Sentinel Pro

700-3000 VA
Single-phase
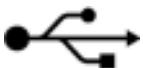
Highlights

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

After years of success with the Dialog series, Riello UPS introduces its evolution: the Sentinel Pro series.
Customers will appreciate Premium Pro for its unique, modern design and for improvements in performance made possible by the continuous technological research carried out in the Riello UPS research centres.
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.

In business continuity applications that require long battery operation times, it is possible to extend runtimes by several hours using ER versions equipped with more powerful battery chargers.
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 the UPS operating status.
The inverter and the microprocessor control stage has been completely redesigned to provide increased efficiency and greater configuration options.

Another feature of the Sentinel Pro series is its maximum expandability. 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): 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 ensures the operation of those devices that must be powered during mains failure, including emergency lighting systems, fire detection/exit systems, alarms etc.
When the mains supply fails, the inverter begins powering the load with a progressive start (Soft Start) in order to prevent overloading.

Battery optimisation

The Sentinel PRO series is equipped with deep discharge protection to help optimise battery life.
Periodically the UPS carries out a battery efficiency test (also manually activated) and its wide input voltage range, helps to reduce battery usage.

Runtime expandability

Optional battery extension packs can be connected to increase UPS runtime.
In addition the Sentinel PRO range includes ER versions with more powerful battery chargers in place of the internal batteries to enable fast 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 (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 can be extended up 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[3] 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

SEP 2200
SEP 2200 ER

SEP 3000
SEP 3000 ER

SEP 700
SEP 1500

SEP 1000
SEP 1000 ER

USB PORT

SERIAL
INTERFACE

COMMUNICATION
SLOT

BATTERY
EXPANSION
CONNECTOR

OUTPUT
THERMAL
PROTECTION

OUTPUT
SOCKET

INPUT THERMAL
PROTECTION

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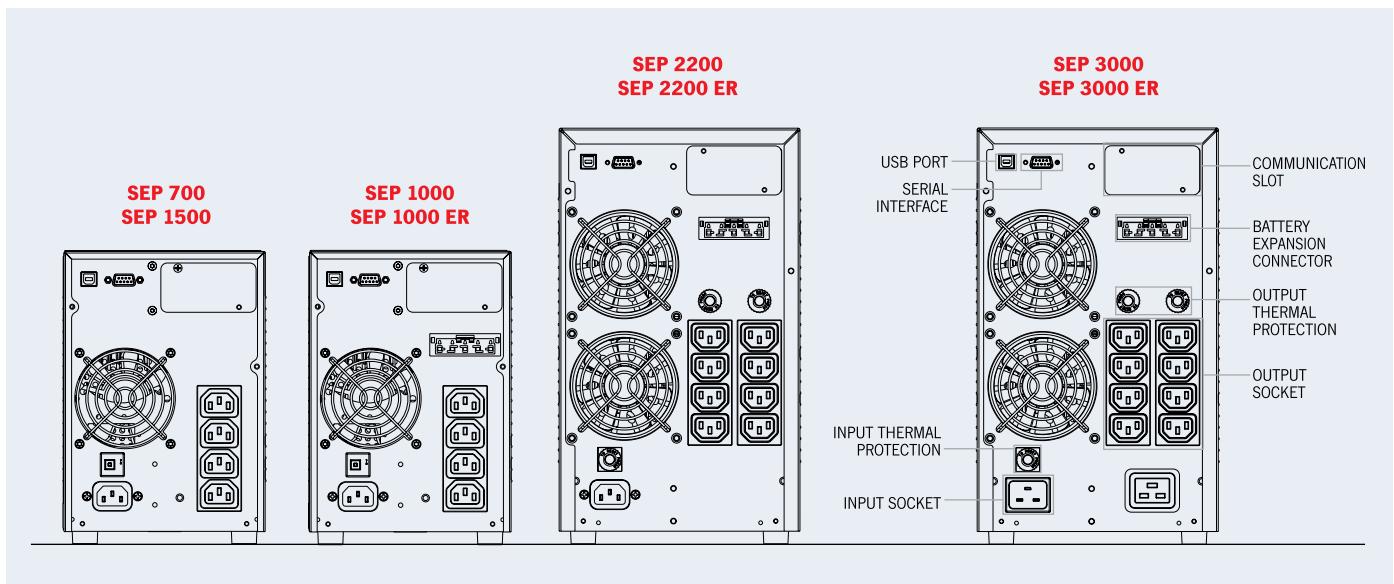
MODELS	BB SEP 36-A3 / BB SEP 36-M1	BB SEP 72-A3 / BB SEP 72-M1
SEP MODELS	SEP 1000	SEP 2200-3000 / ER

Dimensions
(mm)

235
158
422

333
190
446

riello AROS ups
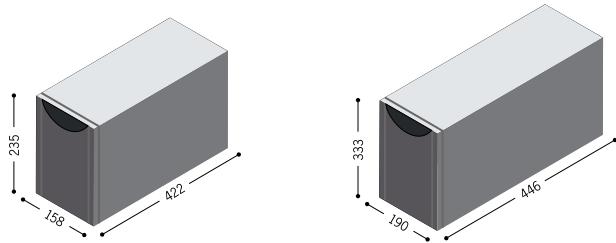
MODELS	SEP 700	SEP 1000	SEP 1000 ER	SEP 1500	SEP 2200	SEP 2200 ER	SEP 3000	SEP 3000 ER
POWER	700VA/560W	1000VA/800W		1500VA/1200W	2200VA/1760W		3000VA/2400W	
INPUT								
Nominal voltage	220-230-240 Vac							
Voltage range without battery intervention	140 Vac < Vin < 276 Vac @50% LOAD / 184 Vac < Vin < 276 Vac @ 100% LOAD							
Max allowable voltage	300 Vac							
Nominal frequency	50 or 60 Hz							
Frequency range	50 Hz ± 5% / 60 Hz ± 5%							
Power factor	> 0.99							
Current distortion	≤7%							
BY PASS								
Voltage tolerance	180 - 264 Vac							
Frequency tolerance	Selectable from ±1.5Hz to ±5Hz							
OUTPUT								
Voltage distortion with linear load / with non-linear load	< 2% / < 4%							
Frequency	Selectable: 50 Hz or 60 Hz or automatic selection							
Static variation	± 1%							
Dynamic variation	≤ 5% in 20 msec.							
Waveform	Sinusoidal							
Current crest factor	3 : 1							
ECO Mode and Smart Active Output	98%							
BATTERIES								
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.
OVERLOAD TIMES								
100% < Load < 110%	2 minutes							
110% < Load < 150%	5 seconds							
Load > 150%	1 second							
OTHER FEATURES								
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 - excessive low battery protection devices							
Communication	USB / DB9 con RS232 e contatti / 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							