

# AC Master 12/2500 (230 V)



Product code: 28012500

Mastervolt sine wave inverters have proven themselves under the most extreme conditions for over 25 years. Our inverter family consists of AC Master, Mass Sine and Mass Sine Ultra models, ranging from 300 watt up to 40 kW. The AC Master is ideal for small and medium-sized applications, while Mass Sine and the advanced Mass Sine Ultra inverters are mainly intended for larger systems and for professional purposes.

### **AC Master series: Reliable AC power for recreational and semi-professional use**

These affordable sine wave inverters convert 12 or 24 V battery voltage into reliable 230 V 50/60 Hz or 120 V 50/60 Hz grid power, making them ideal for recreational and semi-professional applications. The AC Master series is easy to install and delivers full output, even under the most demanding conditions. The pure sine wave technology provides an outstanding power quality, ensuring the correct functioning of sensitive equipment. The usage of high frequency switching technology eliminates any annoying humming and buzzing sounds.

Representing complete value for money, these ruggedly built inverters provide essential home comforts when you're far from the nearest grid connection.

### **Features**

- Pure sine wave technology protects sensitive equipment.
- Delivers full output at high peak power under the most demanding conditions.
- Automatic power saving system for extended runtime.
- Compact and lightweight design, saving valuable installation time.
- Reliable and safe operation; protected against over-temperature, overload, short circuit, high or low battery voltage.
- Variable speed fan for quiet operation at low power.
- Optional remote control for instant switch off of the inverter and all connected equipment (not available for the 300 and 500 W models).
- Convenient plug connection for all models, 2500/3500 Watt models also hard wired.

### **In addition, the 2500/3500 Watt models offer:**

- Combine 2 up to 15 units to obtain high power or 3-phase systems.
- Integrated transfer system, switches automatically between AC power sources.

### **Applications**

Both recreational and semi-professional use, where grid power varies or is unavailable. Applications include lighting, appliances, electric cooking and power tools. For (mobile) applications in your home, office or service vehicle, or during your holidays.

# Specifications

## General specifications

Output voltage	230/240 V - 50/60 Hz (selectable)
Output waveform	true sine
Nominal battery voltage	12 V
Recommended battery capacity	$\geq 270$ Ah
Continuous power at 25 °C / 77 °F, cos phi 1	2500 W
Continuous power at 40 °C / 104 °F, cos phi 1	2500 W
Peak load (3 sec.)	$< 3000$ W
Peak load ( $< 0.2$ sec.)	$< 4000$ W
AC connection	hardwired + plug connection EU (Schuko) or with NZ/AU plug (code 28412500)
Efficiency	88 %
Parallel configuration	yes, up to 15 units
3-Phase configuration	yes, 3 units
Display/read-out	LED indication: battery voltage, status
Alarms	potential free alarm contact
Dimensions, hxxwx	283 x 436 x 128 mm 11.1 x 17.2 x 5.0 inch
Weight	8 kg 17.6 lb
Approvals	CE, E-mark, RCM

## Technical specifications

Technology	high frequency, input & output fully isolated
Low battery voltage, switches off at	10.5 V
Low battery voltage, switches on at	12.5 V
High battery voltage, switches off at	16.5 V
High battery voltage, switches on at	14.5 V
Input current (nominal load)	250 A
No-load power consumption (ON mode)	$< 3.6$ A
No-load power consumption (energy saving mode)	$< 1.1$ A
Minimal DC fuse (slow blow)	300 A
Minimal cable size	95 mm <sup>2</sup>
Harmonic distortion typical	$< 5$ %
Cos phi	all power factors allowed
Transfer system	integrated, automatic (inverter to grid: 8~10 ms, grid to inverter: 16~50 ms). Not for parallel & 3-phase operation (external transfer system possible)
Temperature range (ambient temp.)	-20 °C to 60 °C, derating power $> 40$ °C -4 to 140 °F
Cooling	temperature and load controlled fan
Protection degree	IP21, horizontal wall mounting
Protections	over-temperature, overload, short circuit, high/low voltage, reverse polarity (fuse)
MasterBus compatible	no