

# ChargeMaster Plus 24/40-3

## 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, h x w x d

384 x 250 x 127 mm

15.1 x 9.8 x 5.0 inch

Weight

5.9 kg

13.0 lb

Approvals

CE, ABYC, UL1236, SAE J1171, ISO 8846, CEC/DOE, RCM/C-Tick

## Technical specifications

Charge characteristic

IUoUo, automatic / 3-step+ for Gel/AGM/Lithium Ion/traction/spiral

Temperature compensation

-60 mV/°C / -76 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

-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)