



POWER+

MODULAR UPS SYSTEM 10 - 100 KVA

- True Modularity
- True Rightsizing
- True Green Power
- True On Line



GAMATRONIC, A SolarEdge Division

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True Modularity

Maximum Power Availability

Owing to its modular N+1 structure, Power+ guarantees load integrity and minimizes the possibility of load failure.

Minimum MTTR

Designed from the ground up for cost savings, Power+ is a completely modular solution. Each 10 KVA module is entirely self-contained and ready for hot-swapping – without complex and expensive stocks of components, subsystems, and spare parts.

True Rightsizing

As opposed to costly and complex N+n solutions, Power+ is comprised of 10KVA building modules. Built to grow as business grows, modular Power+ enables purchase of the capacity required today, while expanding tomorrow by simple module addition.

True Green Power and

High Efficiency

Power+'s UPS rightsizing enables significant reduction of energy loss, with efficiency directly influenced by load level.

Designed for highly-economical energy consumption, Power+ is a perfect fit in your data center and server room. Offering efficiency of up to 94%, a THDi of 3% on typical load, and input P.F 1 without harmonic filter, Power+ delivers:

- Significant energy savings
- Lower cooling costs
- Smaller generator sizing

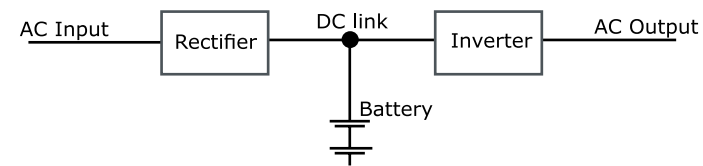
True Online Batteries Double Conversion VFI Topology

Complying with IEC-62040-3 standards, highest classification VFI-SS-111, the Power+ features a galvanic battery connected between the rectifier output and the inverter input on a common DC link, resulting in:

- Maximum reliability
- No transfer time to battery mode
- No need for separate battery charger

Double Conversion True On-Line Battery (VFI)

According to IEC 62040-3



Lower TCO & High ROI

- SAVE ON purchasing & installation costs
- SAVE ON electricity costs
- SAVE ON maintenance costs
- SAVE ON cooling costs
- SAVE ON space costs
- SAVE ON upscaling costs
- SAVE ON generator costs

Power with environmental integrity

Gamatronic understands that energy-savings is not only a matter of cost-savings, but also of social responsibility. Power protection solutions from Gamatronic are based on green, clean, and globally responsible energy technology that meets and exceeds power requirements - while minimizing environmental impact.

INTEGRAL MULTI-SYSTEM

Parallel Connectivity

Power+ features optional built-in system parallel connectivity, enabling parallel-redundant connection of multiple systems up to 400KVA for data centers, industrial sites and large service operators that require the highest levels of resilience and availability.

Decentralized Static Switch for Parallel Operation

In a parallel system configuration, Power+ systems operate in a decentralized mode, wherein all system internal static switches are synchronized. This ensures that all units can transfer to static switch bypass simultaneously, without the addition of external static switches – lowering expenses, and eliminating a significant potential point of failure.

Ultrahigh Power Density

Weighing only 21Lbs and measuring vertically 2U, lightweight 10KVA Power+ modules are easily handled by the individual technician. Offering complete power system density of 2W/inch³, Power+ provides high power density with a space-saving footprint.

Universal UPS

Power+ offers all the benefits and power of a universal UPS, including:

- Frequency: 50/60 Hz
- Voltage: 3x208 V + N + G (5 wire system)
- Site configurable phases: 3/3; 3/2, 2/2*

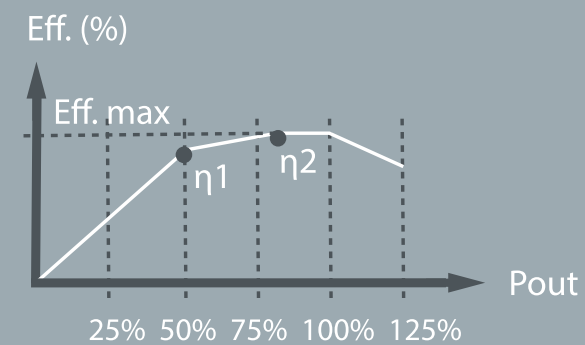
*2/2 phase configuration is limited in capacity

User Friendly

Designed for usability, modular Power+ offers:

- A user-friendly controller with all communication and control options easily accessible
- Intelligent battery handling that helps prolong battery life
- Simple maintenance procedures
- Notably quiet operation significant potential point of failure.

Efficiency = Pout/Pin



A typical 1+1 50kVA system operates at less than 50% load, therefore efficiency is low (η1)

An N+1 50kVA Power+ system operates at $x 100 = 83.3\%$ load

Conclusion: the efficiency of an N+1 redundant Power+ system is higher (η2)

POWER + MODELS

POWER+ CLASSIC

Power+ Classic is an electrically and mechanically modular 10-100KVA UPS system, uniquely designed to grow flexibly as power requirements grow. Easily upgradable on-site through addition of plug-and-play 10KVA modules, Power+ offers the optimal combination of efficiency, economy, and usability – and boasts the industry’s lowest TCO (Total Cost of Ownership) and fastest ROI (Return on Investment).

Capacity (kVA)	10KVA	20KVA	30KVA	40KVA	50KVA	60KVA	70KVA	80KVA	90KVA	100KVA
Dimensions (Inch)										
Power+ Classic M100 10 Slot										
H (in)	64.6									
W (in)	22.6									
D (in)	39									
Weight (Lbs)	362	384	407	429	452	474	497	519	542	564
Power+ Classic M50 5 Slot										
H (in)	42.1									
W (in)	22.6									
D (in)	27.2									
Weight (Lbs)	269	292	314	337	359	-				

* Diversified assembly options are available. See the supplemental products section for internal battery cabinet options & dimensions.



POWER+ RM

A complete IT solution based on the Power+ True On-line double-conversion modular UPS.

RM50: 10kVA-50kVA UPS with maintenance bypass and hot-swappable batteries in a single rack.

RM100: 10kVA-90kVA N+1 UPS with maintenance bypass in a single rack.

Hot-swappable batteries in a matching rack are available.



Power+ RM 100KVA

Power+ RM 50KVA

Power+ RM Hot swappable
Matching battery Cabinet

Capacity (kVA)	10	20	30	40	50	60	70	80	90	90(N+1)
Dimensions (Inch)										
H	42U / 80" (including cabinet wheels / levers)									
W	24"									
D	39.4"									
Weight (Lbs) (w/o batteries)										
RM 50	766	788	811	833	856	-	-	-	-	-
RM 100	424	446	469	491	514	536	559	581	604	626

POWER+SPECIFICATIONS

Topology	True Online Battery, double-conversion, VFI									
Construction	Modular parallel hot-plugged modules, continuous operation									
INPUT										
Voltage	3x208 V+N+G (5 wires system)									
Voltage range	-25% ÷ +15%									
Current	Max. 28A per phase for a single module, no inrush current at startup									
Frequency	47 ÷ 63Hz									
Power factor	1									
THDI	<5% at full load									
OUTPUT										
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	3x208V+N (adjustable)									
Static regulation	±1%									
Regulation for unbalanced load	±1% for 100 % unbalanced load									
Dynamic response to 100 % load step	±2 %									
Overload	110 % for 10 min; 125 % : for 60 sec; 1000 % for 1 cycle									
Waveform	Sinusoidal									
THD	Less than 2% for inear load									
Load CF (max)	4:1									
AC-AC efficiency(nominal)	Up to 94%									
DC-AC efficiency(nominal)	Up to 97%									
BATTERIES										
DC-Link voltage	±216V									
Number of batteries	32x12V									
GENERAL										
Maximum power dissipation (W, Po=8KW)										
Ambient temperature	-10° to +40° (operating), -20° to +60° (storage)									
Relative humidity	95% max. non-condensing									
Altitude	4921 Feet w/o derating									
Enclosure	IP20									
Cooling	Forced- multi-fan with speed control									
STANDARDS										
EMC	IEC 62040-2, under EMC 2004/108/EC									
Design	IEC 62040-3									
Safety	IEC 62040-1, under LVD 2006/95/EC									
Low magnetic field radiation	EMF as per ICNIRP									
ACOUSTIC NOISE (@5 Feet from front of unit)										
	10kVA	20kVA	30kVA	40kVA	50kVA	60kVA	70kVA	80kVA	90kVA	100kVA
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 advance notice.

SUPPLEMENTAL PRODUCTS

Internal Battery Cabinets and Batteries

Gamatronic's standard battery cabinets combine safety and flexibility with easy battery access.

BATTERY CAPACITY	POWER+ MODEL	DIMENSIONS (HxWxD) of each cabinet
32x7Ah Power+	Classic (up to 3 cab.)	10.5"X22.2"X27"
32x7 Ah 19"	power+ 19" (up to 3 cab.)	10.5"X19"X27"
2x32x20 Ah	Power+ classic	36.4"X23.3"X29.8"
2x32x40 Ah 19"	Power+ RM	24"X42UX39.4"

MANAGEMENT

Power+ Controller

All Power+ systems are supplied with an integral Power+ Controller that enables full remote UPS management through web access. This includes display of active alarms and alarm log access, automatic server shutdown, email alerts, and management of SNMP trap for interface with NMS software. Together with the optional external cellular modem, Power+ can also provide SMS alerts and enable remote cellular commands.

PSM

PSM P+ is Windows-based shutdown software supported by WIN 2000/XP/2003, installed on a local PC and connected to P+ in the LAN. Shutdown of all Unix-based and Netware computers is supported through the master computer.

Communication device combining power system monitoring with valuable extras

G5 is a communication device that combines power system monitoring with:

- Input voltage-free contacts, tracking external sensors and devices
- Output voltage-free contacts opening and closing external circuits
- Voltage and current measurements

Like GMAC5, G5 includes a built-in, password-protected web interface, accessible locally or remotely through any web browser. The end-user will be informed of alarm conditions through email and SMS, as well as by monitoring the web interface. The interface is simple and intuitive, making the configuration of G5 straightforward.



G5 provides remote monitoring of all current Gamatronic UPSs and Gamatronic power systems.



Gamatronic, A SolarEdge Division, provides reliable and flexible power solutions to ensure optimal power efficiency. Contact us for more information. Let our team of experts find a solution that would best serve your needs.

Our Power, Your Confidence

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