

SENTINEL XRM 3,3-10kVA

Uninterruptible Power Supply

Absolute protection

Sentinel XR 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 a true sinusoidal voltage and current free from electrical interference.

Maximum versatility

Sentinel XR can either be placed on the floor or inserted in a 19" Rack. The UPS can be converted from the Tower version to the Rack version simply by rotating the control panel to 90° and applying the handles.

Easy battery replacement

The batteries can be replaced while the UPS is working off the Inverter (hot swap replacement) without any disturbances to the load.

Stand-by

When the UPS is not used, it can be set to stand-by mode. The inverter will be switched off and the battery is kept charged. This operating mode is suitable for Emergency Escape Lighting (CPSS- Central Power Supply System) as per standard EN 50171.

Communication slot

Sentinel XR is provided with an expansion slot for optional communication cards that enable the UPS to dialog using the main communication standards such as:

second RS232 port, serial port duplexer, Ethernet network agent with TCP/IP, HTTP and SNMP protocol, RS232 + RS485 port with JBUS / MODBUS protocol, signalling relay card.

Advanced communication

The Aros Watch&Save 3000 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, 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.

Four operating modes

- On Line (VFI): The load is powered by the Inverter and the output power supply is independent from the input supply voltage and frequency fluctuations. - Eco Mode: To optimise the efficiency the load is powered from the mains as preferred source. If the mains voltage exceeds the tolerance values, the UPS switches to the normal ON LINE double conversion operating mode. - Smart Active: When the power supply quality is very unstable of course the user is unable to define which is the best operating mode between On line or ECOMode. Smart Active function solves this problem as it selects the best operation



mode depending on the input power quality. - Stand-by-off:

When mains power is available the UPS will not power the load; when mains is not available the UPS will power the load using the battery power supply. This feature makes the UPS ideal for emergency lighting power supply.

Advanced diagnostics

A backlit display provides the most important measurements relating to the UPS.

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.

Programmable output socket

Using UPSTools configuration software it is possible to set the cut-off sequence of the output sockets. It is a very important feature in emergency conditions to be able to classify the loads by different priorities.

Manual By-Pass

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The By-pass provides the possibility of excluding a UPS for maintenance without any interruptions or disturbances of the load supply.

Applications

Servers, Local Area Networks (LAN), data centers, telecommunications, Industrial equipment, electro-medical equipment, Emergency Lighting.

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INPUT	XRM 3300	XRM 4000	XRM 5000	XRM 6000
Voltage	220 - 230 - 240 V			
Voltage range without battery contribution	164 V @ 100% load (84 V @ 50% load)			
Voltage tolerance	0-276 V			
Input frequency	40/72 Hz			
Power factor	> 0.98			
Input phases	1			
BY PASS	XRM 3300	XRM 4000	XRM 5000	XRM 6000
Voltage tolerance	180 - 264 V (selectable in Economy Mode and Smart Active Mode)			
Frequency tolerance	Selected frequency \pm 5% (user configurable)			
BATTERIES	XRM 3300	XRM 4000	XRM 5000	XRM 6000
Battery blocks	12V/7Ah			
Batteries number	9		16	
OUTPUT	XRM 3300	XRM 4000	XRM 5000	XRM 6000
Rated power	3300 VA	4000 VA	5000 VA	6000 VA
Active power	2300 W	2400 W	3500 W	4200 W
Phases number	1			
Waveform	Sinewave			
Rated voltage	220-230-240 V (selectable)			
Voltage distortion with distorting load	< 6%			
Voltage distortion with linear load	< 3%			
Frequency	50 / 60 Hz selectable			
Crest factor (I _{peak} /I _{rms})	3 : 1 (up to 100% load)			
Output phases	1			
Output sockets	No. 1 IEC (16A) + no. 2 IEC (10A)		IN/OUT terminal board + no. 2 IEC (A)	
SYSTEM	XRM 3300	XRM 4000	XRM 5000	XRM 6000
Transfer time	0 ms (2 ms Eco mode)			
AC/AC efficiency	90%			
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			
Protections	Overcurrent - short-circuit - excessive battery discharge - overvoltage - undervoltage - overtemperature			
Communication slot	RS232 + communication slot (TCP/IP, HTTP, SNMP, JBUS, MODBUS, PROFIBUS)			
Accessories provided	2 output supply cables 10A; 1 plug IEC-16A; software; serial cable; tools for mimic panel			
Colour	Dark grey RAL 7016			
Standards	Safety: EN 62040-1-1 and directive 2006/95/EC; EMC: EN 62040-2 and directive 2004/108/EC			
Technology	On-line double conversion			
Weight (kg)	38 Kg	40 Kg	62 Kg	64 Kg
Dimensions (WxDxH) mm	175x520x455 tower / 19'x520x4U rack mm		175x660x455 tower / 19'x660x4U rack mm	
OVERLOAD	XRM 3300	XRM 4000	XRM 5000	XRM 6000
100% < Load < 110%	1'			

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100% = Load < 150%	4'			
Load > 150%	0.5'			
DATA	XRM 3300	XRM 4000	XRM 5000	XRM 6000
Back up time at full load (min)	6 Min.		10 Min.	8 Min.
Installation	Tower & Rack			
Configuration	Single Unit			
OPTIONS	XRM 3300	XRM 4000	XRM 5000	XRM 6000
Battery cabinets for longer runtimes	Yes			
Auxiliary serial connection	Yes			
Communication software	Yes			
Communication software 'professional' version	Yes			
OPTIONS	XRM 3300	XRM 4000	XRM 5000	XRM 6000
MultiCom 351	X	X	X	X
MultiCom 352	X	X	X	X
MultiCom 301	X	X	X	X
MultiCom 302	X	X	X	X
NetMan 101 Plus	X	X	X	X
NetMan 102 Plus	X	X	X	X
MultiCom 362	X	X	X	X
MultiCom 372	X	X	X	X
MultiCom 382	X	X	X	X
Multi I/O	X	X	X	X
IRMS Multi-Switch	X	X	X	X
AS/400 interface kit	X	X	X	X
External by-pass cabinet rack 16A	X	X		
MultiCom 401	X	X	X	X

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INPUT		XRM 8000	XRM 10000
Voltage		220 - 230 - 240 V	
Voltage range without battery contribution		164 V @ 100% load (84 V @ 50% load)	
Voltage tolerance		0-276 V	
Input frequency		40/72 Hz	
Power factor		> 0.98	
Input phases		1	
BY PASS		XRM 8000	XRM 10000
Voltage tolerance		180 - 264 V (selectable in Economy Mode and Smart Active Mode)	
Frequency tolerance		Selected frequency \pm 5% (user configurable)	
BATTERIES		XRM 8000	XRM 10000
Battery blocks		12V/9Ah	
Batteries number		20	
OUTPUT		XRM 8000	XRM 10000
Rated power		8000 VA	10000 VA
Active power		6400 W	8000 W
Phases number		1	
Waveform		Sinewave	
Rated voltage		220-230-240 V (selectable)	
Voltage distortion with distorting load		< 6%	
Voltage distortion with linear load		< 3%	
Frequency		50 / 60 Hz selectable	
Crest factor (I _{peak} /I _{rms})		3 : 1 (up to 100% load)	
Output phases		1	
Output sockets		IN/OUT terminal board + no. 2 IEC (A)	
SYSTEM		XRM 8000	XRM 10000
Transfer time		0 ms (2 ms Eco mode)	
AC/AC efficiency		90%	
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	
Protections		Overcurrent - short-circuit - excessive battery discharge - overvoltage - undervoltage - overtemperature	
Communication slot		RS232 + communication slot (TCP/IP, HTTP, SNMP, JBUS, MODBUS, PROFIBUS)	
Accessories provided		2 output supply cables 10A; 1 plug IEC-16A; software; serial cable; tools for mimic panel	
Colour		Dark grey RAL 7016	
Standards		Safety: EN 62040-1-1 and directive 2006/95/EC; EMC: EN 62040-2 and directive 2004/108/EC	
Technology		On-line double conversion	
Weight (kg)		80 Kg	85 Kg
Dimensions (WxDxH) mm		2x (175x660x455) tower / 2x (19'x660x4U) rack mm	
OVERLOAD		XRM 8000	XRM 10000
100% < Load < 110%		1'	

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100% = Load < 150%	4'
Load > 150%	0.5'

DATA	XRM 8000	XRM 10000
Back up time at full load (min)	6 Min.	
Installation	Tower & Rack	
Configuration	Single Unit	

OPTIONS	XRM 8000	XRM 10000
Battery cabinets for longer runtimes	Yes	
Auxiliary serial connection	Yes	
Communication software	Yes	
Communication software 'professional' version	Yes	

OPTIONS	XRM 8000	XRM 10000
MultiCom 351	X	X
MultiCom 352	X	X
MultiCom 301	X	X
MultiCom 302	X	X
NetMan 101 Plus	X	X
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MultiCom 382	X	X
Multi I/O	X	X
IRMS Multi-Switch	X	X
AS/400 interface kit	X	X
External by-pass cabinet rack 16A	X	X
MultiCom 401	X	X