



SOHO



INDUSTRY



EMERGENCY



E-MEDICAL

Sentinel RT



USB
plug



Plug & Play
installation



True-ON LINE UPS System 1-3 kVA/kW

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.

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.

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 104 °F (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;
- STANDBY 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

- Even with non-linear loads (IT loads with a crest factor of up to 3:1);
- High short circuit current on bypass;
- High overload capacity: 150% by inverter (even with mains failure);
- Filtered, stabilised and reliable voltage (TRUE-ON LINE double conversion technology), with filters for the suppression of atmospheric disturbances;
- Power factor correction: UPS input power factor close to 1 and sinusoidal current uptake.

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);
- Standby 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;
- 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;
- RS232 serial port and opto-isolated contacts;
- USB port;
- Slot for TCP/IP, SNMP communication card.

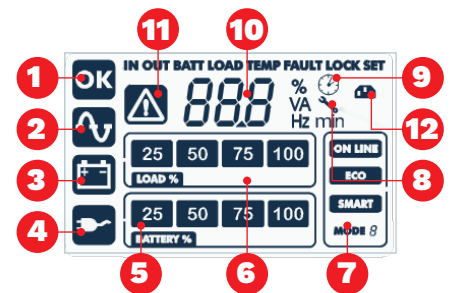
UNITY POWER FACTOR

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

2-YEAR WARRANTY



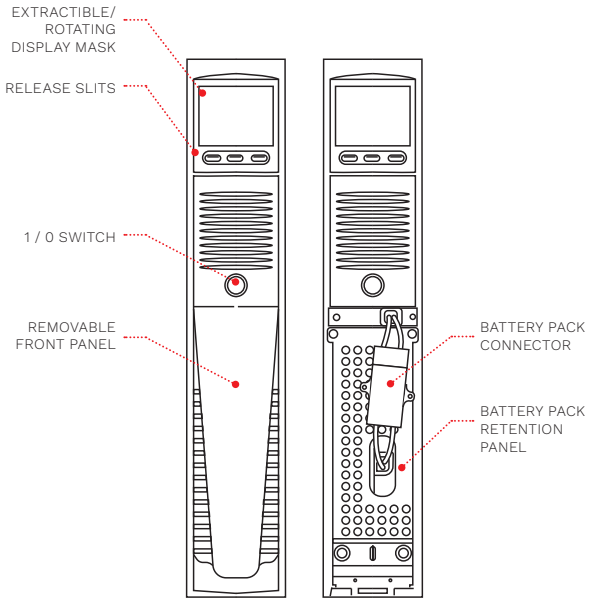
- A. "SEL" Button
- B. "ON" Button
- C. "STANDBY" Button



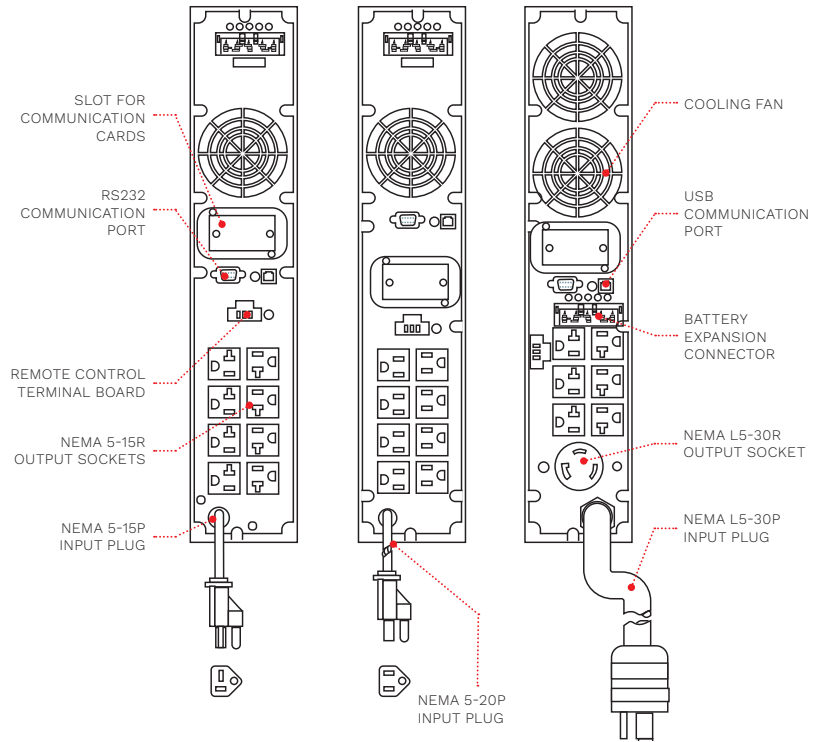
- 1. Regular operating mode
- 2. Network operating mode
- 3. Battery operating mode
- 4. Load powered by bypass
- 5. Battery charge level indicator
- 6. Load level indicator
- 7. Configuration area
- 8. Maintenance required indicator
- 9. Timer indicator
- 10. Measurement display area
- 11. Standby /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

DETAILS

Front view



Rear view



MODELS	SDH 1000 RT	SDH 1500 RT	SDH 2000 RT	SDH 3000 RT
INPUT				
Rated power [VA]	1000	1500	2000	3000
Rated voltage [V]	100 / 110 / 115 / 120 / 127			
Voltage tolerance [V]	80 <Vin <150 @ 100% Load			
Frequency [Hz]	60			
Frequency tolerance [Hz]	60 ±5%			
Power Factor	>0.98			
Current distortion	≤6%			
BYPASS				
Voltage tolerance [V]	85 / 140			
Frequency tolerance [Hz]	Frequency selected (from ±0 to ±5 configurable)			
Number phases	1			
OUTPUT				
Rated power [kVA]	1	1.5	2	3
Active power [kW]	1	1.5	2	3
Number phases	1			
Crest factor [Ipeak/Irms]	3:1			
Rated Voltage [V]	Selectable: 100 / 110 / 115 / 120 / 127			
Waveform	Sinewave			
Frequency [Hz]	Can be selected: 60 or self-learning			
Voltage distortion with non linear load	≤4%			
Voltage distortion with linear load	≤2%			
OVERLOAD TIMES				
100% <Load <110%	1 min			
125% = Load <150%	4 sec.			
Load >150%	0.5 sec.			
BATTERIES				
Type	VRLA AGM lead, maintenance-free			
Typical recharge time	2-4 h			
DC Voltage	36VDC		72VDC	
ENVIRONMENTAL				
Maximum altitude [ft/m]	20000 / 6000			
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 [joule]	300			
Certification	Certified by TUV per UL 1778			
LINE-INTERACTIVE/SMART ACTIVE efficiency	98%			
Noise Level	<40 dB(A) at 3.3 ft / 1 m			
Operating temperature	32 – 104 °F / 0 – 40 °C			
Relative humidity	<95% without condensation			
OTHER				
Net Weight [lbs/kg]	37.48 / 17	39.68 / 18	58.42 / 26.5	69.44 / 31.5
Gross weight [lbs/kg]	45.19 / 20.5	47.40 / 21.5	67.24 / 30.5	79.36 / 36
Dimensions (WxDxH) [inches/mm]	3.42x16.73x17.71 / 87x425x450		3.42x24.60x17.71 / 87x625x450	

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