















LOCAL AREA NETWORKS

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DATA

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TELECOM-MUNICATIONS

PLCS

ELECTRO-MEDICAL

EMERGENCY DEVICES Lights/Alarms)

# **Sentinel Power**



5-6 kVA single/single-phase 6.5-10 kVA single/single-phase and three/single-phase

# Highlights

- High UPS reliability
- Operation Mode selection
- High quality output voltage
- Simplified Installation
- High battery reliability
- EnergyShare
- Low impact on mains network







Sentinel Power is the ideal solution for powering sensitive and vital "mission critical" utilities such as safety devices (electro-medical), ensuring maximum power reliability.

The series includes 5-6kVA single/single-phase and 6.5-8-10kVA single/single-phase and three/three-phase models with double conversion On-line technology (VFI); the load is always powered by the inverter which provides a sinusoidal voltage, filtered and stabilised in terms of

voltage, form and frequency.

Moreover, the input and output filters significantly increase the load's immunity against network disturbances and lightning strikes.

Sentinel Power stands for technology, performance (selectable Economy Mode and Smart Active Mode) and diagnostics (LCD custom display, RS232 and USB interfaces with Powershield<sup>3</sup> software included, ESD input, slot for interfacing with optional boards).

#### **High UPS reliability**

- Total microprocessor control
- Static and manual bypass without interruption
- Features guaranteed up to 40° C (the components are designed to work at high temperatures and thus are subject to less stress at normal temperatures)

#### **Operation selection**

The operating mode may be programmed using software or manually via the mimic panel.

- On-line
- ECO Mode, to increase output (up to to 98%), allows for 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 network.
- Back-up, the UPS can be selected to function only when mains power fails (emergency mode only)
- Frequency converter (50 or 60 Hz).

#### High quality output voltage

- Even with non-linear loads (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 (double conversion On-line technology (VFI compliant with IEC 62040-3) with filters for the suppression of atmospheric disturbances.
- Power factor correction: UPS input power factor, close to 1 and sinewave current absorption

## **Simplified Installation**

- UPS can be installed on single-phase or three-phase distribution network
- Output terminal board + 2 IEC sockets for powering local utilities (computers, modems, etc.)
- Simplified positioning (built-in wheels).

#### **High battery reliability**

- Automatic and manual battery test
- Reduced ripple component (detrimental to the batteries) thanks to the "LRCD" system (Low Ripple Current Discharge)
- Unlimited extendible runtime via dedicated modular design Battery Boxes

 The batteries are not activated during mains failure of <40 ms (high hold up time) or when there are variations in input voltage (from 84V to 276V).

#### **EnergyShare**

The presence of two 10A configurable IEC output sockets, allows for runtime optimisation, programming the switch-off of low priority loads; alternatively, emergency only loads, normally not powered when the mains is present, can be activated.

#### Low impact on mains network

 Sinusoidal absorption of input current on single-phase/single-phase series.

#### **Other features**

- Advanced diagnostics: status, measurements, alarms available on custom LDC display
- Low noise (<40dBA) for installation in any environment thanks to PWM digitally-controlled ventilation, depending on the load applied and on the use of a high frequency switching inverter (>20kHz, value greater than the audible range)
- Auto restart (automatic when mains supply is restored, programmable via software or mimic panel)
- Emergency back-up function, the UPS can be selected to function only when mains power fails (emergency lighting only)
- Back feed protection standard: to prevent energy from being feed back into the main supply
- UPS digital updating (flash upgradable)

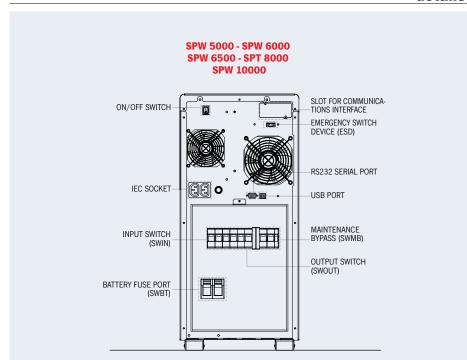


#### **Advanced communication**

- Compatible with Riello UPS TeleNetGuard teleassistance
- Advanced multi-platform
   communication for all operating
   systems and network environments:
   PowerShield<sup>3</sup> supervision and
   shutdown software for Windows
   operating systems 7, 2003, Vista, 2003,
   XP, Linux, Mac OS X, Sun Solaris,
   Linux, Novell and other Unix operating
   systems.
- RS232 serial port
- Plug and Play function
- Slot for installation of communications boards.







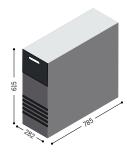
## battery box

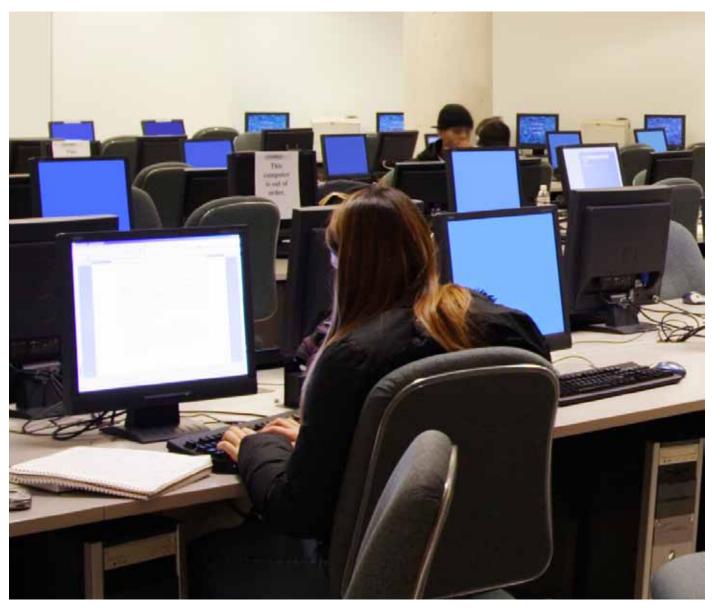
MODELS

BB SPW 240-A3 / BB SPW 240-A6 BC SPW 240-M1/ BC SPW 240-M4

**Dimensions** 

(mm)





| MODELS  | SPW 5000  | SPW 6000     | SPT 6500     | SPT 8000     | SPT 10000     |
|---|---|--------------|--------------|--------------|---------------|
| POWER   | 5000VA/4000W  | 6000VA/4800W | 6500VA/5200W | 8000VA/6400W | 10000VA/8000W |
| INPUT   |   |              |              |              |               |
| Nominal voltage                                   | 220-230-240 Vac Single-phase 220-230-240 Vac single-phase or 380-400-415 Vac three-phase with neutral         |              |              |              |               |
| Minimum voltage without bat-<br>tery intervention | 170 Vac @ load 100% / 140 Vac @ load 50%  |              |              |              |               |
| Nominal frequency                                 | 50 or 60 Hz ±5Hz  |              |              |              |               |
| BY PASS   |   |              |              |              |               |
| Voltage tolerance                                 | 180 - 264 Vac (selectable in Economy Mode e Smart Active Mode)  |              |              |              |               |
| Frequency tolerance                               | Selected frequency ±5%  |              |              |              |               |
| OUTPUT  |   |              |              |              |               |
| Nominal voltage                                   | 220 - 230 - 240 Vac selectable  |              |              |              |               |
| Voltage distortion                                | < 3% with linear load / < 6% with non-linear load   |              |              |              |               |
| Frequency   | 50 or 60 Hz selectable o with automatic selection   |              |              |              |               |
| Static variation                                  | ± 1.5 %   |              |              |              |               |
| Dynamic variation                                 | ≤ 5% in 20 ms   |              |              |              |               |
| Waveform  | Sinusoidal  |              |              |              |               |
| Crest factor                                      | ≥3:1  |              |              |              |               |
| BATTERIES   |   |              |              |              |               |
| Charging time                                     | 6-8 hours   |              |              |              |               |
| OVERLOAD TIMES                                    |   |              |              |              |               |
| 100% < Carico < 125%                              | 1 minute  |              |              |              |               |
| 125% < Carico < 150%                              | 4 seconds   |              |              |              |               |
| Load > 150%                                       | 0.5 seconds   |              |              |              |               |
| OTHER FEATURES                                    |   |              |              |              |               |
| Net weight (kg)                                   | 9   | 1            | 92           | 105          | 106           |
| Gross weight (kg)                                 | 9   | 9            | 100          | 110          | 111           |
| Dimensions (hwd) (mm)                             | 615 x 282 x 785   |              |              |              |               |
| Packaging dimensions<br>(hwd) (mm)                | 863 x 388 x (650+15)  |              |              |              |               |
| Smart Active Output                               | up to 98%   |              |              |              |               |
| Protection devices                                | Overcurrent - short-circuit - overvoltage - undervoltage - thermal - excessive low battery protection devices |              |              |              |               |
| Communication                                     | USB / RS232 + slot for communications interface   |              |              |              |               |
| Input sockets                                     | Terminal board  |              |              |              |               |
| Output socket                                     | Terminal board + 2 IEC 320 C13  |              |              |              |               |
| Regulations                                       | EN 62040-1 EMC EN 62040-2 directive 2006/95/EC - 2004/108 EC EN 62040-3                                       |              |              |              |               |
| Ambient temperature                               | 0°C / +40°C   |              |              |              |               |
| Relative humidity                                 | < 95% non-condensing  |              |              |              |               |
| Colour  | Dark grey RAL 7016  |              |              |              |               |
| Noise level                                       | < 45 dBA a 1 m  |              |              |              |               |
| OPTIONS   |   |              |              |              |               |
| Battery cabinets for extended runtimes            | yes (with and without battery charger)  |              |              |              |               |
| Isolation transformer<br>(hlp) mm/kg              | 500 x 400 x 265 / 80 –  |              |              |              |               |

