



## PM Modular Series Product

- ✓ PMA Model
- ✓ PMAE Cabinet



## PMA Module Introduction

PMA series energy storage converter adopts modular design, it supports power module independent operation and parallel operation, it has flexible system configuration, easy to use, suitable for on-grid small-scale industrial and commercial.

### Product Selection

Products	Models	Power capacity	Dimensions W*D*H
PCS Standalone Module	PMA	60/100kW	440*550*133
PCS Complete Module	PMAE	50~630kW	600*750*1850

### Safe and reliable

- Intelligent electrical protection with fault isolation and fast breaking.
- Multiple safety protection with SPD ISO GFCI monitoring function and intelligent electrical protection linkage.
- Separate air duct design for high granularity temperature control. IP60-IP20 protection classification design.

### Highly efficient and intelligent

- Leading three-level space vector modulation SVPWM with wide voltage range charging and discharging for parallel operation of multiple machines.
- Leading midpoint balance technology, with DC component adjustment and low-frequency pulse current in the bypass bus, can prolong battery life and improve unbalanced and nonlinear adaptability.
- Leading control algorithms and digital closed loop control technology with adaptive filters for active resonance suppression.
- Leading local on-site power fault recording, triggered storage of 100ms waveforms before and after the fault, 32-channel recording can be continuously stored in multiple groups of recording information.
- Bluetooth APP interaction is easy to debug and monitor.

### Simplicity and flexibility

- Standard power capacity modules are adapted to standard energy storage cell clusters.
- 19-inch 3U standard size design, support horizontal/vertical installation.
- Lightweight design, can be installed and maintained by one person .

## Application



Peak Load Shifting



Demand Side Management

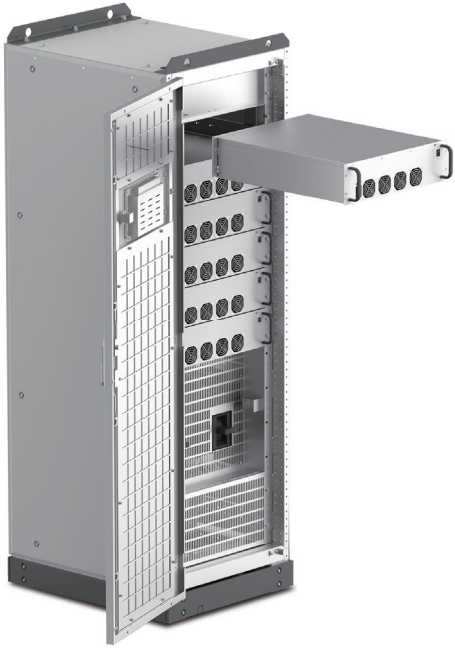


Emergency power supply



Dynamic expansion

Specifications	PMA060	PMA0100
<b>DC</b>		
Max. DC power (kW)	75	126
DC voltage range (Vdc)	590~900	590~900
Max. DC current (A)	±125	±200
Voltage stabilization accuracy	±1%	±1%
Current stabilization accuracy	±2%	±2%
<b>AC</b>		
Rated AC power (kW)	62.5	105
Max. AC power (kVA)	75	126
Voltage scale	3W+PE	3W+PE
Rated voltage (Vac)	400	400
Rated AC current (A)	90	166
Max. AC current (A)	110	200
THDi	< 3%	< 3%
Allowable grid voltage range (Vac)	400±15%	400±15%
Allowable grid frequency range (Hz)	50±2	50±2
Power factor adjustment range	-1~+1	-1~+1
Active power accuracy	1%	1%
Reactive power accuracy	2%	2%
<b>System</b>		
Maximum efficiency	98.5%	98.7%
Charge/Discharge switching Time (ms)	< 20	< 20
Protection degree	IP20	IP20
Relative humidity	< 95% (Non-condensing)	< 95% (Non-condensing)
Operating temperature range	-30℃~+55℃	-30℃~+55℃
Max. operating altitude	5,000m(>3,000m Derating)	5,000m (>3,000m Derating)
Communication interface	RS485/CAN/Ethernet	RS485/CAN/Ethernet
BMS/EMS access	Yes	Yes
Weight(Kg)	30	35



## Introduction of PMAE Cabinet

PMAE series modular converter is designed for on-grid application, the product adopts pre-assembled standard cabinet design, which consists of PMA standard power module, electrical distribution, 10-inch smart screen, EPO switch, etc. It supports flexible increase and decrease, the power level of a single cabinet covers 50kW~630kW, and can be extended by up to 4 cabinets, realizing a single system of 1MW. Supporting single and multi-branch input technology, power modules and electrical distribution can be flexibly configured on demand to reduce construction costs and quickly achieve AC / DC bidirectional energy conversion.

### Product Highlights

- Pre-assembled standard products for flexible configuration on demand.
- Pluggable replacement repair can be redundant configuration, does not affect the system operation.
- Standard electrical design is neat and durable.
- System capacity can be freely matched, single cabinet and multiple cabinets can be easily managed;
- Leading multi-machine parallel connection and parallel cabinet application technology, with active resonance suppression, parallel communication single line fault normal operation.
- Leading equalization and loop current suppression application technology, with low-frequency, high-frequency loop current suppression, self-equalization control.
- The 10 industrial screen with integrated EMS function supports local remote operation and maintenance.




Specifications	PMAE0250	PMAE0500	PMAE0630
<b>DC</b>			
Quantity of battery strings	1/4	1/5	1/6
DC voltage range (Vdc)	590~900	590~900	590~900
Max. DC current(A)	±500	±1,000	±1,200
Voltage stabilization accuracy	±1%	±1%	±1%
Current stabilization accuracy	±2%	±2%	±2%
<b>AC</b>			
Rated AC power (kW)	250	500	630
Max. AC power (kVA)	275	550	693
Voltage scale	3W+PE	3W+PE	3W+PE
Rated voltage(Vac)	400	400	400
Rated AC current (A)	90	722	909
Max. AC current(A)	110	866	1,090
THDi	< 3%	< 3%	< 3%
Allowable grid voltage range (Vac)	400±15%	400±15%	400±15%
Allowable grid frequency range (Hz)	50±2	50±2	50±2/60±2
Power factor adjustment range	-1~+1	-1~+1	-1~+1
Active power accuracy	1%	1%	1%
Reactive power accuracy	2%	2%	2%
<b>System Specifications</b>			
Maximum efficiency	98.5%	98.7%	98.7%
Charge/Discharge switching time (ms)	< 20	< 20	< 20
Protection degree	IP20	IP20	IP20
Relative humidity	< 95% (Non-condensing)	< 95% (Non-condensing)	< 95% (Non-condensing)
Operating temperature range	-30℃ ~+55℃	-30℃ ~+55℃	-30℃ ~+55℃
Max. operating altitude	5,000m(>3,000m Derating)	5,000m(>3,000m Derating)	5,000m(>3,000m Derating)
Communication interface	RS485/CAN/Ethernet	RS485/CAN/Ethernet	RS485/CAN/Ethernet
BMS/EMS access	Yes	Yes	Yes
Dimensions (W*D*H)	600*750*1,800	600*750*1,800	600*750*1,800
Weight (Kg)	300	350	350


\*Typical PMAE configurations above, with optional standard capacity modules for flexible configuration.




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