

# Multifunction inverter

## AX-M1

NEW

The devices in the AX M1 series with integrated MPPT solar charge controller are multi-function inverters / PV chargers 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



View of the underside AX-M1



Monitoring Box (WiFi Box)

With the monitoring box (WiFi box), the power generation data can be called up via WLAN from a PC, smartphone or tablet PC in the web browser.

## Characteristics

- PV inverter without mains power supply
- Island operation possible
- 4000, 5000 W nominal load
- 24, 48 VDC Battery voltage
- PV- / Battery charger with 3-stage charge
- Battery voltage thresholds can be adjusted individually
- No more external neutral-point emulation is required
- To be preferred for PV module performance levels
- Suitable for higher yields with MPPT
- 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
- Larger LC display
- Equalizing (battery)
- Integrated neutral-point emulation (VDE AR-E 2510-2)
- Installed MPPT solar charge controller for maximum performance from PV modules

## Specifications

AX-M1		4000-48	5000-24	5000-48
Power	Power in VA	4000	5000	5000
	Power in W	4000	5000	5000
AC input	AC input voltage	230 VAC		
	AC input voltage range	100 – 270 VAC		
	AC input frequency	50 Hz / 60 Hz		
Output	Output voltage	230 VAC ± 5 %		
	Peak performance (5 seconds)	8000 VA	10000 VA	10000 VA
	Max. efficiency	95 %		
	Output frequency	50 Hz or 60 Hz, adjustable		
	Transfer time	20 ms configuration Domestic appliances / 10 ms bei Computer applications (UPS)		
	Wave form	Sine wave		
Battery	Battery voltage	48 VDC	24 VDC	48 VDC
	Charging voltage	48,0 – 58,4 VDC	24,0 – 29,2 VDC	48,0 – 58,4 VDC
	Overload protection	60 VDC	30 VDC	60 VDC
Solar charger / AC charger	Max. PV power	4000 W	2000 W	4000 W
	PV charging current	80 A		
	Max. AC charging current (adjustable)	60 A		
	Max. charging current (adjustable)	140 A		
	Effective operating range U <sub>OP</sub>	60- 115 VDC	30 – 115 VDC	60 – 115 VDC
	Max. input voltage U <sub>OCV</sub>	145 VDC		
Standby power consumption	2 W			
General data	Size (HxWxD) [mm]	468 x 297 x 125	475 x 310 x 180	468 x 297 x 125
	Weight (in kg)	12,5		13,5
	Humidity	5-95% (non-condensing)		
	Operating temperature	0°C - 50°C		
	Storage temperature	-15°C - 60°C		
	Protection	IP20		
Regulations / standards	Safety	EN 62109-1: 2010, EN 62109-2: 2011		
	EMC	EN 55032: 2015, EN 55024: 2010+A1: 2015, class A		
	Certifications	CE		