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# Sentinel Pro

## 700-3000 VA Single-phase

### Highlights

- Operating flexibility
- Emergency function
- Battery optimisation
- Runtime expandability
- Reduced noise
- On-line (VFI)



The SENTINEL PRO has evolved from the highly successful Dialog UPS series. The UPS has a unique, modern design and improved electrical characteristics, representing a benchmark product from the Riello UPS research and development team.

SENTINEL PRO uses On-line double conversion technology, resulting in the highest levels of reliability and maximum protection for critical loads such as servers, and IT and Voice/Data applications.

For business continuity applications requiring long battery runtimes, runtimes

up to several hours are possible, using ER models fitted with more powerful battery chargers, and battery extension packs. The front mimic panel has been entirely redesigned, adding an LCD display that shows the input and output voltages, and battery readings in addition to UPS operating status information. The inverter and the microprocessor control stage has been completely redesigned to provide increased efficiency and greater configuration options.



**Value Power Systems Limited**

Tel: 01939 235 862 - Fax: 01939 235 153 - Email: sales@upspowersupplies.co.uk - www.upspowersupplies.co.uk

Another feature of the SENTINEL PRO series is its communication capabilities. The UPS is supplied with a USB port and an expansion slot for protocol conversion or relay contacts boards.

SENTINEL PRO features a unique shut-off button to reduce energy consumption during periods of prolonged inactivity (ECO LINE). SENTINEL PRO is available in 700VA, 1000VA, 1500VA, 2200VA and 3000VA models.

#### Operating flexibility

Different operating modes, programmable depending on user requirements and the load to be powered, have been introduced in order to reduce energy consumption.

- Economy Mode: the UPS can operate in line interactive mode, with the load powered by the mains, reducing consumption and thus improving efficiency (up to 98%).
- Smart Active Mode: the UPS automatically selects on-line or line interactive operation, depending on the quality of the mains supply, checking the number, frequency and the type of disturbances present.
- Stand by Off (emergency back-up) Mode: the UPS powers the loads only in the event of mains failure. The inverter begins working with a progressive start-up sequence to prevent inrush currents.
- Operation as a frequency converter (50 or 60 Hz)

#### Emergency function

This configuration is designed for emergency systems including lighting, fire detection/exit systems and alarms. When the mains power supply fails, the inverter begins powering the loads with a progressive start (Soft Start) in order to prevent overload.

#### Battery optimisation

The SENTINEL PRO UPS has a wide input voltage range and deep discharge protection to optimise battery its life. Periodically the UPS carries out a battery efficiency test (can also be manually activated) and its wide input voltage range, helps to reduce battery usage.



#### Runtime expandability

Optional battery extension packs can be connected to increase the UPS runtime. In addition the SENTINEL PRO range includes ER versions with more powerful battery chargers in place of the internal batteries for faster recharge times.

#### Reduced noise

Thanks to the use of high-frequency components and load-based fan speed control, the noise produced by the UPS is reduced to less than 40dB.

#### Features

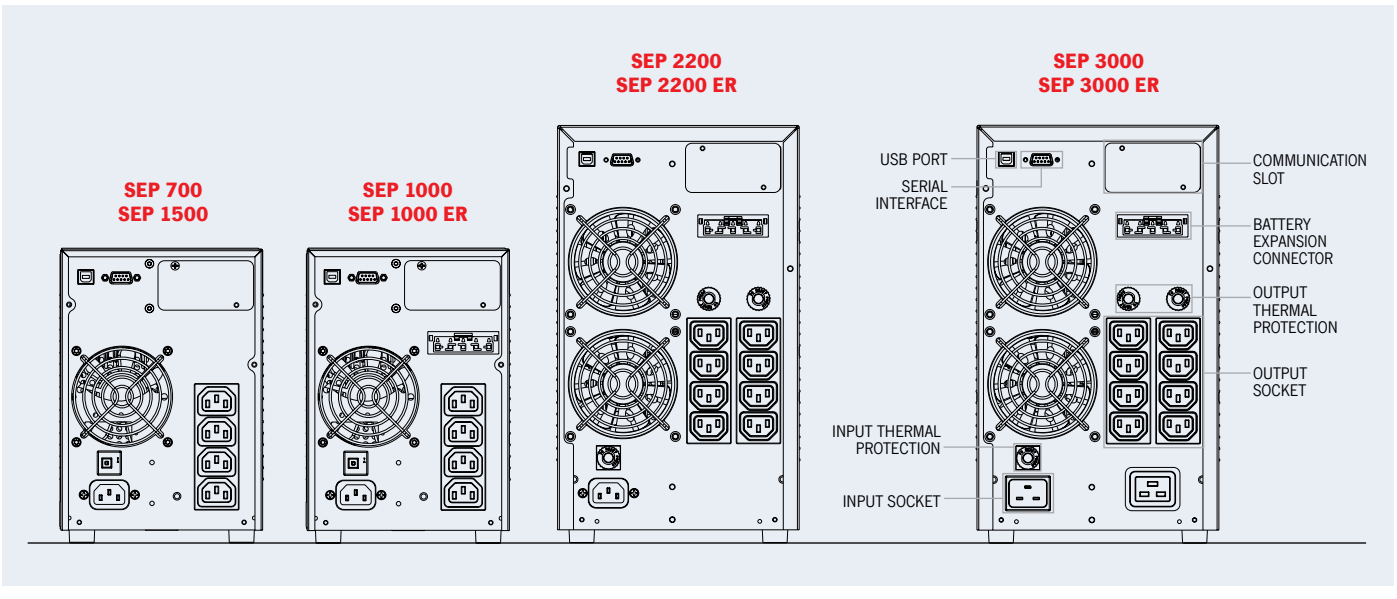
- Filtered, stabilised and reliable voltage: double conversion On-line technology (VFI compliant with IEC 62040-3) standard with filters for the suppression of atmospheric disturbances.
- High overload capability (up to 150%)
- Programmable Auto-restart when mains is restored
- Battery start-up (cold start)
- Power factor correction (UPS input power factor, close to 1)
- Wide input voltage range (from 140V to 276V) without battery intervention.
- Runtime extension to several hours
- Fully configurable using UPS Tools configuration software

- Highly reliable batteries (automatic and manually activated battery test)
- High level of UPS reliability (total microprocessor control)
- Low impact on the mains (sinusoidal absorption)
- Input protection with resettable fuse.

#### Advanced communication

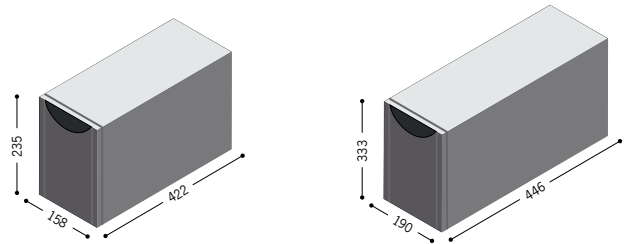
- Multi-platform communication for all operating systems and network environments; supervision and shutdown PowerShield<sup>3</sup> software for Windows operating systems 7, 2008, Vista, 2003, XP, Linux, Mac OS X, Sun Solaris, VMware ESX and other Unix operating systems
- Standard supplied UPS Tools configuration and customisation software
- RS232 serial port and opto-isolated contacts
- USB Port
- Slot for communication boards

#### 2-YEAR WARRANTY



MODELS	BB SEP 36-A3 / BB SEP 36-M1	BB SEP 72-A3 / BB SEP 72-M1
SEP MODELS	SEP 1000	SEP 2200-3000 / ER

Dimensions  
(mm)



MODELS	SEP 700	SEP 1000	SEP 1000 ER	SEP 1500	SEP 2200	SEP 2200 ER	SEP 3000	SEP 3000 ER
<b>POWER</b>	700VA/560W	1000VA/800W		1500VA/1200W	2200VA/1760W		3000VA/2400W	
<b>INPUT</b>								
Nominal voltage	220-230-240 Vac							
Voltage range without battery intervention	140 Vac < Vin < 276 Vac @50% LOAD / 184 Vac < Vin < 276 Vac @ 100% LOAD							
Max allowable voltage	300 Vac							
Nominal frequency	50 or 60 Hz							
Frequency range	50 Hz $\pm$ 5% / 60 Hz $\pm$ 5%							
Power factor	> 0.99							
Current distortion	$\leq$ 7%							
<b>BY PASS</b>								
Voltage tolerance	180 - 264 Vac							
Frequency tolerance	Selectable from $\pm$ 1.5Hz to $\pm$ 5Hz							
<b>OUTPUT</b>								
Voltage distortion with linear load / with non-linear load	< 2% / < 4%							
Frequency	Selectable: 50 Hz or 60 Hz or automatic selection							
Static variation	$\pm$ 1%							
Dynamic variation	$\leq$ 5% in 20 msec.							
Waveform	Sinusoidal							
Current crest factor	3 : 1							
ECO Mode and Smart Active Output	98%							
<b>BATTERIES</b>								
Type	VRLA AGM lead acid maintenance free batteries							
Charging time	2-4 hours	N.A.		2-4 hours	N.A.		2-4 hours	N.A.
<b>OVERLOAD TIMES</b>								
100% < Load < 110%	2 minutes							
110% < Load < 150%	5 seconds							
Load > 150%	1 second							
<b>OTHER FEATURES</b>								
Net weight (kg)	10.9	13.3	7	14.8	25.6	10.6	28	14
Gross weight (kg)	12.5	14.9	8.6	15.5	28.8	13.8	31.2	17.2
Dimensions (hwd) (mm)	235 x 158 x 422				333 x 190 x 446			
Packaging dimensions (hwd) (mm)	340 x 245 x 500				470 x 325 x 585			
Surge protection	300 joule							
Protection devices	Overcurrent - short-circuit - overvoltage - undervoltage - thermal - deep battery discharge protection							
Communication	USB / DB9 with RS232 and contacts / Slot for communications interface							
Input sockets	1 IEC 320 C14						1 IEC 320 C20	
Output socket	4 IEC 320 C13				8 IEC 320 C13		8 IEC 320 C13 + 1 IEC 320 C19	
Regulations	Safety: EN 62040-1 and Directive 2006/95/EL; EMC: EN 620040-2 category C2 and Directive 2004/108/EL							
Ambient temperature	0°C / +40°C							
Relative humidity	< 95% non-condensing							
Colour	Black							
Noise level	< 40 dBA @ 1 m							
Standard equipment provided standard	Power cable, serial cable, USB cable, safety manual, quick start, software on CD-ROM							