ChargeMaster Plus 24/110-2



Product code: 44321105

MASTERVOLT
THE POWER TO BE INDEPENDENT

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 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.
- Multi voltage: charge 12 V starter battery in a 24 V system, without additional components.
- Priority Charge: redirect available power to the lowest battery, for faster charging.

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.

Powerful Communications thanks to CZone integration

In modern applications, all electrical components work together. The CAN-based MasterBus enables the ChargeMaster Plus to communicate with displays, shunts and power systems including communication standards like CZone®, NMEA 2000 and CANopen (through additional interfaces).

Models with the addition CZone do not only support MasterBus, but also support CZone and NMEA 2000 communication, without the need of additional interfaces. This 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 makes the ChargeMaster Plus ideally suited for system integration. In addition, 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 and current limiter.
- Combine Lithium Ion, Gel or AGM, and large or small battery banks on a single battery charger.
- 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 2000

General specifications

Nominal output voltage	24 V
Secondary output voltage	14.25 /28.5 V (12/24 V)
Max. output current primary output	110 A
Max. output current secondary output	5-15 A at 12 V / 5-20 A at 24 V (adjustable)
Total charge current	110 A at 28.8 V
Max. AC current (230 V / 120 V)	15.75 A / 31.5 A
Number of battery outlets	2 (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 mm²
Power supply mode	yes
Galvanic isolation	yes
Display/read-out	LED
Dimensions, hxwxd	384 x 250 x 127 mm 15.1 x 9.8 x 5.0 inch
Weight	6.3 kg 13.9 lb
Compliance	CE, ABYC, UL1236, SAE J1171, ISO 8846, CEC/DOE, RCM/C-Tick, RRR

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	through automatic compensation or MasterShunt
Power consumption (DC side)	< 2 mA (MasterBus off)
Current Control function	yes, 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)