

# ChargeMaster Plus 24/80-2 CZone



Product code: 44320805

ChargeMaster Plus is the next generation of battery chargers that integrates multiple functions into one single device. Replacing auxiliary chargers, ChargeMaster Plus reduces system complexity and cost. Designed for versatility, it charges a maximum of two 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.
- Reduced second output to prevent overcharge of the smaller secondary battery.
- Multi voltage: 12 V and 24 V (starter) batteries can be charged.

## 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/DOE and RCM/C-Tick compliant.

## System Simplicity

Nowadays, equipment must be self-explaining. The ChargeMaster Plus displays the charge phase of all outputs in an understandable way. Robust and ergonomic connections save installation time. The setup of the second output can be easily done using the dipswitches.

## Powerful Connections

In modern applications, all electrical components work together. The CAN-based MasterBus enables the ChargeMaster Plus to communicate with displays, shunts and power systems. Models with the addition &CZone integrated& do not only support MasterBus, but also support CZone and NMEA 2000 communication, without the need of additional interfaces. The ChargeMasters Plus series can be configured via MasterBus or will accept a CZone configuration file just like any other CZone device. Other communication standards like ModBus, CANopen, LinBus, etc. are supported via additional interfaces. This wide range of communication interfaces make the ChargeMaster Plus ideally suited for system integration. All models of the ChargeMaster Plus series can operate as a power supply for delicate communication equipment, or during the construction phase of a boat.

## Features

- Multicharger with two outputs, second output is current limited to prevent overcharge.
- Combine Lithium Ion, Gel or AGM, and large or small battery banks on a single battery charger.
- Extended specifications: offers 10 % more output at 28.5 V and 80 % charging power at 60 °C / 140 °F.
- 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 2000

## General specifications

Nominal output voltage	24 V
Secondary output voltage	14.25 /28.5 V (12/24 V)
Secondary output current	15 A at 12 V / 20 A at 24 V (adjustable)
Max. charge current per output	80 A
Max. AC current (230 V / 120 V)	11.75 A / 23 A
Total charge current	80 A at 28.8 V
Number of battery outlets	2 (max.)
Battery capacity range	280-700 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
Dimensions, hxxwxl	384 x 250 x 127 mm 15.1 x 9.8 x 5.0 inch
Weight	6.3 kg 13.9 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/flooded/Lithium Ion + user defined option
Temperature compensation	-60 mV/°C / -76 mV/°F; incl. temperature sensor
DC voltage compensation	yes, by means of automatic compensation or MasterShunt
Power consumption (DC side)	< 2 mA (MasterBus off)
Current Control function	ja, through MasterBus or CZone
Power factor control	yes, > 0,98
Temperature range (ambient temp.)	-25 °C to 80 °C, derating > 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
Charger Status Interface (alarm contact)	yes, using a Multipurpose Contact Output (code 77030500)