



# Guard Tower



ONLINE



Tower



USB plug



Service 1st start



**1:1** 6-10 kVA/kW

## HIGHLIGHTS

- **Transformer based**
- **Small footprint**
- **Power factor 1**
- **Maintenance bypass**
- **Galvanic Isolation transformer**
- **High quality output voltage**

Guard Tower is the ideal solution for protecting mission critical systems such as safety devices, telecommunications equipment and IT systems to ensure maximum power reliability.

Guard 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 6-10 kVA/kW single/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, Guard Tower is one of the best UPS available on the market today: output power factor 1 to increase in efficiency of system and devices and reduce power system losses. Selectable ECO Mode functions; new custom diagnostics LCD display, RS232 and USB interfaces with PowerShield<sup>3</sup> software, ESD input, interface slot.

## RELIABILITY

- Total microprocessor and DSP control.
- Interruption-free static and manual bypass;
- Specifications guaranteed up to 104 °F/40 °C (the components are designed to work at high temperatures and thus are subject to less stress at normal temperatures).

## 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;
- ECO Mode: to increase efficiency (up to 98%), allows for the selection of LINE INTERACTIVE technology (VI) to power low priority loads from the mains 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 2.6:1);
- 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 with filters for the suppression of atmospheric disturbances);
- Power factor correction: UPS input power factor close to 1 and sinusoidal current uptake.

## SIMPLIFIED INSTALLATION

- Output terminal board;
- Optional PDU;
- 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;
- Extendible runtime using matching Battery cabinets;
- The batteries do not cut in during mains failures of <20 msec. (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.

## OTHER FEATURES

- Advanced diagnostics: status, measurements and alarms available on new custom LCD display;
- Low noise (<52 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);
- Back-feed protection standard: to prevent energy from being fed back to the network;
- UPS digital updating (flash upgradeable).

## ADVANCED COMMUNICATIONS

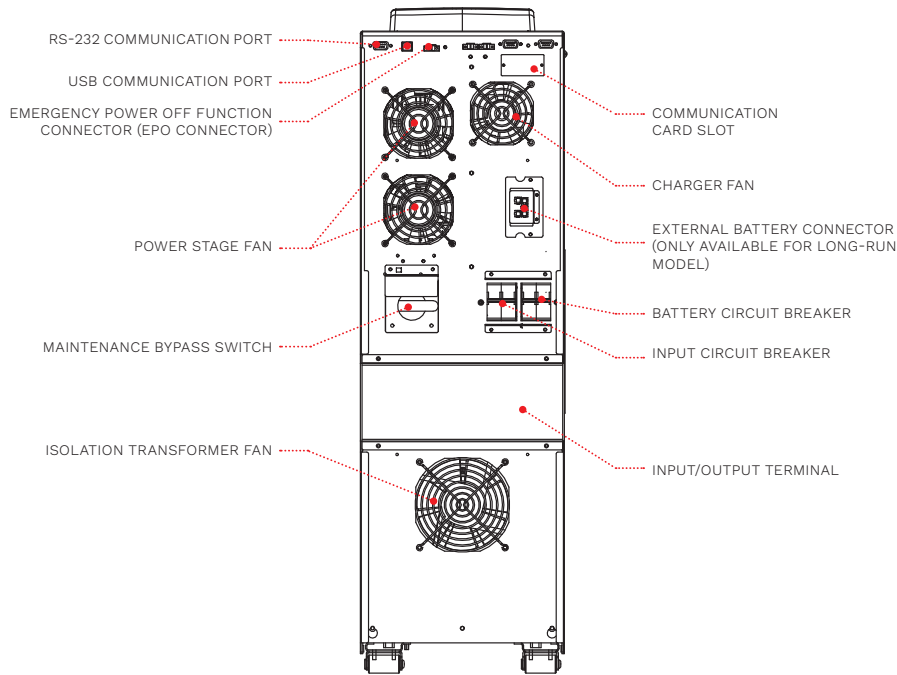
GUARD TOWER offers maximum flexibility for integrations with any communication system.

- Multiplatform communication for all operating systems and network environments, Powershield<sup>3</sup> supervision and shut-down software for Windows, Mac OS X operating systems and other Unix operating systems;
- RS232 serial port and opto-isolated contacts;
- USB port;
- Slot for TCP/IP, SNMP communication card;
- Surge voltage let-through (max)—< 10V normal mode (L-N), < 0.5V common mode (N-G) when subjected to 6kV ANSI/IEEE C62.41 Cat. A;
- Static switch—automatically transfers output from inverter to the isolated bypass source in the event of an overload or fault;
- Surge voltage withstand capability—ANSI/IEEE C62.41 Category A & B, 6kV/200 & 500A, 100kHz ringwave.



## DETAILS

### GTT 6000 - GTT 10000



## OPTIONS

### SOFTWARE

PowerShield<sup>3</sup>

PowerNetGuard

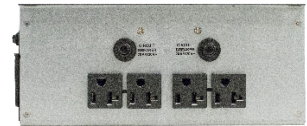
### ACCESSORIES

NETMAN 104

MULTICOM 184

Manual Bypass MBB 100 A

PDU box (see images below)



PDU box top view



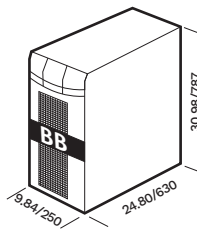
PDU box bottom view

## BATTERY CABINET

### MODELS

BB GTT 240V A3, BB GTT 240V A5, BB GTT 240V M1

Dimensions  
[inches/mm]



<b>MODELS</b>	<b>GTT 6000</b>	<b>GTT 10000</b>
<b>INPUT</b>		
Rated Power [VA]	6000	10000
Rated voltage [V]	208 / 220 / 230 / 240	
Voltage tolerance [V]	110 <Vin <300 @ 60% LOAD / 176 <Vin <300 @ 100% Load	
Frequency [Hz]	50 / 60	
Frequency tolerance [Hz]	60 ±5%	
Power Factor	>0.99	
Current distortion	≤6%	
<b>BYPASS</b>		
Voltage tolerance [V]	176 / 276	
Frequency tolerance [Hz]	Frequency selected (from ±0 to ±5 configurable)	
Number phases	1	
<b>OUTPUT</b>		
Rated power [kVA]	6	10
Active Power [kW]	6	10
Voltage [V] option UPS	240 plus neutral for a split of 120 / 120 or 230 plus neutral for a split 115 / 115	
Number phases	1	
Crest factor [I <sub>peak</sub> /I <sub>rms</sub> ]	2.6:1	
Waveform	Sinewave	
Frequency [Hz]	Can be selected: 60 or self-learning	
Voltage distortion with non linear load	≤6%	
Voltage distortion with linear load	≤2%	
<b>OVERLOAD TIMES</b>		
100% <Load <110%	10 min.	
110% = Load <130%	1 min.	
Load > 130%	1 sec.	
<b>BATTERIES</b>		
Type	VRLA AGM lead, maintenance-free	
Typical recharge time	6 h	
DC Voltage	240 VDC	
<b>ENVIRONMENTAL</b>		
Maximum altitude [ft/m]	11500 / 3500	
Color	Black	
Communications	USB / DB9 with RS232 and contacts / Slot for communication interface	
Safety compliance	UL1778:2014 and CSA C22.2 No. 107.3-14	
EMC conformance	CFR 47 FCC Part 15, Subpart B, Class A 2016	
Accessories provided	Power cable, serial cable, USB cable, safety manual, quick start, software downloadable	
Protection rating	IP20	
Surge capability [joule]	660	
Certification	Certified by TUV per UL 1778	
LINE-INTERACTIVE/SMART ACTIVE efficiency	98%	
Noise Level	<55 dB(A) at 3.3 ft / 1 m	<58 dB(A) at 3.3 ft / 1 m
Operating temperature	32 – 104 °F / 0 – 40 °C	
Relative humidity	<95% without condensation	
<b>OTHER</b>		
Weight [lbs/kg]	258 / 117	313 / 142
Dimensions (WxDxH) [inches/mm]	9.84x24.80x32.44 / 250x630x824	

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