

PILLER

Power Systems

M+ 500

Modular Static UPS 500kW

Why choose Piller's M+ 500 modular static UPS?

The M+ 500 is a high density modular static UPS with a remarkable efficiency of up to 96.7%. Its design accommodates 10 power modules delivering a total of 500kW in a single unit. With a compact footprint, it's versatile for a variety of applications. The hot-swappable module design enables quick plug-and-play maintenance.

Versatile for a variety of applications:



Data centres



Manufacturing



Healthcare

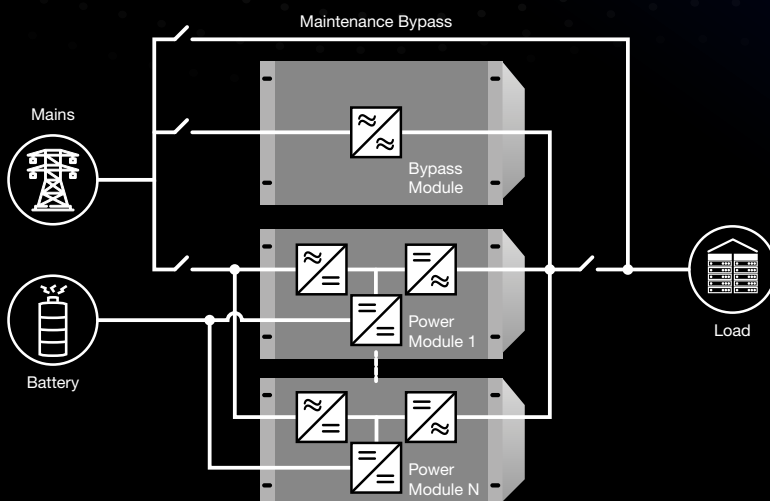


Communications

and many more...

Smarter service

Single-line diagram



Self-help hot swap modules

- The M+ 500 hot swap architecture allows for component replacement without system shutdown, reducing downtime and ensuring continuous operation. Operator training can be provided for fast self-fix as part of a Service Level Agreement (SLA).

SLAs available in range of levels

- Service – provides a basic annual maintenance visit
- Power Service – in addition to “Service”, provides emergency support 24/7
- Power Service Advantage – in addition to “Power Service” provides the maximum level of support. It covers all costs for repairs, including travel, labour and parts (excluding battery systems)



M+ 500 HIGHLIGHTS

- **Future-proof UPS design**
Modular and flexible satisfying scalable power needs
- **Intelligent Control**
Optimised efficiency and extended lifetime
- **Flexible configuration**
Scalable from 250kW/kVA up to 4000kW/kVA per system
- Low investment costs with partial module deployment
- Low MTTR – minimum maintenance downtime due to hot-swappable modules
- Increased power density – up to 500kW/m²
- Compatible with various battery technologies



M+ 500 UPS



50kVA Power Module



Bypass Module

High efficiency for mission critical applications



High Reliability

High short circuit capacity duration provides high system protection. The modular, hot-swappable power module design ensures uninterrupted operations and reduces downtime. Intelligent fan control and redundant design architecture maximises efficiency and lifetime further ensuring reliability.



Flexible Scalability

The system can be customised exactly to the power performance needs. As needs change, additional power modules can easily be added to deliver a greater power density in a compact footprint.



High Performance

Featuring a wide input voltage and frequency tolerance, the system offers exceptional grid adaptability and battery life extension.



Low MTTR

Power and Bypass modules are hot-swappable, being replaceable with the UPS online and without bypass/offline operation.



Intelligent Control

The M+ 500 Intelligent Control system minimises the need for human intervention maximising efficiency and module life.



M+ 500 Modular Static UPS

Technical Specifications

Output

Rated active power (380V / 400V / 415V)	kW	250	300	350	400	450	500
Power modules each 50kVA / 50kW (max. 10 modules)		5	6	7	8	9	10
Voltage stability	%			± 1			
Frequency stability	%			± 1			
Voltage distortion (EN 62040-1)							
■ linear load	%			< 1			

Battery

Nominal number of cells				±240 (±180 / ±276)			
Maximum charging current 30A per Module, default is 20A	A	150	180	210	240	270	300
Battery protection (fuse) acc. to IEC/EN 60 947-3							required to battery

Input

Power factor				0.99			
Rated voltage (rated frequency)	V			380 / 400 / 415 ± 20 (50 / 60Hz)			
Frequency tolerance	Hz			40 - 70			
Total harmonic current distortion	%			< 3			
Starting time including precharge	s			30			

General data

Rated power	kVA	250	300	350	400	450	500
Efficiency							
■ at load PF1	%					up to 96.7	
UPS classification							VFI SS 111
Interfaces (standard)							
■ communication							RS232/485 (Modbus) / Dry contact /SNMP
Ambient temperature (daily mean average)	°C						0 - 40 (40 - 50 derate)
Ambient humidity (without condensation)	%						5 - 95
Humidity class							IEC 721 2-1
Installation altitude (above mean sea level)							
■ up to 1000m							without any derating
Protection type (IEC/EN 60529. VDE 0470-1)							IP 20
Insulation group							DIN / VDE 0110 (voltage-category 2)
Radio interference level (IEC 62040-2. VDE 0558-520)							Class 3
Colour standard							Pantone process black C
Dimensions (W x D x H)	mm						1200 x 860 x 2000
Weight	kg	675	714	753	792	831	870
Cable connection							from top and bottom possible
Accessibility							front
Parallel configuration							8 units

Hardware Options

- two independent mains connections
- battery temperature sensor
- surge protection module
- BMS card for Lithium Battery
- I/O-card (2 maximum)

Modifications reserved.

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UPS SYSTEMS

POWER CONDITIONING & SWITCHING TECHNOLOGY

MICROGRID POWER SOLUTIONS

STATIC TRANSFER SWITCHES

LITHIUM/VRLA ENERGY STORAGE

KINETIC ENERGY STORAGE

AIRCRAFT GROUND POWER SYSTEMS

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Nothing protects quite like Piller

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ERRORS & OMISSIONS EXCEPTED.