Sentinel Tower

DATACENTER · DIGITAL LIVING · E-MEDICAL · EMERGENCY · INDUSTRY · TRANSPORT

1:1 5-6 kVA/kW
1-3:1 8-10 kVA/kW

VFI TYPE **ON**LINE

Tower

Energy Share

Service 1st start

Supercaps UPS

USB plug

HIGHLIGHTS

- **Small footprint**
- **Power factor 1**
- **High efficiency 95%**
- **Parallelable up to 3 units**
- **3 level inverter**
- **Maintenance bypass**
- **High quality output voltage**

Sentinel Tower is the ideal solution for protecting mission critical systems such as safety devices, telecommunications equipment and IT systems to ensure maximum power reliability.
Sentinel Tower is designed and built using state-of-the-art technology and components to provide maximum protection to the powered loads with no impact on downstream systems and optimised energy savings.
The series includes 5-6 kVA/kW single/single-phase and 8-10 kVA/kW single/three-phase input single-phase output 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 form and frequency. Input and output filters provide significant further immunity from mains disturbances and lightning strikes.
In terms of technology and performance, Sentinel Tower is one of the best UPS available on the market today: three-level inverter to achieve 95% efficiency, output power factor 1 to Increase in efficiency of system and devices and reduce power system losses. Selectable ECO Mode and SMART ACTIVE Mode functions; new custom diagnostics LCD display, RS232 and USB interfaces with PowerShield[3] software, ESD input, interface slot with optional boards.

RELIABILITY
- Total microprocessor and DSP 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).

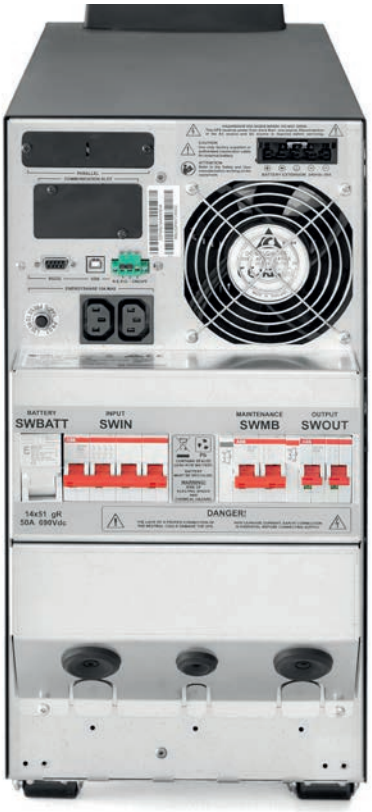
PARALLELABLE
Parallel configuration of 3 units for (2+1) redundant or power parallel system. The UPS continue to operate in parallel even if the connection cable is interrupted (Closed Loop).

UNITY POWER FACTOR
- More power delivered;
- More real output power (W).

OPERATING MODE SELECTION
The operating mode can be programmed via software or manually via the front display panel.
- ON LINE: efficiency up to 95%;
- ECO 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;
- STANDBY OFF: 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 STW 8000 and STW 10000;
- Output terminal board + 2 IEC sockets for powering local consumers (computers, devices, etc.);
- Simplified positioning (built-in castors).



HIGH BATTERY RELIABILITY
- Automatic and manual battery test.
- Proper battery care is critical to ensuring correct UPS operation in emergency conditions. The Riello UPS battery care system consists of a series of features and capabilities to optimise battery management and obtain the best performance and operating life possible;
- Unlimited extendible runtime using matching Battery cabinets;
- The batteries do not cut in during mains failures of <20 ms (high hold up time) or when the input supply is between 184 V to 276 V.

LOW IMPACT ON THE MAINS
Sinusoidal uptake of input current on single-phase/single-phase series.

RUNTIME EXPANDABILITY
Optional battery extension packs can be connected to increase UPS runtime.
In addition the Sentinel Tower range includes ER versions with no internal batteries and more powerful controlled battery chargers 6 A for longer runtimes.

OTHER FEATURES
- Advanced diagnostics: status, measurements and alarms available on new custom LCD display;
- Low noise (<45 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;
- Backfeed protection standard: to prevent energy from being fed back to the network;
- UPS digital updating (flash upgradeable).

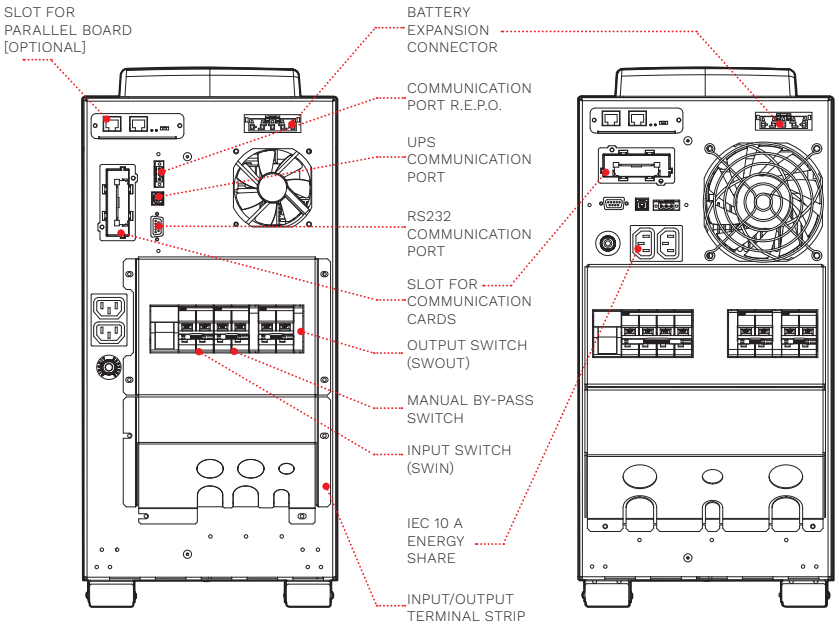
ADVANCED COMMUNICATIONS

- Compaatible with RielloConnect remote monitoring;
- Advanced multi-platform communications for all operating systems and network environments: PowerShield[3] monitoring and shutdown software for Windows operating systems 11, 10, 8, Server 2022, 2019, 2016 and previous versions, Windows Server Virtualization Hyper-V, macOS, Linux, Citrix XenServer and other Unix operating systems;
- RS232 serial and USB ports;
- Plug and play function;
- Slot for installation of communications boards.

DETAILS

STW 5000
STW 6000 - STW 6000 ER

STW 8000
STW 10000 - STW 10000 ER



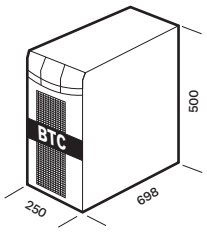
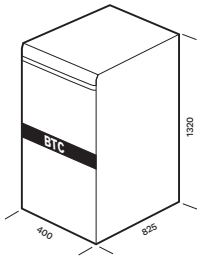
OPTIONS

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 MBB 100 A 2P

PRODUCT ACCESSORIES
Isolation transformer (WxDxH) mm / kg: 500x400x500 / 50 (only for STW 5000-6000 VA models)
Parallel kit

BATTERY CABINET

MODELS	BTC STW 180V BB A3 BTC STW 180V BB M1 BTC STW 240V BB A3 BTC STW 240V BB M1 BTC STW 240V AB A3	BTC 1320 180V BB B1 2F BTC 1320 240V BB B1 2F BTC 1320 240V AB B1 2F
Dimensions [mm]		

MODELS	STW 5000	STW 6000	STW 6000 ER	STW 8000	STW 10000	STW 10000 ER
INPUT						
Rated voltage [V]	220 / 230 / 240			380 / 400 / 415 (3W+N+PE) 220 / 230 / 240 (1W+N+PE)		
Voltage tolerance [V]	230 ±20%			400 ±20% / 230 ±20%		
Minimum voltage [V]	184			318 / 184		
Maximum operating voltage [V]	276			478 / 276		
Rated frequency [Hz]	50 / 60 ±5					
Power factor	>0.98					
Current distortion	≤5%[1]					
BYPASS						
Voltage tolerance [V]	180 / 264 (selectable in ECO Mode or SMART ACTIVE Mode)					
Frequency tolerance	Selected frequency ±5% (selectable by user)					
Overload times	<110% continuous, 130% for 1 h, 150% for 10 min, over 150% for 3 s					
OUTPUT						
Nominal power [VA]	5000	6000	6000	8000	10000	10000
Active power [W]	5000	6000	6000	8000	10000	10000
Rated voltage [V]	220 / 230 / 240 selectable					
Voltage distortion	<1% with linear load / <3% with non-linear load					
Frequency [Hz]	50 / 60 selectable					
Static variation	1.5%					
Dynamic variation	≤5% in 20 ms					
Waveform	Sinusoidal					
Crest factor [lpeack/lrms]	3:1					
BATTERIES						
Type	VRLA AGM maintenance-free lead based					
Recharge time	4-6 h					
OVERALL SPECIFICATIONS						
Net weight [kg]	62	63	25	78	84	28
Gross weight [kg]	68	69	31	84	90	34
Dimensions (WxDxH) [mm]	250x698x500					
Packaging dimensions (WxDxH) [mm]	300x800x702					
Efficiency	up to 95% ON LINE Mode, 98% ECO Mode					
Protections	Overcurrent - short circuit - overvoltage - undervoltage - temperature - excessive low battery					
Parallel operation	Optional Parallel Card					
Communications	USB / RS232 / slot for communications interface / R.E.P.O. + Input contact					
Input connection	Terminal board					
Output sockets	Terminal board + 2x IEC 320 C13 (10 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 - 111					
Ambient temperature for the UPS	0 °C - +40 °C					
Recommended temperature for battery life	+20 °C - +25 °C					
Range of relative humidity	5-95% non-condensing					
Colour	RAL 9005					
Noise level at 1 m (ECO Mode) [dBA]	<48					
Standard equipment provided	USB cable					
Moving the UPS	castors					

[1] *for single-phase input.*

DATSTWB1Y24EREN

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