



THE POWER
TO BE INDEPENDENT



NEW
PRODUCTS
2016

MASTERVOLT



Mastervolt stands for reliable autonomous power solutions. As specialists in the management, conversion and storage of electrical energy, we offer a comprehensive product portfolio with a power range from 300 to 40,000 watts. Our electric solutions are widely used in demanding markets such as marine, mobile, offshore, industrial, autonomous solar and infrastructure.

New systems for an empowered world

This brochure is designed to showcase the latest additions to the Mastervolt portfolio of products and systems. From small to large, all were created based on client feedback and dedicated improvement processes.

Practical experiences have been combined with smart innovative technologies to offer solutions that are tailor-made for your industry. And we are delighted to report that Mastervolt also caught the eye of the jury of the DAME Design Award, who nominated our ChargeMaster Plus for the Innovation Award 2016.

As a world leader in maritime, mobile and industrial electrical systems, we always strive to go the extra mile for our clients. That's why it gives us such pleasure to introduce these products in general and our brand-new online software platform Amperian in particular.

We invite you to browse through this New Products brochure and discover the latest developments of our engineers, created with you in mind.

MASTERVOLT
THE POWER TO BE INDEPENDENT

Mastervolt proudly presents:
New products 2016



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AC Master series

Reliable AC power for recreational and semi-professional use

These affordable sine wave inverters convert 12 or 24 V battery voltage into reliable 230 V 50/60 Hz grid power, making them ideal for recreational and semi-professional applications. The AC Master series is easy to install and delivers full output, even under the most demanding conditions.

The pure sine wave technology provides an outstanding power quality, ensuring the correct functioning of sensitive equipment. The usage of high frequency switching technology eliminates any annoying humming and buzzing sounds.

Representing complete value for money, these ruggedly built inverters provide essential home comforts when you're far from the nearest grid connection. The large size AC Master 2500 and 3500 are expected to be available early 2017.



Specifications AC Master series

Product code

GENERAL SPECIFICATIONS

Output voltage

Output waveform

Nominal battery voltage

Continuous power at 40 °C / 104 °F, cos phi 1

Peak load (1 min.)

Peak load (1 sec.)

AC connection

Efficiency

Display/read-out

Dimensions, hwxwd

Weight

Alarms

Approvals

Optional

TECHNICAL SPECIFICATIONS

Technology

Low battery voltage, switches off at

Low battery voltage, switches on at

High battery voltage, switches off at

High battery voltage, switches on at

Input current (nominal load)

No-load power consumption (ON mode)

No-load power consumption (energy saving mode)

Minimal DC fuse (slow blow)

Minimal cable size

Harmonic distortion typical

Cos phi

Temperature range (ambient temp.)

Protection degree







Protections

Cooling

MasterBus compatible

Features

- Complete range from 300 W to 3500 W.
- Pure sine wave technology protects sensitive equipment.
- Delivers full output at high peak power under the most demanding conditions.
- Variable speed fan for quiet operation at low power.
- Automatic power saving system for extended runtime.
- Compact and lightweight design, saving valuable installation time.
- Reliable and safe operation; protected against over-temperature, overload, short circuit, high or low battery voltage.
- Optional remote control for instant switch off.
- Convenient plug connection for all models.

					
AC Master 12/700	AC Master 12/1000	AC Master 12/1500	AC Master 24/700	AC Master 24/1000	AC Master 24/1500
28010700	28011000	28011500	28020700	28021000	28021500
200/220/230/240 V 50/60 Hz (selectable)	200/220/230/240 V 50/60 Hz (selectable)	200/220/230/240 V 50/60 Hz (selectable)	200/220/230/240 V 50/60 Hz (selectable)	200/220/230/240 V 50/60 Hz (selectable)	200/220/230/240 V 50/60 Hz (selectable)
true sine	true sine	true sine	true sine	true sine	true sine
12 V	12 V	12 V	24 V	24 V	24 V
700 W	1000 W	1500 W	700 W	1000 W	1500 W
< 810 W	< 1150 W	< 1730 W	< 810 W	< 1150 W	< 1730 W
< 1230 W	< 1750 W	< 2650 W	< 1230 W	< 1750 W	< 2650 W
plug connection EU (Schuko) or UK	plug connection EU (Schuko) or UK	plug connection EU (Schuko) or UK	plug connection EU (Schuko) or UK	plug connection EU (Schuko) or UK	plug connection EU (Schuko) or UK
91%	92%	93%	93%	94%	94%
LED indication: battery voltage, load level, status	LED indication: battery voltage, load level, status	LED indication: battery voltage, load level, status	LED indication: battery voltage, load level, status	LED indication: battery voltage, load level, status	LED indication: battery voltage, load level, status
200 x 330 x 83 mm 7.9 x 13.0 x 3.3 inch	200 x 372 x 83 mm 7.9 x 14.6 x 3.3 inch	248 x 421 x 83 mm 9.8 x 16.6 x 3.3 inch	200 x 330 x 83 mm 7.9 x 13.0 x 3.3 inch	200 x 372 x 83 mm 7.9 x 14.6 x 3.3 inch	248 x 421 x 83 mm 9.8 x 16.6 x 3.3 inch
2.7 kg 6.0 lb	3.3 kg 7.3 lb	4.2 kg 9.3 lb	2.7 kg 6.0 lb	3.3 kg 7.3 lb	4.2 kg 9.3 lb
potential free alarm contact	potential free alarm contact	potential free alarm contact	potential free alarm contact	potential free alarm contact	potential free alarm contact
CE, E-mark	CE, E-mark	CE, E-mark	CE, E-mark	CE, E-mark	CE, E-mark
INVR-1 remote control	INVR-1 remote control	INVR-1 remote control	INVR-1 remote control	INVR-1 remote control	INVR-1 remote control
high frequency, input and output fully isolated	high frequency, input and output fully isolated	high frequency, input and output fully isolated	high frequency, input and output fully isolated	high frequency, input and output fully isolated	high frequency, input and output fully isolated
10,5 V	10.5 V	10.5 V	21 V	21 V	21 V
12,5 V	12.5 V	12.5 V	25 V	25 V	25 V
16,5 V	16.5 V	16.5 V	33 V	33 V	33 V
14,5 V	14.5 V	14.5 V	29 V	29 V	29 V
70 A	100 A	150 A	35 A	50 A	75 A
< 1.5 A	< 1.5 A	< 1.8 A	< 0.8 A	< 0.8 A	< 0.9 A
< 0.1 A	< 0.1 A	< 0.1 A	< 0.06 A	< 0.05 A	< 0.05 A
100 A	125 A	175 A	50 A	60 A	100 A
25 mm ²	35 mm ²	50 mm ²	16 mm ²	16 mm ²	25 mm ²
< 5 %	< 5 %	< 5 %	< 5 %	< 5 %	< 5 %
all power factors allowed	all power factors allowed	all power factors allowed	all power factors allowed	all power factors allowed	all power factors allowed
-20 °C to 40 °C, derating power > 40 °C -4 to 104 °F	-20 °C to 40 °C, derating power > 40 °C -4 to 104 °F	-20 °C to 40 °C, derating power > 40 °C -4 to 104 °F	-20 °C to 40 °C, derating power > 40 °C -4 to 104 °F	-20 °C to 40 °C, derating power > 40 °C -4 to 104 °F	-20 °C to 40 °C, derating power > 40 °C -4 to 104 °F
IP21, horizontal wall mounting	IP21, horizontal wall mounting	IP21, horizontal wall mounting	IP21, horizontal wall mounting	IP21, horizontal wall mounting	IP21, horizontal wall mounting
over-temperature, overload, short circuit, high/low voltage, reverse polarity (fuse)	over-temperature, overload, short circuit, high/low voltage, reverse polarity (fuse)	over-temperature, overload, short circuit, high/low voltage, reverse polarity (fuse)	over-temperature, overload, short circuit, high/low voltage, reverse polarity (fuse)	over-temperature, overload, short circuit, high/low voltage, reverse polarity (fuse)	over-temperature, overload, short circuit, high/low voltage, reverse polarity (fuse)
temperature and load controlled fan	temperature and load controlled fan	temperature and load controlled fan	temperature and load controlled fan	temperature and load controlled fan	temperature and load controlled fan
no	no	no	no	no	no



Mass Combi Pro 12/24 V



Mass Combi Ultra 48 V

Meet the latest arrivals in the successful range of combined inverter/chargers

Equipped with all the latest technologies, the Pro model is available in both 12 V and 24 V models. The new 48 V model completes the Ultra line up, and meets the needs of high power applications and the growth of electric propulsion.

Mass Combi Pro

This new series of compact, lightweight and silent power systems has been aimed at professional use, and is essentially a leaner version of the more sophisticated Mass Combi Ultra. The Pro models offer a paralleling option with 'scalable' power outputs, and can also drive three-phase loads such as pumps and heavy machinery. It is especially suited for high power applications, such as on large motoryachts, where there is usually no need for the solar and secondary chargers found on the Ultra range. Instead, the Pro offers a powerful charger, inverter and transfer system with two AC inputs and two AC outputs, all in one lightweight and easily-installed case. The Mass Combi Pro has been launched as the 'best value for money' model within the Mass Combi range.

Mass Combi Ultra

This latest addition to the successful Mass Combi Ultra range guarantees full AC output when operating remotely, and when reconnected makes the best use of the grid power available. There are two AC inputs, and two AC outputs, making it possible to supply heavy loads directly from the grid or generator

without inadvertently draining the batteries. There is also a Power Assist function, which modifies the input when the link to AC power is poor, or has a low fuse rating. Other than the 12 V and 24 V models, the new 48 V model is not equipped with an internal solar charger. Powerful external 48 V solar charge regulators are available from Mastervolt. The new 48/3500-50 model is aimed at high power applications, such as luxury yachts, commercial vessels and large vehicles, yet also at installations where a 48-Volt system is being used for electric propulsion, a sector in which Mastervolt has long been a pioneer.



Specifications Mass Combi Pro & Ultra



	Mass Combi Pro 12/3000-150	Mass Combi Pro 24/3500-100	Mass Combi Ultra 48/3500-50
Product code	38513000	38523500	38343500
SPECIFICATIONS SINE WAVE INVERTER			
Nominal DC voltage	12 V (9.5–16 V)	24 V (19–32 V)	48 V (38–62 V)
Output voltage	230 V (± 2 %), adjustable 180–260 V	230 V (± 2 %), adjustable 180–260 V	230 V (± 2 %), adjustable 180–260 V
Output frequency	50/60 Hz (± 0.005 %), configurable	50/60 Hz (± 0.005 %), configurable	50/60 Hz (± 0.005 %), configurable
Output waveform	true sine, Thd < 1 % under standard conditions	true sine, Thd < 1 % under standard conditions	true sine, Thd < 1 % under standard conditions
Continuous power at 40 °C / 104 °F, cos phi 1	3000 W	3500 W	3500 W
Max. peak load	6000 W	7000 W	7000 W
Max. efficiency	≥ 90 %	≥ 92 %	≥ 93 %
Max. ripple on DC (battery at full load)	< 5 %	< 5 %	< 5 %
No-load power consumption on DC (ON/inverter OFF/OFF/energy saving)	16 W / 4 W / 0 W / 7 W	16 W / 4 W / 0 W / 7 W	16 W / 4 W / 0 W / 7 W
Parallel configuration	yes, up to 10 standard	yes, up to 10 standard	yes, up to 10 standard
3-Phase configuration	yes, up to 3x3	yes, up to 3x3	yes, up to 3x3
Synchronise with mains/generator	yes	yes	yes
SPECIFICATIONS BATTERY CHARGER			
Input voltage range	184–275 V	184–275 V	184–275 V
Max. input current	12 A	16 A	16 A
Max. charge current at 40 °C / 104 °F	150 A at 14.25 V, adjustable	100 A at 28.5 V, adjustable	50 A at 57 V, adjustable
Secondary charger output voltage	n.a.	n.a.	12/24 V (selectable)
Secondary charger output current	n.a.	n.a.	10 A
Battery temperature sensor	yes, included	yes, included	yes, included
Battery voltage sense	through MasterShunt, otherwise automatic compensation	through MasterShunt, otherwise automatic compensation	through MasterShunt, otherwise automatic compensation
SPECIFICATIONS TRANSFER SYSTEM			
AC input 1	50 A (generator only, switched)	50 A (generator only, switched)	50 A (generator only, switched)
AC input 2	30 A (mains only, switched)	30 A (mains only, switched)	30 A (mains only, switched)
AC output 1	67 A	67 A	67 A
AC output 2	50 A (switched)	50 A (switched)	50 A (switched)
AC input fuse	no	no	no
Transfer speed	seamless (< 1 ms)	seamless (< 1 ms)	seamless (< 1 ms)
Transfer voltage range	184–275 V, adjustable	184–275 V, adjustable	184–275 V, adjustable
Transfer frequency range	35–68 Hz, adjustable	35–68 Hz, adjustable	35–68 Hz, adjustable
GENERAL SPECIFICATIONS			
Display/read-out	LED display	LED display	LED display
Dimensions, hwxwx	472 x 318 x 178 mm 18.6 x 12.5 x 7.0 inch	472 x 318 x 178 mm 18.6 x 12.5 x 7.0 inch	472 x 318 x 178 mm 18.6 x 12.5 x 7.0 inch
Weight	15.3 kg / 33.7 lb	15.3 kg / 33.7 lb	15.3 kg / 33.7 lb
Approvals	CE, ABYC	CE, ABYC	CE, ABYC
TECHNICAL SPECIFICATIONS			
Charge characteristic	3-step+ (IUoUo, fully automatic)	3-step+ (IUoUo, fully automatic)	3-step+ (IUoUo, fully automatic)
Battery types	AGM/gel/MLI/flooded/ spiral/traction	AGM/gel/MLI/flooded/ spiral/traction	AGM/gel/MLI/flooded/ spiral/traction
Recommended battery capacity	~ 300–900 Ah (based on gel batteries, may differ for other types)	~ 200–600 Ah (based on gel batteries, may differ for other types)	~ 100–300 Ah (based on gel batteries, may differ for other types)
Ground relay	yes, configurable	yes, configurable	yes, configurable
Temperature range (ambient temp.)	-25 °C to 60 °C, derating > 40 °C, -13 to 140 °F	-25 °C to 60 °C, derating > 40 °C, -13 to 140 °F	-25 °C to 60 °C, derating > 40 °C, -13 to 140 °F
Protection degree	IP23 (vertical mounting)	IP23 (vertical mounting)	IP23 (vertical mounting)
Safety class	IEC protection class I	IEC protection class I	IEC protection class I
Humidity protection	conformal coating, max. 95% relative humidity, non condensing	conformal coating, max. 95% relative humidity, non condensing	conformal coating, max. 95 % relative humidity, non condensing
Protections	over-temperature, overload, short circuit, high/low battery voltage	over-temperature, overload, short circuit, high/low battery voltage	over-temperature, overload, short circuit, high/low battery voltage
Cooling	maintenance-free vario fan	maintenance-free vario fan	maintenance-free vario fan
Power Assist	yes	yes	yes
MasterBus compatible	yes	yes	yes



MLS series

Compact Li-ion batteries with high energy storage capacity make ideal replacement for lead acid batteries

The MLS series has been developed with technology taken from the hugely successful MLI Ultra series. Although tailored for different types of applications, the MLS share many of the same characteristics making them ideal for applications where long lifespan, light weight and compactness are key.

Lithium Ion has many advantages over lead-acid, meaning the MLS series can fast recharge in an hour, and deep cycle (up to 80% discharge) 2.000 times without damage, which is three times longer than traditional lead-acid. Also for MLS the safest Lithium Ion chemistry available (LiFePO4) is used.

The MLS has an integrated battery management system including a safety disconnect which protects the battery

from deep discharging, overcharging and overheating. The products make an ideal energy storage solution, and create an optimal entry point into the world of Lithium Ion.

The MLS series is designed to be extremely easy to install without any additional components. All the models comprise of a tough waterproof plastic case. This makes it a straight-forward replacement for most existing lead-acid batteries.



Specifications MLS series

Product code

GENERAL SPECIFICATIONS

Nominal battery voltage

No-load voltage, fully charged

Nominal battery capacity

Nominal battery energy capacity

Max. continuous discharge current

Max. short discharge current

Peak discharge current

Cycle life

Max. charge current

Battery terminals

Mounting position

Max. outer dimensions (incl. terminals/grip handles), lxxwxh

Weight

TECHNICAL SPECIFICATIONS

Battery chemistry

Protection degree

Parallel connection

Series connection

Starter battery






Protections

Safety disconnect



Features

- Straight-forward replacement for most existing lead-acid batteries.
- Saves up to 70% in space and weight.
- Three times the lifespan of traditional lead-acid batteries (2000 cycles).
- Charged & ready for use within an hour.
- Reliable operation ensured by an integrated Battery Management System (BMS) with passive balancing and automatic safety disconnect.
- Safest Lithium Ion chemistry available (LiFePO4).
- Tested and certified according to UN38.3.

				
MLS 12/80	MLS 12/130	MLS 12/260	MLS 12/390	MLS 24/260
65010006	65010010	65010020	65010030	65020010
12 V	12 V	12 V	12 V	24 V
12,8 V	12,8 V	12,8 V	12,8 V	25,6 V
6 Ah	10 Ah	20 Ah	30 Ah	10 Ah
77 Wh	128 Wh	256 Wh	384 Wh	256 Wh
6 A (1 C)	10 A (1 C)	20 A (1 C)	30 A (1 C)	10 A (1 C)
for 30 seconds 12 A (2 C) for 2 seconds 24 A (4 C)	for 30 seconds 25 A (2,5 C) for 2 seconds 48 A (4,8 C)	for 30 seconds 40 A (2 C) for 2 seconds 85 A (4 C)	for 30 seconds 60 A (2 C) for 2 seconds 100 A (3,3 C)	for 30 seconds 25 A (2 C) for 2 seconds 48 A (4 C)
-2000 at 80 % DoD	-2000 at 80 % DoD	-2000 at 80 % DoD	-2000 at 80 % DoD	-2000 at 80 % DoD
6 A (1 C)	10 A (1 C)	20 A (1 C)	20 A (0,67 C)	10 A (1 C)
M5	M5	M5	M5	M5
upright or either long side	upright or either long side	upright or either long side	upright or either long side	upright or either long side
90 x 70 x 109 mm 3.5 x 2.8 x 4.3 inch	151 x 65 x 102 mm 5.9 x 2.6 x 4.0 inch	180 x 77 x 161 mm 7.1 x 3.0 x 6.3 inch	182 x 126 x 140 mm 7.2 x 5.0 x 5.5 inch	180 x 77 x 161 mm 7.1 x 3.0 x 6.3 inch
0,8 kg 1.8 lb	1,5 kg 3.3 lb	3.1 kg 6.8 lb	4,9 kg 10.8 lb	3,1 kg 6.8 lb
Lithium Iron Phosphate IP65 (electronics cabinet)	Lithium Iron Phosphate IP65 (electronics cabinet)	Lithium Iron Phosphate IP65 (electronics cabinet)	Lithium Iron Phosphate IP65 (electronics cabinet)	Lithium Iron Phosphate IP65 (electronics cabinet)
yes, max. 3 batteries	yes, max. 3 batteries	yes, max. 3 batteries	yes, max. 3 batteries	yes, max. 3 batteries
no	no	no	no	no
not recommended	not recommended	not recommended	not recommended	not recommended
over voltage, under voltage, over-temperature	over voltage, under voltage, over-temperature	over voltage, under voltage, over-temperature	over voltage, under voltage, over-temperature	over voltage, under voltage, over-temperature
yes, electronic	yes, electronic	yes, electronic	yes, electronic	yes, electronic



MasterBus CANopen Interface

*Bi-directional communication between
CANopen and MasterBus*

MasterBus is a powerful CAN-based protocol used to communicate between Mastervolt products. This MasterBus CANopen Interface facilitates transparent, 2-way communication between MasterBus and the CANopen standard, which is adopted in many automotive and industrial automation applications.

Programming of the MasterBus CANopen interface is easy and transparent, allowing complete monitoring and control of your Mastervolt system from third party devices.

Architecture

CANopen devices have access to every single MasterBus device. Information exchange between CANopen and MasterBus is organised through the use of so-called data fields. Every individual item within MasterBus, such as the state of charge of a battery or the on/off button of an inverter, can be accessed through one of these data fields. Besides access to these individual items, also MasterBus Events may be used and exchanged with CANopen. The open and transparent architecture of the MasterBus CANopen Interface creates extensive possibilities for automation and monitoring.

Features

- Bidirectional communication between CANopen and MasterBus.
- Generic CiA 301 messaging creates maximum programming freedom.
- Supports all MasterBus enabled devices.
- Quick configuration through MasterAdjust.



Specifications

MasterBus CANopen Interface	
Product code	77032600
GENERAL SPECIFICATIONS	
Communication protocol	CANopen according to CiA 301 (CANbus)
Power consumption	< 40 mA
MasterBus powering	no
DIN rail mounting	yes, DIN rail 30 mm
Protection degree	IP21
Dimensions	66 x 78 x 32 mm 2.6 x 3.1 x 1.3 inch
Weight	0.07 kg 0.15 lb (excl. cable)
Programmability	MasterAdjust conventional configuration or string-based mapping
Data communicated	all MasterBus information and control items
Delivered with	CANopen adapter cable (100 mm, M12 5-pin connector) and MasterBus terminator



MasterBus FireCAN Interface

A converter that feeds MasterBus data directly into the FireCAN control system

FireCAN is an electronic communication system allowing pumps and other equipment to be used via a central control panel on a firefighting truck. The new MasterBus FireCAN Interface allows Mastervolt products to be linked into a FireCAN system.

The MasterBus FireCAN Interface is an effective solution for seamless data transfer between MasterBus enabled chargers and the central communication system of a fire-fighting vehicle. As such, this new interface is a real 'door-opener' to the fire-fighting industry, allowing it to use the wide range of batteries, chargers and Combi's in our portfolio.

Each MasterBus FireCan Interface passes data about a single charging device to the main fire control panel, including input power availability, charging status, battery voltage and over/under voltage. This data is vital in an emergency situation, and helps prevent a key power source dropping out at a crucial moment, such as when driving the fire pumps.

Features

- Communication interface between FireCAN and MasterBus.
- Standardized CANopen protocol for electronic applications in firefighting vehicle (FireCAN protocol DIN14700).
- Automatic configuration (set up), so plug & play.
- Manual configuration also possible (MasterAdjust is recommended).
- Possible charger devices for automatic mode: Mass Combi, ChargeMaster.



Specifications

MasterBus FireCAN Interface	
Product code	77032400
GENERAL SPECIFICATIONS	
Communication protocol	FireCAN protocol DIN14700 (CANbus)
MasterBus powering	no
Dimensions, hwxwd	66 x 78 x 32 mm 2.6 x 3.1 x 1.3 inch
Weight	0.08 kg 0.2 lb
Operating mode	auto (plug & play) and manual, one interface per charger, monitoring only
Information provided	system status: input power, state of charge, battery voltage, under/over voltage
Delivered with	FireCAN connection cable (100 mm), MasterBus terminator, user's manual
TECHNICAL SPECIFICATIONS	
Current consumption	< 40 mA
Protection degree	IP21



Charge Mate Pro 40

*Charge two battery banks
from a single source*

A secondary battery is becoming increasingly common. As a second battery can prevent the service battery from depleting and being unable to start, this seems like a safe and reliable solution. The second battery, however, also has to be charged regularly. The Charge Mate series connects both batteries during charging and keeps them isolated when discharging.

The Charge Mate Pro 40 provides additional functionality by limiting the charge current to the second battery to 40 A. The main battery is therefore charged with priority. The return current is automatically blocked, which reduces power dips of the onboard network. An emergency start function is possible by connecting an optional bypass switch.

Features

- Electronic charge coupling with very low voltage drop.
- Charge current secondary battery limited to 40 A.
- High system reliability by prioritised charging of the main battery.
- Unidirectional; blocks return current under all circumstances which reduces power dips of the onboard network.
- Suitable for all kinds of battery chargers and alternators.
- LED status indication.
- IP67 electronics in a corrosion resistant casing with aluminum heat sink.
- Fast and easy installation.



Specifications

Charge Mate Pro 40

Product code	83304002
GENERAL SPECIFICATIONS	
Input voltage range	8-32 V
Battery voltage	automatic 12/24 V detection
Max. current	limited to 40 A
Number of modes	on, off, auto, start assist
Dimensions, hxwx d	157 x 140 x 80 mm 6.2 x 5.5 x 3.1 inch
Weight	0.88 kg 1.9 lb
TECHNICAL SPECIFICATIONS	
No-load power consumption	switch open: < 1 mA at 12/24 V DC W
Switch on voltage	13.5 V (12 V) / 27 V (24 V)
Switch on delay	5 sec.
Switch off voltage	12.75 V (12 V) / 24.5 V (24 V)
Switch off delay	2.5 sec.
Relay	electronically (MOSFETs)
Temperature range (ambient temp.)	-40 °C to 60 °C -40 to 140 °F
Protection degree	IP65



Touch 5

5 Inch touchscreen with built-in WiFi

The sleek new Touch 5 adds a compact touchscreen option to your CZone® installation. While offering many of the same features as its bigger brother, the Touch 10, this new display module adds WiFi connectivity as well as the higher specification IPX7 waterproofing.

With a super bright widescreen display and the latest capacitive touchscreen technology, this compact unit outperforms perfectly in sunlight. It also suits smaller applications where space is at a premium, or on larger applications as a secondary display.



Features

- Easy to use touch interface.
- Glass dash styling.
- Super bright widescreen display.
- Low profile flush mounting.
- Reduced system cost and complexity, combines display and Wireless Interface functionality into one unit.
- Built-in WiFi connectivity allows direct connection of iPad for onboard wireless control and monitoring.
- Micro SD card slot.
- NMEA 2000 compatible.

The Touch 5 offers various displays for your convenience.

Specifications



Touch 5

Product code	80-911-0124-00
GENERAL SPECIFICATIONS	
Display Type	5" LED-backlit projected capacitive widescreen touch
Resolution	800 x 480 pixels
Protection	IPX7, water ingress protection
Operating temperature	-15 °C to +55 °C (5 °F to 131 °F)
Dimensions, wxhxd	152 x 120 x 57.9 mm 5.98" x 4.72" x 2.28"
Brightness	1200 cd/m ²
Input voltage	12 V DC
Conformity	CE, RCM
Power consumption	900mA @ 13.5 V
Interfaces	NMEA 2000, Micro SD



EasyView 5

Customizable system monitor with intuitive control

Controlling your Mastervolt system has never been easier with this waterproof system monitor with 'daylight readable' display and intuitive touchscreen.

The EasyView 5 features a sharp, waterproof display which is clearly readable in daylight. Thanks to the colour touchscreen and multi-language menu, the display is a pleasure to operate. Easily customizable favorite pages show all relevant system information at a glance.

Features

- Waterproof, 'daylight readable' colour display.
- Intuitive touch control.
- Customizable favourite pages.
- Log book for warnings and alarms.
- Buzzer and Home button.
- Easy mounting: front mount, wall mount or retrofit.
- MasterBus powered or MasterBus powering 12/24 V input.
- Easy updating through MasterBus and USB.

Applications

The EasyView 5 completes any MasterBus system. With its handy functionality and compact size, the Easy View is ideal for yachts, vehicles and stationary systems. Applicable in various markets such as marine, mobile (recreational and professional), infrastructure, offshore, off grid and industrial. *The possibilities are endless!*

Specifications



EasyView 5	
Product code	77010310
GENERAL SPECIFICATIONS	
Display	4.3 inch high contrast display with capacitive touch control
Resolution	480 x 272 pixels
Colour depth	16 bits
Languages	English, Dutch, German, Spanish, Italian, French, Finnish, Swedish, Norwegian, Danish
Protection degree	IP67; waterproof front
MasterBus connection	yes
Power supply	MasterBus powered or MasterBus powering through 12/24 V input
Power consumption	< 160 mW (idle mode)
Alarm	buzzer integrated
Connections	2x MasterBus, USB, 12/24 V
Mounting	front mount, wall mount and MasterView Easy retrofit
Dimensions, hxxwxd	113 x 127 x 43 mm 4.5 x 5 x 1.7 inch
Weight	0.315 kg 0.7 lb
Delivered with	UV protection cover, wall mount casing



Customize favourites

Customize favourite pages to meet your specific needs for information and control, to show information in the most convenient way.



Adjust parameters

Use the EasyView 5 to adjust frequently used settings, like the shore fuse or to switch on your inverter.



Modify system settings

In the system page you will find every possible system setting.



Alarms & logs

No surprises! The EasyView 5 helps to keep your system in top condition by assisting you with alerts. Logging of the alarms provides valuable insight in the operation of your system.



Combination Output Interface (COI)

The complete CZone® system in a box!

The Combination Output Interface (COI) combines multiple input and output devices in to one module, offering a compact and intelligent replacement for traditional DC fuse boxes and circuit breaker panels with digital switching technology.

Digital switching systems just became more cost effective and easier to install, with the new CZone® Combination Output Interface (COI). This one box replaces up to five separate units, with convenient Deutsch connectors and IPx5 water resistance, providing a complete CZone system for smaller applications. The COI's high continuous power output (150 amps), plus space, installation time and cost savings also make it the perfect building block for larger systems.



Features

- High density 30 channel module minimizes installation, interconnections and footprint, while delivering best value per circuit.
- Full mechanical fuse protection plus bypass on all circuits as required by ABYC/CE.
- Industry standard Deutsch connectors provide fast, plug & play installation.
- Optional cable cover offers improved aesthetics and greater mounting flexibility.
- Proven, rugged CZone design includes IPX5 water ingress protection and NMEA 2000 certification
- High power bilge pump channels allow manual control plus 'pump running' feedback from a single channel - without additional wiring.
- USB port provides easy system update from USB flash drive.

Mastervolt offers a Combination Output Interface with connectors, as well as a Combination Output Interface without connectors, that is ideally suited for refit or service purposes.



Quick access and overview

Partnered with either a dedicated CZone display, or with a Multi Function Display from one of our industry leading integration partners (B&G, Furuno, Garmin, Lowrance, Simrad), the Combination Output Interface heralds a new era in providing simple, intuitive control over the increasingly complex systems found on today's applications.



Specifications Combination Output Interface (COI)



COI with connectors



COI without connectors

Product code	80-911-0119-00	80-911-0120-00
GENERAL SPECIFICATIONS		
Push button inputs	6, via breakout harness	6, via breakout harness
Output channels (high)	4 x 25 A	4 x 25 A
Power supply	M8 (5/16") stud positive, M6 (1/4") stud negative	M8 (5/16") stud positive, M6 (1/4") stud negative
Output channels (low)	12 x 10 A (dimnable)	12 x 10 A (dimnable)
Analogue inputs	8 (positive or negative switching, 0-32 V)	8 (positive or negative switching, 0-32 V)
Voltage	9-32 V (with power available LED and voltage monitoring)	9-32 V (with power available LED and voltage monitoring)
Channels	30	30
Communication protocol	NMEA2000	NMEA2000
Max. current	150 A	150 A
Dimensions (incl. optional cable cover), hwxwx	338 x 235 x 62 mm 13.3 x 9.3 x 2.4 inch	338 x 235 x 62 mm 13.3 x 9.3 x 2.4 inch
Alarms	overcurrent, low run current, short circuit, tripped and override	overcurrent, low run current, short circuit, tripped and override
Protection degree	IPX5 (mounted at 0 °C +/-90 °C)	IPX5 (mounted at 0 °C +/-90 °C)
Approvals	CE, ABYC, NMEA	CE, ABYC, NMEA
TECHNICAL SPECIFICATIONS		
NMEA2000 PGN output	fluid level, pressure, temperature, battery voltage	fluid level, pressure, temperature, battery voltage
Circuit bypass/override	mechanical protection/bypass on all output channels	mechanical protection/bypass on all output channels
Circuit breakers	configurable electronic fuse + ATC fuse	configurable electronic fuse + ATC fuse



ChargeMaster Plus series

All-in-one solution for faster and safer charging

ChargeMaster Plus is the next generation battery chargers that integrates multiple functions into one single device. Replacing auxiliary chargers, battery isolators and VSR, ChargeMaster Plus reduces system complexity and cost. Designed for versatility, it charges virtually any combination of three batteries at high speed and works anywhere in the world.

With the new Battery's Best Friend architecture, ChargeMaster Plus is capable of charging a multitude of battery chemistries, sizes and voltages. All batteries are charged with the fast and safe 3-Step+ charge algorithm.

Unique features

- **Power Boost:** charge depleted battery 10 % faster.
- **Multi Voltage:** charge 12 V starter battery in a 24 V system, without additional components.
- **Priority Charge:** redirect available power to the lowest battery, for faster charging.
- **Smart Input:** charge all three batteries from one single alternator for continuous charging while being on the way.

Global charging

The ChargeMaster Plus handles world-wide AC voltages and frequencies. Resisting large voltage fluctuations and high temperatures, it keeps working in harsh environments. For marine and mobile markets, ChargeMaster Plus is CE, E-mark, ABYC, UL, SAE, CEC and RCM/C-Tick compliant.

System simplicity

Nowadays, equipment must be self-explaining. The ChargeMaster Plus displays the charge phase of all 3 outputs in an understandable way. Robust and ergonomic connections save installation time. An integrated VSR eliminates the need for additional components and ensures that the alternators energy is funnelled through to the batteries.

Powerful connections





In modern applications, all components work together. CAN-based MasterBus enables the charger to communicate with displays, shunts and power systems including communication standards like CZone®, NMEA and CANopen. The ChargeMaster Plus can operate as a power supply for delicate communication equipment, or during the construction phase of a boat.

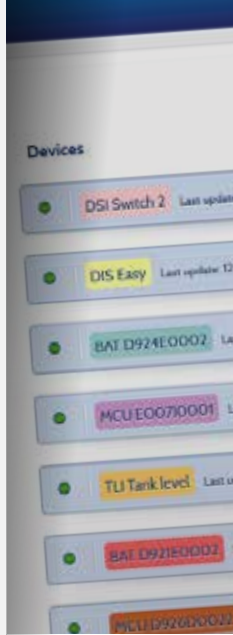
ChargeMaster Plus simplifies charging systems. Charging faster and safer than ever, this all-in-one charging solution offers best value for money.

Features

- Multicharger with two outputs, one in/output, DC/DC converter, current limiter and VSR.
- Combine Lithium Ion, gel or AGM, and large or small 12/24 V battery banks on a single charger.
- Extra fast charging of depleted or low batteries and 120 % output at 14.4 V.
- Priority Charge: sends power to lowest battery and protects others from overcharging.
- Safe Charge: quickly recognize the state of charge for extended battery life.
- Revival mode: automatically revives depleted batteries.
- Very wide operating range of 80-275 V AC, 35-70 Hz and 80 % charging power at 60 °C.
- Compact, easy to connect and quick to install.

Specifications ChargeMaster Plus

	 12/75-3	 12/100-3	 24/40-3	 24/60-3
Product code	44310750	44311000	44320400	44320600
GENERAL SPECIFICATIONS				
Recommended battery capacity	320-800 Ah	400-1000 Ah	160-400 Ah	200-500 Ah
Number of battery outlets	2 + 1	2 + 1	2 + 1	2 + 1
Nominal input voltage	120/230 V (80-275 V) 50/60 Hz	120/230 V (80-275 V) 50/60 Hz	120/230 V (80-275 V) 50/60 Hz	120/230 V (80-275 V) 50/60 Hz
Max. AC current (230 V / 120 V)	6.5 A / 13 A	8.5 A / 17 A	6.8 A / 13.5 A	10.2 A / 20.4 A
AC connection	screw terminals suitable up to 6 mm ²	screw terminals suitable up to 6 mm ²	screw terminals suitable up to 6 mm ²	screw terminals suitable up to 6 mm ²
Power supply mode	yes	yes	yes	yes
Display/read-out	LED	LED	LED	LED
Dimensions, hxxwxd	384 x 250 x 127 x mm, 15.1 x 9.8 x 5 inch	384 x 250 x 127 x mm, 15.1 x 9.8 x 5 inch	384 x 250 x 127 x mm, 15.1 x 9.8 x 5 inch	384 x 250 x 127 x mm, 15.1 x 9.8 x 5 inch
Weight	4.9 kg, 108 lb	4.9 kg, 108 lb	4.9 kg, 108 lb	4.9 kg, 108 lb
Approvals	CE, E-mark, ABYC, UL1236, SAE J1171, CEC, RCM/C-Tick	CE, E-mark, ABYC, UL1236, SAE J1171, CEC, RCM/C-Tick	CE, E-mark, ABYC, UL1236, SAE J1171, CEC, RCM/C-Tick	CE, E-mark, ABYC, UL1236, SAE J1171, CEC, RCM/C-Tick
OUTPUT 1 & 2 SPECIFICATIONS				
Nominal output voltage (output 1&2)	12 V	12 V	24 V	24 V
Total charge current	75 A at 14.4 V	100 A at 14.4 V	40 A at 28.8 V	60 A at 28.8 V
Power boost at 25 °C	84 A < 13 V	110 A < 13 V	45 A < 26 V	65 A < 26 V
Charge current per outlet	automatic current sharing up to full output	automatic current sharing up to full output	automatic current sharing up to full output	automatic current sharing up to full output
SMART INPUT SPECIFICATIONS				
Input voltage	12 V	12 V	24 V	24 V
Input current	40 A	40 A	20 A	20 A
OUTPUT 3 SPECIFICATIONS				
Output voltage	12 V	12 V	24 V / 12 V	24 V / 12 V
Output current	full output or current limited	full output or current limited	full output or current limited	full output or current limited
Output current (current limited)	5-40 A at 12 V	5-40 A at 12 V	5-20 A at 24 V 10 A at 12 V	5-20 A at 24 V 10 A at 12 V
TECHNICAL SPECIFICATIONS				
Charge characteristic	IUoUO, automatic 3-step+	IUoUO, automatic 3-step+	IUoUO, automatic 3-step+	IUoUO, automatic 3-step+
Battery chemistry	AGM, gel, Lithium Ion, traction, spiral	AGM, gel, Lithium Ion, traction, spiral	AGM, gel, Lithium Ion, traction, spiral	AGM, gel, Lithium Ion, traction, spiral
Temperature compensation	-30 mV/°C (-17 mV/°F), temp. sensor included	-30 mV/°C (-17 mV/°F), temp. sensor included	-30 mV/°C (-17 mV/°F), temp. sensor included	-30 mV/°C (-17 mV/°F), temp. sensor included
Voltage compensation	automatic	automatic	automatic	automatic
DC idle consumption	< 2 mA (MasterBus off)	< 2 mA (MasterBus off)	< 2 mA (MasterBus off)	< 2 mA (MasterBus off)
Current control function	yes, through MasterBus	yes, through MasterBus	yes, through MasterBus	yes, through MasterBus
Power factor control	yes, > 0.98	yes, > 0.98	yes, > 0.98	yes, > 0.98
Temperature range	-25 °C to 80 °C (-13 °F to 176 °F), derating > 40 °C (104 °F)	-25 °C to 80 °C (-13 °F to 176 °F), derating > 40 °C (104 °F)	-25 °C to 80 °C (-13 °F to 176 °F), derating > 40 °C (104 °F)	-25 °C to 80 °C (-13 °F to 176 °F), derating > 40 °C (104 °F)
Cooling	vario fan	vario fan	vario fan	vario fan
Protection degree	IP23, vertical mounting	IP23, vertical mounting	IP23, vertical mounting	IP23, vertical mounting
Protections	over-temperature, overload, short circuit, high/low battery voltage	over-temperature, overload, short circuit, high/low battery voltage	over-temperature, overload, short circuit, high/low battery voltage	over-temperature, overload, short circuit, high/low battery voltage
MasterBus compatible	yes	yes	yes	yes
Alarm contact	yes, using a Multipurpose Contact Output (product code 77030500)	yes, using a Multipurpose Contact Output (product code 77030500)	yes, using a Multipurpose Contact Output (product code 77030500)	yes, using a Multipurpose Contact Output (product code 77030500)



Amperian

Our online platform for autonomous power supply systems

Don't worry! Amperian is on site. A powerful assistant that is keeping an eye on your Mastervolt power system, anywhere in the world. Mastervolt and its parent company PowerProducts, introduce Amperian. Building on the Internet of Things, this cloud-based platform lays the foundation for a wealth of services that will build up over time. Ranging from remote battery monitoring up to system optimization, Amperian provides a ticket to the future.

The future starts now

Mastervolt is passionate about reliable systems and excellent service. With the brand-new Amperian platform, we aim to unburden end customers. In situations where your remote power system is out of reach, Amperian is never far away. It will send you an alert when something comes up, such as a battery charger that is not plugged in, and allows both service provider and owner to remotely check what's going on, and make adjustments if needed.

With Amperian, your power system is constantly connected to the web. Having access to the Internet means having access to your system.

Empower your system with Amperian

To enjoy the benefits of Amperian web connectivity, Mastervolt designed a new MasterBus Amperian Interface. Using MasterBus communication, the Amperian Interface can reach

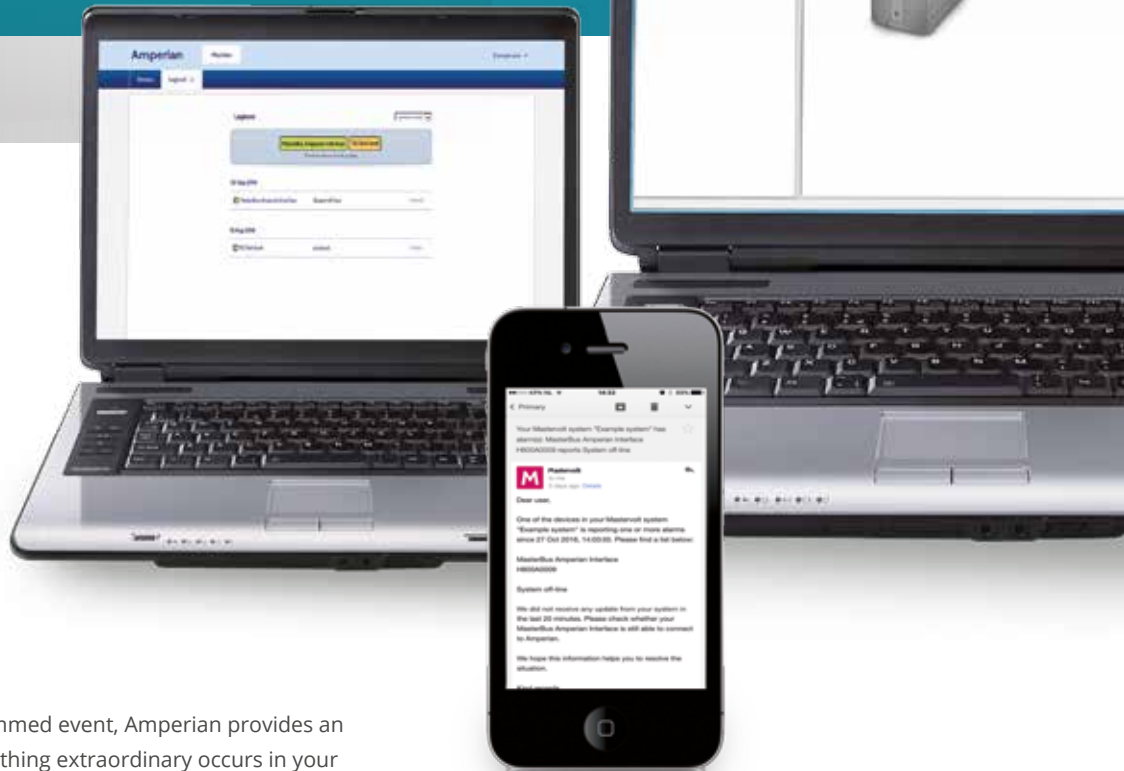


every individual device in your system. The MasterBus Amperian Interface uses an Ethernet or WiFi connection to the Internet to exchange data with the Amperian server. In the near future, Amperian Interfaces with 3G/4G integration are foreseen.

The Amperian platform will be the cornerstone for various new tools and services.

In the first release this includes:

- E-mail alerts: email notifications from your system.
- Log book: alerts stored in your personal Amperian account.
- MasterAdjust Web: complete remote monitoring and configuration tool.



Using Amperian

In order to connect your Mastervolt system to Amperian, a system account will be created that allows secure access to your system data. Authorized access for your service provider to obtain expert service and advice; 'No worries' taken to a whole new level.

E-mail alerts and logbook

In case of a system alert or programmed event, Amperian provides an immediate email notification. If anything extraordinary occurs in your system, you will always be aware. Prevent surprises such as empty batteries or tanks when you need them to be filled. Return to your truck, yacht or RV being reassured that everything is in order for a wonderful trip.

Besides the email alerts, you have access to the history of events, using the logbook on the Amperian web portal. Simply log in and quickly find your system, along with its logbook.

MasterAdjust Web

MasterAdjust Web is the remote tool for complete monitoring and configuration of any MasterBus connected system. It is based on the existing MasterAdjust software, which is well known within the worldwide Mastervolt service network. This new web-connected software version allows you or your service provider to operate your system from any location. In case of solving a problem, this is the quickest way to reset your system. Either when enjoying your free time on the water or earning your living on the road, this service protects against any inadvertent unavailability of the silent electrical power you invested in.

Specifications



Masterbus Amperian Interface

Product code	77034000
GENERAL SPECIFICATIONS	
Function	communication interface between MasterBus and Amperian, Mastervolt's web connected platform
Communication protocol	MasterBus
Operating voltage	9 – 32V DC
Power consumption	< 450mA at 12 V / < 225mA at 24 V
MasterBus Powering	no
Protection degree	IP54
Dimensions, hxxwx d	105 x 190 x 60 mm / 4.1 x 7.5 x 2.4 inch
Weight	0.685 kg / 1.5 lb
Connectivity	WiFi, Ethernet
Data communicated	any information about the status of your Mastervolt system and any control status item to operate the system. The Amperian connected tool you are using will determine what data communication is needed.
Delivered with	power cable, WiFi antenna, MasterBus RJ45 connector adapter

The leading power companies join forces

Mastervolt is part of Power Products, LLC, which includes various major brands within its Marine, Mobile & Industrial division. Ancor, BEP, Blue Sea Systems, Marincor, Mastervolt and ProMariner provided innovative electrical solutions as independent companies for decades. Now these leading companies have come together to offer the broadest and most complete electrical product range for every conceivable application.

Harness the Power of Ancor, BEP, Marincor, Mastervolt & ProMariner

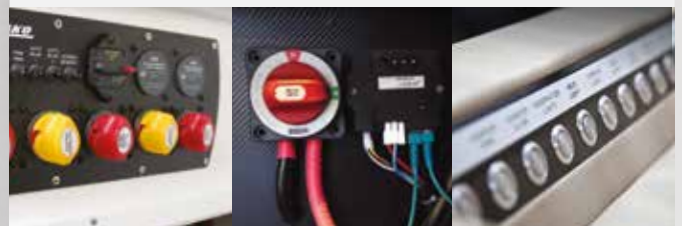
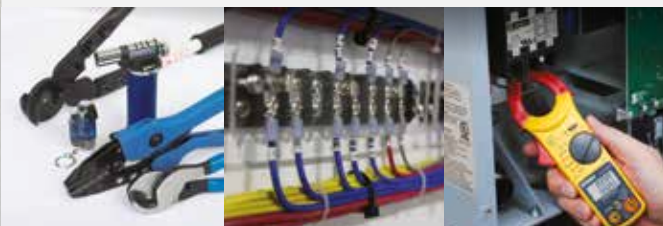
Onboard power that you can rely on at all times, wherever you may be in the world. We are committed to providing electrical components and power systems that deliver a high level of quality and innovation, and are designed to consistently perform in harsh environments.

ANCOR

For over 30 years Ancor has been the industry leader for quality tinned copper Marine Grade™ wire and cable. Ancor's comprehensive product line includes everything required to complete a wiring project. This includes terminals and connectors, wire management products, hand tools, and Marine Grade wire and cable. Ancor designs products to the highest standards that meet UL, ABYC, NMMA and USCG standards. Product selection (over 1,400 electrical products are designed to work together as a system), quality, and service are the pillars of the brand, and only Ancor can be your single source for wire and accessories.

BEP

BEP designs and manufactures a wide range of products and systems for battery monitoring and management, circuit protection and digital switching. This includes the CZone® digital control and monitoring network, which simplifies the installation of complex electrical systems. In addition, BEP offers a varied range of battery switches, bus bars, fuses and fuse holders for safe and reliable operations within its Pro Installer series. BEP's innovative culture and engineering excellence is focused on simplifying the installation and optimizing the user experience with thoroughly tested products that will thrive in any harsh environment.



Since Ancor, BEP, Maringo, Mastervolt and ProMariner have branded products and services, these elements have been folded into a single entity that provide a number of benefits:

- A broader product selection.
- A single solution for virtually every marine electrical need.
 - Enhanced customer service.
 - Global distribution.

The expression 'The power to be independent' has never been more meaningful with the unmatched range of electrical products and system solutions that Ancor, BEP, Maringo, Mastervolt and ProMariner offer. Whether you are looking for an electrical component or full power electronic integrated system, we provide what you need.

MASTERVOLT
THE POWER TO BE INDEPENDENT

MARINCO®

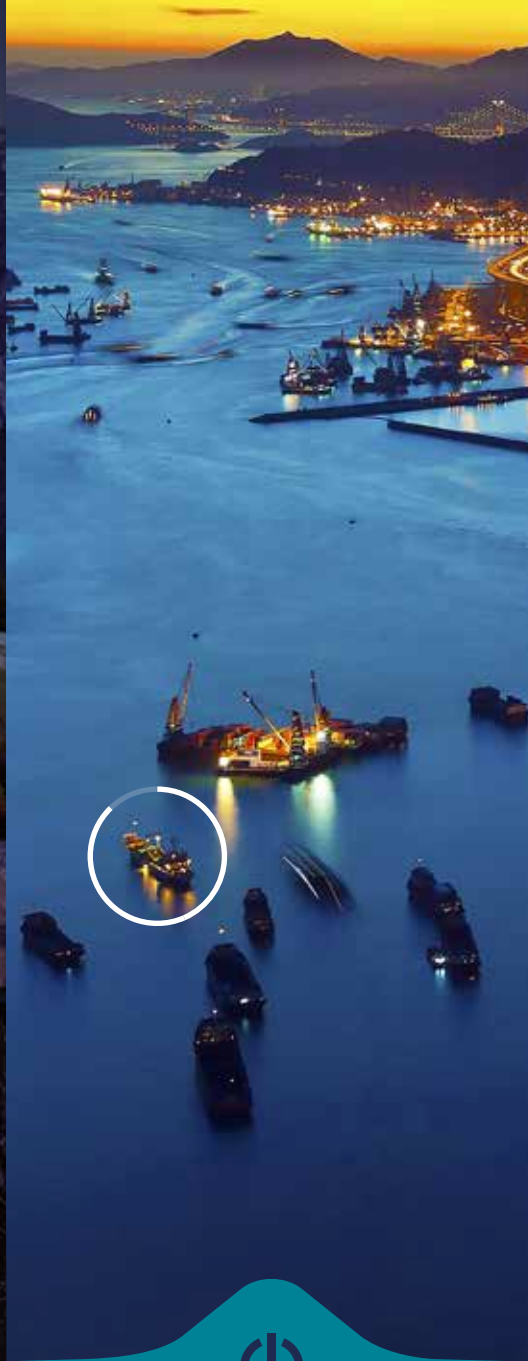
Since 1972, Maringo power inlets and cords have set the industry standard. They are built to withstand the harshest environments. Maringo has continued to expand their product line to offer a complete range of shore power cords from 16 to 100 amps, as well as a broad range of cord adapters.

Over 800 electrical products are designed to work together as a system. Maringo is also a leading supplier of wipers, spotlights and horns to the marine industry. Product quality is managed in a manner consistent with international standards, industry involvement ensures products meet ABYC, NMMA, and Coast Guard standards.

ProMariner™

A leading authority in the maritime recreational market thanks to its watertight battery chargers, inverters and UL-certified galvanic insulators, ProMariner also gives you a clear overview on the water with its wide range of binoculars and maritime accessories. Product quality is extremely important at Promariner, and is managed in a manner consistent with international standards to ensure all ProMariner products exceed expectations, industry involvement ensures products meet UL1236, ABYC, NMMA, and USCG standards.





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MASTERVOLT