

# AC Master 12/3500 (230 V)



Product code: 28013500

## 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                  | $\geq 360$ Ah                                                                                   |
| Continuous power at 25 °C / 77 °F, cos phi 1  | 3500 W                                                                                          |
| Continuous power at 40 °C / 104 °F, cos phi 1 | 3500 W                                                                                          |
| Peak load (3 s)                               | $< 4500$ W                                                                                      |
| Peak load ( $< 0.2$ s)                        | $< 6000$ W                                                                                      |
| AC connection                                 | hardwired + plug connection EU (Schuko), UK plug (code 28213500), or NZ/AU plug (code 28413500) |
| Galvanic isolation                            | yes                                                                                             |
| Efficiency                                    | 90 %                                                                                            |
| Parallel configuration                        | yes, up to 15 units                                                                             |
| 3-Phase configuration                         | yes, 3 units                                                                                    |
| Display/read-out                              | LED indication: battery voltage, load level, status                                             |
| Alarms                                        | potential free alarm contact                                                                    |
| Dimensions, hxxwx d                           | 283 x 496 x 128 mm<br>11.1 x 19.5 x 5.0 inch                                                    |
| Weight                                        | 10 kg<br>22.0 lb                                                                                |
| Compliance                                    | 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)                   | 350 A                                                                                                                                                   |
| No-load power consumption (ON mode)            | $< 3.6$ A                                                                                                                                               |
| No-load power consumption (energy saving mode) | $< 1.4$ A                                                                                                                                               |
| Minimal DC fuse (slow blow)                    | 400 A                                                                                                                                                   |
| Minimal cable size                             | 120 mm <sup>2</sup>                                                                                                                                     |
| Harmonic distortion typical                    | $< 3$ %                                                                                                                                                 |
| 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 $> 35$ °C<br>-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                           | yes, using a MasterBus AC Master Interface                                                                                                              |