

# ChargeMaster Plus 24/40 CZone



Product code: 44320405

ChargeMaster Plus is the next generation of battery chargers that integrates multiple functions into one single device. Replacing auxiliary chargers, battery isolators and VSR, ChargeMaster Plus reduces system complexity and cost. Designed for versatility, it charges a maximum of three batteries in a fast and safe way and works anywhere in the world.

### Battery's Best Friend

With the Battery's Best Friend architecture, ChargeMaster Plus is capable of charging a multitude of battery chemistries, sizes and voltages. All batteries are charged with the fast and safe 3-step+ charge method. Other unique features are:

- Revival mode: automatically revives even fully depleted batteries.
- Priority Charge: redirect available power to the lowest battery, for faster charging.
- Smart Input: charge all three batteries from one single alternator for continuous charging on the go.

### Global Charging

The ChargeMaster Plus handles worldwide AC voltages and frequencies. Resisting large voltage fluctuations and high temperatures, it keeps working in harsh environments. For marine and mobile markets, the ChargeMaster Plus is CE, ABYC, UL, SAE, CEC and RCM/C-Tick compliant.

### System Simplicity

Nowadays, equipment must be self-explaining. The ChargeMaster Plus displays the charge phase of all three outputs in an understandable way. Robust and ergonomic connections save installation time. An integrated VSR eliminates the need for additional components and ensures that the alternators energy is funnelled through to the batteries.

### Powerful Connections

In modern applications, all components work together, the ChargeMaster Plus supports not only MasterBus but also CZone and NMEA. This enables the charger to communicate with displays, shunts and power systems including communication standards like, FireCan, CANopen and many more. The ChargeMaster Plus can operate as a power supply for delicate communication equipment, or during the construction phase of a boat.

### Features

- MasterBus, CZone and NMEA communication.
- Multicharger with two outputs, one in/output, DC-DC converter, current limiter and VSR.
- Combine Lithium Ion, Gel or AGM, and large or small battery banks on a single battery charger.
- Charges multiple batteries while being underway.
- Extended specifications: offers 20 % more output at 14.4 V and 80 % charging power at 60 °C.
- Safe Charge: quickly recognize the State of Charge for extended battery life.
- Very wide operating range of 80-275 V AC, 35-70 Hz.
- Compact, easy to connect and quick to install.

# Specifications

## Communication & monitoring

Communication interfaces

MasterBus, CZone, NMEA

## General specifications

|                                 |   |
|---------------------------------|---|
| Nominal output voltage          | 24 V  |
| Max. charge current per output  | 40 A  |
| Smart In-/Output output voltage | 12 or 24 V  |
| Smart In-/Output output current | 5-10 A at 12 V; 5-20 A at 24 V (adjustable)             |
| Smart In-/Output input current  | max. 20 A at 24 V                                       |
| Max. AC current (230 V / 120 V) | 6.8 A / 13.5 A  |
| Total charge current            | 40 A at 28.8 V  |
| Number of battery outlets       | 3 (max.)  |
| Battery capacity range          | 160-400 Ah  |
| Nominal input voltage           | 120/230 V (80-275 V) 50/60 Hz                           |
| AC connection                   | screw terminals, suitable up to up to 6 mm <sup>2</sup> |
| Power supply mode               | yes   |
| Display/read-out                | LED display   |
| Dimensions, hxxwx d             | 384 x 250 x 127 mm<br>15.1 x 9.8 x 5.0 inch             |
| Weight                          | 5.9 kg<br>13.0 lb                                       |
| Approvals                       | CE, ABYC, UL1236, SAE J1171, ISO 8846, CEC, RCM/C-Tick  |

## Technical specifications

|  |  |
|--|--|
| Charge characteristic                    | IUoUo, automatic / 3-step+ for Gel/AGM/Lithium Ion/traction/spiral                       |
| Temperature compensation                 | -30 mV/°C / -17 mV/°F; temperature sensor included                                       |
| DC voltage compensation                  | through MasterShunt  |
| Power consumption (DC side)              | < 2 mA (MasterBus off)   |
| Current Control function                 | yes, through MasterBus   |
| Power factor control                     | > 0.98   |
| Temperature range (ambient temp.)        | -25 °C to 80 °C, derating < 0 °C and > 40 °C<br>-13 to 176 °F                            |
| Cooling                                  | vario fan  |
| Protection degree                        | IP23, vertical mounting  |
| Protections                              | over-temperature, overload, short circuit, high/low battery voltage, ignition protection |
| MasterBus compatible                     | yes  |
| Charger Status Interface (alarm contact) | yes, using a Multipurpose Contact Output (code 77030500)                                 |