



Our Power, Your Confidence

# POWER+



## The Next Generation UPS System 10kVA to 100kVA

- ▶ True On-line
- ▶ Parallel
- ▶ Redundant
- ▶ Double-conversion
- ▶ Modular
- ▶ Green and clean power
- ▶ High efficiency

Power+ is a state-of-the-art modular UPS system based on the *true on-line battery* topology. The Power+'s modular design makes scalability simple; its high power density provides the benefits of a small footprint and low heat dissipation. The Power+'s rich management and communication capabilities include remote monitoring and control over the Internet or via cellphone. Its hybrid static switch ensures high reliability and compliance with IEC standards.



**CE** RoHS  
Compliant



## The UPS That Grows With Your Business

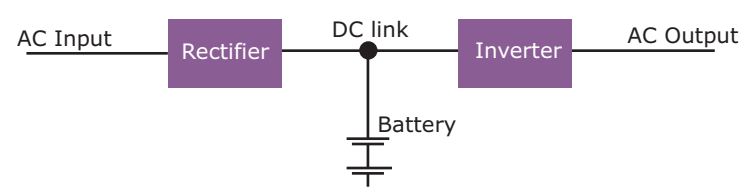
Power+ is a true modular, user-upgradeable system. As load increases you can insert up to a total of ten 10 kVA hot-swappable plug-in modules, each weighing only 9 kg. The Power+ can be configured in parallel for N+1 or N+2 redundancy.

## True On-Line Battery

The Power+ inverter complies with the IEC-62040-3 standard by its ability to take its input power from either the ac input (via the rectifier) or the battery, and supply power to the load. The rectifier is software-controlled to recharge the battery and maintain it in a charged condition. The battery is galvanically connected between the rectifier output and the inverter input on a common DC link (see diagram on the right).

### Double Conversion True On-Line Battery (VFI)

According to IEC 62040-3



## Parallel POWER+ Systems

Connecting two or more POWER+ units in a parallel configuration provides increased reliability and greater output power capacity. POWER+ units equipped with the optional parallel kit share the load evenly and make the POWER+ parallel modular architecture even more dependable. Parallel POWER+ units can be configured with decentralized static switches or a centralized static switch. Either arrangement ensures zero downtime even during maintenance procedures.

PSM-POWER+ main screen



POWER+ Controller



## Applications

- ▶ Local Area Networks
- ▶ Servers
- ▶ Data centers
- ▶ Industrial PLCs
- ▶ Industrial Processes
- ▶ Cash registers
- ▶ Emergency Devices (lights/alarms)
- ▶ Telecom facilities
- ▶ E-business

# Technical Specifications

Topology	True Online Battery, Double Conversion VFI									
Construction	Modular parallel hot-plugged modules, continuous operation									
<b>INPUT</b>										
Voltage	3 X 380/400V+N									
Voltage Range	-27% ÷ +20%									
Current	15A per phase for a single module, no inrush current at startup									
Frequency	47-63Hz									
Power Factor	0.99									
THDI	5%									
<b>OUTPUT</b>										
Rated Power	10kVA/8kW to 100kVA/80kW									
Frequency Tracking Range	±0.5, ±1, ±2, ±3, ±4Hz (selectable)									
Frequency (in free-running mode)	50/60Hz ±0.1%									
Slew Rate	1Hz/sec									
Voltage	3 X 380/400V+N adjustable									
Static Regulation	±1Hz									
Regulation for Unbalanced Load	±1% for 100% unbalanced load									
Dynamic Response to 100% Load Step	±2%, <1ms recovery time									
Overload	110% for 10 min.; 125% for 60 sec.; 1000% for 1 cycle									
Waveform	Sinusoidal									
THD	Less than 2% for linear load									
Load CF (max)	6:1									
AC-AC Efficiency (nominal)	Up to 96%									
DC-AC Efficiency (nominal)	Up to 98%									
<b>BATTERIES</b>										
DC-Link Voltage	± 432V									
Number of Batteries	2 x 32 x 12V									
<b>GENERAL</b>										
Maximum Power Dissipation (Po=8KW)	333W (1136 BTU) for a single module									
Ambient Temperature	-10 <sup>0</sup> to +40 <sup>0</sup> (operating); -20 <sup>0</sup> to +60 <sup>0</sup> (storage)									
Relative Humidity	95% max non-condensing									
Altitude	1500m w/o derating									
Enclosure	IP20									
Cooling	Forced - multi-fan with speed control									
<b>STANDARDS</b>										
EMC Emission	EN50091-2 Class A ; IEC 62040-2									
EMC Immunity	EN50082-2									
Safety	EN50091-1 ; IEC 62040-1-1									
Design	EN50091-3 ; IEC 62040-3									
Low Magnetic Field Radiation	EMF as per ICNIRP									
<b>DIMENSIONS</b>										
<b>10kVA Module</b> (H x W x D)	88mm (2U) x 483mm (19") x 455mm									
Weight	9kg									
<b>POWER<sup>+</sup> System</b> (incl. STSW and base modules)										
Model	10kVA	20kVA	30kVA	40kVA	50kVA	60kVA	70kVA	80kVA	90kVA	100kVA
Dimensions (cm) H	69	79	88	97	107	116	125	135	144	154
W	60									
D	69									
Weight (kg)	98	113	128	143	158	173	188	203	218	233
<b>ACOUSTIC NOISE</b> (@1.5m from front of unit)										
Noise (dBA) half load	48	52	53	54	55	55.8	56.4	57	57.5	58
Noise (dBA) full load	51	54	55	57	58	58.8	59.4	60	60.5	61

\*All specifications are subject to change without prior notice

# POWER+ VERSIONS



## POWER+ 19"

### True On-line double-conversion modular UPS for a 19" rack, 10kVA-20kVA

A 19" variant of the Power+ UPS, which can be inserted in any standard 19" rack, for a lower cost configuration of 10kVA and 20kVA UPSs. It is available in two configurations, with one or two Power+ modules.



## POWER+ SA

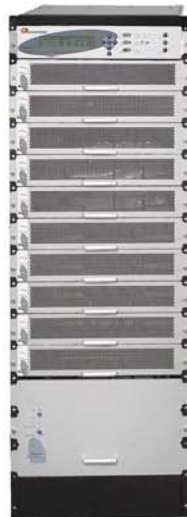
### Stand-alone True On-Line double-conversion UPS

A stand-alone 10kVA version of the Power+ UPS, in a unique light and compact design, weighing only 18 kg.

## POWER+ Free Style

### True On-line double-conversion modular UPS for a 19" rack, 50kVA-100kVA

This is a 19" variant of the Power+ UPS, which can be inserted in any standard 19" rack, available in two configurations: 50kVA (5 Power+ modules), with a height of 20U and 100kVA (10 Power+ modules), with a height of 30U.



## POWER+ Battery Cabinets



Our new standard battery cabinet combines safety and flexibility with easy battery access. The cabinet can be ordered assembled, or in kit format to reduce shipping costs.

Battery Capacity	No. of Cabinets for POWER+*	Dimensions (DxWxH) mm of each cabinet
64x17/20Ah	2 Pcs (each cabinet includes 32 batteries)	243x740x1300
64x24/26/38/40Ah	2 Pcs (each cabinet includes 32 batteries)	300x970x1700
64x65/90Ah	4 Pcs (each cabinet includes 16 batteries)	420x800x1100

\*Cabinets can be installed side by side or back to back

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