



SOHO



INDUSTRY



E-MEDICAL



EMERGENCY

SENTINEL RT

True-Online UPS System 1, 1.5, 2, 3 kVA



USB
plug



Plug & Play
installation

HIGHLIGHTS

- Power factor 1 kW = kVA
- Simplified installation
- High quality output voltage
- High battery reliability

SENTINEL RT is designed to power critical loads such as servers, storage systems, telephone equipment, medical systems and industrial applications.

The UPS is ideal for Blade servers with an input power factor close to Unity (1). The UPS has can be used as tower UPS or within a rackmount cabinet, and takes up only 2U in height.

SENTINEL RT has a modern design, choice of functional formats, and represents the state-of-the-art technology from the Riello UPS research & development team. The UPS can achieve an on-line operating efficiency of 92%.



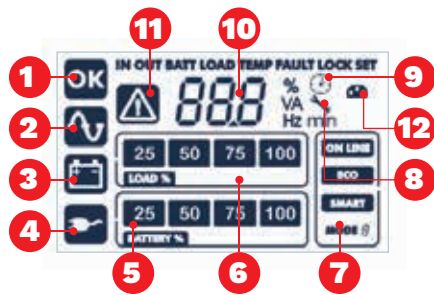
For critical business continuity applications requiring long runtimes, SENTINEL RT can be installed with battery extension packs (ER models) with their own internal battery chargers to maintain sensible recharge times.

The UPS also incorporates the Riello UPS 'power-off' function found in other ECO Line UPS. SENTINEL RT is designed to save energy when no loads are connected.

GENERAL DESCRIPTION



- A. "SEL" Button
- B. "ON" Button
- C. "STAND-BY" Button



- 1. Regular operating mode
- 2. Network operating mode
- 3. Battery operating mode
- 4. Load powered by bypass
- 5. Battery life indicator
- 6. Charge level indicator
- 7. Configuration area
- 8. Maintenance required indicator
- 9. Timer indicator
- 10. Measurement display area
- 11. Stand-by / alarm indicator
- 12. Energy Share indicator

Simplified installation

Tower or Rackmount UPS: SENTINEL RT can be installed as tower or 19" rack mount UPS, with a front mimic panel that can be turned through 90° to suit the installation.

- Noise Free Operation (<40dBA): the UPS can be installed in any environment thanks to its PWM digitally-controlled high frequency inverter.
- High Temperature Operation: UPS components are sized for high temperature operation up to 40°C and are not therefore stressed during normal operational environments.

Reduced management costs

SENTINEL RT can be programmed remotely via software or set manually from the front mimic panel to operate in a range of energy saving operating modes:

- On line: maximum power protection and output voltage waveform quality (efficiency up to 92%).
- Eco Mode: to increase efficiency (up to 98%), allows for the selection of Line Interactive technology (VI) to power low priority loads from the mains supply.
- Smart Active: the UPS automatically decides upon the operating mode (VI or VFI) based on the quality of the mains power supply.
- STAND-BY OFF: the operating mode in which the UPS functions as an emergency device. While power is present the UPS does not intervene. In the event of a blackout, the necessary power is provided by the UPS.

High quality output voltage

- Tower or Rackmount UPS: SENTINEL RT can be installed as tower or 19" rackmount UPS, with a front mimic panel that can be turned through 90° to suit the installation.
- Noise Free Operation (<40dBA): the UPS can be installed in any environment thanks to its PWM digitally-controlled high frequency inverter.

- High Temperature Operation: UPS components are sized for high temperature operation up to 40°C and are not therefore stressed during normal operational environments.
- EnergyShare: Premium Dual output sockets can be programmed to disconnect less critical loads when the mains power fails.

High levels of battery reliability

- Automatic and manual battery tests.
- Batteries are 'hot-swappable' and user replaceable.

Emergency function

This configuration ensures the operation of those emergency systems that require continuous, reliable and long-lasting power supply in the event of a mains power failure, such as emergency lighting, fire detection/extinguishing systems and alarms. When the mains power supply fails, the inverter begins powering the loads with a progressive start-up (Soft Start) in order to prevent overload.

Other features

- Output voltage can be selected using display.
- Auto-restart when mains power returns (programmed via software).
- Stand-by on Bypass: when the machine is switched off, it automatically goes into bypass operation with batteries charging.
- Power-Off with zero load connected to save energy.
- Low battery warning.
- Power-on delay.
- Full microprocessor control.
- Automatic bypass without interruption.
- Status, measurements and alarms available on the front panel mimic panel and LCD.
- UPS firmware upgrade via PC platform.
- Input protection including a user reset thermal switch (up to 1500VA).
- Back-feed protection.
- Manual option to switch to bypass.

Advanced communications

SENTINEL RT offers maximum flexibility for integrations with any communication system.

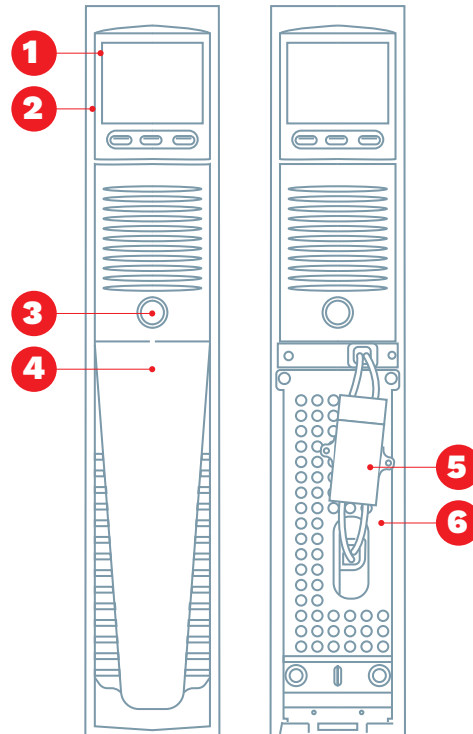
- Multiplatform communication for all operating systems and network environments, Powershield3 supervision and shut-down software for Windows, Mac OS X operating systems and other Unix operating systems.
- UPS Tools configuration and personalisation software supplied as standard.
- RS232 serial port and opto-isolated contacts.
- USB port.
- Slot for TCP/IP, SNMP communication card.

Unity Power Factor

- More power delivered.
- More real output power (W).

2-YEAR WARRANTY

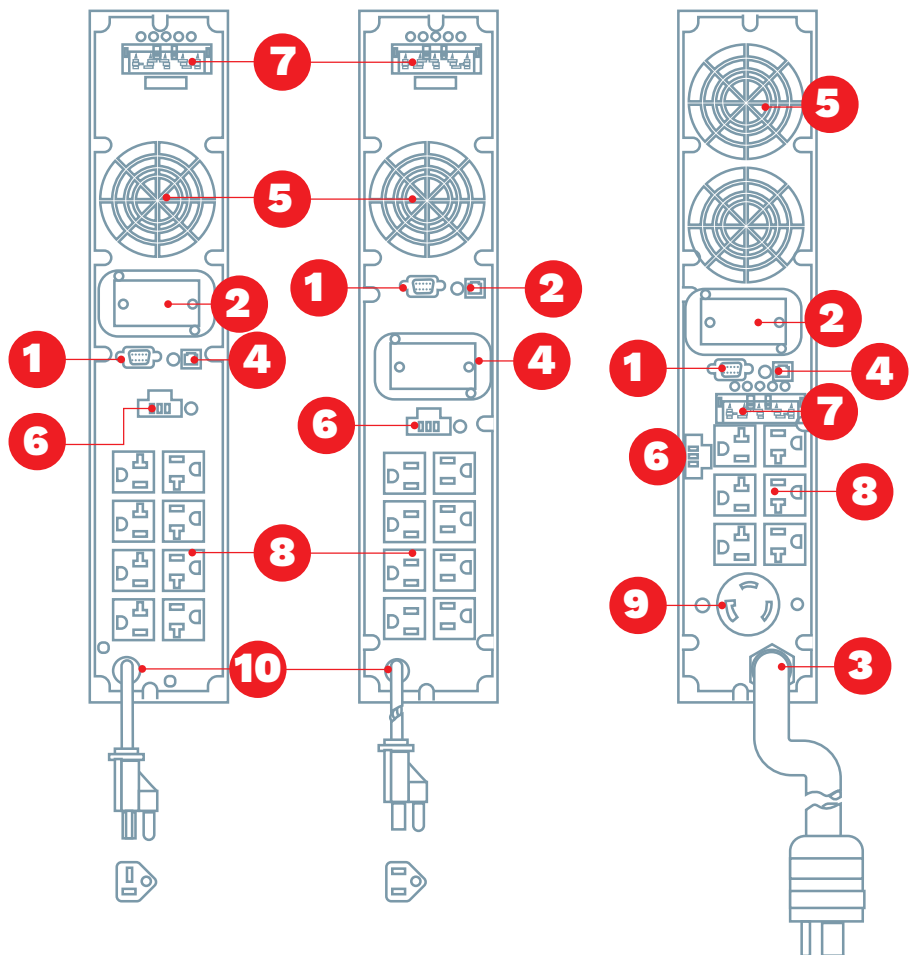
FRONTAL VIEW



1. Extractible/rotating display mask
2. Release slits
3. 1 / 0 Switch
4. Removable front panel
5. Battery pack connector
6. Battery pack retention panel

REAR VIEW

1. RS232 Communication port
2. USB Communication port
3. NEMA 16 A input plug
4. Slot for communication cards
5. Cooling fan
6. Remote control terminal board
7. Battery expansion connector
8. NEMA 10 A output sockets
9. NEMA 16 A output socket
10. NEMA 10 A input plug



MODELS	SDH-1000	SDH-1500	SDH-2000	SDH-3000
INPUT				
Rated Power (VA)	1000	1500	2000	3000
Voltage (V)	100-110-115-120-127			
Voltage tolerance	80 Vac < V in < 150 Vac @ 100% LOAD			
Frequency	60 Hz			
Frequency tolerance	60 Hz ± 5%			
Power Factor	> 0.98			
Current distortion	≤6%			
BYPASS				
Voltage tolerance	85 - 140 Vac			
Frequency tolerance	Frequency selected (from ±0.Hz to ±5Hz configurable)			
Number phases	1			
OUTPUT				
Rated power (kVA)	1	1.5	2	3
Active Power (kW)	1	1.5	2	3
Voltage (V)	100/110/115/120/127			
Number phases	1			
Crest factor (I _{peak} /I _{rms})	3:1			
Waveform	Sinewave			
Frequency	Can be selected: 60 Hz or self-learning			
Voltage distortion with distorting load	≤4%			
Voltage distortion with linear load	≤2%			
OVERLOAD TIMES				
100% < Load < 110%	1 minute			
125% = Load < 150%	4 seconds			
Load > 150%	0.5 seconds			
BATTERIES				
Type	VRLA AGM lead, maintenance-free			
Typical recharge time	2-4 h			
DC Voltage	36VDC		72VDC	
ENVIRONMENTAL				
Maximum altitude	19,685.04 feet (6000 m)			
Color	Black			
Communications	USB / DB9 with RS232 and contacts / Slot for communication interface			
Safety compliance	UL1778:2014 and CSA C22.2 No. 107.3-14			
EMC conformance	CFR 47 FCC Part 15, Subpart B, Class A 2016			
Accessories provided	Power cable, serial cable, USB cable, safety manual, quick start, software downloadable			
Protection rating	IP20			
Surge capability	300 joule			
Certification	Certified by TUV per UL 1778			
Line-Interactive/Smart Active efficiency	98%			
Noise Level	<40 dB(A) at 1 m			
Operating temperature	0 – 40 °C			
Relative humidity	<95% without condensation			
OTHER				
Net Weight, lb	37.47	39.68	58.42	69.44
Gross weight, lb	45.19	47.39	67.24	79.36
Dimensions (WxDxH), in	3.42 x 16.73 x 17.71		3.42 x 24.6 x 17.71	

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