

ChargeMaster Plus 24/40-3



Product code: 44320400

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 three batteries in a fast and safe way and works anywhere in the world.

Battery's Best Friend

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.
- 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, ChargeMaster Plus is CE, E-mark, 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. 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, and large or small 12/24 V 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

General specifications

Nominal output voltage (output 1 & 2)	24 V
Nominal output voltage (output 3)	24 V / 12 V
Output current output 3 (current limited)	5-20 A at 24 V / 10 A at 12
Input current 'Smart Input'	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	2 + 1
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 ²
Power supply mode	yes
Display/read-out	LED display
Dimensions, hwxwx	384 x 250 x 127 mm 15.1 x 9.8 x 5.0 inch
Weight	5.9 kg 13.0 lb
Approvals	CE, E-mark, ABYC, UL1236, SAE J1171, CEC, RCM/C-Tick

Technical specifications

Charge characteristic	I _{UoUo} , automatic / 3-step+ for Gel/AGM/Lithium Ion/traction/spiral
Temperature compensation	-30 mV/°C / -17 mV/°F temperature sensor included
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 > 40 °C -13 to 176 °F
Protection degree	IP23, vertical mounting
Charger Status Interface (alarm contact)	yes, using a Multipurpose Contact Output (product code 77030500)
Protections	over-temperature, overload, short circuit, high/low battery voltage
Cooling	vario fan
MasterBus compatible	yes