

Mastervolt Sine Wave Inverters

- AC Master & Mass Sine

An onboard AC installation offers you a wealth of benefits by making possible the use of any domestic appliance, from microwave oven to hair dryer, DVD player to power tools. An inverter allows you to easily convert the voltage of your 12V or 24V battery to 230V/50Hz or 120V/60Hz, so you enjoy all the comforts of home wherever you choose to cruise.

Complete range

Mastervolt offers a complete range of inverters from 300 Watt to 15kWatt in AC Master and Mass Sine models. The AC Master is ideal for small and medium sized vessels, while Mass Sine inverters are mainly intended for larger systems on superyachts and for (semi) professional purposes. Mastervolt offers inverters for 230V/50Hz as well as 120V/60Hz (American voltage).

Proven technology

Mastervolt's Mass Sine sine wave inverters have proven themselves in the most extreme conditions for over ten years. Although the dimensions and connections of the various models have remained the same, the technology has evolved with the times, resulting in a fast, efficient, one-on-one replacement with minimal downtime.

The Mastervolt AC Master inverters are small, lightweight and silent. Installation and operation are incredibly easy.

Completely independent on shore power

Shore power regularly fluctuates and can cause your lights to flicker. Sometimes it may even drop below 180 volt, causing some onboard devices to stop functioning. The Mastervolt sine wave inverter ensures a perfect 230 volt onboard, and makes shore power problems a thing of the past. The pure sine wave current also helps protect your equipment against failures, humming or lines on your TV and ensure a longer lifespan. Ensure you have the correct match between your inverter power and the connected load.

MASTERVOLT
THE POWER TO BE INDEPENDENT

An end to humming with HF technology

Our use of high-frequency switch technology means you can say goodbye to humming transformers. Mastervolt inverters are also small and lightweight to ensure easy installation.

High peak power during start up

The Mastervolt sine wave inverter can provide up to 200% capacity to equipment that requires extra power during start up.



Simple and safe to connect

The inverters benefit from robust connection technology with internal connections for the larger models and a cable and plug and play inlet for smaller models.



Efficient use of batteries

A high degree of efficiency when inverting and the automatic economy mode when there is no consumption gives you longer use of your batteries and more hours on the water.



MasterBus compatible

Thanks to the MasterBus Inverter Interface or AC power analyser, every Mass Sine inverter can be easily connected to a MasterBus network with only one cable and one connection. You can also choose for central, local or remote monitoring, configuration and control of your system.



Optimal ease of operation


Mastervolt's Mass Sine inverters are easy to operate via controls on the device, via a control panel or remote control text messaging. Plus numerous options for central or local control and monitoring via the MasterBus platform.

Mastervolt SineWave Inverter - AC Master 230V

BLA Code	110424	110427	110430	110432
Description	AC Master 12/300	AC Master 12/500	AC Master 24/300	AC Master 24/500
General Specifications				
Nominal battery voltage	12V	12V	24V	24V
Recommended battery capacity	≥60Ah	≥100Ah	≥30Ah	≥50Ah
Output voltage (± 5%)	230V – 50Hz (± 0.1%)	230V – 50Hz (± 0.1%)	230V – 50Hz (± 0.1%)	230V – 50Hz (± 0.1%)
Continuous power at 25°C, cos phi 1	300 W	500 W	300 W	500 W
Continuous power at 40°C, cos phi 1	250 W	400 W	250 W	400 W
Peak load	600 W	800 W	600 W	800 W
Output waveform	true sine	true sine	true sine	true sine
Efficiency	90%	90%	91%	91%
Display/read out	LED display	LED display	LED display	LED display
Dimensions, HxWxD mm	210x130x60	210x130x60	210x130x60	210x130x60
Weight kg	1.16	1.22	1.16	1.22
Approvals	CE, E-mark, ABYC A-31	CE, E-mark, ABYC A-31	CE, E-mark, ABYC A-31	CE, E-mark, ABYC A-31
Technical Specifications				
Technology	HF switch mode	HF switch mode	HF switch mode	HF switch mode
Low battery voltage, switches off at	10V, ± 0.5V	10V, ± 0.5V	20V, ± 0.5V	20V, ± 0.5V
Low battery voltage, switches on at	11V, ± 0.5V	11V, ± 0.5V	22V, ± 0.5V	22V, ± 0.5V
High battery voltage, switches off at	16V, ± 0.5V	16V, ± 0.5V	32V, ± 0.5V	32V, ± 0.5V
High battery voltage, switches on at	14.5V, ± 0.5V	14.5V, ± 0.5V	29V, ± 0.5V	29V, ± 0.5V
Max. ripple on DC (battery)	10% RMS	10% RMS	10% RMS	10% RMS
Input current (nominal load)	22.5A	37.5A	11A	19A
No load power consumption: • "on" mode (230V) • standby (scan mode)	0.58A – 7 W 0.33A – 4 W	0.58A – 7 W 0.33A – 4 W	0.29A – 7 W 0.16A – 4 W	0.29A – 7 W 0.16A – 4 W
Minimal DC fuse (slow blow)*	40A	80A	20A	40A
Minimal cable size	included	included	included	included
Harmonic distortion typical	<6%	<6%	<6%	<6%
Cos Phi	all power factors allowed	all power factors allowed	all power factors allowed	all power factors allowed
Temperature range (ambient temp.)	-25°C–60°C, >25°C derating -13°F–140°F, >77°F derating	-25°C–60°C, >25°C derating -13°F–140°F, >77°F derating	-25°C–60°C, >25°C derating -13°F–140°F, >77°F derating	-25°C–60°C, >25°C derating -13°F–140°F, >77°F derating
Cooling	natural/forced	natural/forced	natural/forced	natural/forced
Sound level	53 dBA at 1 mtr	53 dBA at 1 mtr	53 dBA at 1 mtr	53 dBA at 1 mtr
Protection degree	IP23	IP23	IP23	IP23
Protections	over temperature, over load, short circuit, high battery, low battery			
MasterBus compatible	no	no	no	no
AC connection	universal	universal	universal	universal

*DC fuse depends on the cable size.

Mastervolt Sine Wave Inverter - Mass Sine 230V & 120V

BLA Code	230V	110440	110442	110444	110448
	120V	55-25012000			
Description		Mass Sine 12/800	Mass Sine 12/1200	Mass Sine 12/2000	Mass Sine 24/800
General Specifications					
Nominal battery voltage		12V	12V	12V	24V
Minimum battery capacity		>100Ah	>150Ah	>200Ah	>50Ah
Output voltage (± 5%)		230V – 50Hz (± 0 .01Hz)	230V – 50Hz (± 0 .01Hz)	230V – 50Hz (± 0 .01Hz)	230V – 50Hz (± 0 .01Hz)
P30 power at 40°C, cos phi 1		800 W	1200 W	2000 W	800 W
Continuous power at 40°C, cos phi 1		650 W	1000 W	1800 W	650 W
Peak load		1600 W	2400 W	4000 W	1600 W
Output waveform		true sine	true sine	true sine	true sine
Efficiency		92%	92%	92%	92%
Display/read-out		LED display	LED display	LED display	LED display
Dimensions, HxWxD mm		325x220x111	340x261x130	420x318x136	325x220x111
Weight kg		3.9	8	14.6	3.9
Approvals		CE, E-mark, ABYC A-31	CE, E-mark, ABYC A-31	CE, E-mark, ABYC A-31	CE, E-mark, ABYC A-31
Technical Specification					
Technology		HF switch mode	HF switch mode	HF switch mode	HF switch mode
Low battery voltage, switches off at		10V, ± 0.5V	10V, ± 0.5V	10V, ± 0.5V	19V, ± 0.5V
Low battery voltage, switches on at		11V, ± 0.5V	11V, ± 0.5V	11V, ± 0.5V	22V, ± 0.5V
High battery voltage, switches off at		15.5V, ± 0.5V	15.5V, ± 0.5V	15.5V, ± 0.5V	32V, ± 0.5V
High battery voltage, switches on at		14.5V, ± 0.5V	14.5V, ± 0.5V	14.5V, ± 0.5V	30V, ± 0.5V
Max. ripple on DC (battery)		5% RMS	5% RMS	5% RMS	5% RMS
Input current (nominal load)		73A	110A	183A	36A
No load power consumption: • 'on' mode (230V) • stand-by (scan mode)		470 mA – 5.6 W 65 mA – 0.8 W	450 mA – 5 W 43 mA – 0.5 W	480 mA – 6 W 50 mA – 0.6 W	240 mA – 5.6 W 35 mA – 0.8 W
Minimal DC fuse (slow blow)**		100A	150A	250A	63A
Minimal cable size		25 mm ²	50 mm ²	70 mm ²	16 mm ²
Harmonic distortion typical		<5%	<5%	<5%	<5%
Cos Phi		all power factors allowed	all power factors allowed	all power factors allowed	all power factors allowed
Temperature range (ambient temp.)		-25°C–80°C, >40°C derating -13°F–176°F, >104°F derating		-25°C–80°C, >40°C derating -13°F–176°F, >104°F derating	
Cooling		natural/forced	natural/forced	natural/forced	natural/forced
Sound level		48 dBA at 1 mtr	48 dBA at 1 mtr	48 dBA at 1 mtr	48 dBA at 1 mtr
Protection degree		IP23	IP23	IP23	IP23
Protections		over temperature, over load, short circuit, high battery, low battery			
MasterBus compatible		yes, using a MasterBus Inverter Interface or AC power analyser 			
AC connection		internal	internal	internal	internal
Options					
Model C4-RI 55-70404110		Remote control on/off for the Mass Sine sine wave inverter.			
Masterlink/MICC 110688		Battery consumption meter for 2 batteries, 12/24V DC with LCD read-out, remote control for Mass Sine inverter and Mass battery charger or Mass Combi.			
MasterBus Inverter Interface 110568		Integrates the Mass Sine inverter in a MasterBus network in a MasterBus network.			
AC power analyser 110594		Integrates the Mass Sine inverter in a MasterBus network and measures the AC voltage, current and power.			
Transfer system		The Masterswitch and Systemswitch can be connected to all inverters.			
6m 6-wire cable with RJ12 connectors 110602		Connects C4-RI (55-70405000) and 110688 remote panels.			
10m 6-wire cable with RJ12 connectors 110604		Connects C4-RI (55-70405000) and 110688 remote panels.			

*Also available in 60 Hz; item # 2500 W model = 55-24122500 / item # 5000 W model = 55-24195100.

**DC fuse depends on the cable size.

110450	110452	110454	55-24042500
Mass Sine 24/1500	Mass Sine 24/2500*	Mass Sine 24/5000*	Mass Sine 48/2500
24V	24V	24V	48V
>150Ah	>200Ah	>400Ah	>100Ah
230V – 50Hz (± 0 .01Hz)	230V – 50Hz (± 0 .01Hz)	230V – 50Hz (± 0 .01Hz)	230V – 50Hz (± 0 .01Hz)
1500 W	2500 W	5000 W	2500 W
1200 W	2000 W	4000 W	2000 W
2900 W	5000 W	9000 W	5000 W
true sine	true sine	true sine	true sine
92%	92%	92%	92%
LED display	LED display	LED display	LED display
340x261x130	420x318x130	470x315x254	420x318x130
8	14.6	25	14.6
CE, E-mark, ABYC A-31	CE, E-mark, ABYC A-31	CE, E-mark, ABYC A-31	CE, E-mark, ABYC A-31
HF switch mode	HF switch mode	HF switch mode	HF switch mode
19V, ± 0.5V	19V, ± 0.5V	19V, ± 0.5V	36V, ± 0.5V
22V, ± 0.5V	22V, ± 0.5V	22V, ± 0.5V	44V, ± 0.5V
32V, ± 0.5V	33V, ± 0.5V	32V, ± 0.5V	62V, ± 0.5V
30V, ± 0.5V	31V, ± 0.5V	30V, ± 0.5V	59V, ± 0.5V
5% RMS	5% RMS	5% RMS	5% RMS
68A	115A	230A	60A
200 mA – 5 W 25 mA – 0.6 W	250 mA – 6 W 25 mA – 0.6 W	250 mA – 6 W n.a.	150 mA – 6 W 13 mA – 0.7 W
100A	160A	1x 250A or 2x 125A	80A
25 mm ²	50 mm ²	2x 70 mm ²	25 mm ²
<5%	<5%	<5%	<5%
all power factors allowed	all power factors allowed	all power factors allowed	all power factors allowed
-25°C–80°C, >40°C derating -13°F–176°F, >104°F derating		-25°C–80°C, >40°C derating -13°F–176°F, >104°F derating	
natural/forced	natural/forced	natural/forced	natural/forced
48 dBA at 1 mtr	48 dBA at 1 mtr	48 dBA at 1 mtr	48 dBA at 1 mtr
IP23	IP23	IP23	IP23
over temperature, over load, short circuit, high battery, low battery			
yes, using a MasterBus Inverter Interface or AC power analyser 			
internal	internal	internal	internal

Remote control on/off for the Mass Sine sine wave inverter.

Battery consumption meter for 2 batteries, 12/24V DC with LCD read-out, remote control for Mass Sine inverter and Mass battery charger or Mass Combi.

Integrates the Mass Sine inverter in a MasterBus network in a MasterBus network.

Integrates the Mass Sine inverter in a MasterBus network and measures the AC voltage, current and power.

The Masterswitch and Systemswitch can be connected to all inverters.

Connects C4-RI (**55-70405000**) and **110688** remote panels.

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