



MasterShunt and DC Distribution

Battery monitor and main distribution -
300 A continuous

Mastervolt is the leading manufacturer of state-of-the-art power electronic products for marine, mobile and solar applications.

The wiring between the battery and the electronic system has always been a burden. With the introduction of the MasterShunt and the DC Distribution Mastervolt now offers an integrated solution that removes cabling problems.

Purpose

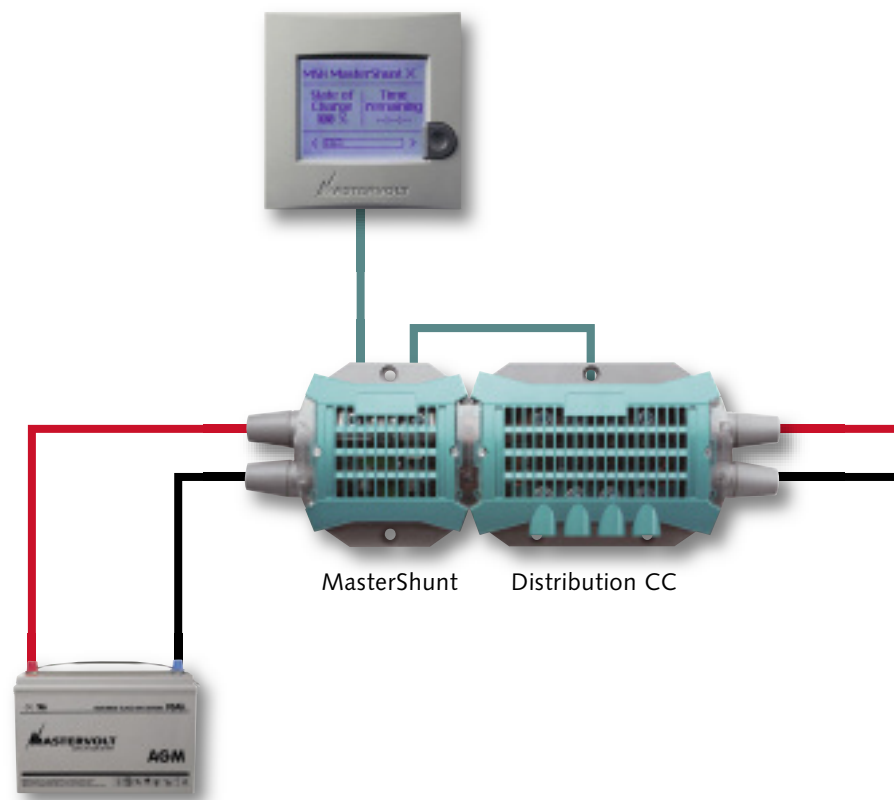
Two products - the MasterShunt and DC Distribution - that are modular and provide an integrated solution for battery monitoring, battery safety and main DC distribution.

The MasterShunt incorporates a digital shunt to measure all required battery parameters and convert this to high level data that is communicated via the MasterBus.

MasterBus

With MasterBus, Mastervolt is taking the next step forward in implementing system intelligence, reducing wiring, simplifying installations, improving flexibility for everyone. Be it the installer, yard, service personal or the end customer.

MasterBus is the key word here for enabling these added benefits. This new communication and connection platform has been designed over the last three years to interact with the yacht of the future. By connecting all products together via the MasterBus, an information highway is created that mimics the functionality of today with a less complex installation and easier operation.



Battery monitoring

If you require utmost reliability from your system, knowing the status of your battery is crucial. By digitalization of the shunt, Mastervolt has increased precision and at the same time simplified installation. Further reductions in installation effort are achieved by integrating the main system fuse in the MasterShunt.

Battery safety

Adding the main system fuse to the MasterShunt was a logical step. Both the main system fuse and the shunt must be located as close as possible to the battery.

The MasterShunt removes all the complexity of twisted sense wires, small fuses in signal wires and the big system fuse.

DC Distribution

The modular DC Distribution can be connected to the MasterShunt in seconds. Creating a high tech, fully monitored connection between your battery and the main DC components like battery chargers, inverters, alternators and solar panels.

- MODULAR SYSTEM
- EASY TO INSTALL
- REAL TIME CLOCK FOR AUTO FUNCTIONS
- MASTERBUS ENABLED
- AUTO START/STOP FOR GENERATOR

TECHNICAL SPECIFICATIONS



MasterShunt 500

Article number	77020100
GENERAL SPECIFICATIONS	
Nominal battery voltage	12 V, 24 V, 48 V
Rating	300 A continuously, 400 A for 10 min., 500 A for 5 min., 600 A for 2 min.
Cranking rating 10 x 10 sec	600 A
Maximum battery capacity	10,000 Ah
Battery types	AGM / Gel / wet cell
Dimensions (h x w x d)	150 x 146 x 65 mm
Weight	1000 gr
Protection degree	IP21 vertical mounting
Operational temperature	-10 to 50 °C
TECHNICAL SPECIFICATIONS	
Power consumption	12 mA @ 12 V / 11 mA @ 24 V
Internal clock	yes, accuracy < 5 PPM, including date
Voltage measurement range	7 to 60 V
Current measurement range	-1000 to +1000 A
Voltage measurement precision	< 0.05 V
Current measurement precision	< 0.2 A
MASTERBUS	enabled
System functionality	alarms, timers, auto start/stop for generator
System functionality	20, customisable
MasterBus system language	ENG, NL, DE, SP, IT, FRA, FIN, SWE, DEN, NOR
MasterBus system time/date	yes
ALARMS	
Programmable alarms	pre low voltage, low voltage alarm, pre low state of charge, low state of charge and high voltage
ENVIRONMENT	
Operating temperature specified (will meet specified tolerances)	full spec -40 to 65 °C ambient temperature
Relative humidity	protected against humidity and condensing air by conformal coating on both sides of all PCB's. Max. 95% relative humidity, none condensing.



DC Distribution 500

Article number	77020200
GENERAL SPECIFICATIONS	
Nominal battery voltage	12 V / 24 V
Rating	300 A continuously
Cranking rating 10x10 sec	500 A
Connections	<ul style="list-style-type: none">• main input, output 1 to 4 fused• negative connection for earthing the system• main output, not fused
Installed fuses	180, 120, 80, 80 A continuously monitored
Spare fuse	yes, 80 A
Dimensions (h x w x d)	150 x 216 x 65 mm
Weight	1500 gr
Protection degree	IP21 vertical mounting
Operational temperature	-10 to 50 °C
MasterBus system language	ENG, NL, DE, SP, IT, FRA, FIN, SWE, DEN, NOR
MasterBus system time/date	yes
ALARMS	
Programmable alarms	fuse error
ENVIRONMENT	
Operating temperature specified (will meet specified tolerances)	full spec -40 °C to 65 °C ambient temperature
Relative humidity	protected against humidity and condensing air by conformal coating on both sides of all PCB's. Max. 95% relative humidity, none condensing.

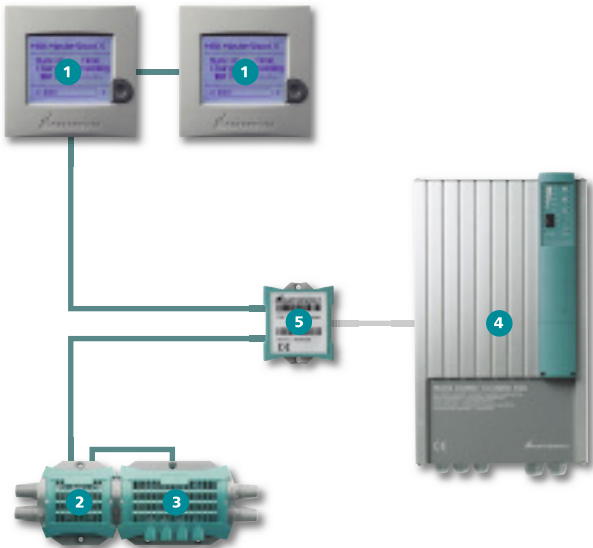
MasterBus: in systems with a battery charger



- 1 MasterView Easy
- 2 MasterShunt 500
- 3 ChargeMaster

Via the MasterView Easy both the ChargeMaster and MasterShunt can be monitored and operated. For battery temperature and voltage sensing the ChargeMaster will rely on the information provided by the MasterShunt, without the need to install additional cables. Accurate Ah information of the battery comes with it shown on the MasterView Easy panel, as well as the ChargeMaster itself.

MasterBus: extensive system controls



- 1 MasterView Easy
- 2 MasterShunt 500
- 3 DC Distribution 500
- 4 Mass Combi charger/inverter
- 5 MasterBus Serial Interface

A Mass Combi can be connected to MasterBus via the MasterBus Serial Interface. The MasterView Easy can now operate the Mass Combi and other products like the MasterShunt and DC Distribution. Configuration as dedicated displays is possible, even when more displays are added.