

Multifunction inverter

AX M2

NEW

The devices in the AX M2 series with integrated MPPT solar charge controller are 3000W / 5000W multifunction inverters / PVchargers with the combined functions of an inverter as well as a solar and battery charging device. These inverters are suitable for standalone operation independent of mains supply via PV modules but can also be operated with electrical power from accumulators, generators or the public power supply grid.

If insufficient power is being supplied from the PV modules, the device automatically tops up the power level with battery current or, if the batteries are discharged completely, it switches over to the mains power grid. A network of three AX units can be configured for 3-phase operation.



Details



AX M2 connections



Removable control panel including LCD display

New Features:

- Zero (0 ms) transmission time to protect critical loads such as servers and ATMs
- Detachable LCD control module with multiple communication options
- Integrated Wi-Fi for mobile monitoring (app is available)



Characteristics

- PV inverter without mains power supply
- Island operation possible
- 3000, 5000W nominal load
- 24, 48VDC Battery voltage
- PV- / Battery charger with 3-stage charge
- Battery voltage thresholds can be adjusted individually
- Cold start function
- Several power sources
- Parallel operation by up to 9 inverters
- 3-phase operation is possible
- Sine-wave output
- Can be configured via LCD display or PC software
- Automatic reboot when mains power is restored
- Protection against excessive loads and temperatures as well as short circuits
- 24 months' warranty

Special features

- Power factor 1
- Integrated Wi-Fi for mobile monitoring (app is available)
- Compatible with BMS communication from various lithium battery manufacturers such as Pylontech
- Battery equalizing
- Integrated neutral-point emulation (VDE AR-E 2510-2)
- Installed MPPT solar charge controller for maximum performance from PV modules
- Intelligent fan control
- Removable LCD control module with multiple communication options

Specifications

Model		AX M2 3kVA, 24V	AX M2 5kVA, 48V
Power	Power in VA / W	3000VA / 3000W	5000VA / 5000W
AC input	AC input voltage	230VAC	
	AC input voltage range	110-280VAC	
	AC input frequency	50Hz/60Hz (automatic detection)	
	Power factor	≥ 0.98 @ nominal voltage (100% load)	
Output	AC Output voltage	230VAC ± 5%	
	Peak performance (5 seconds)	6000VA	10000VA
	Output frequency	46~54Hz or 56~64Hz (normal mode) / 50Hz ± 0.1Hz or 60Hz ± 0.1Hz (battery mode)	
	Transfer time	0ms (AC > battery mode) / 4ms (Inverter > Bypass)	
	Wave form	Sine wave	
	Max. efficiency	93% @ normal mode, 90% @ battery mode	
Battery	Battery voltage	24VDC	48VDC
	Charging voltage max.	29.2VDC	58.4VDC
	Overload protection	34VDC	66VDC
Solar charger / AC charger	Max. PV power	1500W	4000W
	Type	MPPT	
	Max. PV charging current	60A	80A
	Max. AC charging current (adjustable)	60A	60A
	Max. charging current (adjustable)	120A	140A
	Effective operating range UOP	30 ~ 115VDC	60 ~ 115VDC
	Max. input voltage UOCV	145VDC	
Communication		RS232, DRY CONTACT, WI-FI, RS485, CAN, USB OTG	
General data	Size (HxWxD) in mm	525 x 303 x 140	
	Weight (in kg)	13	13,5
	Humidity	5% - 95% non condensing	
	Operating temperature	0°C - 55°C	
	Storage temperature	-15°C - 60°C	
Regulations / standards	Protection	IP20	
	Safety	EN 61000-6-4: 2007+A1: 2011; EN 61000-6-2: 2005+AC: 2005	
	EMC	EN 62109-1:2010, EN 62109-2:2011	
	Certifications	CE	