

CHARGE WITHOUT COMPROMISE



MAC PLUS SERIES
48V & 36V DC-DC Chargers

MASTERVOLT

VISIT [MASTERVOLT.COM](https://www.mastervolt.com) FOR ALL THE PRODUCT SPECIFICATIONS

MAC PLUS SERIES

Boost your service battery

Too often, service batteries don't get the charge they need. This is a problem made worse by smart alternators and start/stop systems, which result in slow and insufficient charges. The Mac Plus 48V and 36V solve that problem. With **brand new bi-directional technology**, the Mac Plus can use each side as an input or output, delivering a reliable and consistent charge to both service and starter batteries.

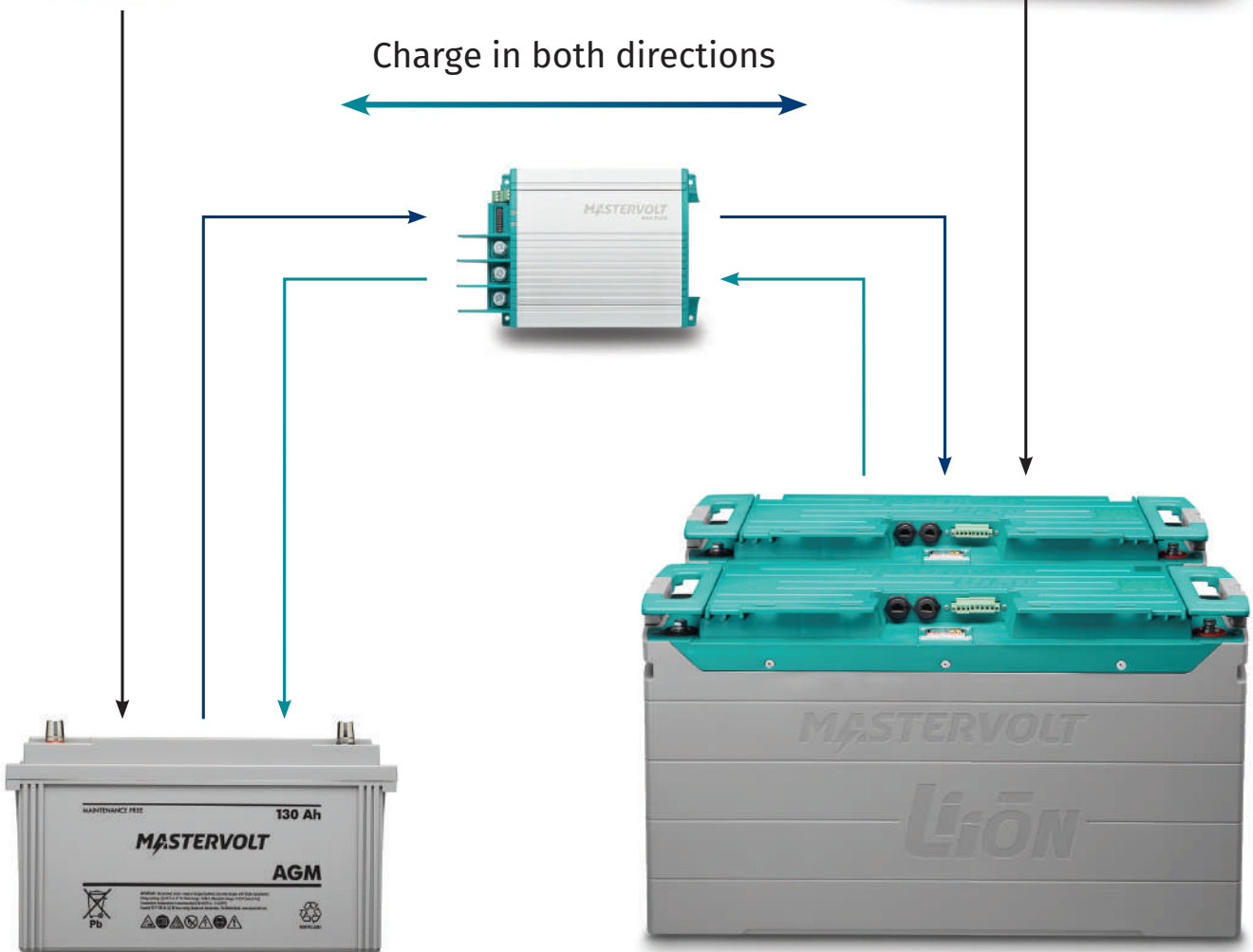
Low voltage side
(12/24V)



High voltage side
(36/48V)



Charge in both directions



PROVEN MASTERVOLT QUALITY

The Mac Plus uses the proven Mastervolt 3-step+ charge algorithm, delivering a quick and easy charge, even to completely flat batteries. By knowing when the engine is running and providing charge, you can also be sure that the Mac Plus will never drain your starter battery.

TOTAL POWER FLEXIBILITY

With a wide DC input range, the Mac Plus allows all DC sources and can charge two batteries from a single alternator or charger. It also functions seamlessly with modern alternators such as Euro 5 and 6, ensuring proper charging by providing constant power, even when the alternator is inactive.

Parallel configuration of up to ten units will provide over 100 amperes. And advanced high-frequency technology with modern microprocessors ensures minimal power loss when switching from 36/48V to 12/24V and vice versa.

SUPERIOR MONITORING & CONTROL

Compatibility with CZone®, NMEA 2000® and MasterBus delivers truly superior monitoring and control, and ensures Mac Plus integrates easily into complete systems. Configure the Mac Plus with ease via MasterAdjust, the CZone configuration tool, or even via the on-board DIP switches.



KEY FEATURES

- Bi-directional technology allows you to charge both your batteries
- 36V & 48V in/output (high side)
- 12V or 24V in/output (low side)
- Fanless design for silent operation
- Suitable for flooded, Gel, AGM and Li-Ion batteries (incl. LiFePO4)
- Adjustable current limits to meet Euro 5/6 requirements
- MasterBus, CZone and NMEA 2000 compatible
- Temperature compensation and voltage sense for an optimal charging result
- E-Mark/R10 certification for mobile applications
- Power supply mode offers stable power for sensitive loads



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TECHNICAL SPECIFICATIONS

MAC PLUS	48/12-50	12/48-15	48/24-30	24/48-15
Product code	81203105	81203205	81203305	81203405
Input voltage range	32-64 V DC	8-16 V DC	32-64 V DC	16-32 V DC
Output voltage range	10-15 V DC	30-60 V DC	20-30 V DC	30-60 V DC
Nominal input voltage	36/48 V DC	12 V DC	36/48 V DC	24 V DC
Nominal output voltage	12 V DC	36/48 V DC	24 V DC	36/48 V DC
Output power (max.)	750 W	900 W	900 W	900 W
Max. input current	25 A	60 A	25 A	50 A
Max. output current	50 A	15 A	30 A	15 A
Weight	2 kg / 4.4 lb			
Dimensions, hwxwd	255 x 165 x 66 mm / 7.5 x 5.1 x 2.4 inch			
Alarm contact	Yes			
DIP switches	Yes, for basic set up			
IP rating/protection degree	IP23			
Parallel configuration	Yes			
Galvanic isolation	No			
Battery voltage sense	Yes			
Status indicator	Yes, 3 color double led			
Battery types	Gel, AGM, Lithium Ion, user defined			
Power consumption	< 5 mA, < 10 mA in CZone, < 1 mA in MasterBus			
Efficiency	> 95 % at full output			
Protection	Overload, over-temperature, DC short circuit, reversed polarity (fuse)			
Communication protocol options	MasterBus®, CZone® & NMEA 2000®			
Bi-directional control	Yes, through MasterBus, CZone or remote switch			
Cooling	Natural cooling			
Temperature range	- 25 °C to 60 °C; derating > 40 °C/104 °F			
Engine run signal input	Yes (active high/active low)			
Output voltage stabilisation	2 % at extremes of temps, load and input			
Output voltage ripple	Max. 1 % peak			
Approvals	CE, E-Mark, SAE J1171, ISO 8846 ignition protected, FCC & UKCA			



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MAS-020-SB-0923