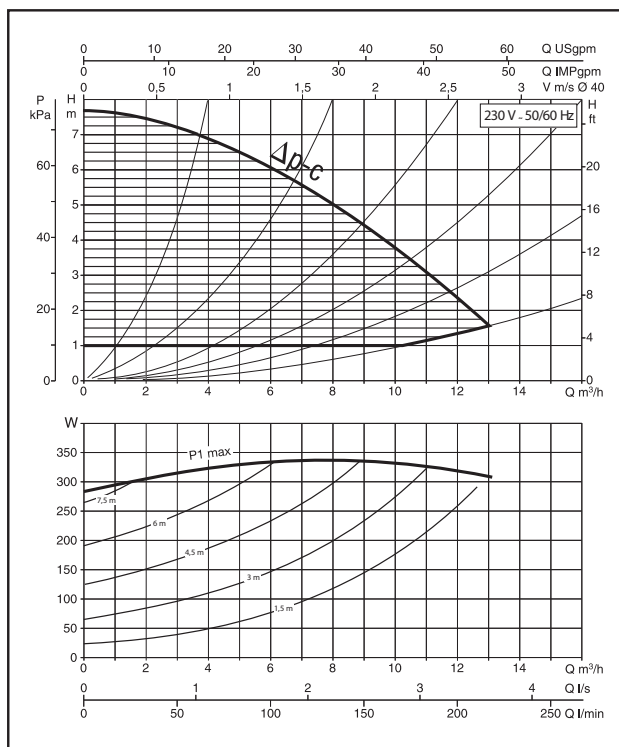
CIRCULATORS FOR HEATING AND AIR-CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum operating pressure: 10 bar (1000 kPa)

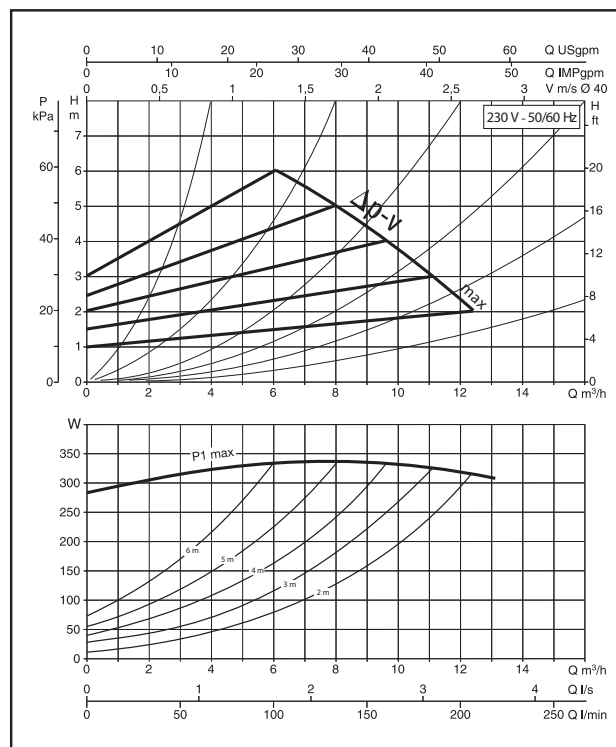


BPH-E 60/250.40 M

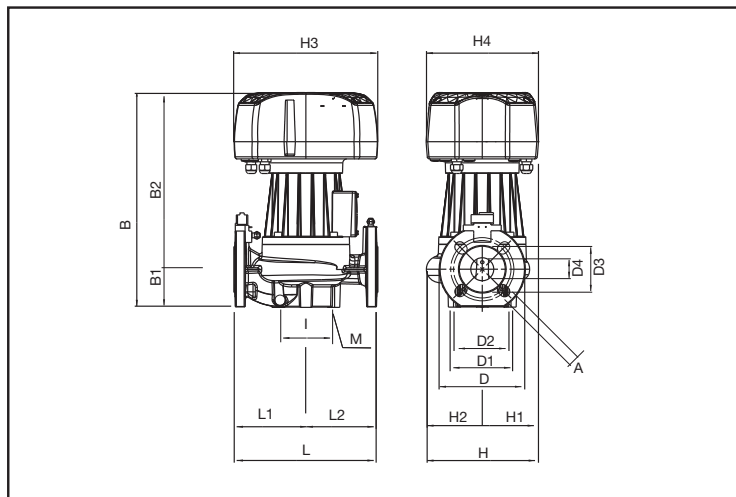
Characteristic curves Δp -c (constant)



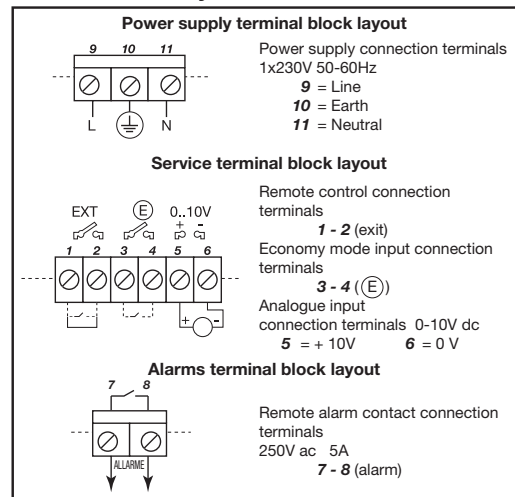
Characteristic curves Δp -v (variable)



Dimensions



Terminals block layout



DIMENSIONS

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	H3	H4
250	125	125	18	374	66	308	150	110	100	80	40	100	-	-	-	M10	195	83	112	250	196

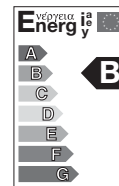
ELECTRICAL DATA

MODEL	VOLTAGE 50/60 Hz	CENTRE DISTANCE mm	CONTOFLANGES ON REQUEST	ELECTRICAL DATA		MINIMUM HEAD PRESSURE				
				P1 MAX W	I _n A	t°	75°	90°	110°	120°
BPH-E 60/250-40	230 V	250	DN 40 - PN 10	344	2	mt.	1,6	4	-	19

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.

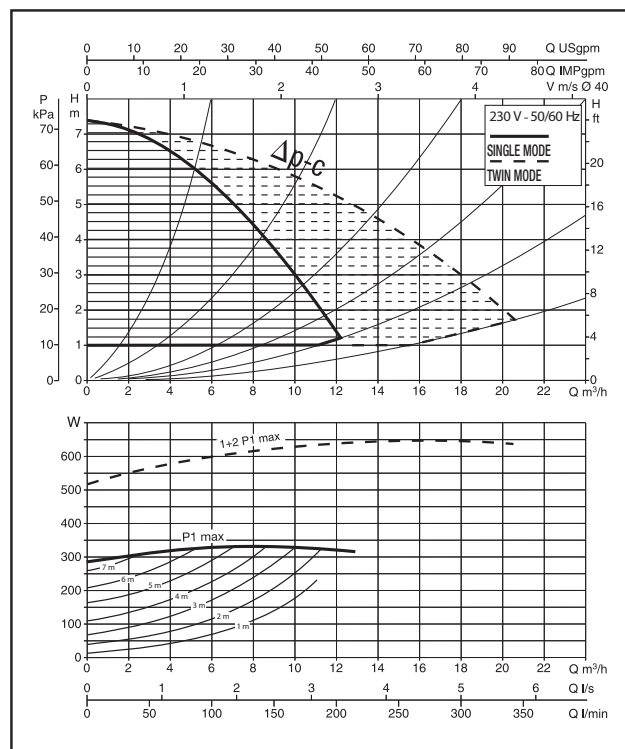
CIRCULATORS FOR HEATING AND AIR-CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum operating pressure: 10 bar (1000 kPa)

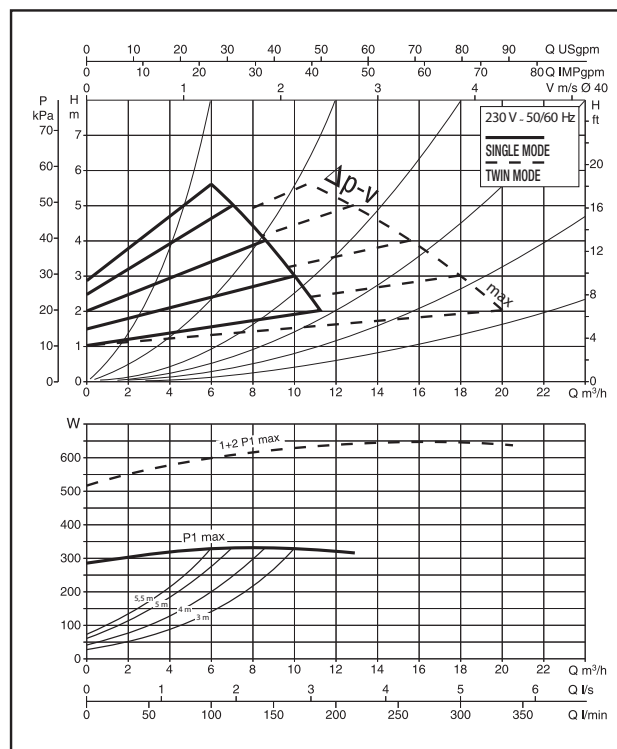


DPH-E 60/250.40 M

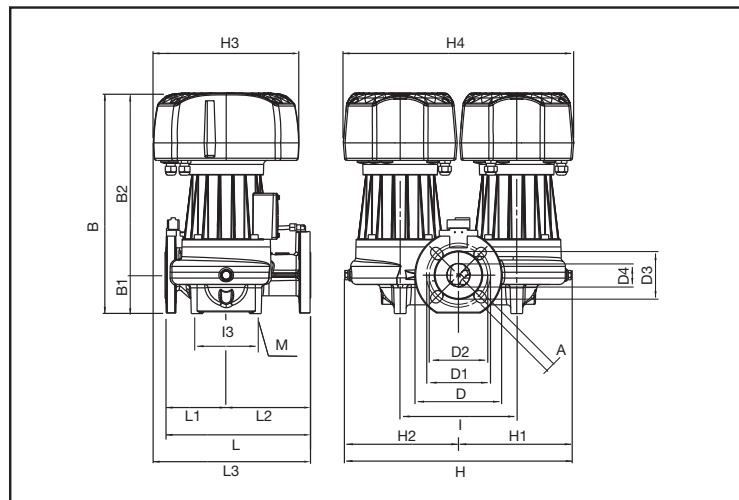
Characteristic curves Δp -c (constant)



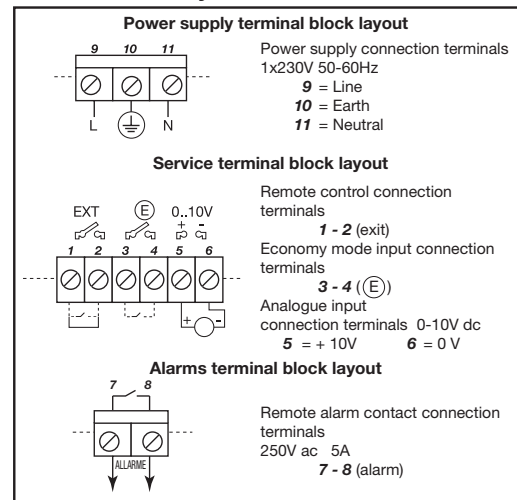
Characteristic curves Δp -v (variable)



Dimensions



Terminals block layout



DIMENSIONS

L	L1	L2	L3	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	H3	H4
250	105	145	270	18	378	66	312	150	110	100	80	40	200	100	100	100	M12	389	194,5	195	250	396

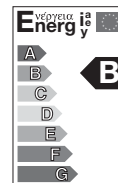
ELECTRICAL DATA

MODEL	VOLTAGE 50/60 Hz	CENTRE DISTANCE mm	CONTOURFLANGES ON REQUEST	ELECTRICAL DATA		MINIMUM HEAD PRESSURE
				P1 MAX W	I _n A	
DPH-E 60/250-40	230 V	250	DN 40 - PN 10	344	2	t° 75° 90° 110° 120° mt. 1,6 4 - 19

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.

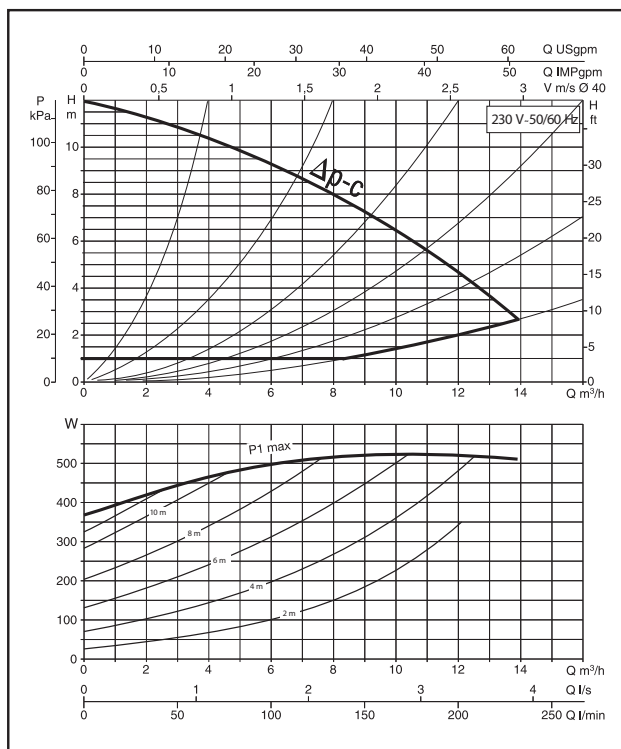
CIRCULATORS FOR HEATING AND AIR-CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum operating pressure: 10 bar (1000 kPa)

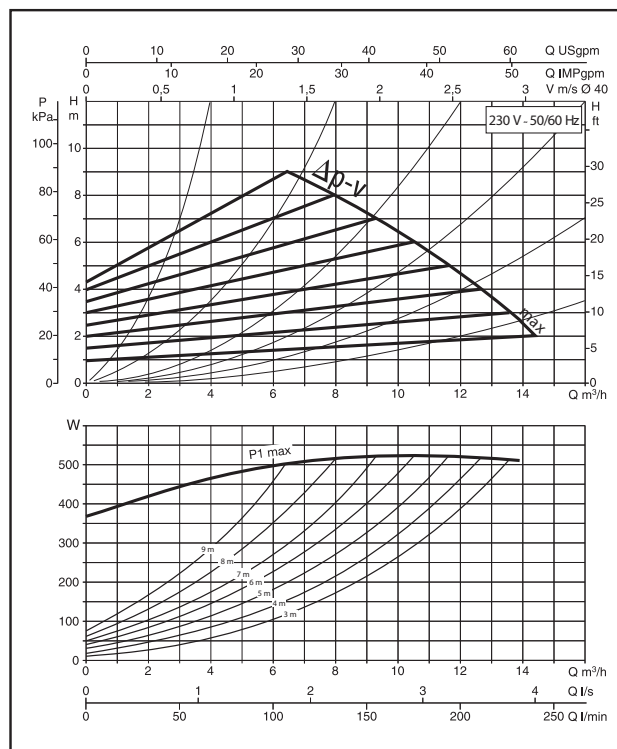


BPH-E 120/250.40 M

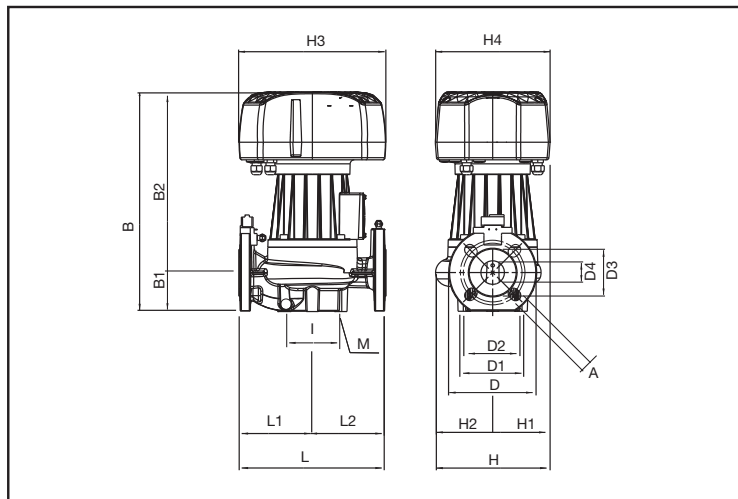
Characteristic curves Δp -c (constant)



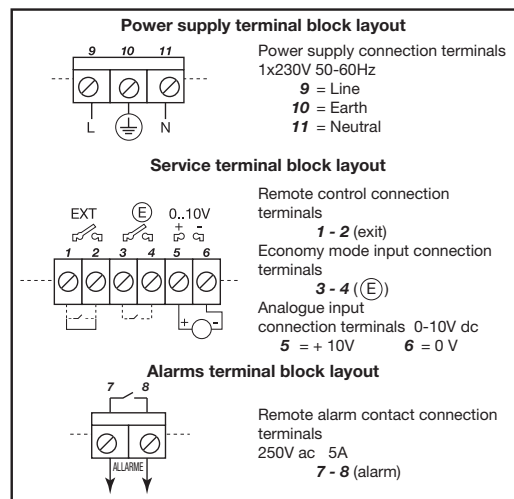
Characteristic curves Δp -v (variable)



Dimensions



Terminals block layout



DIMENSIONS

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	H3	H4
250	125	125	18	374	66	308	150	100	100	80	40	100	-	-	-	M10	195	83	112	250	196

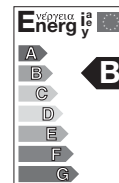
ELECTRICAL DATA

MODEL	VOLTAGE 50/60 Hz	CENTRE DISTANCE mm	CONTOFLANGES ON REQUEST	ELECTRICAL DATA		MINIMUM HEAD PRESSURE				
				P1 MAX W	I _n A	t° mt.	75° 6	90° 9	110° -	120° 23
BPH-E 120/250-40	230 V	250	DN 40 - PN 10	528	3					

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.

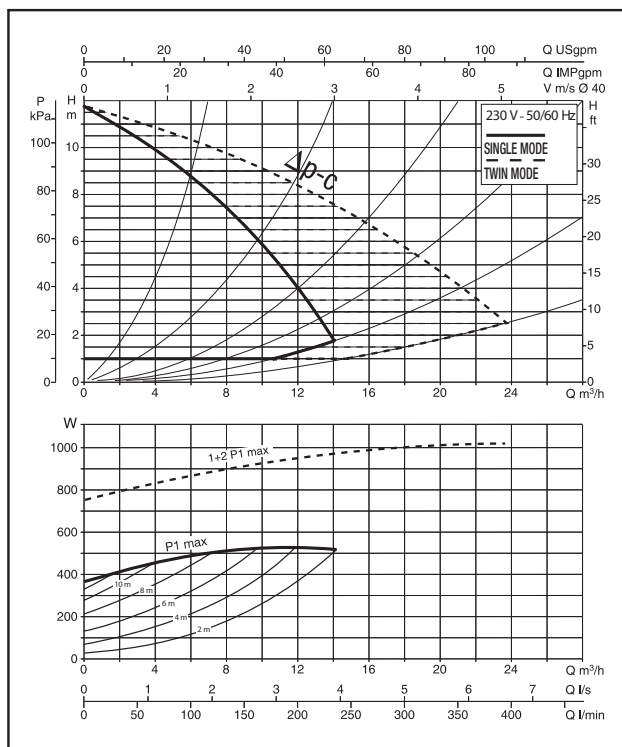
CIRCULATORS FOR HEATING AND AIR-CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum operating pressure: 10 bar (1000 kPa)

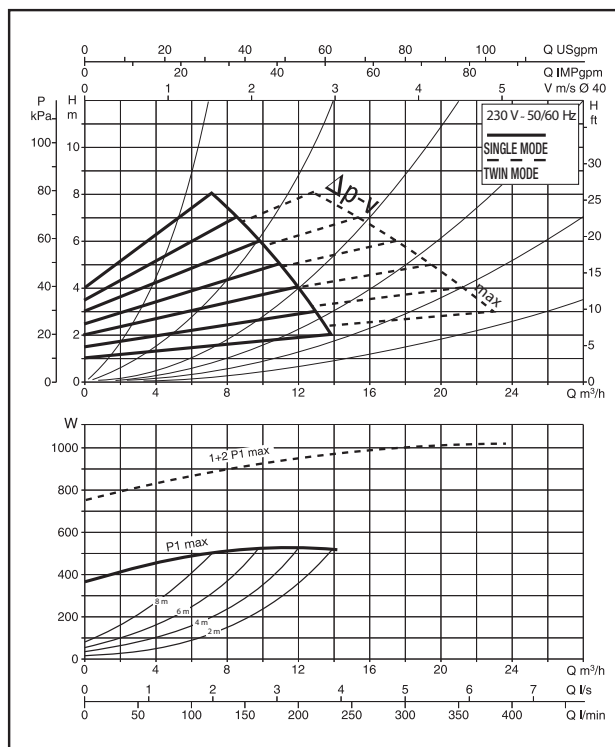


DPH-E 120/250.40 M

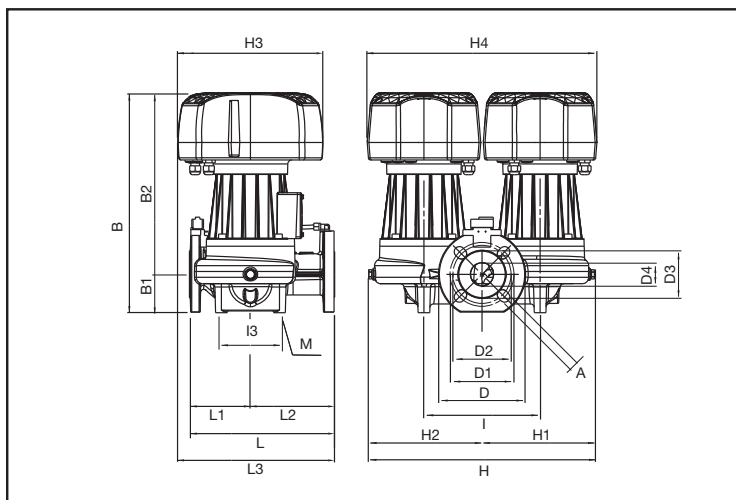
Characteristic curves Δp -c (constant)



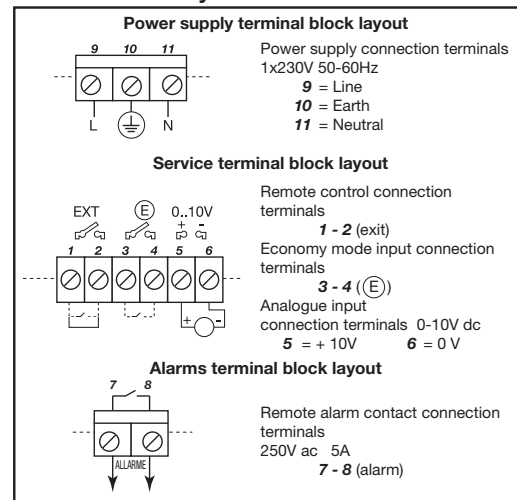
Characteristic curves Δp -v (variable)



Dimensions



Terminals block layout



DIMENSIONS

L	L1	L2	L3	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	H3	H4
250	105	145	270	18	378	66	312	150	110	100	80	40	200	100	100	100	M12	389	194,5	195	250	396

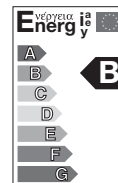
ELECTRICAL DATA

MODEL	VOLTAGE 50/60 Hz	CENTRE DISTANCE mm	CONTOFLANGES ON REQUEST	ELECTRICAL DATA		MINIMUM HEAD PRESSURE				
				P1 MAX W	I _n A	t° mt.	75° 6	90° 9	110° -	120° 23
DPH-E 120/250-40	230 V	250	DN 40 - PN 10	528	3					

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.

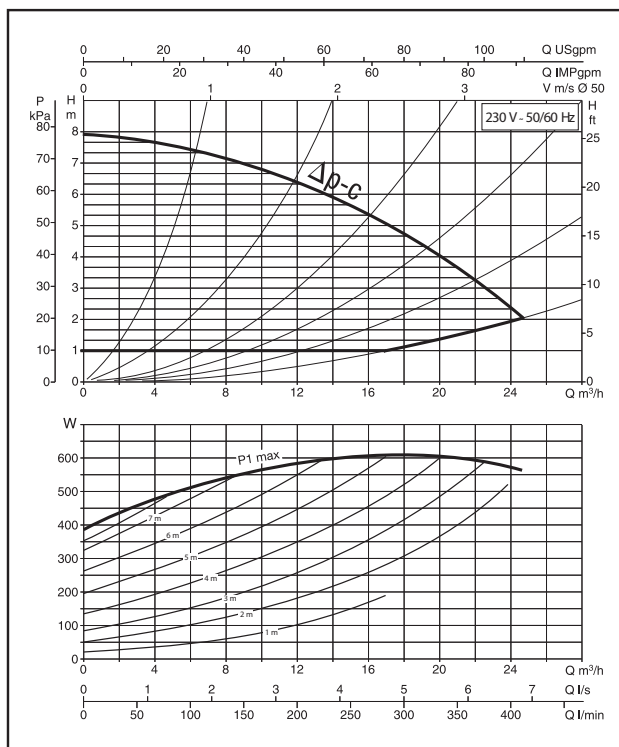
CIRCULATORS FOR HEATING AND AIR-CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum operating pressure: 10 bar (1000 kPa)

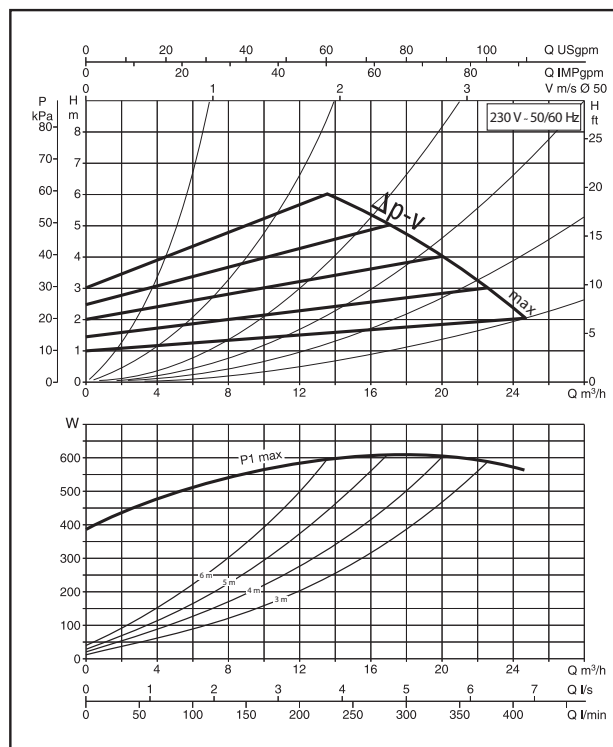


BPH-E 60/280.50 M

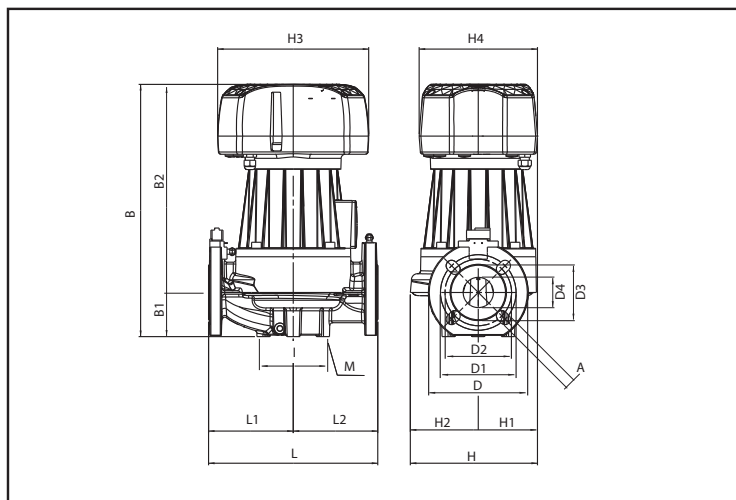
Characteristic curves Δp -c (constant)



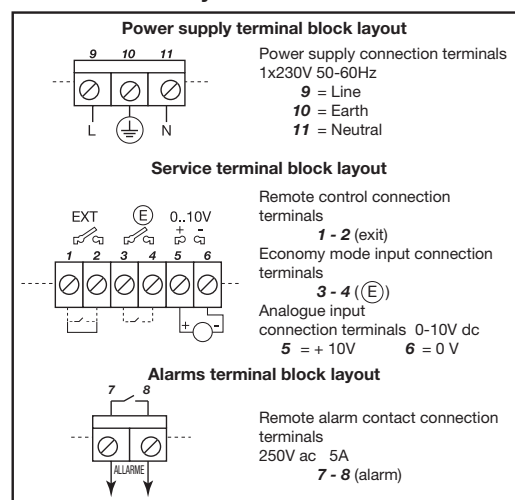
Characteristic curves Δp -v (variable)



Dimensions



Terminals block layout



DIMENSIONS

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	H3	H4
280	140	140	18	417	73	344	165	125	110	90	50	100	-	-	-	M10	210	96	114	250	196

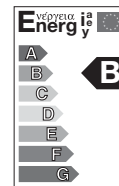
ELECTRICAL DATA

MODEL	VOLTAGE 50/60 Hz	CENTRE DISTANCE mm	CONTOURFLANGES ON REQUEST	ELECTRICAL DATA		MINIMUM HEAD PRESSURE				
				P1 MAX W	In A					
BPH-E 60/280-50	230 V	280	DN 50 - PN 10	606	3,37	t° mt.	75° 4	90° 7,5	110° -	120° 21

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.

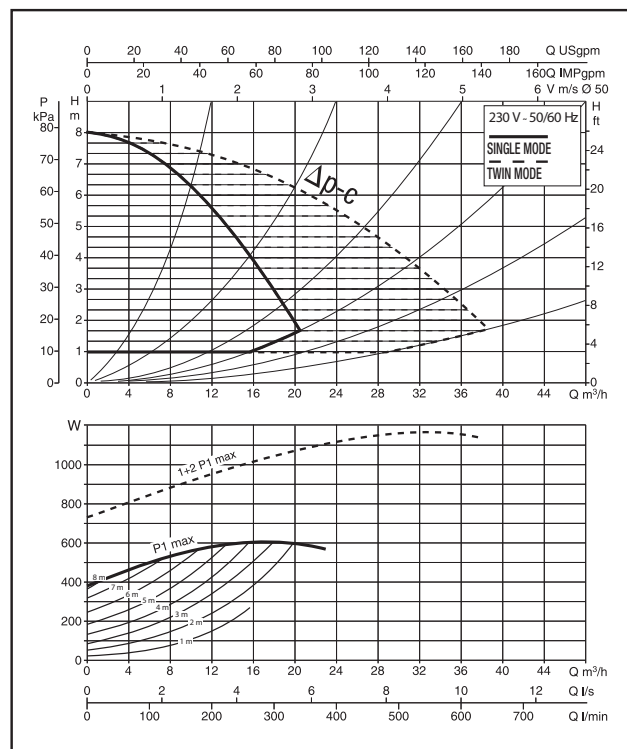
CIRCULATORS FOR HEATING AND AIR-CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum operating pressure: 10 bar (1000 kPa)

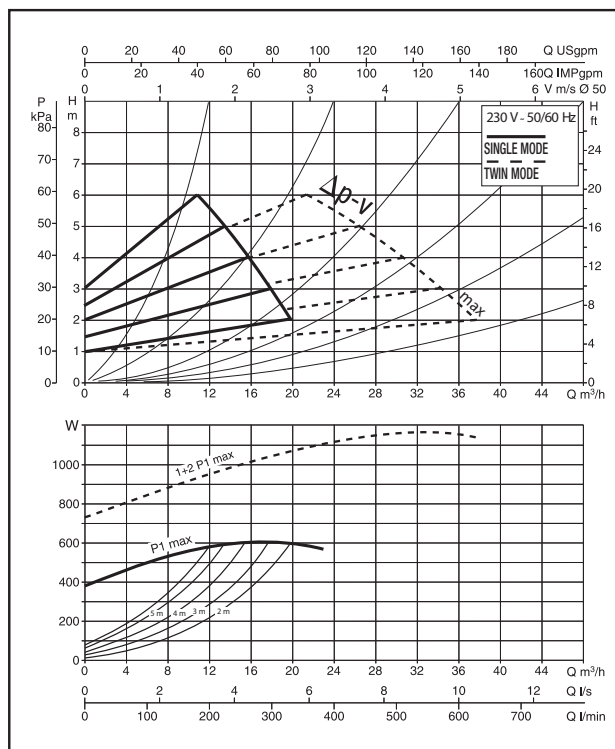


DPH-E 60/280.50 M

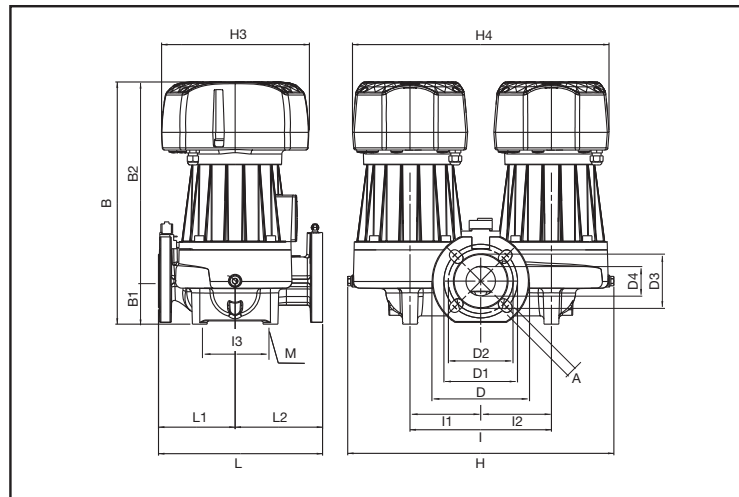
Characteristic curves Δp -c (constant)



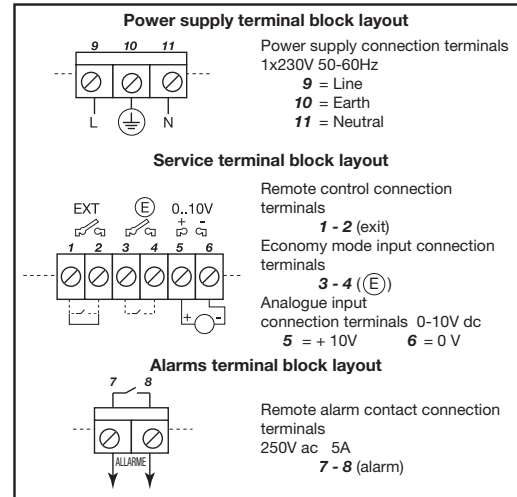
Characteristic curves Δp -v (variable)



Dimensions



Terminals block layout



DIMENSIONS

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	H3	H4
280	130	150	18	411	73	338	165	125	110	90	50	240	120	120	120	M14	452	226	226	250	436

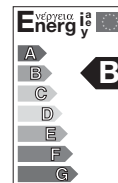
ELECTRICAL DATA

MODEL	VOLTAGE 50/60 Hz	CENTRE DISTANCE mm	CONTROFLANGES ON REQUEST	ELECTRICAL DATA		MINIMUM HEAD PRESSURE
				P1 MAX W	I _n A	
DPH-E 60/280-50	230 V	280	DN 50 - PN 10	606	3,37	t° 75° 90° 110° 120° mt. 4 7,5 - 21

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.

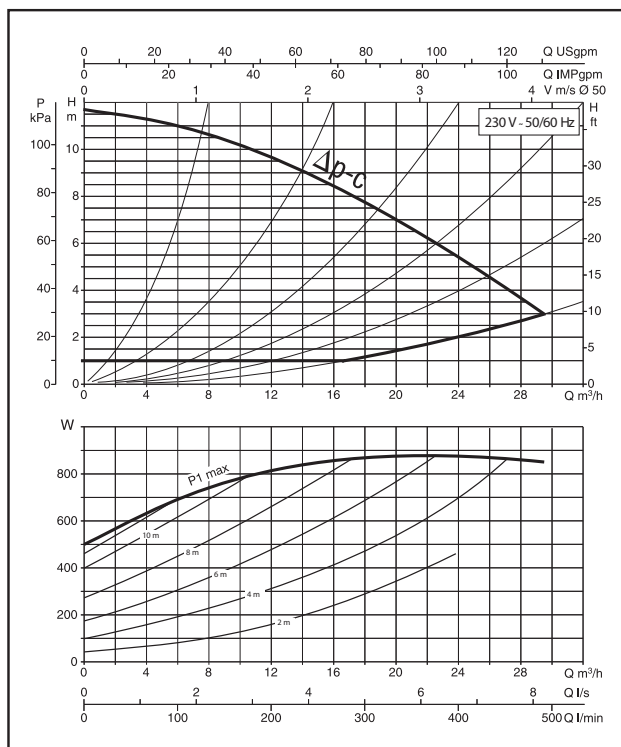
CIRCULATORS FOR HEATING AND AIR-CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum operating pressure: 10 bar (1000 kPa)

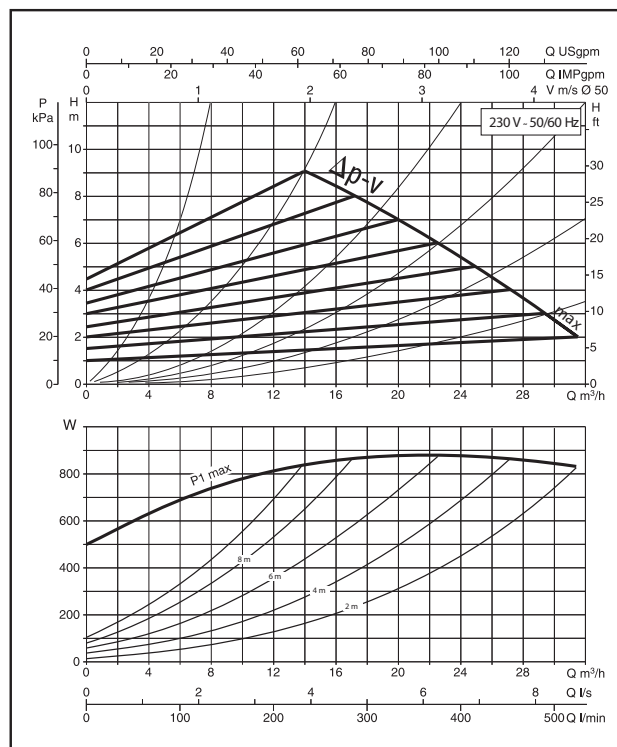


BPH-E 120/280.50 M

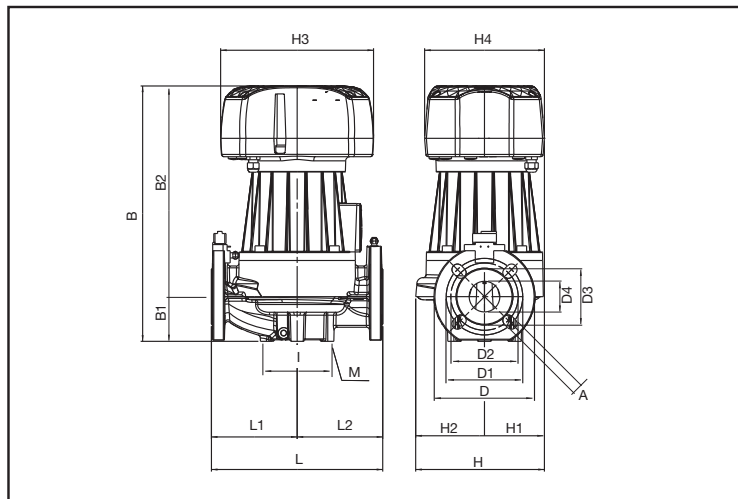
Characteristic curves Δp -c (constant)



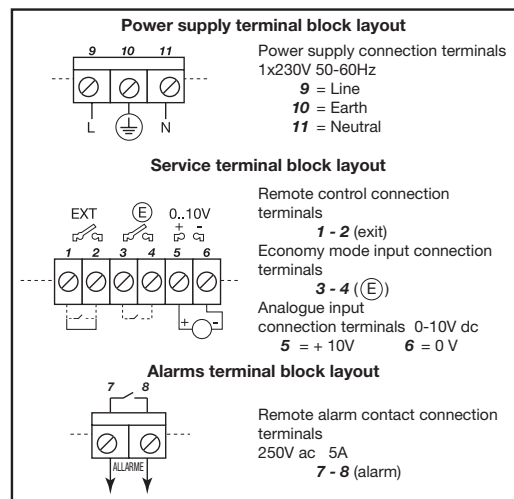
Characteristic curves Δp -v (variable)



Dimensions



Terminals block layout



DIMENSIONS

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	H3	H4
280	140	140	18	417	73	344	165	125	110	90	50	100	-	-	-	M10	210	96	114	250	196

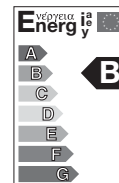
ELECTRICAL DATA

MODEL	VOLTAGE 50/60 Hz	CENTRE DISTANCE mm	CONTOFLANGES ON REQUEST	ELECTRICAL DATA		MINIMUM HEAD PRESSURE				
				P1 MAX W	I _n A	t° mt.	75° 2	90° 5	110° -	120° 20
BPH-E 120/280-50	230 V	280	DN 50 - PN 10	893	4,84					

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.

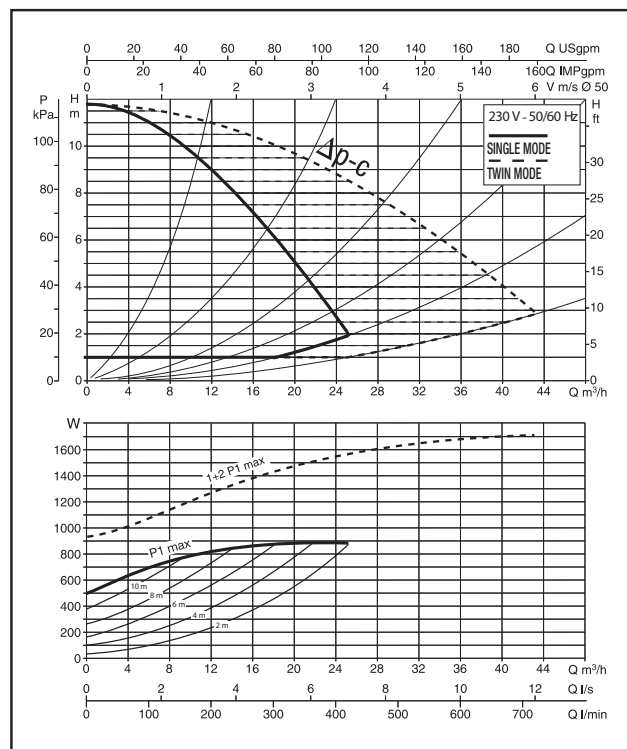
CIRCULATORS FOR HEATING AND AIR-CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum operating pressure: 10 bar (1000 kPa)

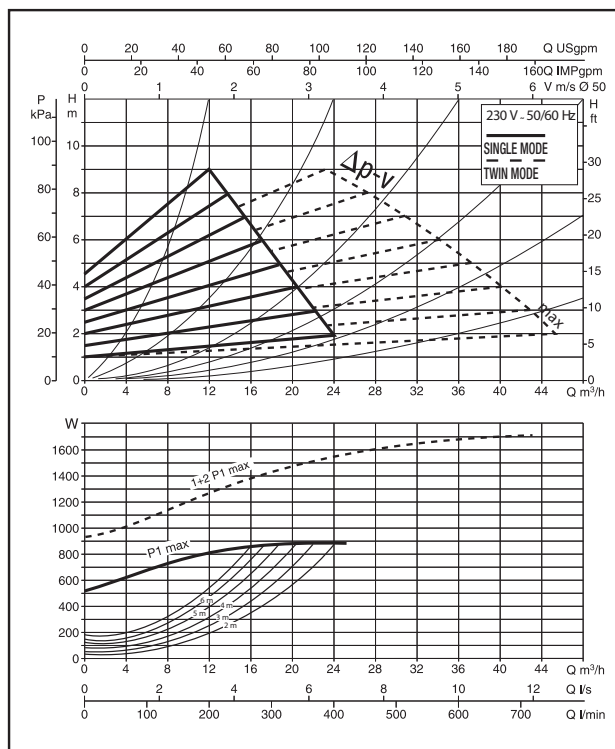


DPH-E 120/280.50 M

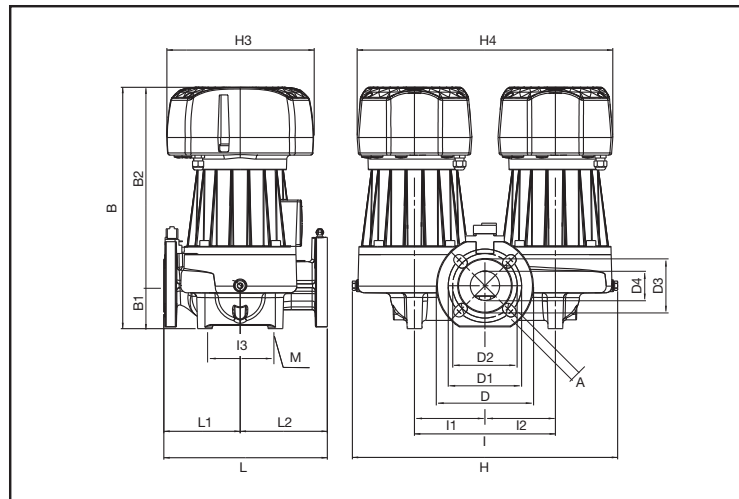
Characteristic curves Δp -c (constant)



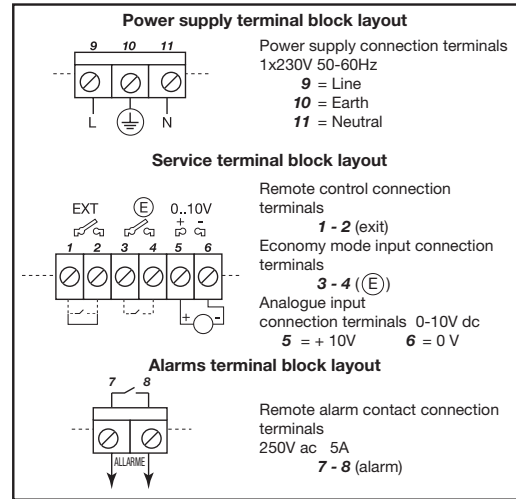
Characteristic curves Δp -v (variable)



Dimensions



Terminals block layout



DIMENSIONS

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	H3	H4
280	130	150	18	411	73	338	165	125	110	90	50	240	120	120	120	M14	452	226	226	250	436

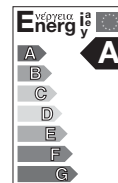
ELECTRICAL DATA

MODEL	VOLTAGE 50/60 Hz	CENTRE DISTANCE mm	CONTROFLANGES ON REQUEST	ELECTRICAL DATA		MINIMUM HEAD PRESSURE				
				P1 MAX W	I _n A					
DPH-E 120/280-50	230 V	280	DN 50 - PN 10	893	4,84	t° mt.	75° 2	90° 5	110° -	120° 20

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.

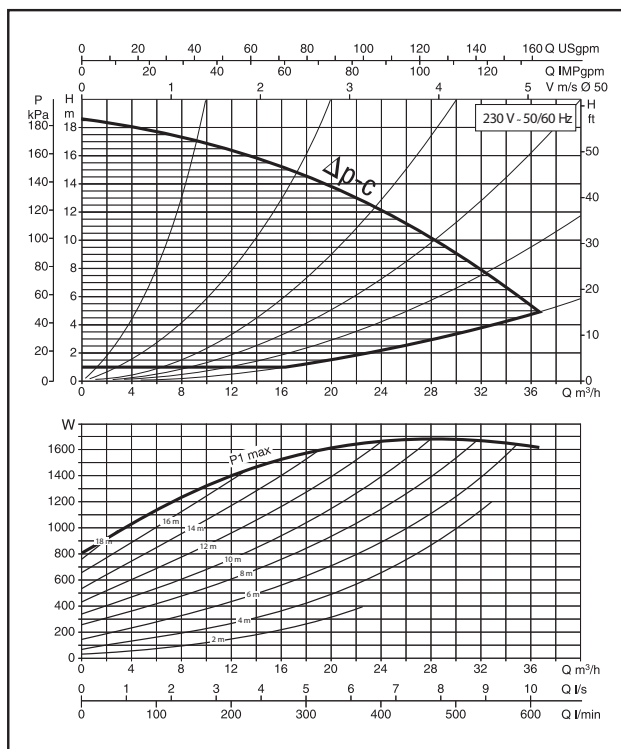
CIRCULATORS FOR HEATING AND AIR-CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum operating pressure: 10 bar (1000 kPa)

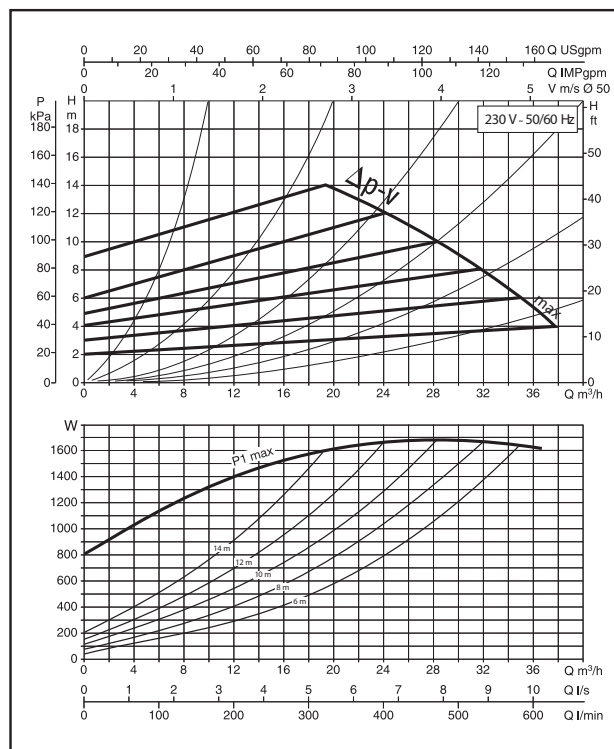


BPH-E 180/280.50 M

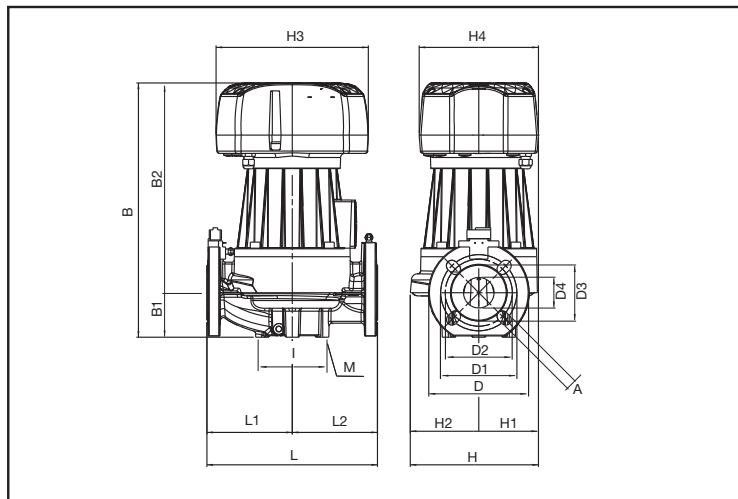
Characteristic curves Δp -c (constant)



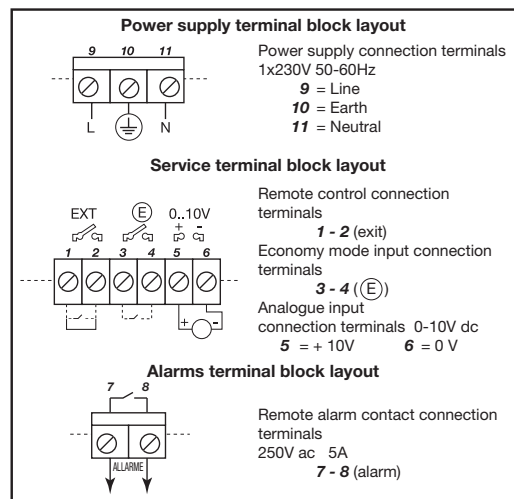
Characteristic curves Δp -v (variable)



Dimensions



Terminals block layout



DIMENSIONS

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	H3	H4
280	140	140	18	467	73	394	165	125	110	90	50	100	-	-	-	M10	210	96	114	250	196

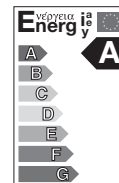
ELECTRICAL DATA

MODEL	VOLTAGE 50/60 Hz	CENTRE DISTANCE mm	CONTOFLANGES ON REQUEST	ELECTRICAL DATA		MINIMUM HEAD PRESSURE				
				P1 MAX W	I _n A					
BPH-E 180/280-50	230 V	280	DN 50 - PN 10	1693	9,2	t° mt.	75° 2	90° 5	110° -	120° 20

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.

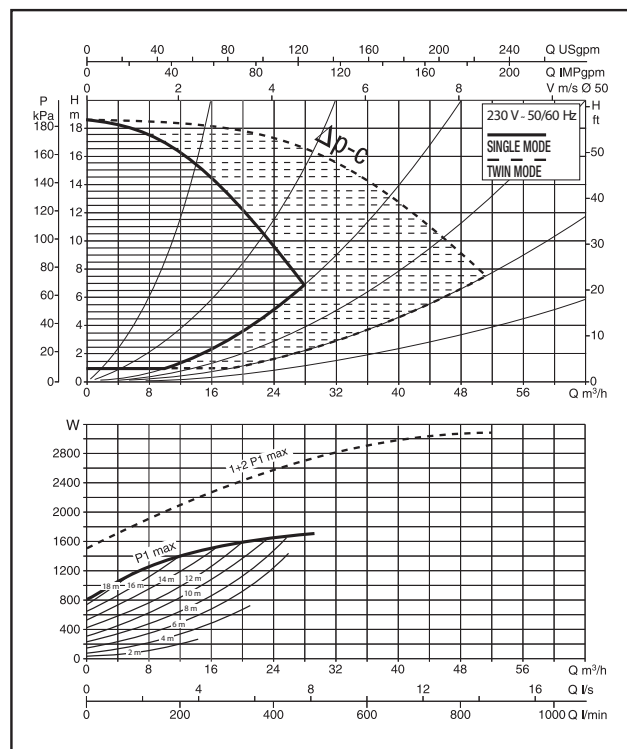
CIRCULATORS FOR HEATING AND AIR-CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum operating pressure: 10 bar (1000 kPa)

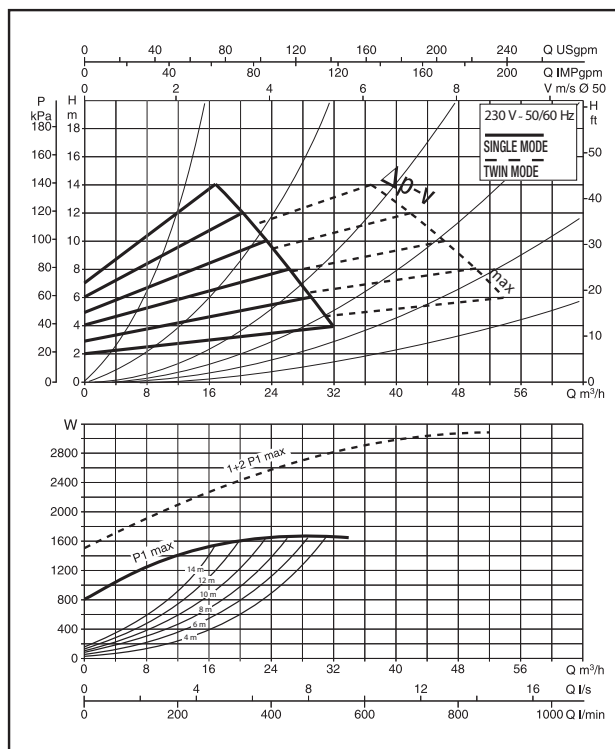


DPH-E 180/280.50 M

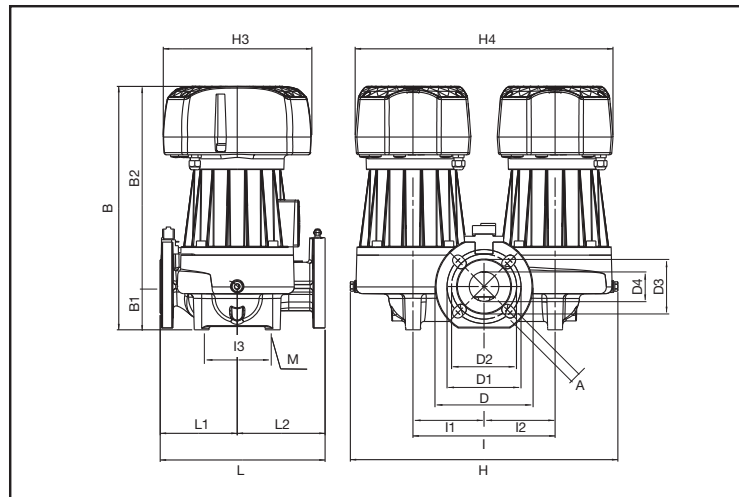
Characteristic curves Δp -c (constant)



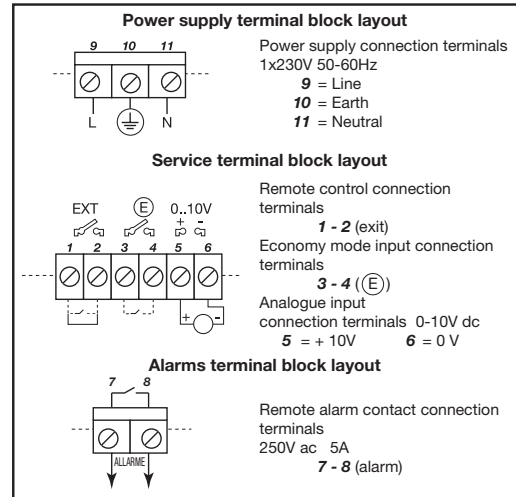
Characteristic curves Δp -v (variable)



Dimensions



Terminals block layout



DIMENSIONS

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	H3	H4
280	130	150	18	461	73	388	165	125	110	90	50	240	120	120	120	M14	452	226	226	250	436

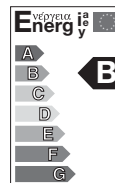
ELECTRICAL DATA

MODEL	VOLTAGE 50/60 Hz	CENTRE DISTANCE mm	CONTOFLANGES ON REQUEST	ELECTRICAL DATA		MINIMUM HEAD PRESSURE				
				P1 MAX W	I _n A					
DPH-E 180/280-50	230 V	280	DN 50 - PN 10	1693	9,2	t°	75°	90°	110°	120°
						mt.	2	5	-	20

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.

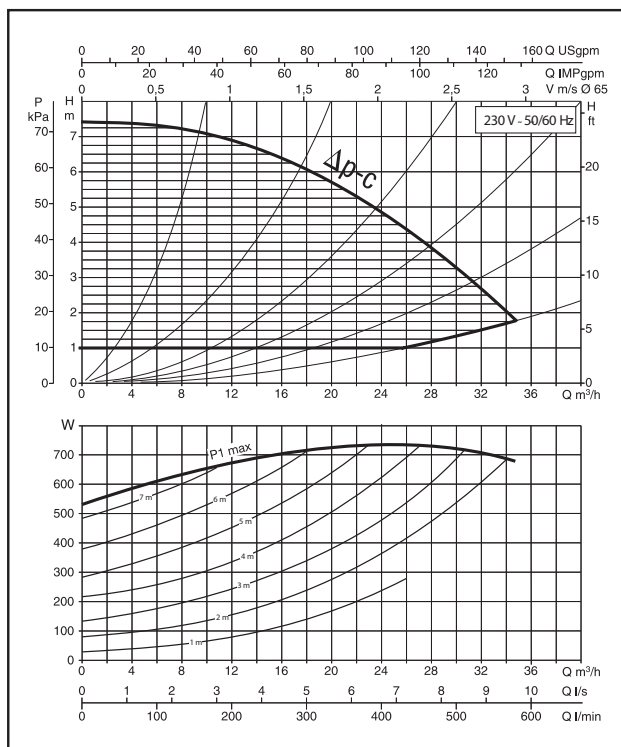
CIRCULATORS FOR HEATING AND AIR-CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum operating pressure: 10 bar (1000 kPa)

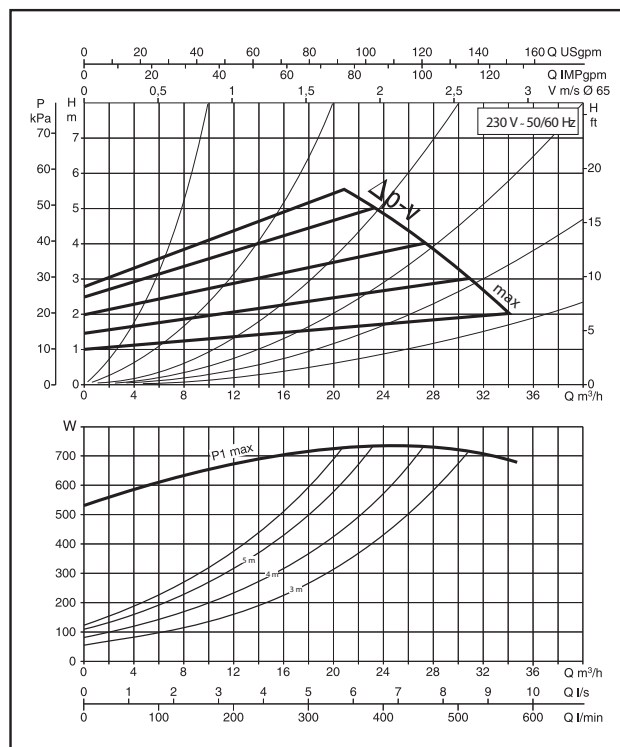


BPH-E 60/340.65 M

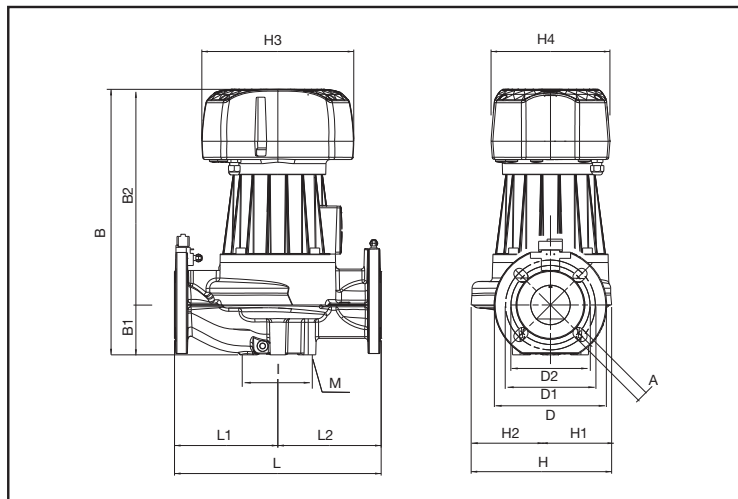
Characteristic curves Δp -c (constant)



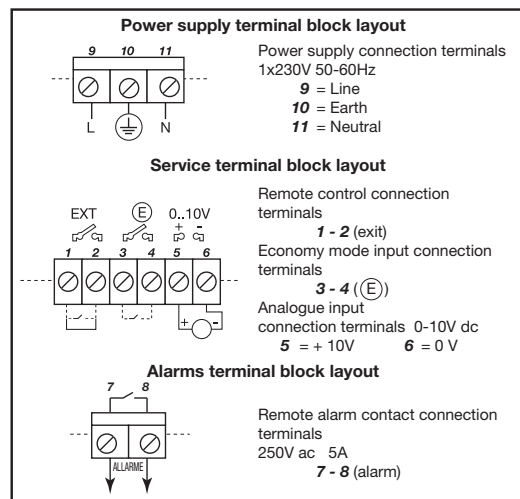
Characteristic curves Δp -v (variable)



Dimensions



Terminals block layout



DIMENSIONS

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	H3	H4
340	170	170	18	437	82	355	185	145	130	110	65	100	-	-	-	M12	231	100	131	250	196

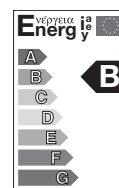
ELECTRICAL DATA

MODEL	VOLTAGE 50/60 Hz	CENTRE DISTANCE mm	CONTOFLANGES ON REQUEST	ELECTRICAL DATA		MINIMUM HEAD PRESSURE
				P1 MAX W	I _n A	
BPH-E 60/340-65	230 V	340	DN 65 - PN 10	744	4,1	t° 75° 90° 110° 120° mt. 1 4 - 18

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.

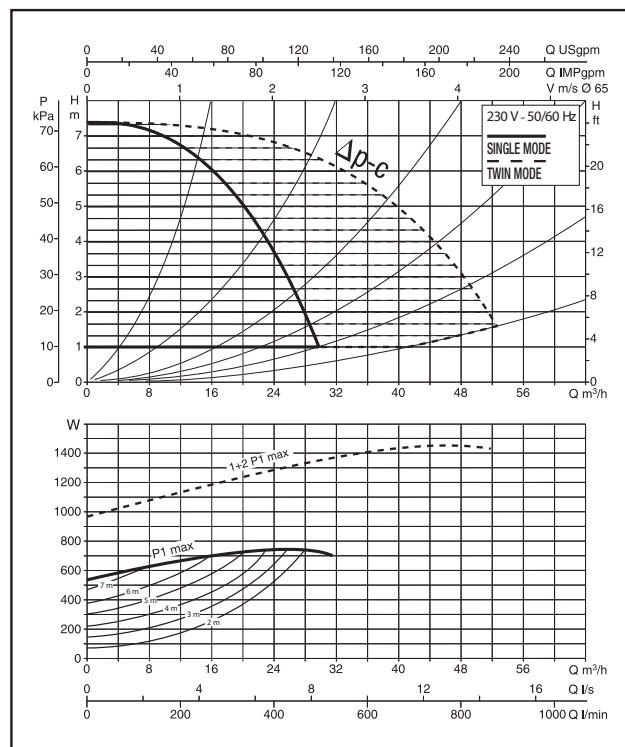
CIRCULATORS FOR HEATING AND AIR-CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum operating pressure: 10 bar (1000 kPa)

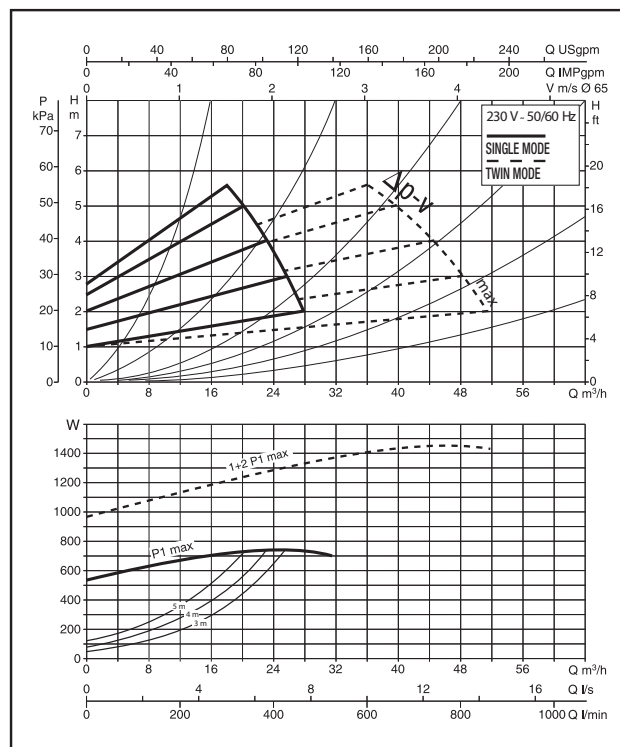


DPH-E 60/340.65 M

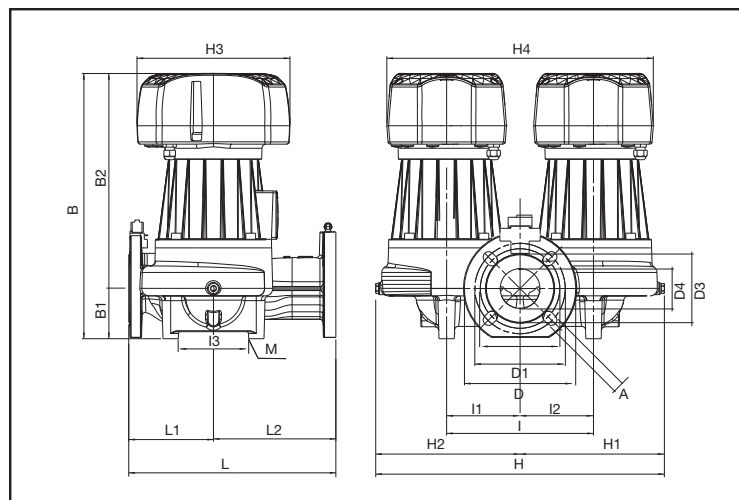
Characteristic curves Δp -c (constant)



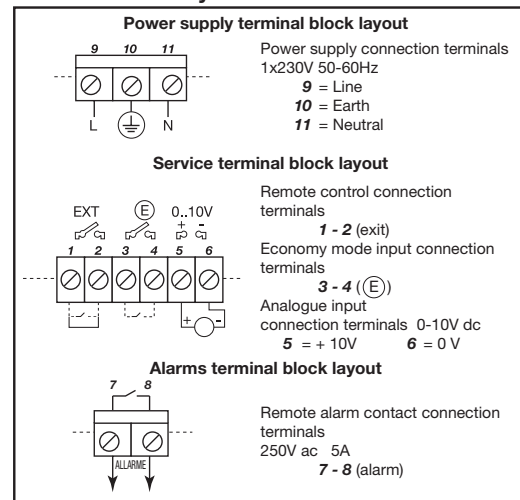
Characteristic curves Δp -v (variable)



Dimensions



Terminals block layout



DIMENSIONS

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	H3	H4
340	138,5	201,5	18	433	82	351	185	145	130	110	65	240	120	120	140	M14	472	236	236	250	436

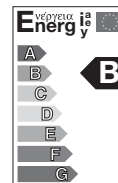
ELECTRICAL DATA

MODEL	VOLTAGE 50/60 Hz	CENTRE DISTANCE mm	CONTROFLANGES ON REQUEST	ELECTRICAL DATA		MINIMUM HEAD PRESSURE				
				P1 MAX W	In A					
DPH-E 60/340-65	230 V	340	DN 65 - PN 10	744	4,1	t° mt.	75° 1	90° 4	110° -	120° 18

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.

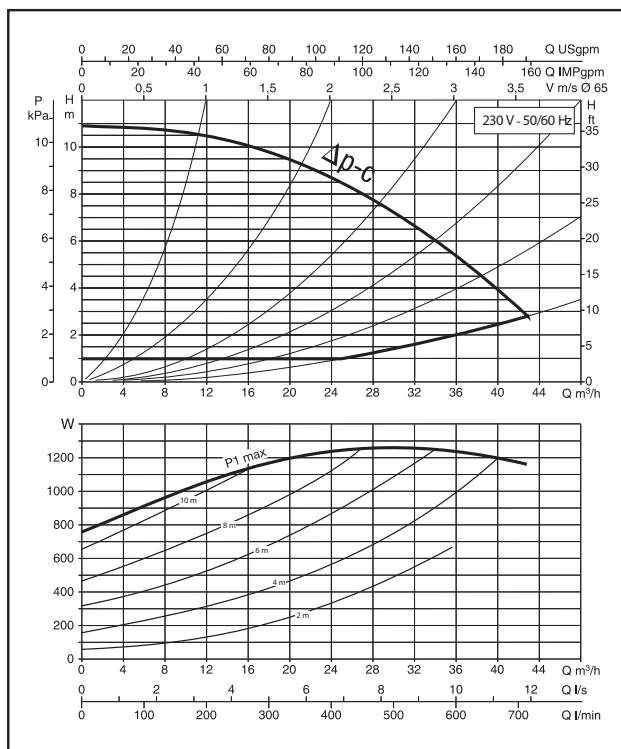
CIRCULATORS FOR HEATING AND AIR-CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum operating pressure: 10 bar (1000 kPa)

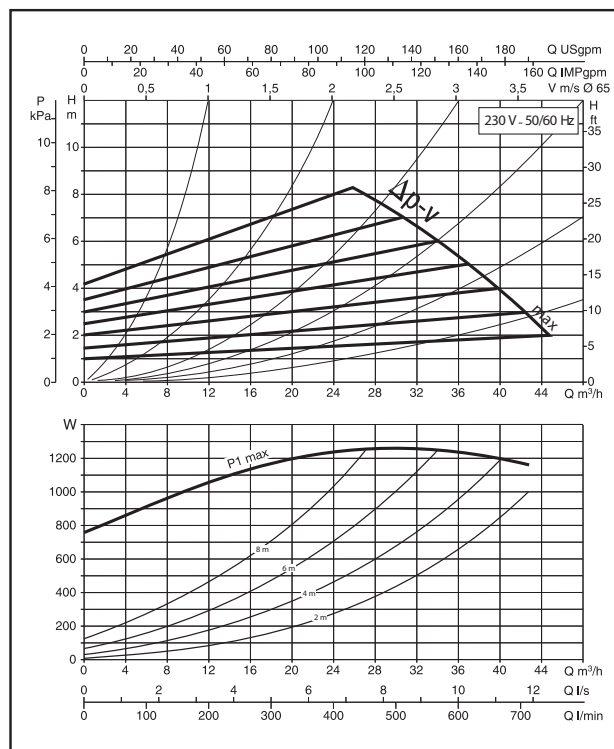


BPH-E 120/340.65 M

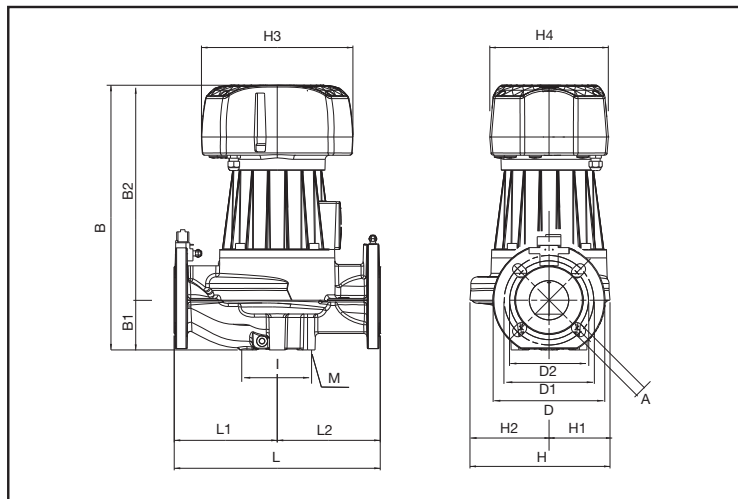
Characteristic curves Δp -c (constant)



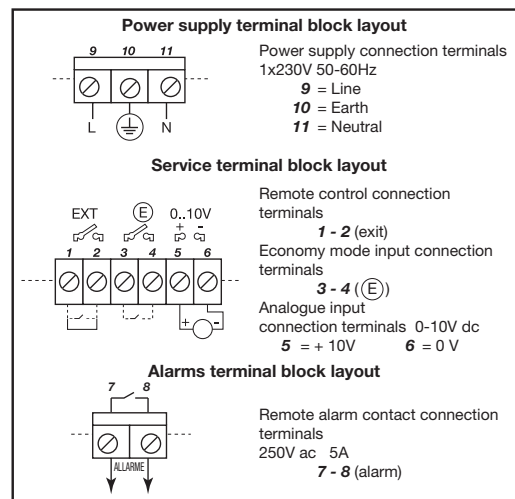
Characteristic curves Δp -v (variable)



Dimensions



Terminals block layout



DIMENSIONS

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	H3	H4
340	170	170	18	487	82	405	185	145	130	110	65	100	-	-	-	M12	231	100	131	250	196

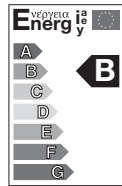
ELECTRICAL DATA

MODEL	VOLTAGE 50/60 Hz	CENTRE DISTANCE mm	CONTOFLANGES ON REQUEST	ELECTRICAL DATA		MINIMUM HEAD PRESSURE
				P1 MAX W	I _n A	
BPH-E 120/340-65	230 V	340	DN 65 - PN 10	1262	6,72	t° 75° 90° 110° 120° mt. 7 11 18 -

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.

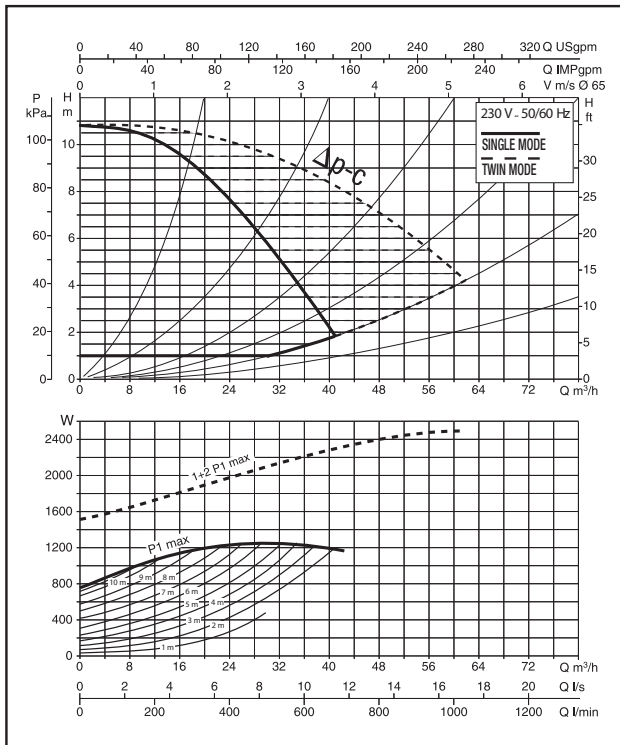
CIRCULATORS FOR HEATING AND AIR-CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum operating pressure: 10 bar (1000 kPa)

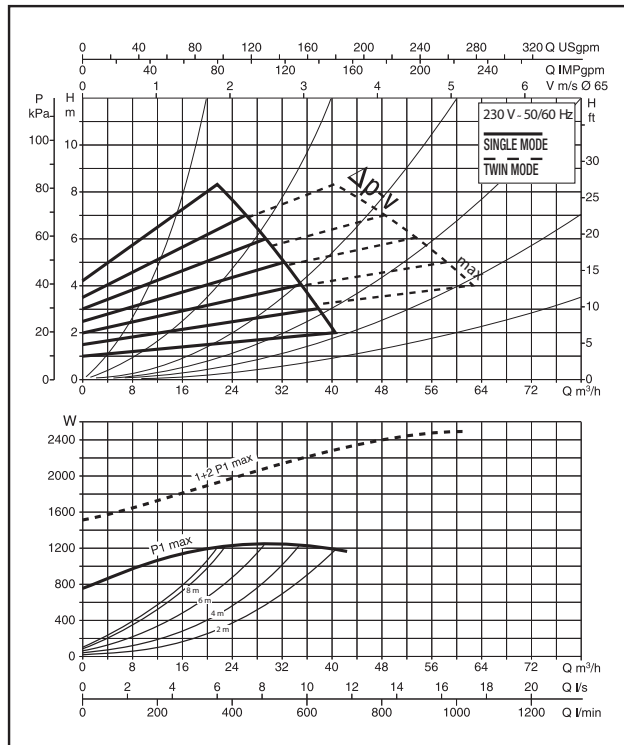


DPH-E 120/340.65 M

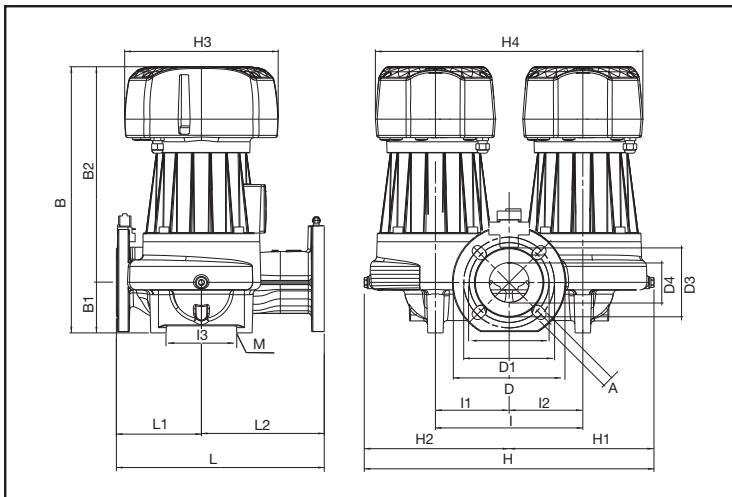
Characteristic curves Δp -c (constant)



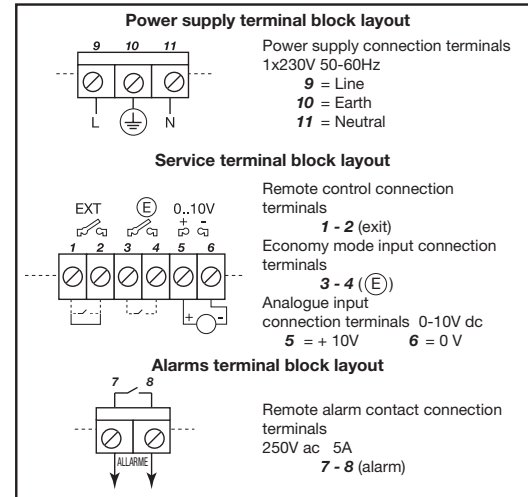
Characteristic curves Δp -v (variable)



Dimensions



Terminals block layout



DIMENSIONS

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	H3	H4
340	138,5	201,5	18	483	82	220	185	145	130	110	65	240	120	120	140	M14	472	236	236	250	436

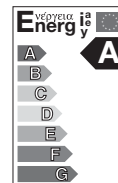
ELECTRICAL DATA

MODEL	VOLTAGE 50/60 Hz	CENTRE DISTANCE mm	CONTOFLANGES ON REQUEST	ELECTRICAL DATA		MINIMUM HEAD PRESSURE				
				P1 MAX W	I _n A					
DPH-E 120/340-65	230 V	340	DN 65 - PN 10	1262	6,72	t° mt.	75° 7	90° 11	110° 18	120° -

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.

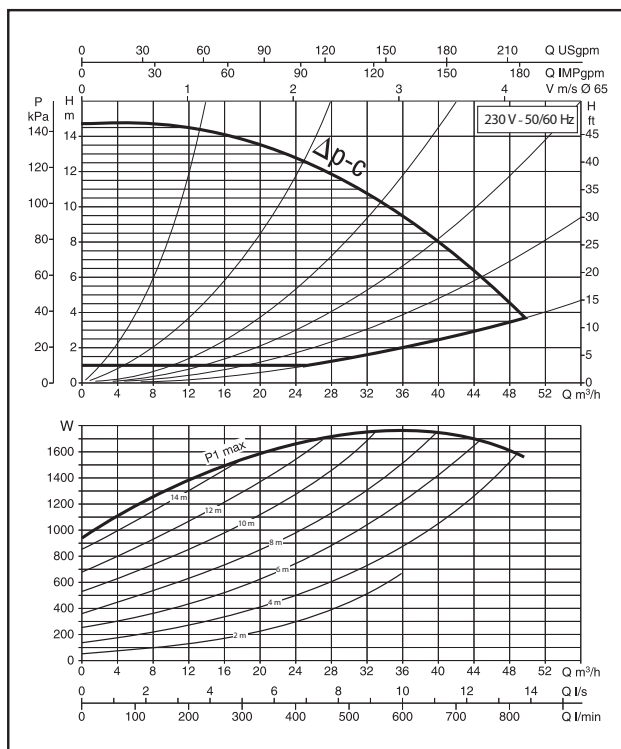
CIRCULATORS FOR HEATING AND AIR-CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum operating pressure: 10 bar (1000 kPa)

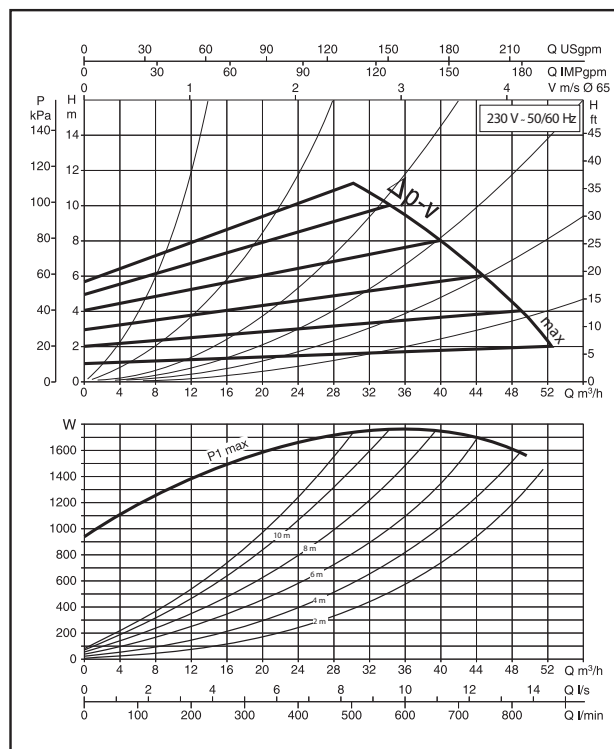


BPH-E 150/340.65 M

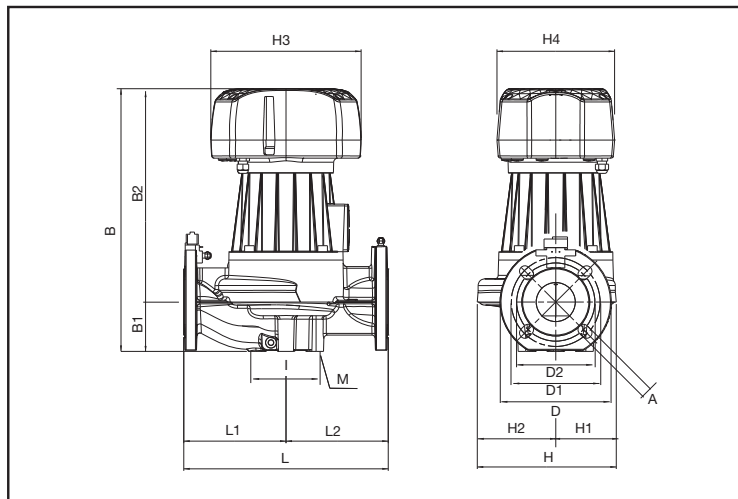
Characteristic curves Δp -c (constant)



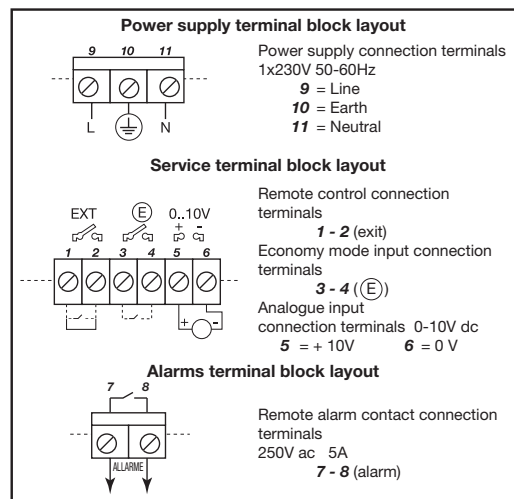
Characteristic curves Δp -v (variable)



Dimensions



Terminals block layout



DIMENSIONS

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	H3	H4
340	170	170	18	487	82	405	185	145	130	110	65	100	-	-	-	M12	231	100	131	250	196

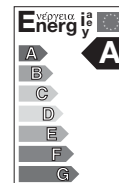
ELECTRICAL DATA

MODEL	VOLTAGE 50/60 Hz	CENTRE DISTANCE mm	CONTOFLANGES ON REQUEST	ELECTRICAL DATA		MINIMUM HEAD PRESSURE				
				P1 MAX W	I _n A	t° mt.	75° 7	90° 11	110° 18	120° -
BPH-E 150/340-65	230 V	340	DN 65 - PN 10	1767	9,2					

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.

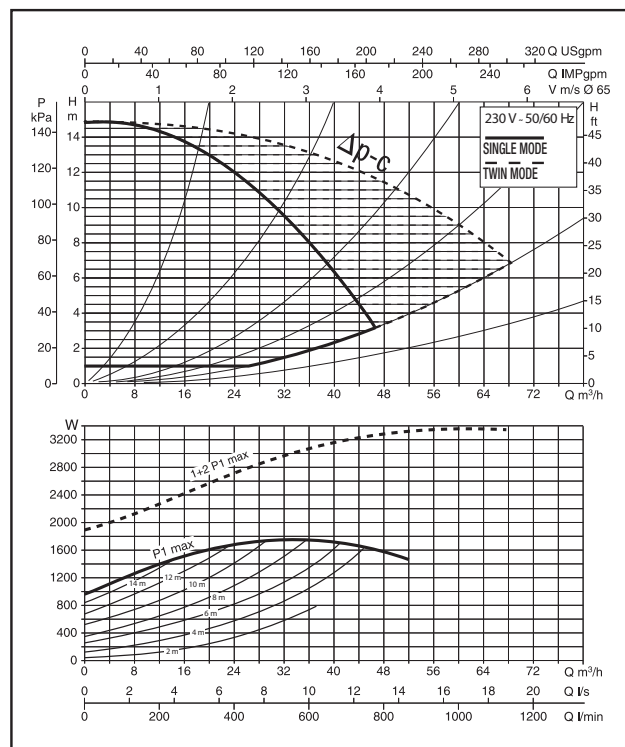
CIRCULATORS FOR HEATING AND AIR-CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum operating pressure: 10 bar (1000 kPa)

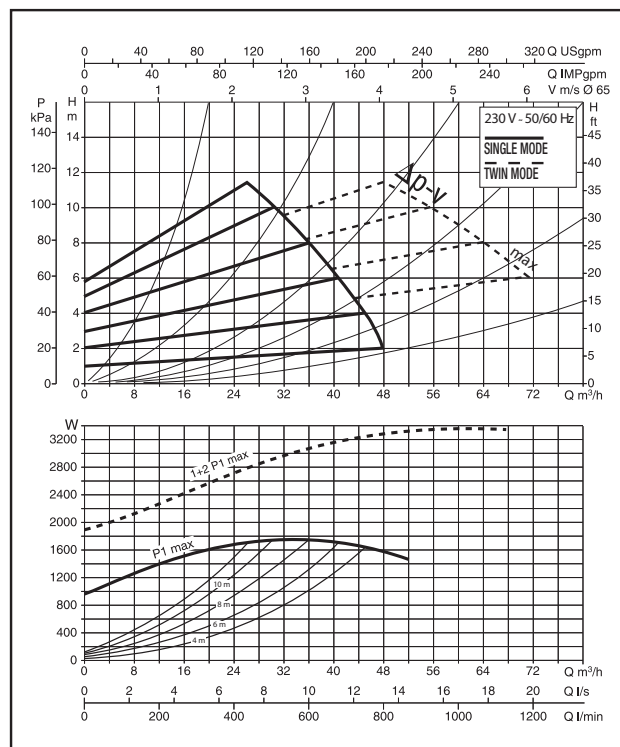


DPH-E 150/340.65 M

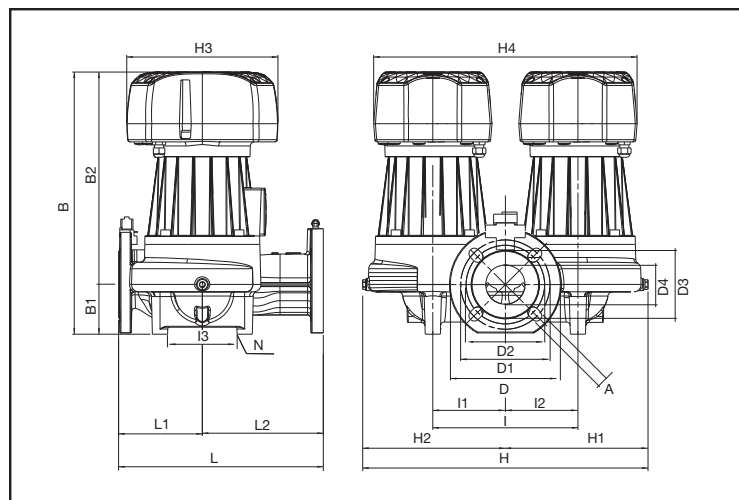
Characteristic curves Δp -c (constant)



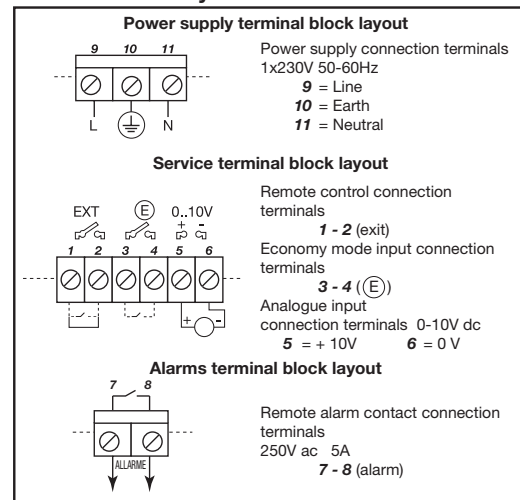
Characteristic curves Δp -v (variable)



Dimensions



Terminals block layout



DIMENSIONS

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	H3	H4
340	138,5	201,5	18	483	82	220	185	145	130	110	65	240	120	120	140	M14	472	236	236	250	436

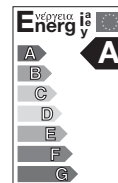
ELECTRICAL DATA

MODEL	VOLTAGE 50/60 Hz	CENTRE DISTANCE mm	CONTROFLANGES ON REQUEST	ELECTRICAL DATA		MINIMUM HEAD PRESSURE				
				P1 MAX W	I _n A					
DPH-E 150/340-65	230 V	340	DN 65 - PN 10	1767	9,2	t°	75°	90°	110°	120°
						mt.	7	11	18	-

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.

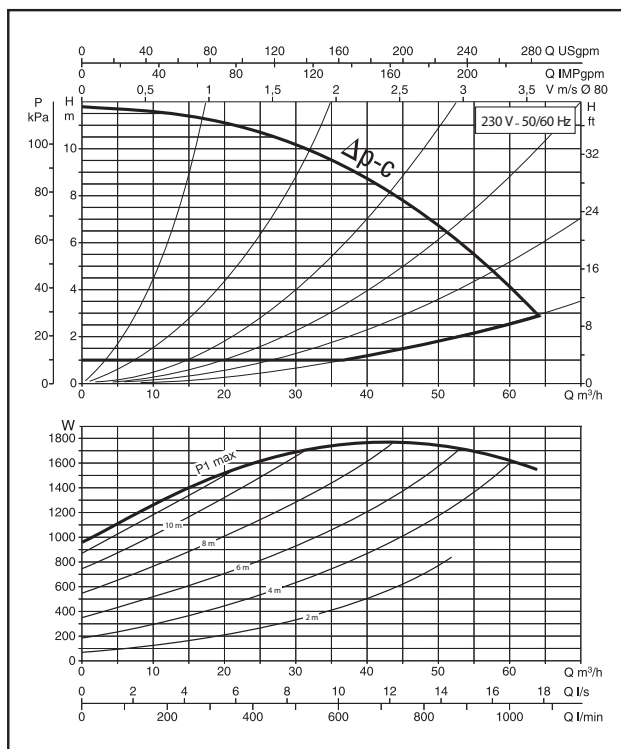
CIRCULATORS FOR HEATING AND AIR-CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum operating pressure: 10 bar (1000 kPa)

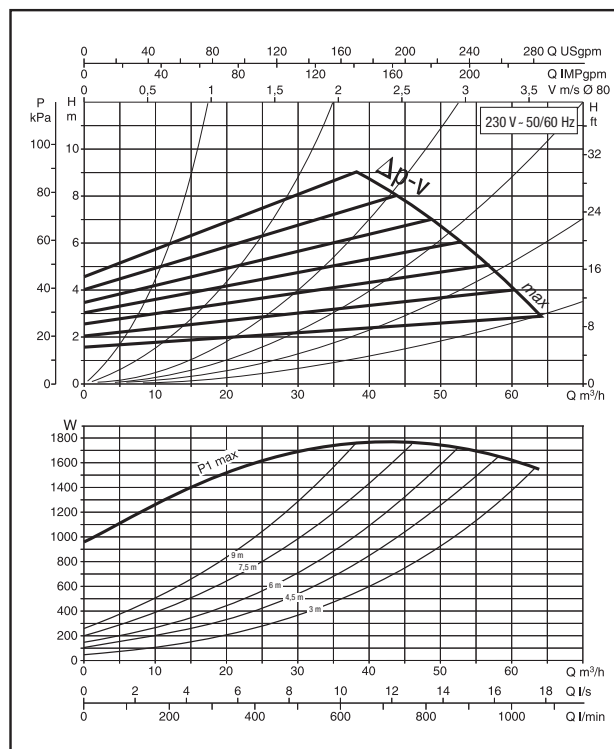


BPH-E 120/360.80 M

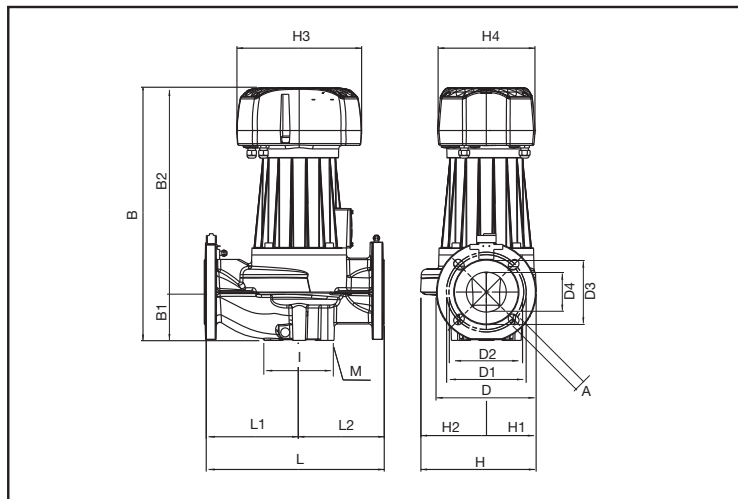
Characteristic curves Δp -c (constant)



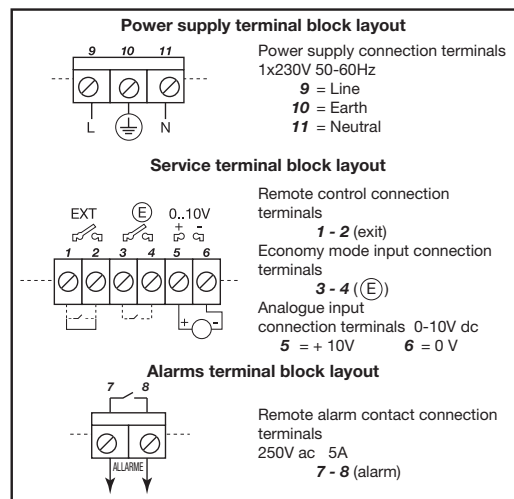
Characteristic curves Δp -v (variable)



Dimensions



Terminals block layout



DIMENSIONS

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	H3	H4
360	190	170	18	506	97	409	200	160	150	130	80	115	-	-	-	M12	232	100	132	250	196

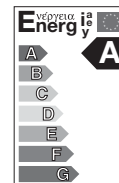
ELECTRICAL DATA

MODEL	VOLTAGE 50/60 Hz	CENTRE DISTANCE mm	CONTOFLANGES ON REQUEST	ELECTRICAL DATA		MINIMUM HEAD PRESSURE				
				P1 MAX W	I _n A	t° mt.	75° 6	90° 10	110° -	120° 22
BPH-E 120/360-80	230 V	360	DN 80 - PN 10	1789	9,23					

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.

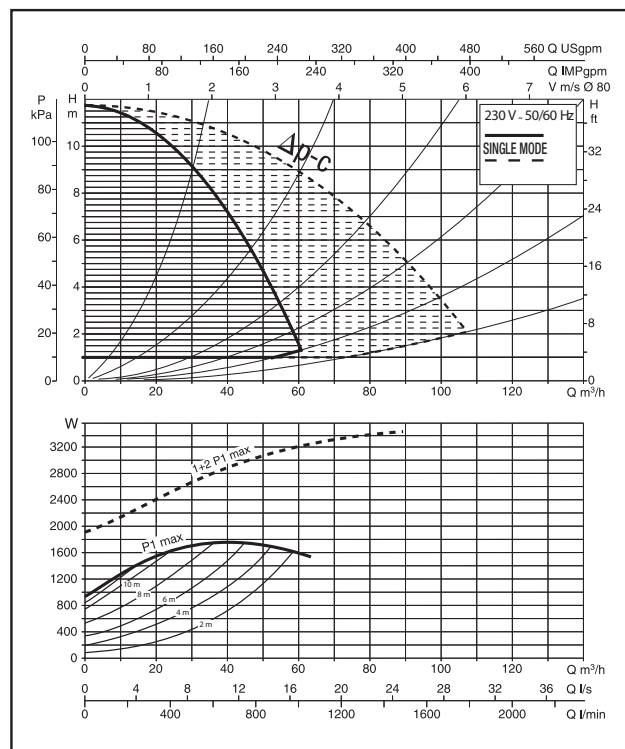
CIRCULATORS FOR HEATING AND AIR-CONDITIONING SYSTEMS

Liquid temperature range: from -10°C to +120°C
Maximum operating pressure: 10 bar (1000 kPa)

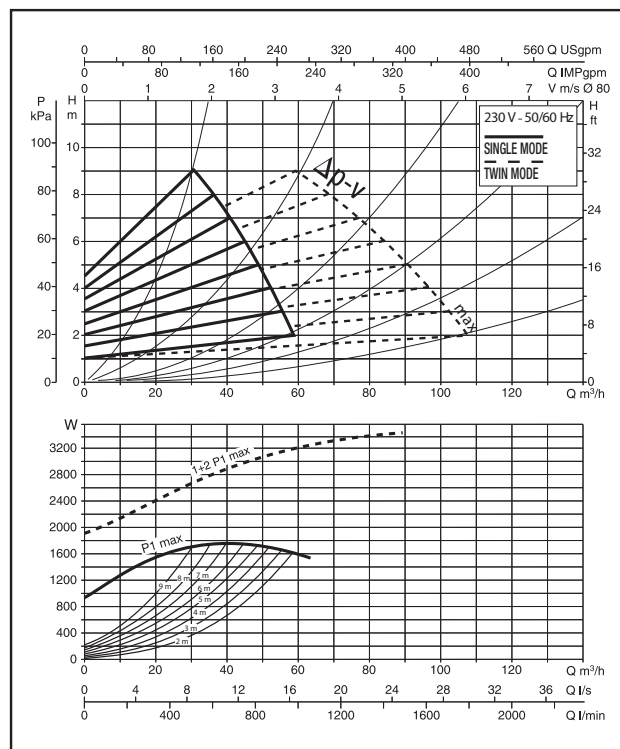


DPH-E 120/360.80 M

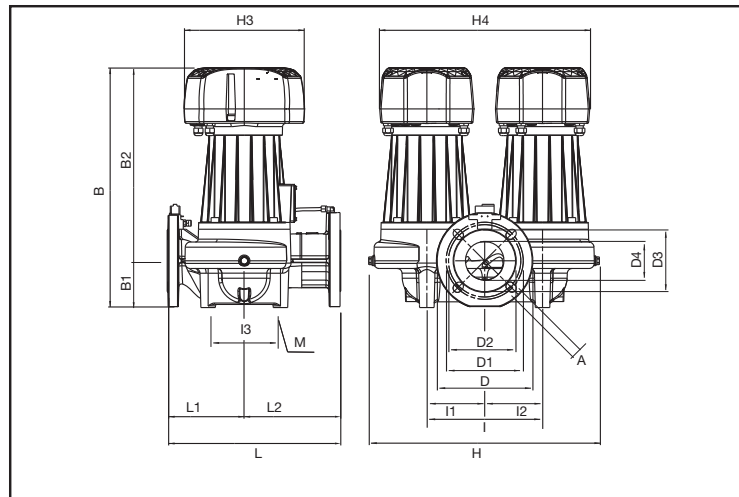
Characteristic curves Δp -c (constant)



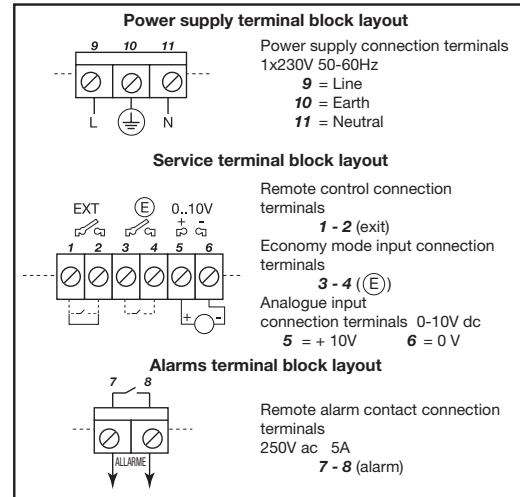
Characteristic curves Δp -v (variable)



Dimensions



Terminals block layout



DIMENSIONS

L	L1	L2	A	B	B1	B2	D	D1	D2	D3	D4	I	I1	I2	I3	M	H	H1	H2	H3	H4
360	160	200	18	497	97	400	200	160	150	130	80	240	120	120	150	M14	478	239	239	250	436

ELECTRICAL DATA

MODEL	VOLTAGE 50/60 Hz	CENTRE DISTANCE mm	CONTOFLANGES ON REQUEST	ELECTRICAL DATA		MINIMUM HEAD PRESSURE				
				P1 MAX W	I _n A					
DPH-E 120/360-80	230 V	360	DN 80 - PN 10	1789	9,20	t° mt.	75° 6	90° 10	110° -	120° 22

ACCESSORIES

UNIONS KIT AND COUNTERFLANGES KIT

MODEL	UNIONS KIT									MODEL	COUNTERFLANGES KIT						
	3/4" F	1" F	1" 1/4 F	1" 1/4 M	1/2" F BRASS	3/4" F BRASS	1" F BRASS	COPPER TO BE WELDED F 22	COPPER TO BE WELDED F 28		DIAM 1" 1/2 PN 10	DIAM 2" PN 10	DIAM 2" 1/2 PN 10	DN 32 PN 6	DN 40 PN 10	DN 80 PN 10	DN 100 PN 6
VA 25/130	●	●		●						VD 55/220.32				●			
VA 25/180	●	●		●						VD 65/220.32				●			
VA 25/180X			●							B 50/250.40					●		
VA 35/130	●	●		●						B 56/250.40					●		
VA 35/180	●	●		●						B 80/250.40					●		
VA 35/180X			●							B 110/250.40							
VA 55/130	●	●		●						D 50/250.40					●		
VA 55/180	●	●		●						D 56/250.40					●		
VA 55/180X			●							D 80/250.40					●		
VA 65/130	●	●		●						D 110/250.40							
VA 65/180	●	●		●						BMH 30/250.40	●						
VA 65/180X			●							BPH 60/250.40	●						
VB 35/120										BPH 120/250.40	●						
VB 55/120										BMH 30/280.50		●					
VB 65/120										BMH 60/280.50		●					
VD 55/220.32										BPH 60/280.50		●					
VD 65/220.32										BPH 120/280.50		●					
VEA 35/130	●	●		●						BPH 150/280.50		●					
VEA 35/180	●	●		●						BPH 180/280.50		●					
VEA 35/180X			●							BMH 30/340.65			●				
VEA 55/130	●	●		●						BMH 60/340.65			●				
VEA 55/180	●	●		●						BPH 60/340.65			●				
VEA 55/180X			●							BPH 120/340.65			●				
VEA 65/130	●	●		●						BPH 150/340.65			●				
VEA 65/180	●	●		●						BPH 180/340.65			●				
VEA 65/180X			●							BMH 30/360.80						●	
VEA 40/190 XM			●							BMH 60/360.80						●	
VEA 80/180 XM			●							BPH 120/360.80						●	
VS 8/150					●	●	●	●	●	BPH 150/360.80						●	
VS 16/150					●	●	●	●	●	BPH 180/360.80						●	
VS 35/150					●	●	●	●	●	BPH 120/360.80							
VS 65/150					●	●	●	●	●	BPH 150/360.80							
A 50/180		●								BPH 180/360.80							
A 50/180X			●							DMH 30/250.40	●						
A 56/180		●								DPH 60/250.40	●						
A 56/180X			●							DPH 120/250.40	●						
A 80/180		●								DMH 30/280.50		●					
A 80/180X			●							DMH 60/280.50		●					
A 110/180		●								DPH 60/280.50		●					
A 110/180X			●							DPH 120/280.50		●					
										DPH 150/280.50		●					
										DPH 180/280.50		●					
										DMH 30/340.65			●				
										DMH 60/340.65			●				
										DPH 60/340.65			●				
										DPH 120/340.65			●				
										DPH 150/340.65			●				
										DPH 180/340.65			●				
										DMH 30/360.80						●	
										DMH 60/360.80						●	
										DPH 120/360.80						●	
										DPH 150/360.80						●	
										DPH 180/360.80						●	
										VEB 110/450.100							●
										DEB 110/450.100							●
										BPH-E 60/250.40					●		
										BPH-E 120/250.40					●		
										BPH-E 120/360.80						●	
										DPH-E 60/250.40					●		
										DPH-E 120/250.40					●		
										DPH-E 120/360.80						●	

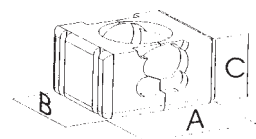
ACCESSORIES

MODEL	OVAL COUNTERFLANGES KIT				
	OVAL DN 20 3/4" F	OVAL DN 25 1" F	OVAL DN 32 1" 1/4 F	OVAL DN 40 1" 1/2 F	OVAL DN 50 2" F
VB 35/120	•	•	•	•	•
VB 55/120	•	•	•	•	•
VB 65/120	•	•	•	•	•

MODEL	COUNTERFLANGES KIT TO BE WELDED			
	DN 40 PN 6	DN 50 PN 6	DN 65 PN 6	DN 80 PN 6
BPH-E 60/250.40	•			
BPH-E120/250.40	•			
BPH-E 60/280.50		•		
BPH-E 120/280.50		•		
BPH-E 180/280.50		•		
BPH-E 60/340.65			•	
BPH-E 120/340.65			•	
BPH-E 150/340.65			•	
BPH-E 120/360.80				•
DPH-E 60/250.40	•			
DPH-E120/250.40	•			
DPH-E 60/280.50		•		
DPH-E 120/280.50		•		
DPH-E 180/280.50		•		
DPH-E 60/340.65			•	
DPH-E 120/340.65			•	
DPH-E 150/340.65			•	
DPH-E 120/360.80				•

MODEL	BLANK COUNTERFLANGES KIT		
	FOR TWIN CIRCULATORS	DN 40 TWIN	DN 50 - DN 65 - DN 80 TWIN
D 50/250.40	•		
D 56/250.40	•		
D 80/250.40	•		
DMH 30/250.40		•	
DPH 60/250.40		•	
DPH 120/250.40		•	
DMH 30/280.50			•
DMH 60/280.50			•
DPH 60/280.50			•
DPH 120/280.50			•
DPH 150/280.50			•
DPH 180/280.50			•
DMH 30/340.65			•
DMH 60/340.65			•
DPH 60/340.65			•
DPH 120/340.65			•
DPH 150/340.65			•
DPH 180/340.65			•
DMH 30/360.80			•
DMH 60/360.80			•
DPH 120/360.80			•
DPH 150/360.80			•
DPH 180/360.80			•

MODEL	PUMP BODY KIT INSULATION FOR BMH - BPH CIRCULATORS (single)				
	TO BE USED FOR CIRCULATORS TYPE	DIMENSIONS			GROSS WEIGHT KG
		A	B	C	
KIT DN 40	BMH - BPH with pump coupling DN 40	260	212	140	0,6
KIT DN 50	BMH - BPH with pump coupling DN 50	256	238	160	0,6
KIT DN 65	BMH - BPH with pump coupling DN 65	300	298	180	1,1
KIT DN 80	BMH - BPH with pump coupling DN 80	300	312	201	1,2

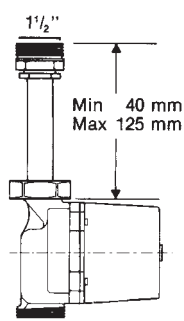


ACCESSORIES

"QUICK SERVICE" ADAPTER KIT

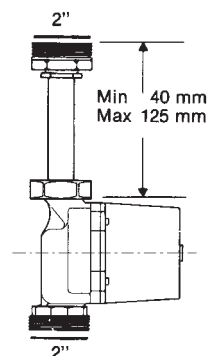
The quick service adapter kit eliminates modifications to the system piping if old circulators are replaced, with bodies or flanged DN 25 and DN 32 unions, with a different centre distance from that of modern circulators. Suitable for use on all modern circulators with threaded mouths.

KIT A



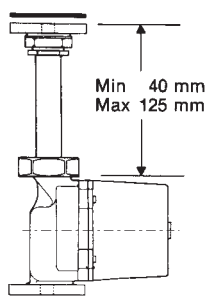
1 1/2" extension

KIT B



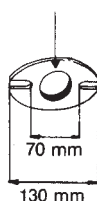
1 1/2" a 2" conversion

KIT C

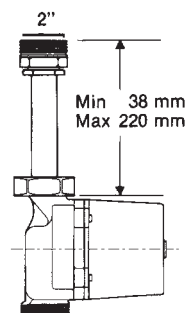


conversion from 1 1/2" body to flanged union
DN 25 - DN 32 with 2" extension

1 1/2" Internal thread



KIT D



2" extension

KIT E



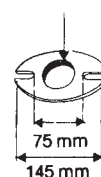
1 1/2" brass adapter



2" brass adapter

KIT AND 2" OVAL COUNTER FLANGE KIT

2" internal thread



2" oval counter flanges DN 40, PN 6 / PN 10
with seals and bolts for conversion from 2" brass
adapter body to 2" union to 2" flanged body DN 40

CIRCULATOR PUMPS WITH SPHERICAL IMPELLER



GENERAL DATA

Applications

It is distinguished between two types of systems:

Single circuit system:

The VORTEX sanitary hot water pumps adapt depending on the layout of the ducts on the installation in single houses or apartment blocks.

Branched system:

The VORTEX sanitary hot water pumps can be used in apartment blocks with a maximum of 12 apartments subject to the installation of VORTEX supplementary circulation regulators with automatic compensation on the lines.

Energy saving and user friendliness are of absolute priority to VORTEX.

The VORTEX regulation components and accessories enable compliance with the heating systems regulations regarding the automatic starting and stopping of the sanitary hot water pump and the hot water temperature limit.

Motor construction characteristics

The magnetic field generated in the motor acts directly on the magnetic rotor.

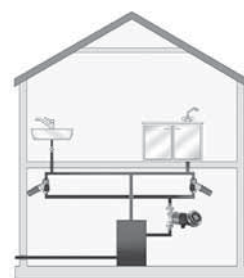
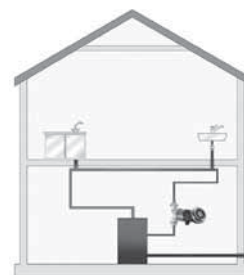
The liquid end is hermetically sealed from the electrical components. The motor with spherical rotor requires only a seal ring between the motor and the pump casing.

It is protected against short circuits and therefore it does not require any overload cutout. The rotor is easy to clean and replace.

- long life
- shaftless, without brushings
- low power consumption (25 W)
- silent running
- minimum risk of calcium deposits

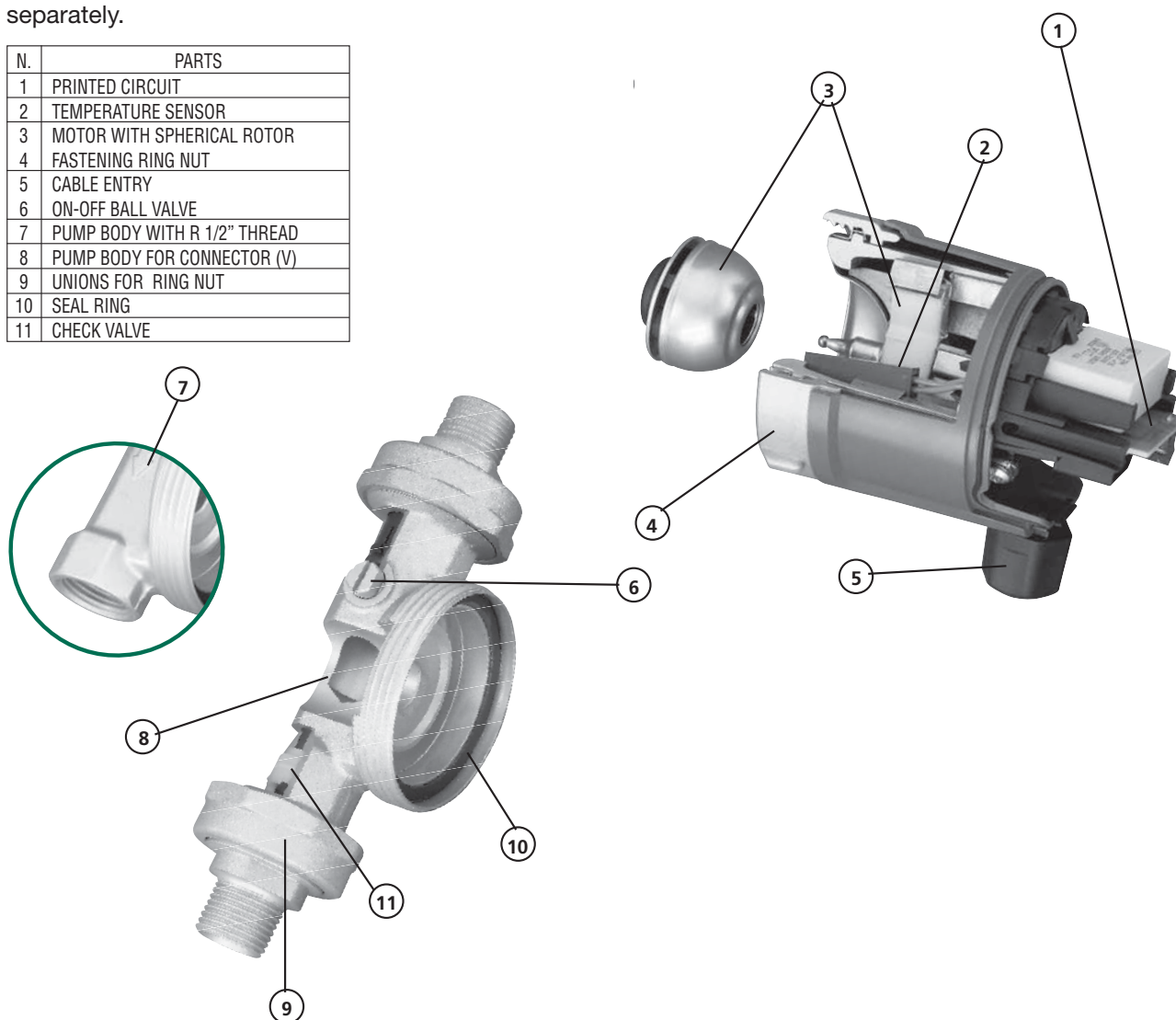
Fastening ring nut

The ring nut allows the quick separation of the motor from the pump casing for easy cleaning and removal of calcium deposits from the parts in contact with the water.



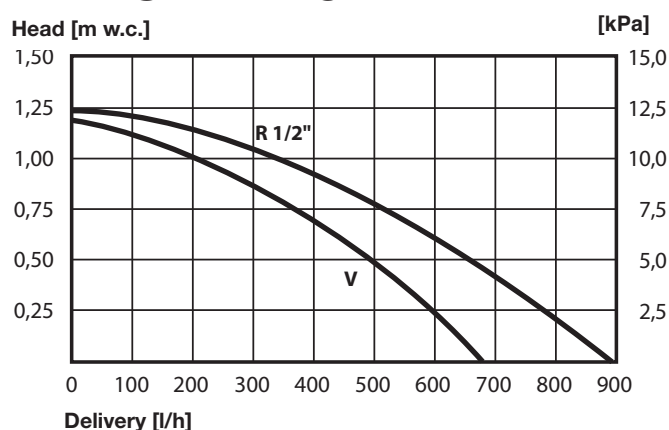
- Standard supply with unions for the fastening ring nut (nipple/welded unions, 1/2" external / 15 internal diameter)
- available on request: version without union or with different unions for ring nut, see Accessories.

N.	PARTS
1	PRINTED CIRCUIT
2	TEMPERATURE SENSOR
3	MOTOR WITH SPHERICAL ROTOR
4	FASTENING RING NUT
5	CABLE ENTRY
6	ON-OFF BALL VALVE
7	PUMP BODY WITH R 1/2" THREAD
8	PUMP BODY FOR CONNECTOR (V)
9	UNIONS FOR RING NUT
10	SEAL RING
11	CHECK VALVE

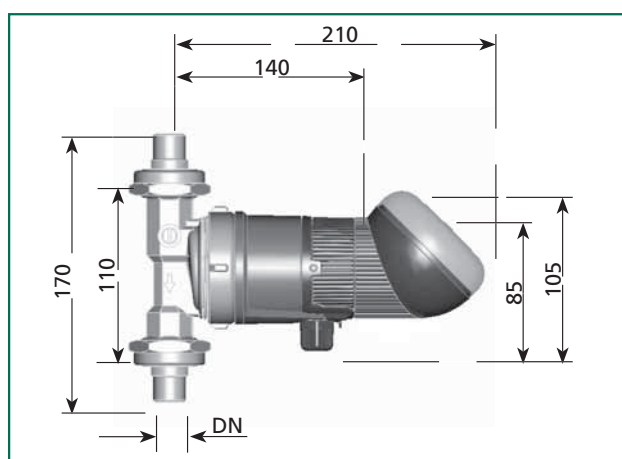


clean, free from solids and mineral oils, not viscous, chemically neutral and close to the characteristics of water (glycol max. 30 %).

CIRCULATOR PUMPS WITH SPHERICAL IMPELLER

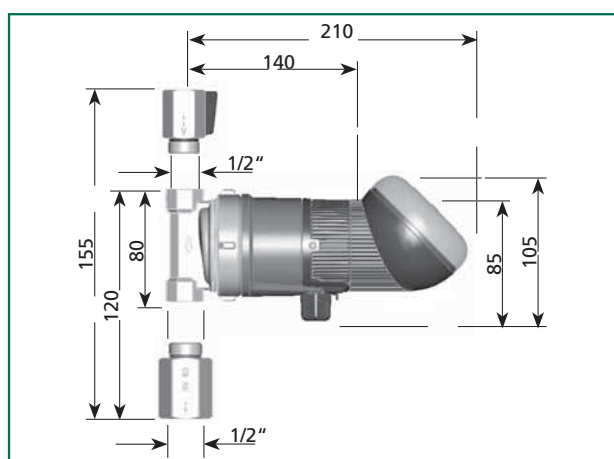


CIRCULATORS with pump body for V connections



MODEL	VERSIONS	VOLTAGE 50 Hz	PUMP COUPLINGS	CENTRE DISTANCE mm
BWZ 152 V KT	daily mechanical	1 x 230 V~	1/2"	110
BWZ 152 V o T	daily mechanical	1 x 230 V~	1/2"	110
BW 152 V KT	without timer	1 x 230 V~	1/2"	110
BW 152 V o T	without timer	1 x 230 V~	1/2"	110

CIRCULATORS with pump body featuring R 1/2" thread



MODEL	VERSIONS	VOLTAGE 50 Hz	PUMP COUPLINGS	CENTRE DISTANCE mm
BWZ 152 R 1/2" KT	daily mechanical	1 x 230 V~	1/2"	80
BWZ 152 R 1/2" o T	daily mechanical	1 x 230 V~	1/2"	80
BW 152 R 1/2" KT	without timer	1 x 230 V~	1/2"	80
BW 152 R 1/2" o T	without timer	1 x 230 V~	1/2"	80

ACCESSORIES

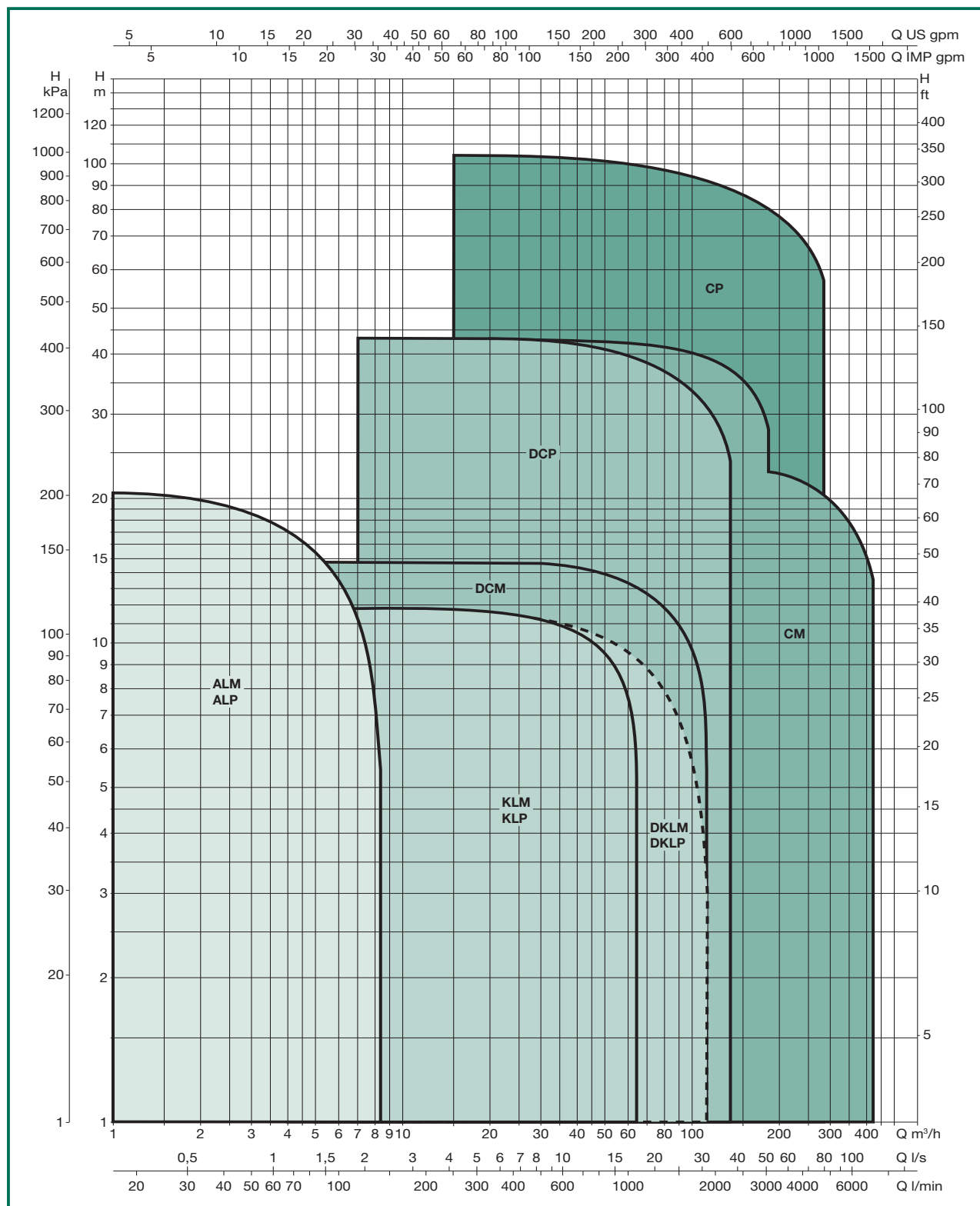
Z 152 KT	Mechanical timer with KT thermostat
Z 152 oT	Mechanical timer without KT thermostat
BWZ 152 KT MOTOR	Mechanical timer with anti-calcium thermostat
BWZ 152 Ot MOTOR	Mechanical timer
BW 152 KT MOTOR	Anti-calcium thermostat
BW 152 Ot MOTOR	Without regulation component
ROTOR	Suitable for all sanitary hot water pumps
RV 153 CHECK VALVE	1/2" external / 1/2" internal
KV 150 ON-OFF BALL VALVE	1/2" external / 1/2" internal
VENT FLANGE EF 150	Special thread for pump body
CIRCULATOR ADJUSTER ZR 40/65	1/2" internal

IN-LINE PUMPS

PERFORMANCE RANGE

GRAPHIC SELECTION TABLE

Performance curves are based on kinematic viscosity values equal to 1mm²/s at a density equal to 1000 kg/m³. Curve tolerance in accordance with ISO 9906.



PERFORMANCE RANGE

NUMERICAL SELECTION TABLE

SINGLE-PHASE		THREE-PHASE		P2 NOMINAL		Q																			
SINGLE	TWIN	SINGLE	TWIN	kW	HP	(m³/h)	0	1.2	2.4	3.6	4.8	6	7.2	8.4	9.6	12	14.4	16.8	18	24	30	36	48	60	
						(l/min)	0	20	40	60	80	100	120	140	160	200	240	280	300	400	500	600	800	1000	
ALM 200 M	—	ALM 200 T	—	0.059	0.08	H (m)	1.9	1.65	1																
ALP 800 M	—	ALP 800 T	—	0.37	0.5		7.7	7.2	6.3	5.8	3.9	2													
ALM 500 M	—	ALM 500 T	—	0.25	0.33		5.5	5.4	5.3	4.8	4.1	3	1.5												
ALP 2000 M	—	ALP 2000 T	—	0.55	0.75		21.1	20.6	19.6	18	16	13.8	10.5	5.3											
KLM 40/300 M	DKLM 40/300 M	KLM 40/300 T	DKLM 40/300 T	0.25	0.33	H (m)	3.4		3.2	3	2.6	2.3	1.7												
KLP 40/600 M	DKLP 40/600 M	KLP 40/600 T	DKLP 40/600 T	0.37	0.5		8.2				7.8	7.4	6.9	6.3	5.7	4									
KLP 40/900 M	DKLP 40/900 M	KLP 40/900 T	DKLP 40/900 T	0.37	0.5		10.2				9.8	9.4	8.8	8.2	7.4	5.6									
KLP 40/1200 M	DKLP 40/1200 M	KLP 40/1200 T	DKLP 40/1200 T	0.55	0.75		13.7				13.2	12.6	11.9	11.2	10.4	8.4	5.9								
KLM 50/300 M	DKLM 50/300 M	KLP 50/300 T	DKLM 50/300 T	0.25	0.33		2.9				2.8	2.7	2.6	2.5	2.3	1.8	1.3								
KLM 50/600 M	DKLM 50/600 M	KLM 50/600 T	DKLM 50/600 T	0.25	0.33		5.4				5.2	4.9	4.7	4.5	4.3	3.8	3.2	2.5	2						
KLP 50/900 M	DKLP 50/900 M	KLP 50/900 T	DKLP 50/900 T	0.75	1		8.9				8.8	8.7	8.6	8.5	8	7.4	6.6	6.3	3.9						
KLP 50/1200 M	DKLP 50/1200 M	KLP 50/1200 T	DKLP 50/1200 T	0.75	1		12				12	11.8	11.6	11	10.5	9.8	9	8.6	6.2						
—	—	KLM 65/300 T	DKLM 65/300 T	0.25	0.33		3.1				3	2.9	2.8	2.7	2.6	2.4	2	1.8							
—	—	KLM 65/600 T	DKLM 65/600 T	0.37	0.5		5.5								5.3	5	4.7	4.6	4	3.8	2.5				
—	—	KLP 65/900 T	DKLP 65/900 T	1.1	1.5		9								8.8	8.6	8.5	8.1	8	7	5.5	3.5			
—	—	KLP 65/1200 T	DKLP 65/1200 T	1.1	1.5		12									11.6	11.4	11.2	11	10	8.8	6.7			
—	—	KLM 80/300 T	DKLM 80/300 T	0.25	0.33		3.3										3.2	3.1	3	2.9	2.7	2	1.2		
—	—	KLM 80/600 T	DKLM 80/600 T	0.75	1		5.7											5.8	5.8	5.7	5.5	5	4.3	2.5	
—	—	KLP 80/900 T	DKLM 80/900 T	1.84	2.5		8.8											8.7	8.6	8.5	8.4	8	7.7	6	
—	—	KLP 80/1200 T	DKLP 80/1200 T	1.84	2.5		11.8														11.6	11.5	11	9.7	7.2

[illegible]

NUMERICAL SELECTION TABLE

PERFORMANCE RANGE

NUMERICAL SELECTION TABLE

MODEL	P2 NOMINAL		Q (m³/h)	0	0,6	1,2	1,8	2,4	3,0	4,5	6	9	10,5	12	13,5	15	18	24	27	30	36	42	48	54	60	66	72	78	90	105	120	
	kW	HP	(l/min)	0	10	20	30	40	50	75	100	150	175	200	225	250	300	400	450	500	600	700	800	900	1000	1100	1200	1300	1500	1750	2000	
DCM 40/380 T	0,3	0,3	H (m)				3,8	3,7	3,6	3,15	2,6																					
DCM 40/460 T	0,3	0,3						4,6	4,5	4,1	3,6	2,2																				
DCM 40/620 T	0,3	0,3								6,2	6	5,8	4,5	3,9	3																	
DCM 50/460 T	0,3	0,3										4,6	4,3	4,1	3,9	3,6	3,3	2,4														
DCM 50/630 T	0,4	0,5										6,3	6,1	6	5,8	5,5	5,2	4,6														
DCM 50/880 T	0,5	0,7										8,8	8,3	8	7,7	7,3	6,9	5,9														
DCM 65/670 T	0,6	0,7													6,7	6,6	6,4	6,1	5,1	4,3	3,3											
DCM 65/820 T	0,8	1													8,2	8	7,9	7,7	7	6,6	6	4										
DCM 65/900 T	0,9	1,2													9	8,9	8,8	8,6	8,1	7,7	7,2	5,5										
DCM 80/630 T	0,8	1																6,3	6,1	5,9	5,6	4,9	4,1	3,2								
DCM 80/730 T	0,9	1,2																7,3	7,1	7	6,8	6,3	5,6	4,8	3,9							
DCM 80/860 T	1,1	1,5																8,6	8,4	8,3	8,2	8	7,5	6,8	6	5						
DCM 80/1020 T	1,5	2																10,2	10	9,9	9,8	9,4	9	8,5	7,7	6,5						
DCM 100/820 T	1,5	2																			8,2	7,8	7,4	7	6,5	6	5,3	4,6	4			
DCM 100/1000 T	2,2	3																				10	9,7	9,3	8,9	8,5	8	7,5	7	6		
DCM 100/1200 T	3,0	4																			12	11,7	11,5	11,3	11	10,5	10	9,5	8,5	7		
DCM 100/1450 T	4	5,5																			14,5	14,2	14	13,8	13,5	13,1	12,7	12,2	11	9	6,5	

[illegible]

ALM-ALP



GENERAL DATA

Applications

Circulation pump for hot or cold water with in-line connections, suitable for installation in series directly to the piping in civil and industrial heating, conditioning and hot water plants.

Constructional features of the pump

Pump body and motor support in cast iron for ALM 500 and ALP 2000 and in bronze for ALM 200 and ALP 800. Intake and delivery connection: 1" 1/2 M-GAS for ALM 200 and ALP 800 and 2" M-GAS for ALM 500 and ALP 2000.

Technopolymer impeller. Carbon/ceramic mechanical seal.

Constructional features of the motor

Induction motor, closed and cooled with external ventilation, four-pole for the ALM version and two-pole for the ALP version.

Rotor mounted on oversized, greased-for-life ball brushings to guarantee silent running and long life.

Built-in thermal and overload protection and a capacitor permanently in circuit in the single-phase version.

Three-phase motors should be protected with a suitable overload protection complying with the regulations in force.

Manufactured according to CEI 2-3 standards.

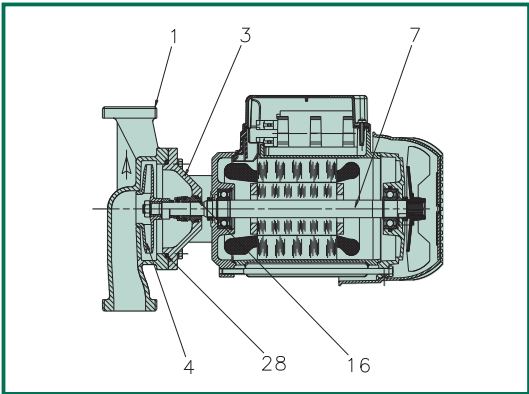
Motor protection: IP55

Insulation class: F

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

TECHNICAL DATA

N.	PARTS*	MATERIALS	MODELS
1	PUMP BODY	BRONZE G Cu Sn5 Zn5 Pb5 UNI 7013/8'-72 CAST IRON 250 UNI ISO 185	ALM 200 - ALP 800 ALM 500 - ALP 2000
3	SUPPORT	BRONZE G Cu Sn5 Zn5 Pb5 UNI 7013/8'-72 CAST IRON 250 UNI ISO 185	ALM 200 - ALP 800 ALM 500 - ALP 2000
4	IMPELLER	TECHNOPOLYMER	
7	SHAFT WITH ROTOR	STAINLESS STEEL AISI 303 X10 CrNiS 1809 UNI 6900/71	
16	MECHANICAL SEAL	CARBON/CERAMICS	
28	OR GASKET	EPDM RUBBER	



* In contact with the liquid.

- Operating range: from 0,6 to 8,4 m³/h with head up to 21 metres
- Liquid quality requirements: clean, free from solids or abrasive substances, non viscous, non aggressive, non crystallized, chemically neutral, close to the characteristics of water - max glycol 30% (for different glycol percentage please contact our technical service).
- Liquid temperature range: from -15°C to +120°C
- Maximum ambient temperature: + 40°C
- Maximum working pressure: 10 bar (1000 kPa)
- Unions on request: see final ACCESSORIES table
- Special versions on request: different voltages and/or frequencies

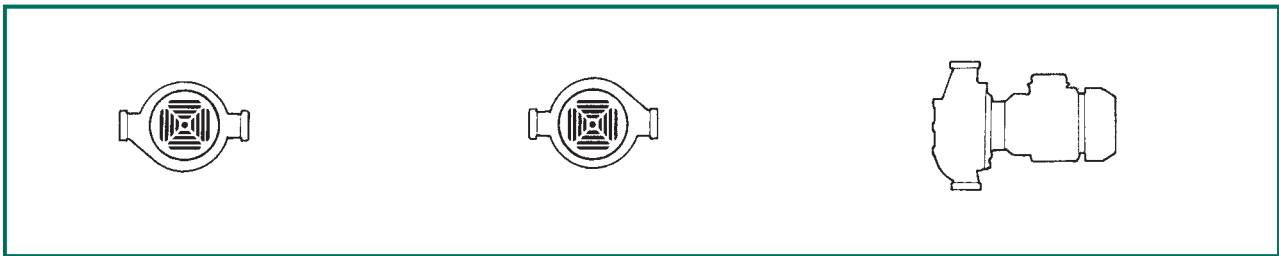
- Classification index:
(example)
- AL

P

2000

M
- Serie _____
- M = 4-pole motor |
P = 2-pole motor |
- Maximum head in (cm) _____
- M = motor single-phase |
T = motor three-phase |

Installation: with motor in a horizontal position.

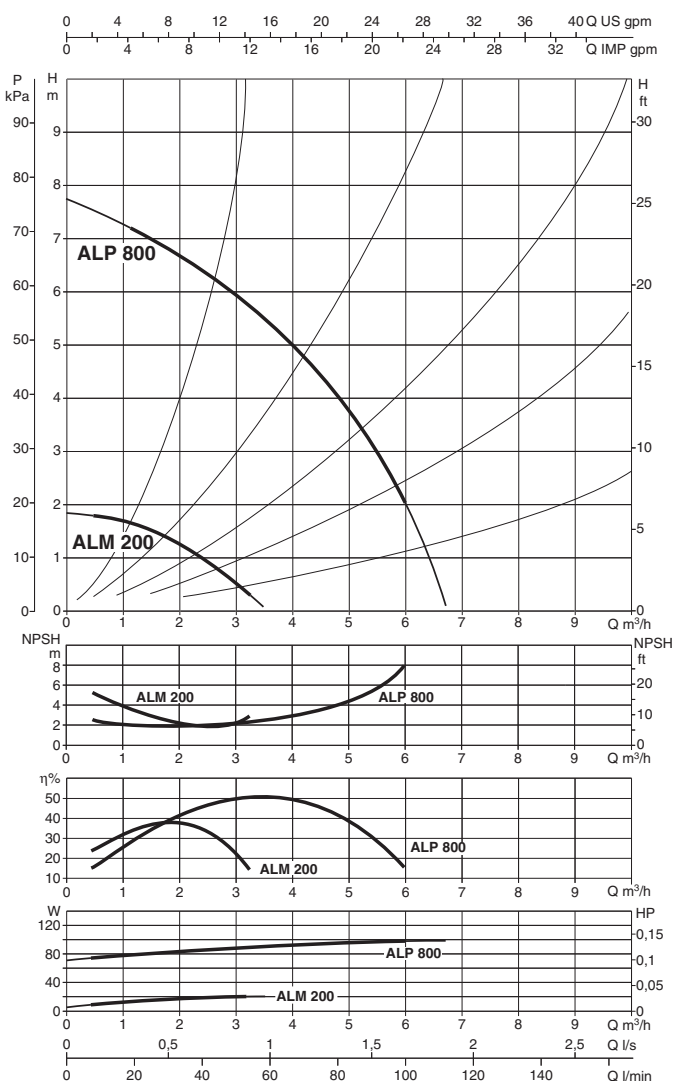
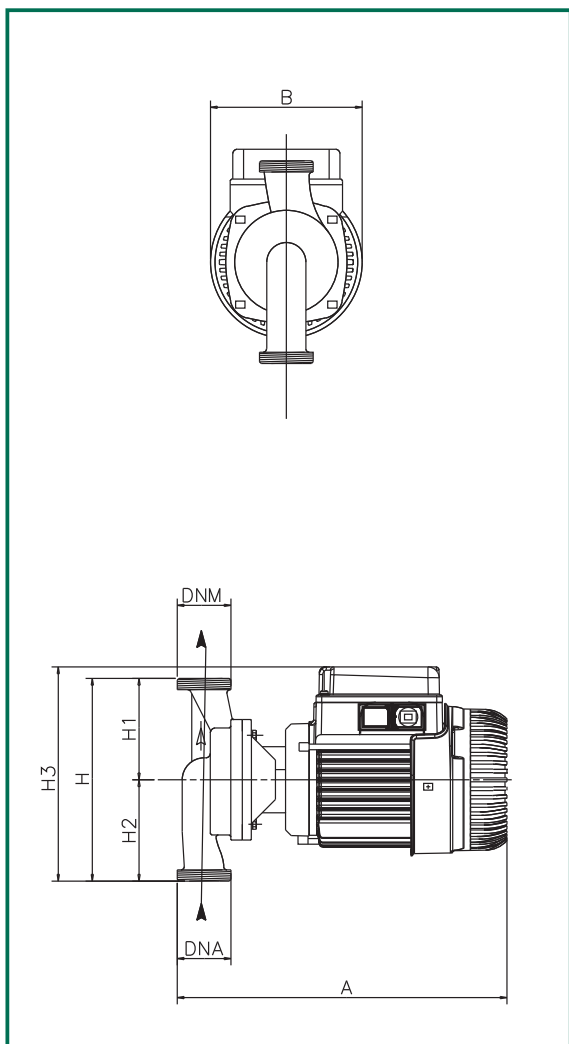


The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

ALM 200 - ALP 800

Liquid temperature range: from -15°C to +120°C

Maximum temperature operating: +40°C



MODEL	A	B	C	L	IØ	H	H1	H2	H3	DNA	DNM	PACKING DIMENSIONS			VOLUME m ³	WEIGHT Kg
												L/A	L/B	H		
ALM 200	300	136	—	—	—	180	90	90	190	1 1/2" G-M	1 1/2" G-M	332	202	257	0,017	7,5
ALP 800	300	136	—	—	—	180	90	90	190	1 1/2" G-M	1 1/2" G-M	332	202	257	0,017	7,5

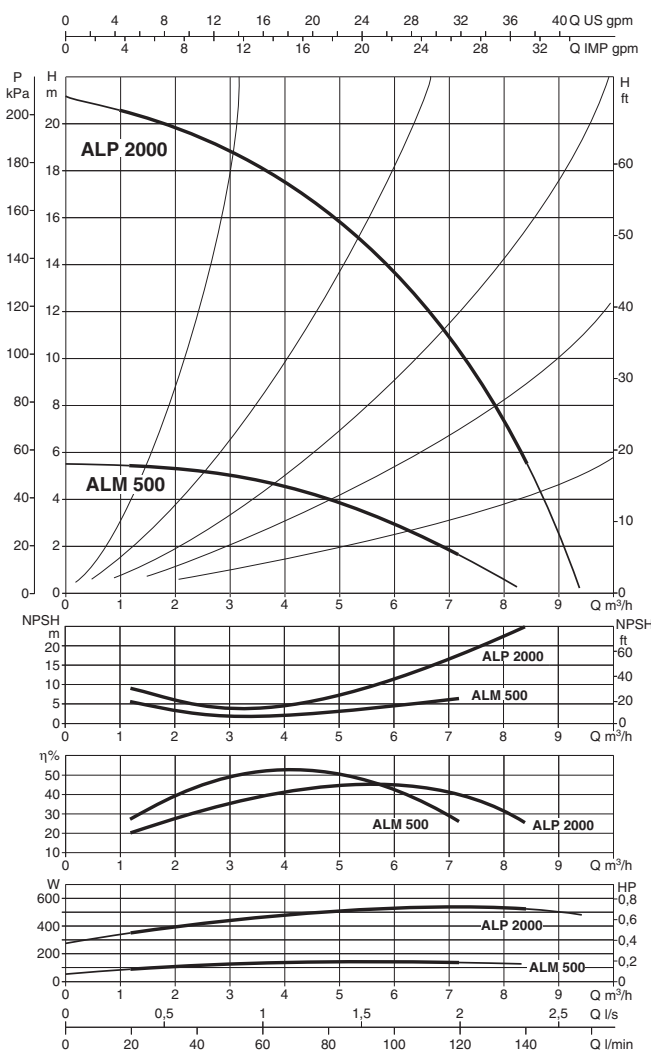
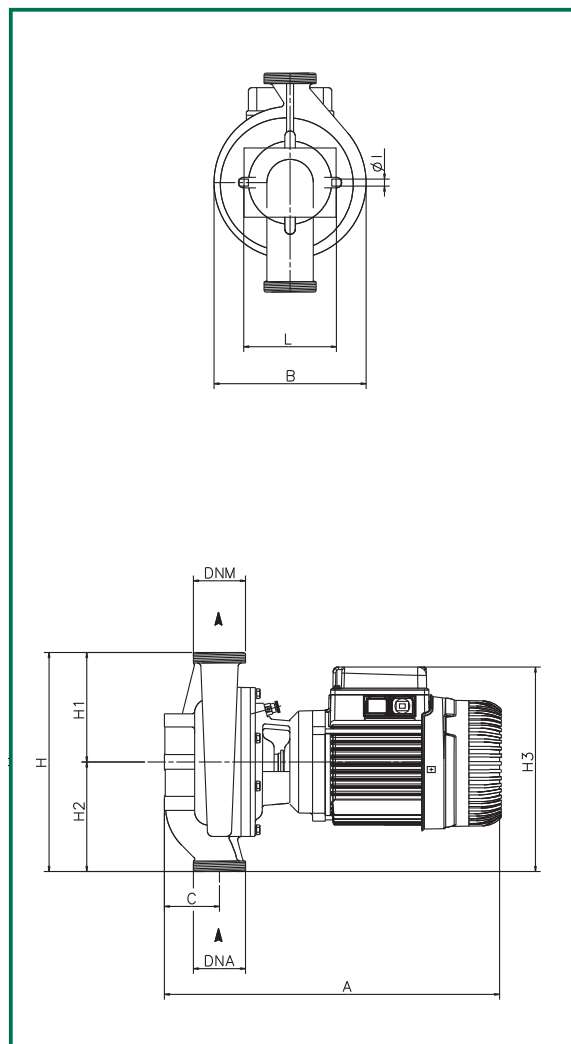
MODEL	ELECTRICAL DATA								
	VOLTAGE 50 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL		In A	CAPACITOR	
					kW	HP		µF	Vc
ALM 200 M	1x220-240 V ~	4 POLES	1480	0,14	0,059	0,08	0,7	8	450
ALM 200 T	3x230-400 V ~	4 POLES	1475	0,08	0,059	0,08	0,53-0,3	—	—
ALP 800 M	1x220-240 V ~	2 POLES	2925	0,24	0,37	0,5	1,4	10	450
ALP 800 T	3x230-400 V ~	2 POLES	2915	0,20	0,37	0,5	1,2-0,7	—	—

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.

ALM 500 - ALP 2000

Liquid temperature range: from -15°C to +120°C

Maximum temperature operating: +40°C

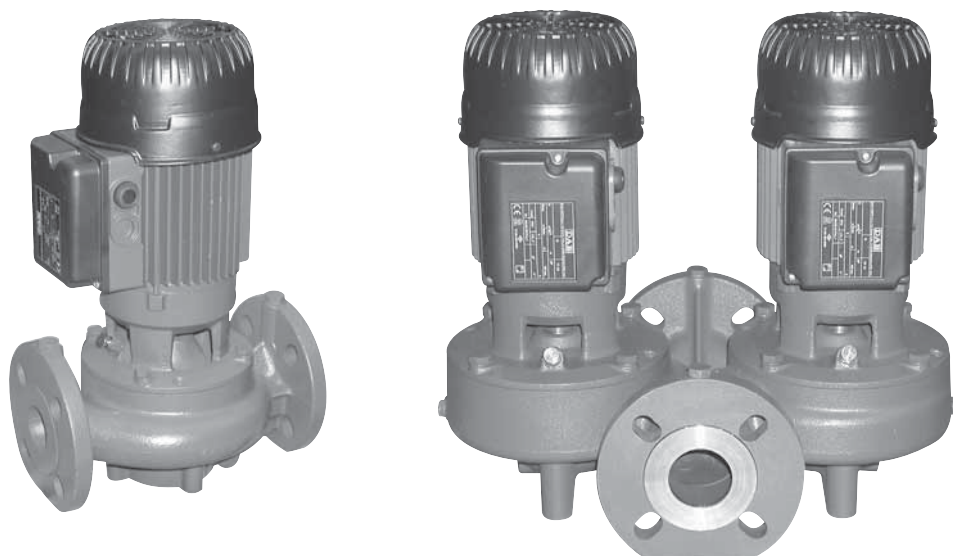


MODEL	A	B	C	L	IØ	H	H1	H2	H3	DNA	DNM	PACKING DIMENSIONS			VOLUME m ³	WEIGHT Kg
												L/A	L/B	H		
ALM 500	386	174	63	95	8	250	125	125	235	2" G-M	2" G-M	492	232	292	0,033	14,5
ALP 2000	386	174	63	95	8	250	125	125	235	2" G-M	2" G-M	492	232	292	0,033	14,5

MODEL	ELECTRICAL DATA								
	VOLTAGE 50 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL		In A	CAPACITOR	
					kW	HP		µF	Vc
ALM 500 M	1x220-240 V ~	4 POLES	1425	0,22	0,25	0,33	1	8	450
ALM 500 T	3x230-400 V ~	4 POLES	1465	0,19	0,25	0,33	1-0,6	—	—
ALP 2000 M	1x220-240 V ~	2 POLES	2870	0,75	0,55	0,75	3,7	16	450
ALP 2000 T	3x230-400 V ~	2 POLES	2830	0,66	0,55	0,75	2,3-1,3	—	—

KLM-KLP

DKLM-DKLP



GENERAL DATA

Applications

Circulation pump for hot or cold water with in-line connections, suitable for installation in series directly to the piping in civil and industrial heating, conditioning, cooling and hot water plants.

Constructional features of the pump

Pump body and motor support in cast iron.

Flanged suction and delivery connections in PN10 with threaded holes for control pressure gauges. This range can also accept counterflanges in PN6 in order to facilitate pump interchange in existing installations.

Technopolymer impeller.

Carbon/ceramic mechanical seal.

The pumps are available in the single version (KLM-KLP) and in the twin version (DKLM-DKLP).

In the twin version an automatic clapet type valve incorporated in the delivery connection is provided to prevent water from recycling when the system is at a standstill. The standard supply also includes a blank flange in case maintenance has to be carried out on one of the two motors.

The twin version allows the pumps to be used alternately where a backup unit is required or used simultaneously.

Constructional features of the motor

Induction motor, closed and cooled with external ventilation, four-pole for the KLM and DKLM versions and two-pole for the KLP and DKLP versions.

Rotor mounted on oversized, greased-for-life ball brushings to guarantee silent running and long life.

Built-in thermal and overload protection and a capacitor permanently in circuit in the single-phase version.

Three-phase motors should be protected with a suitable overload protection complying with the regulations in force.

Manufactured according to CEI 2-3 standards.

Motor protection: IP55

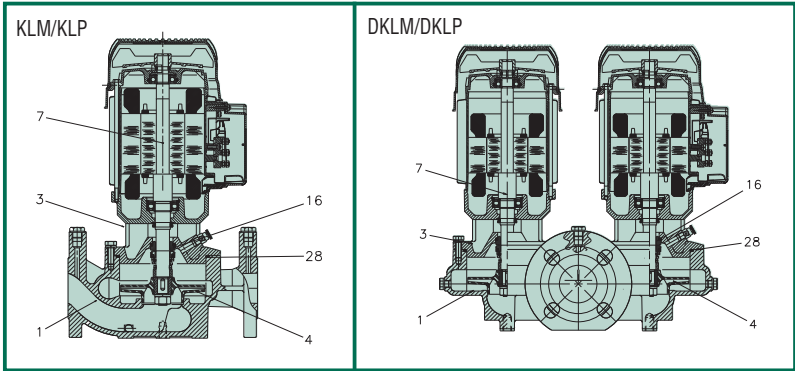
Insulation class: F

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

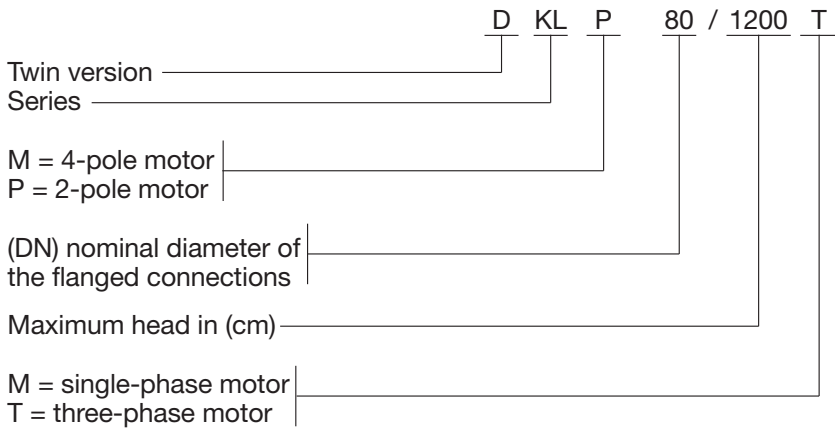
TECHNICAL DATA

N.	PARTS*	MATERIALS
1	PUMP BODY	CAST IRON 250 UNI ISO 185
3	SUPPORT	CAST IRON 250 UNI ISO 185
4	IMPELLER	TECHNOPOLYMER B
7	SHAFT WITH ROTOR	STAINLESS STEEL AISI 303 X10 CrNiS 1809 - UNI 6900/71
16	MECHANICAL SEAL	CARBON/CERAMICS
28	OR GASKET	EPDM RUBBER

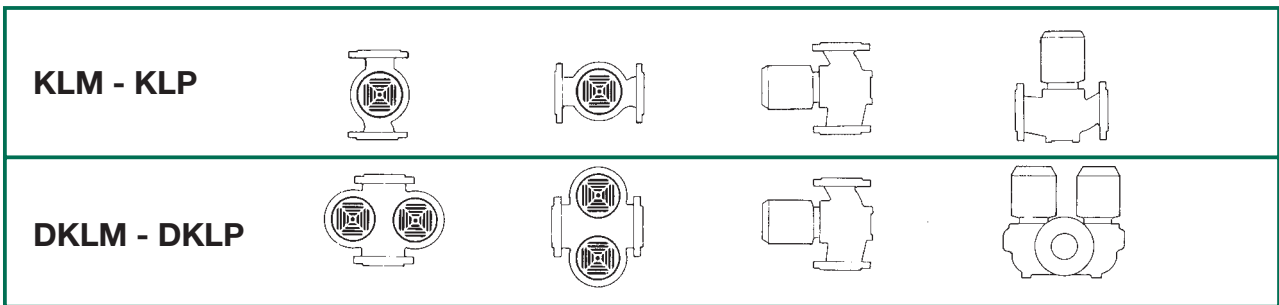
* In contact with the liquid.



- Operating range: from 2 to 67 m³/h with head up to 13,7 metres
- Liquid quality requirements: clean, free from solids or abrasive substances, non viscous, non aggressive, non crystallized, chemically neutral, close to the characteristics of water - max glycol 30% (for different glycol percentage please contact our technical service).
- Liquid temperature range: from -15°C to +120°C
- Maximum ambient temperature: +40°C
- Maximum working pressure: 10 bar (1000 kPa)
- Standard flanges: DN 40, DN 50, DN 65, DN 80 in PN 6/PN 10 (4 slots)
- Flanges on request: DN 80 in PN16 (8 holes)
- Counterflanges on request: threaded DN 40, DN 50, DN 65 in PN 6
with weld-on collar DN 40, DN 50, DN 65, DN 80 in PN6
with weld-on collar DN 40, DN 50, DN 65 in PN 10/PN 16 (4 holes)
with weld-on collar DN 80 in PN10/PN 16 (8 holes)
- Special versions on request: different voltages and/or frequencies
- Classification index:
(example)



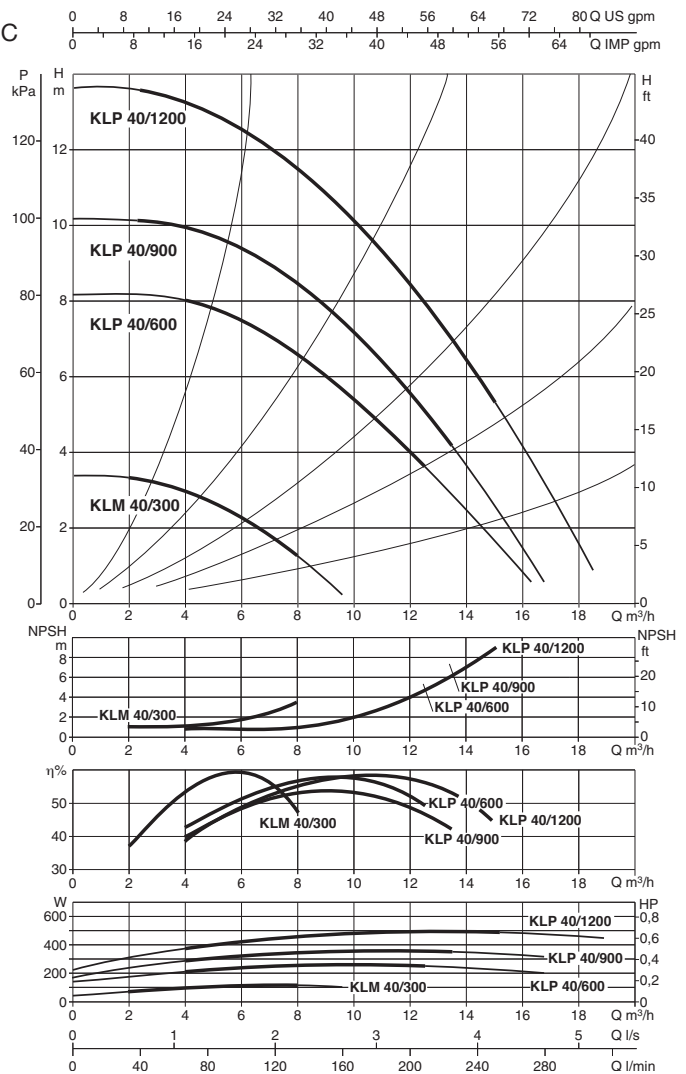
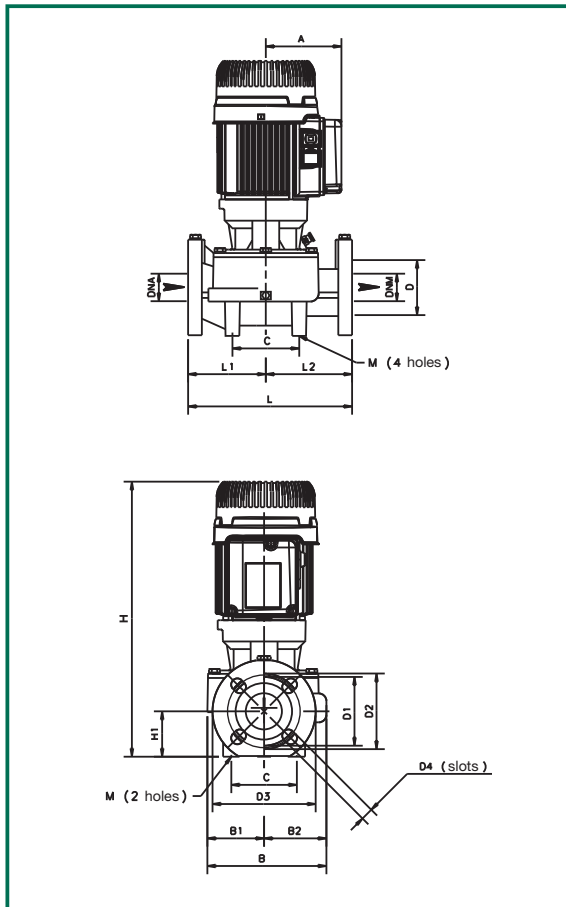
Installation: with motor in a horizontal or vertical position as long as it is above the pump.



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.

KLM 40 - KLP 40

Liquid temperature range: from -15°C to +120°C
Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DNM	D	D1	D2	D3	D4	H	H1	L	L1	L2	M
KLM 40/300	110	179	82	97	100	40	40	80	100	110	150	4 slots 18x23	395	66	250	125	125	2 holes 10
KLP 40/600	110	179	82	97	100	40	40	80	100	110	150		395	66	250	125	125	
KLP 40/900	110	179	82	97	100	40	40	80	100	110	150		395	66	250	125	125	
KLP 40/1200	110	179	82	97	100	40	40	80	100	110	150		395	66	250	125	125	

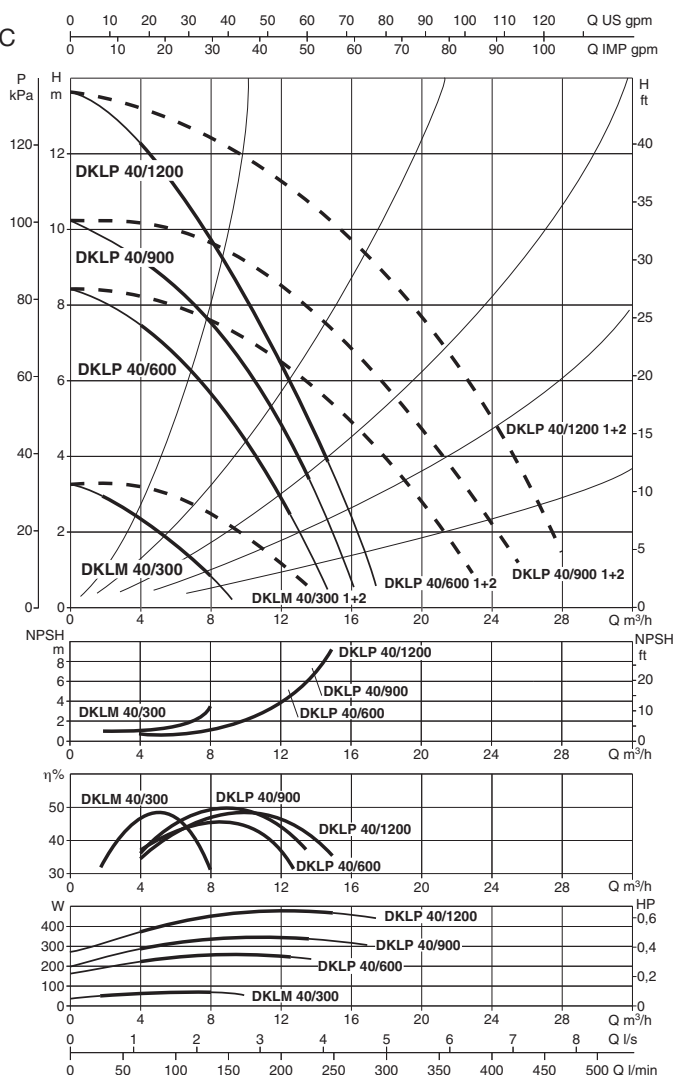
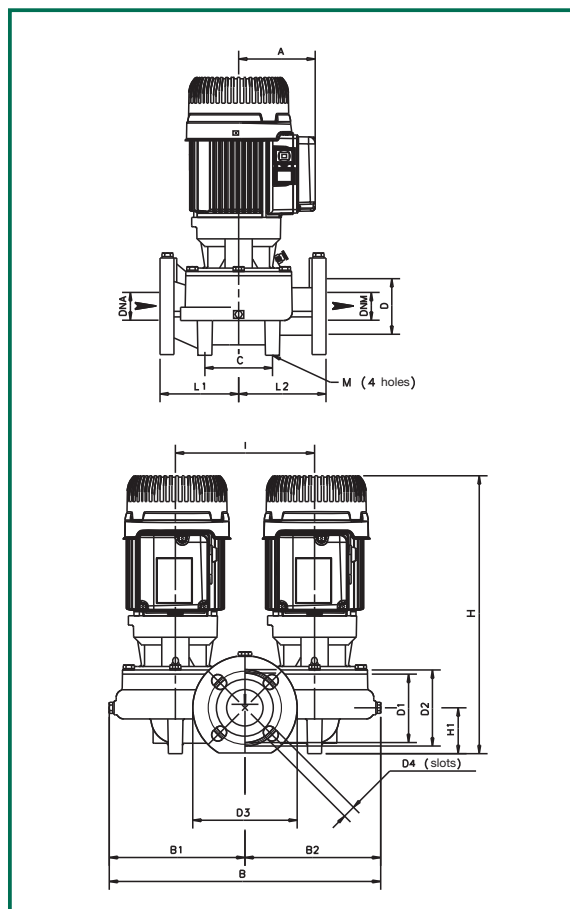
MODEL	ELECTRICAL DATA									
	VOLTAGE 50 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL		In A	CAPACITOR		
					kW	HP		μF	Vc	
KLM 40/300 M	1x220-240 V ~	4 POLES	1450	0,17	0,25	0,33	0,9	8	450	
KLM 40/300 T	3x230-400 V ~	4 POLES	1490	0,14	0,25	0,33	0,9-0,55	—	—	
KLP 40/600 M	1x220-240 V ~	2 POLES	2940	0,47	0,37	0,5	3	16	450	
KLP 40/600 T	3x230-400 V ~	2 POLES	2950	0,35	0,37	0,5	1,7-1	—	—	
KLP 40/900 M	1x220-240 V ~	2 POLES	2920	0,54	0,37	0,5	3,2	16	450	
KLP 40/900 T	3x230-400 V ~	2 POLES	2920	0,45	0,37	0,5	1,9-1,1	—	—	
KLP 40/1200 M	1x220-240 V ~	2 POLES	2890	0,7	0,55	0,75	3,4	16	450	
KLP 40/1200 T	3x230-400 V ~	2 POLES	2890	0,6	0,55	0,75	2-1,2	—	—	

PACKING DIMENSIONS			VOLUME m ³	WEIGHT Kg	
L/A	L/B	H		single-ph.	three-ph.
470	280	330	0,043	22,6	20,2
470	280	330	0,043	22,6	21,3
470	280	330	0,043	22,6	21,3
470	280	330	0,043	22,6	21,3

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.

DKLM 40 - DKLP 40

Liquid temperature range: from -15°C to +120°C
Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DNM	D	D1	D2	D3	D4	H	H1	I	L	L1	L2	M
DKLM 40/300	110	372	185	187	100	40	40	80	100	110	150	4 slots 18x23	400	55	200	250	125	125	2 holes 10
DKLP 40/600	110	372	185	187	100	40	40	80	100	110	150		400	55	200	250	125	125	
DKLP 40/900	110	372	185	187	100	40	40	80	100	110	150		400	55	200	250	125	125	
DKLP 40/1200	110	372	185	187	100	40	40	80	100	110	150		400	55	200	250	125	125	

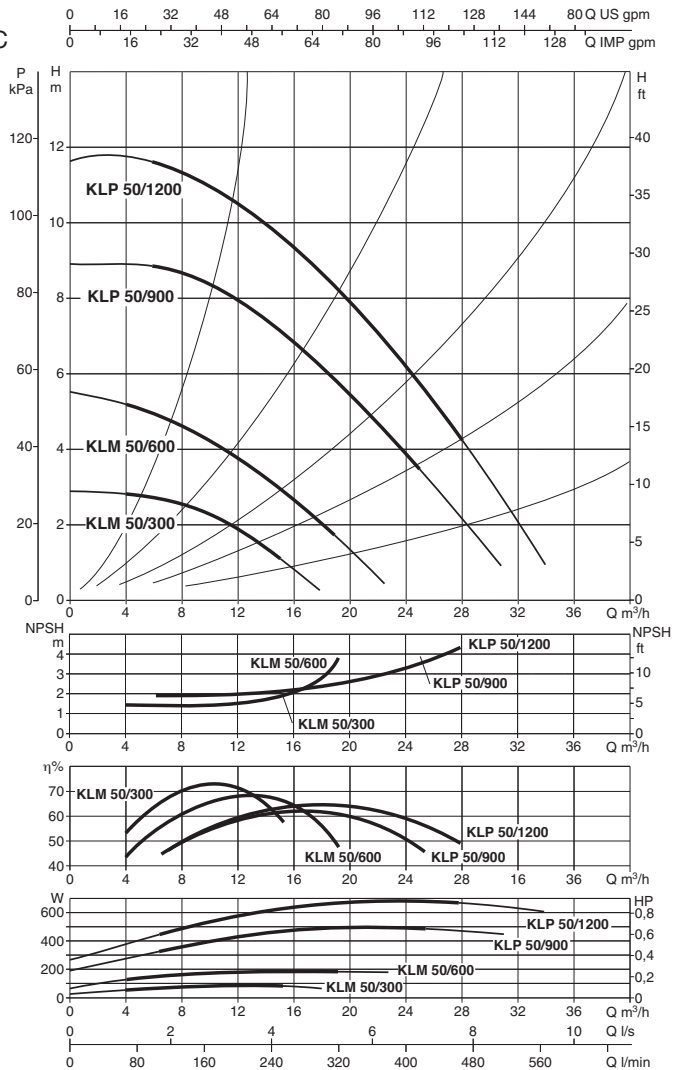
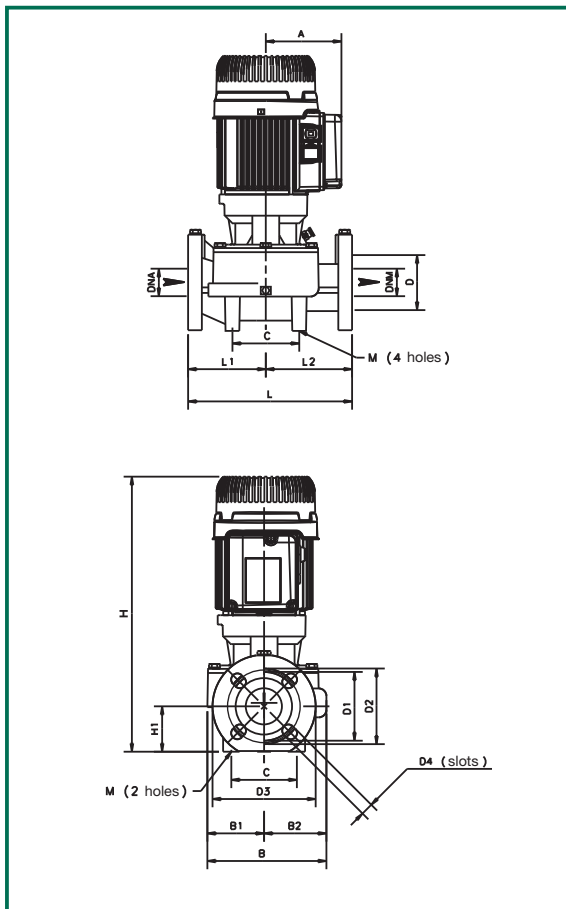
MODEL	ELECTRICAL DATA								
	VOLTAGE 50 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL kW	HP	In A	CAPACITOR	
DKLM 40/300 M	1x220-240 V ~	4 POLES	1450	0,17	0,25	0,33	0,9	8	450
DKLM 40/300 T	3x230-400 V ~	4 POLES	1490	0,14	0,25	0,33	0,9-0,55	—	—
DKLP 40/600 M	1x220-240 V ~	2 POLES	2940	0,47	0,37	0,5	3	16	450
DKLP 40/600 T	3x230-400 V ~	2 POLES	2950	0,35	0,37	0,5	1,7-1	—	—
DKLP 40/900 M	1x220-240 V ~	2 POLES	2920	0,54	0,37	0,5	3,2	16	450
DKLP 40/900 T	3x230-400 V ~	2 POLES	2920	0,45	0,37	0,5	1,9-1,1	—	—
DKLP 40/1200 M	1x220-240 V ~	2 POLES	2890	0,7	0,55	0,75	3,4	16	450
DKLP 40/1200 T	3x230-400 V ~	2 POLES	2890	0,6	0,55	0,75	2-1,2	—	—

PACKING DIMENSIONS			VOLUME m ³	WEIGHT Kg	
L/A	L/B	H		single-ph.	three-ph.
530	280	470	0,07	38,3	37,4
530	280	470	0,07	37,1	38,1
530	280	470	0,07	41,9	43,3
530	280	470	0,07	41,9	43,3

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.

KLM 50 - KLP 50

Liquid temperature range: from -15°C to +120°C
Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DNM	D	D1	D2	D3	D4	H	H1	L	L1	L2	M
KLM 50/300	110	204	94	110	100	50	50	90	110	125	165	4 slots 18x23	414	73	280	140	170	2 holes 10
KLP 50/600	110	204	94	110	100	50	50	90	110	125	165		414	73	280	140	170	
KLP 50/900	110	204	94	110	100	50	50	90	110	125	165		414	73	280	140	170	
KLP 50/1200	110	204	94	110	100	50	50	90	110	125	165		414	73	280	140	170	

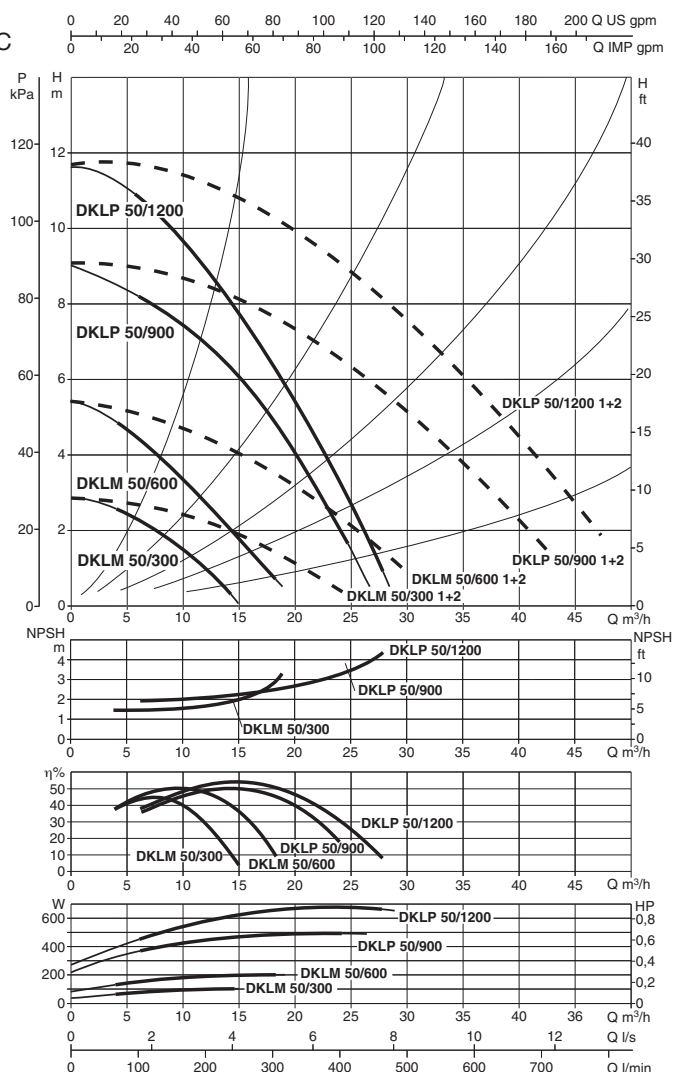
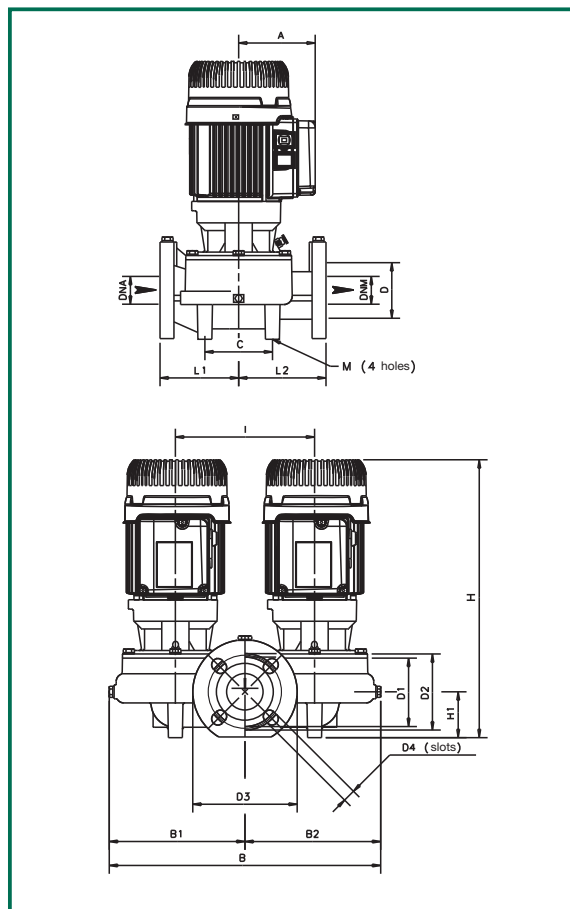
MODEL	ELECTRICAL DATA									
	VOLTAGE 50 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL		In A	CAPACITOR		
KLM 50/300 M	1x220-240 V ~	4 POLES	1430	0,19	0,25	0,33	0,9	8	450	
KLM 50/300 T	3x230-400 V ~	4 POLES	1470	0,16	0,25	0,33	1-0,6	—	—	
KLM 50/600 M	1x220-240 V ~	4 POLES	1340	0,3	0,25	0,33	1,4	8	450	
KLM 50/600 T	3x230-400 V ~	4 POLES	1420	0,32	0,25	0,33	1,2-0,7	—	—	
KLP 50/900 M	1x220-240 V ~	2 POLES	2900	0,7	0,75	1	3,3	16	450	
KLP 50/900 T	3x230-400 V ~	2 POLES	2920	0,7	0,75	1	2,8-1,6	—	—	
KLP 50/1200 M	1x220-240 V ~	2 POLES	2850	0,9	0,75	1	4,2	16	450	
KLP 50/1200 T	3x230-400 V ~	2 POLES	2890	0,86	0,75	1	3,2-1,8	—	—	

PACKING DIMENSIONS			VOLUME m ³	WEIGHT Kg	
L/A	L/B	H		single-ph.	three-ph.
470	280	330	0,043	27,6	27
470	280	330	0,043	27,6	27
470	280	330	0,043	29,6	28,3
470	280	330	0,043	29,6	28,3

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.

DKLM 50 - DKLP 50

Liquid temperature range: from -15°C to +120°C
Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DNM	D	D1	D2	D3	D4	H	H1	I	L	L1	L2	M
DKLM 50/300	110	434	217	217	120	50	50	90	110	125	165	4 slots 18x23	410	73	240	280	140	140	2 holes 10
DKLP 50/600	110	434	217	217	120	50	50	90	110	125	165		410	73	240	280	140	140	
DKLP 50/900	110	434	217	217	120	50	50	90	110	125	165		410	73	240	280	140	140	
DKLP 50/1200	110	434	217	217	120	50	50	90	110	125	165		410	73	240	280	140	140	

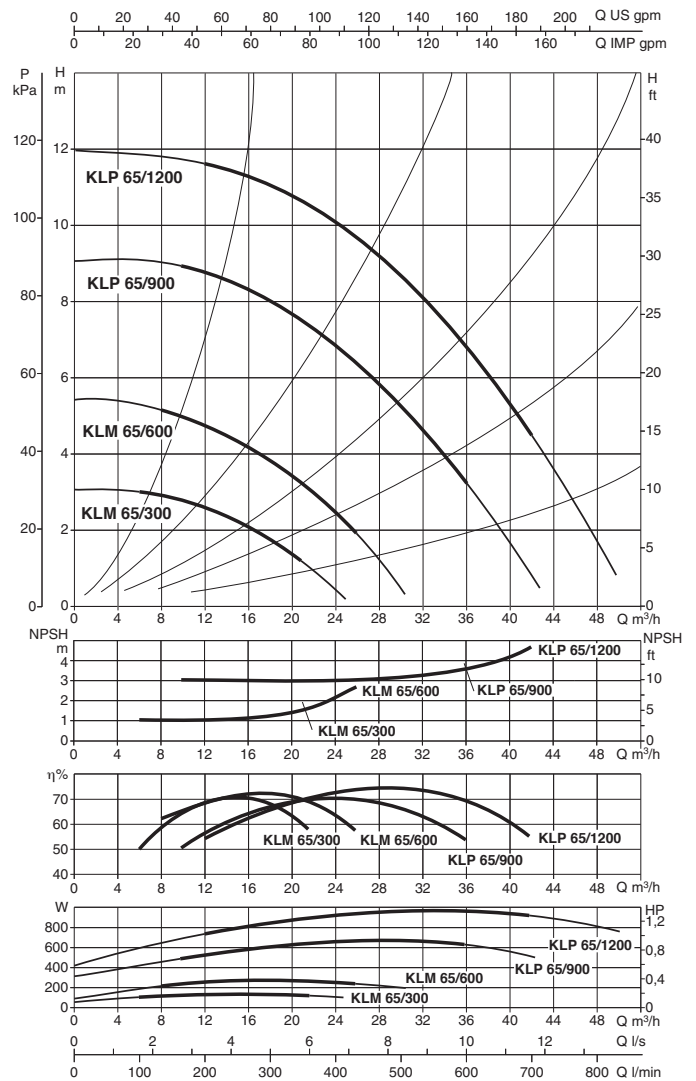
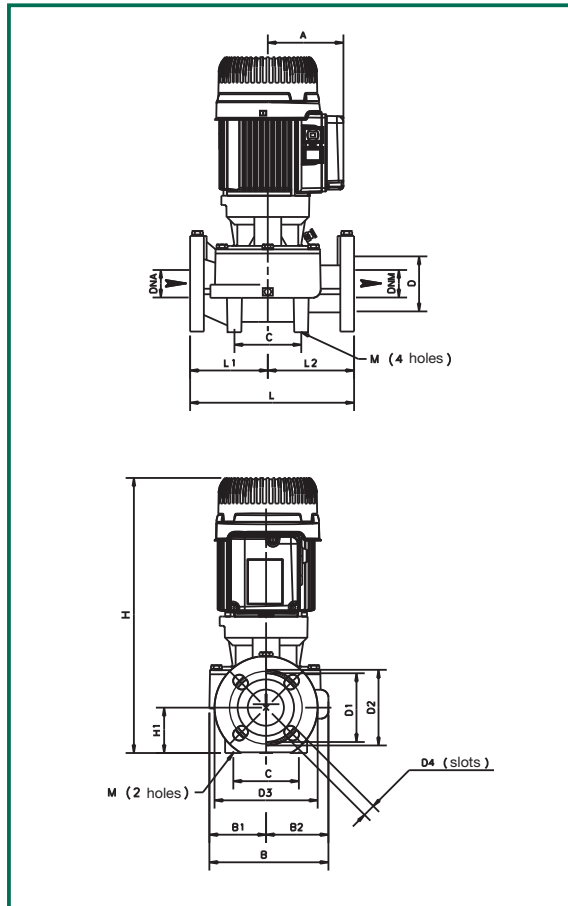
MODEL	ELECTRICAL DATA									
	VOLTAGE 50 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL kW	HP	In A	CAPACITOR		
DKLM 50/300 M	1x220-240 V ~	4 POLES	1430	0,19	0,25	0,33	0,9	8	450	
DKLP 50/300 T	3x230-400 V ~	4 POLES	1470	0,16	0,25	0,33	1-0,6	—	—	
DKLM 50/600 M	1x220-240 V ~	4 POLES	1340	0,3	0,25	0,33	1,4	8	450	
DKLP 50/600 T	3x230-400 V ~	4 POLES	1420	0,32	0,25	0,33	1,2-0,7	—	—	
DKLP 50/900 M	1x220-240 V ~	2 POLES	2900	0,7	0,75	1	3,3	16	450	
DKLP 50/900 T	3x230-400 V ~	2 POLES	2920	0,7	0,75	1	2,8-1,6	—	—	
DKLP 50/1200 M	1x220-240 V ~	2 POLES	2850	0,9	0,75	1	4,2	16	450	
DKLP 50/1200 T	3x230-400 V ~	2 POLES	2890	0,86	0,75	1	3,2-1,8	—	—	

PACKING DIMENSIONS			VOLUME m ³	WEIGHT Kg	
L/A	L/B	H		single-ph.	three-ph.
540	420	610	0,138	57,1	54,1
540	420	610	0,138	57,1	54,9
540	420	610	0,138	69	57,5
540	420	610	0,138	69	57

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.

KLM 65 - KLP 65

Liquid temperature range: from -15°C to +120°C
Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DNM	D	D1	D2	D3	D4	H	H1	L	L1	L2	M
KLM 65/300	110	228	99	129	100	65	65	110	130	145	185	4 slots 18x23	433	82	340	170	170	2 holes 10
KLP 65/600	110	228	99	129	100	65	65	110	130	145	185		433	82	340	170	170	
KLP 65/900	115	228	99	129	100	65	65	110	130	145	185		433	82	340	170	170	
KLP 65/1200	115	228	99	129	100	65	65	110	130	145	185		433	82	340	170	170	

MODEL	ELECTRICAL DATA						
	VOLTAGE 50 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL		In A
KLM 65/300 T	3x230-400 V ~	4 POLES	1460	0,2	0,25	0,33	1-0,6
KLM 65/600 T	3x230-400 V ~	4 POLES	1400	0,36	0,37	0,5	1,2-0,7
KLP 65/900 T	3x230-400 V ~	2 POLES	2920	0,98	1,1	1,5	4-2,35
KLP 65/1200 T	3x230-400 V ~	2 POLES	2880	1,3	1,1	1,5	4,7-2,7

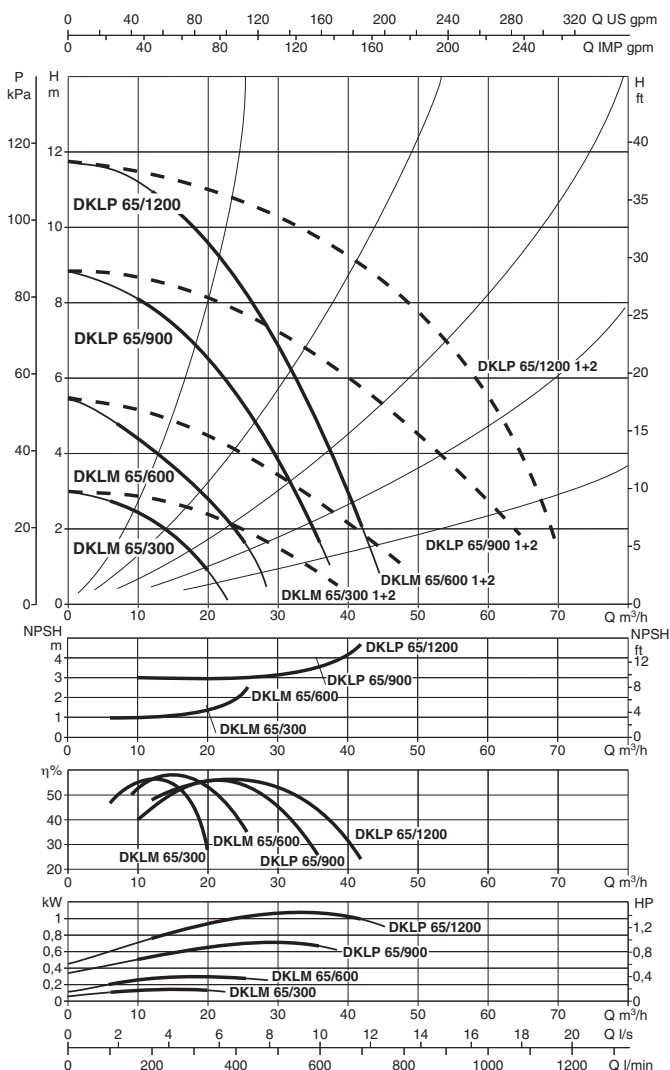
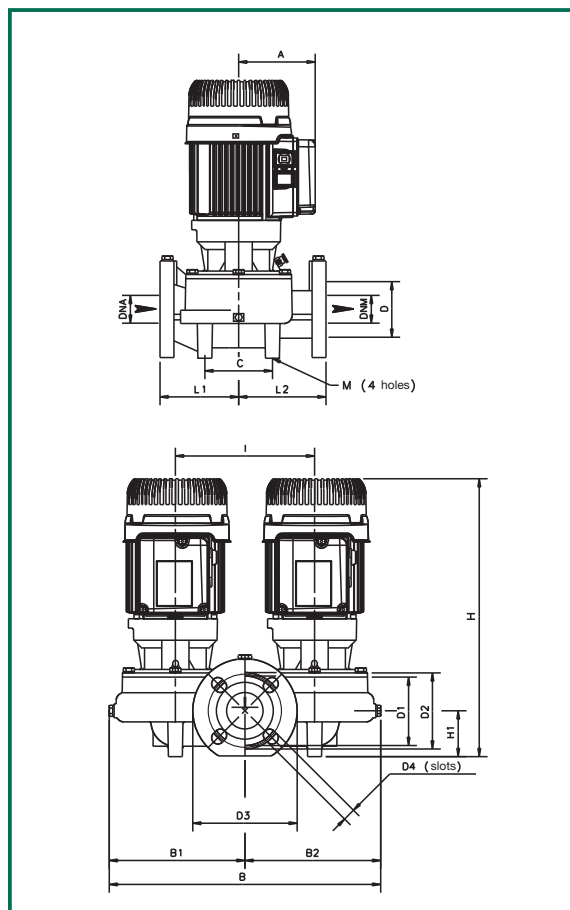
PACKING DIMENSIONS			VOLUME m³	WEIGHT Kg	
L/A	L/B	H		single-ph.	three-ph.
510	310	470	0,074	—	32,7
510	310	470	0,074	—	32,7
510	310	470	0,074	—	38,2
510	310	470	0,074	—	38,5

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.

DKLM 65 - DKLP 65

Liquid temperature range: from -15°C to +120°C

Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DNM	D	D1	D2	D3	D4	H	H1	I	L	L1	L2	M
DKLM 65/300	110	455	226	229	140	65	65	110	130	145	185	4 slots 18x23	433	82	240	340	170	170	2 holes 10
DKLP 65/600	115	455	226	229	140	65	65	110	130	145	185		433	82	240	340	170	170	
DKLP 65/900	115	455	226	229	140	65	65	110	130	145	185		433	82	240	340	170	170	
DKLP 65/1200	115	455	226	229	140	65	65	110	130	145	185		433	82	240	340	170	170	

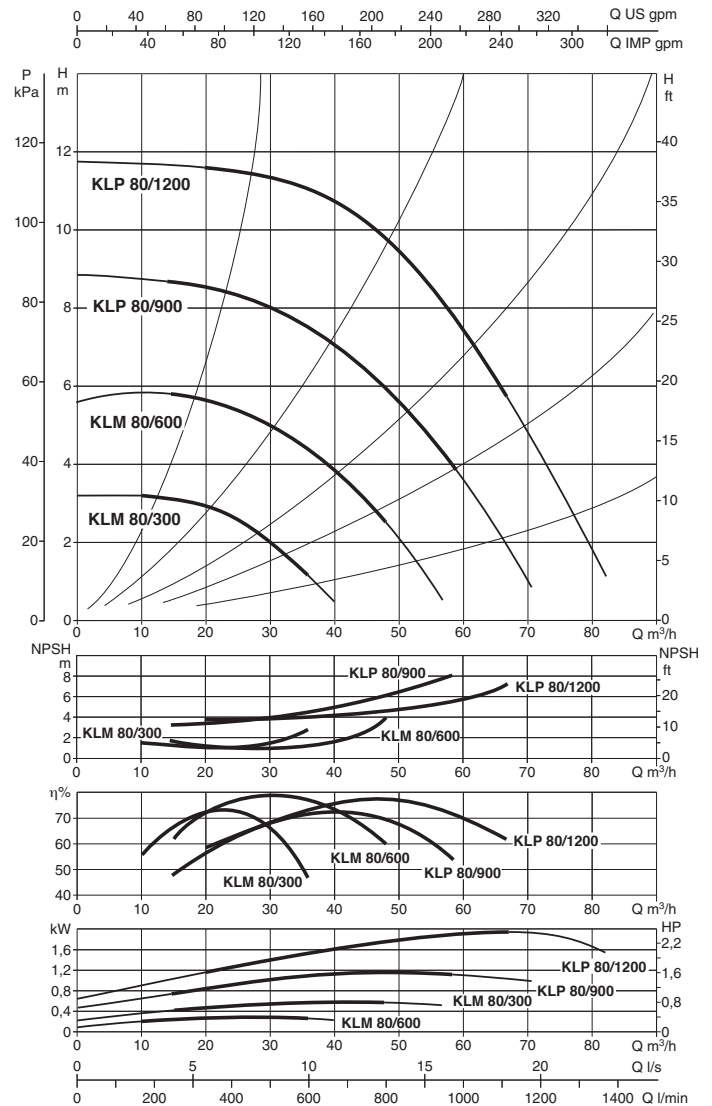
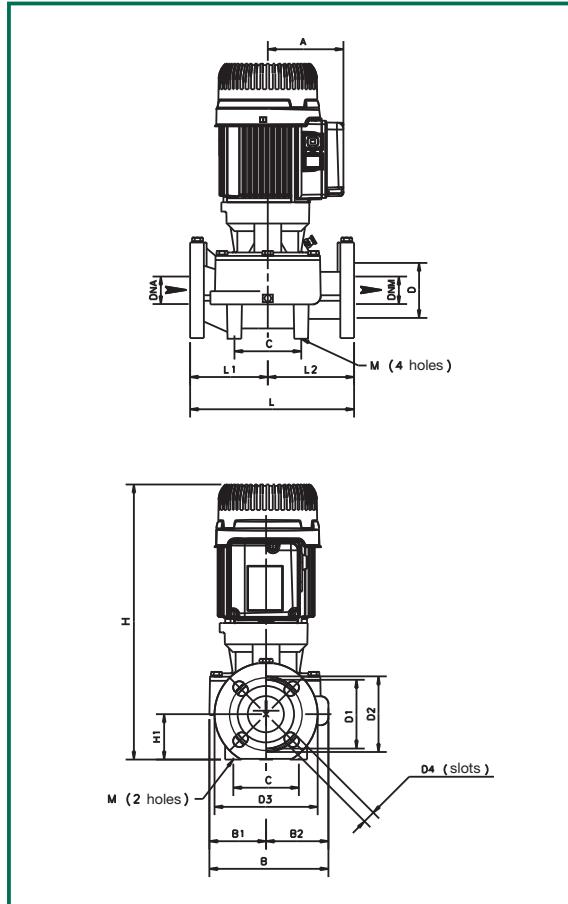
MODEL	ELECTRICAL DATA						
	VOLTAGE 50 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL kW	HP	In A
DKLM 65/300 T	3x230-400 V ~	4 POLES	1460	0,2	0,25	0,33	1-0,6
DKLM 65/600 T	3x230-400 V ~	4 POLES	1400	0,36	0,37	0,5	1,2-0,7
DKLP 65/900 T	3x230-400 V ~	2 POLES	2920	0,98	1,1	1,5	4-2,35
DKLP 65/1200 T	3x230-400 V ~	2 POLES	2880	1,3	1,1	1,5	4,7-2,7

PACKING DIMENSIONS			VOLUME m³	WEIGHT Kg	
L/A	L/B	H		single-ph.	three-ph
540	420	610	0,138	—	59,1
540	420	610	0,138	—	51,7
540	420	610	0,138	—	73,4
540	420	610	0,138	—	79,7

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.

KLM 80- KLP 80

Liquid temperature range: from -15°C to +120°C
Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DNM	D	D1	D2	D3	D4	H	H1	L	L1	L2	M
KLM 80/300	110	229	99	130	115	80	80	128	150	160	200	4 slots 18x23	450	97	360	190	170	2 holes 10
KLM 80/600	115	229	99	130	115	80	80	128	150	160	200		463	97	360	190	170	
KLP 80/900	115	229	99	130	115	80	80	128	150	160	200		463	97	360	190	170	
KLP 80/1200	115	229	99	130	115	80	80	128	150	160	200		463	97	360	190	170	

MODEL	ELECTRICAL DATA						
	VOLTAGE 50 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL		In A
KLM 80/300 T	3x230-400 V ~	4 POLES	1400	0,36	0,25	0,33	1,2-0,7
KLM 80/600 T	3x230-400 V ~	4 POLES	1440	0,75	0,75	1	2,8-1,6
KLP 80/900 T	3x230-400 V ~	2 POLES	2920	1,4	1,84	2,5	5,2-3
KLP 80/1200 T	3x230-400 V ~	2 POLES	2840	2,1	1,84	2,5	6,6-3,8

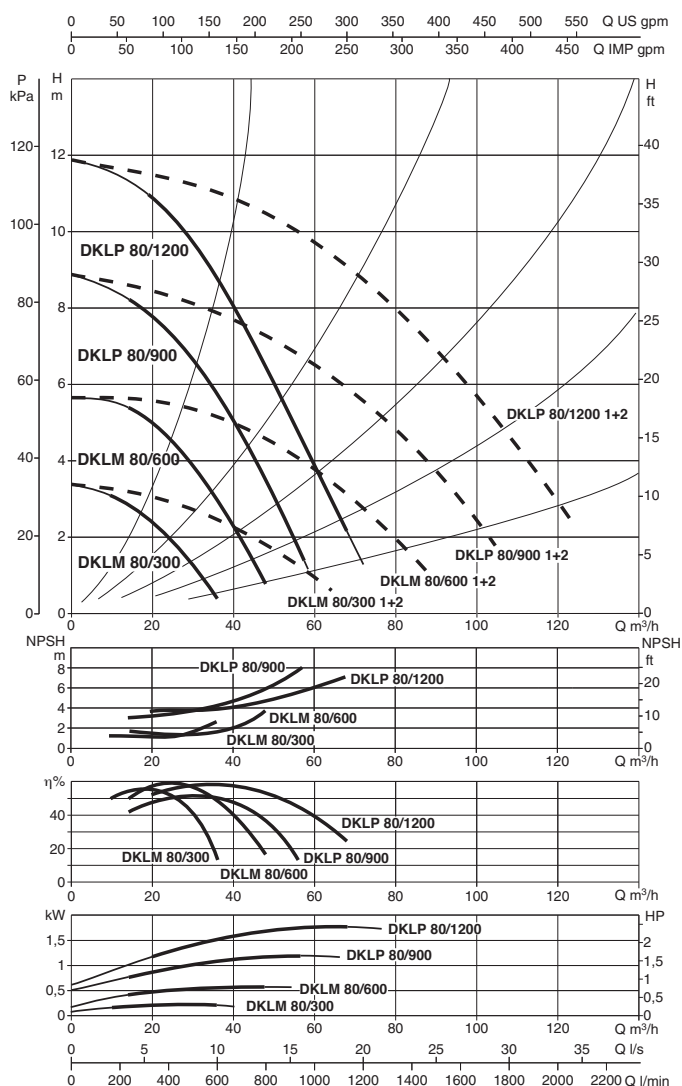
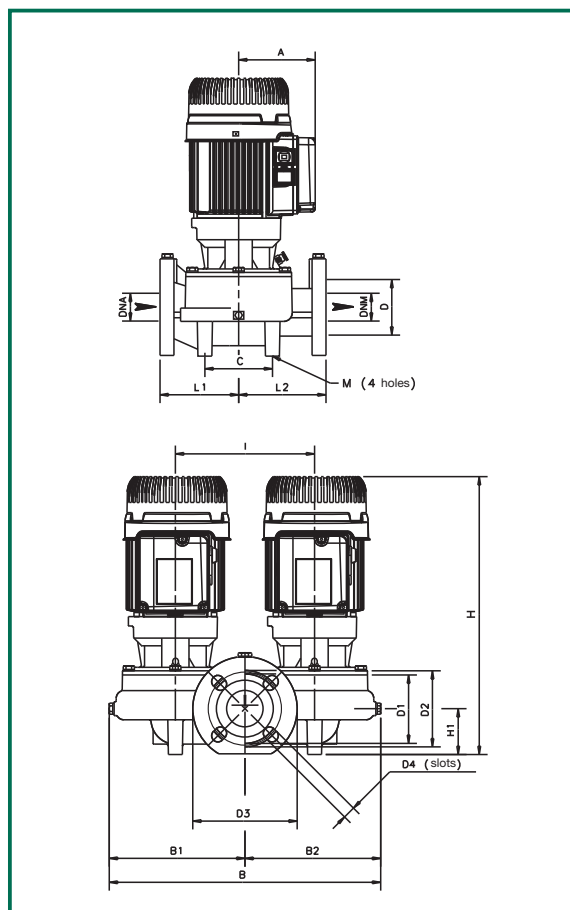
PACKING DIMENSIONS			VOLUME m ³	WEIGHT Kg
L/A	L/B	H		
510	310	470	0,074	35,1
510	310	470	0,074	42,4
510	310	470	0,074	43,4
510	310	470	0,074	43,4

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.

DKLM 80 - DKLP 80

Liquid temperature range: from -15°C to +120°C

Maximum temperature operating: +40°C

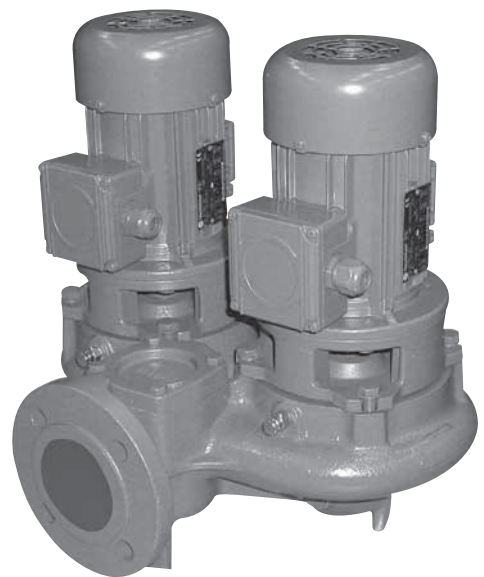


MODEL	A	B	B1	B2	C	DNA	DNM	D	D1	D2	D3	D4	H	H1	I	L	L1	L2	M
DKLM 80/300	110	463	230	233	150	80	80	128	150	150	200	4 slots 18x23	450	97	240	360	190	170	2 holes 10
DKLM 80/600	115	463	230	233	150	80	80	128	150	150	200		463	97	240	360	190	170	
DKLP 80/900	115	463	230	233	150	80	80	128	150	150	200		463	97	240	360	190	170	
DKLP 80/1200	115	463	230	233	150	80	80	128	150	150	200		463	97	240	360	190	170	

MODEL	ELECTRICAL DATA						
	VOLTAGE 50 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL kW	HP	In A
DKLM 80/300 T	3x230-400 V ~	4 POLES	1400	0,36	0,25	0,33	1,2-0,7
DKLM 80/600 T	3x230-400 V ~	4 POLES	1440	0,75	0,75	1	2,8-1,6
DKLP 80/900 T	3x230-400 V ~	2 POLES	2920	1,4	1,84	2,5	5,2-3
DKLP 80/1200 T	3x230-400 V ~	2 POLES	2840	2,1	1,84	2,5	6,6-3,8

PACKING DIMENSIONS			VOLUME m³	WEIGHT Kg
L/A	L/B	H		
540	420	610	0,138	76,6
540	420	610	0,138	77,5
540	420	610	0,138	78,8
540	420	610	0,138	79,5

CM - DCM



GENERAL DATA

Applications

Circulating pumps with IN-LINE connections, suitable for civil and industrial installations for heating, conditioning, refrigeration and clean and safe water.

Available in single and twin version.

Constructions features

Flanged suction and delivery connections in PN 10 - PN 16 with threaded holes for control pressure gauges.

Cast iron pump casing and motor support, cast iron or technopolymer impeller. Stainless steel motor shaft. Asynchronous threephase motor, 4 poles, closed and cooled with external ventilation.

Three-phase motors should be protected with a suitable overload protection complying with the regulations in force.

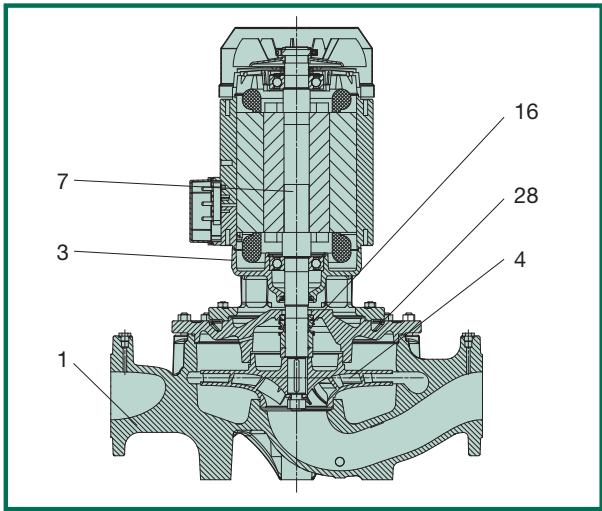
Protection: IP 54 - IP 55

Insulation class: F

TECHNICAL DATA

N.	PARTS*	MATERIALS
1	PUMP BODY	CAST IRON 250 ISO UNI 185
3	SUPPORT	CAST IRON 250 ISO UNI 185
4	IMPELLER	CAST IRON 250 ISO UNI 185 x CM 65-80-100-125-150 TECHNOPOLYMER B x CM 40-50
7	SHAFT WITH ROTOR	STAINLESS STEEL AISI 304 X5 Cr Ni 1810 - UNI 6900/71
16	MECHANICAL SEAL	CARBON/CERAMICS
28	OR GASKET	EPDM RUBBER

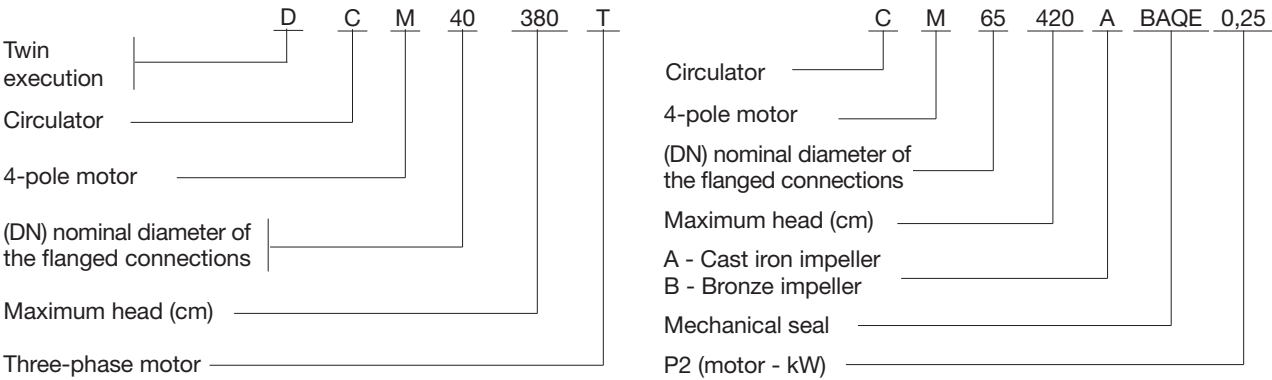
* In contact with the liquid.



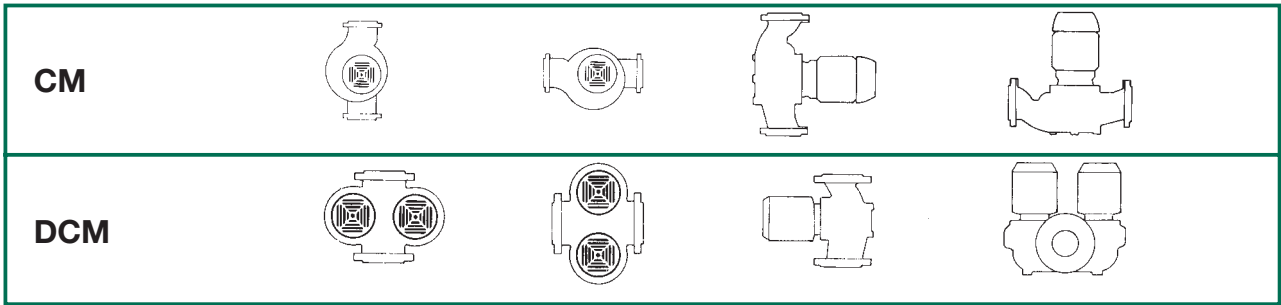
- Operating range: from 1,2 to 420 m³/h with head up to 41 meters.
- Liquid quality requirements: clean, free from solids or abrasive substances, non viscous, non aggressive, non crystallized, chemically neutral, close to the characteristics of water - max glycol 30% (for different glycol percentage please contact our technical service).
- Liquid temperature range: -10 °C ÷ +140 °C (CM)
-10 °C ÷ +130 °C (DCM)
- Maximum ambient temperature: +40°C
- Maximum working pressure:

PN 10	CM 40/1300T - CM 40/1450T - CM 50/1270T - CM 50/1420T DCM
PN 16	the rest of the range
- Flanging: PN 16
- Special versions on request: different voltages and/or frequencies

- Classification index: (example)



- Installation: with motor fitted horizontally or vertically as long as it's always above the pump.
with motor fitted vertically for P2 >11 kW



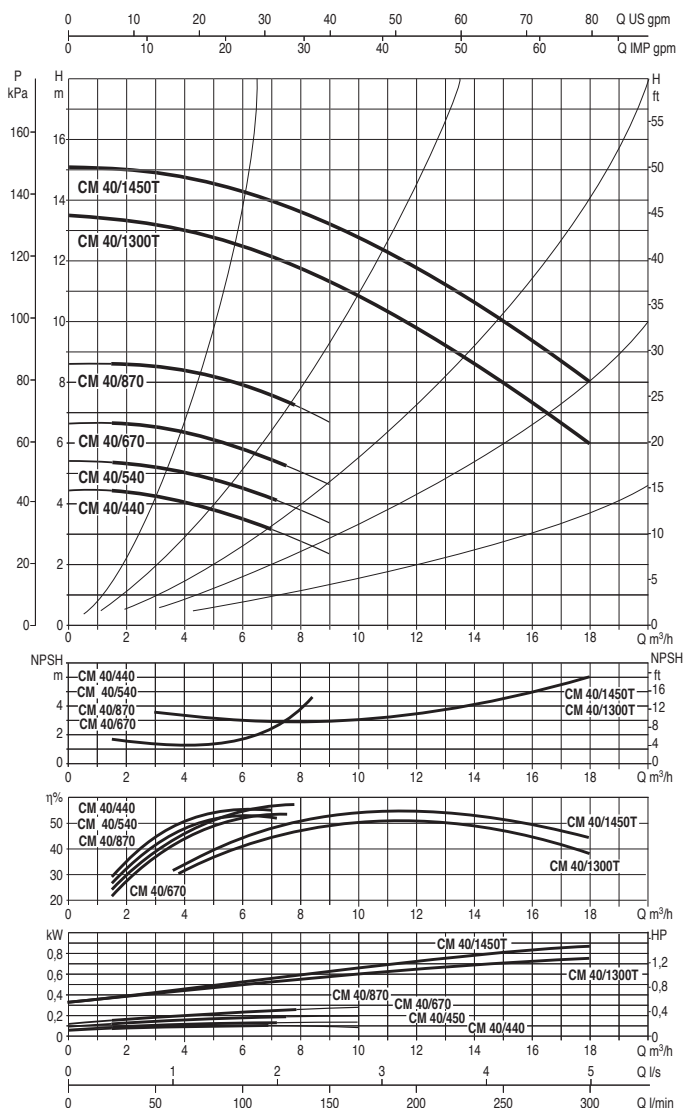
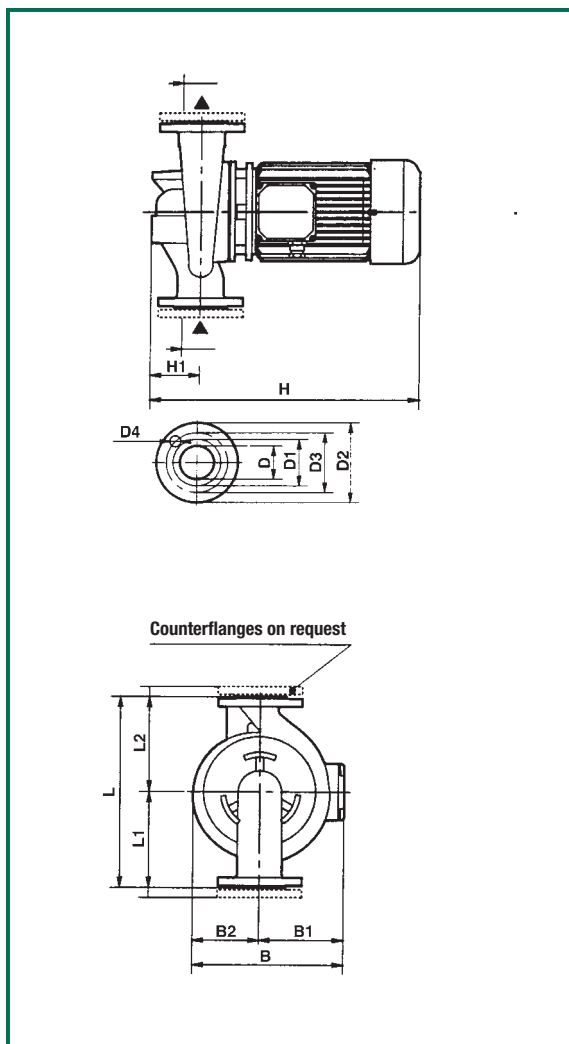
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CM 40

Liquid temperature range: ¹ from -15°C to +120°C

² from -10°C to +130°C

Maximum temperature operating: +40°C



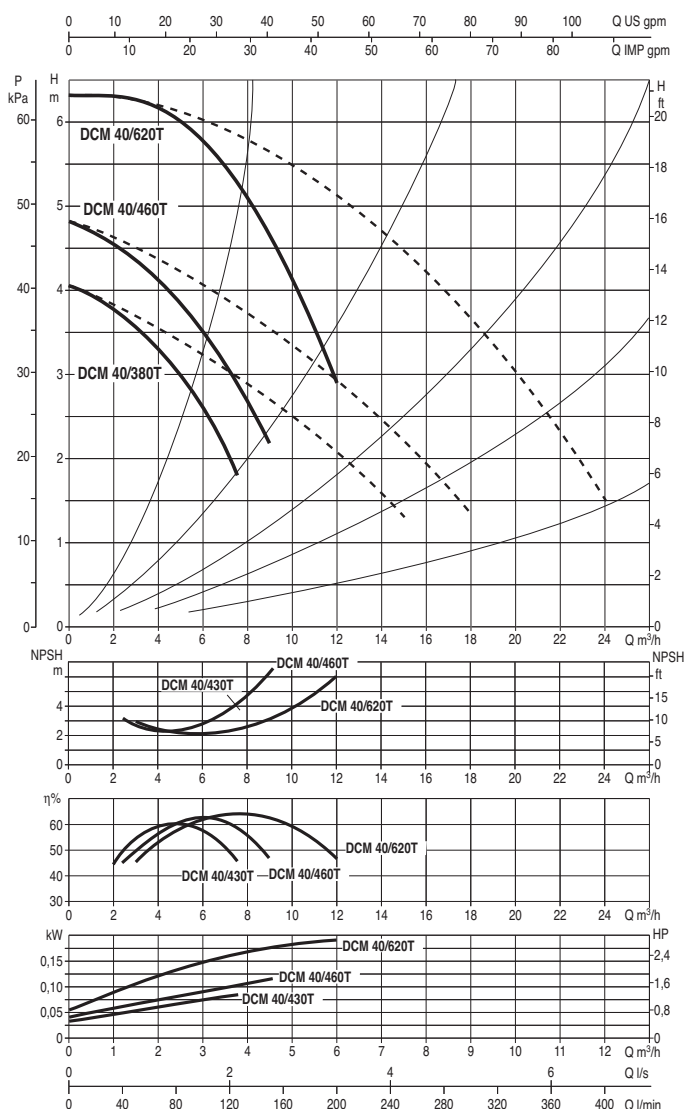
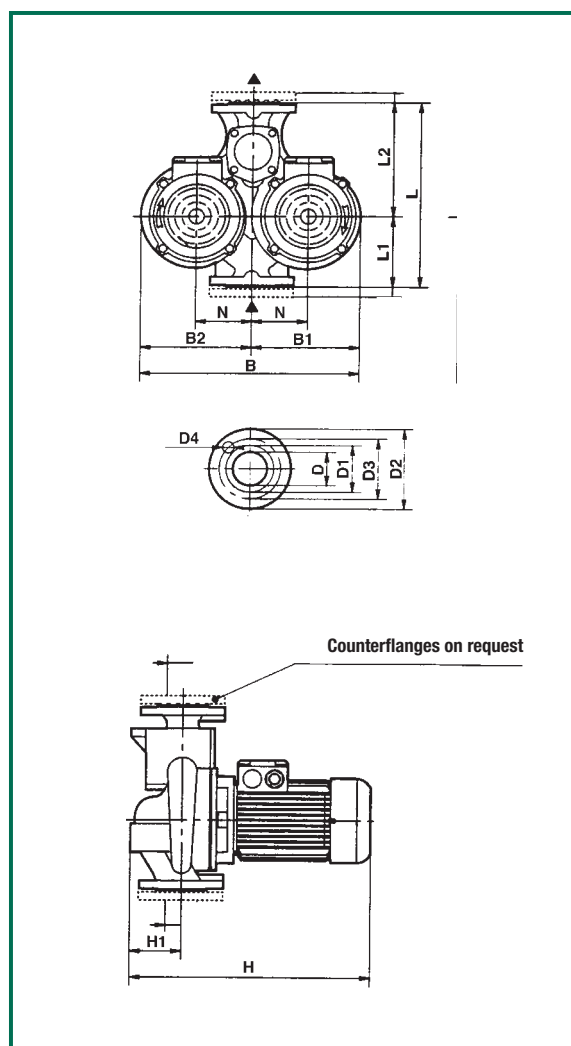
MODEL	L	L1	L2	B	B1	B2	H	H1	D	D1	D2	D3	D4	PACKING DIMENSIONS			VOLUME	WEIGHT
														L/A	L/B	H	m ³	Kg
CM 40/440 T	390	200	190	231	118	113	453	95	40 PN16	88	150	110	4 for Ø 18	680	330	580	0,13	41
CM 40/540 T	390	200	190	231	118	113	453	95	40 PN16	88	150	110		680	330	580	0,13	41
CM 40/670 T	390	200	190	231	118	113	453	95	40 PN16	88	150	110		680	330	580	0,13	41
CM 40/870 T	390	200	190	231	118	113	453	95	40 PN16	88	150	110		680	330	580	0,13	41
CM 40/1300 T	380	200	180	245	118	127	445	100	40 PN16	88	150	110		450	270	465	0,04	30
CM 40/1450 T	380	200	180	245	118	127	445	100	40 PN16	88	150	110		450	270	465	0,04	31

MODEL	VOLTAGE 50 Hz	r.p.m. 1/min.	P1 MAX kW	P2 NOMINAL		In A	Q m³/h l/min	0	1,2	2,4	3	3,6	4,5	4,8	6	7,2	8,4	9	10,5	12	13,5	14,4	15	16,8	18
				kW	HP			0	20	40	50	60	75	80	100	120	140	150	175	200	225	240	250	280	300
CM 40/440 T ¹	3x230-400 V ~	1480	0,28	0,7	1,0	2,1-1,2	H (m)	4,4	4,4	4,3	4,3	4,2	4,0	3,8	3,5	3,0									
CM 40/540 T ¹	3x230-400 V ~	1480	0,33	0,7	1,0	2,1-1,2		5,4	5,4	5,3	5,2	5,1	5,0	4,8	4,5	4,0									
CM 40/670 T ¹	3x230-400 V ~	1480	0,39	0,7	1,0	2,2-1,3		6,7	6,7	6,7	6,6	6,5	6,3	6,2	5,8	5,3									
CM 40/870 T ¹	3x230-400 V ~	1480	0,51	0,7	1,0	2,2-1,3		8,7	8,7	8,6	8,6	8,5	8,3	8,2	7,9	7,5									
CM 40/1300 T ²	3x230-400 V ~	1450	1,1	0,8	1,0	3,5-2					13,0	12,9	12,8	12,5	12,4	12,2	11,5	11,3	10,6	9,8	9,0	9,5	8,0	7,5	6,0
CM 40/1450 T ²	3x230-400 V ~	1450	1,2	0,9	1,3	4,2-2,4						14,5	14,4	14,3	14,2	13,5	13,3	12,7	11,8	10,9	10,5	10,0	9,0	8,0	

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.

DCM 40

Liquid temperature range: from -10°C to +130°C
Maximum temperature operating: +40°C



MODEL	L	L1	L2	B	B1	B2	H	H1	N	D	D1	D2	D3	D4	PACKING DIMENSIONS			VOLUME	WEIGHT
															L/A	L/B	H	m ³	Kg
DCM 40/380 T	340	130	210	397	197	200	425	100	100	40 PN16	88	150	110	4 for Ø 18	520	320	535	0,06	41
DCM 40/460 T	340	130	210	397	197	200	425	100	100	40 PN16	88	150	110		520	320	535	0,06	41
DCM 40/620 T	340	130	210	397	197	200	425	100	100	40 PN16	88	150	110		520	320	535	0,06	41

MODEL	VOLTAGE 50 Hz	r.p.m. 1/min.	P1 MAX kW	P2 NOMINAL		In A	Q m³/h	1.8	2.4	3	4.5	6	9	10.5	12
				kW	HP		l/min	30	40	50	75	100	150	175	200
DCM 40/380 T	3x230-400 V ~	1450	0,41	0,25	0,33	1,46-0,85	H (m)	3,8	3,7	3,6	3,15	2,6			
DCM 40/460 T	3x230-400 V ~	1450	0,41	0,25	0,33	1,46-0,85			4,6	4,5	4,1	3,6	2,2		
DCM 40/620 T	3x230-400 V ~	1450	0,41	0,25	0,33	1,46-0,85				6,2	6,0	5,8	4,5	3,9	3,0

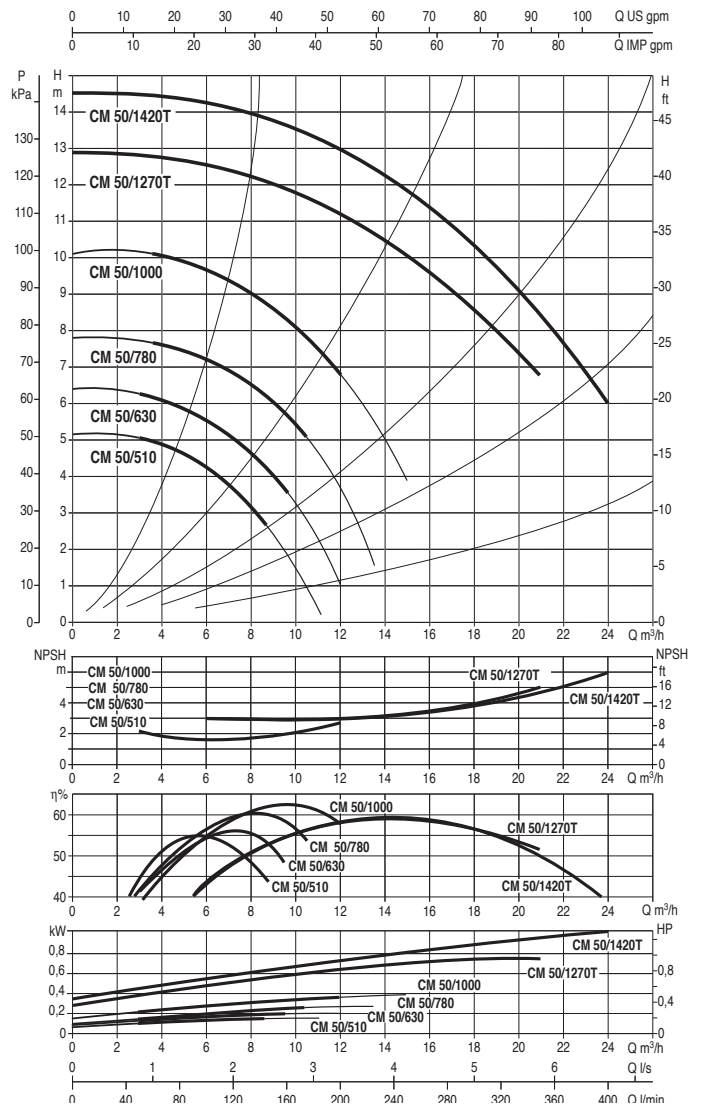
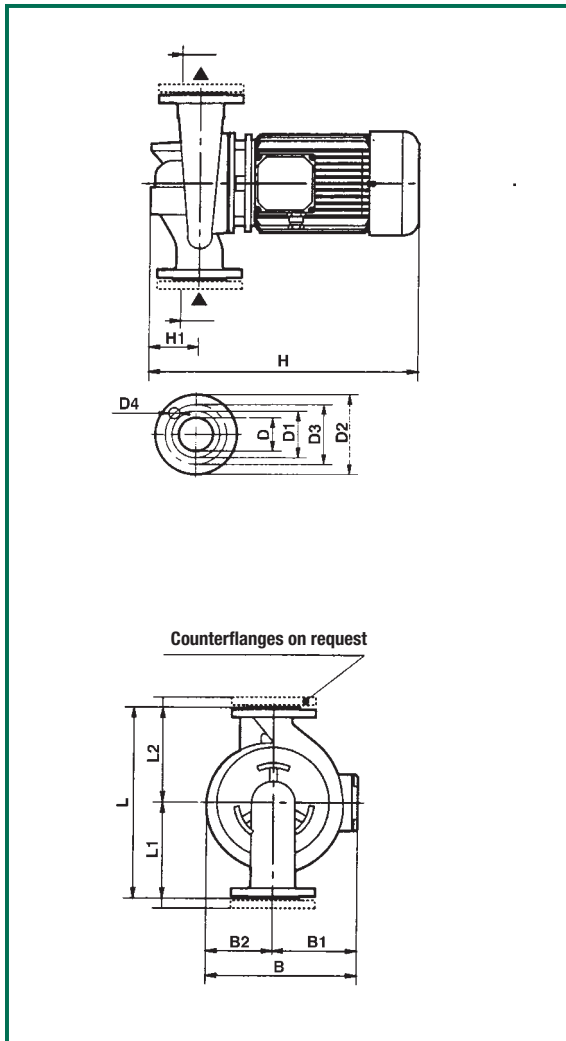
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CM 50

Liquid temperature range: ¹ from -15°C to +120°C

² from -10°C to +130°C

Maximum temperature operating: +40°C



MODEL	L	L1	L2	B	B1	B2	H	H1	D	D1	D2	D3	D4	PACKING DIMENSIONS			VOLUME m ³	WEIGHT Kg
														L/A	L/B	H		
CM 50/510 T	425	225	200	233	120	113	463	105	50 PN16	102	165	125	4 for Ø 18	680	330	580	0,13	46,6
CM 50/630 T	425	225	200	233	120	113	463	105	50 PN16	102	165	125		680	330	580	0,13	46,6
CM 50/780 T	425	225	200	233	120	113	463	105	50 PN16	102	165	125		680	330	580	0,13	46,6
CM 50/1000 T	425	225	200	233	120	113	463	105	50 PN16	102	165	125		680	330	580	0,13	46,6
CM 50/1270 T	400	220	180	280	149	131	495	110	50 PN16	102	165	125		520	320	535	0,06	36
CM 50/1420 T	400	220	180	280	149	131	495	110	50 PN16	102	165	125		520	320	535	0,06	36

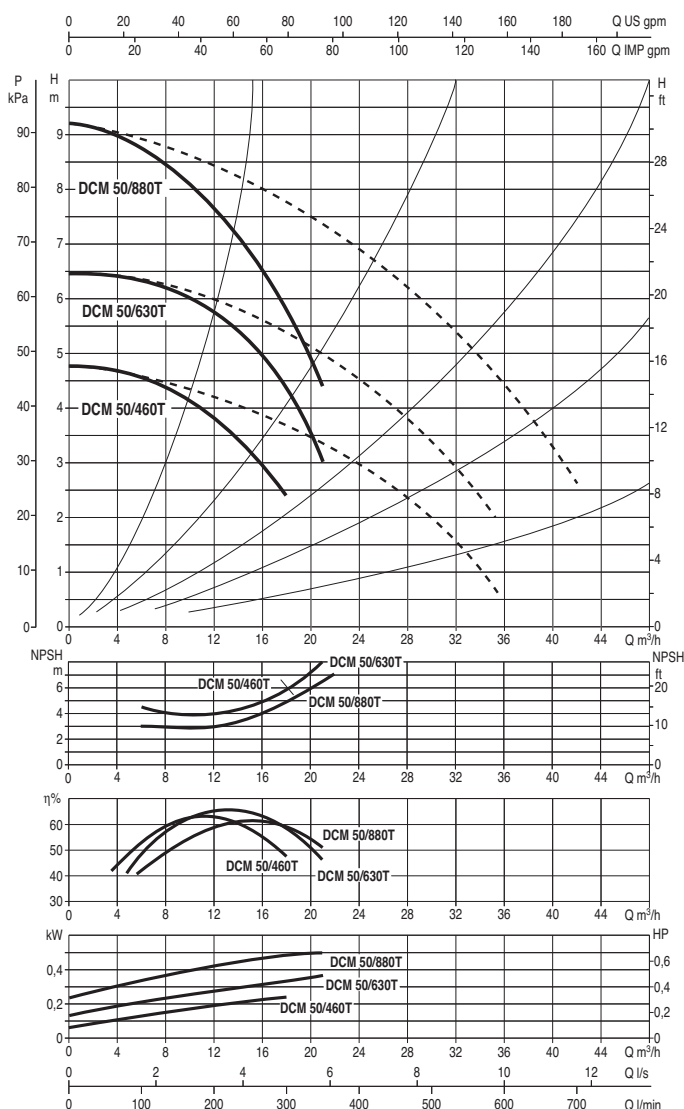
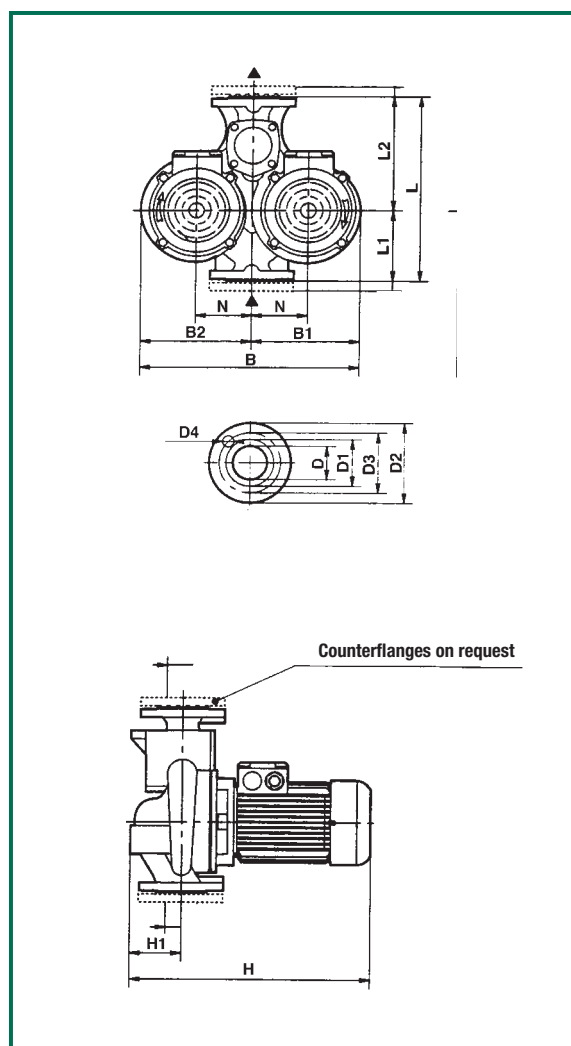
MODEL	VOLTAGE 50 Hz	r.p.m. 1/min.	P1 MAX kW	P2 NOMINAL kW	HP	In A	Q m³/h l/min	3,6 60	4,5 75	4,8 80	6 100	7,2 120	8,4 140	9 150	10,5 175	12 200	13,5 225	14,4 240	15 250	16,8 280	18 300	24 400
CM 50/510 T ¹	3x230-400 V ~	1480	0,35	0,7	1,0	2,1-1,2	H (m)	5,0	4,8	4,6	4,2	3,6	2,8									
CM 50/630 T ¹	3x230-400 V ~	1480	0,5	0,7	1,0	2,2-1,3		6,2	6,0	5,8	5,5	5,0	4,4	4,0								
CM 50/780 T ¹	3x230-400 V ~	1470	0,5	0,7	1,0	2,2-1,3		7,7	7,5	7,4	7,1	6,8	6,3	6,0								
CM 50/1000 T ¹	3x230-400 V ~	1470	0,64	0,7	1,0	2,4-1,4		10,1	10,0	9,8	9,6	9,2	8,8	8,6	7,0	6,8						
CM 50/1270 T ²	3x230-400 V ~	1450	1,4	1,1	1,5	4,5-2,6					12,7	12,4	12,3	12,1	11,7	11,2	10,7	10,5	10,1	9,0	8,5	
CM 50/1420 T ²	3x230-400 V ~	1450	1,4	1,1	1,5	4,5-2,6					14,3	14,1	13,9	13,7	13,4	13,0	12,4	12,0	11,7	11,0	10,3	

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.

DCM 50

Liquid temperature range: from -10°C to +130°C

Maximum temperature operating: +40°C



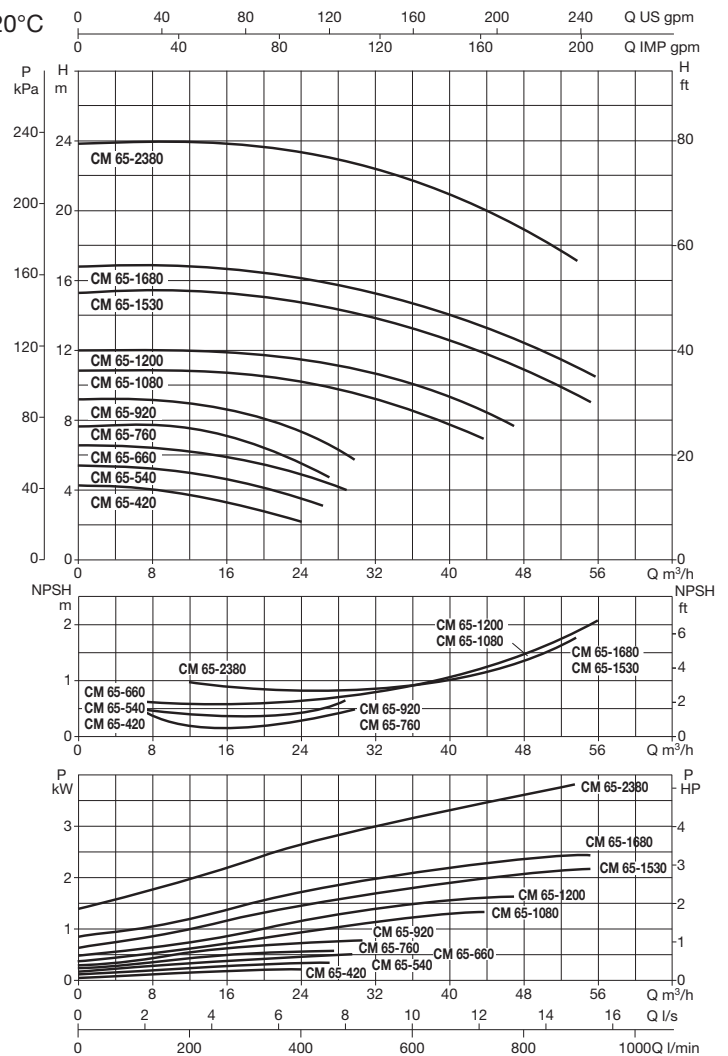
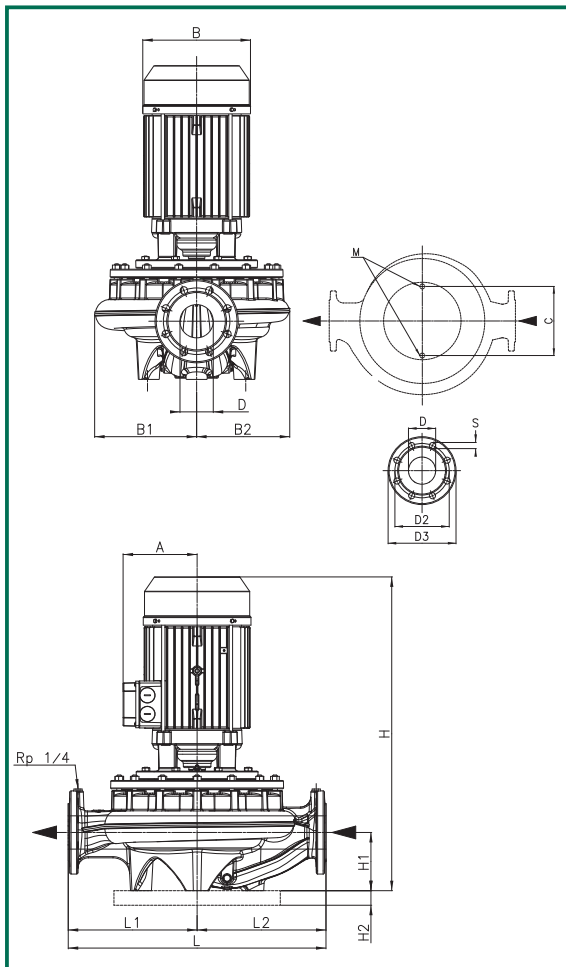
MODEL	L	L1	L2	B	B1	B2	H	H1	N	D	D1	D2	D3	D4	PACKING DIMENSIONS			VOLUME	WEIGHT
															L/A	L/B	H	m ³	Kg
DCM 50/460 T	365	145	220	427	210	217	435	110	105	50 PN16	102	165	125	4 holes Ø 18	520	320	535	0,07	46
DCM 50/630 T	365	145	220	427	210	217	435	110	105	50 PN16	102	165	125		520	320	535	0,07	46
DCM 50/880 T	410	170	240	480	235	245	435	110	120	50 PN16	102	165	125		580	360	585	0,09	52

MODEL	VOLTAGE 50 Hz	r.p.m. 1/min.	P1 MAX kW	P2 NOMINAL		In A	Q m³/h	6	9	10,5	12	13,5	15	18
				kW	HP		l/min	100	150	175	200	225	250	300
DCM 50/460 T	3x230-400 V ~	1450	0,41	0,25	0,33	1,46-0,85	H (m)	4,6	4,3	4,1	3,9	3,6	3,3	2,4
DCM 50/630 T	3x230-400 V ~	1450	0,57	0,37	0,5	2-1,15		6,3	6,1	6,0	5,8	5,5	5,2	4,6
DCM 50/880 T	3x230-400 V ~	1450	0,79	0,5	0,7	2,8-1,6		8,8	8,3	8,0	7,7	7,3	6,9	5,9

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.

CM 65

Liquid temperature range: from -15°C to +120°C
Maximum temperature operating: +40°C



MODEL	DIMENSIONS										PACKING DIM.							VOLUME	WEIGHT			
	A	B	B1	B2	C	D	D2	D3	S	holes	H	H1	H2	L	L1	L2	M			L/A	L/B	H
CM 65-420/A/BAQE/0,25	105	141	144	126	144	65	145	185	18	4	467	105	35	360	180	180	M16	670	390	710	0,186	46,0
CM 65-540/A/BAQE/0,37	105	141	144	126	144	65	145	185	18		467	105	35	360	180	180	M16	670	390	710	0,186	46,1
CM 65-660/A/BAQE/0,55	127	160	144	126	144	65	145	185	18		492	105	35	360	180	180	M16	670	390	710	0,186	57,9
CM 65-760/A/BAQE/0,55	127	160	144	126	144	65	145	185	18		492	105	35	360	180	180	M16	670	390	710	0,186	57,6
CM 65-920/A/BAQE/0,75	127	160	144	126	144	65	145	185	18		492	105	35	360	180	180	M16	670	390	710	0,186	59,7
CM 65-1080/A/BAQE/1,1	127	160	180	164	144	65	145	185	18		505	125	35	475	237,5	237,5	M16	670	390	710	0,186	84,3
CM 65-1200/A/BAQE/1,5	129	176	180	164	144	65	145	185	18		529	125	35	475	237,5	237,5	M16	670	390	710	0,186	86,9
CM 65-1530/A/BAQE/2,2	129	176	180	164	144	65	145	185	18		529	125	35	475	237,5	237,5	M16	670	390	710	0,186	89,6
CM 65-1680/A/BAQE/3	144	193	180	164	144	65	145	185	18		575	125	35	475	237,5	237,5	M16	670	390	710	0,186	92,2
CM 65-2380/A/BAQE/4	144	193	180	164	144	65	145	185	18		575	125	35	475	237,5	237,5	M16	670	390	710	0,186	105,7

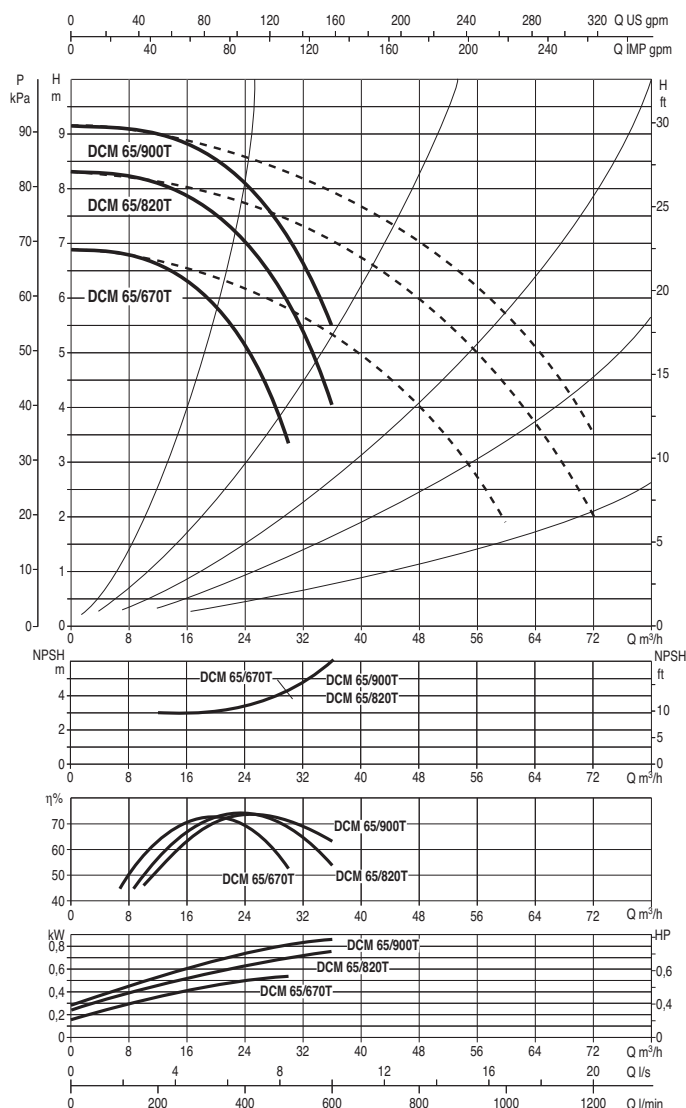
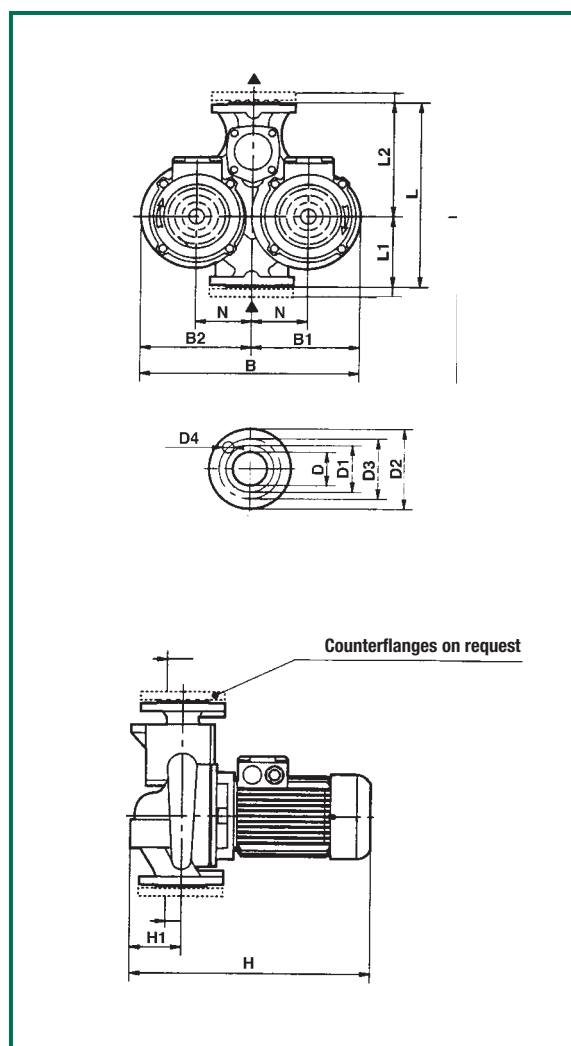
MODEL	VOLTAGE 50 Hz	r.p.m. 1/min	P1 MAX kW	P2 NOMINAL kW	HP	MOTOR SIZE	In A	I st. A	η max %	cos φ
CM 65-420/A/BAQE/0,25	3x230-400 V ~	1400	0,4	0,25	0,34	MEC 71	1,46-0,84	4,6-2,7	63	0,71
CM 65-540/A/BAQE/0,37	3x230-400 V ~	1380	0,6	0,37	0,5	MEC 71	1,86-1,07	6,5-3,7	66,4	0,72
CM 65-660/A/BAQE/0,55	3x230-400 V ~	1400	0,8	0,55	0,75	MEC 80	2,54-1,47	11,4-6,4	66,4	0,73
CM 65-760/A/BAQE/0,55	3x230-400 V ~	1390	0,8	0,55	0,75	MEC 80	2,64-1,53	11,4-6,4	65,8	0,73
CM 65-920/A/BAQE/0,75	3x230-400 V ~	1390	1,1	0,75	1	MEC 80	3,55-2,05	15,1-6	67	0,73
CM 65-1080/A/BAQE/1,1	3x230-400 V ~	1400	1,5	1,1	1,5	MEC 80	5,10-3	21,9-12,9	73	0,77
CM 65-1200/A/BAQE/1,5	3x230-400 V ~	1400	1,9	1,5	2	MEC 90L	6,4-3,7	30-17,4	78	0,78
CM 65-1530/A/BAQE/2,2	3x230-400 V ~	1400	2,6	2,2	3	MEC 90L	8,73-5,04	47-27	72	0,78
CM 65-1680/A/BAQE/3	3x400 V ~ Δ ¹	1420	3,2	3	4	MEC 100	6	37,6	72	0,79
CM 65-2380/A/BAQE/4	3x400 V ~ Δ ¹	1416	4,7	4	5,5	MEC 100	10	52,8	68,3	0,8

¹ Star start (Δ) is possible

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.

DCM 65

Liquid temperature range: from -10°C to +130°C
Maximum temperature operating: +40°C



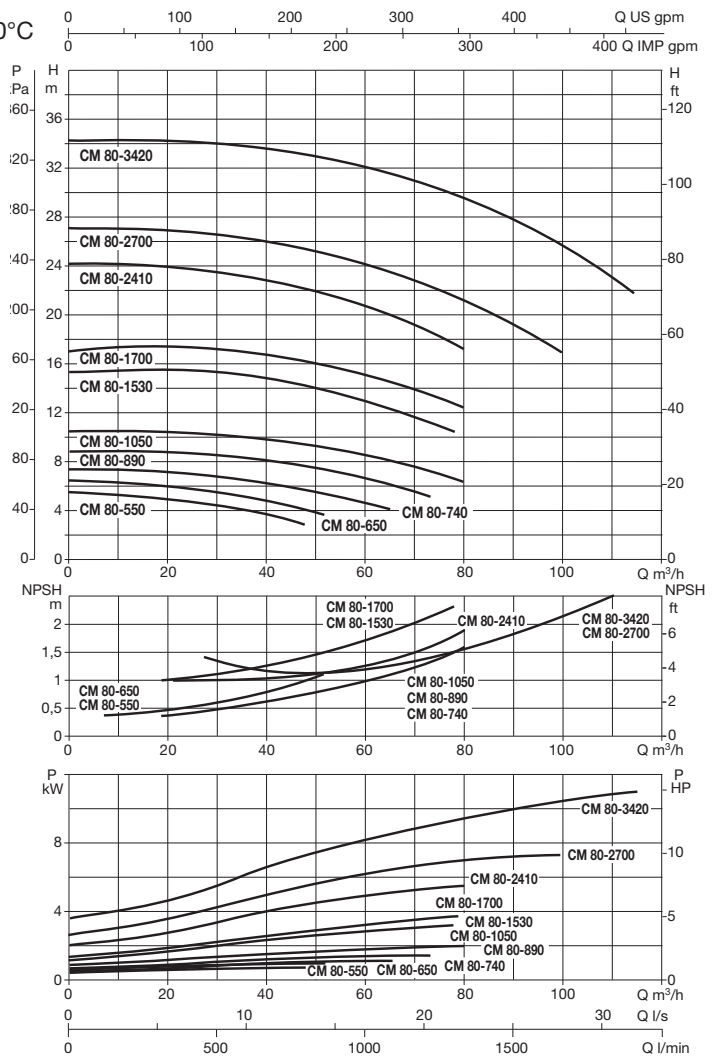
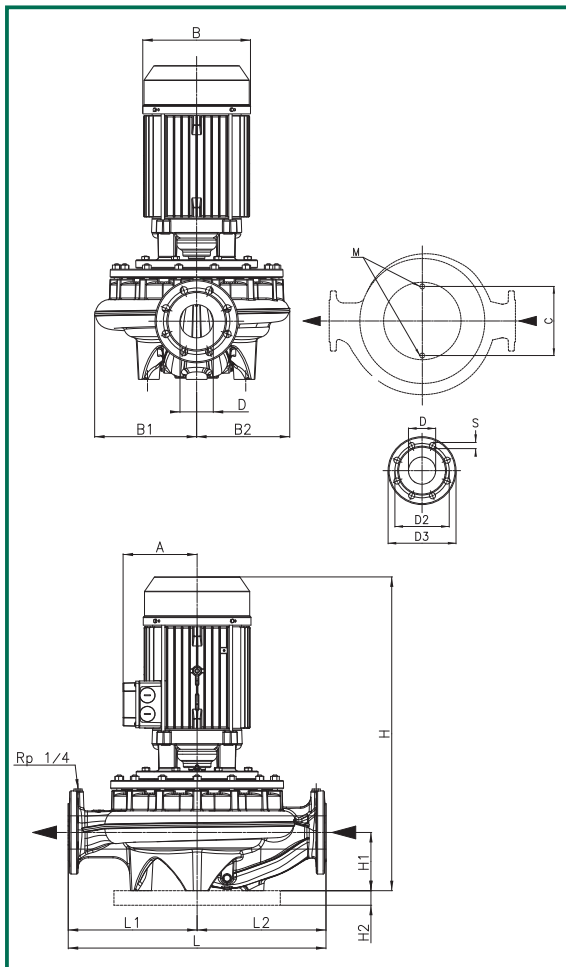
MODEL	L	L1	L2	B	B1	B2	H	H1	N	D	D1	D2	D3	D4	PACKING DIMENSIONS			VOLUME	WEIGHT
															L/A	L/B	H	m ³	Kg
DCM 65/670 T	450	180	270	543	268	275	475	130	140	65 PN16	122	185	145	4 holes Ø 18	-	-	-	0,12	65
DCM 65/820 T	450	180	270	543	268	275	475	130	140	65 PN16	122	185	145		-	-	-	0,12	65
DCM 65/900 T	450	180	270	543	268	275	475	130	140	65 PN16	122	185	145		-	-	-	0,12	67

MODEL	VOLTAGE 50 Hz	r.p.m. 1/min.	P1 MAX kW	P2 NOMINAL		In A	Q m³/h	12	13.5	15	18	24	27	30	36
				kW	HP		l/min	200	225	250	300	400	450	500	600
DCM 65/670 T	3x230-400 V ~	1450	0,79	0,55	0,75	2,8-1,6	H (m)	6,7	6,6	6,4	6,1	5,1	4,3	3,3	
DCM 65/820 T	3x230-400 V ~	1450	1,1	0,75	1	3,5-2		8,2	8,0	7,9	7,7	7,0	6,6	6,0	4,0
DCM 65/900 T	3x230-400 V ~	1450	1,2	0,9	1,25	4,2-2,4		9,0	8,9	8,8	8,6	8,1	7,7	7,2	5,5

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.

CM 80

Liquid temperature range: from -15°C to +120°C
Maximum temperature operating: +40°C



MODEL	DIMENSIONS										PACKING DIM.							VOLUME	WEIGHT			
	A	B	B1	B2	C	D	D2	D3	S	holes	H	H1	H2	L	L1	L2	M			L/A	L/B	H
CM 80-550/A/BAQE/0,55	127	160	135	117	144	80	160	200	18	8	495	105	35	360	180	180	M16	520	290	700	0,106	61,3
CM 80-650/A/BAQE/0,75	127	160	135	117	144	80	160	200	18		495	105	35	360	180	180	M16	520	290	700	0,106	62,8
CM 80-740/A/BAQE/1,1	127	160	178	146	144	80	160	200	18		505	115	35	440	220	220	M16	670	390	710	0,186	90,0
CM 80-890/A/BAQE/1,5	129	176	178	146	144	80	160	200	18		530	115	35	440	220	220	M16	670	390	710	0,186	94,0
CM 80-1050/A/BAQE/2,2	129	176	178	146	144	80	160	200	18		530	115	35	440	220	220	M16	670	390	710	0,186	103
CM 80-1530/A/BAQE/3	144	193	190	164	144	80	160	200	18		576	115	35	500	250	250	M16	670	390	710	0,186	125,4
CM 80-1700/A/BAQE/4	144	193	190	164	144	80	160	200	18		576	115	35	500	250	250	M16	670	390	710	0,186	138,6
CM 80-2410/A/BAQE/5,5	150	220	245	224	230	80	160	200	18		663	140	35	620	310	310	M16	900	550	1060	0,525	166,2
CM 80-2700/A/BAQE/7,5	178	259	245	224	230	80	160	200	18		755	140	35	620	310	310	M16	900	550	1060	0,525	192,4
CM 80-3420/A/BAQE/11	178	259	245	224	230	80	160	200	18		755	140	35	620	310	310	M16	900	550	1060	0,525	209,5

MODEL	VOLTAGE 50 Hz	r.p.m. 1/min	P1 MAX kW	P2 NOMINAL		MOTOR SIZE	In A	I st. A	η max %	cos φ
CM 80-550/A/BAQE/0,55	3x230-400 V ~	1390	0,8	0,55	0,75	MEC 80	2,62-1,51	11,4-6,4	73	0,73
CM 80-650/A/BAQE/0,75	3x230-400 V ~	1396	1,1	0,75	1	MEC 80	3,48-2	15,1-6	74,2	0,73
CM 80-740/A/BAQE/1,1	3x230-400 V ~	1400	1,5	1,1	1,5	MEC 80	5,10-3	21,9-12,9	73	0,77
CM 80-890/A/BAQE/1,5	3x230-400 V ~	1400	1,9	1,5	2	MEC 90L	6,4-3,7	30-17,4	78	0,78
CM 80-1050/A/BAQE/2,2	3x230-400 V ~	1400	3	2,2	3	MEC 90L	8,73-5,04	47-27	72	0,78
CM 80-1530/A/BAQE/3	3x400 V ~ Δ ¹	1400	4	3	4	MEC 100	6	37,6	72	0,79
CM 80-1700/A/BAQE/4	3x400 V ~ Δ ¹	1400	5,8	4	5,5	MEC 100	10	52,8	68,3	0,803
CM 80-2410/A/BAQE/5,5	3x400 V ~ Δ ¹	1420	6,7	5,5	7,5	MEC 112	12,7	76,2	82	0,81
CM 80-2700/A/BAQE/7,5	3x400 V ~ Δ ¹	1450	8,9	7,5	10	MEC 132M	16	108,8	84	0,83
CM 80-3420/A/BAQE/11	3x400 V ~ Δ ¹	1450	13	11	15	MEC 132M	24	168	85	0,83

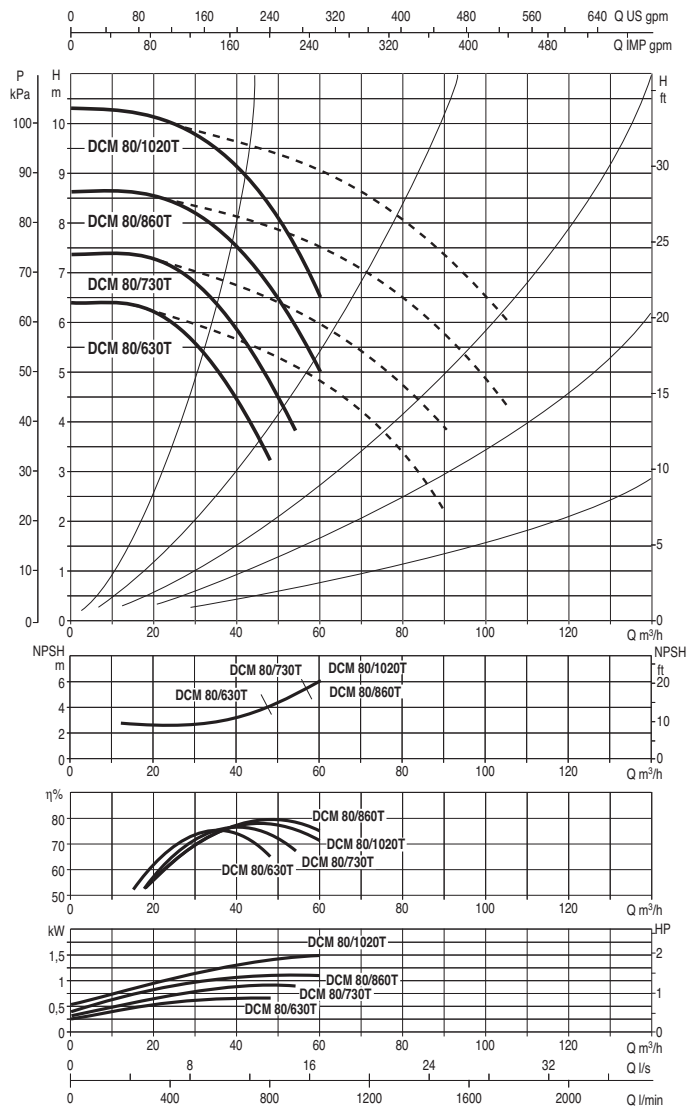
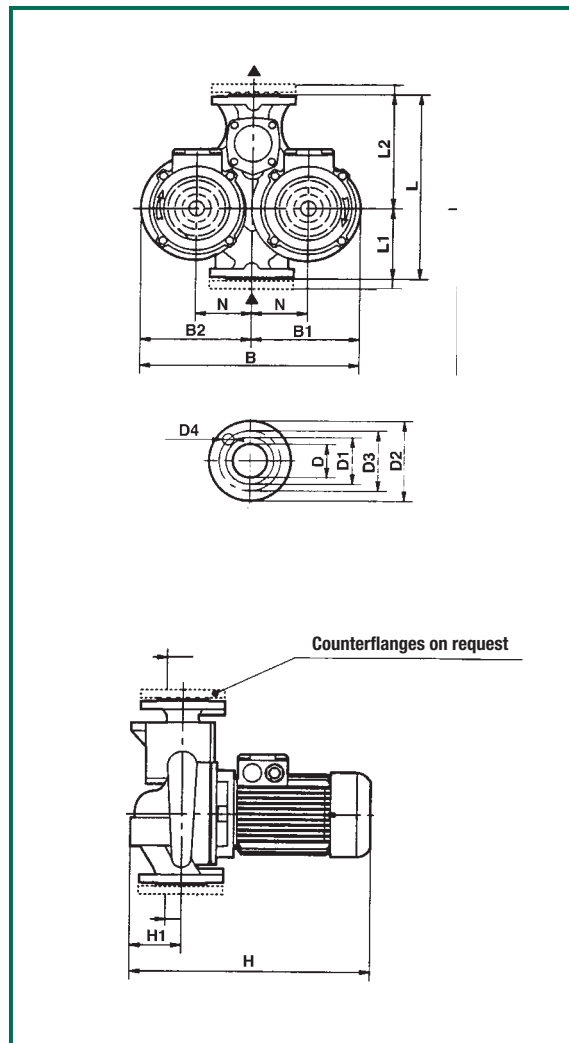
¹ Star start is possible

DAB PUMPS reserves the right to make modifications without notice.

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.

DCM 80

Liquid temperature range: from -10°C to +130°C
Maximum temperature operating: +40°C



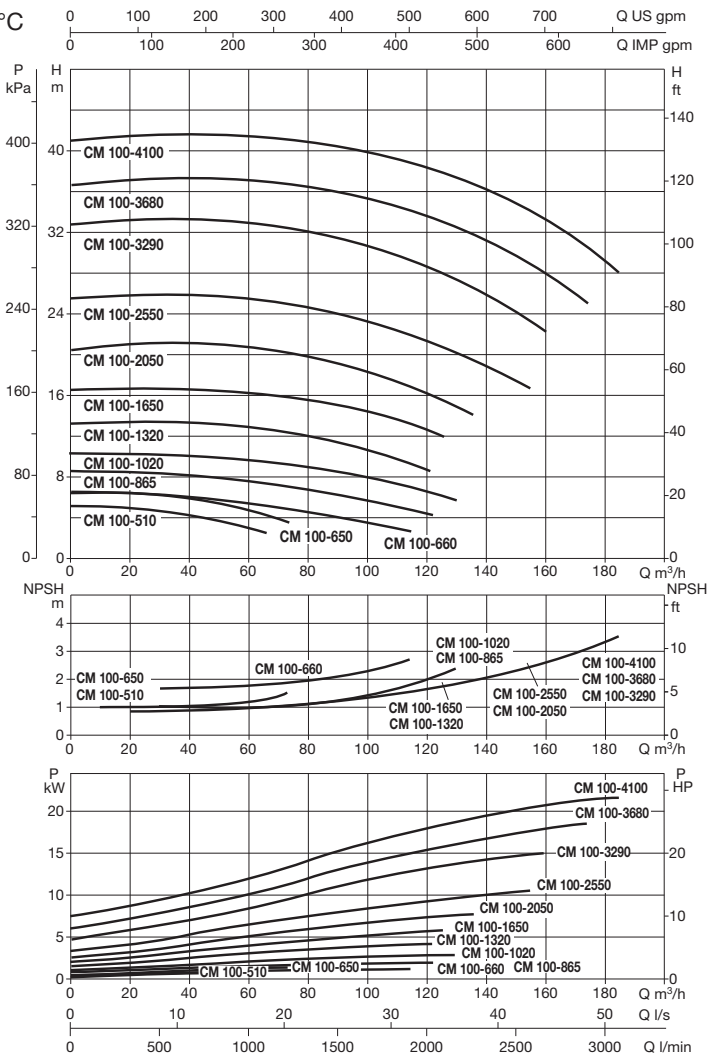
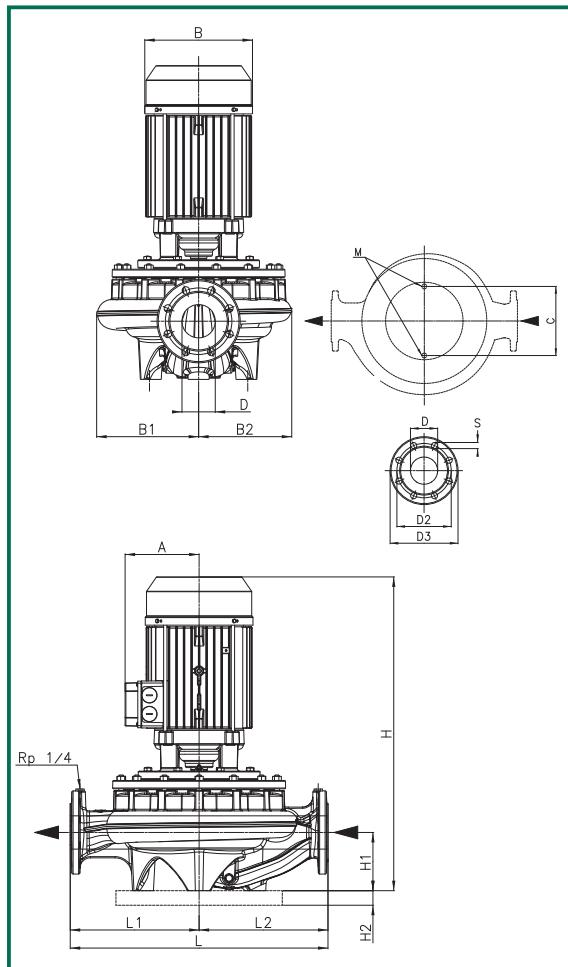
MODEL	L	L1	L2	B	B1	B2	H	H1	N	D	D1	D2	D3	D4	PACKING DIMENSIONS			VOLUME	WEIGHT
															L/A	L/B	H	m³	Kg
DCM 80/630 T	510	205	305	550	270	280	485	150	135	80 PN16	138	200	160	8 holes Ø 18	-	-	-	0,14	72
DCM 80/730 T	510	205	305	550	270	280	485	150	135	80 PN16	138	200	160		-	-	-	0,14	74
DCM 80/860 T	510	205	305	550	270	280	535	150	135	80 PN16	138	200	160		-	-	-	0,15	79
DCM 80/1020 T	510	205	305	550	270	280	535	150	135	80 PN16	138	200	160		-	-	-	0,15	88

MODEL	VOLTAGE 50 Hz	r.p.m. 1/min.	P1 MAX kW	P2 NOMINAL		In A	Q m³/h l/min										
				kW	HP			18	24	27	30	36	42	48	54	60	
								300	400	450	500	600	700	800	900	1000	
DCM 80/630 T	3x230-400 V ~	1450	1,1	0,75	1	3,5-2	H (m)	6,3	6,1	5,9	5,6	4,9	4,1	3,2			
DCM 80/730 T	3x230-400 V ~	1450	1,2	0,9	1,25	4,2-2,4		7,3	7,1	7	6,8	6,3	5,6	4,8	3,9		
DCM 80/860 T	3x230-400 V ~	1450	1,4	1,1	1,5	4,5-2,6		8,6	8,4	8,3	8,2	8,0	7,5	6,8	6,0	5,0	
DCM 80/1020 T	3x230-400 V ~	1450	1,9	1,5	2	6,1-3,5		10,2	10	9,9	9,8	9,4	9,0	8,5	7,7	6,5	

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.

CM 100

Liquid temperature range: from -15°C to +120°C
Maximum temperature operating: +40°C



MODEL	DIMENSIONS											PACKING DIM.							VOLUME	WEIGHT		
	A	B	B1	B2	C	D	D2	D3	S	holes	H	H1	H2	L	L1	L2	M	L/A			L/B	H
CM 100-510/A/BAQE/0,75	127	160	158	126	144	100	180	220	18	8	532	140	35	500	250	250	M16	670	390	710	0,186	99,9
CM 100-650/A/BAQE/1,1	127	160	158	126	144	100	180	220	18		532	140	35	500	250	250	M16	670	390	710	0,186	104,7
CM 100-660/A/BAQE/1,5	129	176	193	153	230	100	180	220	18		552	140	35	550	275	275	M16	670	390	710	0,186	108,8
CM 100-865/A/BAQE/2,2	129	176	193	153	230	100	180	220	18		552	140	35	550	275	275	M16	670	390	710	0,186	104,0
CM 100-1020/A/BAQE/3	144	193	193	153	230	100	180	220	18		598	140	35	550	275	275	M16	670	390	710	0,186	109,3
CM 100-1320/A/BAQE/4	144	193	204	174	230	100	180	220	18		635	140	35	550	275	275	M16	780	460	860	0,309	141,0
CM 100-1650/A/BAQE/5,5	150	220	204	174	230	100	180	220	18		667	140	35	550	275	275	M16	780	460	860	0,309	162,8
CM 100-2050/A/BAQE/7,5	178	259	293	252	230	100	180	220	18		795	175	35	670	335	335	M16	900	550	1060	0,525	239,1
CM 100-2550/A/BAQE/11	178	259	293	252	230	100	180	220	18		795	175	35	670	335	335	M16	900	550	1060	0,525	242,2
CM 100-3290/A/BAQE/15	223	309	293	252	230	100	180	220	18		935	175	35	670	335	335	M16	900	550	1060	0,525	336,6
CM 100-3680/A/BAQE/18,5	223	309	293	252	230	100	180	220	18		935	175	35	670	335	335	M16	900	550	1060	0,525	415
CM 100-4100/A/BAQE/22	223	309	293	252	230	100	180	220	18		935	175	35	670	335	335	M16	900	550	1060	0,525	469

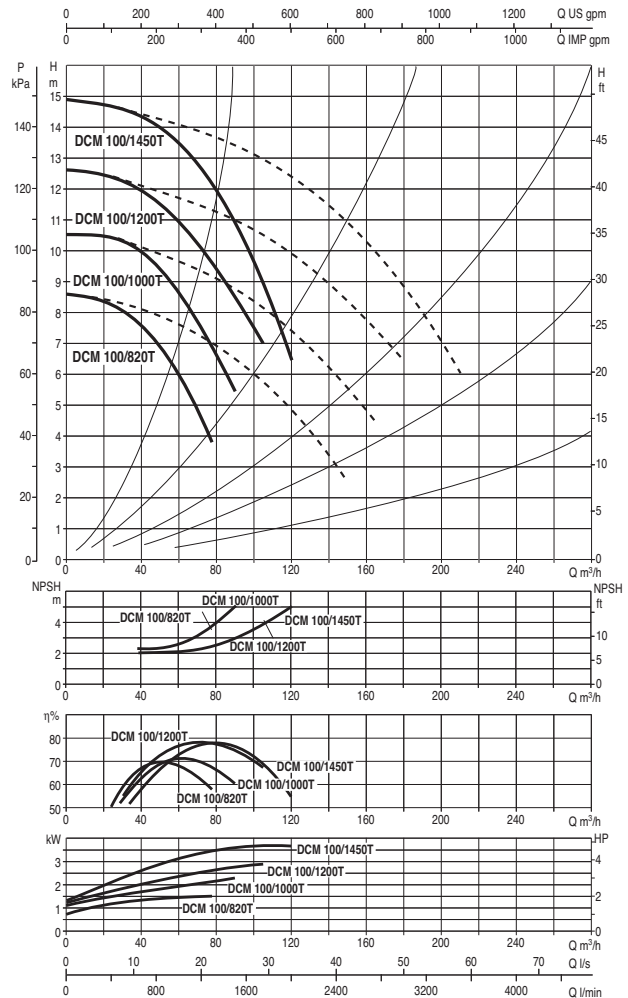
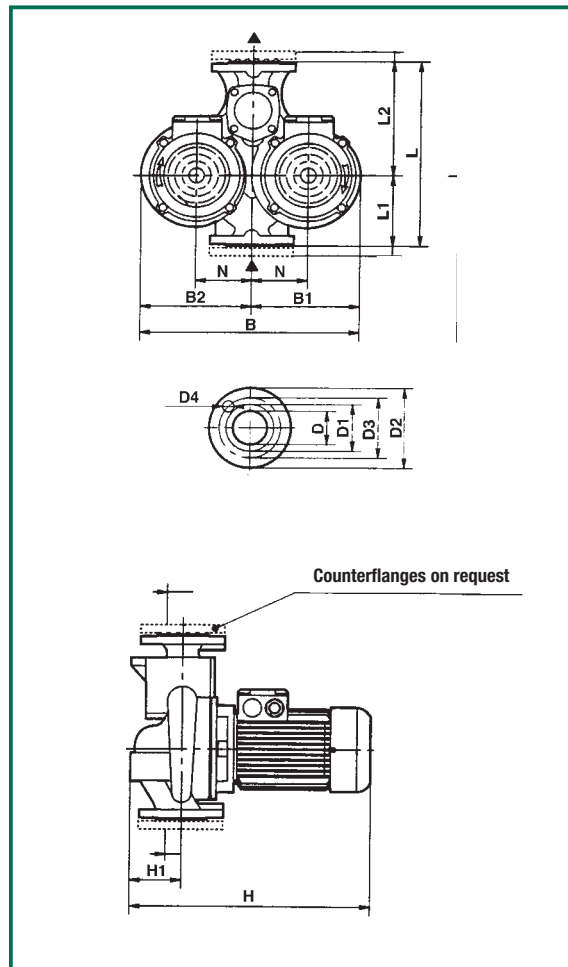
MODEL	VOLTAGE 50 Hz	r.p.m. 1/min	P1 MAX kW	P2 NOMINAL		MOTOR SIZE	In A	I st. A	η max %	cos φ
				kW	HP					
CM 100-510/A/BAQE/0,75	3x230-400 V ~	1400	1	0,75	1	MEC 80	3,48-2	15,1-6	74,2	0
CM 100-650/A/BAQE/1,1	3x230-400 V ~	1400	1,5	1,1	1,5	MEC 80	5,10-3	21,9-12,9	73	0,77
CM 100-660/A/BAQE/1,5	3x230-400 V ~	1400	1,9	1,5	2	MEC 90L	6,4-3,7	30-17,4	78	0,78
CM 100-865/A/BAQE/2,2	3x230-400 V ~	1400	3	2,2	3	MEC 90L	8,73-5,04	47-27	72	0,78
CM 100-1020/A/BAQE/3	3x400 V ~ Δ ¹	1400	4	3	4	MEC 100	6	37,6	72	0,79
CM 100-1320/A/BAQE/4	3x400 V ~ Δ ¹	1400	5,8	4	5,5	MEC 100	10	52,8	68,3	0,803
CM 100-1650/A/BAQE/5,5	3x400 V ~ Δ ¹	1420	6,7	5,5	7,5	MEC 112	12,7	76,2	82	0,81
CM 100-2050/A/BAQE/7,5	3x400 V ~ Δ ¹	1450	8,9	7,5	10	MEC 132M	16	108,8	84	0,83
CM 100-2550/A/BAQE/11	3x400 V ~ Δ ¹	1450	13	11	15	MEC 132M	24	168	85	0,83
CM 100-3290/A/BAQE/15	3x400 V ~ Δ ¹	1460	17	15	20	MEC 160L	31	207,7	89	0,83
CM 100-3680/A/BAQE/18,5	3x400 V ~ Δ ¹	1460	21	18,5	25	MEC 160L	38	254,6	89	0,83
CM 100-4100/A/BAQE/22	3x400 V ~ Δ ¹	1460	25	22	30	MEC 160L	44	299,2	88	0,83

¹ Star start is possible

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.

DCM 100

Liquid temperature range: from -10°C to +130°C
Maximum temperature operating: +40°C



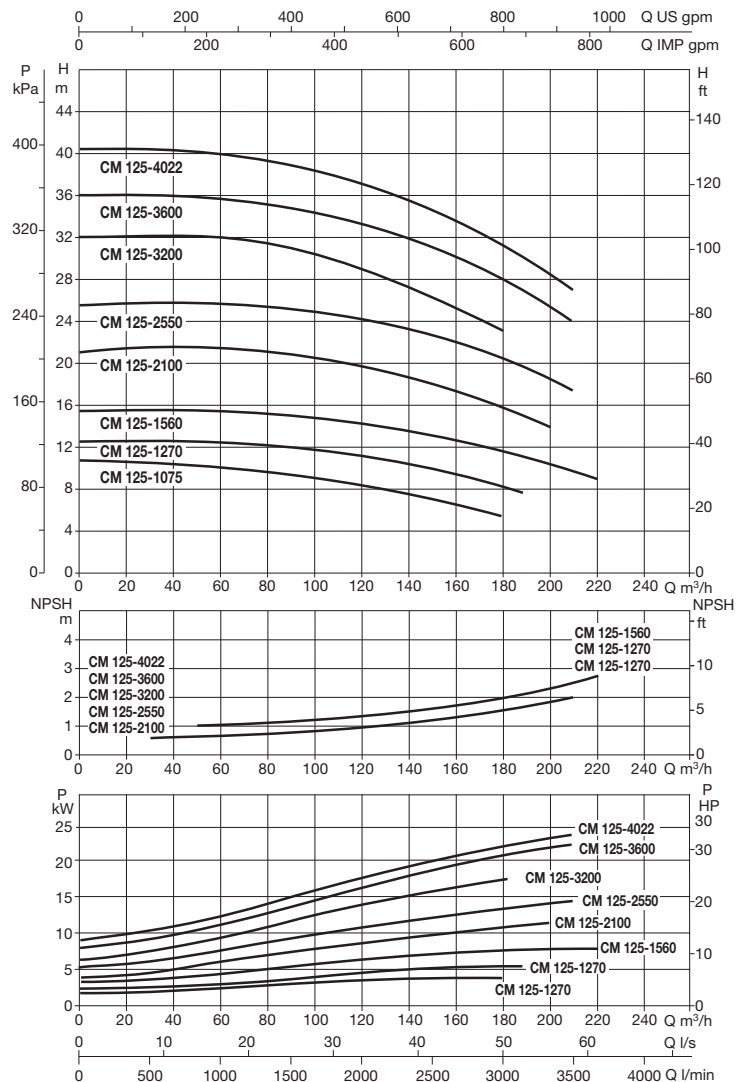
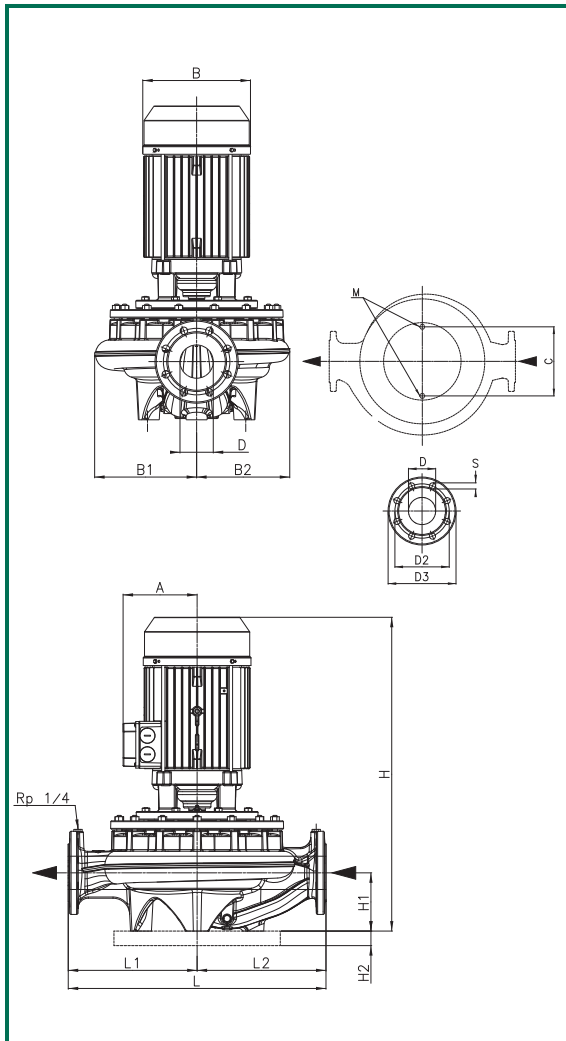
MODEL	L	L1	L2	B	B1	B2	H	H1	N	D	D1	D2	D3	D4	PACKING DIMENSIONS			VOLUME	WEIGHT
															L/A	L/B	H	m ³	Kg
DCM 100/820 T	630	240	390	670	345	325	605	180	165	100 PN16	158	220	180	8 holes Ø 18	-	-	-	0,26	110
DCM 100/1000 T	630	240	390	670	345	325	605	180	165	100 PN16	158	220	180		-	-	-	0,26	130
DCM 100/1200 T	630	240	390	670	345	325	515	180	165	100 PN16	158	220	180		-	-	-	0,22	138
DCM 100/1450 T	630	240	390	670	345	325	535	180	165	100 PN16	158	220	180		-	-	-	0,23	150

MODEL	VOLTAGE 50 Hz	r.p.m. 1/min.	P1 MAX kW	P2 NOMINAL		In A	Q m³/h												
				kW	HP		l/min	30	36	42	48	54	60	66	72	78	90	105	120
DCM 100/820 T	3x230-400 V ~	1450	1,9	1,5	2	6,1-3,5	H (m)	8,2	7,8	7,4	7	6,5	6	5,3	4,6	4			
DCM 100/1000 T	3x230-400 V ~	1450	2,61	2,2	3	8,9-5,1			10	9,7	9,3	8,9	8,5	8,0	7,5	7,0	6,0		
DCM 100/1200 T	3x230-400 V ~	1450	3,58	3	4	12-6,9			12	11,7	11,5	11,3	11	10,5	10	9,5	8,5	7	
DCM 100/1450 T	3x230-400 V ~	1450	5,16	4	5,5	16-9,2			14,5	14,2	14	13,8	13,5	13,1	12,7	12,2	11	9	6,5

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.

CM 125

Liquid temperature range: from -15°C to +120°C
Maximum temperature operating: +40°C



MODEL	DIMENSIONS																	PACKING DIM.			VOLUME	WEIGHT
	A	B	B1	B2	C	D	D2	D3	S	holes	H	H1	H2	L	L1	L2	M	L/A	L/B	H		
CM 125-1075/A/BAQE/4	144	193	252	205	230	125	210	250	18	8	716	215	35	620	310	310	M16	900	550	1060	0,525	198,5
CM 125-1270/A/BAQE/5,5	150	220	252	205	230	125	210	250	18		747	215	35	620	310	310	M16	900	550	1060	0,525	199,9
CM 125-1560/A/BAQE/7,5	178	259	252	205	230	125	210	250	18		839	215	35	620	310	310	M16	900	550	1060	0,525	214,9
CM 125-2100/A/BAQE/11	178	259	274	245	230	125	210	250	18		845	215	35	800	400	400	M16	900	550	1060	0,525	294,4
CM 125-2550/A/BAQE/15	223	309	274	245	230	125	210	250	18		985	215	35	800	400	400	M16	900	550	1200	0,594	350,4
CM 125-3200/A/BAQE/18,5	223	309	274	245	230	125	210	250	18		985	215	35	800	400	400	M16	900	550	1200	0,594	379,2
CM 125-3600/A/BAQE/22	223	309	274	245	230	125	210	250	18		985	215	35	800	400	400	M16	900	550	1200	0,594	401,3
CM 125-4022/A/BAQE/30	237	350	274	245	230	125	210	250	18		980	215	35	800	400	400	M16	900	550	1200	0,594	451

MODEL	VOLTAGE 50 Hz	r.p.m. 1/min	P1 MAX		P2 NOMINAL		MOTOR SIZE	In A	I st. A	η max %	cos φ
			kW	HP	kW	HP					
CM 125-1075/A/BAQE/4	3x400 V ~ Δ ¹	1400	5,8	4	5,5	7,5	MEC 100	10	52,8	68,3	0,803
CM 125-1270/A/BAQE/5,5	3x400 V ~ Δ ¹	1420	6,7	5,5	7,5	10	MEC 112	12,7	76,2	82	0,81
CM 125-1560/A/BAQE/7,5	3x400 V ~ Δ ¹	1450	8,9	7,5	10	15	MEC 132M	16	108,8	84	0,83
CM 125-2100/A/BAQE/11	3x400 V ~ Δ ¹	1450	13	11	15	20	MEC 132M	24	168	85	0,83
CM 125-2550/A/BAQE/15	3x400 V ~ Δ ¹	1460	17	15	20	25	MEC 160L	31	207,7	89	0,83
CM 125-3200/A/BAQE/18,5	3x400 V ~ Δ ¹	1460	21	18,5	25	30	MEC 160L	38	254,6	89	0,83
CM 125-3600/A/BAQE/22	3x400 V ~ Δ ¹	1460	25	22	30	40	MEC 160L	44	299,2	88	0,83
CM 125-4022/A/BAQE/30	3x400 V ~ Δ ¹	1465	34	30	40	58	MEC 160L	58	388,6	89	0,84

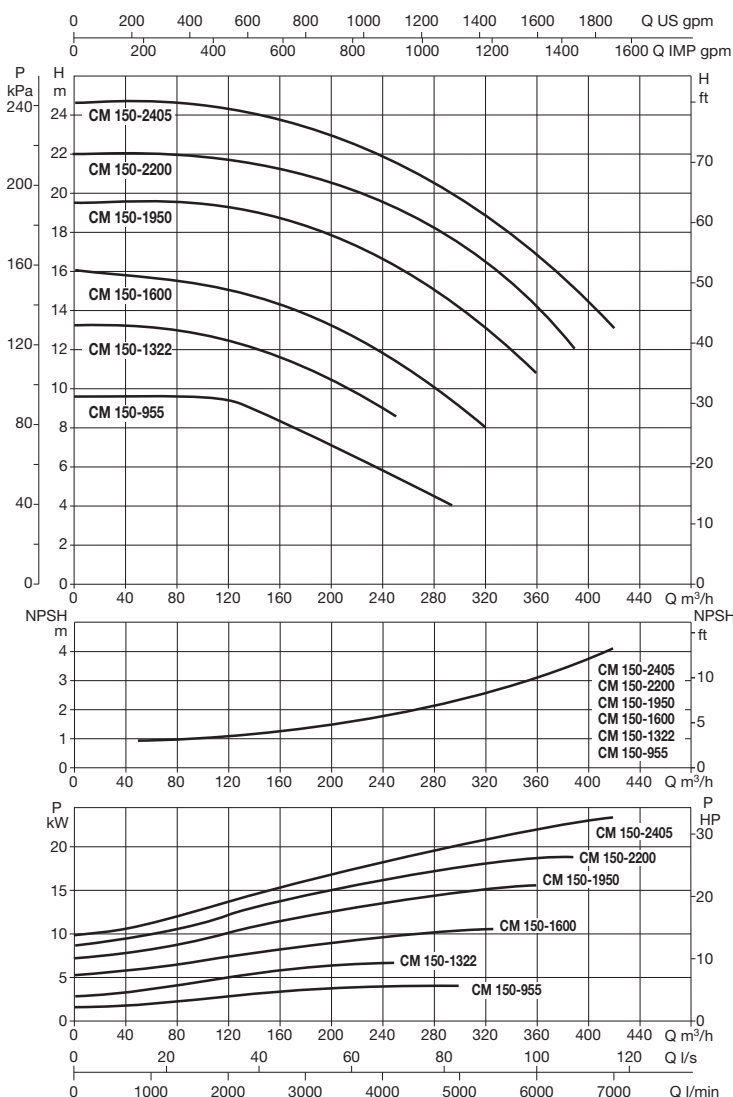
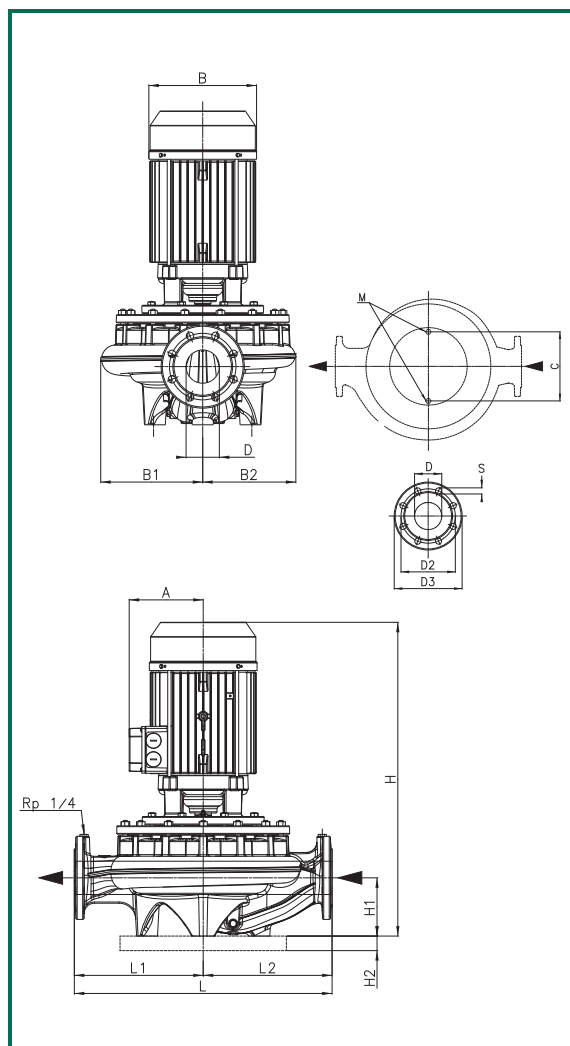
¹ Star start is possible

DAB PUMPS reserves the right to make modifications without notice.

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.

CM 150

Liquid temperature range: from -15°C to +120°C
Maximum temperature operating: +40°C

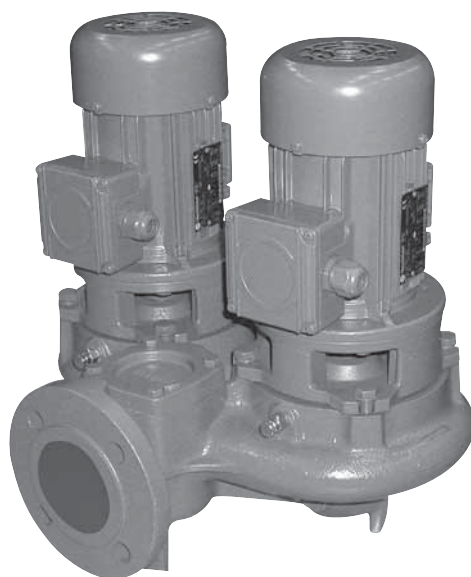


MODEL	DIMENSIONS																	PACKING DIM.			VOLUME	WEIGHT
	A	B	B1	B2	C	D	D2	D3	S	holes	H	H1	H2	L	L1	L2	M	L/A	L/B	H		
CM 150-955/A/BAQE/5,5	150	220	299	239	230	150	240	285	22	8	756	215	35	800	400	400	M16	900	550	1060	0,5247	265,6
CM 150-1322/A/BAQE/7,5	178	259	299	239	230	150	240	285	22		848	215	35	800	400	400	M16	900	550	1060	0,5247	280,6
CM 150-1600/A/BAQE/11	178	259	299	239	230	150	240	285	22		848	215	35	800	400	400	M16	900	550	1060	0,5247	293,2
CM 150-1950/A/BAQE/15	223	309	299	239	230	150	240	285	22		989	215	35	800	400	400	M16	900	550	1200	0,594	343,1
CM 150-2200/A/BAQE/18,5	223	309	299	239	230	150	240	285	22		989	215	35	800	400	400	M16	900	550	1200	0,594	357,1
CM 150-2405/A/BAQE/22	223	309	299	239	230	150	240	285	22		989	215	35	800	400	400	M16	900	550	1200	0,594	423,459

MODEL	VOLTAGE 50 Hz	r.p.m. 1/min	P1 MAX		P2 NOMINAL		MOTOR SIZE	In A	I st. A	η max %	cos φ
			kW	HP	kW	HP					
CM 150-955/A/BAQE/5,5	3x400 V ~ Δ ¹	1420	6,7	7,5	5,5	7,5	MEC 112	12,7	76,2	82	0,81
CM 150-1322/A/BAQE/7,5	3x400 V ~ Δ ¹	1450	9	10	7,5	10	MEC 132M	16	108,8	84	0,83
CM 150-1600/A/BAQE/11	3x400 V ~ Δ ¹	1450	13	15	11	15	MEC 132M	24	168	85	0,83
CM 150-1950/A/BAQE/15	3x400 V ~ Δ ¹	1460	17	20	15	20	MEC 160L	31	207,7	89	0,83
CM 150-2200/A/BAQE/18,5	3x400 V ~ Δ ¹	1460	21	25	18,5	25	MEC 160L	38	254,6	89	0,83
CM 150-2405/A/BAQE/22	3x400 V ~ Δ ¹	1460	25	30	22	30	MEC 160L	44	299,2	88	0,83

¹ Star start is possible

CP - DCP



GENERAL DATA

Applications

Circulating pumps with IN-LINE connections, suitable for civil and industrial installations for heating, conditioning, refrigeration and clean and safe water.

Available in single and twin version.

Constructions features

Flanged suction and delivery connections in PN 10 - PN 16 with threaded holes for control pressure gauges.

Cast iron pump casing and motor support, cast iron or technopolymer impeller. Stainless steel motor shaft. Asynchronous threephase motor, 2 poles, closed and cooled with external ventilation.

Three-phase motors should be protected with a suitable overload protection complying with the regulations in force.

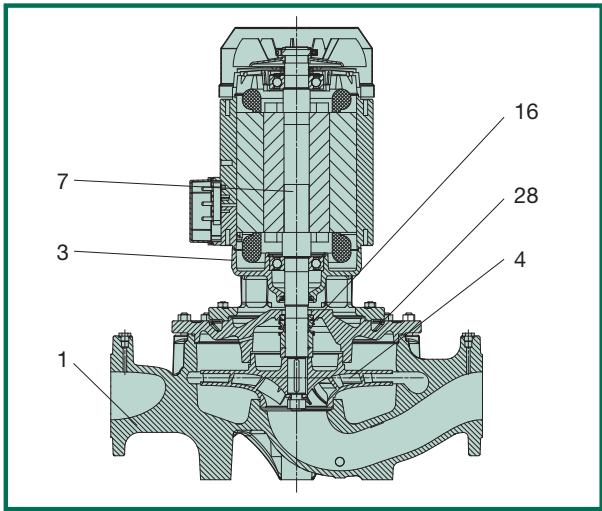
Protection: IP 54 - IP 55

Insulation class: F

TECHNICAL DATA

N.	PARTS*	MATERIALS
1	PUMP BODY	CAST IRON 250 ISO UNI 185
3	SUPPORT	CAST IRON 250 ISO UNI 185
4	IMPELLER	TECHNOPOLYMER B x PN 16 CAST IRON FOR THE REST OF THE RANGE
7	SHAFT WITH ROTOR	STAINLESS STEEL AISI 304 X5 Cr Ni 1810 - UNI 6900/71
16	MECHANICAL SEAL	CARBON/CERAMICS
28	OR GASKET	EPDM RUBBER

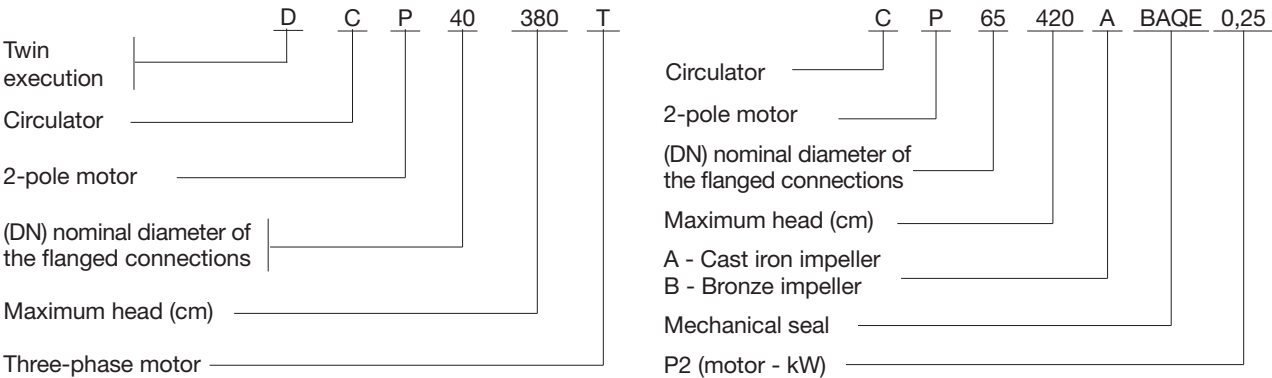
* In contact with the liquid.



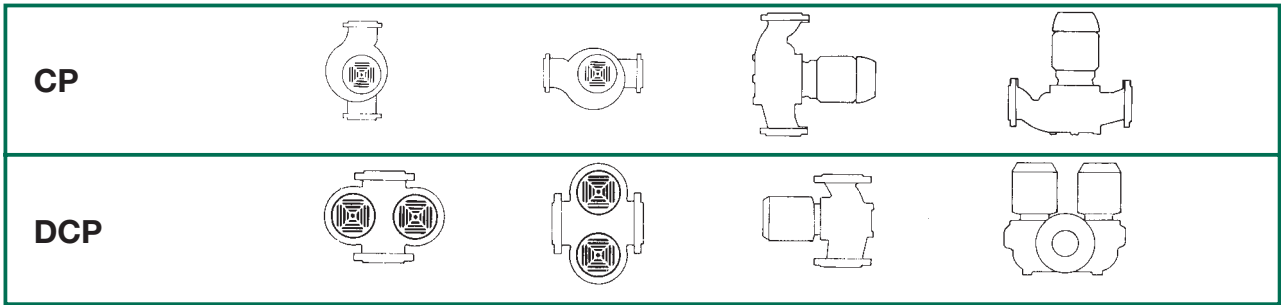
- Operating range: from 3,6 to 420 m³/h with head up to 102 meters.
- Liquid quality requirements: clean, free from solids or abrasive substances, non viscous, non aggressive, non crystallized, chemically neutral, close to the characteristics of water - max glycol 30% (for different glycol percentage please contact our technical service).
- Liquid temperature range: -10 °C ÷ +140 °C (CP)
-10 °C ÷ +130 °C (DCP)
- Maximum ambient temperature: +40°C
- Maximum working pressure:

PN 10	CP 40/3800T - CP 40/4700T - CP 440/5500T - CP 40/6200T - CP 50/4600T - CP 50/5100T - CP 50/5650T - DCP
PN 16	the rest of the range
- Flanging: PN 16
- Special versions on request: different voltages and/or frequencies

- Classification index: (example)



- Installation: with motor fitted horizontally or vertically as long as it's always above the pump.



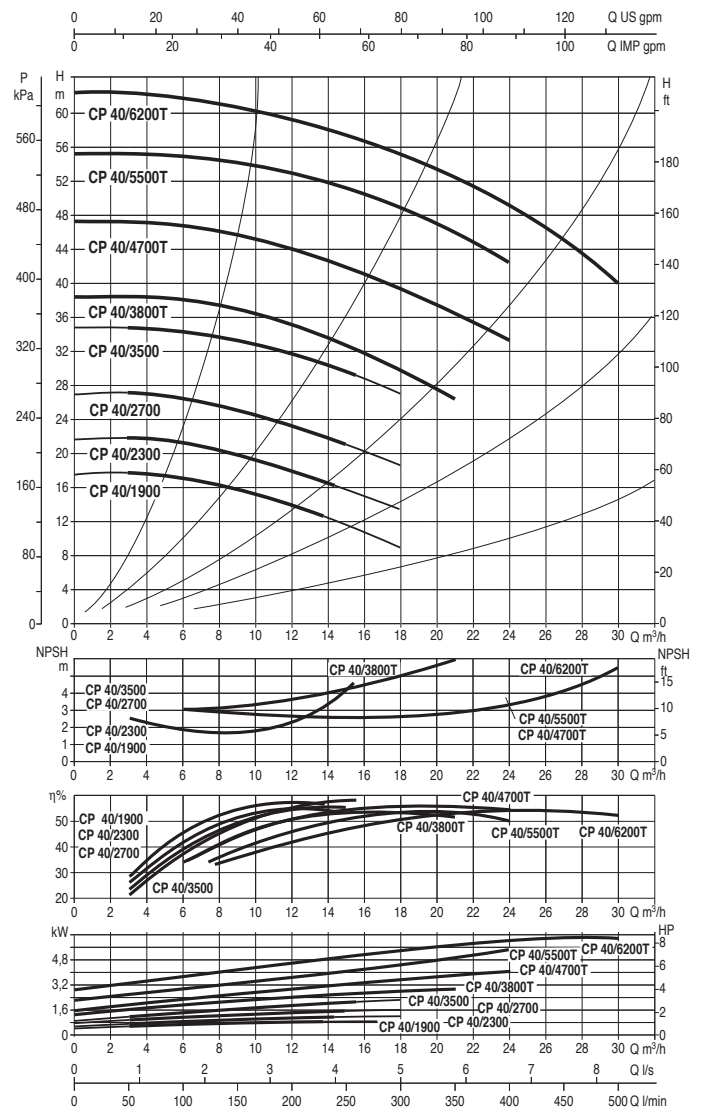
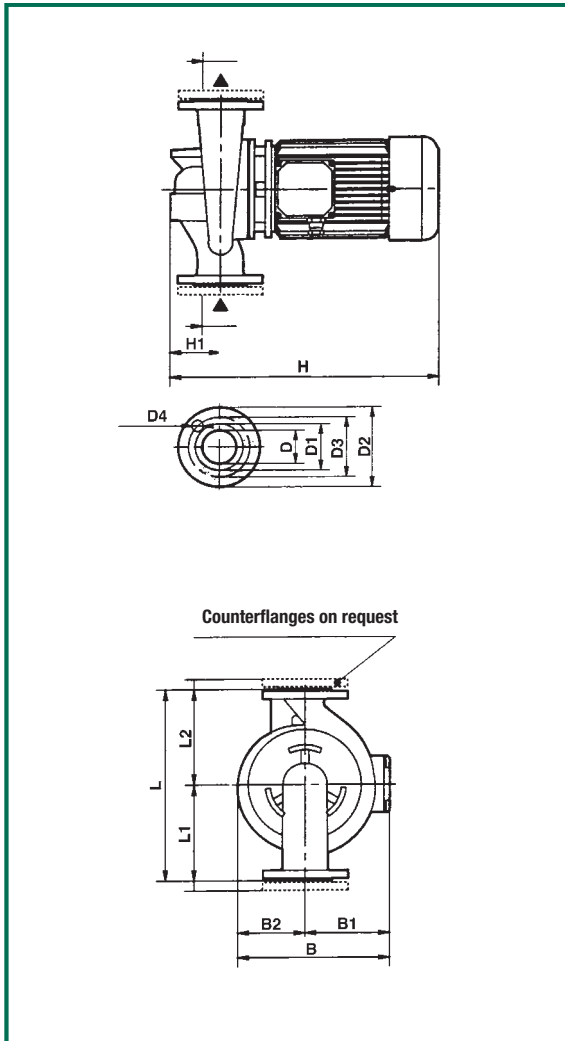
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CP 40

Liquid temperature range: ¹ from -15°C to +120°C

² from -10°C to +130°C

Maximum temperature operating: +40°C



MODEL	L	L1	L2	B	B1	B2	H	H1	D	D1	D2	D3	D4	PACKING DIMENSIONS			VOLUME	WEIGHT
														L/A	L/B	H	m ³	Kg
CP 40/1900 T	390	200	190	231	118	113	453	95	40 PN16	88	150	110	4 holes Ø 18	680	330	580	0,13	41
CP 40/2300 T	390	200	190	231	118	113	453	95	40 PN16	88	150	110		680	330	580	0,13	41
CP 40/2700 T	390	200	190	231	118	113	453	95	40 PN16	88	150	110		680	330	580	0,13	39
CP 40/3500 T	390	200	190	231	118	113	453	95	40 PN16	88	150	110		680	330	580	0,13	44
CP 40/3800 T	320	170	150	257	149	108	485	100	40 PN16	88	150	110		450	270	465	0,04	37
CP 40/4700 T	380	200	180	286	159	127	535	100	40 PN16	88	150	110		450	270	465	0,04	50
CP 40/5500 T	380	200	180	286	159	127	535	100	40 PN16	88	150	110		450	270	465	0,04	55
CP 40/6200 T	380	200	180	286	159	127	535	100	40 PN16	88	150	110		450	270	465	0,04	56

MODEL	VOLTAGE 50 Hz	r.p.m. 1/min.	P1 MAX kW	P2 NOMINAL kW	HP	In A	Q m³/h	Q l/min	Q US gpm	Q IMP gpm	H (m)	H (ft)	Q m³/h	Q l/min	Q US gpm	Q IMP gpm	H (m)	H (ft)
CP 40/1900 T ¹	3x230-400 V ~	2910	1,1	0,75	1	4,5-2,6	17,6	17,6	17,4	17	16,8	16	15	14,4	14			
CP 40/2300 T ¹	3x230-400 V ~	2870	1,45	1,1	1,5	5,2-3	21,8	21,8	21,3	21	20,8	20	20,5	19	18	17	16	
CP 40/2700 T ¹	3x230-400 V ~	2850	1,89	1,5	2	6,4-3,7	26,9	26,9	26,7	26,2	26	25,2	25	24	23,2	22	21,5	
CP 40/3500 T ¹	3x230-400 V ~	2880	2,53	2,21	3	9-5,2	34,8	34,9	34,7	34,2	34	33,5	33	32	31,7	31	30	
CP 40/3800 T ²	3x230-400 V ~	2900	3,54	3	4	11-6,4												
CP 40/4700 T ²	3x230-400 V ~	2900	4,87	4	5,5	15,2-8,8												
CP 40/5500 T ²	3x400 V ~ Δ *	2900	6,57	5,5	7,5	11,3												
CP 40/6200 T ²	3x400 V ~ Δ *	2900	9,18	7,5	10	15,8												

* Star start is possible

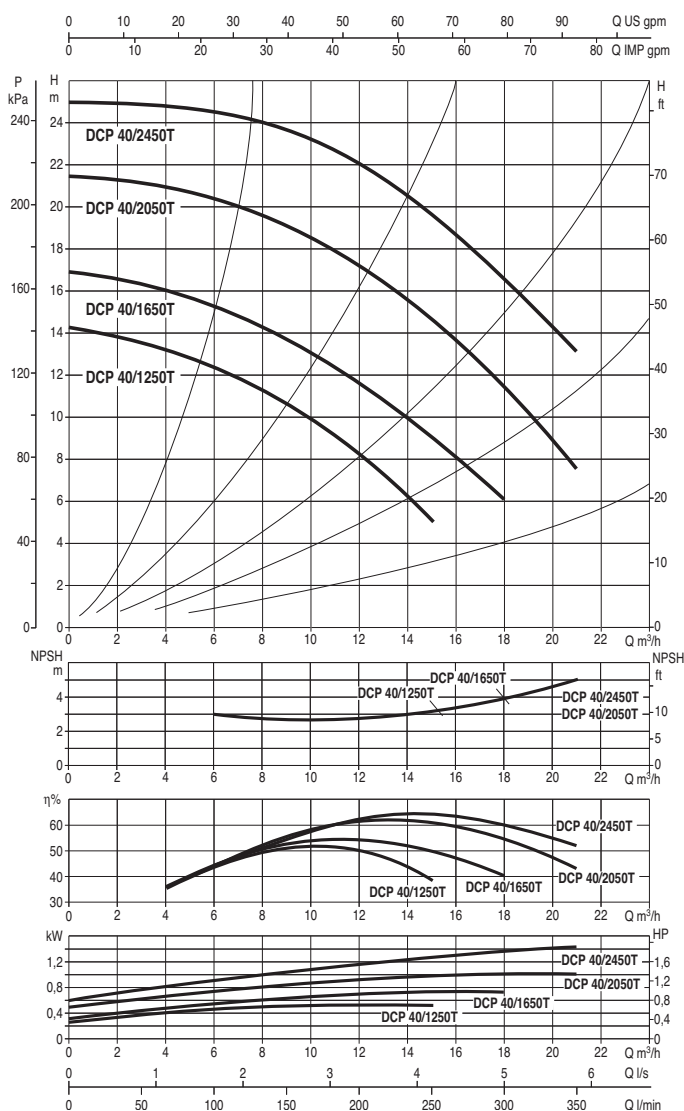
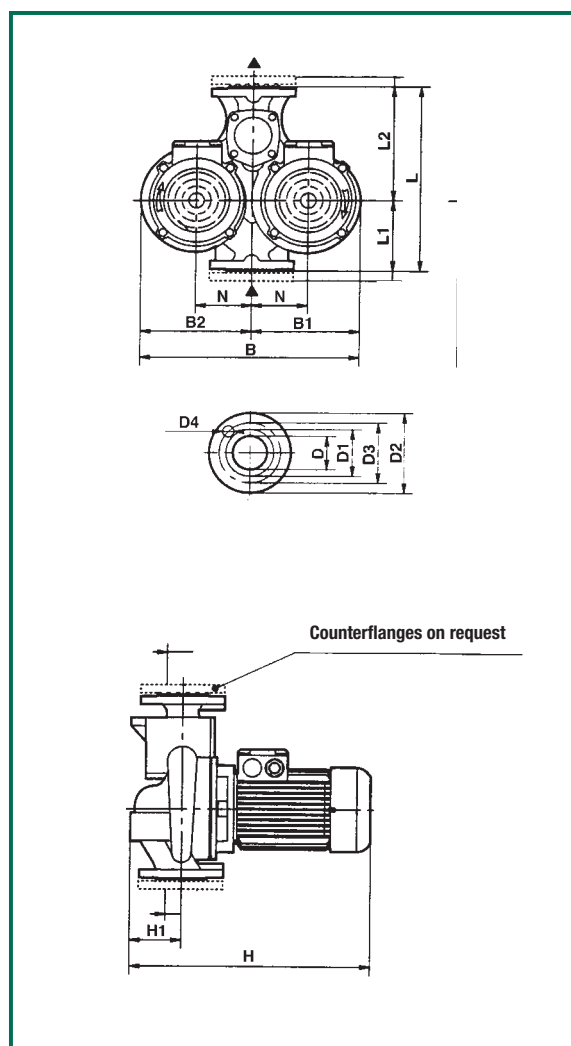
DAB PUMPS reserves the right to make modifications without notice.

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.

DCP 40

Liquid temperature range: from -10°C to +130°C

Maximum temperature operating: +40°C



MODEL	L	L1	L2	B	B1	B2	H	H1	N	D	D1	D2	D3	D4	PACKING DIMENSIONS			VOLUME	WEIGHT
															L/A	L/B	H	m ³	Kg
DCP 40/1250 T	340	130	210	397	200	197	425	100	100	40 PN16	88	150	110	4 holes Ø 18	520	320	535	0,06	50
DCP 40/1650 T	340	130	210	397	200	197	425	100	100	40 PN16	88	150	110		520	320	535	0,06	50
DCP 40/2050 T	340	130	210	397	200	197	445	100	100	40 PN16	88	150	110		520	320	535	0,06	52
DCP 40/2450 T	340	130	210	397	200	197	445	100	100	40 PN16	88	150	110		520	320	535	0,06	54

MODEL	VOLTAGE 50 Hz	r.p.m. 1/min.	P1 MAX kW	P2 NOMINAL		In A	Q m³/h	6	7.5	9	10.5	12	13.5	15	18	21
				kW	HP		l/min	100	125	150	175	200	225	250	300	350
DCP 40/1250 T	3x230-400 V ~	2900	0,83	0,55	0,75	2,8-1,6	H (m)	12,5	11,5	10,5	9,5	8,1	6,8	5,2		
DCP 40/1650 T	3x230-400 V ~	2900	1,05	0,75	1	3,3-1,9		16,5	15,5	14,5	13,5	12,3	11	9,5	6	
DCP 40/2050 T	3x230-400 V ~	2900	1,33	1	1,35	4,2-2,4		20,5	20	19	18	17	16	15	11,5	7,5
DCP 40/2450 T	3x230-400 V ~	2900	2,07	1,5	2	6,2-3,6		24,5	24	23,5	23	22	21	20	16,5	13

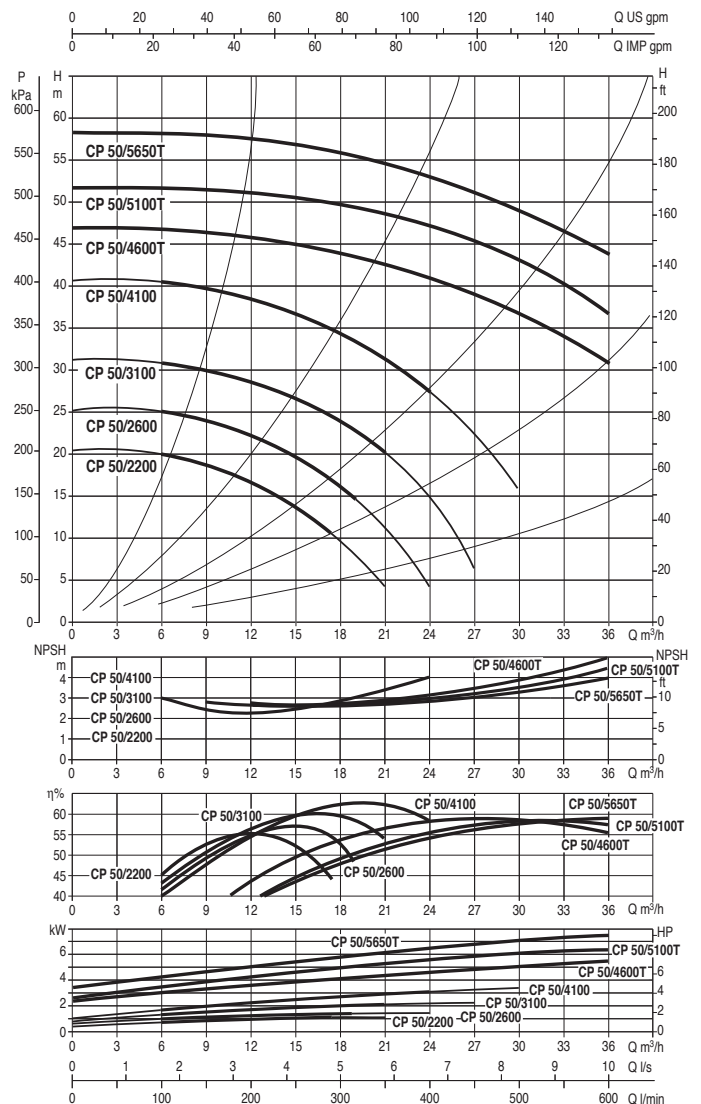
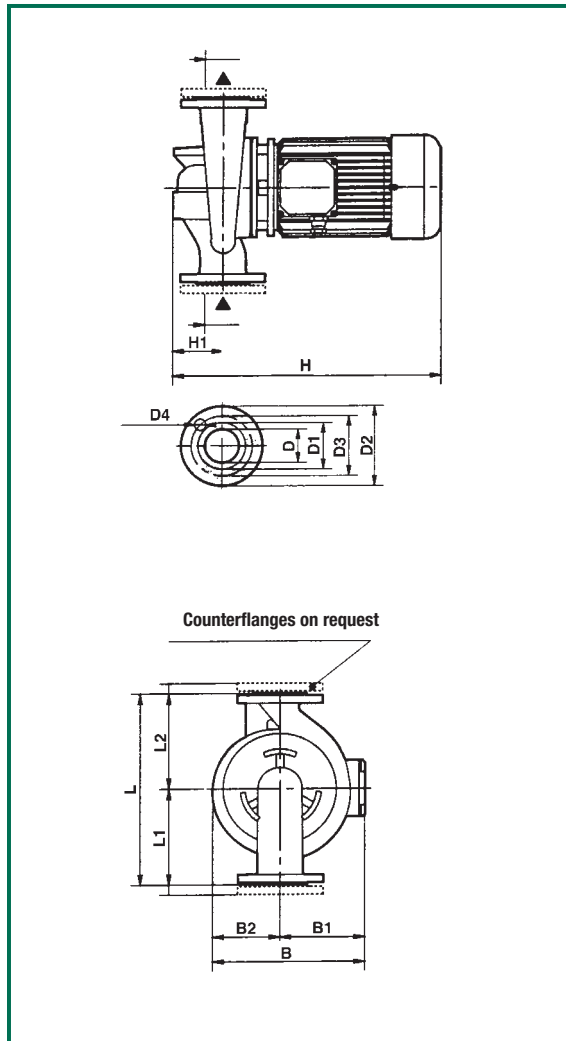
The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

CP 50

Liquid temperature range: ¹ from -15°C to +120°C

² from -10°C to +130°C

Maximum temperature operating: +40°C



MODEL	L	L1	L2	B	B1	B2	H	H1	D	D1	D2	D3	D4	PACKING DIMENSIONS			VOLUME	WEIGHT
														L/A	L/B	H	m ³	Kg
CP 50/2200 T	425	225	200	233	120	113	463	105	50 PN16	102	165	125	4 holes Ø 18	680	330	580	0,13	40
CP 50/2600 T	425	225	200	233	120	113	463	105	50 PN16	102	165	125		680	330	580	0,13	41
CP 50/3100 T	425	225	200	233	120	113	537	105	50 PN16	102	165	125		680	330	580	0,13	46
CP 50/4100 T	425	225	200	233	120	113	537	105	50 PN16	102	165	125		680	330	580	0,13	54
CP 50/4600 T	400	220	180	290	159	131	545	110	50 PN16	102	165	125		520	320	535	0,06	56
CP 50/5100 T	400	220	180	290	159	131	545	110	50 PN16	102	165	125		520	320	535	0,06	57
CP 50/5650 T	400	220	180	290	159	131	545	110	50 PN16	102	165	125		520	320	535	0,06	64

MODEL	VOLTAGE 50 Hz	r.p.m. 1/min.	P1 MAX kW	P2 NOMINAL kW	HP	In A	Q m³/h	6	7.2	8.4	9	10.5	12	13.5	14.4	15	16.8	18	21	24	27	30	36
							l/min	100	120	140	150	175	200	225	240	250	280	300	350	400	450	500	600
CP 50/2200 T ¹	3x230-400 V ~	2870	1,42	1,1	1,5	5-2,9	H (m)	20	19,5	19	18	17	16,5	15	14,5	13	11,5	11					
CP 50/2600 T ¹	3x230-400 V ~	2860	1,89	1,5	2	6,2-3,6		25	24,5	24	23	23	22	21	20	19	17,8	16					
CP 50/3100 T ¹	3x230-400 V ~	2870	2,51	2,2	3	9-5,2		31	30,5	30	29	28,7	28,5	28	27	26	25,3	24					
CP 50/4100 T ¹	3x400 V ~ Δ *	2910	3,8	4	5,5	7,4		40,7	40,5	40	39	39	38,5	38	37	36	35,3	34,5	31,5	27,7			
CP 50/4600 T ²	3x400 V ~ Δ *	2900	6,57	5,5	7,5	11,3										46	45	44	43	41,5	39	37	31
CP 50/5100 T ²	3x400 V ~ Δ *	2900	9,18	7,5	10	15,8										51	51,5	50	49	47,5	45	42,5	37
CP 50/5650 T ²	3x400 V ~ Δ *	2900	9,18	7,5	10	15,8										56,5	56	55,5	54,5	53	51	49	44

* Star start is possible

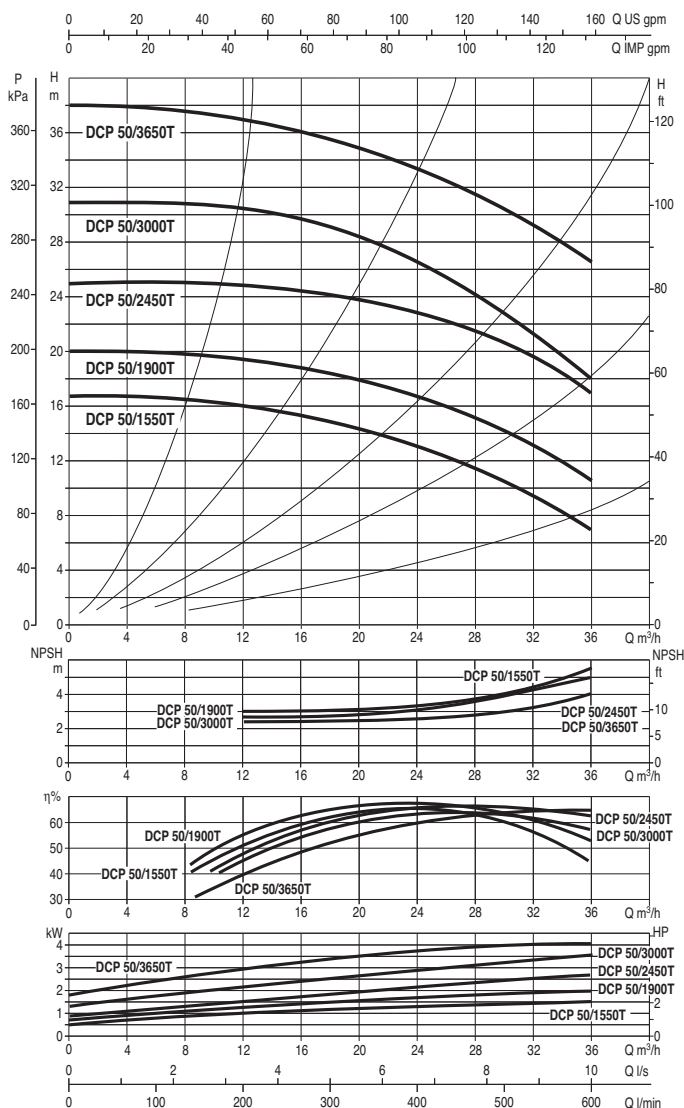
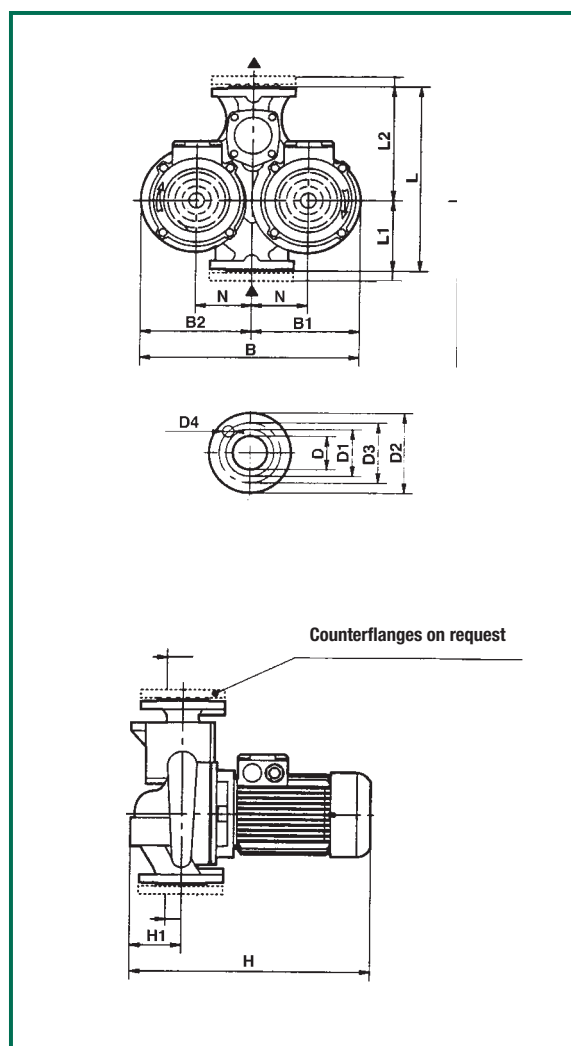
DAB PUMPS reserves the right to make modifications without notice.

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.

DCP 50

Liquid temperature range: from -10°C to +130°C

Maximum temperature operating: +40°C



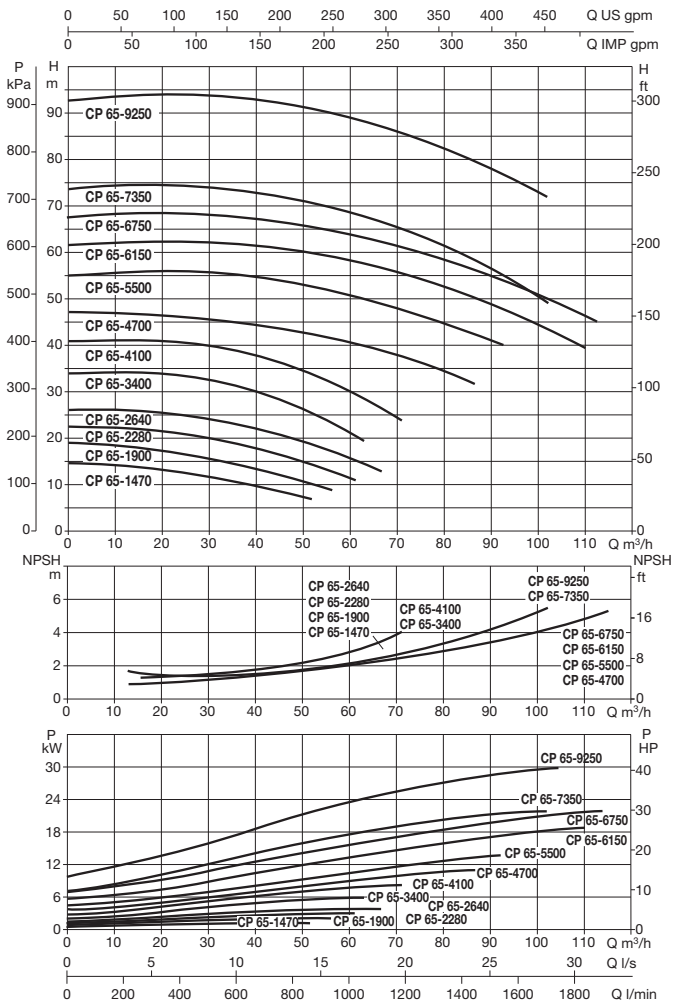
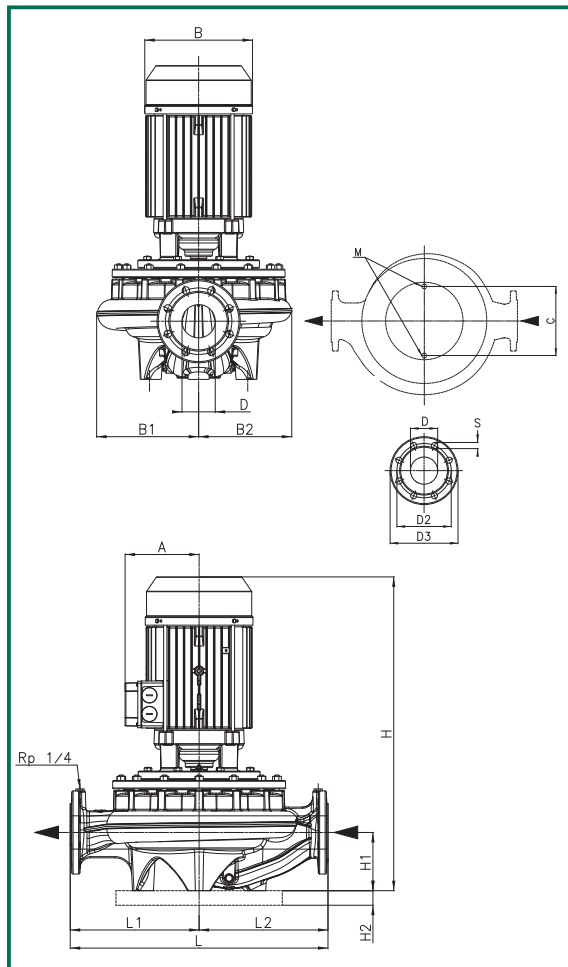
MODEL	L	L1	L2	B	B1	B2	H	H1	N	D	D1	D2	D3	D4	PACKING DIMENSIONS			VOLUME	WEIGHT
															L/A	L/B	H	m ³	Kg
DCP 50/1550 T	365	145	220	427	217	210	455	110	105	50 PN16	102	165	125	4 holes Ø 18	520	320	535	0,07	56
DCP 50/1900 T	365	145	220	427	217	210	455	110	105	50 PN16	102	165	125		520	320	535	0,07	58
DCP 50/2450 T	365	145	220	427	217	210	455	110	105	50 PN16	102	165	125		520	320	535	0,07	66
DCP 50/3000 T	365	145	220	480	217	210	495	110	105	50 PN16	102	165	125		580	360	585	0,09	56
DCP 50/3650 T	410	170	240	480	245	235	535	110	120	50 PN16	102	165	125		580	360	585	0,11	86

MODEL	VOLTAGE 50 Hz	r.p.m. 1/min.	P1 MAX kW	P2 NOMINAL kW	HP	In A	Q m³/h	15	18	21	24	27	30	36
							l/min	250	300	350	400	450	500	600
DCP 50/1550 T	3x230-400 V ~	2900	2.07	1.5	2	6.2-3.6	H (m)	15,5	15	14,1	13	11,8	10,5	7
DCP 50/1900 T	3x230-400 V ~	2900	2.53	2	2.7	7.7-4.4		19	18,5	17,5	16,5	15,5	14,5	10,5
DCP 50/2450 T	3x230-400 V ~	2900	3.54	3	4	11-6.4		24,5	24	23,5	23	22	20,5	17
DCP 50/3000 T	3x230-400 V ~	2900	3.54	3	4	11-6.4		30	29	28	26,5	25	23	18
DCP 50/3650 T	3x230-400 V ~	2900	4.87	4	5.5	15.2-8.8		36,5	35,5	34,5	33,5	32,5	31	27

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.

CP 65

Liquid temperature range: from -10°C to +130°C
Maximum temperature operating: +40°C



MODEL	DIMENSIONS											PACKING DIM.							VOLUME	WEIGHT		
	A	B	B1	B2	C	D	D2	D3	S	holes	H	H1	H2	L	L1	L2	M	L/A			L/B	H
CP 65-1470/A/BAQE/1,5	127	160	144	126	144	65	145	185	18	4	492	105	35	360	180	180	M16	670	390	710	0,185523	59,1
CP 65-1900/A/BAQE/2,2	127	160	144	126	144	65	145	185	18		492	105	35	360	180	180	M16	670	390	710	0,185523	67,6
CP 65-2280/A/BAQE/3	129	176	144	126	144	65	145	185	18		516	105	35	360	180	180	M16	670	390	710	0,185523	80,6
CP 65-2640/A/BAQE/4	144	193	144	126	144	65	145	185	18		562	105	35	360	180	180	M16	670	390	710	0,185523	87,1
CP 65-3400/A/BAQE/5,5	150	220	144	126	144	65	145	185	18		582	105	35	360	180	180	M16	670	390	710	0,185523	120,1
CP 65-4100/A/BAQE/7,5	178	259	144	126	144	65	145	185	18		664	105	35	360	180	180	M16	780	460	860	0,308568	123,7
CP 65-4700/A/BAQE/11	178	259	180	164	144	65	145	185	18		677	125	35	475	237,5	237,5	M16	780	460	860	0,308568	195,8
CP 65-5500/A/BAQE/15	178	259	180	164	144	65	145	185	18		677	125	35	475	237,5	237,5	M16	780	460	860	0,308568	213,8
CP 65-6150/A/BAQE/18,5	223	309	180	164	144	65	145	185	18		830	125	35	475	237,5	237,5	M16	900	550	1060	0,5247	230,9
CP 65-6750/A/BAQE/22	223	309	180	164	144	65	145	185	18		830	125	35	475	237,5	237,5	M16	900	550	1060	0,5247	230,9
CP 65-7350/A/BAQE/22	223	309	180	164	144	65	145	185	18		830	125	35	475	237,5	237,5	M16	900	550	1060	0,5247	270,6
CP 65-9250/A/BAQE/30	223	309	180	164	144	65	145	185	18		830	125	35	475	237,5	237,5	M16	900	550	1060	0,5247	362,2

MODEL	VOLTAGE 50 Hz	r.p.m. 1/min	P1 MAX kW	P2 NOMINAL		MOTOR SIZE	In A	I st. A	η max %	cos φ
				kW	HP					
CP 65-1470/A/BAQE/1,5	3x230-400 V ~	2804	2	1,5	2	MEC 80	6,17-3,56	35,3-20,5	67	0,83
CP 65-1900/A/BAQE/2,2	3x230-400 V ~	2790	2,6	2,2	3	MEC 80	7,42-4,29	54,2-31,2	66,5	0,83
CP 65-2280/A/BAQE/3	3x400 V ~ Δ*	2856	3,7	3	4	MEC 90L	6,48	41,5	68	0,84
CP 65-2640/A/BAQE/4	3x400 V ~ Δ*	2844	4,9	4	5,5	MEC 100	8,58	60,9	69	0,85
CP 65-3400/A/BAQE/5,5	3x400 V ~ Δ*	2870	6,4	5,5	7,5	MEC 112	10,6	81,2	69,8	0,86
CP 65-4100/A/BAQE/7,5	3x400 V ~ Δ*	2906	8,7	7,5	10	MEC 132S	14,75	99	70,5	0,9
CP 65-4700/A/BAQE/11	3x400 V ~ Δ*	2930	12	11	15	MEC 132M	20,3	157,5	90,7	0,86
CP 65-5500/A/BAQE/15	3x400 V ~ Δ*	2920	17	15	20	MEC 132M	28,73	217	72	0,87
CP 65-6150/A/BAQE/18,5	3x400 V ~ Δ*	2946	21	18,5	25	MEC 160L	34,62	259,2	72	0,88
CP 65-6750/A/BAQE/22	3x400 V ~ Δ*	2960	24	22	30	MEC 160L	39,3	309,6	72	0,88
CP 65-7350/A/BAQE/22	3x400 V ~ Δ*	2960	24,5	22	30	MEC 160L	40,22	309,6	68,3	0,88
CP 65-9250/A/BAQE/30	3x400 V ~ Δ*	2955	33	30	40	MEC 160L	54,1	231	68,3	0,88

* Star start is possible

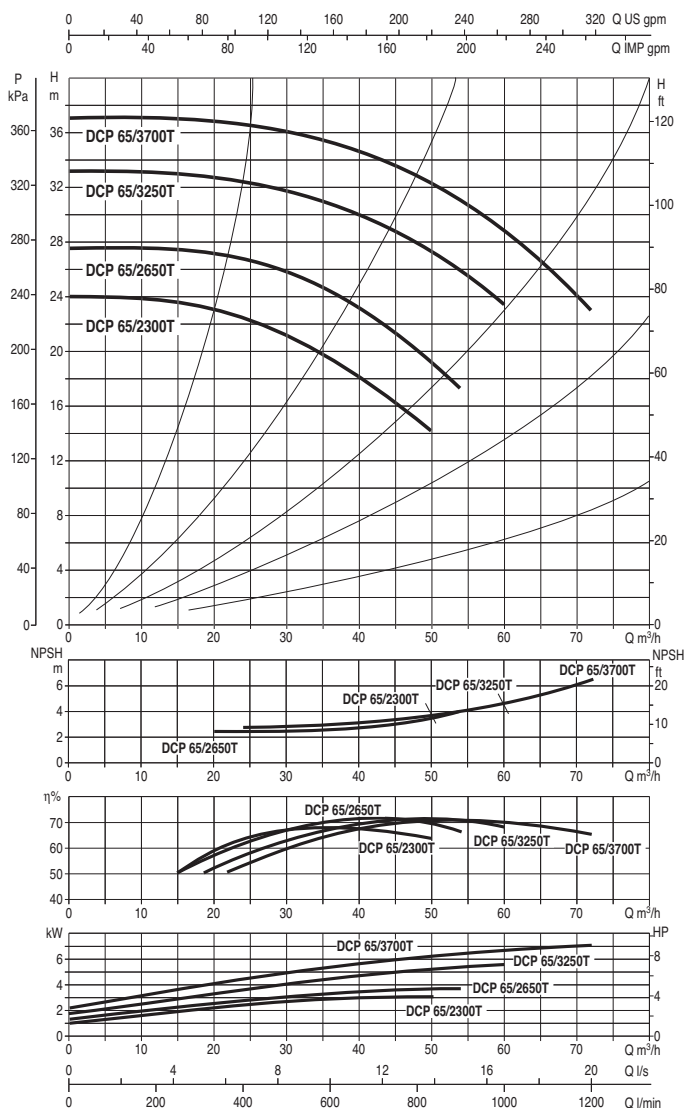
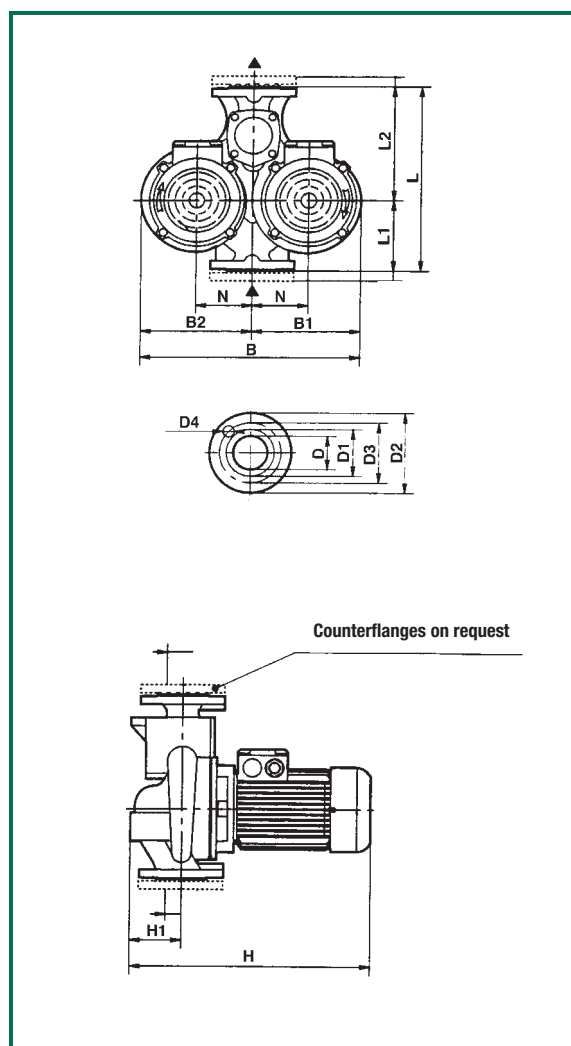
DAB PUMPS reserves the right to make modifications without notice.

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.

DCP 65

Liquid temperature range: from -10°C to +130°C

Maximum temperature operating: +40°C



MODEL	L	L1	L2	B	B1	B2	H	H1	N	D	D1	D2	D3	D4	PACKING DIMENSIONS			VOLUME	WEIGHT
															L/A	L/B	H	m ³	Kg
DCP 65/2300 T	410	170	240	543	245	235	485	110	120	65 PN16	122	185	145	4 holes Ø 18	580	360	585	0,11	67
DCP 65/2650 T	450	180	270	543	275	268	495	130	140	65 PN16	122	185	145		-	-	-	0,12	81
DCP 65/3250 T	450	180	270	543	275	268	565	130	140	65 PN16	122	185	145		-	-	-	0,14	101
DCP 65/3700 T	450	180	270	543	275	268	670	130	140	65 PN16	122	185	145		-	-	-	0,16	125

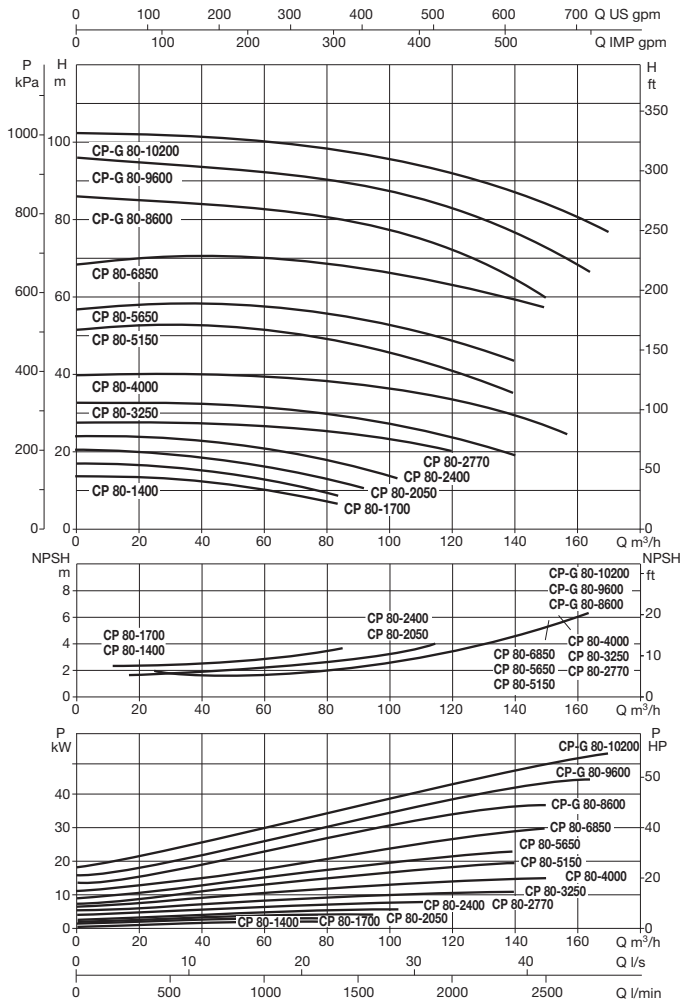
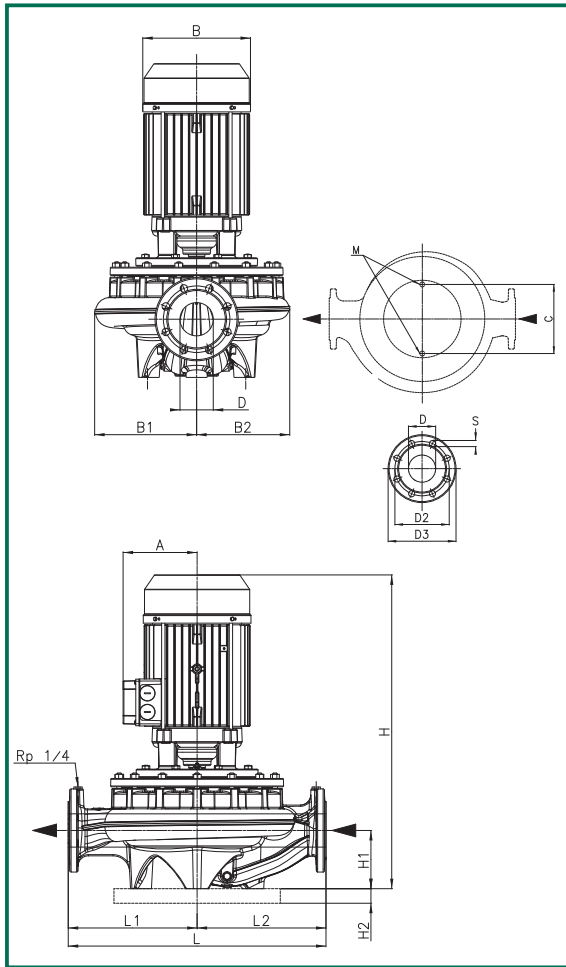
MODEL	VOLTAGE 50 Hz	r.p.m. 1/min.	P1 MAX kW	P2 NOMINAL kW	HP	In A	Q m³/h l/min	21 350	24 400	27 450	30 500	36 600	42 700	48 800	54 900	60 1000
DCP 65/2300 T	3x230-400 V ~	2900	3,54	3	4	11-6,4	H (m)	23	22,5	22	21,5	19,8	17,5	15		
DCP 65/2650 T	3x230-400 V ~	2900	4,87	4	5,5	15,2-8,8			26,5	26	25,5	24,3	22,6	20,2	18	
DCP 65/3250 T	3x400 V ~ Δ*	2900	6,57	5,5	7,5	11,3			32,5	32	31,5	30,5	29,5	28	26	23,5
DCP 65/3700 T	3x400 V ~ Δ*	2900	9,18	7,5	10	15,8			37	36,5	36	35	34	32,5	31	29

* Star start is possible

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.

CP 80

Liquid temperature range: from -10°C to +130°C
Maximum temperature operating: +40°C



MODEL	DIMENSIONS																		PACKING DIM.			VOLUME	WEIGHT
	A	B	B1	B2	C	D	D2	D3	S	holes	H	H1	H2	L	L1	L2	M	LVA	LVB	H			
CP 80-1400/A/BAQE/2,2	127	160	135	117	144	80	160	200	18	8	495	105	35	360	180	180	M16	520	290	700	0,10556	81,9	
CP 80-1700/A/BAQE/3	129	176	135	117	144	80	160	200	18		519	105	35	360	180	180	M16	520	290	700	0,10556	85,7	
CP 80-2050/A/BAQE/4	144	193	135	117	144	80	160	200	18		565	105	35	360	180	180	M16	520	290	700	0,10556	89,8	
CP 80-2400/A/BAQE/5,5	150	220	135	117	144	80	160	200	18		585	105	35	360	180	180	M16	520	290	700	0,10556	124,4	
CP 80-2770/A/BAQE/7,5	178	259	178	146	144	80	160	200	18		678	115	35	440	220	220	M16	780	460	860	0,308568	75,3	
CP 80-3250/A/BAQE/11	178	259	178	146	144	80	160	200	18		678	115	35	440	220	220	M16	780	460	860	0,308568	84,5	
CP 80-4000/A/BAQE/15	178	259	178	146	144	80	160	200	18		678	115	35	440	220	220	M16	780	460	860	0,308568	89,6	
CP 80-5150/A/BAQE/18,5	223	309	190	164	144	80	160	200	18		830	115	35	500	250	250	M16	900	550	1060	0,5247	128	
CP 80-5650/A/BAQE/22	223	309	190	164	144	80	160	200	18		830	115	35	500	250	250	M16	900	550	1060	0,5247	197,26	
CP 80-6850/A/BAQE/30	223	309	190	164	144	80	160	200	18		830	115	35	500	250	250	M16	900	550	1060	0,5247	243,06	
CP-G 80-8600/A/BAQE/37	341	400	245	224	230	80	160	200	18		1142	140	35	620	310	310	M16	900	550	1200	0,594	180,4	
CP-G 80-9600/A/BAQE/45	360	463	245	224	230	80	160	200	18		1190	140	35	620	310	310	M16	900	550	1200	0,594	268,6	
CP-G 80-10200/A/BAQE/55	390	516	245	224	230	80	160	200	18		1305	140	35	620	310	310	M16	900	550	1400	0,693	397,5	

MODEL	VOLTAGE 50 Hz	r.p.m. 1/min	P1 MAX kW	P2 NOMINAL		MOTOR SIZE	In A	I st. A	η max %	cos φ
				kW	HP					
CP 80-1400/A/BAQE/2,2	3x230-400 V ~	2910	2,5	2,2	3	MEC 80	7,7-4,45	54,2-31,2	87,5	0,88
CP 80-1700/A/BAQE/3	3x400 V ~ Δ*	2845	3,7	3	4	MEC 90L	6,8	41,5	72,5	0,84
CP 80-2050/A/BAQE/4	3x400 V ~ Δ*	2840	5,3	4	5,5	MEC 100	75,8	60,9	75,8	0,85
CP 80-2400/A/BAQE/5,5	3x400 V ~ Δ*	2870	6,4	5,5	7,5	MEC 112	10,78	81,2	76,8	0,86
CP 80-2770/A/BAQE/7,5	3x400 V ~ Δ*	2913	8,7	7,5	10	MEC 132S	13,95	99	77,2	0,9
CP 80-3250/A/BAQE/11	3x400 V ~ Δ*	2930	12	11	15	MEC 132M	21/12,2	157,5	90,7	0,86
CP 80-4000/A/BAQE/15	3x400 V ~ Δ*	2920	17	15	20	MEC 132M	28,73	217	72	0,87
CP 80-5150/A/BAQE/18,5	3x400 V ~ Δ*	2946	21	18,5	25	MEC 160L	34,62	259,2	72	0,88
CP 80-5650/A/BAQE/22	3x400 V ~ Δ*	2960	24	22	30	MEC 160L	39,3	309,6	72	0,88
CP 80-6850/A/BAQE/30	3x400 V ~ Δ*	2955	33	30	40	MEC 160L	54,1	231	68,3	0,88
CP-G 80-8600/A/BAQE/37	3x400 V ~ Δ*	2945	42	37	50	MEC 180	70	497	88	0,87
CP-G 80-9600/A/BAQE/45	3x400 V ~ Δ*	2970	49	45	60	MEC 225	78,2	586,5	92,3	0,9
CP-G 80-10200/A/BAQE/55	3x400 V ~ Δ*	2970	59	55	75	MEC 250	95,9	719,25	92,5	0,9

* Star start is possible

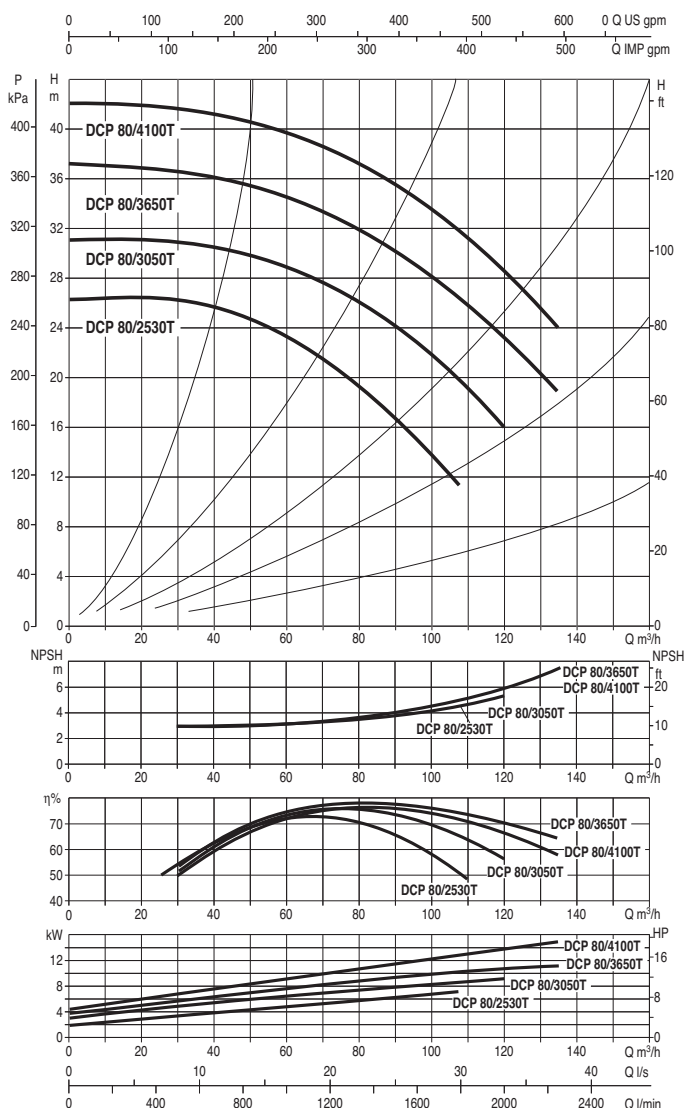
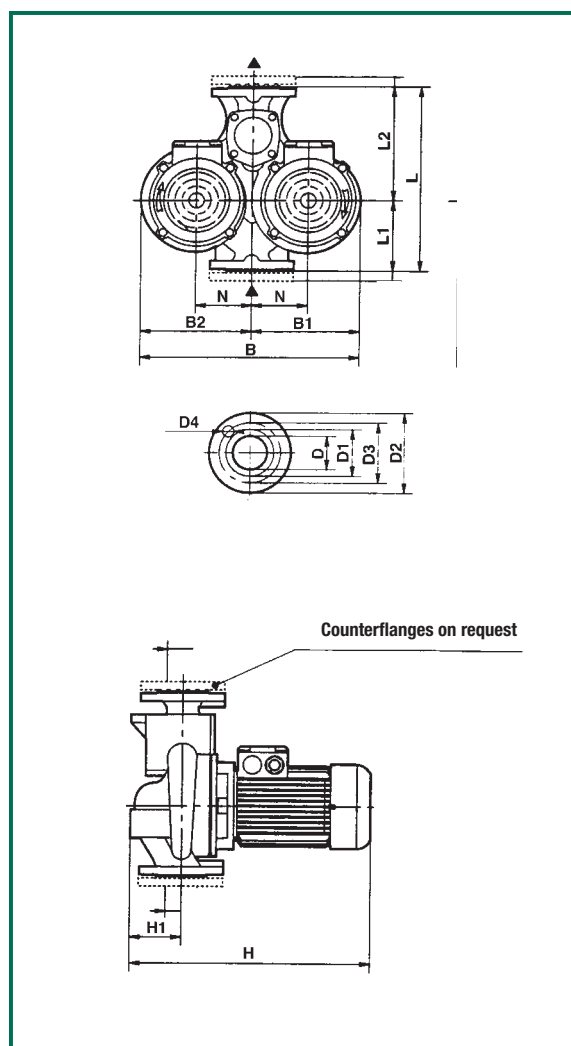
DAB PUMPS reserves the right to make modifications without notice.

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.

DCP 80

Liquid temperature range: from -10°C to +130°C

Maximum temperature operating: +40°C



MODEL	L	L1	L2	B	B1	B2	H	H1	N	D	D1	D2	D3	D4	PACKING DIMENSIONS			VOLUME	WEIGHT
															L/A	L/B	H	m ³	Kg
DCP 80/2530 T	450	180	270	550	275	268	565	130	135	80 PN16	138	200	160	4 holes Ø 18	-	-	-	0,14	110
DCP 80/3050 T	510	205	305	550	280	270	690	150	135	80 PN16	138	200	160		-	-	-	0,19	141
DCP 80/3650 T	510	205	305	550	280	270	690	150	140	80 PN16	138	200	160		-	-	-	0,19	162
DCP 80/4100 T	510	205	305	670	280	270	690	150	135	80 PN16	138	200	160		-	-	-	0,24	175

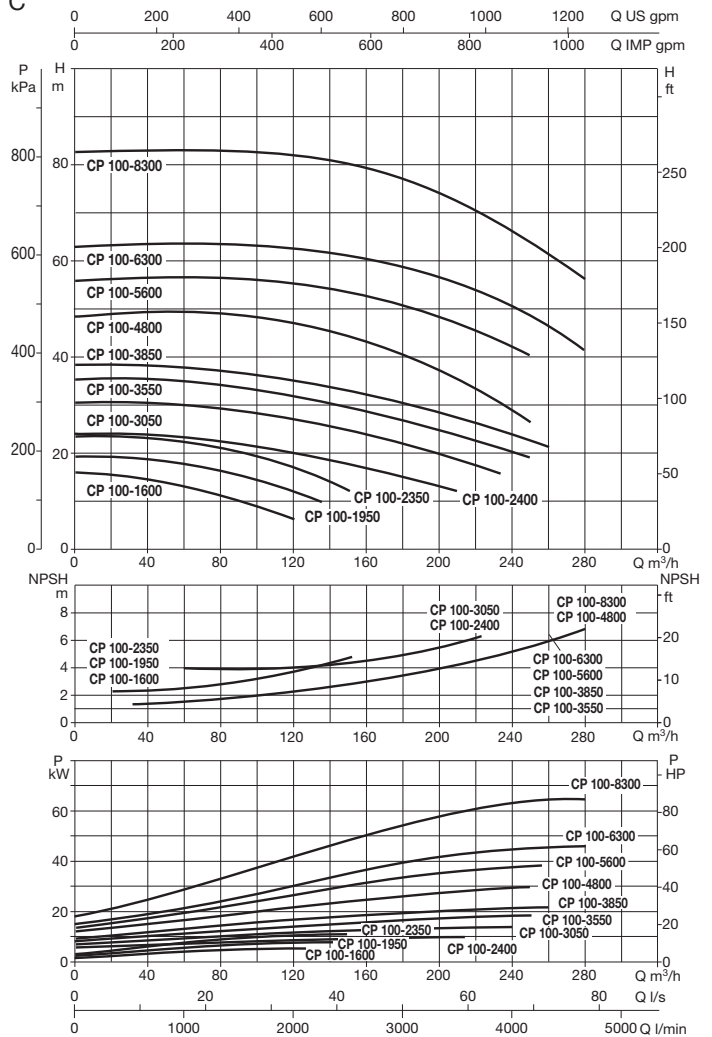
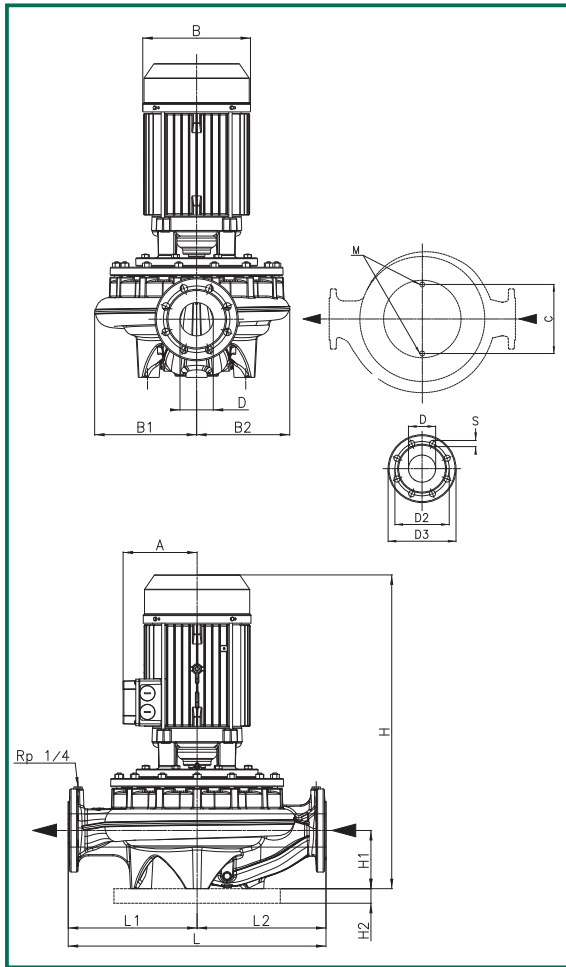
MODEL	VOLTAGE 50 Hz	r.p.m. 1/min.	P1 MAX kW	P2 NOMINAL kW	HP	In A	Q m³/h l/min	42 700	48 800	54 900	60 1000	75 1250	90 1500	105 1750	120 2000	135 2250
DCP 80/2530 T	3x400 V ~ Δ *	2900	9,18	7,5	10	15,8	H (m)	25,3	24,9	24,1	23,4	20,5	17	12,7		
DCP 80/3050 T	3x400 V ~ Δ *	2900	12,46	10	13,5	22,5		30,5	30	29,5	29	26,5	24	20,5	16	
DCP 80/3650 T	3x400 V ~ Δ *	2900	15,13	12,5	17	27		36,5	36	35,5	34,5	33	30	27	23	19
DCP 80/4100 T	3x400 V ~ Δ *	2900	17,94	15	20	32		41	40,5	40	39,5	38	35,5	33	29	24

* Star start is possible

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.

CP 100

Liquid temperature range: from -10°C to +130°C
Maximum temperature operating: +40°C



MODEL	DIMENSIONS																	PACKING DIM.			VOLUME	WEIGHT
	A	B	B1	B2	C	D	D2	D3	S	holes	H	H1	H2	L	L1	L2	M	L/A	L/B	H		
CP 100-1600/A/BAQE/4	144	193	158	126	144	100	180	220	18	8	602	140	35	500	250	250	M16	780	460	860	0,308568	76,7
CP 100-1950/A/BAQE/5,5	150	220	158	126	144	100	180	220	18		622	140	35	500	250	250	M16	780	460	860	0,308568	83,5
CP 100-2350/A/BAQE/7,5	178	259	158	126	144	100	180	220	18		704	140	35	500	250	250	M16	780	460	860	0,308568	97,5
CP 100-2400/A/BAQE/11	178	259	193	153	230	100	180	220	18		670	140	35	550	275	275	M16	780	460	860	0,308568	106,6
CP 100-3050/A/BAQE/15	178	259	193	153	230	100	180	220	18		670	140	35	550	275	275	M16	780	460	860	0,308568	146
CP 100-3550/A/BAQE/18,5	223	309	193	153	230	100	180	220	18		852	140	35	550	275	275	M16	900	550	1060	0,5247	156
CP 100-3850/A/BAQE/22	223	309	193	153	230	100	180	220	18		852	140	35	550	275	275	M16	900	550	1060	0,5247	197
CP 100-4800/A/BAQE/30	223	309	204	174	230	100	180	220	18		900	140	35	550	275	275	M16	900	550	1060	0,5247	233
CP-G 100-5600/A/BAQE/37	341	400	204	174	230	100	180	220	18		1182	140	35	550	275	275	M16	900	550	1200	0,594	327
CP-G 100-6300/A/BAQE/45	360	463	204	174	230	100	180	220	18		1195	140	35	550	275	275	M16	900	550	1200	0,594	502
CP-G 100-8300/A/BAQE/55	390	516	293	252	230	100	180	220	18		1345	175	35	670	335	335	M16	900	550	1400	0,693	636,5

MODEL	VOLTAGE 50 Hz	r.p.m. 1/min	P1 MAX		P2 NOMINAL		MOTOR SIZE	In A	I st. A	η max %	cos φ
			kW	HP	kW	HP					
CP 100-1600/A/BAQE/4	3x400 V ~ Δ*	2844	4,9	4	5,5	7,5	MEC 100	8,58	60,9	69	0,85
CP 100-1950/A/BAQE/5,5	3x400 V ~ Δ*	2870	6,4	5,5	7,5	10	MEC 112	10,6	81,2	69,8	0,86
CP 100-2350/A/BAQE/7,5	3x400 V ~ Δ*	2906	8,7	7,5	10	15	MEC 132S	14,75	99	70,5	0,9
CP 100-2400/A/BAQE/11	3x400 V ~ Δ*	2930	12	11	15	20	MEC 132M	20,3	157,5	90,7	0,86
CP 100-3050/A/BAQE/15	3x400 V ~ Δ*	2920	17	15	20	25	MEC 132M	28,73	217	72	0,87
CP 100-3550/A/BAQE/18,5	3x400 V ~ Δ*	2946	21	18,5	25	30	MEC 160L	34,62	259,2	72	0,88
CP 100-3850/A/BAQE/22	3x400 V ~ Δ*	2960	24	22	30	40	MEC 160L	39,3	309,6	72	0,88
CP 100-4800/A/BAQE/30	3x400 V ~ Δ*	2955	33	30	40	50	MEC 160L	54,1	231	68,3	0,88
CP-G 100-5600/A/BAQE/37	3x400 V ~ Δ*	2945	42	37	50	60	MEC 180	70	497	88	0,87
CP-G 100-6300/A/BAQE/45	3x400 V ~ Δ*	2970	49	45	60	75	MEC 225	78,2	586,5	92,3	0,9
CP-G 100-8300/A/BAQE/55	3x400 V ~ Δ*	2970	59	55	75	100	MEC 250	95,9	719,25	92,5	0,9

* Star start is possible

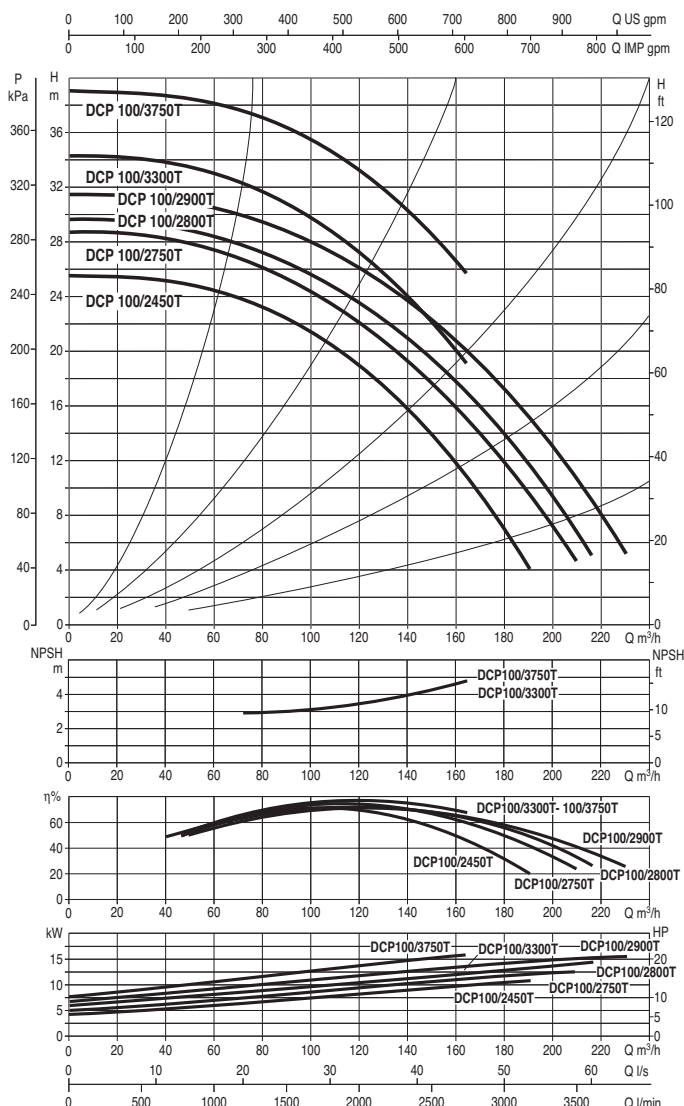
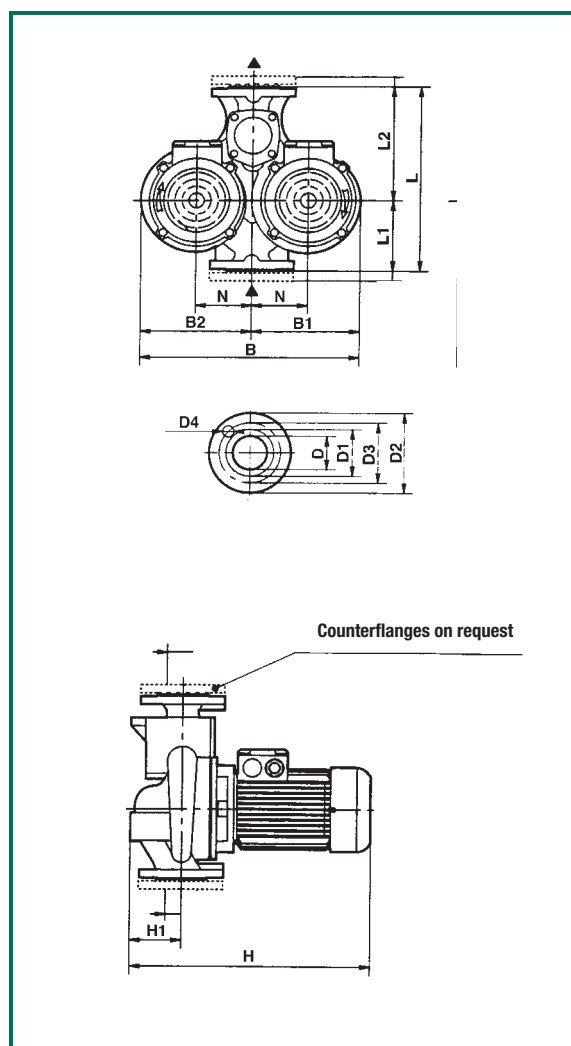
DAB PUMPS reserves the right to make modifications without notice.

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.

DCP 100

Liquid temperature range: from -10°C to +130°C

Maximum temperature operating: +40°C



MODEL	L	L1	L2	B	B1	B2	H	H1	N	D	D1	D2	D3	D4	PACKING DIMENSIONS			VOLUME	WEIGHT
															L/A	L/B	H	m ³	Kg
DCP 100/2450 T	630	240	390	670	325	345	720	180	165	100 PN16	158	220	180	8 holes Ø 18	-	-	-	0,30	162
DCP 100/2750 T	630	240	390	670	325	345	720	180	165	100 PN16	158	220	180		-	-	-	0,30	162
DCP 100/2800 T	630	240	390	670	325	345	720	180	165	100 PN16	158	220	180		-	-	-	0,30	162
DCP 100/2900 T	630	240	390	670	325	345	720	180	165	100 PN16	158	220	180		-	-	-	0,30	162
DCP 100/3300 T	630	240	390	670	325	345	720	180	165	100 PN16	158	220	180		-	-	-	0,30	162
DCP 100/3750 T	630	240	390	670	325	345	720	180	165	100 PN16	158	220	180		-	-	-	0,30	162

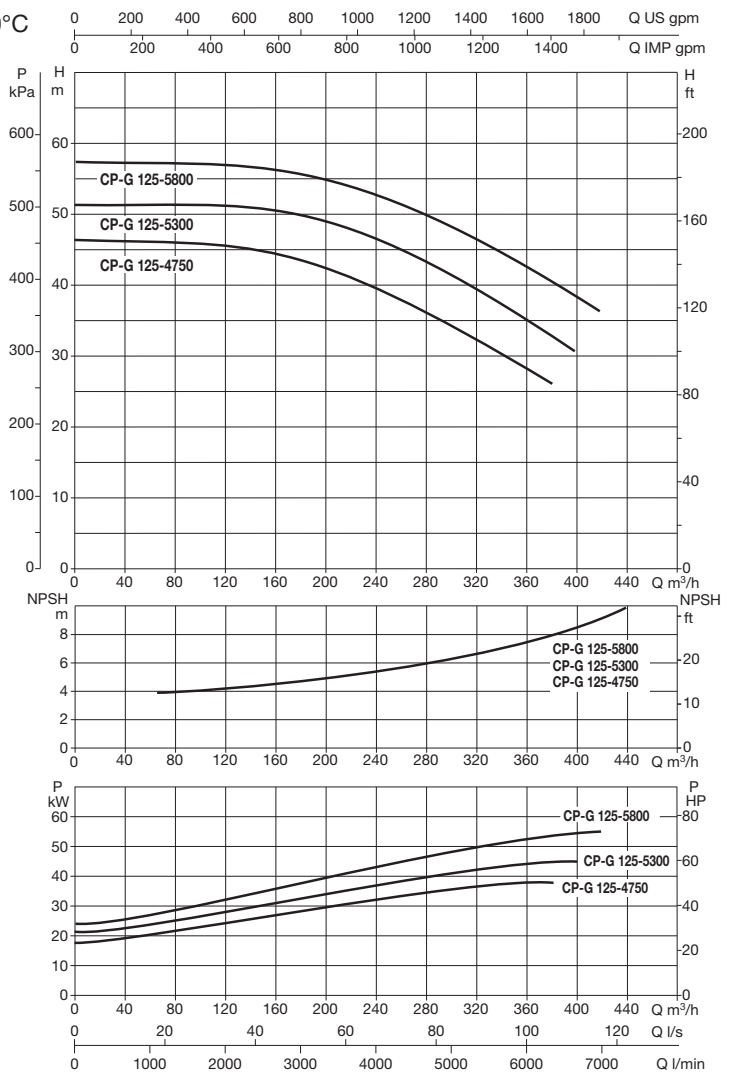
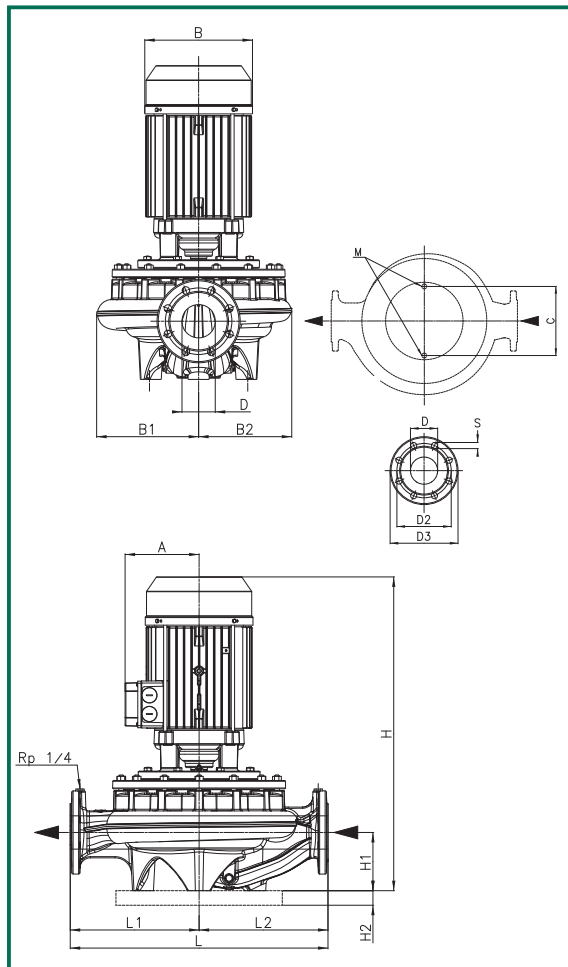
MODEL	VOLTAGE 50 Hz	r.p.m. 1/min.	P1 MAX kW	P2 NOMINAL kW	HP	In A	Q m³/h	60	75	90	105	120	135	150	165	180	195	210	225	240
							l/min	1000	1250	1500	1750	2000	2250	2500	2750	3000	3250	3500	3750	4000
DCP 100/2450 T	3x400 V - Δ *	2900	12,46	10	13,5	22,5	H (m)	24,5	23,5	22	20,5	18,5	16	13,5	10,5	7	3			
DCP 100/2750 T	3x400 V - Δ *	2900	15,13	12,5	17	27		27,5	26,5	25,5	24	22	20	17,5	15	12	8,6	5		
DCP 100/2800 T	3x400 V - Δ *	2900	17,94	15	20	32			28	27	25,5	23,5	21,5	19	16,5	13,8	10,8	7,5	3	
DCP 100/2900 T	3x400 V - Δ *	2900	17,94	15	20	32				29	28	26	24,5	22	20	17,5	14	11,3	7,5	3,5
DCP 100/3300 T	3x400 V - Δ *	2900	15,13	12,5	17	27		33	32,3	31	29	27	24,5	22	19					
DCP 100/3750 T	3x400 V - Δ *	2900	17,94	15	20				37,5	36,5	35	33	31	28,5	26					

* Star start is possible

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.

CP 125

Liquid temperature range: from -10°C to +130°C
Maximum temperature operating: +40°C



MODEL	DIMENSIONS																	PACKING DIM.			VOLUME	WEIGHT
	A	B	B1	B2	C	D	D2	D3	S	holes	H	H1	H2	L	L1	L2	M	L/A	L/B	H		
CP 125-4750/A/BAQE/37	341	400	252	205	230	125	210	250	18	8	1126	215	35	620	310	310	M16	900	550	1200	0.594	371
CP-G 125-5300/A/BAQE/45	360	463	252	205	230	125	210	250	18		1275	215	35	620	310	310	M16	900	550	1400	0.693	446
CP-G 125-5800/A/BAQE/55	390	516	252	205	230	125	210	250	18		1389	215	35	620	310	310	M16	900	550	1400	0.693	580.5

MODEL	VOLTAGE 50 Hz	r.p.m. 1/min	P1 MAX kW	P2 NOMINAL		MOTOR SIZE	In A	I st. A	η max %	cos φ
CP-G 125-4750/A/BAQE/37	3x400 V ~ Δ*	2945	42	37	50	MEC 180	70	497	88	0,87
CP-G 125-5300/A/BAQE/45	3x400 V ~ Δ*	2970	49	45	60	MEC 225	78,2	586,5	92,3	0,9
CP-G 125-5800/A/BAQE/55	3x400 V ~ Δ*	2970	59	55	75	MEC 250	95,9	719,25	92,5	0,9

* Star start is possible

DAB PUMPS reserves the right to make modifications without notice.

ACCESSORIES

UNIONS AND COUNTERFLANGES

MODEL	UNIONS						
	1 1/4" F	1 1/2" F - BRASS	1 3/4" F - BRASS	1" F - BRASS	Ø 22 - COPPER	Ø 28 - COPPER	REDUCTION 1 1/2" - 2"
ALM 200 T		•	•	•	•	•	•
ALP 800 T		•	•	•	•	•	•
ALM 500 T	•						
ALM 2000 T	•						

MODEL	COUNTERFLANGES			
	DN 40 - PN 10	DN 50 - PN 10	DN 65 - PN 10	DN 80 - PN 10
KLM 40/300 T	•			
KLP 40/600 T	•			
KLP 40/900 T	•			
KLP 40/1200 T	•			
KLM 50/300 T		•		
KLM 50/600 T		•		
KLM 50/900 T		•		
KLP 50/1200 T		•		
KLM 65/300 T			•	
KLM 65/600 T			•	
KLP 65/900 T			•	
KLP 65/1200 T			•	
KLM 80/300 T				•
KLM 80/600 T				•
KLP 80/900 T				•
KLP 80/1200 T				•
DKLM 40/300 T	•			
DKLP 40/600 T	•			
DKLP 40/900 T	•			
DKLP 40/1200 T	•			
DKLM 50/300 T		•		
DKLM 50/600 T		•		
DKLM 50/900 T		•		
DKLP 50/1200 T		•		
DKLM 65/300 T			•	
DKLM 65/600 T			•	
DKLP 65/900 T			•	
DKLP 65/1200 T			•	
DKLM 80/300 T				•
DKLM 80/600 T				•
DKLP 80/900 T				•
DKLP 80/1200 T				•

ACCESSORIES COUNTERFLANGES

MODEL	COUNTERFLANGES						
	DN 40 - PN 16	DN 50 - PN 16	DN 65 - PN 16	DN 80 - PN 16	DN 100 - PN 16	DN 125 - PN 16	DN 150 - PN 16
CM 40/440 T	•						
CM 40/540 T	•						
CM 40/670 T	•						
CM 40/870 T	•						
CM 40/1300 T	•						
CM 40/1450 T	•						
CM 50/510 T		•					
CM 50/630 T		•					
CM 50/780 T		•					
CM 50/1000 T		•					
CM 50/1270 T		•					
CM 50/1420 T		•					
CM 65-420/A/BAQE/0,25			•				
CM 65-540/A/BAQE/0,37			•				
CM 65-660/A/BAQE/0,55			•				
CM 65-760/A/BAQE/0,55			•				
CM 65-920/A/BAQE/0,75			•				
CM 65-1080/A/BAQE/1,1			•				
CM 65-1200/A/BAQE/1,5			•				
CM 65-1530/A/BAQE/2,2			•				
CM 65-1680/A/BAQE/3			•				
CM 65-2380/A/BAQE/4			•				
CM 80-550/A/BAQE/0,55				•			
CM 80-650/A/BAQE/0,75				•			
CM 80-740/A/BAQE/1,1				•			
CM 80-890/A/BAQE/1,5				•			
CM 80-1050/A/BAQE/2,2				•			
CM 80-1530/A/BAQE/3				•			
CM 80-1700/A/BAQE/4				•			
CM 80-2410/A/BAQE/5,5				•			
CM 80-2700/A/BAQE/7,5				•			
CM 80-3420/A/BAQE/11				•			
CM 100-510/A/BAQE/0,75					•		
CM 100-650/A/BAQE/1,1					•		
CM 100-660/A/BAQE/1,5					•		
CM 100-865/A/BAQE/2,2					•		
CM 100-1020/A/BAQE/3					•		
CM 100-1320/A/BAQE/4					•		
CM 100-1650/A/BAQE/5,5					•		
CM 100-2050/A/BAQE/7,5					•		
CM 100-2550/A/BAQE/11					•		
CM 100-3290/A/BAQE/15					•		
CM 100-3680/A/BAQE/18,5					•		
CM 100-4100/A/BAQE/22					•		
CM 125-1075/A/BAQE/4						•	
CM 125-1270/A/BAQE/5,5						•	
CM 125-1560/A/BAQE/7,5						•	
CM 125-2100/A/BAQE/11						•	
CM 125-2550/A/BAQE/15						•	
CM 125-3200/A/BAQE/18,5						•	
CM 125-3600/A/BAQE/22						•	
CM 125-4022/A/BAQE/30						•	
CM 150-955/A/BAQE/5,5							•
CM 150-1322/A/BAQE/7,5							•
CM 150-1600/A/BAQE/11							•
CM 150-1950/A/BAQE/15							•
CM 150-2200/A/BAQE/18,5							•
CM 150-2405/A/BAQE/22							•

ACCESSORIES COUNTERFLANGES

MODEL	COUNTERFLANGES					
	DN 40 - PN 16	DN 50 - PN 16	DN 65 - PN 16	DN 80 - PN 16	DN 100 - PN 16	DN 125 - PN 16
CP 40/1900 T	•					
CP 40/2300 T	•					
CP 40/2700 T	•					
CP 40/3500 T	•					
CP 40/3800 T	•					
CP 40/4700 T	•					
CP 40/5500 T	•					
CP 40/6200 T	•					
CP 50/2200 T		•				
CP 50/2600 T		•				
CP 50/3100 T		•				
CP 50/4100 T		•				
CP 50/4600 T		•				
CP 50/5100 T		•				
CP 50/5650 T		•				
CP 65-1470/A/BAQE/1,5			•			
CP 65-1900/A/BAQE/2,2			•			
CP 65-2280/A/BAQE/3			•			
CP 65-2640/A/BAQE/4			•			
CP 65-3400/A/BAQE/5,5			•			
CP 65-4100/A/BAQE/7,5			•			
CP 65-4700/A/BAQE/11			•			
CP 65-5500/A/BAQE/15			•			
CP 65-6150/A/BAQE/18,5			•			
CP 65-6750/A/BAQE/22			•			
CP 65-7350/A/BAQE/22			•			
CP 65-9250/A/BAQE/30			•			
CP 80-1400/A/BAQE/2,2				•		
CP 80-1700/A/BAQE/3				•		
CP 80-2050/A/BAQE/4				•		
CP 80-2400/A/BAQE/5,5				•		
CP 80-2770/A/BAQE/7,5				•		
CP 80-3250/A/BAQE/11				•		
CP 80-4000/A/BAQE/15				•		
CP 80-5150/A/BAQE/18,5				•		
CP 80-5650/A/BAQE/22				•		
CP 80-6850/A/BAQE/30				•		
CP-G 80-8600/A/BAQE/37				•		
CP-G 80-9600/A/BAQE/45				•		
CP-G 80-10200/A/BAQE/55				•		
CP 100-1600/A/BAQE/4					•	
CP 100-1950/A/BAQE/5,5					•	
CP 100-2350/A/BAQE/7,5					•	
CP 100-2400/A/BAQE/11					•	
CP 100-3050/A/BAQE/15					•	
CP 100-3550/A/BAQE/18,5					•	
CP 100-3850/A/BAQE/22					•	
CP 100-4800/A/BAQE/30					•	
CP-G 100-5600/A/BAQE/37					•	
CP-G 100-6300/A/BAQE/45					•	
CP-G 100-8300/A/BAQE/55					•	
CP-G 125-4750/A/BAQE/37						•
CP-G 125-5300/A/BAQE/45						•
CP-G 125-5800/A/BAQE/55						•

ACCESSORIES COUNTERFLANGES

MODEL	COUNTERFLANGES				
	DN 40 - PN 16	DN 50 - PN 16	DN 65 - PN 16	DN 80 - PN 16	DN 100 - PN 16
DCM 40/380 T	•				
DCM 40/460 T	•				
DCM 40/620 T	•				
DCM 50/460 T		•			
DCM 50/630 T		•			
DCM 50/880 T		•			
DCM 65/670 T			•		
DCM 65/820 T			•		
DCM 65/900 T			•		
DCM 80/630 T				•	
DCM 80/730 T				•	
DCM 80/860 T				•	
DCM 80/1020 T				•	
DCM 100/820 T					•
DCM 100/1000 T					•
DCM 100/1200 T					•
DCM 100/1450 T					•
DCP 40/1250 T	•				
DCP 40/1650 T	•				
DCP 40/2050 T	•				
DCP 40/2450 T	•				
DCP 50/1550 T		•			
DCP 50/1900 T		•			
DCP 50/2450 T		•			
DCP 50/3000 T		•			
DCP 50/3650 T		•			
DCP 65/2300 T			•		
DCP 65/2650 T			•		
DCP 65/3250 T			•		
DCP 65/3700 T			•		
DCP 80/2530 T				•	
DCP 80/3050 T				•	
DCP 80/3650 T				•	
DCP 80/4100 T				•	
DCP 100/3300 T					•
DCP 100/3750 T					•
DCP 100/2450 T					•
DCP 100/2750 T					•
DCP 100/2800 T					•
DCP 100/2900 T					•

PROTECTION AND CONTROL SYSTEM

SINGLE-PHASE POWER INPUT

MODEL	P2 NOMINAL		ED 1,3 M	ED 2,6 M
	kW	HP		
ALM 200 M	0,059	0,08	●	
ALP 800 M	0,37	0,5	●	
ALM 500 M	0,25	0,33	●	
ALP 2000 M	0,55	0,75	●	
KLM 40/300 M	0,25	0,33	●	
KLP 40/600 M	0,37	0,5	●	
KLP 40/900 M	0,37	0,5	●	
KLP 40/1200 M	0,55	0,75	●	
KLM 50/300 M	0,25	0,33	●	
KLM 50/600 M	0,25	0,33	●	
KLP 50/900 M	0,75	1	●	
KLP 50/1200 M	0,75	1	●	
DKLM 40/300 M	0,25	0,33		●
DKLP 40/600 M	0,37	0,5		●
DKLP 40/900 M	0,37	0,5		●
DKLP 40/1200 M	0,55	0,75		●
DKLM 50/300 M	0,25	0,33		●
DKLM 50/600 M	0,25	0,33		●
DKLP 50/900 M	0,75	1		●
DKLP 50/1200 M	0,75	1		●

MODEL	Single installation	Twin installation
	ED 1,3 M	E-BOX 2D
Max. connectable number of pumps	1	2*
Thermostat connection	●	●
Alarm control connection	●	●
Remote alarm control connection	●	●

* 2 single pumps or 1 twin pump unit.

THREE-PHASE POWER INPUT

MODEL	Single installation			Twin installation
	ED 1 T	ED 1,5 T	ED 2,5 T	E-BOX 2D
Max. connectable number of pumps	1	1	1	2*
Thermostat connection	●	●	●	●
Alarm control connection	●	●	●	●
Remote alarm control connection	●	●	●	●

* 2 single pumps or 1 twin pump unit.

THREE-PHASE VOLTAGE

MODEL	P2 NOMIN.		Single installation								Twin installation
	kW	HP	ED 1T	ED 1,5T	ED 2,5T	ED 4T	ED 7,5T	ED 8T	ED 15T	ED 20T	E-BOX 2D
ALM 200 T	0,059	0,08	●								●
ALP 800 T	0,37	0,5	●								●
ALM 500 T	0,25	0,33	●								●
ALM 2000 T	0,55	0,75	●								●
KLM 40/300 T	0,25	0,33	●								●
KLP 40/600 T	0,37	0,5	●								●
KLP 40/900 T	0,37	0,5	●								●
KLP 40/1200 T	0,55	0,75	●								●
KLM 50/300 T	0,25	0,33	●								●
KLM 50/600 T	0,25	0,33	●								●
KLM 50/900 T	0,75	1	●								●
KLP 50/1200 T	0,75	1	●								●
KLM 65/300 T	0,25	0,33	●								●
KLM 65/600 T	0,37	0,5	●								●
KLP 65/900 T	1,1	1,5		●							●
KLP 65/1200 T	1,1	1,5		●							●
KLM 80/300 T	0,25	0,33	●								●
KLM 80/600 T	0,75	1	●								●
KLP 80/900 T	1,84	2,5			●						●
KLP 80/1200 T	1,84	2,5			●						●
DKLM 40/300 T	0,25	0,33									●
DKLP 40/600 T	0,37	0,5									●
DKLP 40/900 T	0,37	0,5									●
DKLP 40/1200 T	0,55	0,75									●
DKLM 50/300 T	0,25	0,33									●
DKLM 50/600 T	0,25	0,33									●
DKLM 50/900 T	0,75	1									●
DKLP 50/1200 T	0,75	1									●
DKLM 65/300 T	0,25	0,33									●
DKLM 65/600 T	0,37	0,5									●
DKLP 65/900 T	1,1	1,5									●
DKLP 65/1200 T	1,1	1,5									●
DKLM 80/300 T	0,25	0,33									●
DKLM 80/600 T	0,75	1									●
DKLP 80/900 T	1,84	2,5									●
DKLP 80/1200 T	1,84	2,5									●

THREE-PHASE VOLTAGE

MODEL	P2 NOMIN.		Single installation							
	kW	HP	ED 1T	ED 1,5T	ED 2,5T	ED 4T	ED 7,5T	ED 8T	ED 15T	ED 20T
CM 40/440 T	0,74	1	●							
CM 40/540 T	0,74	1	●							
CM 40/670 T	0,74	1	●							
CM 40/870 T	0,74	1	●							
CM 40/1300 T	0,75	1	●							
CM 40/1450 T	0,9	1,25	●							
CM 50/510 T	0,74	1	●							
CM 50/630 T	0,74	1	●							
CM 50/780 T	0,74	1	●							
CM 50/1000 T	0,74	1	●							
CM 50/1270 T	1,1	1,5	●							
CM 50/1420 T	1,1	1,5	●							
CM 65-420/A/BAQE/0,25	0,25	0,33	●							
CM 65-540/A/BAQE/0,37	0,37	0,45	●							
CM 65-660/A/BAQE/0,55	0,55	0,72	●							
CM 65-760/A/BAQE/0,55	0,55	0,72	●							
CM 65-920/A/BAQE/0,75	0,75	0,95	●							
CM 65-1080/A/BAQE/1,1	1,1	1,38		●						
CM 65-1200/A/BAQE/1,5	1,5	1,92			●					
CM 65-1530/A/BAQE/2,2	2,2	2,84			●					
CM 65-1680/A/BAQE/3	3	3,48				●				
CM 65-2380/A/BAQE/4	4	4,97					●			
CM 80-550/A/BAQE/0,55	0,55	0,72	●							
CM 80-650/A/BAQE/0,75	0,75	0,95	●							
CM 80-740/A/BAQE/1,1	1,1	1,38		●						
CM 80-890/A/BAQE/1,5	1,5	1,92			●					
CM 80-1050/A/BAQE/2,2	2,2	2,84			●					
CM 80-1530/A/BAQE/3	3	3,48				●				
CM 80-1700/A/BAQE/4	4	4,97					●			
CM 80-2410/A/BAQE/5,5	5,5	7,5					●			
CM 80-2700/A/BAQE/7,5	7,5	10						●		
CM 80-3420/A/BAQE/11	11	15								●
CM 100-510/A/BAQE/0,75	0,75	0,95	●							
CM 100-650/A/BAQE/1,1	1,1	1,38		●						
CM 100-660/A/BAQE/1,5	1,5	1,92			●					
CM 100-865/A/BAQE/2,2	2,2	2,84			●					
CM 100-1020/A/BAQE/3	3	3,48				●				
CM 100-1320/A/BAQE/4	4	4,97					●			
CM 100-1650/A/BAQE/5,5	5,5	7,5					●			
CM 100-2050/A/BAQE/7,5	7,5	10						●		
CM 100-2550/A/BAQE/11	11	15								●
CM 100-3290/A/BAQE/15	15	20								
CM 100-3680/A/BAQE/18,5	18,5	25								
CM 100-4100/A/BAQE/22	22	30								
CM 125-1075/A/BAQE/4	4	4,97					●			
CM 125-1270/A/BAQE/5,5	5,5	7,5					●			
CM 125-1560/A/BAQE/7,5	7,5	10						●		
CM 125-2100/A/BAQE/11	11	15								●
CM 125-2550/A/BAQE/15	15	20								
CM 125-3200/A/BAQE/18,5	18,5	25								
CM 125-3600/A/BAQE/22	22	30								
CM 125-4022/A/BAQE/30	30	40								
CM 150-955/A/BAQE/5,5	5,5	7,5					●			
CM 150-1322/A/BAQE/7,5	7,5	10					●			
CM 150-1600/A/BAQE/11	11	15								●
CM 150-1950/A/BAQE/15	15	20								
CM 150-2200/A/BAQE/18,5	18,5	25								
CM 150-2405/A/BAQE/22	22	30								

THREE-PHASE VOLTAGE

MODEL	P2 NOMIN.		Single installation							
	kW	HP	ED 1T	ED 1,5T	ED 2,5T	ED 4T	ED 7,5T	ED 8T	ED 15T	ED 20T
CP 40/1900 T	0,75	1	•							
CP 40/2300 T	1,1	1,5		•						
CP 40/2700 T	1,5	2			•					
CP 40/3500 T	2,21	3		•						
CP 40/3800 T	3,0	4,0			•					
CP 40/4700 T	4,0	5,5			•					
CP 40/5500 T	5,5	7,5				•				
CP 40/6200 T	7,5	10				•				
CP 50/2200 T	1,1	1,5		•						
CP 50/2600 T	1,5	2			•					
CP 50/3100 T	2,21	3		•						
CP 50/4100 T	4	5,5			•					
CP 50/4600 T	5,5	7,5				•				
CP 50/5100 T	7,5	10				•				
CP 50/5650 T	7,5	10				•				
CP 65-1470/A/BAQE/1,5	1,5	1,89		•						
CP 65-1900/A/BAQE/2,2	2,2	2,8			•					
CP 65-2280/A/BAQE/3	3	3,93				•				
CP 65-2640/A/BAQE/4	4	5,2				•				
CP 65-3400/A/BAQE/5,5	5,5	7,37					•			
CP 65-4100/A/BAQE/7,5	7,5	9,89						•		
CP 65-4700/A/BAQE/11	11	14,74					•			
CP 65-5500/A/BAQE/15	15	25,22								•
CP 65-6150/A/BAQE/18,5	18,5	25,22								
CP 65-6750/A/BAQE/22	22	30								
CP 65-7350/A/BAQE/22	22	30								
CP 65-9250/A/BAQE/30	30	40,48								
CP 80-1400/A/BAQE/2,2	2,2	2,8			•					
CP 80-1700/A/BAQE/3	3	3,93				•				
CP 80-2050/A/BAQE/4	8,74	5,2								
CP 80-2400/A/BAQE/5,5	5,5	7,37					•			
CP 80-2770/A/BAQE/7,5	7,5	9,89						•		
CP 80-3250/A/BAQE/11	11	14,74					•			
CP 80-4000/A/BAQE/15	15	25,22								•
CP 80-5150/A/BAQE/18,5	18,5	25,22								
CP 80-5650/A/BAQE/22	22	30								
CP 80-6850/A/BAQE/30	30	40,48								
CP-G 80-8600/A/BAQE/37	37	50,32								
CP-G 80-9600/A/BAQE/45	45	61,2								
CP-G 80-10200/A/BAQE/55	55	74,8								
CP 100-1600/A/BAQE/4	4	5,2				•				
CP 100-1950/A/BAQE/5,5	5,5	7,37					•			
CP 100-2350/A/BAQE/7,5	7,5	9,89						•		
CP 100-2400/A/BAQE/11	11	14,74					•			
CP 100-3050/A/BAQE/15	15	25,22								•
CP 100-3550/A/BAQE/18,5	18,5	25,22								
CP 100-3850/A/BAQE/22	22	30								
CP 100-4800/A/BAQE/30	30	40,48								
CP-G 100-5600/A/BAQE/37	37	50,32								
CP-G 100-6300/A/BAQE/45	45	33,08								
CP-G 100-8300/A/BAQE/55	55	74,80								
CP-G 125-4750/A/BAQE/37	37	50,32								
CP-G 125-5300/A/BAQE/45	45	61,2								
CP-G 125-5800/A/BAQE/55	55	74,8								

THREE-PHASE VOLTAGE

MODEL	P2 NOMIN.		Twin installation
	kW	HP	E2D 2T
DCM 40/380 T	0,25	0,33	•
DCM 40/460 T	0,25	0,33	•
DCM 40/620 T	0,25	0,33	•
DCM 50/460 T	0,25	0,33	•
DCM 50/630 T	0,37	0,5	•
DCM 50/880 T	0,5	0,7	•
DCM 65/670 T	0,55	0,75	•
DCM 65/820 T	0,75	1,0	•
DCM 65/900 T	0,9	1,25	•
DCM 80/630 T	0,75	1	•
DCM 80/730 T	0,9	1,25	•
DCM 80/860 T	1,1	1,5	•
DCM 80/1020 T	1,5	2,0	•
DCM 100/820 T	1,5	2	•
DCM 100/1000 T	2,2	3,0	•
DCM 100/1200 T	3,0	4,0	•
DCM 100/1450 T	4,0	5,5	•
DCP 40/1250 T	0,55	0,75	•
DCP 40/1650 T	0,75	1,0	•
DCP 40/2050 T	1,0	1,35	•
DCP 40/2450 T	1,5	2,0	•
DCP 50/1550 T	1,5	2,0	•
DCP 50/1900 T	2,0	2,7	•
DCP 50/2450 T	3,0	4,0	•
DCP 50/3000 T	3,0	4,0	•
DCP 50/3650 T	4,0	5,5	•
DCP 65/2300 T	3	4	•
DCP 65/2650 T	4	5,5	•
DCP 65/3250 T	5,5	7,5	•
DCP 65/3700 T	7,5	10	•
DCP 80/2530 T	7,5	10	•
DCP 80/3050 T	10	13,5	•
DCP 80/3650 T	12,5	17	•
DCP 80/4100 T	15	20	•
DCP 100/3300 T	12,5	17	•
DCP 100/3750 T	15	20	•
DCP 100/2450 T	10	13,5	•
DCP 100/2750 T	12,5	17	•
DCP 100/2800 T	15	20	•
DCP 100/2900 T	15	20	•

GENERAL DATA

Applications

Electric control panel for protecting a single-phase electric pump in a thermostat-controlled single installation.

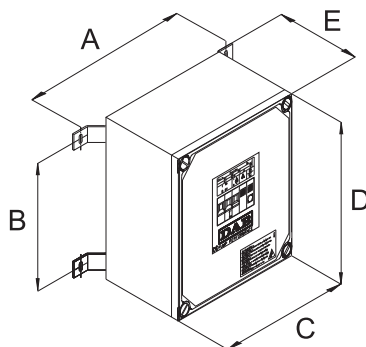
Features

Made from flame-proof thermoplastic with IP55 level of protection and supplied in a cabinet for wall-mounting. The panel is self-protected and protects the electric pump from overloads and short circuits with manual reset. Complete with:

- Modular isolator for the power input line;
- Self-protected transformer for 24V powering of external commands;
- Terminals for connecting the electric pump to any thermostats (pressure switches or floats);
- Terminals for using an alarm command or connecting a remote acoustic or luminous alarm (without potential);
- Button on the front of the panel for manual pump operation;
- Green led on the front of the panel indicating the pump is working.

TECHNICAL DATA

- Rated input voltage: 220-240V~ +/- 10%
- Phases: 1
- Frequency: 50-60 Hz
- Rated maximum working power: 1.85 kW 220-240V
- Rated maximum working current: 10A
- Operating temperature range: -10°C +40°C
- Storage temperature range: -25°C +55°C
- Relative humidity (without condensation): 50% at 40°C MAX. (90% at 20°C)
- Max. altitude: 3000 m (a.s.l.)
- Protection level: IP55
- The panels are built to EN 60204-1 and EN 60439-1 standards



MODEL	DIMENSIONS (mm)					GROSS WEIGHT (Kg)
	A	B	C	D	E	
ED 1,3 M	350	245	270	300	190	5,6

GENERAL DATA

Applications

Electric control panel for protecting a single-phase electric pump in a thermostat-controlled single installation.

Features

Made from flame-proof thermoplastic with IP55 level of protection and supplied in a cabinet for wall-mounting. The panel is self-protected and protects the electric pump from overloads, short circuits and missing phases with manual reset.

Complete with:

- modular isolator for the power input line with padlockable door handle;
- Self-protected transformer for 24V powering of external commands;
- Terminals for connecting the electric pump to any thermostats (pressure switches or floats);
- Terminals for using an alarm command or connecting a remote acoustic or luminous alarm (without potential);
- Switch on the front of the panel for manual - 0 – automatic electric pump operation;
- Indicators on the front of the panel:
 - red led indicating the current protection device has cut in;
 - green led indicating the pump is working;
 - white led indicating the auxiliary circuits are working properly.

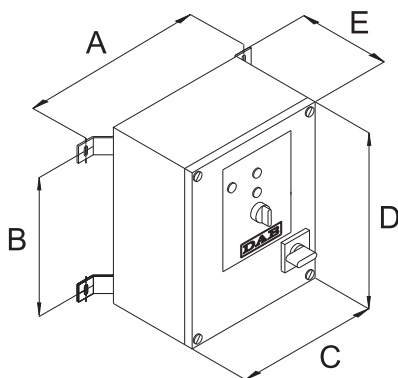
TECHNICAL DATA

- Rated input voltage: 400V~ +/- 10%
- Phases: 3
- Frequency: 50-60 Hz

ED 1 T ED 1,5 T ED 2,5 T ED 4 T ED 7,5 T ED 8 T ED 15 T ED 20 T

- Rated maximum working power(kW): 1,38 2,2 3,5
- Rated maximum working current (A): 2,5 4 6,3 6-10 9-14 13-18 20-25 24-32

- Operating temperature range: -10°C +40°C
- Storage temperature range: -25°C +55°C
- Relative humidity (without condensation): 50% at 40°C MAX. (90% at 20°C)
- Max. altitude: 3000 m (a.s.l.)
- Protection level: IP55
- The panels are built to EN 60204-1 and EN 60439-1 standards



MODEL	DIMENSIONS (mm)					GROSS WEIGHT (Kg)
	A	B	C	D	E	
ED 1 T	350	245	270	300	230	5,6
ED 1,5 T	350	245	270	300	230	5,6
ED 2,5 T	350	245	270	300	230	5,6

GENERAL DATA

Applications

Control panel for the protection and automatic operation, with floats or level sensor control, of two single-phase or three-phase (direct starting) electric pumps installed as a pair. Thanks to the facility for pump current control (1-12 A) the E-Box control panel is compatible with a large number of different pump models. E-box can control one or more pumps.

PANEL		ELECTRIC PUMP
E-BOX 2D	SINGLE-PHASE	FEKA 600 M, FEKA VS M, FEKA VX M, DRENAG 900 M
E-BOX 2D 40 µF		DRENAG 1400 M, FEKA 1400 M
E-BOX 2D	THREE-PHASE	FEKA 600 T, FEKA VS 550-750 T, FEKA VX 550-750 T, FEKA VS 1000-1200 T, DRENAG 900 T, DRENAG 1800 T, FEKA 1800 T, GRINDER 1800 T, FEKA 2500.4 T, FEKA 2500.2 T, FEKA 2700.2 T

Features

Supplied in a self-extinguishing thermoplastic enclosure, complete with wall mounting brackets. The control panel protects the pumps from overloads and short-circuit conditions, with manual reset, and overtemperature conditions with automatic reset.

Front panel components:

- main disconnect switch with padlockable doorlock
- AUT - 0 - MAN operating mode selection buttons
- alarms RESET button
- run, trip and alarm indicator lights

Components inside the control panel enclosure:

- control circuit board, fuses, contactors
- terminals for single phase (L-N) or three-phase (L1-L2-L3) power feeding input
- terminals for connection of single-phase (L-N) or three-phase (U-V-W) electric pumps
- terminals for connection to pressure switches, sensors, KK thermal protection, alarm signalling N.O. contacts
- mini dipswitches for operating mode selection float switches or level sensors, filling or emptying of tanks, operation with one or two pumps.

E-Box functions

The E-Box control panel protects the electric pumps and starts them in sequence in relation to the filling or emptying of the tanks, with water level detection system by means of level sensors or 2 - 3 float switches (standard or bulb type). At each operating cycle the pumps starting sequence is inverted. E-box can also control just one pump by setting the dipswitches appropriately.

Operation with two float switches

The two float switches system must be used in cases in which the dimensions of the water collection tank allow sufficient travel of the floats. Float switch B enables operation of the first pump, float switch C starts also the second pump. The two pumps are stopped when the contact of float switch B opens.

Operation with three float switches

The three float switches system, which is to be preferred because of the precision of pumps starting and stopping, is recommended in cases wherein the tank diameter is limited such as to obstruct regular travel of the floats.

Float switch B enables operation of the first pump, float switch C starts also the second pump.

The two pumps are stopped when the contact of the third float switch A opens.

Operation with level sensor

Level sensor systems are recommended in cases wherein it is not possible to use the float switch (narrow tank / sump, sewage, etc.)

Pump start and stop functions are selected by means of two trimmers:

- SP: tank max level (in metres)
- DP: tank min/max level (in percentage with respect to Sp)

Emptying function:

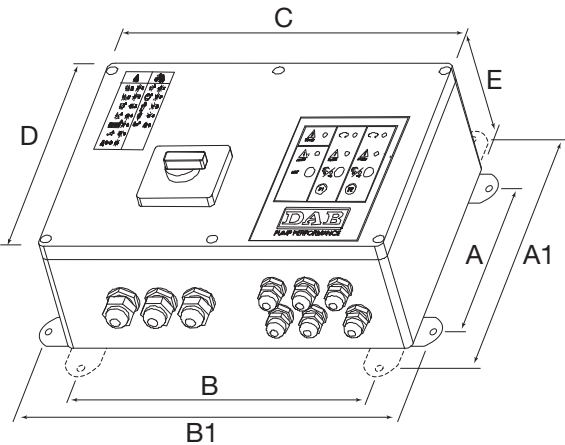
the first pump starts after level SP (e.g. 2 m) is surpassed; if the tank level does not fall, after 5 seconds also the second pump is started to assist the first one.
The two pumps are stopped on the basis of the SP - DP value
(e.g. with DP= 50%, pumps stop at 2 metres - 50% = 1 metre).

Filling function:

the first pump starts when level DP falls
(e.g. SP= 2 metres, DP= 50% pump starts at 2 m - 50% = 1 metre),
if the tank level does not increase, after 5 seconds also the second pump is started to assist the first one.
The two pumps are stopped on the basis of the SP value (e.g. 2 metres).

TECHNICAL DATA

Nominal power supply voltage	1x230 V - 3x230 V - 3x400 V (selectable)
Frequency	50 - 60 Hz
Maximum operating power	5.5 kW + 5.5 kW
Maximum operating current	12 A + 12 A
Start capacitor (E-BOX 2D M40 µF only)	40 microfarads
Operating environmental temperature limits	-10° C + 40° C
Storage temperature limits	-25° C + 55° C
Air relative humidity	90% at 20° C
Max. altitude	100 m above sea level
Protection rating	IP 55
Control panel construction reference standard	EN 60335-1



MODEL	DIMENSIONS (mm)							GROSS WEIGHT (Kg)
	A	A1	B	B1	C	D	E	
E-BOX 2D M / T	212	265	282	337	320	260	120	
E-BOX 2D M 40 µF	212	265	282	337	320	260	120	

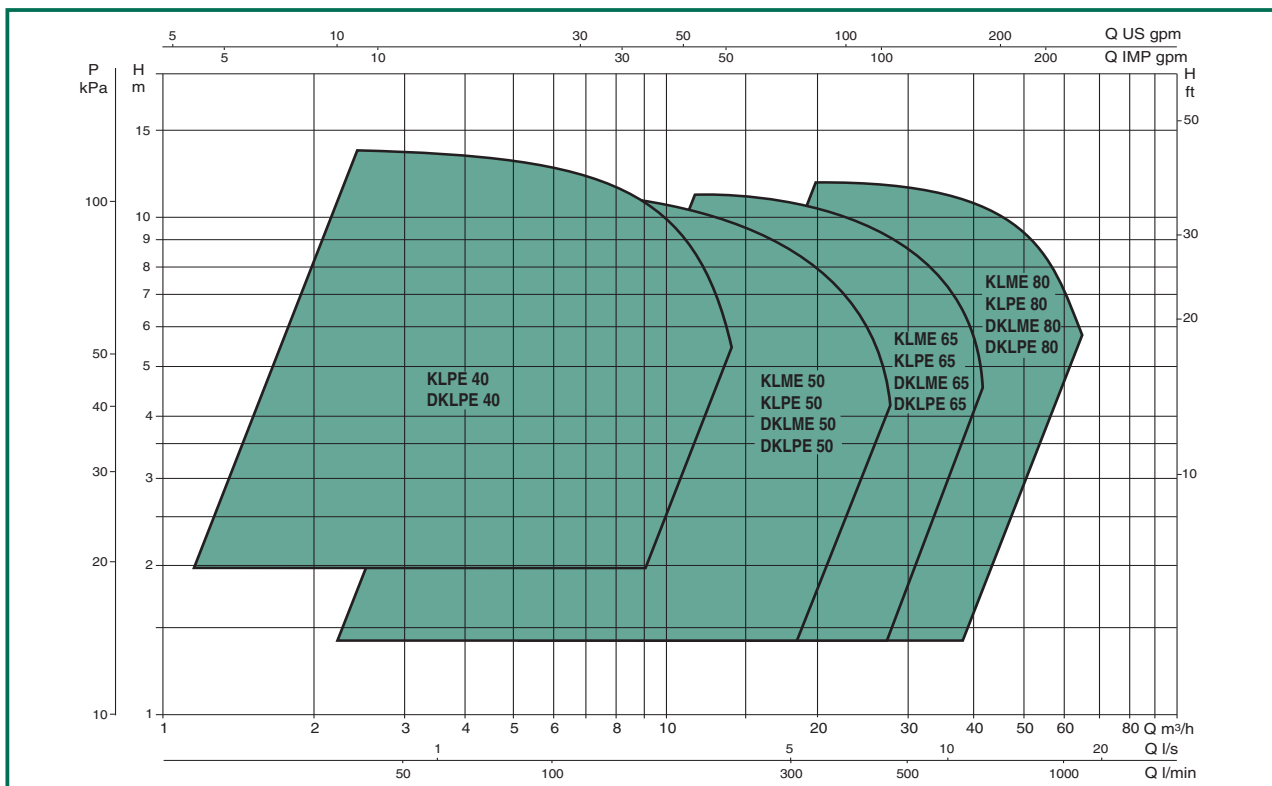
COSTANT DIFFERENTIAL PRESSURE IN-LINE PUMPS

PERFORMANCE RANGE

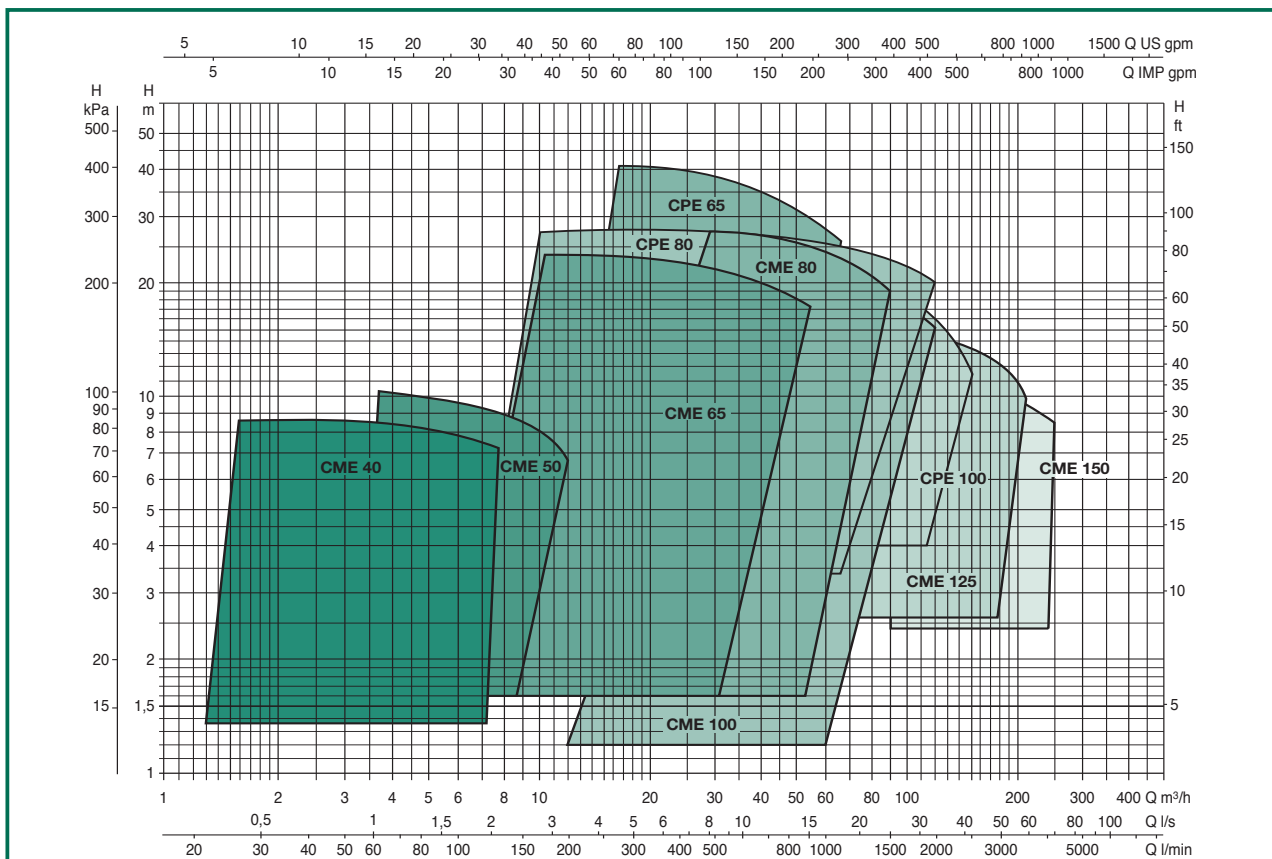
GRAPHIC SELECTION TABLE

Performance curves are based on kinematic viscosity values equal to 1mm²/s at a density equal to 1000 kg/m³. Curve tolerance in accordance with ISO 9906.

KLME - KLPE / DKLME - DKLPE



CME-CPE



PERFORMANCE RANGE

NUMERICAL SELECTION TABLE

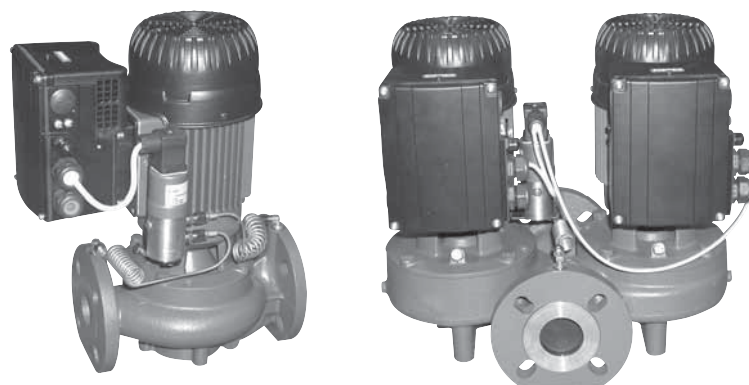
MODEL		P2 NOMINAL		Q (m³/h)	0	3,6	7,2	8,4	9,6	12	18	30	36	48
SINGLE	TWIN	kW	HP	(l/min)	0	60	120	140	160	200	300	500	600	800
KLPE 40/600 M	DKLPE 40/600 M	0,37	0,5	H* (m)	8,2		6,9	6,3	5,7	4				
KLPE 40/1200 M	DKLPE 40/1200 M	0,55	0,75		13,7		11,9	11,2	10,4	8,4				
KLME 50/600 M	DKLME 50/600 M	0,25	0,33		5,4		4,7	4,5	4,3	3,8	2			
KLPE 50/1200 M	DKLPE 50/1200 M	0,75	1		12		11,8	11,6	11	10,5	8,6			
KLME 65/600 M	DKLME 65/600 M	0,37	0,5		5,5			5,3	5	4,7	3,8			
KLPE 65/1200 T	DKLPE 65/1200 T	1,1	1,5		12					11,6	11	8,8	6,7	
KLME 80/600 M	DKLME 80/600 M	0,75	1		5,7						5,7	5	4,3	2,5
KLPE 80/1200 T	DKLPE 80/1200 T	1,84	2,5		11,8							11,5	11	9,7

MODEL	P2 NOMINAL		Q(m³/h)	0	1,2	2,4	3	3,6	4,5	4,8	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	102	114	120	150	180	210	240	250	270	300		
	kW	HP		(l/min)																																	
				0	20	40	50	60	75	80	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1700	1900	2000	2500	3000	3500	4000	4167	4500	5000		
CME 40/540 M	0,7	1	H* (m)	5,4	5,4	5,3	5,2	5,1	5	4,8	4,5																										
CME 40/870 M	0,7	1		8,7	8,7	8,6	8,6	8,5	8,3	8,2	7,9																										
CME 50/630 M	0,7	1						6,2	6	5,8	5,5																										
CME 50/1000 M	0,7	1						10,1	10	9,8	9,6	6,8																									
CME 65-660/A/BAQE/0,55 M	0,55	0,75		6,6							6,5	6,2	5,7	4,8																							
CME 65-920/A/BAQE/0,75 M	0,75	1,00		9,2							9,2	9,0	8,4	7,4	5,7																						
CME 65-1200/A/BAQE/1,5 T	1,50	2,00		12,0								12,0	11,9	11,5	10,8	10,1	8,9																				
CME 65-1680/A/BAQE/3 T	3,00	4,00		16,8								16,8	16,5	16,1	15,5	14,6	13,6	12,4	10,9																		
CME 65-2380/A/BAQE/4 T	4,00	5,50		23,8								24,0	23,8	23,4	22,7	21,6	20,4	19,0	17,1																		
CME 80-650/A/BAQE/0,75 M	0,75	1,00		6,5								6,3	6,1	5,8	5,5	5,0	4,5	3,9																			
CME 80-890/A/BAQE/1,5 T	1,50	2,00		8,9									8,8	8,7	8,6	8,3	8,0	7,6	7,2	6,6	6,0																
CME 80-1530/A/BAQE/3 T	3,00	4,00		15,3										15,4	15,3	15,0	14,6	14,1	13,5	12,9	12,2	11,3															
CME 80-2410/A/BAQE/5,5 T	5,50	7,50		24,1											23,8	23,6	23,3	22,8	22,3	21,5	20,8	19,7	18,6	17,3													
CME 80-2700/A/BAQE/7,5 T	7,50	10,20		27,0														26,0	25,5	25,0	24,5	23,6	22,7	21,5	20,2	19,0											
CME 100-510/A/BAQE/0,75 M	0,75	1,00		5,1								4,9	4,8	4,8	4,7	4,4	4,2	3,8	3,4	3,0																	
CME 100-660/A/BAQE/1,5 T	1,50	2,00		6,6												6,4	6,3	6,2	6,0	5,8	5,6	5,3	5,0	4,7	4,5	4,3	3,7	3,0									
CME 100-1020/A/BAQE/3 T	3,00	4,00		10,2												10,2	10,1	10,0	9,9	9,8	9,7	9,5	9,3	9,0	8,8	8,6	7,9	7,2	6,7								
CME 100-1650/A/BAQE/5,5 T	5,50	7,50		16,5														16,6	16,5	16,4	16,2	16,1	16,0	15,7	15,4	15,0	14,3	13,3	12,7								
CME 100-2050/A/BAQE/7,5 T	7,50	10,00		20,5														21,0	21,0	21,0	20,7	20,5	20,0	19,8	19,5	19,0	18,0	16,7	16,0								
CME 125-1075/A/BAQE/4 T	4,00	5,50		10,8																10,1	10,1	10,0	9,9	9,7	9,5	9,1	8,5	8,3	7,0	5,4							
CME 125-1560/A/BAQE/7,5 T	7,50	10,00		15,6																	15,4	15,4	15,3	15,2	15,1	15,0	14,7	14,5	14,3	13,3	11,6	9,8					
CME 150-955/A/BAQE/5,5 T	5,50	7,50		9,6																						10,1	10,1	10,0	9,5	8,7	7,7	6,8	5,9	5	4,6	4	
CME 150-1322/A/BAQE/7,5 T	7,50	10,00		13,2																							13,0	12,8	12,6	12,5	11,9	11,1	11,1	8,9	8,5		

MODEL	P2 NOMINAL		Q (m³/h)	0	3,6	4,8	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	102	114	120	150	180	210	240	270	300	330	360	390	420		
	KW	HP	(l/min)	0	60	80	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1700	1900	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000		
CPE 65-1470/A/BAQE/1,5 T	1,50	2,00	H* (m)	14,7			14,5	14,3	13,8	13,0	11,8	10,5	8,6	7,0																						
CPE 65-2280/A/BAQE/3 T	3,00	4,00		22,8			22,5	22,3	22,0	21,2	20,2	19,0	17,4	15,5	13,5																					
CPE 65-3400/A/BAQE/5,5 T	5,50	7,50		34,0					34,0	33,5	32,5	31,0	29,5	27,0	24,0																					
CPE 65-4100/A/BAQE/7,5 T	7,50	10,00		41,0					41,0	41,0	40,0	39,0	37,5	35,5	33,0	30,0	26,5																			
CPE 80-1400/A/BAQE/2,2 T	2,20	3,00		14,0					13,8	13,3	12,9	12,5	12,1	11,4	10,8	10,0	9,2	8,3	7,5																	
CPE 80-2050/A/BAQE/4 T	4,00	5,50		20,5					20,0	19,5	19,1	18,5	18,0	17,5	16,5	15,8	14,8	14,0	12,5	11,5																
CPE 80-2770/A/BAQE/7,5 T	7,50	10,00		27,7									27,8	27,5	27,3	27,0	26,5	25,8	25,3	24,5	23,5	23,0	21,5	20,5	18,0	15,5										
CPE 100-1600/A/BAQE/4 T	4,00	5,50		16,0								15,0	14,6	14,2	13,7	13,3	12,8	12,3	11,7	11,0	10,4	9,3	8,0													
CPE 100-2350/A/BAQE/7,5 T	7,50	10,00		23,5								23,1	23,0	22,8	22,6	22,5	22,0	21,6	21,1	20,7	20,2	19,0	17,5	14,8	12,0											

* Head at maximum frequency (50 Hz).

KLME-KLPE DKLME-DKLPE



GENERAL DATA

Applications

Circulation pump for hot or cold water with in-line connectors, suitable for direct installation to pipes in civil and industrial heating, conditioning, cooling and domestic water systems. Particularly versatile thanks to the use of the HYDRODRIVER, it offers performance features that automatically adapt to the various system requirements whilst keeping differential pressures constant.

Construction features of the pump

Pump body and motor support in cast iron.

Flanged suction and delivery connections in PN 10 with threaded holes for control pressure gauges. To make it easy to apply to existing systems, the pump is compatible with counterflanges in PN 6.

Technopolymer impeller.

Mechanical seal in carbon/ceramic.

The pumps are available in the single version (KLME-KLPE) and in the twin version (DKLME-DKLPE).

In the twin version, a clapet valve is incorporated in the suction connection to prevent water from recirculating while the unit is not operating. A blind flange is also supplied standard if one of the two motors needs servicing.

The twin version allows pump operation to be alternated if a back-up unit or simultaneous operation of the two pumps is required.

Construction features of the motor

Closed, asynchronous motor with external ventilation, four poles for KLME and DKLME and two poles for KLPE and DKLPE.

Rotor mounted on oversized maintenance-free greased ball brushings to ensure silent running and long life.

Incorporated overload cut-out.

Built to CEI 2-3 standards

Protected to: IP 55

Insulation class F

Standard voltage: single-phase 208-240 V / 50-60 Hz
three-phase 380-480 V / 50-60 Hz

Construction features of electronic part (HYDRODRIVER)

Adjustment unit directly mounted on the electric pump that, by using the signal of the standard differential transducer, already connected and ready to use, modulates the speed of rotation in order to keep the differential pressure of the system on which it is constant used.

The HYDRODRIVER uses an integrated microprocessor that can work with the recent IGBT technology which offers higher levels of reliability and flexibility.

The high frequency impulse width modulation procedure makes the motor work very silently, ensuring elevated starting torque with a current increase programmed and calibrated by the maker.

The device also guarantees gradual acceleration and deceleration ramps (soft-start) thereby preventing hammering effects. It protects the motor it is mounted on with numerous protection systems against overloads, missing phases, overvoltage and undervoltage with a 5-try automatic reset feature.

Supplied standard with:

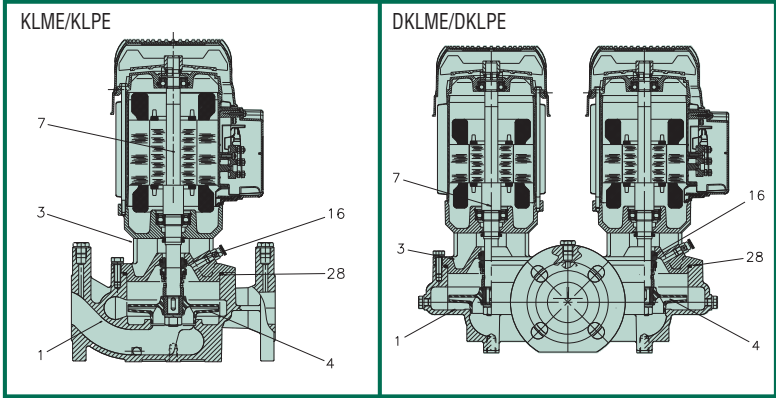
- remote control terminals (start/stop)
- economy function adjustment terminals
- enable terminals for connecting the back-up pump (twin version)
- terminals for powering a remote alarm (potential-free)
- Status led's
- adjustment knob for easy calibration of the required set-point.
- Class B integrated radio frequency disturbance filter (EN 55022 level B1)
- integrated ventilation device (from 2,2 kW to 7,5 kW)

Remote control feature through RS 485 serial interface and USS protocol

TECHNICAL DATA

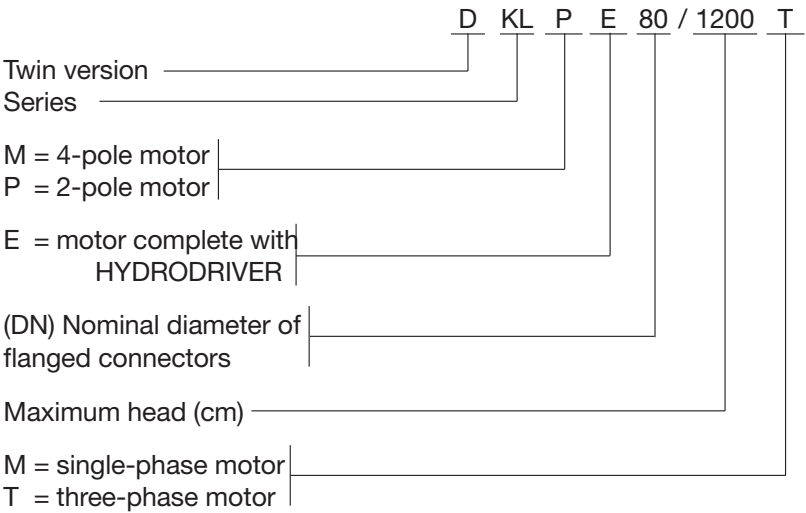
N.	PARTS*	MATERIALS
1	PUMP BODY	CAST IRON 250 UNI ISO 185
3	SUPPORT	CAST IRON 250 UNI ISO 185
4	IMPELLER	TECHNOPOLYMER B
7	SHAFT WITH ROTOR	STAINLESS STEEL AISI 303 X10 CrNis 1809 - UNI 6900/71
16	MECHANICAL SEAL	CARBON/CERAMICS
28	OR GASKET	EPDM RUBBER

* In contact with the liquid.

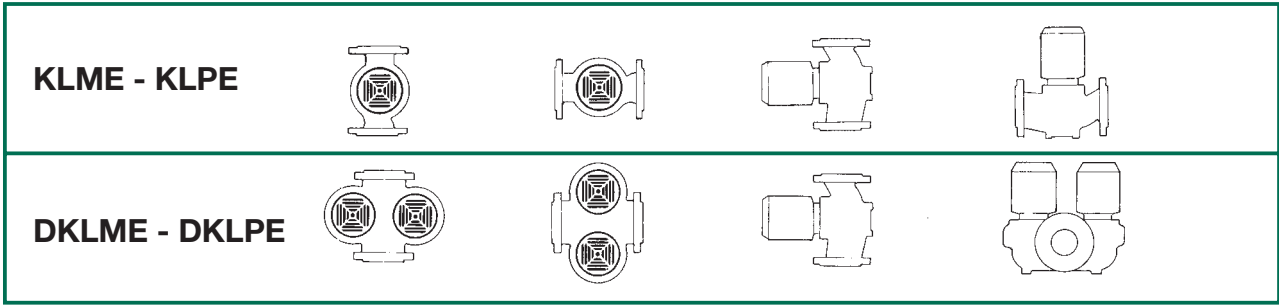


- Operating range: from 2 to 67 m³ /h with a head of up to 13,7 metres.
- Pumped liquid: clean, without solid or abrasive substances, not viscous, not aggressive, not crystallised and chemically neutral, close to water characteristics
- max glycol 30% (for different glycol percentage please contact our technical service).
- Liquid temperature range: from -15°C to +120°C.
- Maximum ambient temperature: +40°C
- Maximum operating pressure: 10 bar (1000 kPa).
- Standard flanging: DN 40, DN 50, DN 65, DN 80 in PN 6 / PN 10 (4 slots)
- Flanging on request: DN 80 in PN 16 (8 holes)
- Counterflanging on request: threaded DN 40, DN 50, DN 65 in PN 6
with collar to weld: DN 40, DN 50, DN 65, DN 80 in PN 6
with collar to weld: DN 40, DN 50, DN 65, in PN 10/PN 16 (4 holes)
with collar to weld: DN 80 in PN 10 / PN 16 (8 holes).

- Classification index:
(example)



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

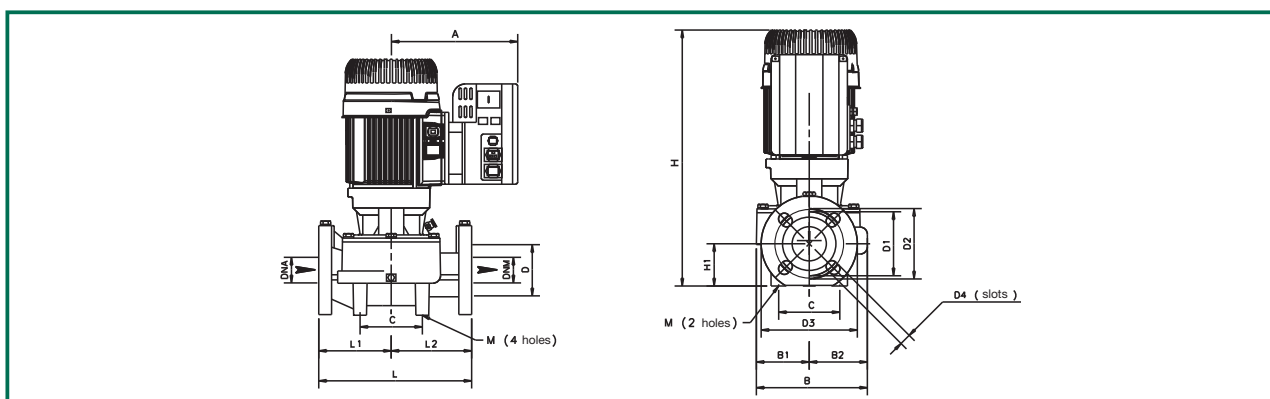
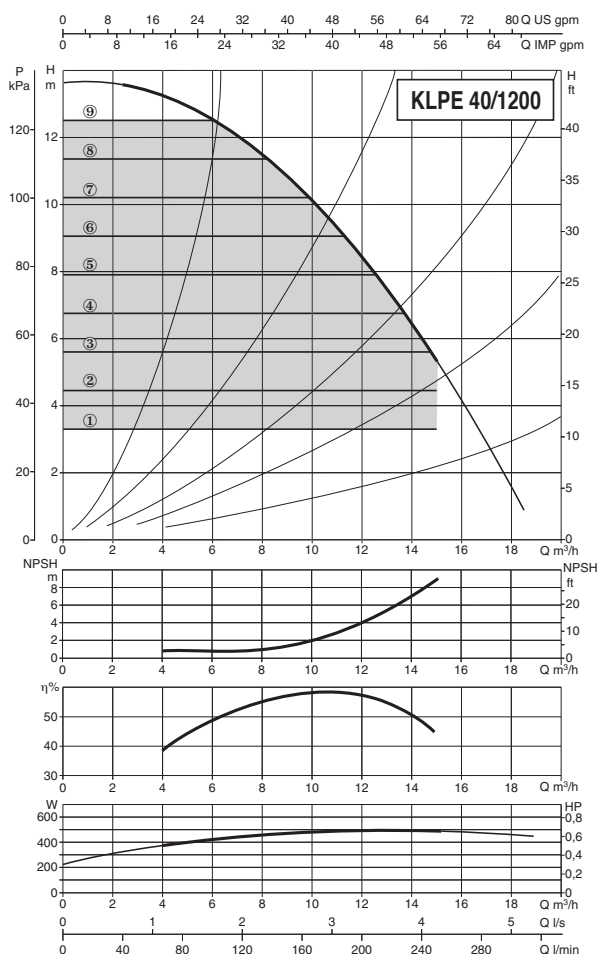
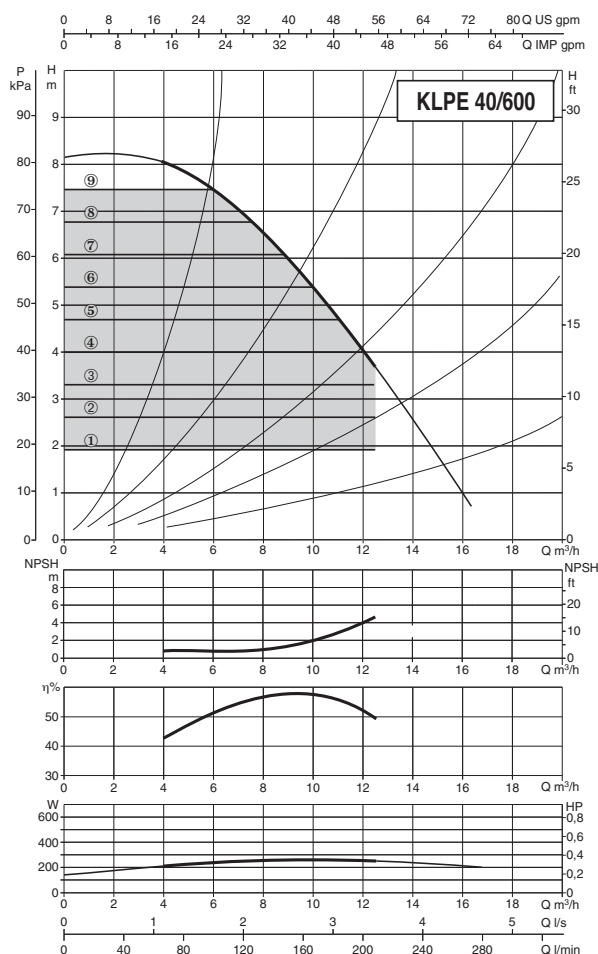


The performance curves are based on kinematic viscosity values = 1 mm²/s and density equivalent to 1000 kg/m³. Tolerance of curves to ISO 9906.

KLPE 40

Liquid temperature range: from -15°C to +120°C

Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DN1	D	D1	D2	D3	D4	H	H1	I	L	L1	L2	M
KLPE 40/600 M	227	179	82	97	100	40	40	80	100	110	150	4 slots	395	66	—	250	125	125	2 FORI
KLPE 40/1200 M	227	179	82	97	100	40	40	80	100	110	150	18x23	395	66	—	250	125	125	10

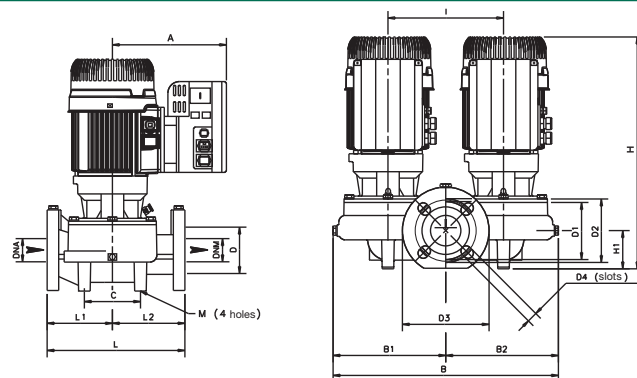
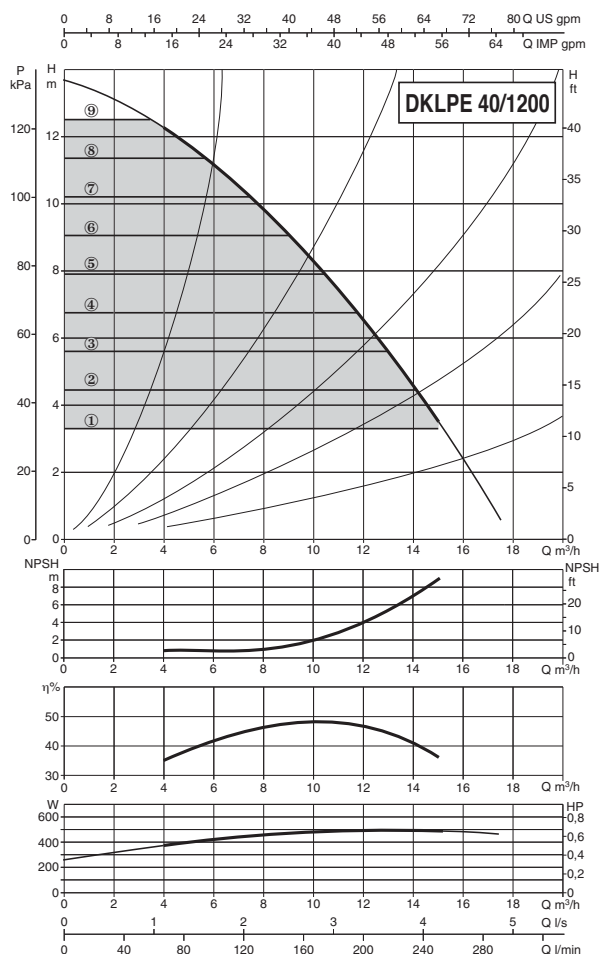
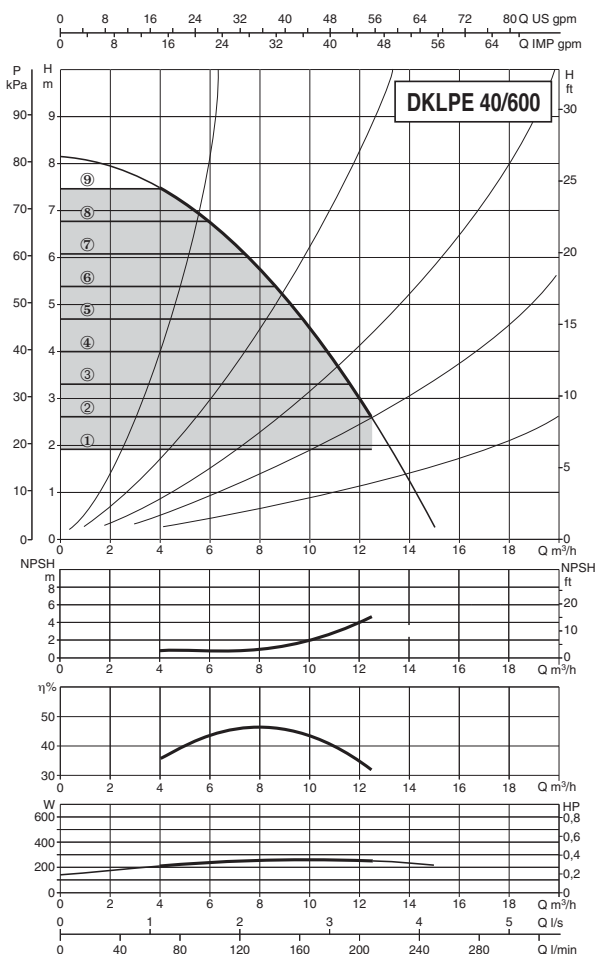
MODEL	ELECTRICAL DATA						
	VOLTAGE 50-60 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL kW	HP	I _n A
KLPE 40/600 M	1x208-240 V ~	2 POLES	2950	0,36	0,37	0,5	4-4,6
KLPE 40/1200 M	1x208-240 V ~	2 POLES	2890	0,62	0,55	0,75	4-4,6

PACKING DIMENSIONS			VOLUME m ³	WEIGHT Kg
L/A	L/B	H		
530	280	470	0,07	27,8
530	280	470	0,07	27,8

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.

DKLPE 40

Liquid temperature range: from -15°C to +120°C
Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DNM	D	D1	D2	D3	D4	H	H1	I	L	L1	L2	M
DKLPE 40/600 M	227	372	185	187	100	40	40	80	100	110	150	4 slots	400	66	200	250	125	125	2 FORI
DKLPE 40/1200 M	227	372	185	187	100	40	40	80	100	110	150	18x23	400	66	200	250	125	125	10

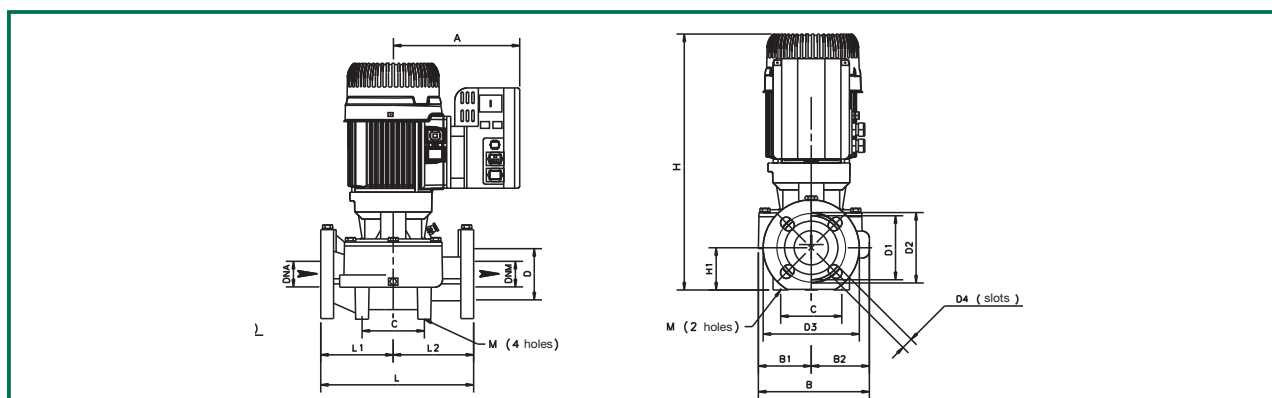
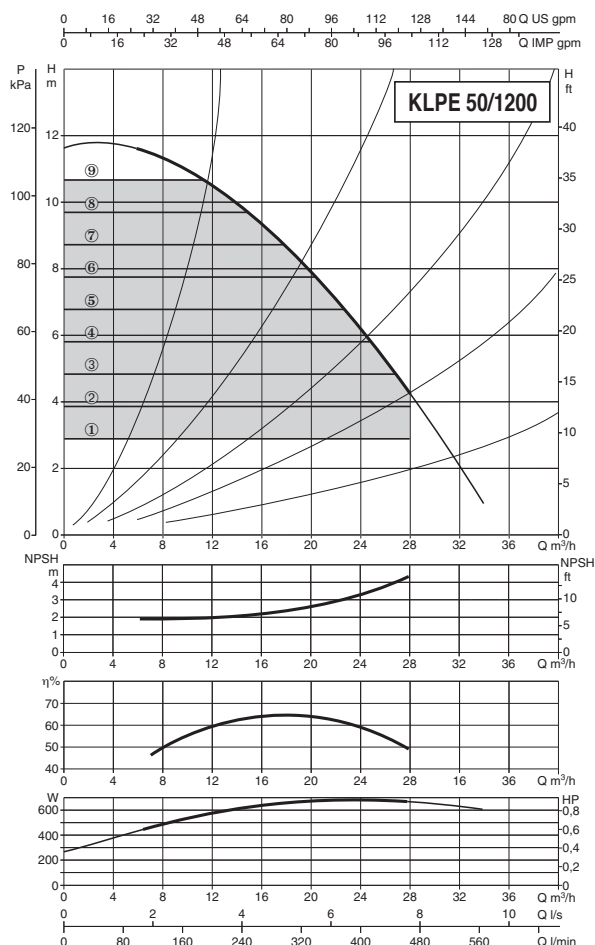
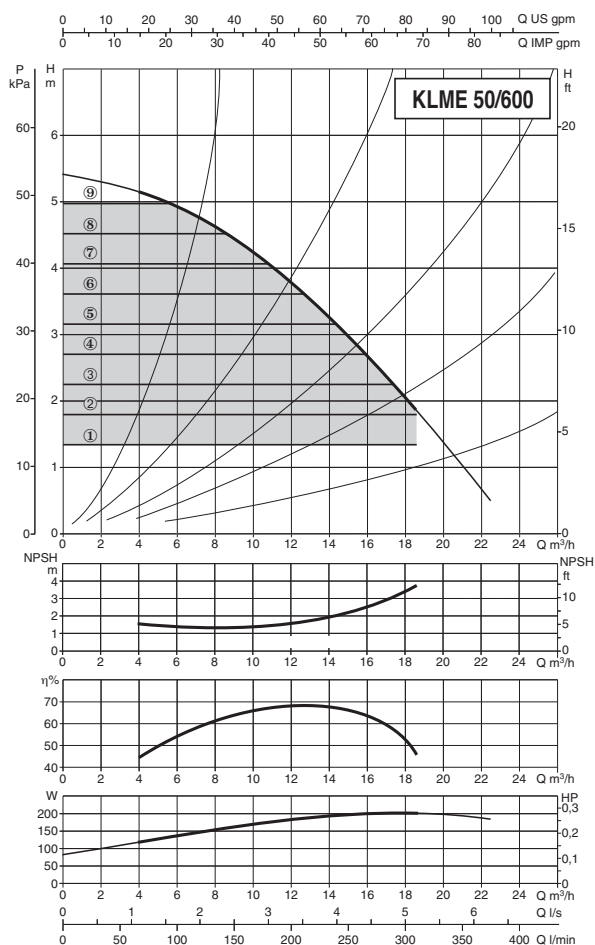
MODEL	ELECTRICAL DATA						
	VOLTAGE 50-60 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL kW	HP	In A
DKLPE 40/600 M	1x208-240 V ~	2 POLES	2950	0,36	0,37	0,5	4-4,6
DKLPE 40/1200 M	1x208-240 V ~	2 POLES	2890	0,62	0,55	0,75	4-4,6

PACKING DIMENSIONS			VOLUME m³	WEIGHT Kg
L/A	L/B	H		
540	420	610	0,138	47
540	420	610	0,138	52

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.

KLME 50 - KLPE 50

Liquid temperature range: from -15°C to +120°C
Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DN1	D	D1	D2	D3	D4	H	H1	I	L	L1	L2	M
KLME 50/600 M	230	204	94	110	100	50	50	90	110	125	165	4 slots	414	73	—	280	140	140	2 FORI
KLPE 50/1200 M	230	204	94	110	100	50	50	90	110	125	165	18x25,5	414	73	—	280	140	140	10

MODEL	ELECTRICAL DATA						
	VOLTAGE 50-60 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL kW	HP	In A
KLME 50/600 M	1x208-240 V ~	4 POLES	1340	0,33	0,25	0,33	2,8-3,2
KLPE 50/1200 M	1x208-240 V ~	2 POLES	2890	0,93	0,75	1	7,1-8,2

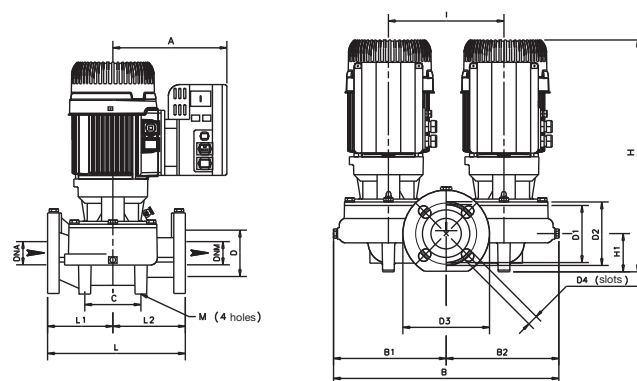
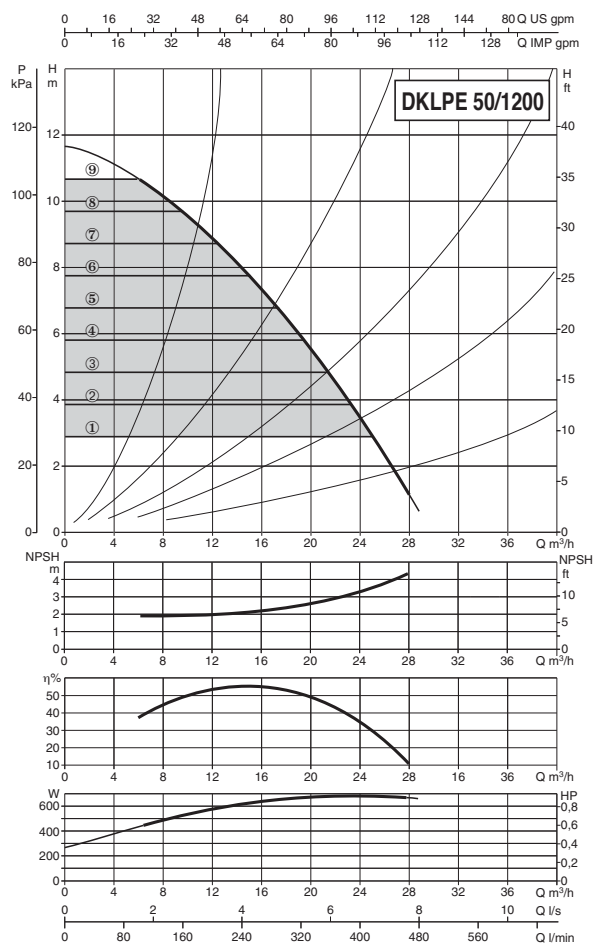
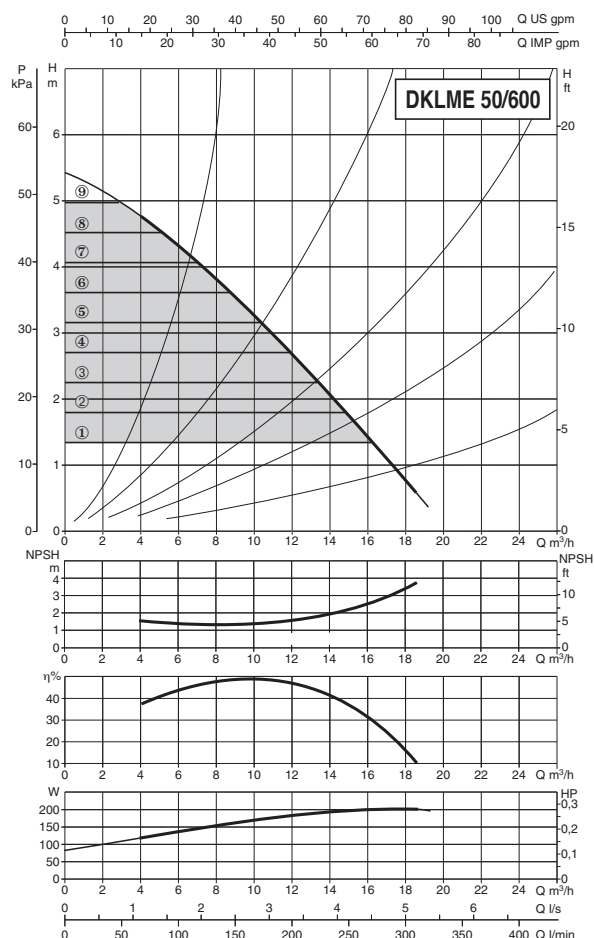
PACKING DIMENSIONS			VOLUME m ³	WEIGHT Kg
L/A	L/B	H		
530	280	470	0,07	32,8
530	280	470	0,07	34,8

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.

DKLME 50 - DKLPE 50

Liquid temperature range: from -15°C to +120°C

Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DNM	D	D1	D2	D3	D4	H	H1	I	L	L1	L2	M
DKLME 50/600 M	230	434	217	217	120	50	50	90	110	125	165	4 slots	414	66	200	250	125	125	4 FORI
DKLPE 50/1200 M	230	434	217	217	120	50	50	90	110	125	165	18x25,5	414	66	200	250	125	125	14

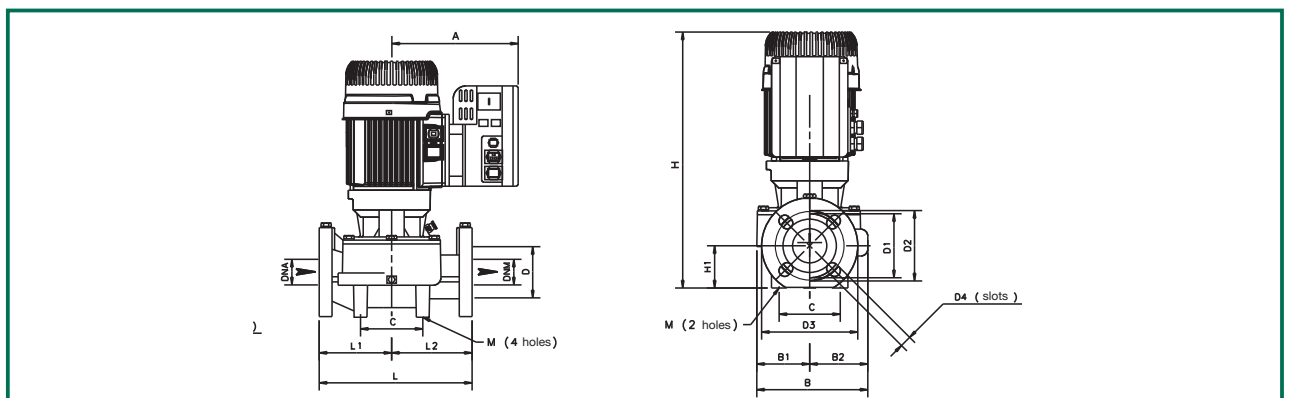
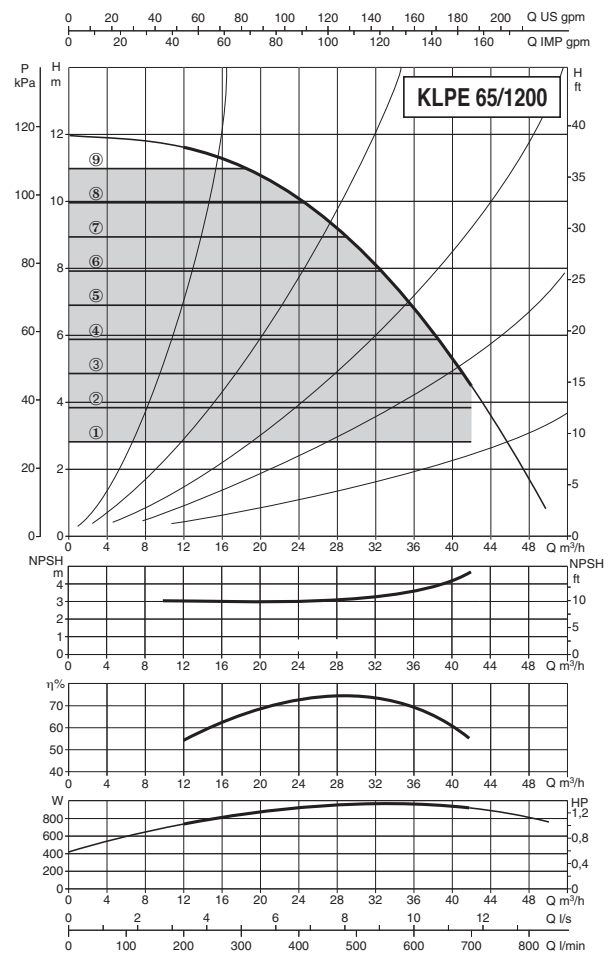
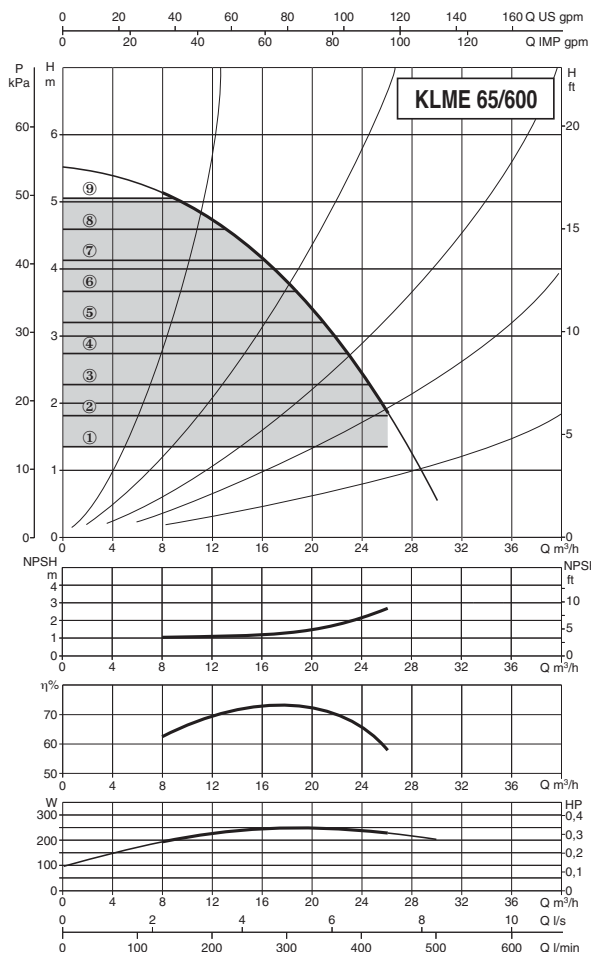
MODEL	ELECTRICAL DATA						
	VOLTAGE 50-60 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL kW	HP	In A
DKLME 50/600 M	1x208-240 V ~	4 POLES	1340	0,33	0,25	0,33	2,8-3,2
DKLPE 50/1200 M	1x208-240 V ~	2 POLES	2890	0,93	0,75	1	7,1-8,2

PACKING DIMENSIONS			VOLUME m ³	WEIGHT Kg
L/A	L/B	H		
540	420	610	0,138	67
540	420	610	0,138	79

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.

KLME 65 - KLPE 65

Liquid temperature range: from -15°C to +120°C
Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DNM	D	D1	D2	D3	D4	H	H1	I	L	L1	L2	M
KLME 65/600 M	230	228	99	129	100	65	65	110	130	145	185	4 slots	433	82	—	340	170	170	2 FORI
KLPE 65/1200 T	230	228	99	129	100	65	65	110	130	145	185	18x25,5	433	82	—	340	170	170	12

MODEL	ELECTRICAL DATA						
	VOLTAGE 50-60 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL		In A
KLME 65/600 M	1x208-240 V ~	4 POLES	1400	0,37	0,37	0,5	2,8-3,2
KLPE 65/1200 T	3x380-480 V ~	2 POLES	2880	1,34	1,1	1,5	3,9-4,9

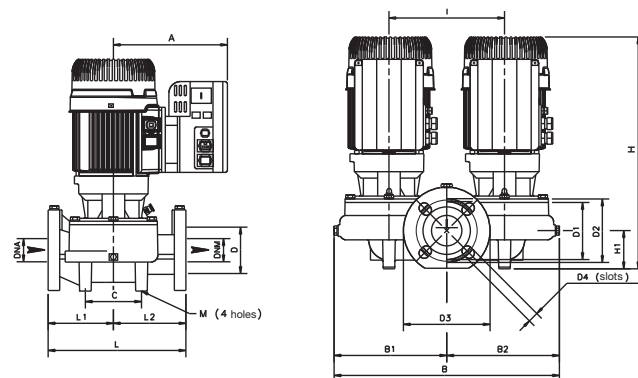
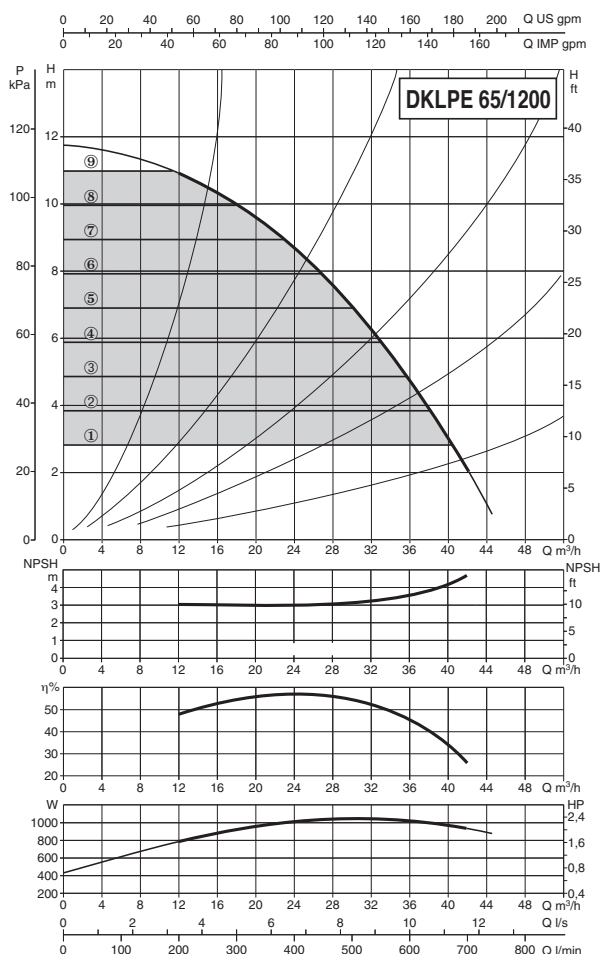
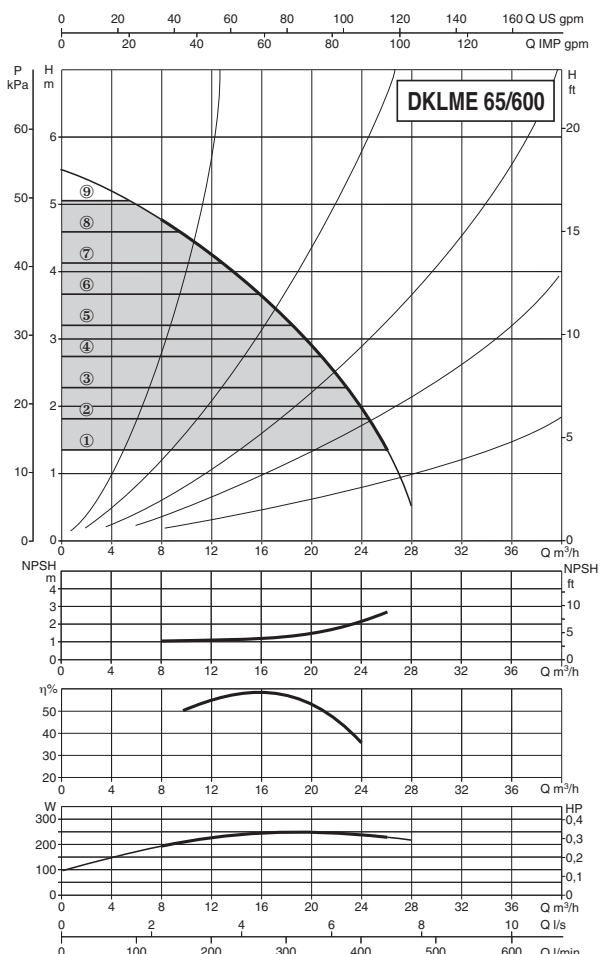
PACKING DIMENSIONS			VOLUME m ³	WEIGHT Kg
L/A	L/B	H		
530	290	540	0,095	37,8
530	290	540	0,095	43,4

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.

DKLME 65 - DKLPE 65

Liquid temperature range: from -15°C to +120°C

Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DNM	D	D1	D2	D3	D4	H	H1	I	L	L1	L2	M
DKLME 65/600 M	230	455	226	229	140	65	65	110	130	145	185	4 slots	433	82	240	340	170	170	4 FORI
DKLPE 65/1200 T	230	455	226	229	140	65	65	110	130	145	185	18x25,5	433	82	240	340	170	170	14

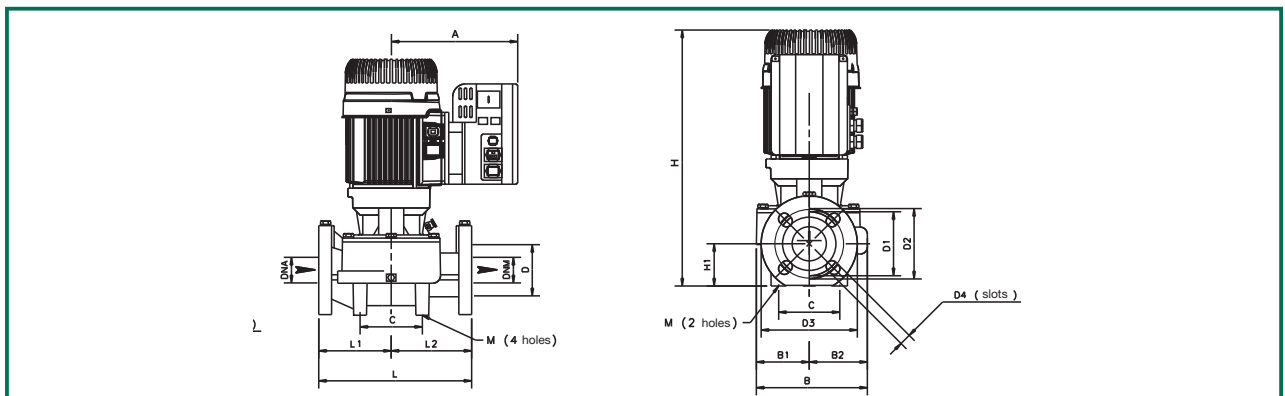
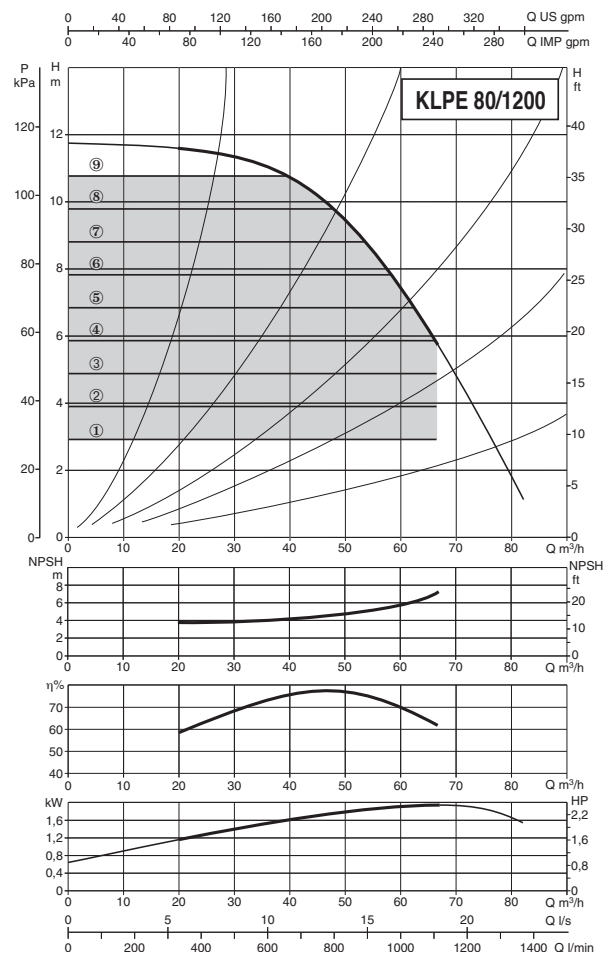
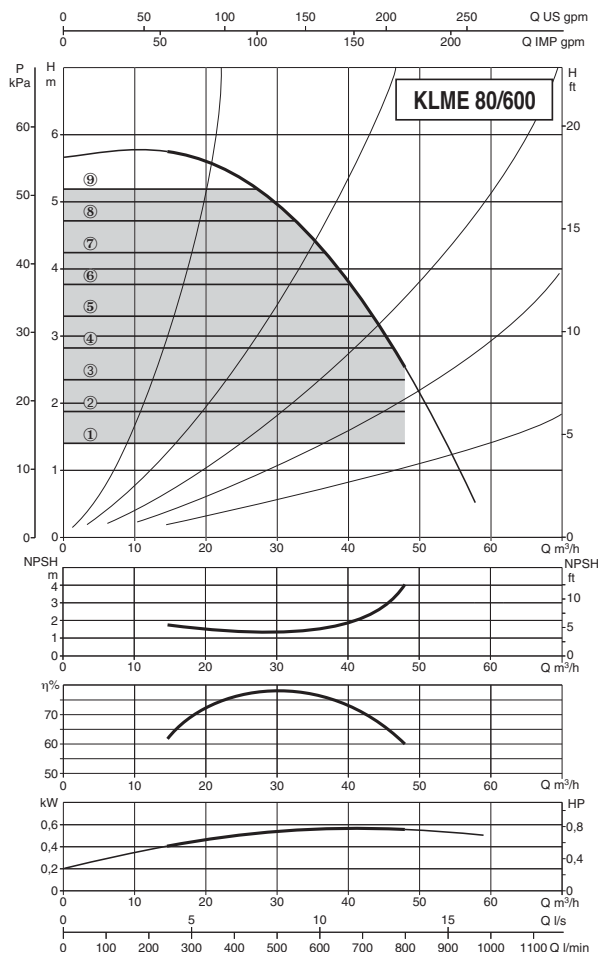
MODEL	ELECTRICAL DATA						
	VOLTAGE 50-60 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL kW	P2 NOMINAL HP	In A
DKLME 65/600 M	1x208-240 V ~	4 POLES	1400	0,37	0,37	0,5	2,8-3,2
DKLPE 65/1200 T	3x380-480 V ~	2 POLES	2880	1,34	1,1	1,5	3,9-4,9

PACKING DIMENSIONS			VOLUME m³	WEIGHT Kg
L/A	L/B	H		
730	630	720	0,33	71,7
730	630	720	0,33	89,6

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.

KLME 80- KLPE 80

Liquid temperature range: from -15°C to +120°C
Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DNM	D	D1	D2	D3	D4	H	H1	I	L	L1	L2	M
KLME 80/600 M	230	229	99	130	115	80	80	128	150	160	200	4 slots	463	97	—	360	190	170	2 FORI
KLPE 80/1200 T	230	229	99	130	115	80	80	128	150	160	200	18x23	463	97	—	360	190	170	12

MODEL	ELECTRICAL DATA						
	VOLTAGE 50-60 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL		In A
KLME 80/600 M	1x208-240 V ~	4 POLES	1440	0,77	0,75	1	5,4-6,2
KLPE 80/1200 T	3x380-480 V ~	2 POLES	2840	2,16	1,84	2,5	4,7-5,9

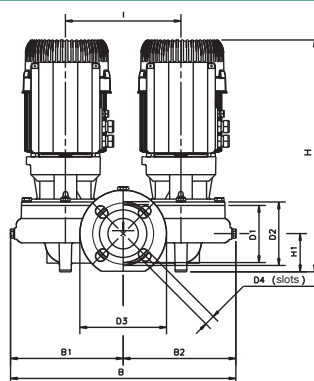
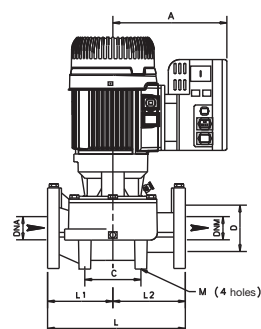
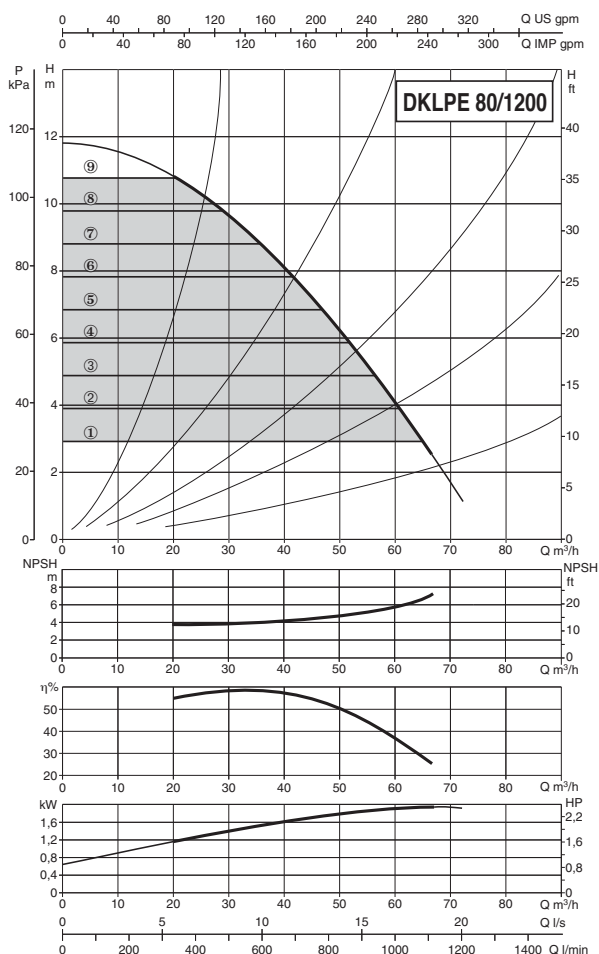
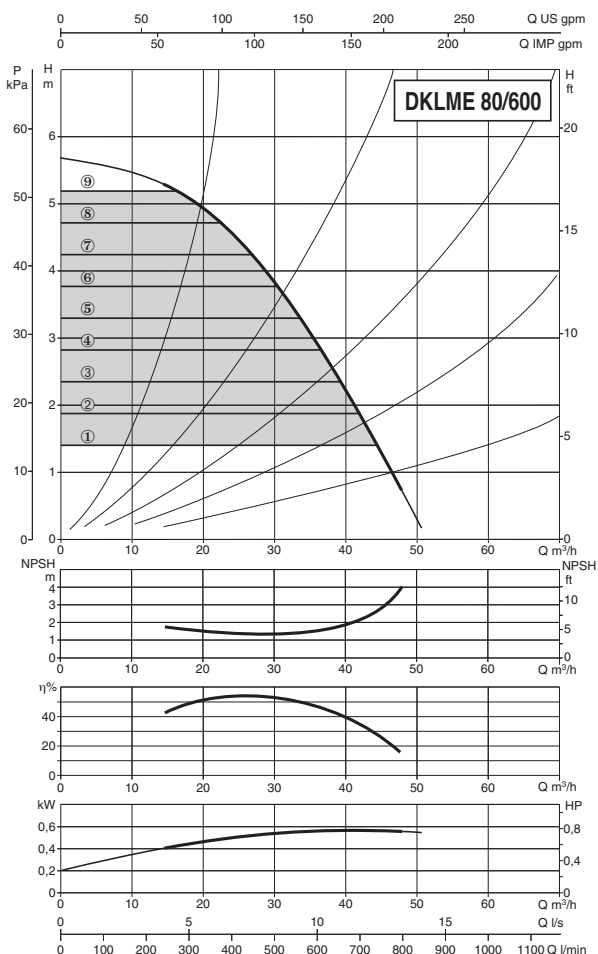
PACKING DIMENSIONS			VOLUME m ³	WEIGHT Kg
L/A	L/B	H		
530	290	610	0,095	47,3
530	290	610	0,095	48,3

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.

DKLME 80 - DKLPE 80

Liquid temperature range: from -15°C to +120°C

Maximum temperature operating: +40°C



MODEL	A	B	B1	B2	C	DNA	DNM	D	D1	D2	D3	D4	H	H1	I	L	L1	L2	M
DKLME 80/600 M	230	463	230	233	150	80	80	128	150	160	200	4 slots	463	97	240	380	190	170	4 FORI
DKLPE 80/1200 T	230	463	230	233	150	80	80	128	150	160	200	18x23	463	97	240	380	190	170	14

MODEL	ELECTRICAL DATA						
	VOLTAGE 50-60 Hz	MOTOR TYPE	r.p.m. n. 1/min.	P1 MAX kW	P2 NOMINAL		In A
DKLME 80/600 M	1x208-240 V ~	4 POLES	1440	0,77	0,75	1	5,4-6,2
DKLPE 80/1200 T	3x380-480 V ~	2 POLES	2840	2,16	1,84	2,5	4,7-5,9

PACKING DIMENSIONS			VOLUME m ³	WEIGHT Kg
L/A	L/B	H		
730	630	720	0,33	87,5
730	630	720	0,33	89,5

CME-CPE



GENERAL DATA

Circulation pumps with in-line ports, designed for heating and air conditioning, refrigeration and domestic hot water systems. Highly versatile units thanks to the use of the HYDRODRIVER, to guarantee performance levels able to automatically adapt to the diverse requirements of the system, while maintaining constant differential pressure. Available in single versions only.

Pump construction characteristics

Flanged PN 16 suction and delivery ports, fitted with threaded holes for test pressure gauge attachment. Pump body and motor support unit in cast iron, impellers in either technopolymer or cast iron depending on model, and in bronze, on request, from models DN 65 to DN 150 only. Motor shaft in stainless steel. Seal: standardised mechanical seal made to DIN 24960 in carbon/carborundum with O-rings in EPDM.

Motor construction characteristics

Three-phase motor, 2 and 4-pole, asynchronous with external ventilation; overload protection recommended for the motor, in accordance with current standards. Rotor mounted on oversized ball bearings to ensure silent running and long life. Built to CEI 2-3 standards

Protection: IP 55

Insulation: class F

Liquid temperature range:

-15 °C ÷ +120 °C for DN 40 - 50
-10 °C ÷ +140 °C for DN 65 - 150

Maximum ambient temperature:

+40°C

Max. operating pressure:

16 bar

Standard voltage:

Single-phase 208-240 V / 50-60 Hz
Three-phase 380-480 V / 50-60 Hz

Pumped liquid: clean, free from solids or abrasive substances, not viscous, not aggressive, not crystallised and chemically neutral.

Construction features of electronic part (HYDRODRIVER)

Adjustment unit directly mounted on the electric pump that, by using the signal of the standard differential transducer, already connected and ready to use, modulates the speed of rotation in order to keep the differential pressure of the system on which it is constant used. The HYDRODRIVER uses an integrated micro-processor that can work with the recent IGBT technology which offers higher levels of reliability and flexibility. The high frequency impulse width modulation procedure makes the motor work very silently, ensuring elevated starting torque with a current increase programmed and calibrated by the maker. The device also guarantees gradual acceleration and deceleration ramps (soft-start) thereby preventing hammering effects. It protects the motor it is mounted on with numerous protection systems against overloads, missing phases, overvoltage and undervoltage with automatic 5-try reset feature.

Supplied standard with: - remote control terminals (start/stop)

- economy function adjustment terminals

- terminals for powering a remote alarm (potential-free)

- Status led's

- adjustment knob for easy calibration of the required set-point.

- Class B integrated radio frequency disturbance filter (EN 55022 level B1)

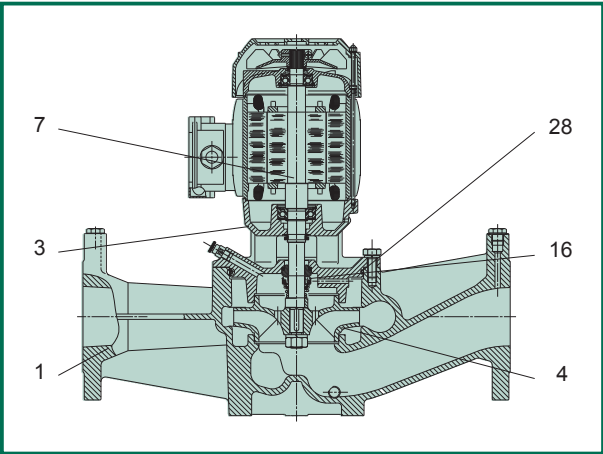
- integrated ventilation device (from 2,2 kW to 7,5 kW)

Remote control feature through RS 485 serial interface and USS protocol

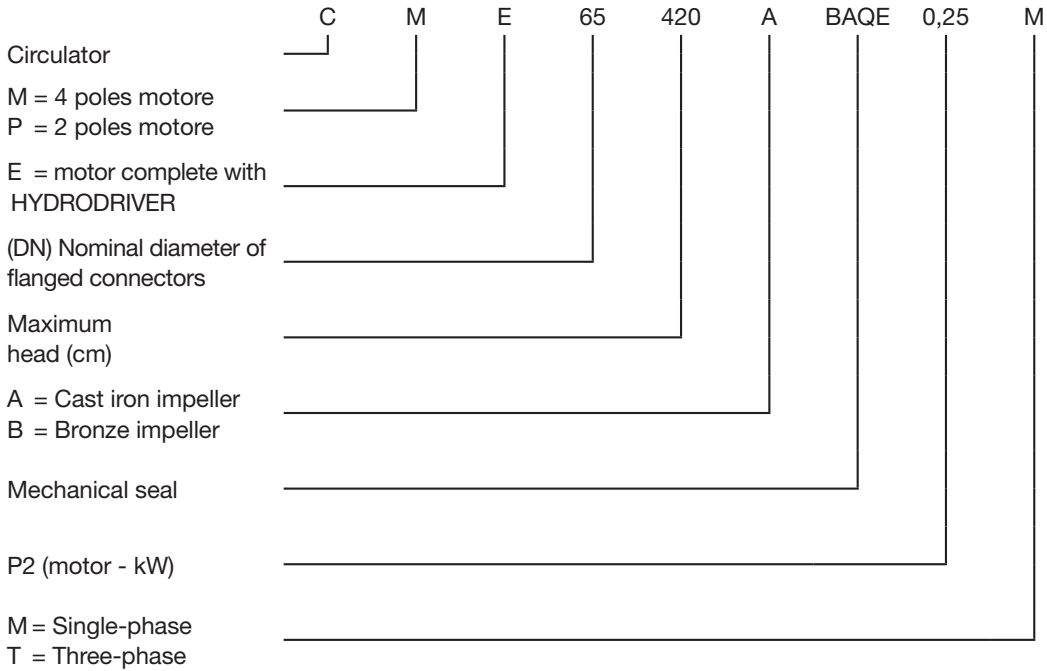
TECHNICAL DATA

N.	PARTS*	MATERIALS
1	PUMP BODY	CAST IRON 250 ISO UNI 185
3	SUPPORT	CAST IRON 250 ISO UNI 185
4	IMPELLER	CAST IRON 250 ISO UNI 185 for CM 65-80-100-125-150 - TECNOPOLYMER B for CM 40-50
7	SHAFT WITH ROTOR	STAINLESS STEEL AISI 304 X5 CrNi 1810 - UNI 6900/71
16	MECHANICAL SEAL	CARBON/CERAMICS
28	OR GASKET	EPDM RUBBER

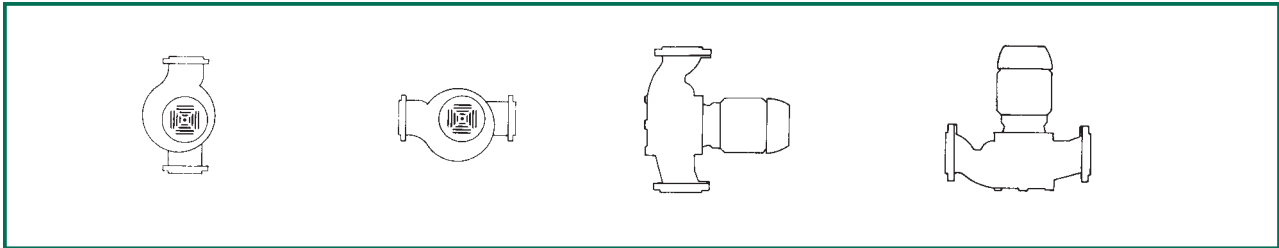
* In contact with the liquid.



- Operating range: from 1,2 a to 300 m³/h with a head of up to 41 metres.
- Pumped liquid: clean, without solid or abrasive substances, not viscous, not aggressive, not crystallised and chemically neutral, close to water characteristics
- max glycol 30% (for different glycol percentage please contact our technical service).
- Liquid temperature range: from -15°C to +120°C.
- Maximum ambient temperature: +40°C
- Maximum operating pressure: 16 bar (1600 kPa).
- Flanging: PN 16.
- Counterflanging on request: DN 40 - DN 50 - DN 65 - DN 80 - DN 100 - DN 125 - DN 150; PN 16.
- Classification index:
(example)



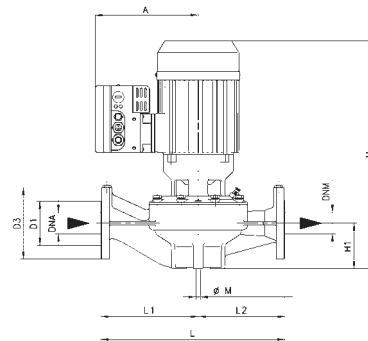
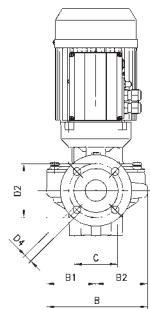
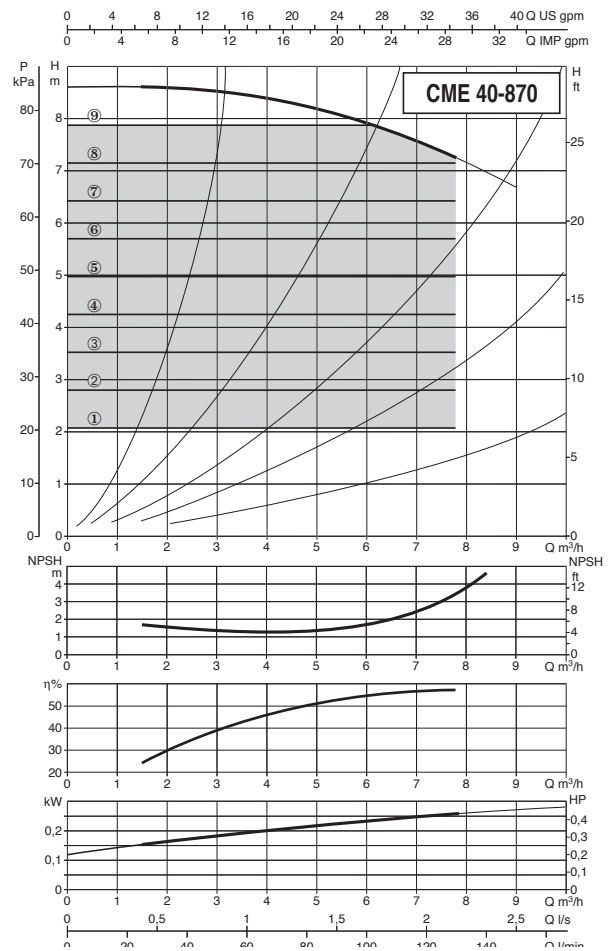
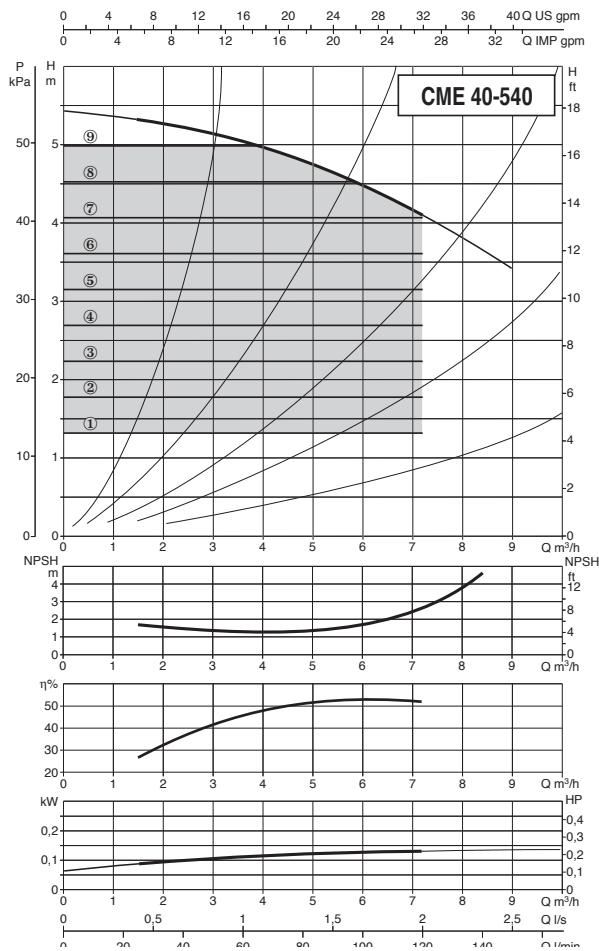
- Installation: fixed horizontal or vertical provided the motor is always positioned above the pump.



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.

CME 40

Liquid temperature range: from -15°C to +120°C
Maximum temperature operating: +40°C



MODEL	DIMENSIONS																
	A	B	B1	B2	C	DNA	DNM	D1	D2	D3	D4	H	H1	L	L1	L2	M
CME 40/540 M	230	231	118	113	85	40	40	88	110	150	18	453	95	390	200	190	12
CME 40/870 M	230	231	118	113	85	40	40	88	110	150	18	453	95	390	200	190	12

MODEL	VOLTAGE 50 Hz	MOTOR TYPE	R.p.m. 1/min	P1 MAX kW	P2 NOMINAL		In A
					kW	HP	
CME 40/540 M	1x208-240 V ~	4 POLES	1480	0,34	0,75	1	4-4,6
CME 40/870 M	1x208-240 V ~	4 POLES	1480	0,52	0,75	1	4-4,6

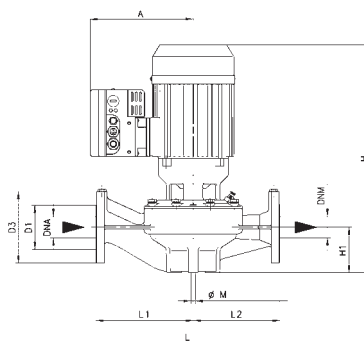
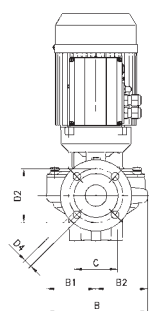
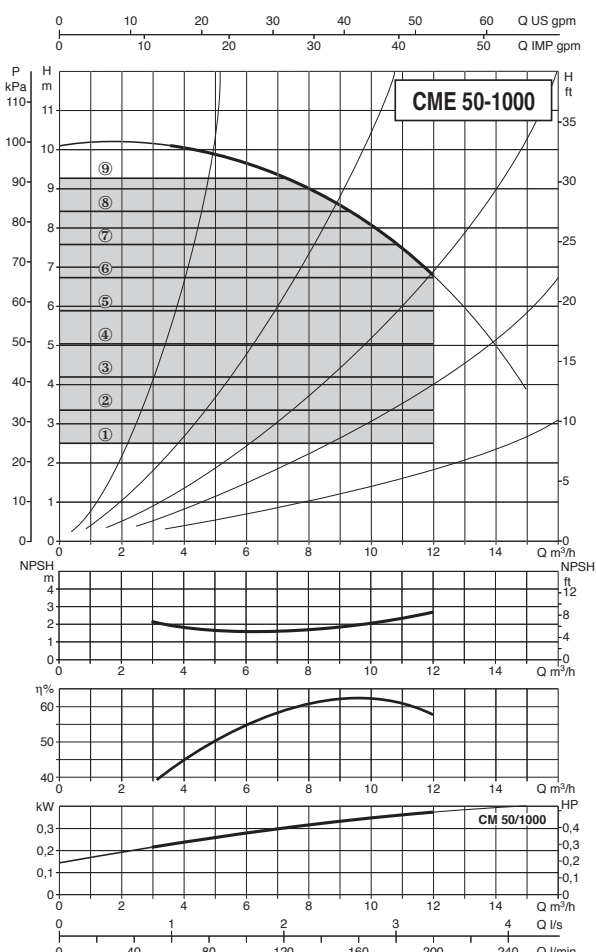
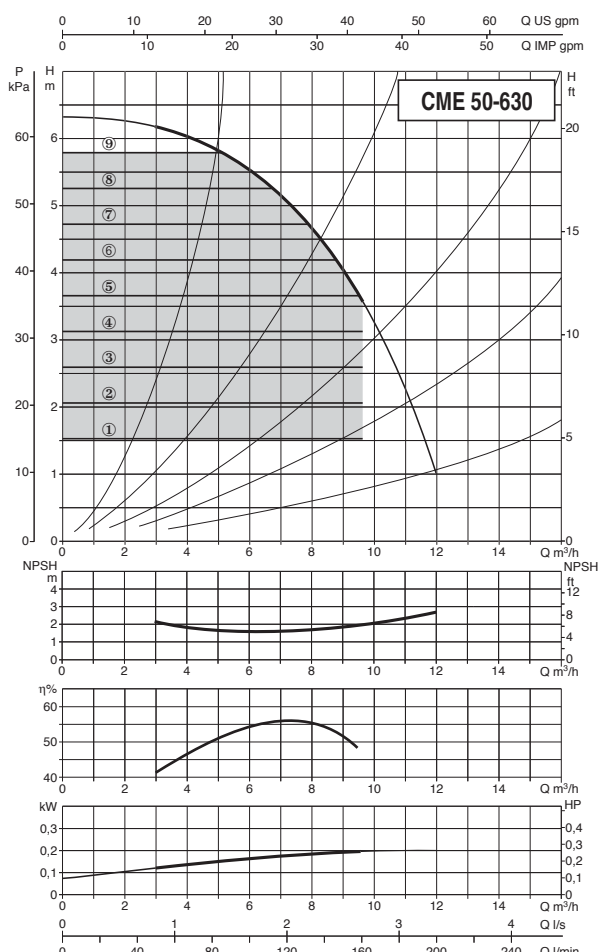
PACKING DIMENSIONS			VOLUME m³	WEIGHT Kg
LVA	LVB	H		
680	330	580	0,13	46
680	330	580	0,13	46

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.

CME 50

Liquid temperature range: from -15°C to +120°C

Maximum temperature operating: +40°C



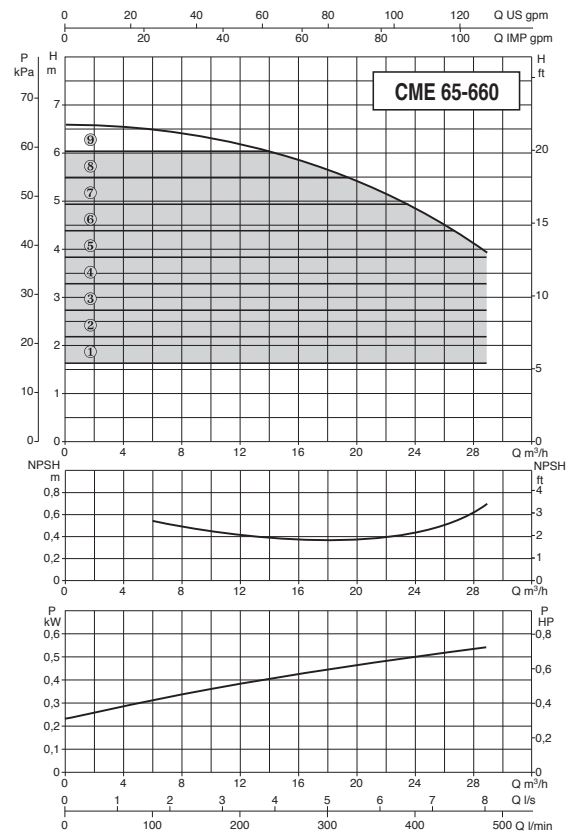
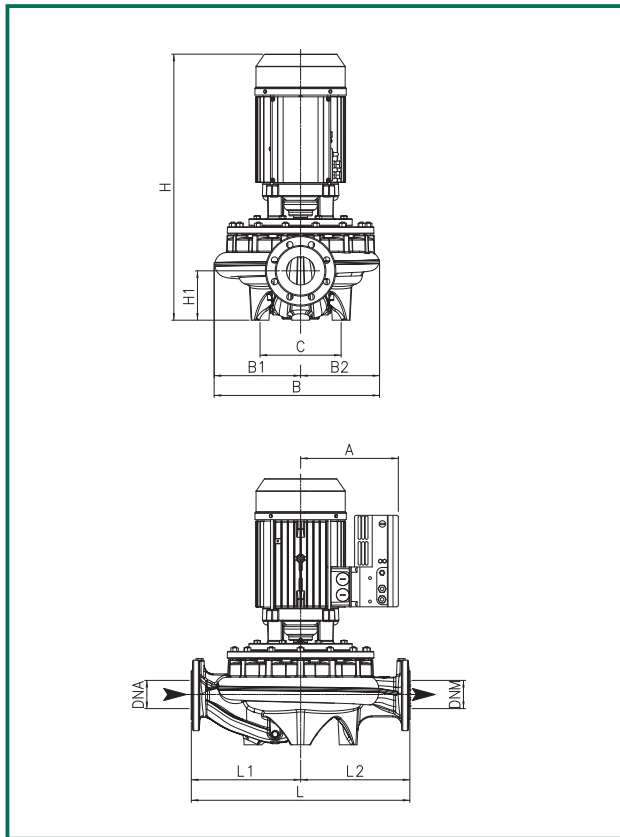
MODEL	DIMENSIONS																
	A	B	B1	B2	C	DNA	DNM	D1	D2	D3	D4	H	H1	L	L1	L2	M
CME 50/630 M	230	233	120	113	100	50	50	102	125	165	18	463	105	425	225	200	12
CME 50/1000 M	230	233	120	113	100	50	50	102	125	165	18	463	105	425	225	200	12

MODEL	VOLTAGE 50 Hz	MOTOR TYPE	R.p.m. 1/min	P1 MAX kW	P2 NOMINAL		In A	PACKING DIMENSIONS			VOLUME m ³	WEIGHT Kg
					kW	HP		LVA	LVB	H		
CME 50/630 M	1x208-240 V ~	4 POLES	1480	0,51	0,75	1	4-4,6	680	330	580	0,13	51,6
CME 50/1000 M	1x208-240 V ~	4 POLES	1470	0,66	0,75	1	5,4-6,2	680	330	580	0,13	51,6

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.

CME 65

Liquid temperature range: from -10°C to +140°C
Maximum temperature operating: +40°C



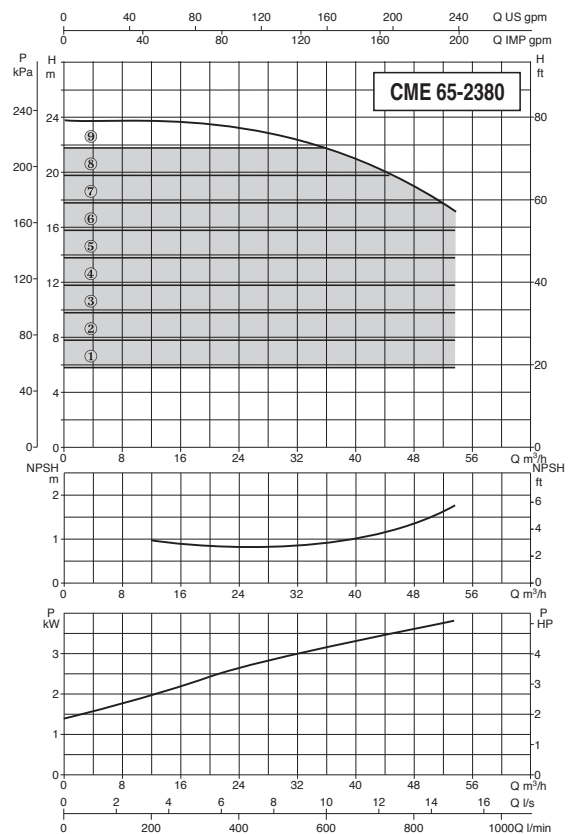
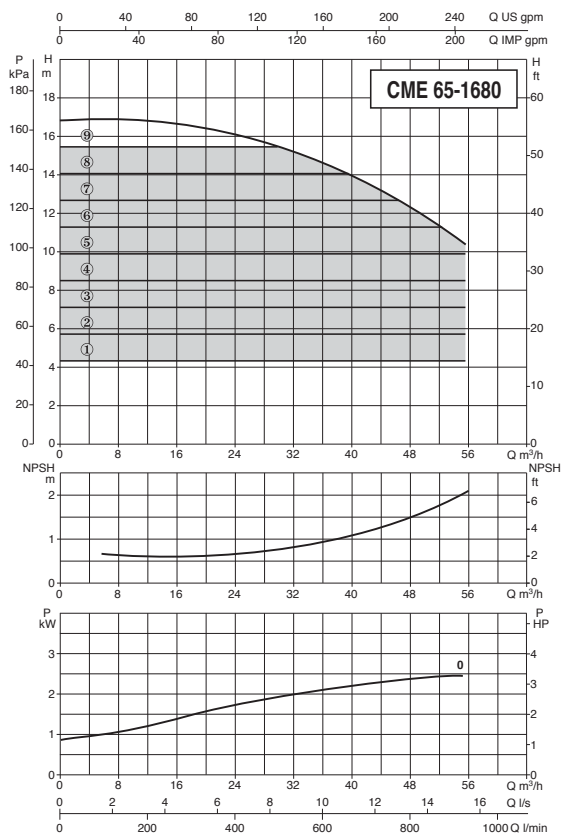
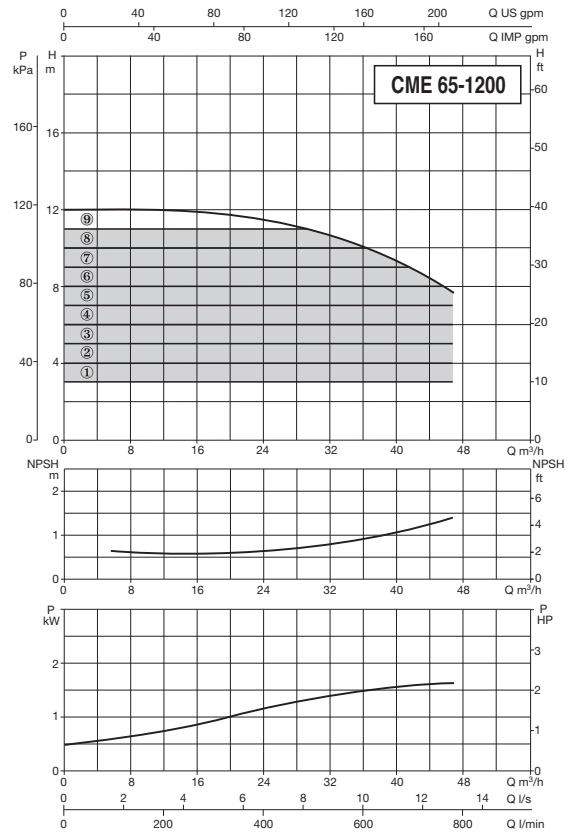
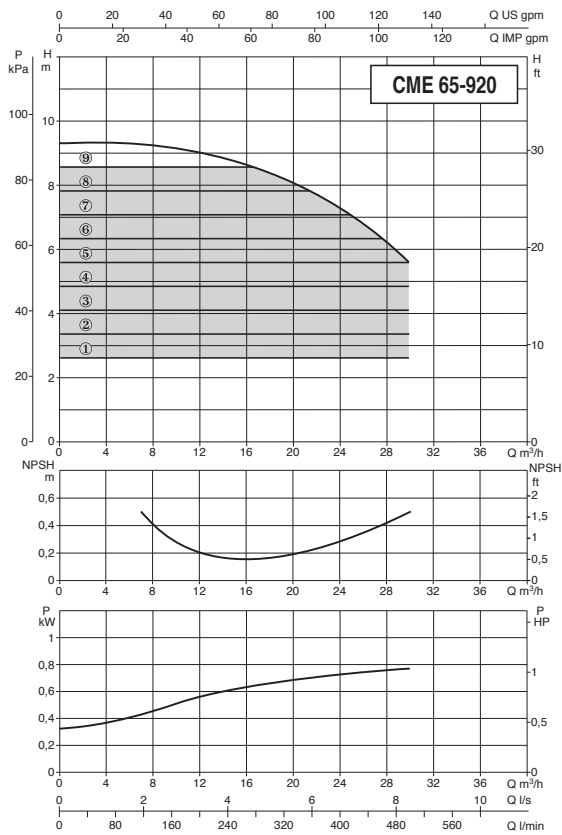
MODEL	DIMENSIONS											
	A	B	B1	B2	C	D	D1	H	H1	L	L1	L2
CME 65-660/A/BAQE/0,55 M	200	160	144	126	144	65	65	492	105	360	180	180
CME 65-920/A/BAQE/0,75 M	200	160	144	126	144	65	65	492	105	360	180	180
CME 65-1200/A/BAQE/1,5 T	225	176	180	164	144	65	65	529	125	475	237,5	237,5
CME 65-1680/A/BAQE/3 T	240	193	180	164	144	65	65	575	125	475	237,5	237,5
CME 65-2380/A/BAQE/4 T	265	193	180	164	144	65	65	575	125	475	237,5	237,5

MODEL	VOLTAGE 50 Hz	MOTOR TYPE	R.p.m. 1/min	P1 MAX kW	P2 NOMINAL		In A	PACKING DIMENSIONS			VOLUME m ³	WEIGHT Kg
					kW	HP		LVA	LVB	H		
CME 65-660/A/BAQE/0,55 M	1x208-240 V ~	4 POLES	1400	0,8	0,55	0,75	4,6-4,0	670	390	710	0,19	60,7
CME 65-920/A/BAQE/0,75 M	1x208-240 V ~	4 POLES	1390	1,1	0,75	1	6,5-5,3	670	390	710	0,19	66,2
CME 65-1200/A/BAQE/1,5 T	3x380-480V ~	4 POLES	1400	1,9	1,5	2	4,9-3,9	670	390	710	0,19	89,7
CME 65-1680/A/BAQE/3 T	3x380-480V ~	4 POLES	1420	3,2	3	4	7,9-6,3	670	390	710	0,19	98,7
CME 65-2380/A/BAQE/4 T	3x380-480V ~	4 POLES	1416	4,8	4	5,5	13,2-10,5	670	390	710	0,19	112,2

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.

CME 65

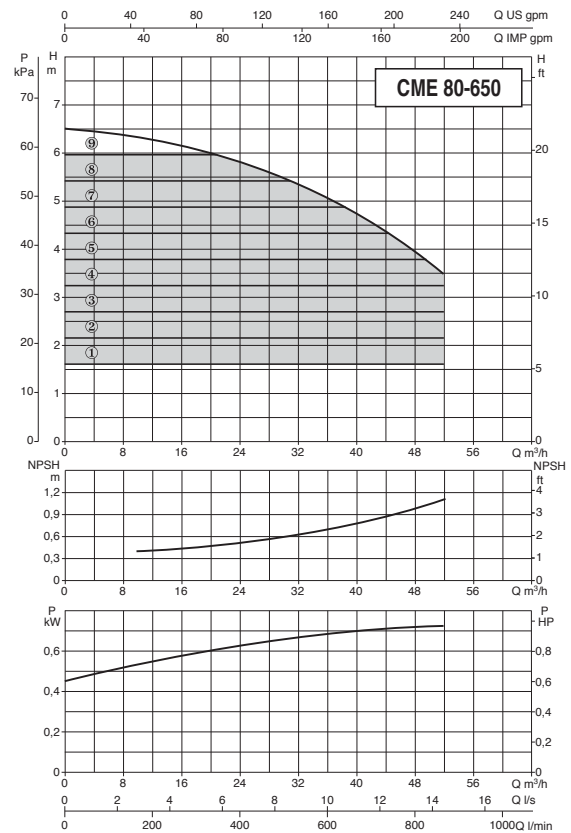
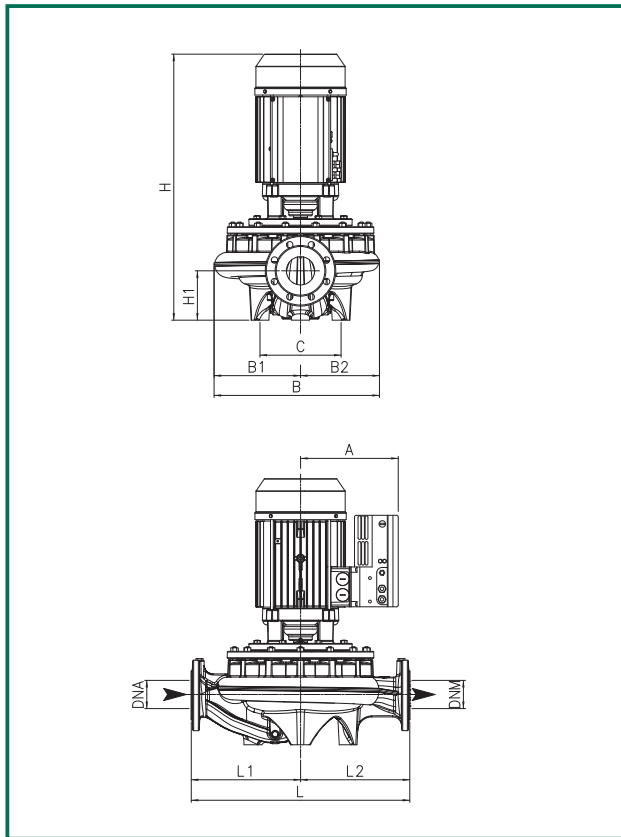
Liquid temperature range: from -10°C to +140°C
Maximum temperature operating: +40°C



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..

CME 80

Liquid temperature range: from -10°C to +140°C
Maximum temperature operating: +40°C



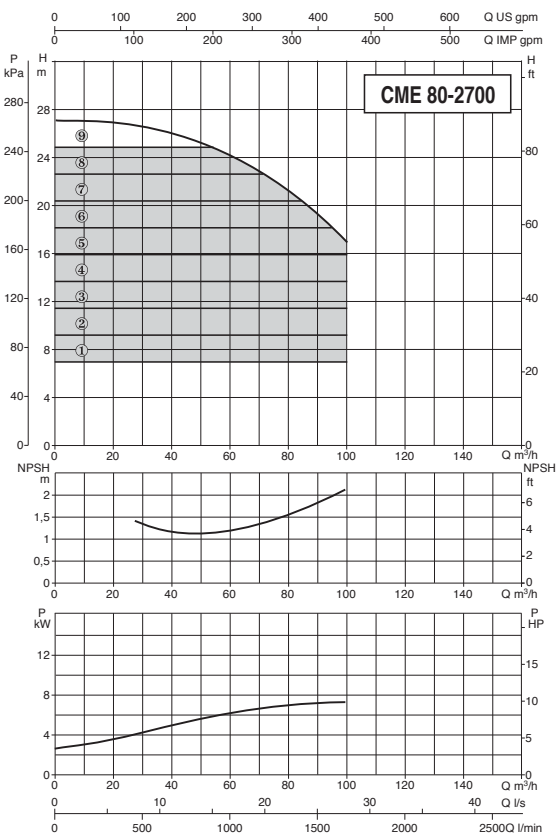
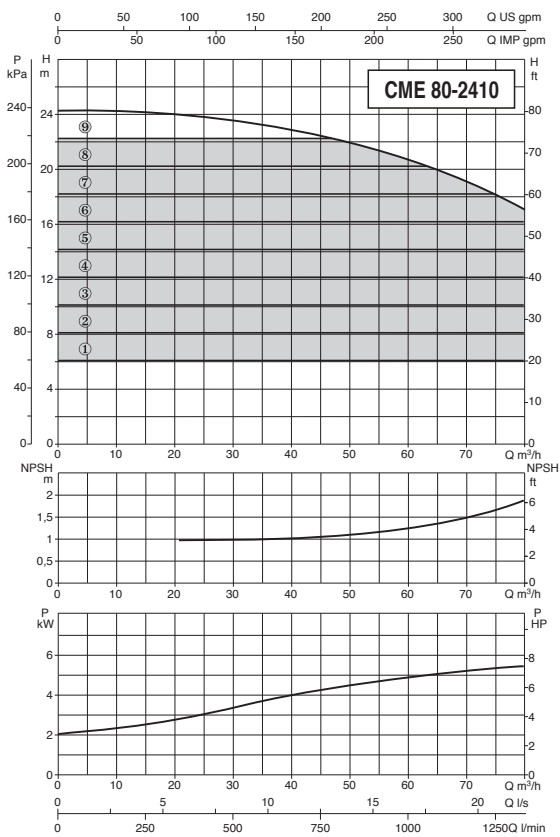
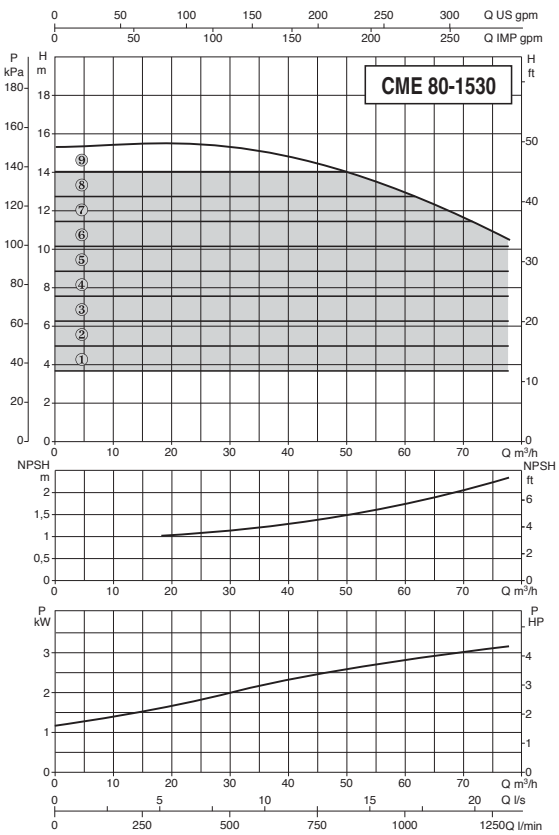
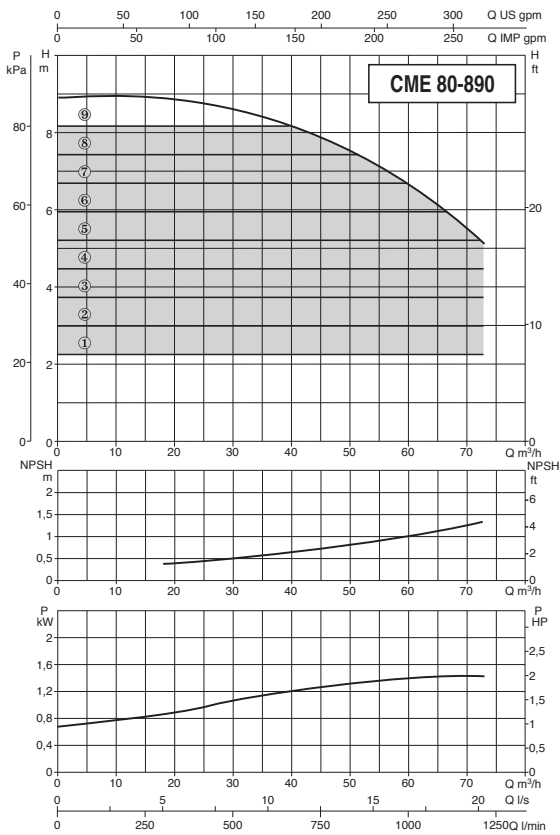
MODEL	DIMENSIONS											
	A	B	B1	B2	C	D	D1	H	H1	L	L1	L2
CME 80-650/A/BAQE/0,75 M	200	160	135	117	144	80	80	495	105	360	180	180
CME 80-890/A/BAQE/1,5 T	225	176	178	146	144	80	80	530	115	440	220	220
CME 80-1530/A/BAQE/3 T	240	193	190	164	144	80	80	576	115	500	250	250
CME 80-2410/A/BAQE/5,5 T	280	220	245	224	230	80	80	663	140	620	310	310
CME 80-2700/A/BAQE/7,5 T	305	259	245	224	230	80	80	755	140	620	310	310

MODEL	VOLTAGE 50 Hz	MOTOR TYPE	R.p.m. 1/min	P1 MAX kW	P2 NOMINAL		In A	PACKING DIMENSIONS			VOLUME m ³	WEIGHT Kg
					kW	HP		LVA	LVB	H		
CME 80-650/A/BAQE/0,75 M	1x208-240 V ~	4 POLES	1396	1,1	0,75	1	6,4-5,5	520	290	700	0,11	65,6
CME 80-890/A/BAQE/1,5 T	3x380-480V ~	4 POLES	1400	1,9	1,5	2	4,9-3,9	670	390	710	0,19	96,83
CME 80-1530/A/BAQE/3 T	3x380-480V ~	4 POLES	1400	4,2	3	4	7,9-6,3	670	390	710	0,19	131,93
CME 80-2410/A/BAQE/5,5 T	3x380-480V ~	4 POLES	1420	6,7	5,5	7,5	16,8-13,3	900	550	1060	0,52	172,65
CME 80-2700/A/BAQE/7,5 T	3x380-480V ~	4 POLES	1450	8,9	7,5	10	16,7-21,1	900	550	1060	0,52	198,9

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.

CME 80

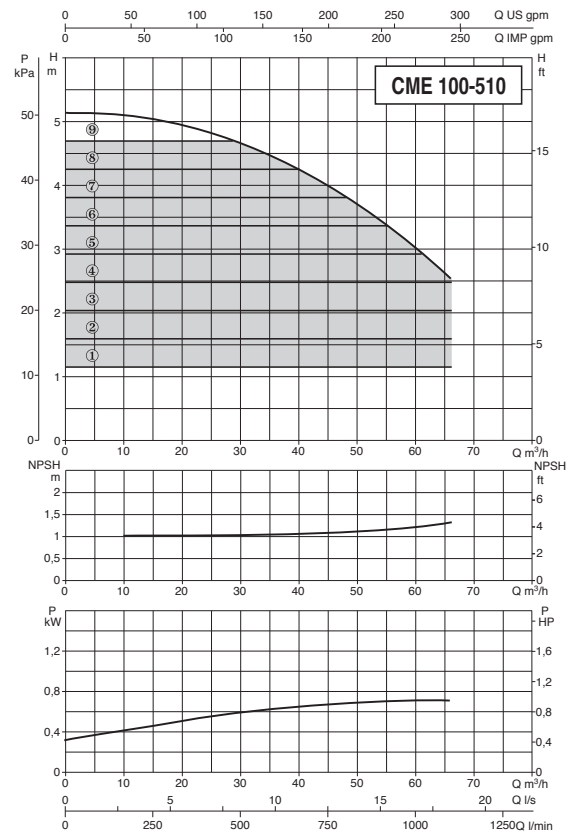
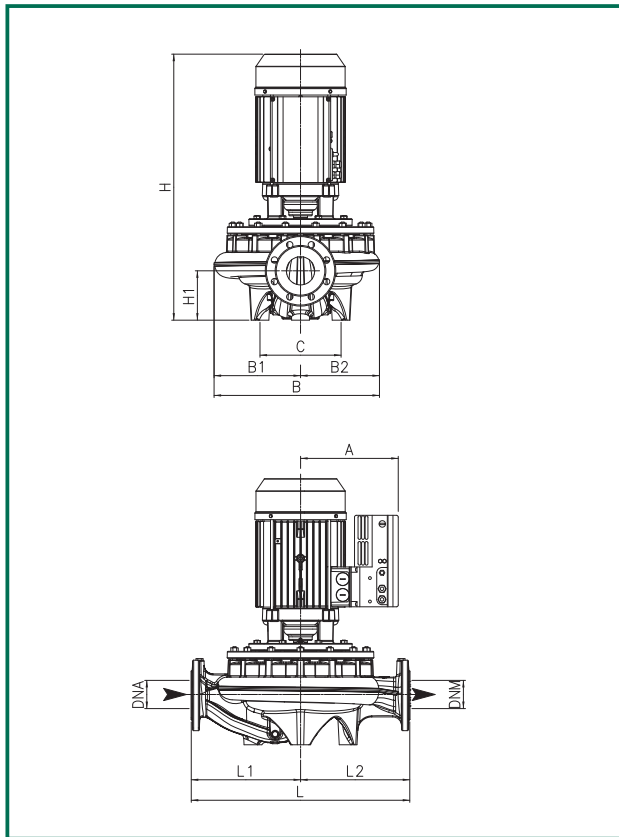
Liquid temperature range: from -10°C to +140°C
Maximum temperature operating: +40°C



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.

CME 100

Liquid temperature range: from -10°C to +140°C
Maximum temperature operating: +40°C



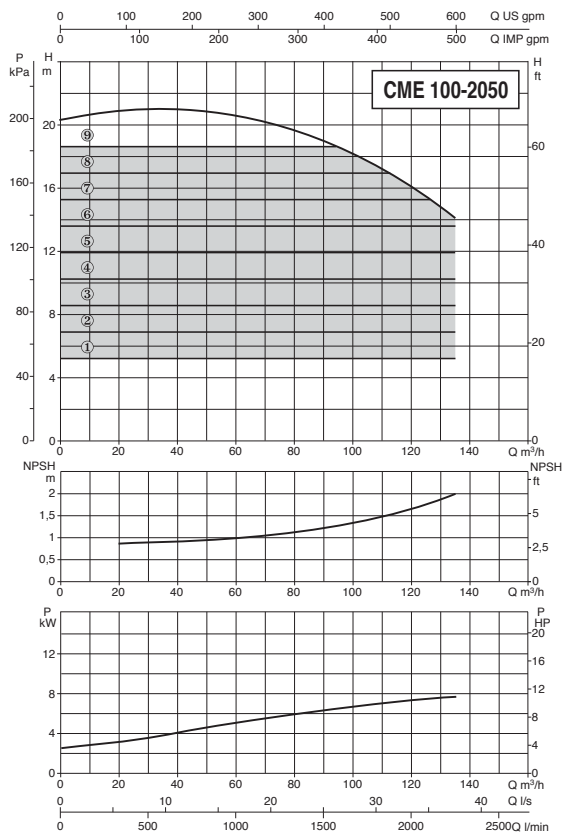
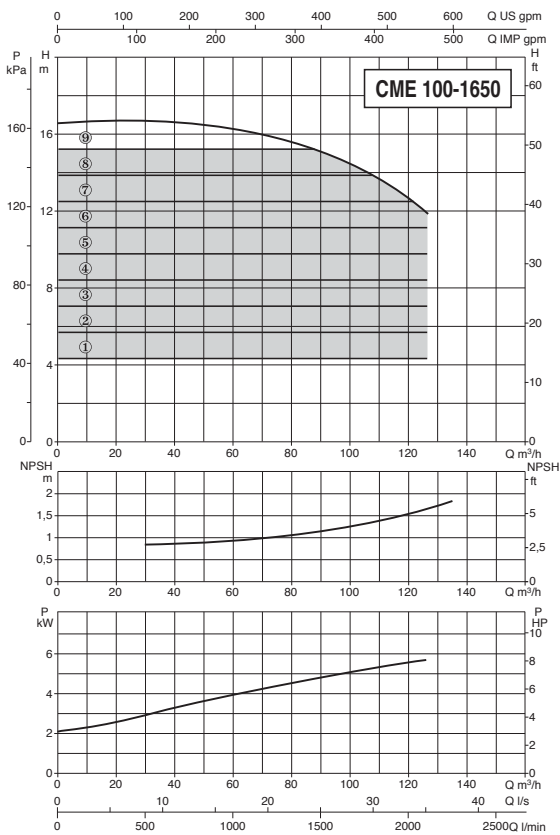
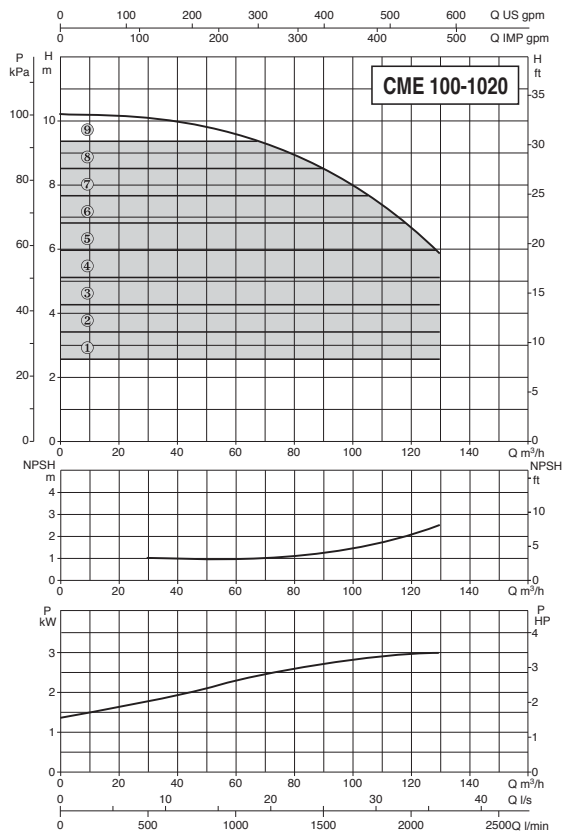
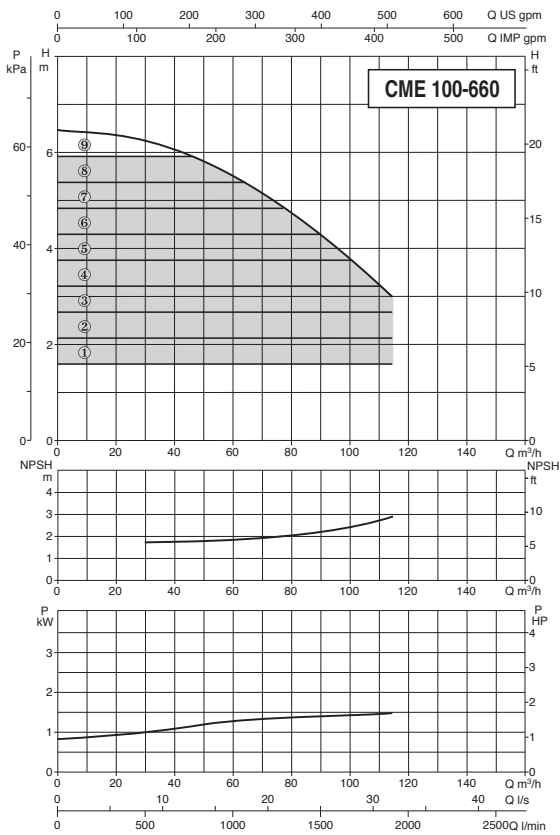
MODEL	DIMENSIONS											
	A	B	B1	B2	C	D	D1	H	H1	L	L1	L2
CME 100-510/A/BAQE/0,75 M	200	160	158	126	144	100	100	532	140	500	250	250
CME 100-660/A/BAQE/1,5 T	225	176	193	153	230	100	100	552	140	550	275	275
CME 100-1020/A/BAQE/3 T	240	193	193	153	230	100	100	598	140	550	275	275
CME 100-1650/A/BAQE/5,5 T	280	220	204	174	230	100	100	667	140	550	275	275
CME 100-2050/A/BAQE/7,5 T	310	259	293	252	230	100	100	795	175	670	335	335

MODEL	VOLTAGE 50 Hz	MOTOR TYPE	R.p.m. 1/min	P1 MAX kW	P2 NOMINAL		In A	PACKING DIMENSIONS			VOLUME m ³	WEIGHT Kg
					kW	HP		LVA	LVB	H		
CME 100-510/A/BAQE/0,75 M	1x208-240 V ~	4 POLES	1400	1,0	0,75	1	6,4-5,5	670	390	710	0,19	102,73
CME 100-660/A/BAQE/1,5 T	3x380-480V ~	4 POLES	1400	1,9	1,5	2	4,9-3,9	670	390	710	0,19	111,57
CME 100-1020/A/BAQE/3 T	3x380-480V ~	4 POLES	1400	4,2	3	4	7,9-6,3	670	390	710	0,19	115,83
CME 100-1650/A/BAQE/5,5 T	3x380-480V ~	4 POLES	1420	6,7	5,5	7,5	16,8-13,3	780	460	860	0,31	169,33
CME 100-2050/A/BAQE/7,5 T	3x380-480V ~	4 POLES	1450	8,9	7,5	10	21,1-16,7	900	550	1060	0,52	245,61

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.

CME 100

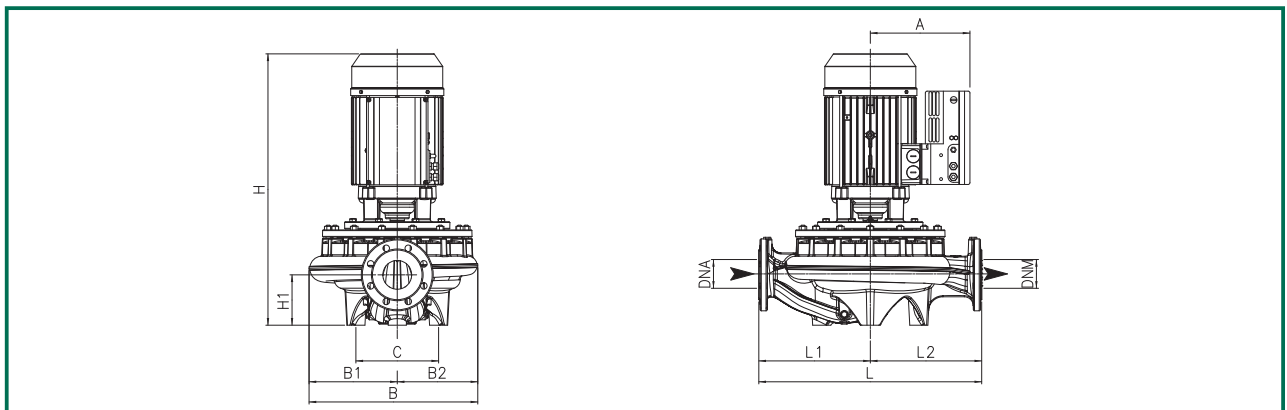
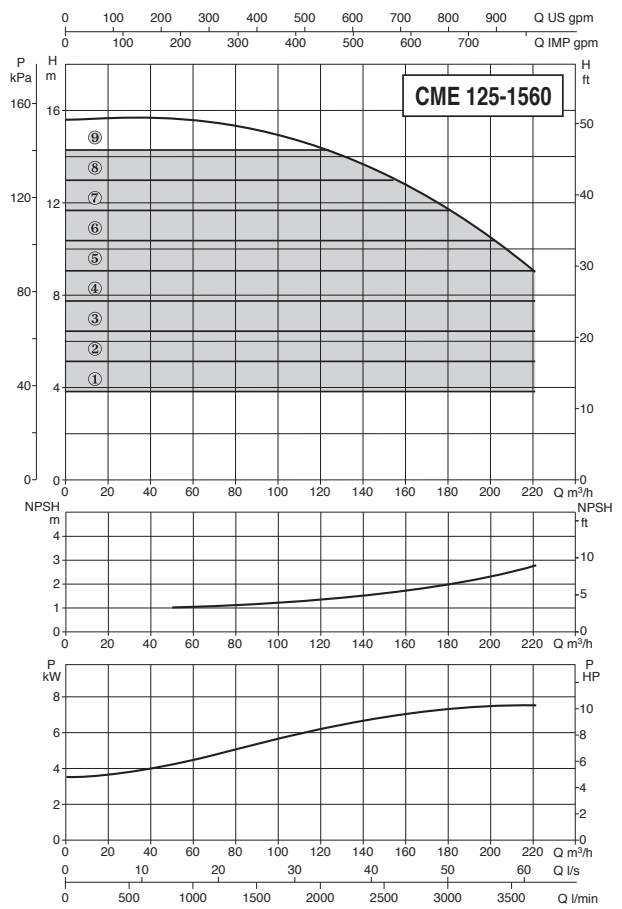
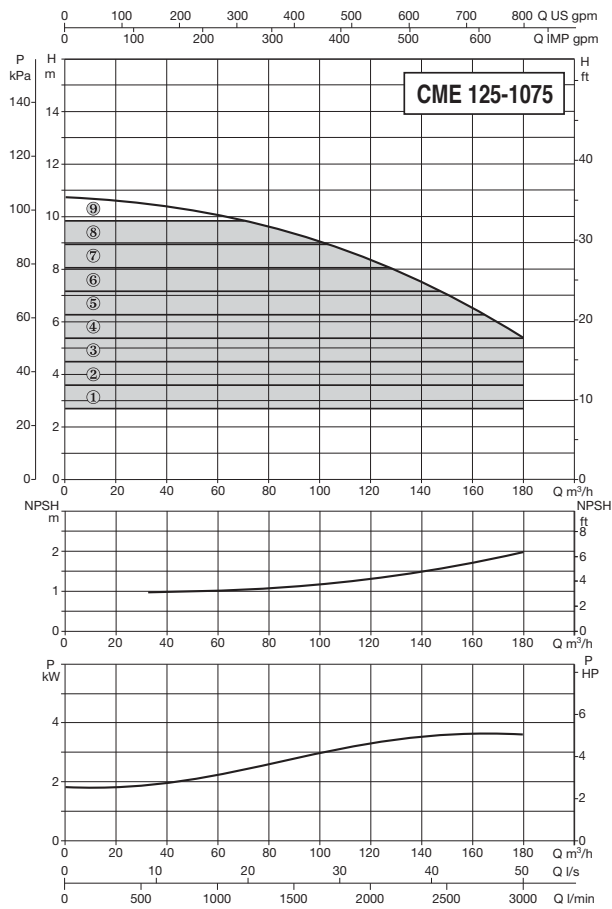
Liquid temperature range: from -10°C to +140°C
Maximum temperature operating: +40°C



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.

CME 125

Liquid temperature range: from -10°C to +140°C
Maximum temperature operating: +40°C



MODEL	DIMENSIONS											
	A	B	B1	B2	C	D	D1	H	H1	L	L1	L2
CME 125-1075/A/BAQE/4 T	270	193	252	205	230	125	125	716	215	620	310	310
CME 125-1560/A/BAQE/7,5 T	310	259	252	205	230	125	125	839	215	620	310	310

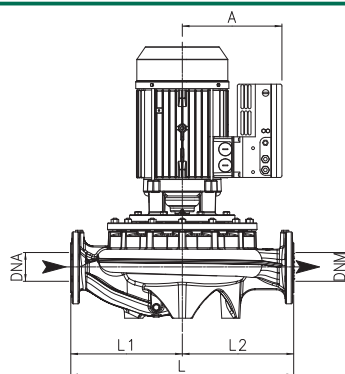
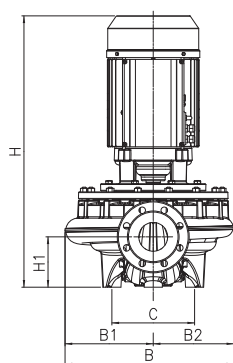
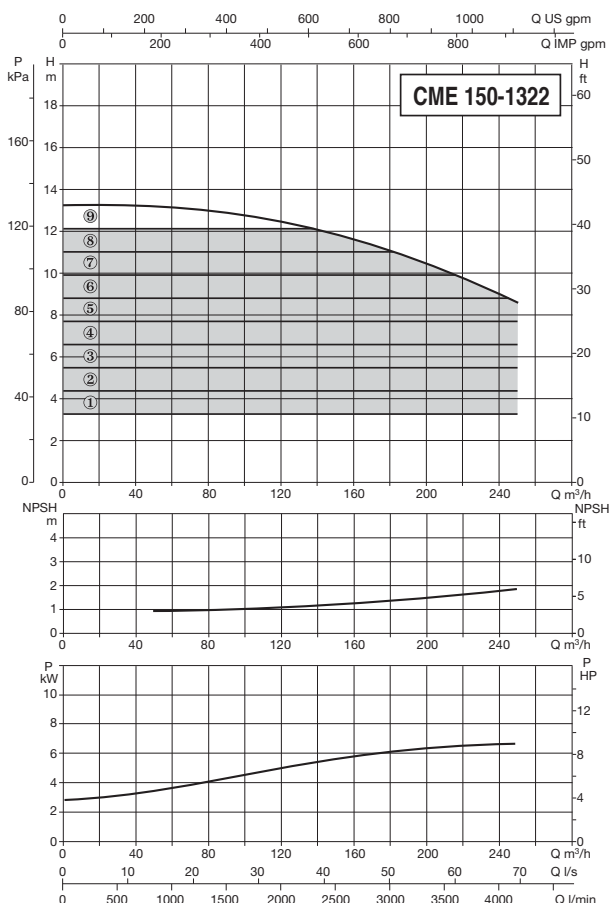
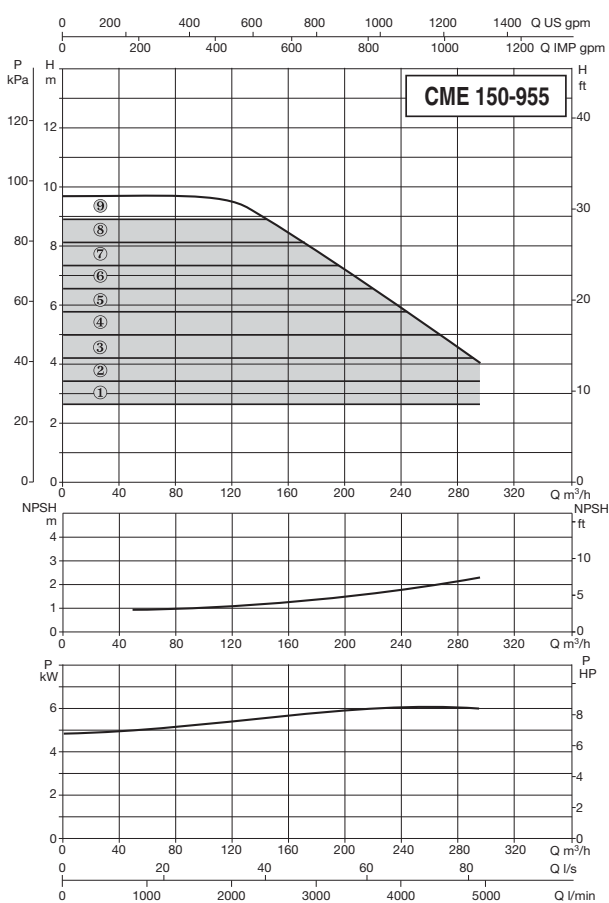
MODEL	VOLTAGE 50 Hz	MOTOR TYPE	R.p.m. 1/min	P1 MAX kW	P2 NOMINAL		In A
					kW	HP	
CME 125-1075/A/BAQE/4 T	3x380-480V ~	4 POLES	1400	5,9	4	5,5	13,2-10,5
CME 125-1560/A/BAQE/7,5 T	3x380-480V ~	4 POLES	1450	8,9	7,5	10	21,1-16,7

PACKING DIMENSIONS			VOLUME	WEIGHT
LVA	LVB	H	m³	Kg
900	550	1060	0,52	204,95
900	550	1060	0,52	221,4

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.

CME 150

Liquid temperature range: from -10°C to +140°C
Maximum temperature operating: +40°C



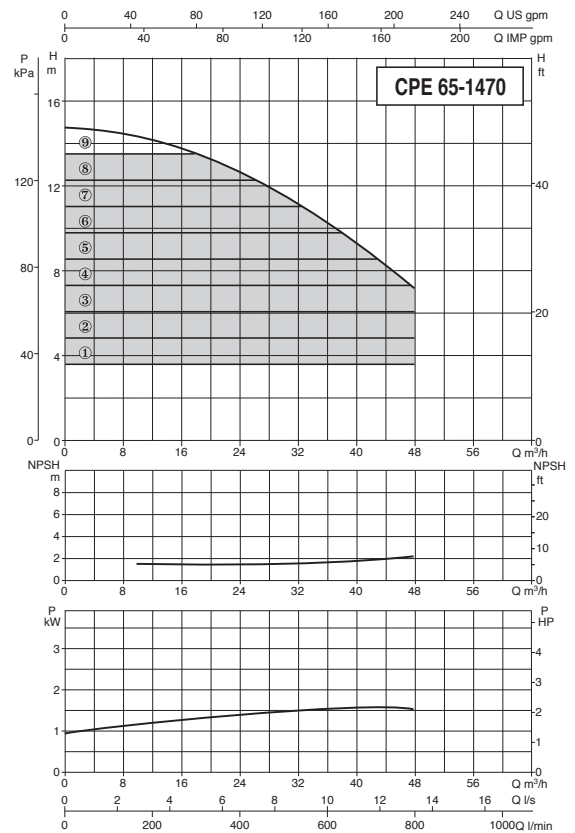
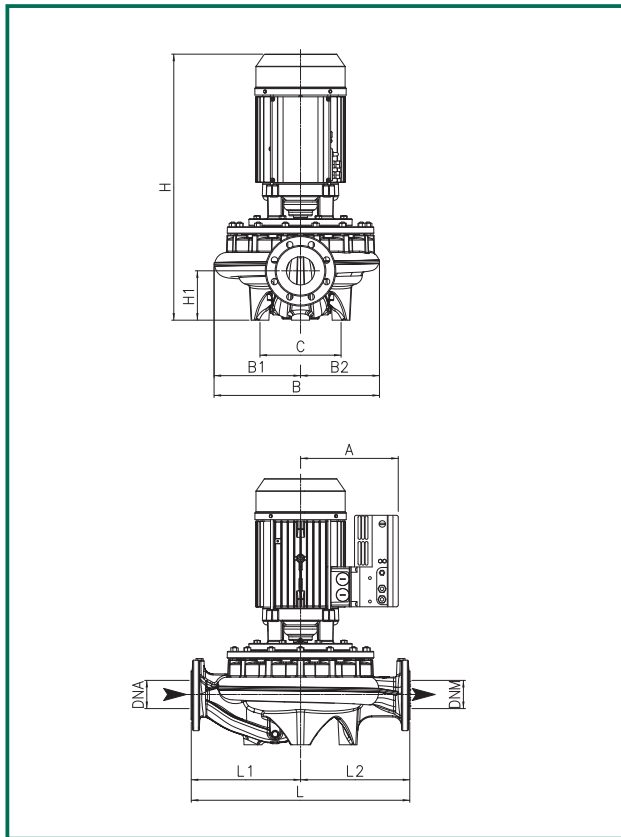
MODEL	DIMENSIONS											
	A	B	B1	B2	C	D	D1	H	H1	L	L1	L2
CME 150-955/A/BAQE/5,5 T	280	220	299	239	230	150	150	756	215	800	400	400
CME 150-1322/A/BAQE/7,5 T	310	259	299	239	230	150	150	848	215	800	400	400

MODEL	VOLTAGE 50 Hz	MOTOR TYPE	R.p.m. 1/min	P1 MAX kW	P2 NOMINAL		In A	PACKING DIMENSIONS			VOLUME m ³	WEIGHT Kg
					kW	HP		LVA	LVB	H		
CME 150-955/A/BAQE/5,5 T	3x380-480V ~	4 POLES	1420	6,7	5,5	7,5	16,8-13,3	900	550	1060	0,52	272,1
CME 150-1322/A/BAQE/7,5 T	3x380-480V ~	4 POLES	1450	8,9	7,5	10	21,1-16,7	900	550	1060	0,52	287,1

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.

CPE 65

Liquid temperature range: from -10°C to +140°C
Maximum temperature operating: +40°C



MODEL	DIMENSIONS											
	A	B	B1	B2	C	D	D1	H	H1	L	L1	L2
CPE 65-1470/A/BAQE/1,5 T	220	160	144	126	144	65	65	492	105	360	180	180
CPE 65-2280/A/BAQE/3 T	225	176	144	126	144	65	65	516	105	360	180	180
CPE 65-3400/A/BAQE/5,5 T	280	220	144	126	144	65	65	582	105	360	180	180
CPE 65-4100/A/BAQE/7,5 T	310	259	144	126	144	65	65	664	105	360	180	180

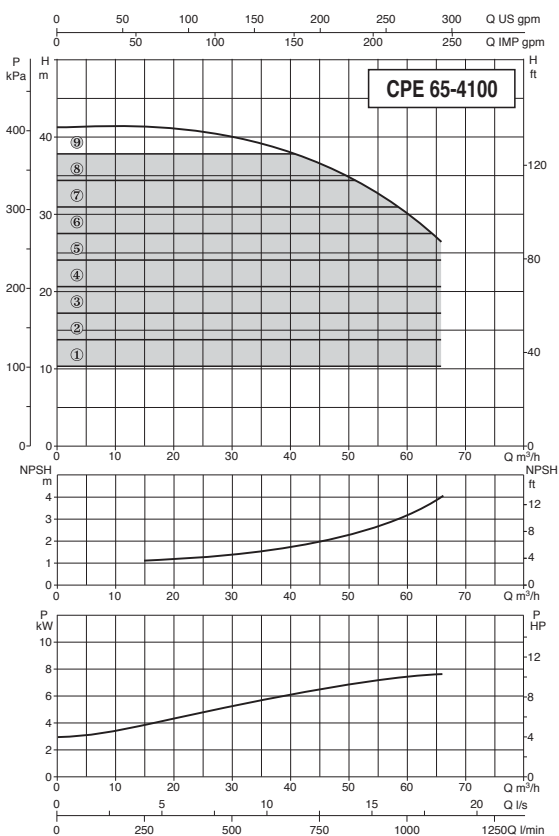
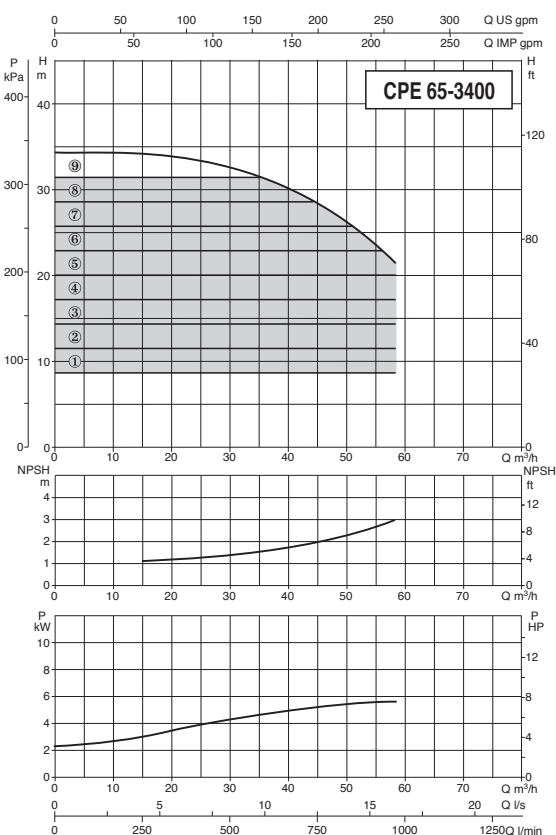
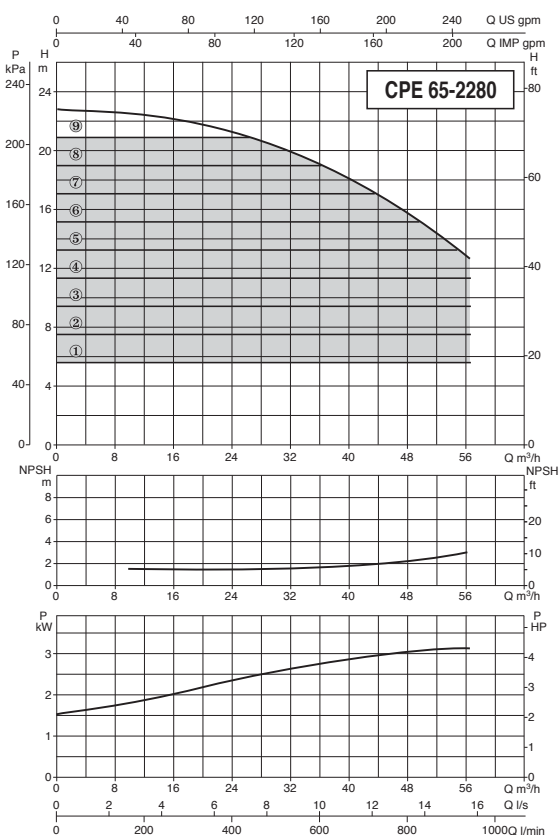
MODEL	VOLTAGE 50 Hz	MOTOR TYPE	R.p.m. 1/min	P1 MAX kW	P2 NOMINAL		In A	PACKING DIMENSIONS			VOLUME m ³	WEIGHT Kg
					kW	HP		L/A	L/B	H		
CPE 65-1470/A/BAQE/1,5 T	3x380-480V ~	2 POLES	2804	2,0	1,5	2	4,7-3,7	670	390	710	0,19	61,9
CPE 65-2280/A/BAQE/3 T	3x380-480V ~	2 POLES	2856	3,7	3	4	8,6-6,8	670	390	710	0,19	87,1
CPE 65-3400/A/BAQE/5,5 T	3x380-480V ~	2 POLES	2870	6,4	5,5	7,5	14-11,1	670	390	710	0,19	126,6
CPE 65-4100/A/BAQE/7,5 T	3x380-480V ~	2 POLES	2906	8,7	7,5	10	19,5-15,4	780	460	860	0,31	130,2

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.

CPE 65

Liquid temperature range: from -10°C to +140°C

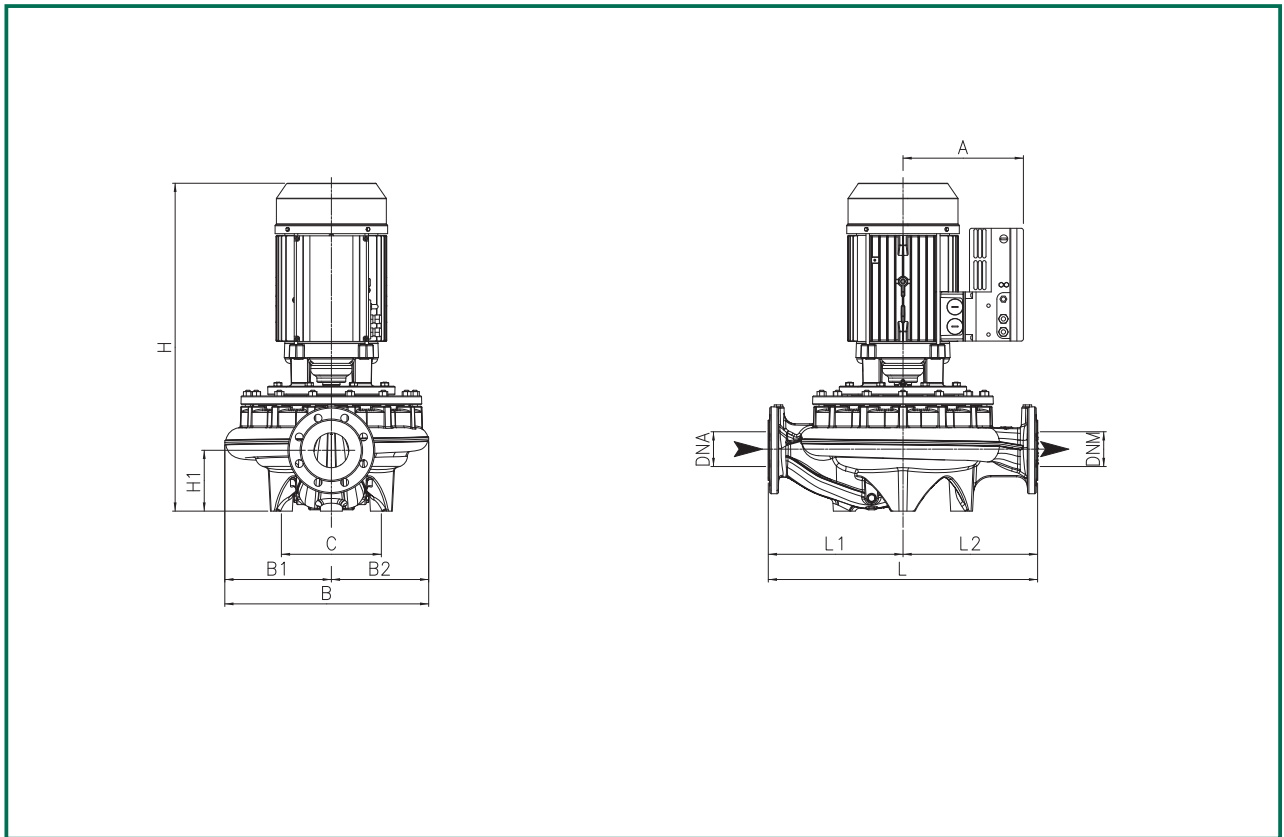
Maximum temperature operating: +40°C



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.

CPE 80

Liquid temperature range: from -10°C to +140°C
Maximum temperature operating: +40°C



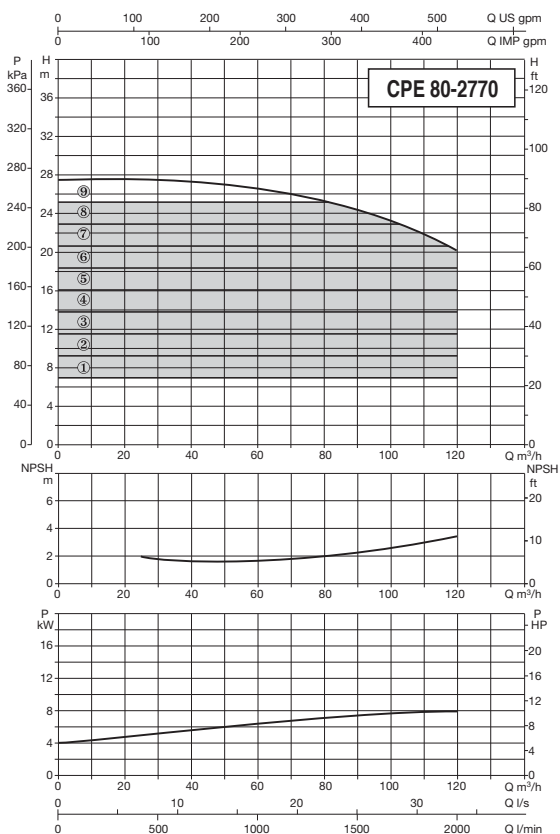
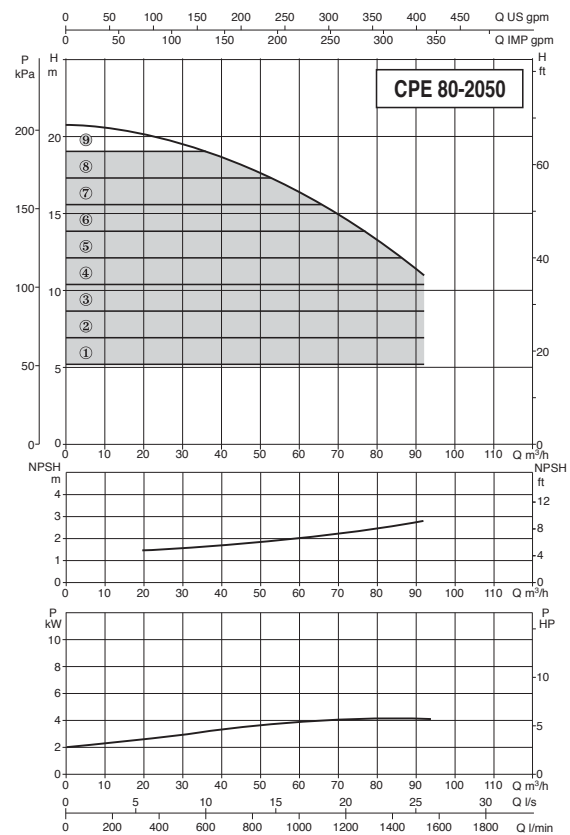
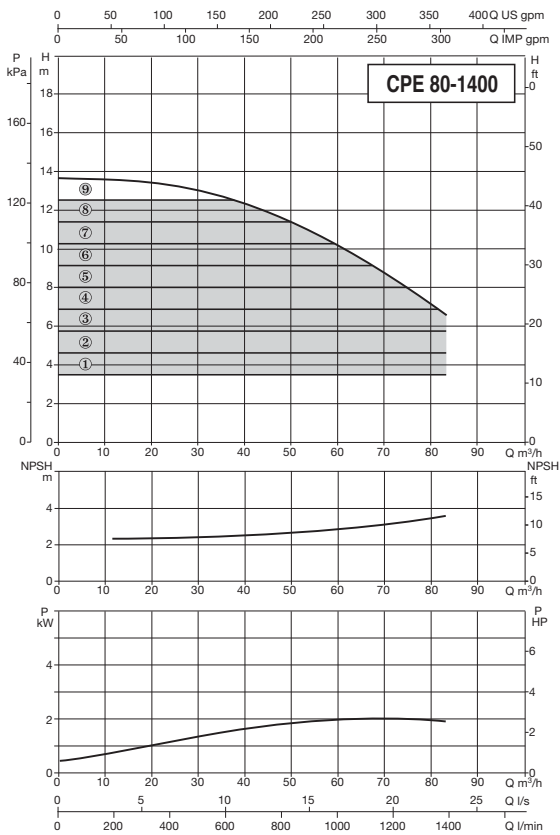
MODEL	DIMENSIONS											
	A	B	B1	B2	C	D	D1	H	H1	L	L1	L2
CPE 80-1400/A/BAQE/2,2 T	225	160	135	117	144	80	80	495	105	360	180	180
CPE 80-2050/A/BAQE/4 T	270	193	135	117	144	80	80	565	105	360	180	180
CPE 80-2770/A/BAQE/7,5 T	210	259	178	146	144	80	80	678	115	440	220	220

MODEL	VOLTAGE 50 Hz	MOTOR TYPE	R.p.m. 1/min	P1 MAX kW	P2 NOMINAL		In A	PACKING DIMENSIONS			VOLUME m ³	WEIGHT Kg
					kW	HP		LVA	LVB	H		
CPE 80-1400/A/BAQE/2,2 T	3x380-480V ~	2 POLES	2900	2,6	2,2	3	5,9-4,7	520	290	700	0,11	88,4
CPE 80-2050/A/BAQE/4 T	3x380-480V ~	2 POLES	2840	5,3	4	5	10-7,9	520	290	700	0,11	96,3
CPE 80-2770/A/BAQE/7,5 T	3x380-480V ~	2 POLES	2913	8,7	7,5	10	18,4-16,4	780	460	860	0,31	133,3

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.

CPE 80

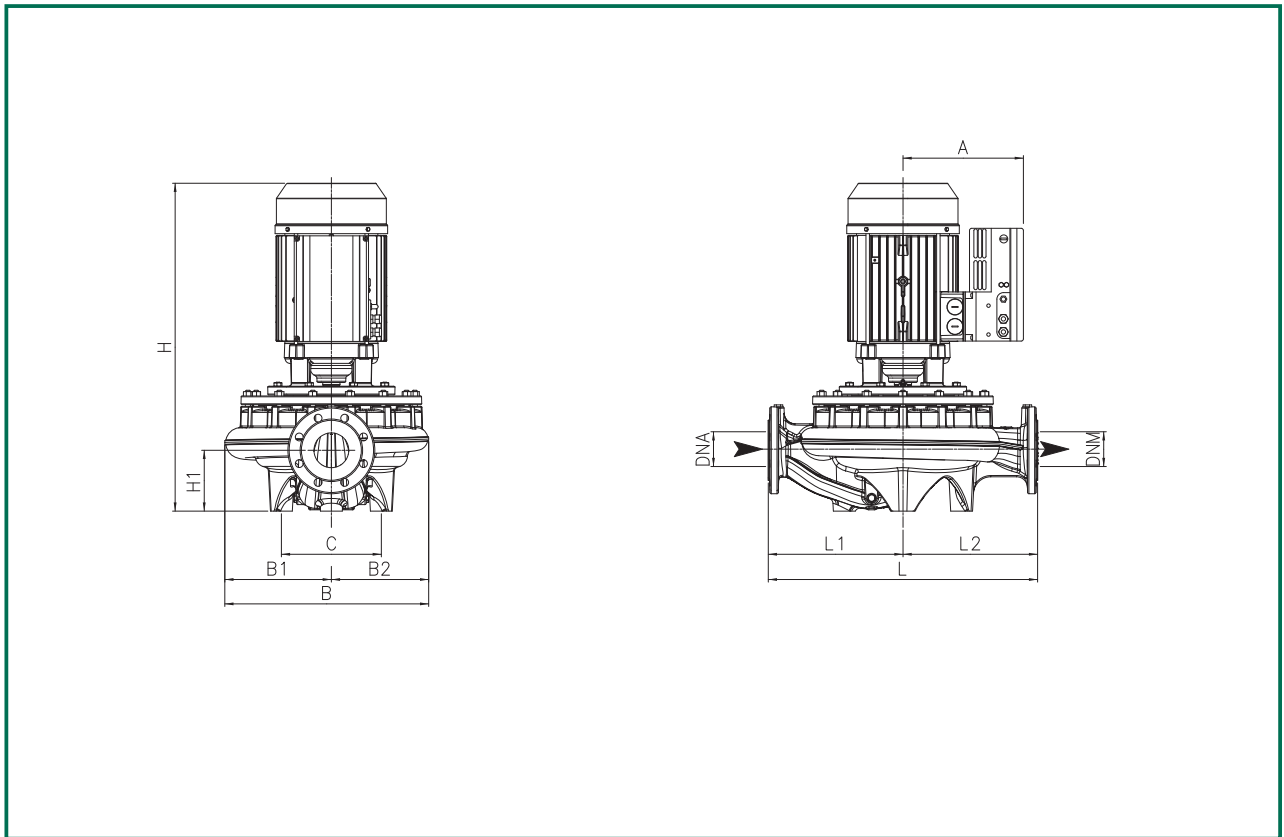
Liquid temperature range: from -10°C to +140°C
Maximum temperature operating: +40°C



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.

CPE 100

Liquid temperature range: from -10°C to +140°C
Maximum temperature operating: +40°C



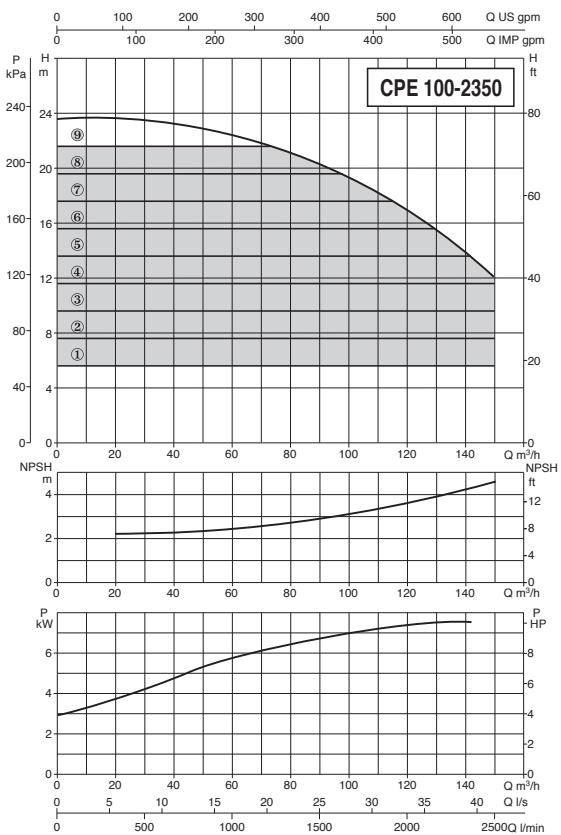
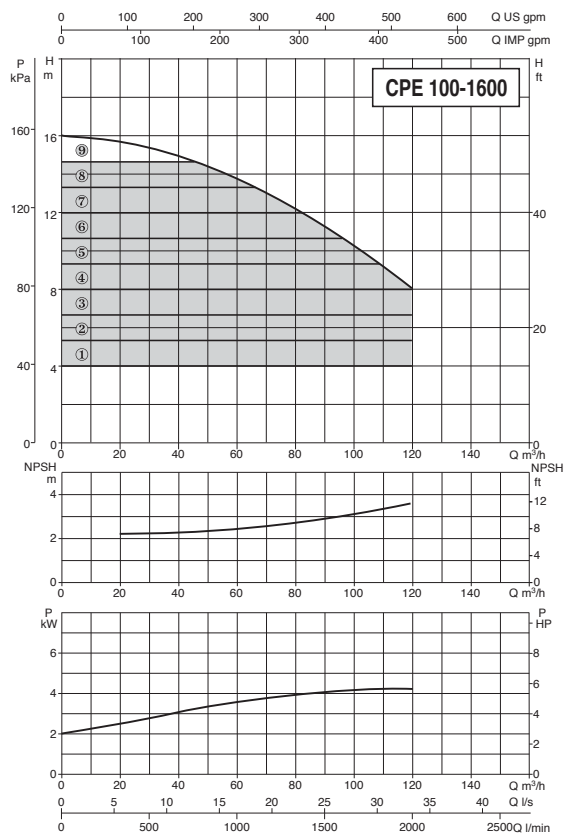
MODEL	DIMENSIONS											
	A	B	B1	B2	C	D	D1	H	H1	L	L1	L2
CPE 100-1600/A/BAQE/4 T	270	193	158	126	144	100	100	602	140	500	250	250
CPE 100-2350/A/BAQE/7,5 T	310	259	158	126	144	100	100	704	140	500	250	250

MODEL	VOLTAGE 50 Hz	MOTOR TYPE	R.p.m. 1/min	P1 MAX kW	P2 NOMINAL		In A	PACKING DIMENSIONS			VOLUME m ³	WEIGHT Kg
					kW	HP		LVA	LVB	H		
CPE 100-1600/A/BAQE/4 T	3x380-480V ~	2 POLES	2844	4,9	4	5	11,3-9	780	460	860	0,31	537,8
CPE 100-2350/A/BAQE/7,5 T	3x380-480V ~	2 POLES	2906	8,7	7,5	10	19,5-15,4	780	460	860	0,31	104

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.

CPE 100

Liquid temperature range: from -10°C to +140°C
Maximum temperature operating: +40°C



ACCESSORIES

COUNTERFLANGES

MODEL		COUNTERFLANGES										
SINGLE	TWIN	DN 40 PN 10	DN 50 PN 10	DN 65 PN 10	DN 80 PN 10	DN 40 PN 16	DN 50 PN 16	DN 65 PN 16	DN 80 PN 16	DN 100 PN 16	DN 125 PN 16	DN 150 PN 16
KLPE 40/600	DKLPE 40/600	●										
KLPE 40/1200	DKLPE 40/1200	●										
KLME 50/600	DKLME 50/600		●									
KLPE 50/1200	DKLPE 50/1200		●									
KLME 65/600	DKLME 65/600			●								
KLPE 65/1200	DKLPE 65/1200			●								
KLME 80/600	DKLME 80/600				●							
KLPE 80/1200	DKLPE 80/1200				●							
CME 40/540	-					●						
CME 40/870	-					●						
CME 50/630	-						●					
CME 50/1000	-						●					
CME 65/650	-							●				
CME 65/960	-							●				
CME 65/1400	-							●				
CME 80/650	-								●			
CME 80/980	-								●			
CME 80/1330	-								●			
CME 100/550	-									●		
CME 100/950	-									●		
CME 100/1500	-									●		
CME 100/1800	-									●		
CME 100/2000	-									●		
CME 125/880	-										●	
CME 125/1500	-										●	
CME 150/1000	-											●
CME 150/1250	-											●

NOTES

[illegible]

NOTES

**DAB PUMPS LTD.**

Unit 4, Stortford Hall Industrial
Park Dunmow Road, Bishops Stortford, Herts
CM23 5GZ - UK
Tel. +44 1279 652 776
Fax +44 1279 657 727

**DAB PUMPS B.V.**

Albert Einsteinweg, 4
5151 DL Drunen - Nederland
Tel. +31 416 387280
Fax +31 416 387299
info.nl@dabpumps.com

**DAB PUMPS B.V.**

Brusselstraat 150
B-1702 Groot-Bijgaarden - Belgium
Tel. +32 2 4668353
Fax +32 2 4669218

**DAB PUMPEN DEUTSCHLAND GmbH**

Tackweg 11
D - 47918 Tönisvorst - Germany
Tel. +49 2151 82136-0
Fax +49 2151 82136-36

**PUMPS AMERICA, INC. DAB PUMPS DIVISION**

3226 Benchmark Drive
Ladson, SC 29456 USA
Ph. 1-843-824-6332
Toll Free 1-866-896-4DAB (4322)
Fax 1-843-797-3366

**DAB PUMPS IBERICA S.L.**

Parque Empresarial San Fernando
Edificio Italia Planta 1ª
28830 - San Fernando De Henares - Madrid
Spain
Ph. +34 91 6569545
Fax +34 91 6569676

**DAB PUMPS RUSSIA**

127247 Dmitovskoe sh., 100 bld. 3
Moscow, Russia
Tel +7 095 485-1679

**DAB PUMPS CHINA**

Shandong Sheng Qingdao Shi
Jinji Jishu Kaifagu Kaituo Rd
ZIP PC266510
CN - China
Tel. +8613608963089
Fax. +8653286812210

**DAB PUMPS S.p.A.**

Via M. Polo, 14 - 35035 Mestrino (PD) - Italy
Tel. +39 049 9048811 - Fax +39 049 9048847
<http://www.dabpumps.com>

Vendite Italia:

Tel. 049 9048873-75-76
049 9048950
Fax 049 9048888

Export Sales Dept:

Ph. (+39) 049 9048895-96-97
049 9048964-996
Fax (+39) 049 9048900

Assistenza Tecnica Clienti:

Customer Technical Assistance: Ph. (+39) 049 9048911
Fax (+39) 049 9048920