

# ChargeMaster Plus 12/100-3



Product code: 44311000

## All-in-one solution for faster and safer charging

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 virtually any combination of two or three batteries in a fast and safe way and works anywhere in the world.

With the new 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/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. 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. CAN-based MasterBus enables the charger to communicate with displays, shunts and power systems including communication standards like CZone®, NMEA and CANopen. The ChargeMaster Plus can operate as a power supply for delicate communication equipment, or during the construction phase of a boat.

## Features

- Multicharger with two outputs, one in/output, DC-DC converter, current limiter and VSR.
- Combine Lithium Ion, Gel or AGM.
- 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

## General specifications

Nominal output voltage	12 V
Max. output current primary output	100 A
Smart In-/Output output voltage	12 V
Smart In-/Output output current	5-40 A (adjustable)
Smart In-/Output input current	max. 40 A
Total charge current	100 A at 14.4 V
Max. AC current (230 V / 120 V)	8.5 A / 17 A
Number of battery outlets	3 (max.)
Battery bank size	400-1000 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
Galvanic isolation	yes
Display/read-out	LED display
Dimensions, hxxwx	384 x 250 x 127 mm 15.1 x 9.8 x 5.0 inch
Weight	5.9 kg 13.0 lb
Compliance	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	-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 -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 (product code 77030500)