



SOHO



INDUSTRY



E-MEDICAL



EMERGENCY

SENTINEL RT

True-Online Rack/Tower UPS System 6, 10 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 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.

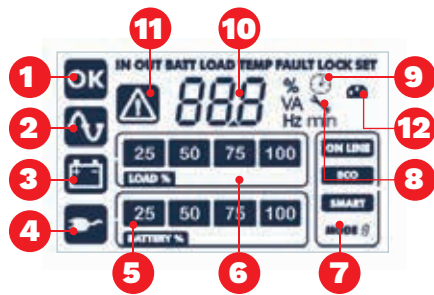
The UPS also incorporates the Riello UPS 'power-off' function found in other ECO Line UPS. SENTINEL RT is designed to save energy when no loads are connected.



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.

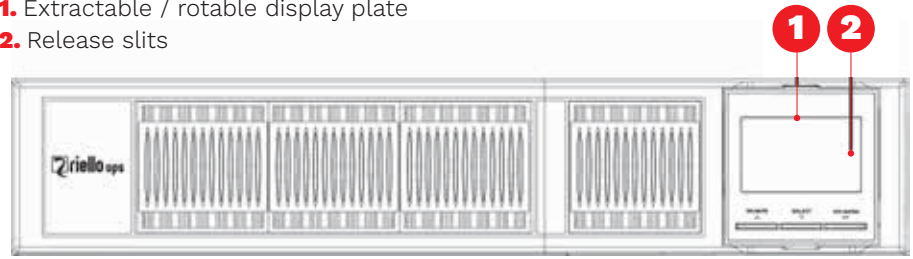
Unity Power Factor

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

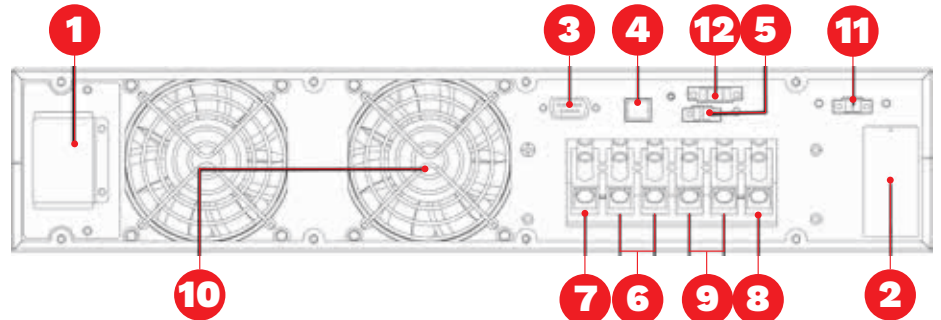
2-YEAR WARRANTY

FRONTAL VIEW

1. Extractable / rotatable display plate
2. Release slits



REAR VIEW



1. Battery cabinet connector
2. Communication card slot
3. RS232 Communication port
4. USB Communication port
5. Remote control terminal port
6. Output terminal (Line+Neutral)
7. Output ground
8. Input ground
9. Input terminal (Line+Neutral)
10. Cooling fan
11. External maintenance bypass switch port
12. Dry contacts communication port
13. Extractable / rotatable display plate
14. Release slits

Model	UPS Cabinet	Battery Cabinet Qty	Transformer Cabinet for 120V/127V Output	Dimensions (in Tower configuration) W x D x H (in)	Weight (lb)
SDH-6000-RT-ER-C0	Yes	0	Yes	9(5U)x25x19	181
SDH-10000-RT-ER-C0	Yes	0	Yes	9(5U)x25x19	249
SDH-6000-RT-ER-C1	Yes	1	Yes	14(8U)x26x19	302
SDH-10000-RT-ER-C1	Yes	1	Yes	14(8U)x29x19	370
SDH-6000-RT-ER-C2	Yes	2	Yes	19(11U)x26x19	423
SDH-10000-RT-ER-C2	Yes	2	Yes	19(11U)x29x19	492
SDH-6000-RT-ER-C3	Yes	3	Yes	25(14U)x26x19	545
SDH-10000-RT-ER-C3	Yes	3	Yes	25(14U)x29x19	613
SDH-6000-RT-ER-C4	Yes	4	Yes	30(17U)x26x19	666
SDH-10000-RT-ER-C4	Yes	4	Yes	30(17U)x29x19	734

MODELS	SDH-6000	SDH-10000
INPUT		
Rated Power (VA)	6000	10000
Voltage (V)	208/220/230/240 Vac	
Voltage tolerance	110 Vac < Vin < 300 Vac @60% LOAD / 176 Vac < Vin < 300 Vac @ 100% LOAD	
Frequency	50/60 Hz	
Frequency tolerance	60 Hz ± 5%	
Power Factor	> 0.98	
Current distortion	≤6%	
BYPASS		
Voltage tolerance	176 - 276 Vac	
Frequency tolerance	Frequency selected (from ±0.Hz to ±5Hz configurable)	
Number phases	1	
OUTPUT		
Rated power (kVA)	6	10
Active Power (kW)	6	10
Voltage (V) Option UPS	208V / 220V / 230V / 240V	
Voltage (V) Option With ISO	240V Plus Neutral for a Split of 120V / 120V or 230V Plus Neutral for a Split 115V / 115V	
Number phases	1	
Crest factor (Ipeak/Irms)	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%	10 min	
125% = Load < 150%/130%	1 min	
Load > 150%/130%	1 min	
BATTERIES		
Type	VRLA AGM lead, maintenance-free	
Typical recharge time	6 h	
DC Voltage	240 VDC	
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	660 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		
Weight, lb	37.47	44
Dimensions (WxDxH), in	3.4 x 17.24 x 24	

The information in this document is subject to change without notice. Riello UPS assumes no responsibility for any errors that may appear in this document