

# THE NEXT GENERATION IN MODULAR UPS GAMATRONIC POWER+

The Gamatronic Power+ three-phase UPS system employs a single-unit form factor that conserves precious 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.

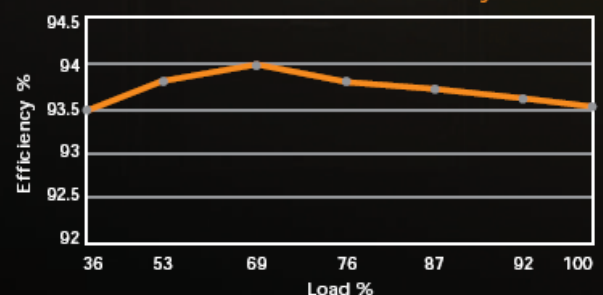
## POWER+ M50 RACKMOUNT THREE-PHASE 10-50kVA UPS

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 from 10kVA to 50kVA enables UPS to grow in 10kVA steps with your expanding power protection needs.
- 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, RS232, TCP/IP, and SNMP communication standard. System can operate with controller damaged or removed.
- 8U rack mountable battery cabinet can be paralleled for longer run time
- 3U rotary rack mounted bypass switch available.
- One 42U rack can hold a complete UPS solution: 50 kVA of modular power, the bypass switch and batteries to provide 12 minutes of runtime.
- All components can be factory installed before shipping, for simplified installation.



POWER+ AC to AC Efficiency



POWER+ M50 RACKMOUNT THREE-PHASE SPECIFICATIONS					
Model M50RM	10kVA	20kVA	30kVA	40kVA	50kVA
Capacity (kVA / vW)	10 / 8	20 / 16	30 / 24	40 / 32	50 / 40
Topology	On-line Double Conversion Modular Redundant with Hybrid Central Static Switch				
Input					
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				
Output					
Voltage	120 / 208V Three-phase, L1, L2 L3, N				
Current	27.8 Amps Per 10kVA Module				
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% on-line, DC/AC 97%				
Static Switch					
Type	Hybrid 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)	38.5"(22U) x 19" x 27.2"				
UPS System Weight (lbs)	137	157	176	196	216
UPS Shipping Weight (lbs)	237	257	276	296	316
Bypass Switch Dimensions (HxWxD)	5.25" (3U) x 19" x 26"				
Bypass Switch Weight (lbs)	60 (85 lbs. shipping weight)				
Battery Module Dimensions	14" (8U) x 19" x 34.9"				
Battery Module Weight (lbs)	600 Battery Cabinet and 8 Cartridges (640 shipping weight)				
Battery Cartridge Weight (lbs)	60				
Acoustic Noise (Full Load) @ 1.5M (dB)	51	54	55	57	58
Maximum Heat Dissipation (btuh)	1740	3480	5220	6960	8700
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				
Log (events memory)	255 Events				
Communications	SNMP / Web Interface, TCP/IP RS232 Standard				
Standards					
EMC Emission	IEC62040-2; FCC part 15/8				
Safety	UL 1778; IEC62040-1-1				
Battery/Charger					
DC Link Voltage	384V (+192, -192)				
Battery Pack	Rack mount Battery Pack with eight 48VDC modular battery cartridges				
Charging Current at full load (amps)	4.5	9	13.5	18	22.5
UPS Full Load Runtime (Minutes)					
# of 8U Battery Modules (kVA / kW)	10 / 8	20 / 16	30 / 24	40 / 32	50 / 40
1	48.0	17.0	9.4	5.8	3.4
2	135.0	48.0	26.0	17.0	12.0
3	237.0	85.0	48.0	31.0	22.0
4	348.0	135.0	73.0	48.0	35.0
5	480+	186.0	100.0	65.0	48.0



The Power+ is made in Israel by Gamatronic, a leading innovator in power electronics since 1970. Gamatronic products are distributed worldwide, are UL-approved and ISO9001 compliant.