

Enhanced Power Services Limited



Local Area Networks (LAN)



Servers



Data Centres



Cash Registers



Telecommunication Devices



e-Business (Server Farms, ISP/ASP/POF)



Industrial PLCs



Electro Medical Devices



Emergency Devices (Lights/Alarms)

Sentinel Power

single-phase 5-6kVA
single-phase / three to single phase 6,5-10kVA

Highlights

- High UPS reliability
- Operating mode selection
- High quality output voltage
- Simplified installation
- High battery reliability
- Low impact on the mains



Eco Level 6



USB Plug



SmartGrid Ready



Supercaps UPS



Energy Share



Service 1st-Start



Sentinel Power is the ideal solution for powering sensitive, mission critical systems such as safety devices (electro-medical devices), ensuring maximum power reliability. The series includes 5-6 kVA single/single-phase and 6.5-8-10 kVA single/single-phase and three/single-phase models with on-line double conversion technology (VFI): the load is powered continuously by the inverter which supplies a sinusoidal voltage, filtered and stabilised in terms of voltage, form and frequency.

Input and output filters provide significant further immunity from mains disturbances and lightning strikes. In terms of technology, performance (selectable Economy and Smart Active Modes) and diagnostics (LCD custom

display, RS232 and USB interfaces with Powershield3 software included, ESD input, interface slot for optional boards), Sentinel Power is one of the best UPS available on the market.

High UPS reliability

- Total microprocessor control.
- Interruption-free static and manual bypass.
- Specifications guaranteed up to 40 °C (the components are designed to work at high temperatures and thus are subject to less stress at normal temperatures).



Operating mode selection

The operating mode can be programmed via software or manually via the front display panel.

- **On line.**
- **Economy Mode:** to increase efficiency (up to 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.
- **Emergency:** the UPS can be selected to function only when the mains power supply fails (emergency only mode).
- **Frequency converter** operation (50 or 60 Hz).

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 (double conversion on-line technology - VFI compliant with EN62040-3), with filters for the suppression of atmospheric disturbances.
- Power factor correction: UPS input power factor close to 1 and sinusoidal current uptake.

Simplified installation

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

High battery reliability

- Automatic and manual battery test
- Reduced ripple component (detrimental to the batteries) using a low ripple current discharge (LCRD) system
- Unlimited extendible runtime using matching Battery Boxes
- The batteries do not cut in during mains failures of <40 ms (high hold up time) or when the input supply is between 84 V to 276 V.

Energy-share

Two 10 A configurable IEC output sockets allow for runtime optimisation by programming the switching off of low

priority loads on mains failure; alternatively, emergency loads that are normally not powered when mains is present can be activated.

Low impact on the mains

- Sinusoidal uptake of input current on singlephase/ single-phase series.

Other features

- Advanced diagnostics: status, measurements and alarms available on custom LCD display
- Low noise (<40 dBA): can be installed in any environment thanks to its high frequency switching inverter and PWM load-dependent digitally controlled fan (>20 kHz, value above audible range)
- Auto restart (automatic when mains supply is restored, programmable via software or display panel)
- Emergency function: the UPS can be selected to function only when the mains power supply fails (emergency lights)
- Back-feed protection standard: to prevent energy from being fed back to the network
- UPS digital updating (flash upgradeable).

Advanced communications

- Compatible with Riello UPS TeleNetGuard remote monitoring
- Advanced multi-platform communications for all operating



systems and network environments: PowerShield3 monitoring and shutdown software for Windows operating systems 8, 7, 2008, Vista, 2003, XP, Linux, Mac OS X, Sun Solaris, Linux, VMWare ESX and other Unix operating systems

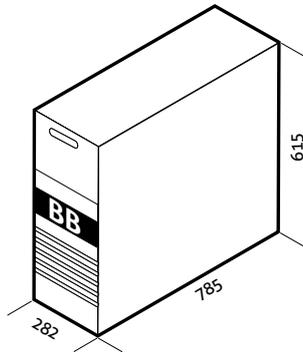
- RS232 serial port
- Plug and play function
- Slot for installation of communications boards



BATTERY BOX

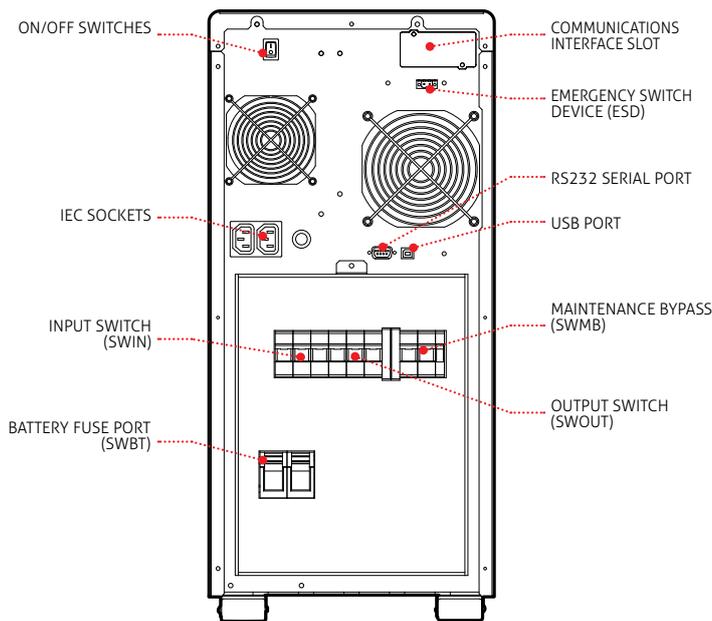
MODELS BB SPW 240-A3 / BB SPW 240-A6
BC SPW 240-M1/ BC SPW 240-M4

Dimensions
(mm)



DETAILS

SPW 5000 - SPW 6000
SPW 6500 - SPT 8000 - SPW 10000



OPTIONS

SOFTWARE

PowerShield
PowerNetGuard

ACCESSORIES

NETMAN 101 PLUS
NETMAN 102 PLUS
NETMAN 202 PLUS
MULTICOM 301
MULTICOM 302
MULTICOM 351

MULTICOM 352

MULTICOM 372

MULTICOM 382

MULTICOM 401

MULTI I/O

Interface Kit As400

MULTIPANEL

Manual Bypass MBB 100 A

PRODUCT ACCESSORIES

Isolation transformer module (hlp)
mm/kg: 500 x 400 x 265 / 80
(only for 5000-6000 VA models)

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Sentinel Power

UPS Model		SPW 5000	SPW 6000	SPT 6500	SPT 8000	SPT 10000
Power		5000 VA / 4000 W	6000 VA / 4800 W	6500 VA / 5200 W	8000 VA / 6400 W	10000 VA / 8000 W
Input	Nominal Voltage	220-230-240 Vac single-phase		220-230-240 Vac single-phase or 380-400-415 Vac three-phase + N		
	Minimum voltage without battery intervention	170 Vac @ 100% load / 140 Vac @ 50% load				
	Nominal frequency	50/60 Hz \pm 5 Hz				
Bypass	Voltage tolerance	180 - 264 Vac (selectable in Economy Mode or Smart Active Mode)				
	Frequency tolerance	Selected frequency \pm 5%				
Output	Nominal voltage (kVA)	220 - 230 - 240 Vac selectable				
	Voltage distortion	< 3% with linear load / < 6% with non-linear load				
	Frequency	50/60 Hz selectable or with automatic selection				
	Static variation	\pm 1,5 %				
	Dynamic variation	\leq 5% in 20 ms				
	Waveform	Sinusoidal				
	Crest factor	\geq 3 : 1				
Batteries	Type	VRLA AGM maintenance-free lead based				
	Recharge time	6-8 hours				
Overload Times	100% < Load < 125%	1 minute				
	125% < Load < 150%	4 seconds				
	Load > 150%	0.5 seconds				
Info for Installation	Net weight (kg)	91		92	105	106
	Gross weight (kg)	99		100	110	111
	Dimensions (WxDxH)(mm)	282 x 785 x 615				
	Packed dimensions (WxDxH)(mm)	863 x 388 x (650+15)				
	Smart active efficiency	up to 98%				
	Protections	Overcurrent - short-circuit - overvoltage - undervoltage - temperature - excessive low battery				
	Communications	USB / RS232 + slot for communications interface				
	Input plugs	Terminal board				
	Output sockets	Terminal board + 2 IEC 320 C13				
	Standards	EN 62040-1 EMC EN 62040-2 Directives 2006/95/EC - 2004/108 EC EN 62040-3				
	Operating temperature	0 °C / +40 °C				
	Relative humidity	< 95% non-condensing				
	Colour	Dark grey RAL 7016				
	Noise level at 1m	< 45 dBA				
Moving the UPS	castors					