



## THE NEXT GENERATION IN MODULAR UPS

# GAMATRONIC POWER +

The Gamatronic Power + three-phase UPS system employs a single-unit form factor that conserves data-center floor space, and its lightweight, user friendly, 10kVA modules provide simple, reliable low-cost expansion to meet your growing power needs. Because the Power + is modular and scalable, you conserve capital – only investing in capacity when you need it. The Power + operates at super-high 94% efficiency, which means less heat and lower cooling costs, too.

## POWER+ M50 SERIES

### INTERNAL BATTERY MODELS

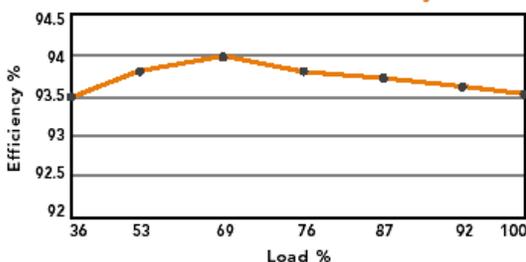
#### THREE-PHASE 10 - 30kVA UPS

#### SINGLE-PHASE 7.5 – 22.5kVA UPS

Modular • Scalable • Hot-Plug • Hot-Swap • N+1 Redundancy • Affordable

- Double-conversion power provides completely clean, consistent AC output to the data center power bus.
- True online battery is galvanically connected to the rectifier and inverter on a common DC link for increased reliability.
- Hot-plug, hot-swap system enables power modules and controller to be added or swapped without interruption of output power and without transferring to bypass.
- Scalability enables UPS to grow in 10kVA steps with your expanding power protection needs.
- Field configurable for 120/208 VAC or 120/240 VAC single-phase, or 120/208 VAC three-phase operation.
- Allows cost-effective N+1 or N+2 redundancy, ensuring that the load will continue to be supported even if a module fails.
- Hybrid static switch ensures fastest, safest transfer to backup with long term reliability.
- Lightweight power modules are only 2U and 22 lbs. each.
- Highest AC – AC efficiency rating of 94% results in lower energy costs and reduced heat.
- System controller provides advanced management and control functions including Internet, TCP/IP, and SNMP communications standard. System can operate with controller damaged or removed.
- Internal battery saves valuable data center floor space.
- Rotary and three-breaker maintenance bypass switches available.

Power+ AC to AC Efficiency



<b>POWER +M50 THREE-PHASE TECHNICAL SPECIFICATIONS</b>			
<b>Model M50</b>	<b>10kVA</b>	<b>20kVA</b>	<b>30kVA</b>
Capacity (kVA / kW)	10 / 8	20 / 16	30 / 24
Topology	On-Line Double-Conversion Modular Redundant with Hybrid Central Static Switch		
<b>Input</b>			
Voltage	208V Three-Phase, L1, L2, L3, N		
Voltage Range	-25% TO +15%		
Current	29.6 Amps per 10kVA Module – No inrush current at Startup		
Frequency (Hz)	47 – 63		
Power Walk In	> 60 Seconds		
Current Distortion (THDI)	5% at full load		
Input Power Factor	0.99		
<b>Output</b>			
Voltage	120 / 208 Three-Phase, L1, L2, L3, N		
Current	27.8 Amps Per 10kVA Module		
Frequency Tracking Range	60Hz +/- 2 Hz		
Static Regulation	+/- 1%		
Regulation for Unbalanced Load	+/- 1% for 100% Unbalanced Load		
Dynamic Response to 100% Step Load	+/- 2%		
Overload	110% for 10 min; 125% for 60 sec; 1000% for 1 cycle		
THD	Less than 2% for linear load		
Load Crest Factor (Max)	4:1		
Efficiency (Nominal)	AC/AC 94% on-line, DC/AC 97%		
<b>Static Switch</b>			
Type	Hybrid 50kVA Static Switch with Auto Wrap-around Contactor		
Control Connections	EPO Connection (powered NC) and Load on Bypass (dry contacts NC)		
<b>General</b>			
Ambient Temperature	14°F to 104°F (operating), -4°F to 140°F (storage)		
10kVA/8kW Module Weight (lbs)	22		
UPS Dimensions (H x W x D)	51.8" x 23.6" x 29.2" (2 slot model) 66.1" x 23.6" x 29.2" (3 slot model)		
UPS System Weight (lbs.)			
2 slot model	774	796	--
3 slot model	1048	1070	1092
UPS Shipping Weight (lbs.)	Add 150 lbs to System Weight		
Acoustic Noise (Full Load) @ 1.5M (dB)	51	54	55
Maximum Heat Dissipation (btu/h)	1740	3480	5220
<b>Power+ Controller</b>			
Display	4x40 Character LCD with Backlight		
Input Channels	4 Digital, 8 Analog		
Output Contacts	4 Dry Contacts		
System Operation without Controller	Continuous without disruption		
On Screen Parameters	Load Bar Graph, UPS Module Status, Static Switch Status, Battery Temperature Sensor		
Power Meter	Input and Output kW, kVA, and PF		
Alarms	Module Failure, AC Alarm, DC Alarm, On Bypass, Battery Test Fail, Overload, Over/Under Temp		
Log (events memory)	255 Events		
Communications	SNMP / Web Interface, TCP/IP Standard		
<b>Standards</b>			
EMC Emission	IEC62040-2; FCC part 15 / 8		
Safety	UL 1778; IEC62040-1-1		
<b>Battery/Charger</b>			
DC Link Voltage	Nominal 384V (+192, -192)		
Battery Pack	Internal Battery		
Max Charging Current at full load (amps)	4.5	9	13.5
<b>Runtime (Minutes)</b>			
2 slot model	10kVA 29	20kVA 10	30kVA --
3 slot model	48	19	10