



PowerGem™ Plus RT UPS 1kVA to 10kVA (1kW to 10kW)

-)) Data Centres
-)) Financial Services
-)) Healthcare
-)) Networking
-)) Telecommunications
-)) Mission Critical

The PowerGem Plus RT is a unique range of high density UPS Systems that can be installed whether on the floor in tower form or in rackmount cabinet configurations powering a wide range of applications.



- True online double conversion
- Digital Signal Processor (DSP) technology
- Wide input voltage (110V - 300V)
- Tower or Rackmount convertible design
- Unity output power factor (optional 0.9pf)
- Hot swappable battery design (optional for 6-10kVA)
- Intelligent self-diagnostics
- Pure Sinewave output
- Multiple communication ports
- Emergency Power Off (EPO) function
- Long runtime versions
- Automatic battery test function
- Configurable battery voltage (6-10kVA)
- ECO mode operation for energy saving
- Programmable frequency converter mode
- N+1, N+X redundancy (6-10kVA)
- Dust filter for hazardous environments



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PowerGem Plus RT Features

ADVANCED FUNCTIONAL LCD DISPLAY

The PowerGem Plus RT DSP controlled UPS provides an intelligent high density system suitable for powering a wide range of devices both simply and accurately.

A precise backlit comprehensive LCD display with schematic operation status of the UPS, LED indicators and function keys allowing all the key parameters, alarms and indications to be shown.



RACK/TOWER CONFIGURATION

The PowerGem Plus RT range is extremely versatile and designed to have the flexibility to use as a floor standing tower type UPS or to be integrated into the client's 19" rack cabinet.

The enhanced programmable LCD display can be manually positioned to suit both modes of operation by simply removing and rotating the display panel.



ENVIRONMENTALLY FRIENDLY ENERGY SAVING

The intelligent microprocessor based control system allows for the very low power consumption offered by the interactive ECO mode which provides efficiencies as high as 97%. With efficiency of 92% in inverter mode and over 90% in battery in battery it provides a much greener product with smaller battery and longer autonomy backup times.

PowerGem Plus RT switches instantaneously to online double conversion operation automatically when the mains becomes unstable and fluctuates outside the normal frequency and voltage parameters.

WIDE INPUT VOLTAGE

Part of the unique design of the PowerGem Plus RT is to improve the performance in extreme site conditions with a wide input voltage window, ranging from 110 volts to 300 volts, without the need for the system to transfer into Battery Mode.

HOT SWAPPABLE BATTERIES

A key advantage of the PowerGem Plus RT range of UPS is hot swappable batteries as this feature allows the user to replace batteries during operation without interruption to the load.



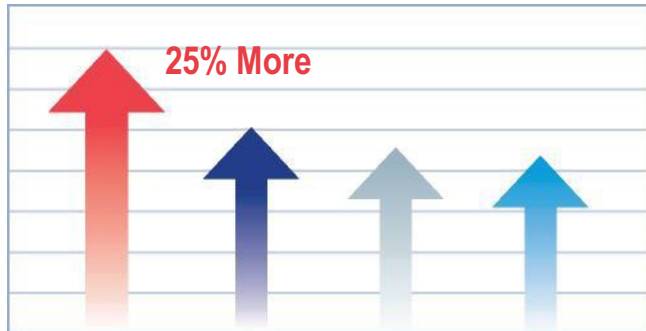


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PowerGem Plus RT Features

UNITY POWER FACTOR

The PowerGem Plus RT range adopts DSP and highly efficient electronic IGBT inverter technology providing one of the highest power density ratios in the UPS industry. Advanced inverter circuitry delivers unity power factor maximising power output.



PARALLEL READY N+X REDUNDANCY

The PowerGem Plus RT 6-10KVA models are able to be connected directly to the user's distribution system. Models can be used in simple parallel operation with up to 4 units, allowing scalability for increased power capacity and improved reliability due to the redundancy operation. The parallel system can be connected to a common battery if required.



PROGRAMMABLE FREQUENCY CONVERTER

The PowerGem Plus RT range may be used as a frequency converter. Simple programming through the front LCD panel will allow you to lock the output frequency at 50Hz or 60Hz to suit frequency sensitive equipment.

CONFIGURABLE BATTERY VOLTAGE

Each 6-10KVA UPS within the range has the flexibility to configure battery voltages from a 20 block system to either 16 or 18 blocks depending on application and runtime requirements.

COMMUNICATION INTERFACE

This feature will allow either the USB or RS232 communication port to work with an SNMP simultaneously. The internal slot is provided for remote control and monitoring agents like SNMP or relay cards.



LOW NOISE LEVEL

More often the PowerGem Plus RT range will be installed in an office workspace and the environment will be an important factor in the design. Therefore, by using modern high frequency technology the noise dissipation is reduced to less than 50dBA for smaller units.

LONG RUNTIME APPLICATIONS

For mission critical applications requiring longer runtimes additional matching battery cabinets can be added. These have been designed both technically and aesthetically to complement the UPS, forming a combined unit which can be easily located without the need for special site considerations.

For business continuity requiring very long runtimes the PowerGem range offers larger built-in chargers which can be adjusted from the LCD control panel to provide faster recharge capability.





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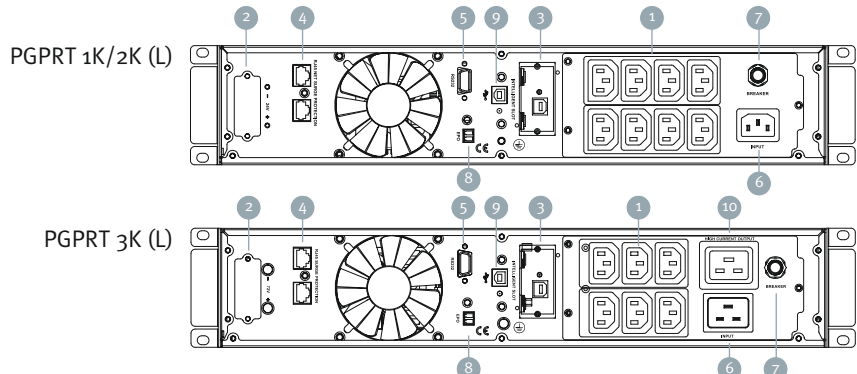
PowerGem Plus RT

Technical Specification for the 1-3kVA



MODEL	PGPRT 1000 (L)	PGPRT 2000 (L)	PGPRT 3000 (L)	
Power Rating VA / Watts	1000VA / 1000W	2000VA / 2000W	3000VA / 3000W	
INPUT				
Nominal Voltage	200 / 208 / 220 / 230 / 240 Vac			
Voltage Range	110 - 300 Vac (load dependent)			
Frequency Range	40 - 70 Hz			
Power Factor	>0.99 @ 100% Load			
OUTPUT				
Nominal Voltage	>200 / 208 / 220 / 230 / 240 Vac			
AC Voltage Regulation (Battery Mode)	±1%			
Frequency Range (Synchronised Range)	47 - 53 Hz or 57 - 63 Hz			
Frequency Range (Battery Mode)	50/60 Hz ±0.1% Hz			
Crest Factor	3:1			
Harmonic Distortion (Linear Mode)	≤3% THD			
Transfer Time (AC to Battery)	Zero			
Waveform	Pure Sinewave			
EFFICIENCY				
AC Mode	>88%	>92%	>92%	
ECO Mode	>95%	>97%	>97%	
Battery Mode	>86%	>88%	>90%	
BATTERY				
Battery Type	VRLA AGM Sealed Lead Acid Maintenance Free Batteries			
Battery DC Voltage	24 or 36 volts	48 volts	72 volts	
Typical Recharge Time	4 hours recover to 90% capacity			
Charging Current (max.)	Standard Models	1A		
	Long Runtime Models	12A adjustable by LCD display		
GENERAL				
Operating Humidity	20 - 90% RH @ 0 - 40°C (non-condensing)			
Acoustic Noise Level	<50 dB @ 1 metre			
Management Software	Included			
Standard Model	Dimensions (mm) WxDxH	438 x 305 x 88	438 x 460 x 88	438 x 600 x 88
	Net Weight (kgs)	11.3	19.1	26.2
Long Runtime Model	Dimensions (mm) WxDxH	438 x 305 x 88	438 x 435 x 88	
	Net Weight (kgs)	5.6	8.3	8.6

- 1 Output Receptacles (10A)
- 2 Battery Terminal
- 3 SNMP Intelligent Slot
- 4 Network/Fax/Modem Surge Protection
- 5 RS-232 Communication Port
- 6 AC Input
- 7 Input Circuit Breaker
- 8 EPO
- 9 USB Communication Port
- 10 Output Receptacle (16A)





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PowerGem Plus RT

Technical Specification for the 6-10kVA



MODEL	PGPRT 6000	PGPRT 10K
Power Rating VA / Watts	6kVA / 6kW	10kVA / 10kW
INPUT		
Nominal Voltage	220 / 230 / 240 Vac	
Voltage Range	120 - 276 Vac (load dependent)	
Frequency Range	42 - 55 Hz at 50 Hz / 54 - 66 Hz at 60 Hz (auto sensing)	
Power Factor	>0.99 @ 100% Load	
OUTPUT		
Nominal Voltage	220 / 230 / 240 Vac	
AC Voltage Regulation (Battery Mode)	±1%	
Frequency Range (Synchronised Range)	45 - 65 Hz (auto select)	
Frequency Range (Battery Mode)	50/60 Hz ±0.1 Hz	
Crest Factor	3:1	
Harmonic Distortion (Linear Mode)	≤3% THD	
Transfer Time (AC to Battery)	Zero	
Waveform	Pure Sinewave	
EFFICIENCY		
AC Mode	>92.5%	
ECO Mode	>97.3%	
Battery Mode	>89%	>88%
BATTERY		
Battery Type	VRLA AGM Sealed Lead Acid Maintenance Free Batteries	
Battery DC Voltage	External matching battery cabinet – 192/216/240 volts	
Typical Recharge Time	4 hours recover to 90% capacity	
Charging Current (max.)	10A adjustable by LCD display	
GENERAL		
Operating Humidity	20 - 90% RH @ 0 - 40°C (non-condensing)	
Acoustic Noise Level	<55 dB @ 1 metre	
Management Software	Included	
UPS Module	Dimensions (mm) WxDxH	438 x 725 x 88
	Net Weight (kgs)	15
BCRT20No09 Battery Cab.	Dimensions (mm) WxDxH	438 x 585 x 133
	Net Weight (kgs)	64

- ① Input and Output Terminals
- ② Battery Terminal
- ③ SNMP Intelligent Slot
- ④ PDU Communication
- ⑤ RS232 Communication Port
- ⑥ EPO
- ⑦ USB Communication Port
- ⑧ Parallel Port 1
- ⑨ Parallel Port 2

