

## Flexible, Modular Power Protection

- Hot Plug, Hot Swap system enables modules to be added or swapped without interruption of output power and without transferring to bypass
- Scalability from 10kVA to 100kVA enables UPS to grow with your expanding power protection needs
- Lightweight modules are only 2U and 22 lbs. each
- Highest AC-AC efficiency rating of 94% results in lower energy costs and reduced heat
- Input Current THD <5%, Input PF = 0.99
- High reliability modular system allows cost-effective N+1 or N+2 redundancy, ensuring that the load will continue to be supported even if a module fails
- Low noise, low magnetic radiation
- VFI: Voltage/Frequency Independent Output voltage and frequency do not depend on the input voltage and frequency
- Input neutral required during all modes of operation
- Full 2-year warranty on UPS

# Gamatronic Power+ M100

## Three-phase 10-100kVA Online Uninterruptible Power Systems



The **Gamatronic Power+ M100** is a parallel redundant modular UPS capable of scaling from 10kVA to 100kVA. Comprised of one to ten 10kVA/8kW UPS modules, as well as a system controller, a 100kVA static switch, and a distribution block, the system easily grows with your requirements.

The **Power+ M100** is a true online UPS with its batteries galvanically connected directly between the rectifier output and the inverter input on a common DC link. Other UPSs connect the batteries via a switch, making the system vulnerable to failure during transfer to backup, as the control system must detect the power outage and initiate the switch from AC input source to battery. The **Power+ M100's** system controller provides advanced management and control functions including internet, RS232, TCP/IP, and SNMP communication. The high-speed microprocessor based controller uses a unique algorithm that keeps the phase and amplitude of all UPS modules synchronized and identical. System operation is not affected if the controller is removed or inoperable. The load is distributed equally between

modules using the **Gamatronic Power+ M100** Active Current Sharing at the Input, Output, and DC bus and enhanced system reliability is provided by the central static switch. The system can also be configured as a frequency converter (50 to 60Hz or 60 to 50Hz).

For increased flexibility, a variety of options are available for the **Power+ M100**, including:

- External Maintenance Bypass
- External Battery Systems
- 480V Input Transformer
- On-site Startup and Service



# Power+ M100 Three Phase Technical Specifications

Model	M100									
Capacity (kVA/kW)	10/8	20/16	30/24	40/32	50/40	60/48	70/56	80/64	90/72	100/80
Topology	Online Double Conversion Parallel Redundant with Central Static Switch									
<b>Input</b>										
Voltage	208V Three Phase, L1, L2, L3, N									
Current (rectifier input)	23.6	47.2	70.8	94.4	118.0	141.6	165.2	188.8	212.4	236
Current (bypass input)	27.8	55.6	83.4	111.2	139.0	166.8	194.6	222.4	250.2	278.0
Voltage Range	-25% to +15%									
Power Walk In	> 60 seconds									
Current Distortion (THDI)	5% at full load									
Input Power Factor	0.99									
<b>Output</b>										
Voltage	208V 3 Phase, L1, L2, L3, N									
Current	27.8	55.6	83.4	111.2	139.0	166.8	194.6	222.4	250.2	278.0
Frequency Tracking Range	60Hz +/-2Hz									
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%, DC/AC 97%									
<b>Static Switch</b>										
Type	100kVA Static Switch with Auto Wrap-around Contactor									
Control Connections	EPO Connection (powered NC) and Load on Bypass (dry contacts NC)									
Input Connection	Dual Inputs (rectifier and bypass)									
<b>General</b>										
Ambient Temperature	14°F to 104°F (operating), -4° to 140°F (storage)									
10kVA/8kW Module Weight	22 lbs.									
UPS Dimensions (HxWxD)	64" x 23.4" x 38.6"									
Acoustic Noise (Full Load) @ 1.5M	51	54	55	57	58	59	59	60	61	61
Maximum Heat Dissipation (btuh)	1740	3480	5220	6960	8700	10440	12180	13920	15660	17400
UPS System Weight (lbs)	367	389	411	433	455	477	499	521	543	565
UPS Shipping Weight (lbs)	467	489	511	533	555	577	599	621	643	655
<b>Power + Controller</b>										
Display	4x40 Character LCD with Backlight									
Input Channels	4 Digital, 8 Analog									
Output Contacts	6 Dry Contacts									
System Operation without Controller	Continuous without disruption									
On Screen Parameters	Load Bar Graph, UPS Module Status, Static Switch Status, Battery Temperature Sensor (opt)									
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									
Operation without Controller	Continuous without disruption									
Log (events memory)	255 Events									
<b>Standards</b>										
EMC Emission	IEC62040-2; FCC part 15/8									
Safety	UL 1778; IEC62040-1-1									
<b>Battery/Charger</b>										
Battery Cabinet	5 minutes to 8 hours									
DC Link Voltage	384V (+192, -192)									
Charging Current at full load (amps)	4.5	9	13.5	18	22.5	27	31.5	36	40.5	45



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