

SENTINEL 5 PLUS 6-10kVA

Uninterruptible Power Supply

Absolute protection

Sentinel 5 Plus is a range of UPSs with ON-LINE double conversion technology and with “zero” transfer time. The load is always powered by the inverter, which supplies true sinusoidal voltage that is free from electrical interference.

High immunity to lightning

A device providing protection from input and output overvoltages means that Sentinel 5 Plus is able to withstand input overvoltages of up to 6kV, in accordance with IEC 801-5, thus ensuring the maximum protection to the powered load.

Total microprocessor control

Digital control of the appliance considerably improves system reliability, reduces unit dimensions and weight, and significantly increases control and communications capabilities.

Battery optimization

The UPS periodically performs a battery efficiency test. The batteries are not actuated during microinterruptions (40 ms), which are the most common type of mains interference, since the

required energy is drawn from a group of capacitors. This system (battery saving) extends the life of the batteries. A similar feature is provided by the Active Control (LRCD) of the battery current even during the discharge phase, which means that the alternating components on the battery can be eliminated. The Sentinel 5 Plus range also comes with a device to protect against deep discharges, which can affect the expected battery life.

Advanced communication

The Aros Watch & Save software ensures effective and intuitive management of the UPS. Important information such as the input and output voltage, the load applied, the remaining back-up time, etc., is displayed in the form of bar graphs.

The software is able to provide information even in the event of a failure, and can also programme the UPS for automatic weekly start-up and shutdown. The UPS also contains the following hardware interfaces:

- RS232 serial port,
- Dry contacts,
- EPO (Emergency Power Off)



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contact for UPS shutdown from the remote emergency button.

The UPS comes with an expansion slot for optional communication boards such as Netman and MultiCom.

Remote support service

TELEGUARD is a remote troubleshooting system which can signal any kind of unexpected event in real time.

Any fault is immediately signalled, 24 hours a day, 365 days a year, to the AROS control centre, which can take immediate action either remotely or on site. Your UPS is always under the watchful eyes of an AROS expert.

Plus, a report is provided periodically, detailing all the significant events that have taken place during the monitored period.

Extending the back-up time

Battery expansion is envisaged to increase the back-up time of the UPS. Battery chargers can be used to reduce recharging times.

Mimic panel

The Sentinel 5 Plus range comes with an on-board mimic panel. This provides information on the operating status of the UPS by means of LEDs, an LCD display made up of two rows of 20

characters, an audible indicator and five control buttons.

Maximum safety for personnel

The UPS has a back feed protection device that prevents any back feed current from the UPS towards the mains power supply, thus ensuring the safety of maintenance personnel.

Maximum flexibility

The UPS can be connected to a single phase or three phase mains supply (except for 6000 VA). This can be carried out directly at the installation site. The UPS can be programmed to operate as a frequency converter with batteries.

Reduced noise

Through the use of high frequency components and fan speed control, the noise level of the UPS is under 45 dBA.

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Low consumption

Three different operating modes are provided with a view to reduce power consumption. These modes can be programmed to suit the requirements of the user and of the load to be powered:

- Economy Mode: the UPS uses Line Interactive technology; the load is powered from the mains, the energy consumption is reduced and the efficiency is improved.

- Smart Active Mode: the UPS automatically selects On Line or Line Interactive operating mode according to the quality of the mains supply, by monitoring the number, frequency and type of disturbances that are present.

- Stand by Off (back-up unit): the UPS only powers the loads when

there is a mains failure. The inverter starts operation gradually in order to avoid inrush currents. This feature makes the UPS ideal for emergency lighting power supply.

Applications

**Local Area Networks (LAN),
Servers, Data centers,
Industrial PLCs, Cash
registers, Emergency devices
(lights/alarms),
Electro-medical devices.**

Note:

2 years warranty

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INPUT		S5P 6000	S5P 6500	S5P 8000	S5P 10000
Input frequency		50/60 Hz			
Voltage		230 V single-phase	230 V single-phase or 400 V three-phase		
Voltage tolerance		0-276V			
Voltage range without battery contribution		170 V @ 100% load (140V @ 50% load)			
OUTPUT		S5P 6000	S5P 6500	S5P 8000	S5P 10000
Voltage distortion with distorting load		< 5%			
Voltage distortion with linear load		< 2%			
Crest factor (Ipeak/Irms)		3 : 1			
Waveform		Sinewave			
Frequency		50/60 Hz selectable or autorange			
Phases number		1			
Output sockets		Terminal	Terminals + no. 2 IEC 320 (10A) for local networks		
Rated power	0 VA	6000 VA	6500 VA	8000 VA	10 KVA
Active power		4200 W	4600 W	5600 W	7000 W
Rated voltage		220-230-240 V (selectable)			
OVERLOAD		S5P 6000	S5P 6500	S5P 8000	S5P 10000
BY PASS		S5P 6000	S5P 6500	S5P 8000	S5P 10000
Frequency tolerance		Selected frequency ±5Hz			
Voltage tolerance		186 - 264 V (selectable in Economy Mode and Smart Active Mode)			
BATTERIES		S5P 6000	S5P 6500	S5P 8000	S5P 10000
Recharge time		6 - 8 h			
Batteries number		18	30		
Battery blocks		12V/7Ah			
SYSTEM		S5P 6000	S5P 6500	S5P 8000	S5P 10000
Colour		Dark grey			
Remote controls		EPO (Emergency Power Off)			
Communication		RS232 + communication slot (TCP/IP, HTTP, SNMP, JBUS, MODBUS, PROFIBUS)			
Protections		Overcurrent - short-circuit - excessive battery discharge - overvoltage - undervoltage - overtemperature			
AC/AC efficiency		92%	91% single-phase, 92% three-phase		
Line-Interactive/Smart Active efficiency		98%			
Noise		< 40 dBA at 1 m			
Operating temperature		0°C / +40°C, optimal for batteries +15°C/+25°C			
Relative humidity		< 90% non condensing			
Transfer time		0 ms			

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Standards		Safety: EN 62040-1-1, Directives 73/23EC and 93/68/EC; EMC: IEC 62040-2; EN 50091-2 lev. A, Directives 2004/108/EC and 89/336/EC; EN 62040-3			
OPTIONS		S5P 6000	S5P 6500	S5P 8000	S5P 10000
Battery cabinets for longer runtimes		Yes			
Isolation transformer module (WxDxH)		400x265x585 mm / 80 Kg	400x265x500mm / 80 Kg	400x265x600 mm / 80Kg	
Auxiliary serial connection		Yes			
LED-based remote control panel		Yes			
Communication software		Yes			
Communication software “professional” version		Yes			
DATA		S5P 6000	S5P 6500	S5P 8000	S5P 10000
Weight (kg)		100	135		
Dimensions (WxDxH) mm		283x805x585	283x805x735		
Back up time at full load (min)		8	15	12	10
Input phases		1	1/3		
Output phases		1			
Technology		On-line double conversion			
Installation		Tower			
Configuration		Single Unit			

OPZIONI S5P 6000

MultiCom 351
 MultiCom 352
 MultiCom 301
 MultiCom 302
 NetMan 101 Plus
 NetMan 102 Plus
 USB converter
 MultiCom 362
 MultiCom 372
 MultiCom 382
 Multi I/O
 IRMS Multi-Switch
 AS/400 interface kit
 Profibus DP Gateway

OPZIONI S5P 6500

MultiCom 351
 MultiCom 352
 MultiCom 301
 MultiCom 302

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NetMan 101 Plus
NetMan 102 Plus
USB converter
MultiCom 362
MultiCom 372
MultiCom 382
Multi I/O
IRMS Multi-Switch
AS/400 interface kit
UPS remote contacts expander
Profibus DP Gateway

OPZIONI S5P 8000

MultiCom 351
MultiCom 352
MultiCom 301
MultiCom 302
NetMan 101 Plus
NetMan 102 Plus
USB converter
MultiCom 362
MultiCom 372
MultiCom 382
Multi I/O
IRMS Multi-Switch
AS/400 interface kit
UPS remote contacts expander
Profibus DP Gateway

OPZIONI S5P 10000

MultiCom 351
MultiCom 352
MultiCom 301
MultiCom 302
NetMan 101 Plus
NetMan 102 Plus
USB converter
MultiCom 362
MultiCom 372
MultiCom 382
Multi I/O
IRMS Multi-Switch
AS/400 interface kit
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Profibus DP Gateway

OPZIONI

MultiCom 351

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