Sentinel Pro2

VFI TYPE
ONLINE

Supercaps
UPS

Tower

USB
plug

Energy
Share

c **UL** us
LISTED

GS Nemko
certified

Plug & Play
installation
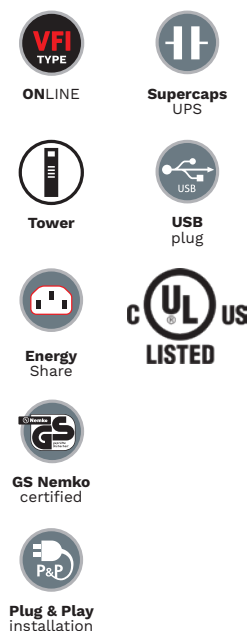
1:1   700-3000 VA

True-ON LINE UPS System
Input 208-240 V 60 Hz
output 220/240 V 60 Hz

HIGHLIGHTS

- **Power factor 1**
- **Operating flexibility**
- **Emergency function**
- **Battery optimisation**
- **Runtime expandability**
- **Low noise level**
- **Configurable via PC**

Sentinel Pro2 presents a completely new, modern design and improved performance created by the Riello UPS research and development team.
The Sentinel Pro2 is made to ensure the protection and availability of the IT infrastructure, while allowing for quick and easy installation.
Sentinel Pro2 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, battery autonomy can be extended up to several hours using ER models fitted with more powerful battery chargers.
The front display panel includes a LCD

display that shows the input and output voltages and battery readings, while the UPS operating status information can be seen immediately using the LED status bar below the display.
Maximum expandability: the Sentinel Pro2 is supplied as standard with a USB port and an expansion slot for protocol conversion or relay contacts boards.

Different operating modes are available to reduce energy consumption or to use the system as a frequency converter.
Sentinel Pro2 provides also EnergyShare output sockets that allow the automatic disconnection of the connected load under certain configurable operating conditions.

DESIGNED FOR EASE OF USE
- Tower installation;
- LCD screen;
- LED status bar indicating the UPS operating mode;
- Remote UPS shutdown;
- Configurable via USB port;
- Available in different power ratings, from 700 W to 3 kW;
- Available with various options, such as extended runtime and increased battery charging current;
- Dedicated matching battery cabinets with various capacity available.

EMERGENCY FUNCTION
This configuration ensures the operation of emergency systems that must be supplied 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.
Sentinel Pro2 is compliant for installation in medium-voltage transformer rooms in accordance with applicable legislation, for the power supply with reserve charge of medium-voltage coils.

BATTERY OPTIMISATION
The Sentinel Pro2 range has a deep discharge protection device to optimise battery life.
Periodically the UPS carries out a battery efficiency test (which can also be manually activated); its wide input voltage tolerance range helps to reduce battery usage and maintain performance over time.

RUNTIME EXPANDABILITY
Optional battery extension packs can be connected to increase UPS runtime. In addition the Sentinel Pro2 range includes ER versions with no internal batteries and more powerful battery chargers for longer runtimes.

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

FEATURES
- Filtered, stabilised and reliable voltage: double conversion ON LINE technology (VFI compliant with IEC 62040-3) 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 1);
- Wide input voltage tolerance range (from 140 V to 276 V) without battery intervention;
- Runtime extendable 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 take up).

ADVANCED COMMUNICATIONS
- Multi-platform communication for all operating systems and network environments: PowerShield[3] supervision and shutdown software for Windows operating systems, Windows Server Virtualization Hyper-V, macOS, Linux, Citrix XenServer and other Unix operating systems;
- UPS Tools configuration and customisation software supplied as standard;
- Serial port over RJ45 connector and opto-isolated contacts;
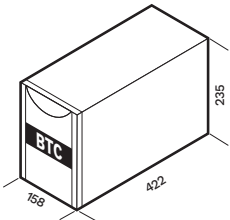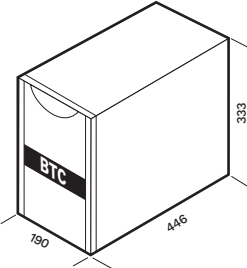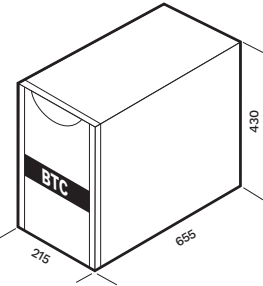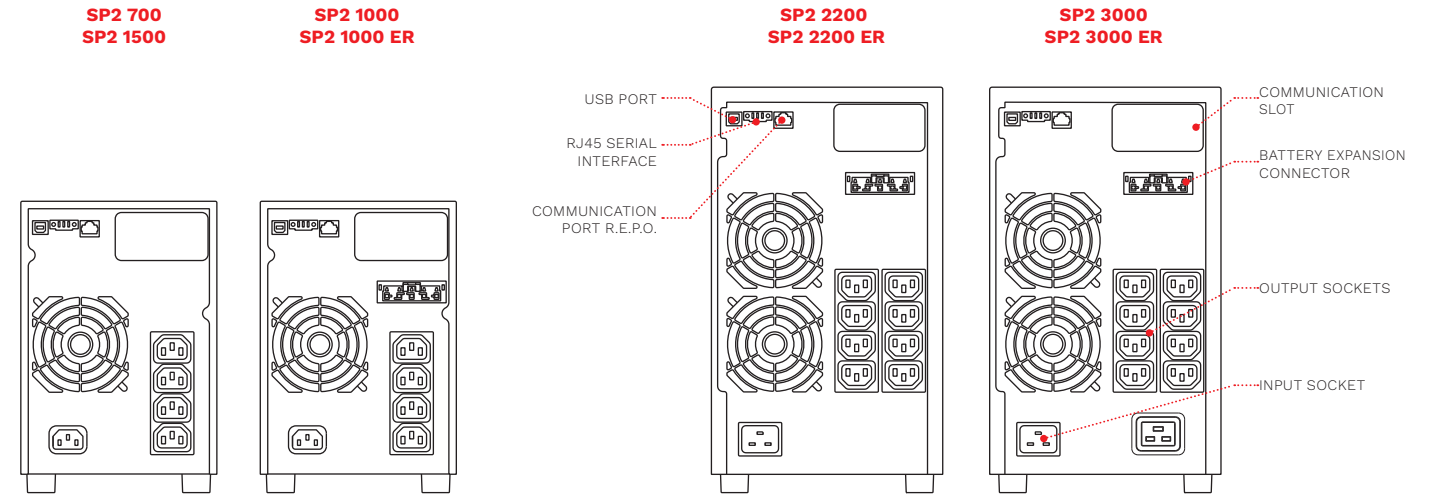- USB port;
- Slot for communications boards.

2-YEAR WARRANTY

OPTIONS

SOFTWARE
PowerShield[3]
PowerNetGuard

ACCESSORIES
NETMAN 208
MULTICOM 302
MULTICOM 352

MULTICOM 372
MULTICOM 384
MULTICOM 411
MULTICOM 421
MULTI I/O
MULTIPANEL
Manual Bypass 16 A
Slot Adapter

BATTERY CABINET

MODELS	BTC SP2 36V BB A3 BTC SP2 36V BB M1	BTC SP2 72V BB A3 BTC SP2 72V BB M1	BTC SP2 36V BB B1 BTC SP2 72V BB B1
Dimensions [mm]	235 / 158 / 422	333 / 190 / 446	430 / 215 / 655

DETAILS

SP2 700
SP2 1500

SP2 1000
SP2 1000 ER

SP2 2200
SP2 2200 ER

USB PORT

RJ45 SERIAL
INTERFACE

COMMUNICATION
PORT R.E.P.O.

SP2 3000
SP2 3000 ER

COMMUNICATION
SLOT

BATTERY EXPANSION
CONNECTOR

OUTPUT SOCKETS

INPUT SOCKET

MODELS	SP2 700	SP2 1000	SP2 1000 ER	SP2 1500	SP2 2200	SP2 2200 ER	SP2 3000	SP2 3000 ER
INPUT								
Rated voltage [V]	220 / 230 / 240							
Voltage range without battery intervention [V]	140 <Vin <276 @ 50% load / 184 <Vin <276 @ 100% load							
Voltage tolerance [V]	230 ±20%							
Maximum permitted voltage [V]	300							
Rated frequency [Hz]	50 / 60							
Frequency tolerance [Hz]	40 ÷ 72							
Power factor	1							
BYPASS								
Configurable Voltage range [V]	Minimum threshold 180 ÷ 200 / Maximum threshold 250 ÷ 264							
Frequency tolerance [Hz]	Configurable: 3% ÷ 10%							
OUTPUT								
Output power [W]	700	1000		1500	2200		3000	
Voltage distortion with linear load / with non-linear load	<2% / <4%							
Frequency [Hz]	Selectable: 50 or 60 or self-learning							
Static variation	±1%							
Dynamic variation	≤5% in 20 ms							
Waveform	Sinusoidal							
Current crest factor	3:1							
Efficiency	up to 93.7%							
Efficiency ECO and SMART ACTIVE Modes	98%							
Overload times	<150% for 4 s, 150% for 1 s							
BATTERIES								
Type	VRLA AGM maintenance-free lead based; Supercaps available on 1000 and 3000 VA							
Expandability	No	Yes		No	Yes			
Recharge time	2-4 h		N.A.	2-4 h		N.A.	2-4 h	N.A.
OVERALL SPECIFICATIONS								
Net weight [lbs/kg]	22 / 10.2	27 / 12.5	15 / 7	29 / 13.6	51 / 23.3	24 / 11	57 / 26.3	24 / 11.1
Gross weight [lbs/kg]	25 / 11.7	31 / 14.2	20 / 9.5	33 / 15.4	57 / 25.9	30 / 13.7	62 / 28.5	30 / 13.8
Dimensions (WxDxH) [inches/mm]	62.2x166x92.5 / 158x422x235				74.8x175.5x131.1 / 190x446x333			
Packaging dimensions (WxDxH) [inches/mm]	96.4x196.8x133.8 / 245x500x340				127.9x230.3x185 / 325x585x470			
Overvoltage protection [J]	300							
Protections	Overcurrent - short circuit - overvoltage - undervoltage - temperature - excessive low battery							
Communications	USB / RJ45 with dry contacts / Slot for communications interface							
Input plugs	1x IEC 320 C14 (10 A)				1x IEC 320 C20 (16 A)			
Output sockets	4x IEC 320 C13 (10 A)				8x IEC 320 C13 (10 A)		8x IEC 320 C13 (10 A) + 1x IEC 320 C19 (16 A)	
Standards	European directives: LV 2014/35/EU low voltage Directive EMC 2014/30/EU electromagnetic compatibility Directive Standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2; RoHS compliant - Classification in accordance with IEC 62040-3 (Voltage Frequency Independent) VFI-SS-11 - UL 1778:2014 and CSA C22.2 No. 107.3-14							
Ambient temperature for the UPS	32 – 104 °F / 0 – 40 °C							
Recommended temp. for battery life	68 – 77 °F / +20 °C – +25 °C							
Range of relative humidity	5-95% non-condensing							
Colour	RAL 9005							
Noise level at 1 m (ECO Mode) [dBA]	<40							
Standard equipment provided	Power cable, IEC-IEC cable, USB cable, safety manual, quick start guide							