

PowerGem™ Plus RT

Single Phase Input & Output – True Online Double Conversion UPS
1kVA – 10kVA

- » Sophisticated
- » Versatile
- » Green Concept Design

VFI



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The BPC 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.

The PowerGem is an ultra efficient system resulting in improved operational performance up to 97% in ECO mode, 93% in inverter mode and over 91% in battery mode, providing a much greener product with smaller battery and longer autonomy backup times.

The range is equipped with the latest digital signal processor (DSP) technology with versatile features demanded by IT managers enabling integration into all types of networking environments.

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

PowerGem Plus RT Features

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.



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 provides schematic operation status of the UPS, LED indicators and function keys allowing all the key parameters, alarms and indications to be shown.



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%. 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.

- True online double conversion
- Digital Signal Processor (DSP) technology
- Wide input voltage 110V – 300V (load dependant)
- Tower or Rackmount convertible design
- Unity output power factor (optional 0.9pf)
- All units have conformal coating electronics
- 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 (only 6-10kVA)
- ECO mode operation for energy saving
- Programmable frequency converter mode
- Scalable redundancy parallel ready (only 6-10kVA)
- Dust filter for hazardous environments (optional)
- Lithium-ion batteries optional

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 (load dependant), without the need for the system to transfer into Battery Mode.

HOT SWAPPABLE BATTERIES

A key advantage of the PowerGem Plus RT (1-3kVA) range of UPS is hot swappable batteries as this feature allows the user to replace batteries during operation without interruption to the load.

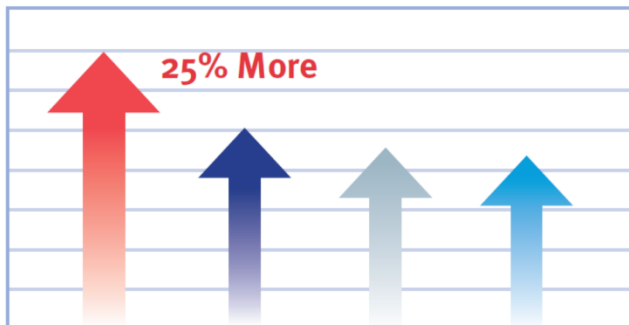


**Lead-acid batteries only*

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 BPC philosophy is both simple and elegant with each model provided parallel ready. The UPS can be connected together without any requirement to install further control circuits into the UPS system. BPC would always recommend installing one of our parallel switch panels to provide correct cable protection and aid all ongoing maintenance. 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.



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 (capacity reduction).

COMMUNICATION INTERFACE

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



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.

Both Lead Acid (VRLA) and Lithium Ferro Phosphate (LFP) battery options are available.



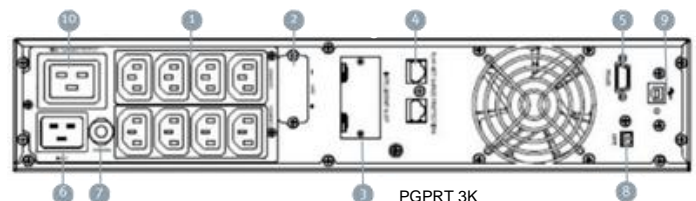
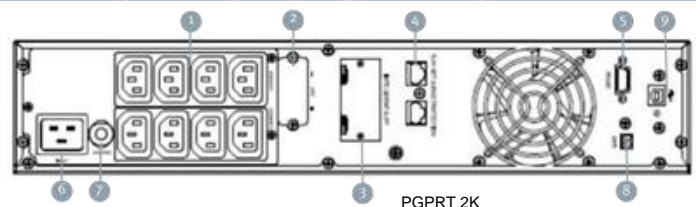
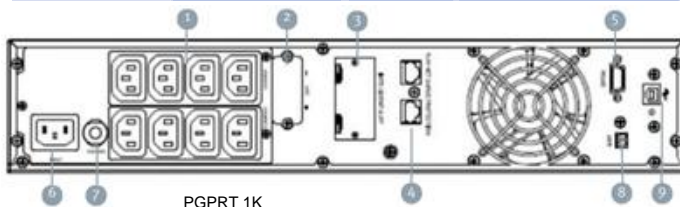
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PowerGem Plus RT

Technical Specification for the 1-3kVA



MODEL RANGE		PGPRT 1000 (L)				PGPRT 2000 (L)			PGPRT 3000 (L)		
INPUT											
Nominal Voltage		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)		46 - 56 or 56 - 64 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		>90%		>91%			>91%				
ECO Mode		>95%		>96%			>97%				
Battery Mode		>86%		>87%			>88%				
BATTERY											
Battery Type		VRLA AGM Sealed Lead Acid Maintenance Free Batteries									
Battery DC Voltage		24 volts	36 volts		48 volts			72 volts			
Typical Recharge Time		4 hours recover to 90% capacity									
Charging Current (max.)	Standard Models	1A									
	Long Runtime Models	N/A	12		6			12			
GENERAL											
Operating Humidity		20 - 90% RH @ 0 - 40°C (non-condensing)									
Acoustic Noise Level		<55 dB @ 1 metre									
Management Software		Included									
		PGPRT V3	PGPRT V1	PGPRT V2	PGPRT V3	PGPRT V1	PGPRT V2	PGPRT V3	PGPRT V1	PGPRT V2	PGPRT V3
Standard Model	Dimensions (mm) WxDxH	438 x 325 x 88	438 x 460 x 88			438 x 460 x 88			438 x 600 x 88		
	Net Weight (kgs)	11.3	14			19.1	19.5		26.2		
Long Runtime Model	Dimensions (mm) WxDxH	N/A	438 x 325 x 88 standard 36Vdc only			438 x 435 x 88	438 x 600 x 88	438 x 460 x 88	438 x 435 x 88	438 x 600 x 88	
	Net Weight (kgs)	N/A	5.6			8.3	10.5	9.9	8.6	11	



- 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)

PowerGem Plus RT

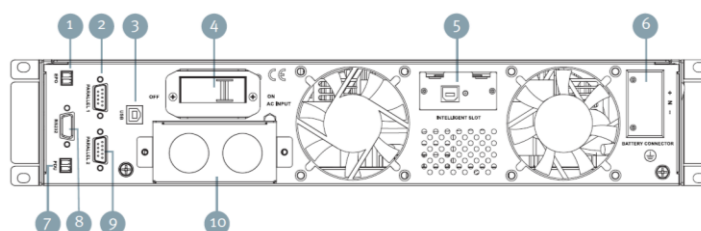
Technical Specification for the 6-10kVA



MODEL		PGPRT 6000		PGPRT 10K	
Power Rating VA / Watts		6kVA / 6kW		10kVA / 10kW	
INPUT					
Nominal Voltage		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		208 / 220 / 230 / 240 Vac			
AC Voltage Regulation (Battery Mode)		±1%			
Frequency Range (Synchronised Range)		46 - 56 Hz or 56 - 64 Hz			
Frequency Range (Battery Mode)		50/60 Hz ±0.01 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%		93%	
Battery Mode		91%			
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			
		PGPRT V1	PGPRT V2	PGPRT V1	PGPRT V2
UPS Module	Dimensions (mm) WxDxH	438 x 725* x 88			
	Net Weight (kgs)	15		16	18
BCRT20N009S Battery Cab.	Dimensions (mm) WxDxH	438 x 680 x 133			
	Net Weight (kgs)	64		64	
BCRTN009-1 Battery Cab.	Dimensions (mm) WxDxH	438 x 680 x 133			
	Net Weight (kas)	63.60			

- 1 EPO
- 2 Parallel Port 1
- 3 USB
- 4 Input breaker
- 5 Intelligent slot
- 6 Battery slot
- 7 External Maintenance Bypass Switch connector (EMBS)
- 8 COM (RS232)
- 9 Parallel Port 2
- 10 Terminal

PGPRT 6K/10K



*625mm UPS cabinet only. 725mm including metal cable gland back box.

BPC is an international company operating for over 28 years globally, with partners and distributors located around the world.

These regions include:

EUROPE

UK, France, Germany, Gibraltar, Ireland, Netherlands, Malta, Norway, Portugal, Russia.

MIDDLE EAST

Bahrain, Georgia, Iraq, Jordan, Kuwait, KSA, Lebanon, Oman, Qatar, Syria, Turkey, UAE, Yemen.

AFRICA

Algeria, Botswana, Burkina Faso, Democratic Republic of the Congo, Egypt, Ethiopia, Ghana, Kenya, Libya, Mozambique, Nigeria, Rwanda, Sierra Leone, South Africa, Sudan, Tanzania, Uganda, Zambia.

FAR EAST & ASIA

India, Pakistan, Sri Lanka, Indonesia.

To ensure a high level of pre and post sales support is offered, BPC work closely with distributors, providing key commercial and technical training whilst providing competitive costing structures tailored to specific region markets, ensuring the most suitable BPC products are offered. We pride ourselves on long standing relationships with our partners which is reflected in the ongoing support provided locally.



THE BRITISH POWER CONVERSION COMPANY™

Authorised Distributor