

ChargeMaster Plus 24/20-3



Product code: 44320205

All-in-one solution for faster and safer charging

The ChargeMaster Plus family is a complete range of battery chargers that provide both efficient and reliable performance in all conditions. This new generation of battery chargers offers multiple functions in one compact device. The ChargeMaster Plus reduces costs and simplifying the system and eliminating the need for additional battery chargers.

The 'Battery's Best Friend' architecture enables the ChargeMaster Plus to charge any battery chemistry using the fast and safe 3-step+ charging method. Different battery sizes can be combined, as the pre-float functionality eliminates the risk of overcharging smaller batteries. The charging profile of the Lithium Ion battery is included, as well as flexibility for a customised, user-defined profile.

Global charging

The ChargeMaster Plus charges almost any combination of two or three batteries quickly and safely and can handle all possible mains voltages and frequencies worldwide.

Plug-and-play battery charger

The new ChargeMaster Plus models can achieve full functionality within a complete MasterBus or CZone system, or can also be used as a convenient plug-and-play standalone battery charger

Communication

Through the MasterBus and CZone communication, the ChargeMaster Plus can provide you with all kinds of information. Such as the presence and quality of the power input, the performance of the charger and even the voltage and temperature of the connected batteries can be shown. In combination with a display you are able to monitor and configure the system.

Optimal performance

The new ChargeMaster Plus can communicate directly with Mastervolt Lithium Ion batteries, MasterShunt or system display for real-time adjustments and optimal performance.

The battery charger can withstand high temperatures and significant voltage fluctuations. That makes this battery charger very suitable for the most harsh, maritime, or mobile environments. In addition, the ChargeMaster Plus has CE, ABYC, UL, cULus, SAE, CEC/DOE, ISO and ACMA certifications.

Key features

- Improved cooling technology results in very low noise levels across the entire power range.
- Use as a standalone charger or as part of a complete system.
- Automatic power distribution, maximum charging current possible on each output.
- All 3 outputs can provide maximum current*
- Pre-float eliminates the risk of overcharging.
- Automatic current distribution - charging current distribution based on the condition of the battery.
- Compatible with worldwide frequencies and mains voltages.
- Smaller and lighter than the previous model.

**The total charging current shall not exceed the maximum of the model.*

Specifications

Communication & monitoring

Communication interfaces

MasterBus, CZone, NMEA2000

General specifications

Nominal output voltage

24 V

Max. output current primary output

20 A

Total charge current

20 A bij 28,5 V

Max. AC current (230 V / 120 V)

2,8 A / 5,6 A

Number of battery outlets

3 (max.)

Battery bank size

80-200 Ah

Nominal input voltage

120/240 V (80-275 V) 50/60 Hz

Galvanic isolation

ja

Display/read-out

LED display

Dimensions, hxxwx

291 x 210 x 105 mm

11.5 x 8.3 x 4.1 inch

Weight

2.5 kg

5.5 lb

Compliance

CE, CEC, DOE, ABYC, UL1236, cULus, SAE J1171, ISO 8846, ACMA

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, via automatic compensation or MasterShunt

Power consumption (DC side)

< 2 mA (MasterBus off)

Current Control function

yes, through MasterBus or CZone

Power factor control

> 0,98

Temperature range (ambient temp.)

-25 °C to 70°C, derating > 40 °C, 80% power at 60°C °C

-13 to 32 °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)