

# ChargeMaster



Charging three batteries  
simultaneously

User-friendly operation

Easy to install

**The comfort of  
your home, any  
time, any place**



**MASTERVOLT**

THE POWER TO BE INDEPENDENT



# Battery chargers of a new generation

Mastervolt's motto is "The power to be independent". You can rely on being independent with this new generation of fully automated battery chargers: the Mastervolt ChargeMaster series. You can plug in and charge anywhere in the world. You can rest assured that your batteries are always quickly and fully charged, wherever you want to stop. Thanks to Mastervolt's 3-step+ charging process, your batteries will perform better and last longer.

## **Complete range 12 V and 24 V models**

The Mastervolt ChargeMasters are available in various versions, allowing you to select the battery charger best suited to your situation and wishes. The ChargeMaster 1-series offers three simultaneous charging outputs. The charger comes with two metres of cable pre-assembled to the inlet, so it truly is plug and play! The ChargeMaster 2- and 3-series have a single full output for your service battery and two 10A outputs, which are perfect for your start-up and thruster batteries. For specifications of all models, please refer to the back of this document.

## **Also works on generator power**

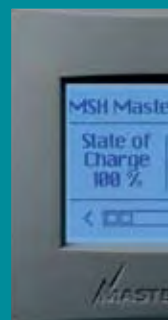
The ChargeMaster also works well with generator power. For the experts: thanks to the sophisticated "cos phi 1" technology, charging returns are extremely high, enabling optimal charging even with limited generator capacity.

## **Boat yards and installation suppliers are satisfied**

Boat yards can benefit from the ChargeMaster's autoranging capability as no separate stock is required for 120 V and 230 V models. Installation providers are also satisfied with the ChargeMaster; installing and connecting is a straightforward task. Combined with the single cable MasterBus system, this has become even easier. This wonderfully uncomplicated platform for communication and connections enables all components within your system to communicate. Configurations, checking, digital switching between components, full monitoring and safety; from the control panel or from your computer you retain a comprehensive overview and you always have the latest status of your system at hand.

## **Quality guaranteed**

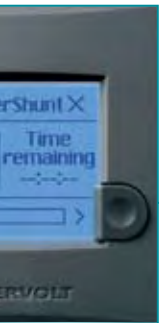
Every ChargeMaster complies with the latest international standards that apply for battery chargers. This means that each ChargeMaster complies with CE standards, E-marking (for mobile applications) and both the UL1236 and ABYC standards.





### Clear read-out panel

A clearly lit display on the ChargeMaster provides all essential information: charging current, charging voltage, charging phase (bulk, absorption, float), battery content measurement and/or battery condition measurement as a percentage of the available Ah capacity. The read-out panel also provides an indication of MasterBus communication. The system provides various alarms, including for excessive voltage. The three buttons adjacent to the read-out panel allow for easy operating of the entire system.



### MasterView Easy for remote monitoring

Our MasterView system with touch screen panel can configure all settings and monitor in real time charging phase, battery voltage, charging current, the % charged. In addition the MasterView Easy can also configure and monitor other Mastervolt equipment connected within the system for example, a Mastervolt Whisper generator and Mass Sine Inverter.



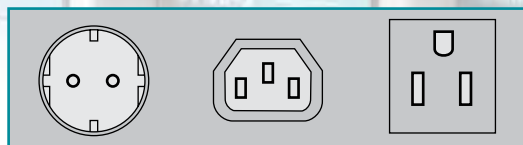
### Suitable as a portable charger

The ChargeMaster is suitable for any application you can think of, including electric vehicles, electric forklift trucks, cleaning equipment and other light industrial applications.



### Robust connections

The ChargeMaster is equipped with very robust metal to metal connections for the three DC cable outputs. This ensures solid connections and prevents corrosion and/or excessive heating of contact surfaces. The AC connection part is also safely separated and extremely shock-resistant. The battery charger setpoints are still easily accessible.



### Works with any voltage

The Mastervolt ChargeMaster works in any port thanks to its autoranging capability. Autoranging guarantees perfect, fully automated functionality, whichever the available voltage. It may be 90 V or 265 V AC, or have a frequency of 50 or 60 Hz - the 3-step + charging process ensures the batteries are quickly and fully charged. The memory function prevents devices from overcharging during peak currents, ensuring your battery lasts longer. Thanks to cos phi 1 adjustment, even low generator power will provide the same charging current.



### Easy to install

The Mastervolt ChargeMaster can be installed to internal bulkheads or the floor, by using the purpose designed mounting bracket supplied in conjunction with bolts or screws to fully secure the Chargemaster.





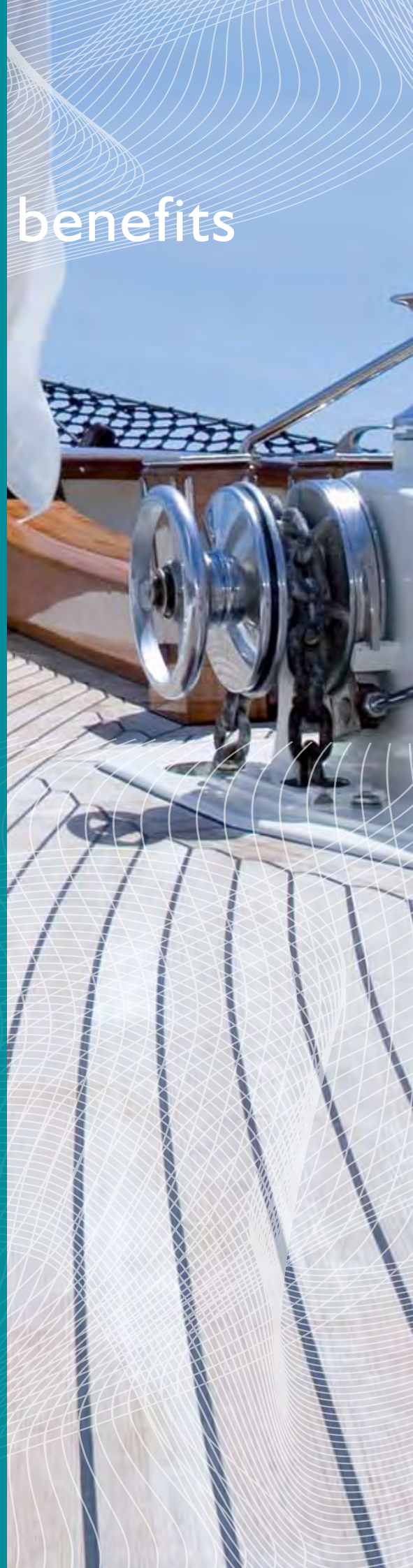
# ChargeMaster supreme benefits

- Plug in and charge - anywhere in the world
- High efficiency guaranteed with cos phi 1 adjustment
- Full charging current, even with low-quality generator power
- Suitable for simultaneous charging of three batteries
- No reduction of charging power if input power is low
- Charging capabilities optimised even in high ambient operating temperatures
- Standard safety features ensure full and safe charging.
- 3-step+ charging process for full and quick charging
- Memory function prevents overcharging with peaks in power supply
- Clear read-out panel
- Installing is quick and easy
- Embedded system functionality (MasterBus) when using other Mastervolt products, including the MasterShunt and generator



## More information?

Feel free to contact the closest point of sale or visit our website: [www.mastervolt.com](http://www.mastervolt.com)



# Technical specifications



**ChargeMaster 1  
12/35-3**

Article No. 44010350



**ChargeMaster 1  
12/50-3**

Article No. 44010500



**ChargeMaster 1  
24/20-3**

Article No. 44020200



**ChargeMaster 1  
24/30-3**

Article No. 44020300




## GENERAL SPECIFICATIONS

Nominal input voltage	120/230 V AC (90-135 & 180-265 V AC)			
Nominal input frequency	50/60 Hz (45-65 Hz)	50/60 Hz (45-65 Hz)	50/60 Hz (45-65 Hz)	50/60 Hz (45-65 Hz)
Nominal output voltage	12 V	12 V	24 V	24 V
Total charge current (up to 40 °C/104 °F)	35 A @ 14.4 V	50 A @ 14.4 V	20 A @ 28.8 V	30 A @ 28.8 V
Number of battery outlets	3 full outputs	3 full outputs	3 full outputs	3 full outputs
Current second output	35 A	50 A	20 A	30 A
Current third output	35 A	50 A	20 A	30 A
Charge characteristic	IUoUo, automatic / 3-step <sup>®</sup>			
Charge voltage Bulk (25 °C/77 °F)	14.40 V	14.40 V	28.8 V	28.8 V
Charge voltage Absorption (25 °C/77 °F)	14.25 V	14.25 V	28.5 V	28.5 V
Charge voltage Float (25 °C/77 °F)	13.25 V	13.25 V	26.5 V	26.5 V
Max absorption & max bulk time	8 hours (start max bulk timer @ 13.25 V)		8 hours (start max bulk timer @ 26.5 V)	
Min absorption time	15 min	15 min	15 min	15 min
Battery type settings	wet cel + gel/AGM/spiral	wet cel + gel/AGM/spiral	wet cel + gel/AGM/spiral	wet cel + gel/AGM/spiral
Dimensions, hxxwxd in mm/inch	291x210x131 / 11.5x8.3x5.2			
Weight	4 kg / 8.8 lbs	4 kg / 8.8 lbs	4 kg / 8.8 lbs	4 kg / 8.8 lbs
Recommended battery capacity	70-350 Ah	100-500 Ah	40-200 Ah	60-300 Ah

## TECHNICAL SPECIFICATIONS

Power factor regulations	≥0.98	≥0.98	≥0.98	≥0.98
Full load consumption (230 V AC)	575 VA	825 VA	660 VA	990 VA
Temperature compensation	battery temperature sensor including 6 m/20 ft cable delivered as a standard			
Voltage compensation	yes, by means of automatic compensation			
DC consumption	<5 mA	<5 mA	<2.5 mA	<2.5 mA
Display	unit has a display for charge current/voltage and charge status indication, monitoring upto 3 battery sets			
MasterBus connectivity	smart system integration via MasterBus (CAN) / Ethernet			
Temperature range	-25 to 65 °C, derating above 40 °C / -13 to 149 °F, derating above 104 °F			
Cooling	vario fan and natural cooling to ensure optimized cooling when unit stored in corners etc.			
Sound level	<52 dBA @ 1 m	<52 dBA @ 1 m	<52 dBA @ 1 m	<52 dBA @ 1 m
Protection degree	IP23	IP23	IP23	IP23
Approvals	fully CE and E-marking according to automotive directive 95/54/EG / UL pending			

## OPTIONS

MasterShunt (art. no. 77020100)		MasterBus compatible shunt, including DC mainfuse, Ah monitoring and control of charger to ensure optimized charging
MasterView Easy (art. no. 77010300)		touch screen to control and monitor all MasterBus products
MasterBus Multipurpose Contact (art. no. 77030500)		potential-free contact that can be used to control items such as fans, buzzers and non-MasterBus generators. Both a normally open and a normally closed output are provided. All MasterBus products can be configured to operate this contact.



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# Technical specifications



	ChargeMaster 2 12/70-3	ChargeMaster 2 12/100-3	ChargeMaster 2 24/40-3	ChargeMaster 2 24/60-3	ChargeMaster 3 24/80-3	ChargeMaster 3 24/100-3
Article no.	44010700	44011000	44020400	44020600	44020800	44021000





## GENERAL SPECIFICATIONS

Nominal input voltage	120/230 V AC (90-135 & 180-265 V AC)					
Nominal input frequency	50/60 Hz (45-65 Hz)					
Nominal output voltage	12 V	12 V	24 V	24 V	24 V	24 V
Total charge current (up to 40 °C/104 °F)	70 A @ 14.4 V	100 A @ 14.4 V	40 A @ 28.8 V	60 A @ 28.8 V	80 A @ 28.8 V	100 A @ 28.8 V
Number of battery outlets	3	3	3	3	3	3
Current second output	10 A	10 A	10 A	10 A	10 A	10 A
Current third output	10 A	10 A	10 A	10 A	10 A	10 A
Charge characteristic	IUoUo, automatic / 3-step <sup>Ⓢ</sup>					
Charge voltage Bulk (25 °C/77 °F)	14.40 V	14.40 V	28.8 V	28.8 V	28.8 V	28.8 V
Charge voltage Absorption (25 °C/77 °F)	14.25 V	14.25 V	28.5 V	28.5 V	28.5 V	28.5 V
Charge voltage Float (25 °C/77 °F)	13.25 V	13.25 V	26.5 V	26.5 V	26.5 V	26.5 V
Max. absorption & max. bulk time	8 hours (start max. bulk timer @ 13.25 V)			8 hours (start max. bulk timer @ 26.5 V)		
Min. absorption time	15 min	15 min	15 min	15 min	15 min	15 min
Battery type settings	wet cel + gel/AGM/spiral					
Dimensions, hxxwxd in mm / inch	360x277x150 / 14.2x10.9x5.9			430x277x150 / 16.9x10.9x5.9		
Weight	6.7 kg / 14.8 lbs	6.7 kg / 14.8 lbs	6.7 kg / 14.8 lbs	6.7 kg / 14.8 lbs	8.8 kg / 19.4 lbs	8.8 kg / 19.4 lbs
Recommended battery capacity	140-700 Ah	200-1000 Ah	80-400 Ah	120-600 Ah	160-800 Ah	200-1000 Ah

## TECHNICAL SPECIFICATIONS

Power factor regulations	≥0.98	≥0.98	≥0.98	≥0.98	≥0.98	≥0.98
Full load consumption (230V AC)	1200 VA	1700 VA	1400 VA	2000 VA	2700 VA	3375 VA
Temperature compensation	battery temperature sensor with 6 m / 20 ft cable delivered as a standard					
Voltage compensation	automatic	automatic	automatic	automatic	automatic	automatic
DC consumption	<10 mA	<10 mA	<5 mA	<5 mA	<5 mA	<5 mA
Display	unit has a display for charge current/voltage and charge status indication, monitoring upto 3 battery sets					
MasterBus connectivity	smart system integration via MasterBus (CAN) / Ethernet					
Temperature range	-25 to 65 °C, derating above 40 °C / -13 to 149 °F, derating above 104 °F					
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Protection degree	IP23	IP23	IP23	IP23	IP23	IP23
Approvals	fully CE and E-marking according to automotive directive 95/54/EG / UL					

## OPTIONS

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MasterView Easy (art.no. 77010300)		touch screen to control and monitor all MasterBus products
MasterBus Multipurpose Contact (art. no. 77030500)		potential-free contact that can be used to control items such as fans, buzzers and non-MasterBus generators. Both a normally open and a normally closed output are provided. All MasterBus products can be configured to operate this contact.
MasterView System (art.no. 77010400)		color touch screen to control and monitor your complete Mastervolt system

Subject to alterations. For our complete product range please visit [www.mastervolt.com](http://www.mastervolt.com)