

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 50kVA 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+ M50

Three-phase 10-50kVA Online Uninterruptible Power Systems



The **Gamatronic Power+ M50** is a parallel redundant modular UPS capable of scaling from 10kVA to 50kVA. Comprised of one to five 10kVA/8kW UPS modules, as well as a system controller, a 50kVA static switch, and a distribution block, the system easily grows with your requirements.

The **Power+ M50** 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+ M50'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+ M50** 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+ M50**, including:

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



Reliable. Modular. Flexible. Efficient.

Power+ M50 Three Phase Technical Specifications

Model	M50				
Capacity (kVA/kW)	10/8	20/16	30/24	40/32	50/40
Topology	Online Double Conversion Parallel Redundant with Central Static Switch				
Input					
Voltage	208V Three Phase, L1, L2, L3, N				
Current (rectifier input)	23.6	47.2	70.8	94.4	118.0
Current (bypass input)	27.8	55.6	83.4	111.2	139.0
Voltage Range	-25% to +15%				
Power Walk In	> 60 seconds				
Current Distortion (THDI)	5% at full load				
Input Power Factor	0.99				
Output					
Voltage	208V 3 Phase, L1, L2 L3, N				
Current	27.8	55.6	83.4	111.2	139.0
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 10min; 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%				
Static Switch					
Type	50kVA Static Switch with Auto Wrap-around Contactor				
Control Connections	EPO Connection (powered NC) and Load on Bypass (dry contacts NC)				
General					
Ambient Temperature	14°F to 104°F (operating), -4 to 140°F (storage)				
10kVA/8kW Module Weight	22 lbs.				
UPS Dimensions (HxWxD)	42.2" x 23.4" x 27.2"				
Acoustic Noise (Full Load) @ 1.5M	51	54	55	57	58
Maximum Heat Dissipation (btuh)	1740	3480	5220	6960	8700
UPS System Weight (lbs)	367	389	411	433	455
UPS Shipping Weight (lbs)	467	489	511	533	555
Power + Controller					
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				
Standards					
EMC Emission	IEC62040-2; FCC part 15/8				
Safety	UL 1778; IEC62040-1-1				
Battery/Charger					
Battery Cabinets	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