

Charge regulators and alternators: For rapidly recharged batteries

QUOTE

"It is important for us to work with companies that understand our needs, offer high quality products and knowledgeable technical support. Mastervolt has collaborated with us throughout the design process, offering products that work well in our applications, and they stand by their products."

CHRIS SITZENSTOCK,
SHORE & BUILD TEAM PROJECT MANAGER
ORACLE TEAM USA



The already present alternator on the main engine is designed to charge the starter battery. As a result the combination is not ideal for fast and full charging of other batteries. Especially if you want to charge the batteries over a short time or when powering a heavy load.

There are two options to solve this issue:

Equip the standard alternator with a Mastervolt Alpha Pro MB charge regulator. This charge regulator maximizes the output of alternators by regulating the alternator in a way that batteries receive the optimum charge. The proven 3-step+ charge method guarantees fast and safe charging of your batteries.

You can also choose a powerful second Mastervolt Alpha alternator with Alpha Pro MB charge regulator. This combination was specifically designed for charging service batteries, and allows you to charge quickly and turn off your engine when you want.

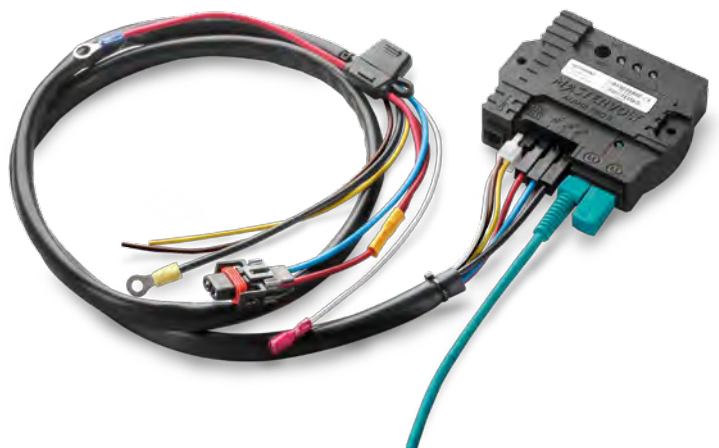
Alpha Pro MB charge regulators

- Suitable for 12 and 24 V.
- Including plug & play connection cable, also for Bosch alternators.
- Automatic voltage and temperature compensation.
- MasterBus compatible.

Alpha alternator series

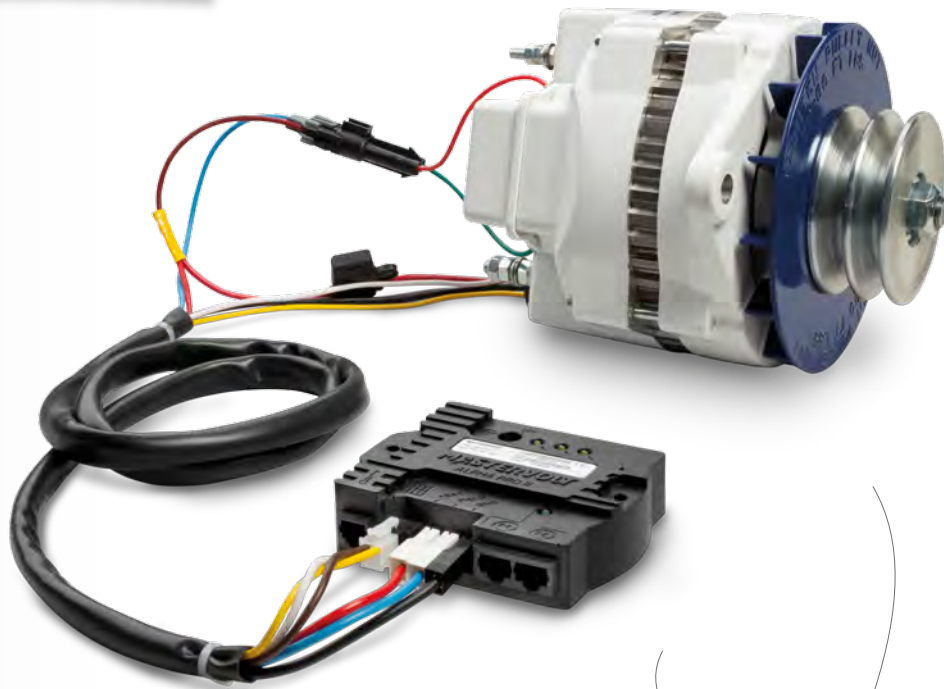
- Fast & complete charging of all batteries.
- Power supply for all consumers.
- 12 V and 24 V versions.
- 75 A to 150 A charge current.
- Standard delivered with Alpha Pro MB charge regulator for an optimal performance and longer-lasting batteries.

The charge regulator measures the battery temperature and adjusts the charging process accordingly, resulting in a safe and fast charge. Therefore the battery is always kept in good condition.



TIP:

A second alternator on the main engine, combined with a larger battery bank and inverter, could be an alternative for a generator.



For all engine types

Alpha alternators are equipped with several fixations for customised alternator brackets, available from your installer or engine supplier. Some engine brands come with Mastervolt alternator brackets as an option.

Fast charging, even at a stationary rpm



Standard alternators only supply the specified capacity at a high rpm. The Mastervolt Alpha alternator is specifically designed to charge powerfully, even with a low engine rpm.

Alpha Pro MB: Easy to operate

Easy operation LEDs on the body of the regulator indicate the charge phase. The charge regulator is designed as a 'fit all' solution, just one unit is needed for both 12 and 24 V applications, with a simple selector switch to set the regulator to the right voltage. The unit can also be used on any other brand of alternator that has a standard Bosch connector, with a cable supplied as standard.

MasterBus connectivity

The Alpha Pro MB is compatible with MasterBus, allowing easy monitoring via a MasterView touch screen. In a MasterBus system the voltage drop over the battery cable and the battery temperature will be compensated automatically.



Multi-belt pulley



The 12/130 and 24/75 models are also available with a multi-belt pulley.

Performs above 40 °C



Forced cooling by fan operation of the pulley provides a lot of power in higher temperatures, especially close to the engine.

Specifications Alpha Pro MB



Alpha Pro MB

Product code	45512000
GENERAL SPECS	
Link to MasterShunt	yes
Connection to Mastervolt alternator	yes
Connection to Bosch alternator	yes
Cooling	fanless
Nominal output voltage	12 V / 24 V
Cable length regulator/alternator	1.5 mtr oil resistant connection cable
Cable length temperature sensor	6 mtr
Connection plug regulator/alternator	Alpha/Mastervolt
Display/read-out	LED display
MasterBus powering	yes
Dimensions, hwxwd	90 x 109 x 30 mm 3.5 x 4.3 x 1.2 inch
Weight	0.4 kg / 0.9 lb
Approvals	CE
TECHNICAL SPECS	
Charge characteristic	IUoUo, automatic / 3-step+ for gel/AGM/wet/Lithium Ion
Charge voltage Bulk	14.25 V / 28.5 V
Charge voltage Absorption	14.25 V / 28.5 V
Absorption time	4 hours, adjustable from 2 minutes to 12 hours
Charge voltage Float	13.25 V / 26.5 V
Temperature compensation	-30 mV / °C
Voltage compensation	voltage drop compensation in DC cables up to 3 V
Alternator type	various



Specifications Alpha alternators



	12/90 MB	12/130 MB*	24/75 MB*	24/110 MB	24/150 MB
Product code	48512090	48512130	48524075	48524110	48524150
GENERAL SPECS					
Charge regulation	the Alpha Pro MB regulator comes standard with all models	the Alpha Pro MB regulator comes standard with all models	the Alpha Pro MB regulator comes standard with all models	the Alpha Pro MB regulator comes standard with all models	the Alpha Pro MB regulator comes standard with all models
Total charge current	90 A	130 A	75 A	110 A	150 A
Cable length regulator/alternator	1.5 metre, oil resistant connection cable - delivered as standard	1.5 metre, oil resistant connection cable - delivered as standard	1.5 metre, oil resistant connection cable - delivered as standard	1.5 metre, oil resistant connection cable - delivered as standard	1.5 metre, oil resistant connection cable - delivered as standard
Belt section	2xA	2xA	2xA	2xA	2xA
Isolated from mass	yes	yes	yes	yes	yes
Directions of revolutions	2	2	2	2	2
Mounting	five to six, six o'clock & five past six	six o'clock	six o'clock	six o'clock	five to six, six o'clock & five past six
Dimensions	go to www.mastervolt.com/alternators for the drawings	go to www.mastervolt.com/alternators for the drawings	go to www.mastervolt.com/alternators for the drawings	go to www.mastervolt.com/alternators for the drawings	go to www.mastervolt.com/alternators for the drawings
Weight	5.5 kg / 12.1 lb	10.1 kg / 22.3 lb	10.1 kg / 22.3 lb	10.1 kg / 22.3 lb	13.1 kg / 28.9 lb
TECHNICAL SPECS					
Charge voltage absorption	14.25 V	14.25 V	28.5 V	28.5 V	28.5 V
Charge voltage float	13.25 V	13.25 V	26.5 V	26.5 V	26.5 V
Pulley (double) diameter	73 mm	88 mm	88 mm	88 mm	92 mm

* Available with multi-belt pulley.
Product code 12/130 model = 48512131
Product code 24/75 model = 48524076