



DIGITAL LIVING



INDUSTRY



EMERGENCY



E-MEDICAL

# Sentinel RT



ONLINE



Tower Rack



USB plug



Plug & Play installation



## True-ON LINE Rack/Tower UPS System

**1:1** 6-10 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 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 (<40 dBA): 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;
- Back-feed protection;
- Manual option to switch to bypass;
- Isolation transformer cabinet.

## ADVANCED COMMUNICATIONS

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

- Multiplatform communication for all operating systems and network environments, Powershield<sup>3</sup> 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.

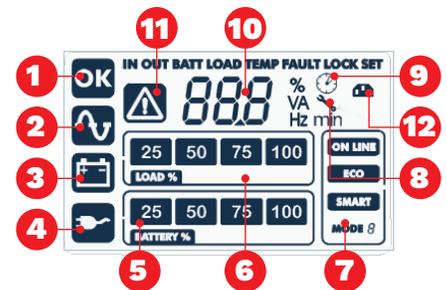
## UNITY POWER FACTOR

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

## 2-YEAR WARRANTY



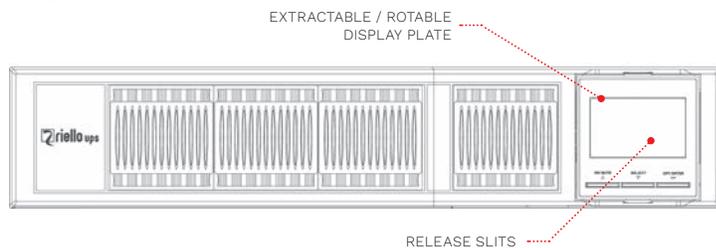
- A.** "SEL" Button
- B.** "ON" Button
- C.** "STANDBY" Button



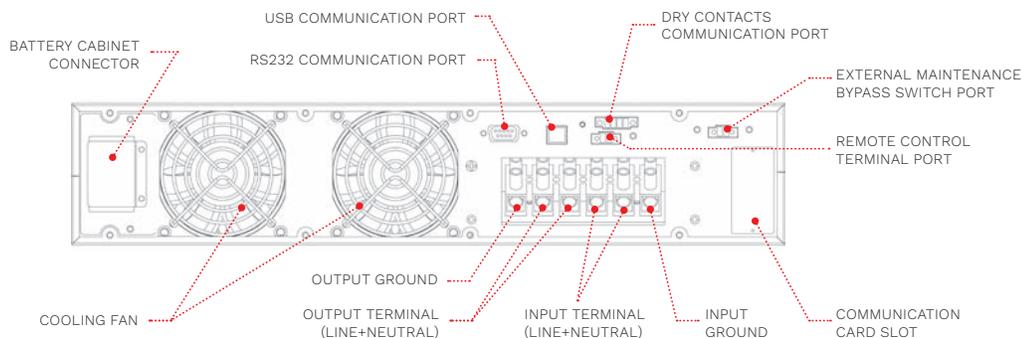
- 1.** Regular operating mode
- 2.** Network operating mode
- 3.** Battery operating mode
- 4.** Load powered by bypass
- 5.** Battery charge level indicator
- 6.** Load level indicator
- 7.** Configuration area
- 8.** Maintenance required indicator
- 9.** Timer indicator
- 10.** Measurement display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

## DETAILS

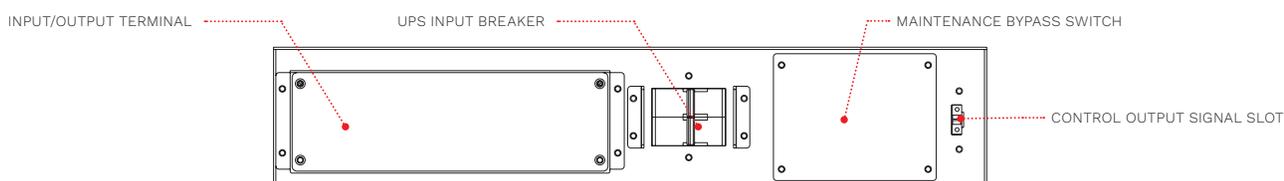
### Front view



### Rear view



### Manual Bypass (option)



MODEL	UPS Cabinet	Battery Cabinet QTY	Transformer cabinet for 120V/127V output	Dimensions (in tower configuration) W x D x H (in/mm)	Weight (lb/kg)
SDH-6000-RT-ER-C0	Yes	0	Yes	9(5U)x25x19 / 218(5U)x438x645	181 / 82
SDH-10000-RT-ER-C0	Yes	0	Yes	9(5U)x25x19 / 218(5U)x438x725	249 / 113
SDH-6000-RT-ER-C1	Yes	1	Yes	14(8U)x26x19 / 349(8U)x438x645	302 / 137
SDH-10000-RT-ER-C1	Yes	1	Yes	14(8U)x29x19 / 349(8U)x438x725	370 / 167
SDH-6000-RT-ER-C2	Yes	2	Yes	19(11U)x26x19 / 480(11U)x438x645	423/ 191
SDH-10000-RT-ER-C2	Yes	2	Yes	19(11U)x29x19 / 480(11U)x438x725	492 / 223
SDH-6000-RT-ER-C3	Yes	3	Yes	25(14U)x26x19 / 611(14U)x438x645	545 / 247
SDH-10000-RT-ER-C3	Yes	3	Yes	25(14U)x29x19 / 611(14U)x438x725	613 / 278
SDH-6000-RT-ER-C4	Yes	4	Yes	30(17U)x26x19 742(17U)x438x645	666 / 302
SDH-10000-RT-ER-C4	Yes	4	Yes	30(17U)x29x19 747(17U)x438x725	734 / 333

<b>MODELS</b>	<b>SDH 6000 RT</b>	<b>SDH 10000 RT</b>
<b>INPUT</b>		
Rated Power [VA]	6000	10000
Rated voltage [V]	208 / 220 / 230 / 240	
Voltage tolerance [V]	110 <Vin <300 @ 60% LOAD / 176 <Vin <300 @ 100% Load	
Frequency [Hz]	50 / 60	
Frequency tolerance [Hz]	60 ±5%	
Power Factor	>0.98	
Current distortion	≤6%	
<b>BYPASS</b>		
Voltage tolerance [V]	176 / 276	
Frequency tolerance [Hz]	Frequency selected (from ±0 to ±5 configurable)	
Number phases	1	
<b>OUTPUT</b>		
Rated power [kVA]	6	10
Active Power [kW]	6	10
Voltage [V] option UPS	208 / 220 / 230 / 240	
Voltage [V] option with transformer cabinet	240 plus neutral for a split of 120 / 120 or 230 plus neutral for a split 115 / 115	
Number phases	1	
Crest factor [I <sub>peak</sub> /I <sub>rms</sub> ]	3:1	
Waveform	Sinewave	
Frequency [Hz]	Can be selected: 60 or self-learning	
Voltage distortion with non linear load	≤4%	
Voltage distortion with linear load	≤2%	
<b>OVERLOAD TIMES</b>		
100% <Load <110%	10 min.	
125% = Load <150%/130%	1 min.	
Load >150%/130%	1 min.	
<b>BATTERIES</b>		
Type	VRLA AGM lead, maintenance-free	
Typical recharge time	6 h	
DC Voltage	240 VDC	
<b>ENVIRONMENTAL</b>		
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]	660	
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	
<b>OTHER</b>		
Weight [lbs/kg]	37.47 / 17	44 / 20
Dimensions (WxDxH) [inches/mm]	3.4x17.24x24 / 87x438x610	

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. DATSD-H12Y22EAEN