

# Battery Chargers and Equipment

MASTERVOLT

## ChargeMaster Series

- MasterBus compatible
- The 3 step charging technology guarantees fast and complete charging
- The cos phi 1 regulation gets the most out of limited generator capacity
- CE, E-mark, ABYC A-31, SAE J1171/ ISO 8846 ignition protected
- -25°C to 60°C, derating >40°C
- IUoUo, automatic three step charge for Gel/ AGM/ Wet/ Lithium Ion Life PoE
- 2 year manufacturer warranty
- 90-265V 50/60Hz



12V SYSTEM



24V SYSTEM

Item Number	Battery Outlets	Output Rating Amps	Battery Capacity (Ah)	Dimensions in" (mm) HxWxD	Weight in lbs. (kg.)	Price
<b>* denotes 180-265V ONLY</b>						
<b>12V Systems</b>						
43011000*	1	10	25-100	7.1(180) x 4.8(122) x 2(51)	2.2(1)	\$337.48
44010250	3	25	50-250	9.2(234) x 5.2(132) x 2.4(61)	4(1.8)	\$479.81
<b>24V Systems</b>						
43020600*	1	6	25-70	7.1(180) x 4.8(122) x 2(51)	2.2(1)	\$434.31

## ChargeMaster Plus Series

- MasterBus, CZone and NMEA communication.
- Multicharger with two outputs, one in/output, DC-DC converter, current limiter and VSR.
- Combine Lithium Ion, Gel or AGM, and large or small battery banks on a single battery charger.
- Charges multiple batteries while being underway.
- Extended specifications: offers 20 % more output at 14.4 V and 80 % charging power at 60 °C.
- Safe Charge: quickly recognize the State of Charge for extended battery life.
- Very wide operating range of 80-275 V AC, 35-70 Hz.
- Compact, easy to connect and quick to install.



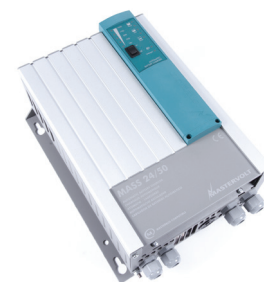
24 VOLT

Item Number	Battery Outlets	Output Rating	Battery Capacity	Dimensions in" (mm) HxWxD	Weight in lbs. (kg.)	Price
<b>12VDC</b>						
44310355	3	30A	140-350 Ah	291 x 210 x 105mm 11.5 x 8.3 x 4.1 inch	5.5 (2.5)	\$716.98
44310505	3	50A	200-400 Ah	291 x 210 x 105mm 11.5 x 8.3 x 4.1 inch	5.5 (2.5)	\$1,257.01
44310755	3	75A	320-800 Ah	15.1(384) x 9.8(249)x 5(127)	13(5.9)	\$1,646.54
44311005	3	100A	400- 1000 Ah	15.1(384) x 9.8(249)x 5(127)	13(5.9)	\$2,133.96
<b>24VDC</b>						
44320205	3	20A	80-200 Ah	291 x 210 x 105mm 11.5 x 8.3 x 4.1 inch	5.5(2.5)	\$785.07
44320305	3	30A	120-240 Ah	291 x 210 x 105mm 11.5 x 8.3 x 4.1 inch	5.5 (2.5)	\$1,029.62
44320405	3	40A	160-400 Ah	15.1(384) x 9.8(249)x 5(127)	13(5.9)	\$1,257.01
44320605	3	60A	200-500 Ah	15.1(384) x 9.8(249)x 5(127)	13(5.9)	\$1,734.15
44320805	3	80A	160-800 Ah	15.1(384) x 9.8(249)x 5(127)	13(5.9)	\$2,450.17
44321105	3	110A	200-1000 Ah	15.1(384) x 9.8(249)x 5(127)	13(5.9)	\$3,170.38

List pricing in catalog is subject to change without notice.

## Mass Series

- Designed for the most difficult conditions
- Suitable for every type of battery, also charges entirely empty batteries
- Full power at temperatures of up to 45°C
- Reliable charger/supply for GMDSS
- Certified by Germanisch Lloyd, Lloyd, Bureau Veritas, connections in accordance with CE, ABYC A-31 and IEC60945
- Type approval for application in safety zones A, B, and C
- Supplies your system without battery (except model 43011000)
- IUoUo, automatic three step charge for Gel/ AGM/ Wet/ Lithium Ion
- Nominal Input Voltage: 230 volt, 50/60 Hz.
- 2 year manufacturer warranty



24 VOLT MASS SERIES

Item Number	Battery Outlets	Output Rating Amps	Battery Capacity (Ah)	Dimensions in" (mm) HxWxD	Weight in lbs. (kg.)	Price
<b>24V Systems</b>						
40020256	1+1@3Amp	25	50-250	12.8(325) x 8.7(221) x 4.4(112)	7.3(3.3)	\$1,486.94
40020506	1+1@3Amp	50	100-500	13.4(340) x 10.3(262) x 5.1(130)	10.1(4.6)	\$2,178.48
40020756	1	75	150-750	16.5(419) x 12.5(318) x 5.1(130)	17(7.7)	\$3,318.27
40021006	1	100	200-1000	16.5(419) x 12.5(318) x 5.1(130)	17(7.7)	\$4,292.61

## Mass Series



COMMUNICATION PORT



TOUCH SCREEN



MASTERBUS



MASTERLINK

Item Number	Description	Price
<b>Charger Options</b>		
77030100	Communication port between MasterBus and the USB port of your PC; makes possible reading and configuration of your MasterBus system on PC when combined with Masterview System software	\$232.46
77010310	Easyview 5" touchscreen control panel	\$463.75
77020115	MasterShunt 500	\$432.84

# Battery Chargers and Equipment

NEWMAR

## Newmar PT Series

### PT Series

- Smart circuitry provides three stage charging: bulk, absorption, and float
- Gel-Cell/ Flooded Lead-acid/ AGM battery type switch selects optimum charge/float voltages
- Multiple isolated output banks: ammeter indicates total output current
- Current limiting prevents damage from overloading
- Charger status clearly displayed with LED and/or audible indicators or optional remote panel
- Can power loads without a battery in line
- CE Certified & EN 60335-2-29/ EN 60335-I
- Ignition protected: USCG CFR 183.410
- 2 year manufacturer parts warranty



PT SERIES

Item Number	Output Volts	Input VAC (50-60 Hz.)	Amp/ Amp Hours	Dimensions in "(mm) HxWxD	Compliance Ref.	Price
<b>PT Series</b>						
PT-14W	12	85-264	14/ 28-140	11.2(284) x 7.7(196) x 4.8(122)	CG, CE, ABS	\$676.10
PT-25W	12	90-132 OR 180-264	25/ 50-250	11.2(284) x 7.7(196) x 4.8(122)	CG, ABS	\$828.26
PT-40U	12	90-264	40/ 80-400	13.9(353) x 9.5(241) x 4.8(122)	CG, CE, ABS	\$1,337.34
PT-80	12	90-264	80/ 160-800	17.5(445) x 12(305) x 7.2(183)	CE, ABS	\$2,178.18
PT-24-13W	24	90-132 OR 180-264	13/ 26-130	11.2(284) x 7.7(196) x 4.8(122)	CG, ABS	\$828.26
PT-24-20U	24	85-135 OR 170-270	20/ 40-200	13.85(352) x 9.6(244) x 4.8(122)	CG, CE, ABS	\$1,333.90
PT-24-45U	24	90-264	45/ 90-450	14.8(376) x 9.6(244) x 5.4(137)	EN, CE, ABS	\$2,181.61
PT-24-60W	24	207-253	60/ 120-600	17.5(445) x 12(305) x 7.2(183)	EN, CE, ABS	\$2,863.43
PT-24-95U	24	90-264	95/ 180-950	17.5(445) x 12(305) x 7.2(183)	EN, CE, ABS	\$3,364.50

Item Number	Description	Price
<b>Accessories</b>		
TCS-12/24	Temperature Sensor for all PT chargers except: PT-7, PT-24-60W, PT-32-25W 7 PT-24-95W, P, F (ONLY FOR U)	\$128.13
TP	Temperature sensor for PT-24-60W, PT-32-25W, and PT-24-95W ONLY	\$153.30

## Skylla-i Battery Charger 24 V

### Li-Ion ready

- Skylla-i (1+1): two outputs to charge 2 battery banks The Skylla-i (1+1) features 2 isolated outputs. The second output, limited to approximately 4 A and with a slightly lower output voltage, is intended to top up a starter battery.
- Skylla-i (3): three full current outputs to charge 3 battery banks The Skylla-i (3) features 3 isolated outputs. All outputs can supply the full rated output current.

### Rugged

- Aluminium epoxy powder coated cases with drip shield and stainless steel fixings withstand the rigors of an adverse environment: heat, humidity and salt air. Circuit boards are protected with an acrylic coating for maximum corrosion resistance. Temperature sensors ensure that power components will always operate within specified limits, if needed by automatic reduction of output current under extreme environmental conditions.
- Flexible Next to a CAN bus (NMEA2000) interface, a rotary switch, DIP switches and potentiometers are available to adapt the charge algorithm to a particular battery and its conditions of use. Please refer to the manual for a complete overview of the possibilities.

### Important features:

- Synchronised parallel operation Several chargers can be synchronised with the CAN bus interface. This is achieved by simply interconnecting the chargers with RJ45 UTP-cables. Please see the manual for details.
- The right amount of charge for a lead-acid battery: variable absorption time When only shallow discharges occur the absorption time is kept short in order to prevent overcharging of the battery. After a deep discharge the absorption time is automatically increased to make sure that the battery is completely recharged.
- Preventing damage due to excessive gassing: the BatterySafe mode If, in order to quickly charge a battery, a high charge current in combination with a high absorption voltage has been chosen, the Skylla-i will prevent damage due to excessive gassing by automatically limiting the rate of voltage increase once the gassing voltage has been reached.
- Less maintenance and aging when the battery is not in use: the Storage mode The storage mode kicks in whenever the battery has not been subjected to discharge during 24 hours. In the storage mode float voltage is reduced to 2,2 V/cell (26,4 V for 24 V battery) to minimise gassing and corrosion of the positive plates. Once a week the voltage is raised back to the absorption level to 'refresh' the battery. This feature prevents stratification of the electrolyte and sulphation, a major cause of early battery failure.
- Battery voltage sense In order to compensate for voltage loss due to cable resistance, the Skylla-i is provided with a voltage sense facility so that the battery always receives the correct charge voltage.
- Suitable for AC and DC supply (AC-DC and DC-DC operation) The chargers also accept a DC supply.
- Li-Ion (LiFePO4) ready
- Simple charger on-off control can be implemented by connecting a relay or open collector optocoupler output from a Li-Ion BMS to the remote control port of the charger. Alternatively complete control of voltage and current can be achieved by connecting to the galvanically isolated CAN bus port.



SKYLLA-I 24/100

# Battery Chargers and Equipment

VICTRON

## Victron Skylla & Centaur Series

### Skylla TG Series

- Charge voltage can be precisely adjusted to suit any sealed or unsealed battery system
- Charging process takes place in accordance with IUoUO characteristic and charges more rapidly than other processes
- Can be used as a power supply
- 2 isolated outputs, the second limited to approximately 4 amp and with a slightly lower output voltage, intended to top up a starter battery
- Voltage sense facility so the battery always receives the correct charge voltage
- Input voltage: 230 volt AC voltage range: 185-264 volt DC



SKYLLA TG SERIES

### Centaur

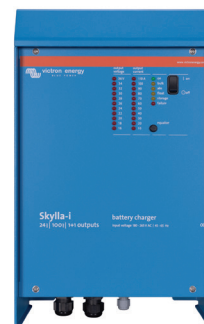
- Universal 90-265 volt AC, 45/65 Hz. input voltage range
- Three outputs that each can supply the full output current
- Three stage charging, with temperature compensation
- Charges at bulk rate until the output has reduced to 70% of the rated amp, at which a 4 hour timer begins; after the timed period the charger switches to float rates
- Dip switch available to select the optimum charge/float voltages for flooded lead acid, gel-cell or AGM batteries



CENTAUR SERIES

### Skylla-i Series

- Features 3 isolated outputs. All outputs can supply the full rated output current
- Next to a CAN bus (NMEA2000) interface, a rotary switch, DIP switches and potentiometers are available to adapt the charge algorithm to a particular battery and its conditions of use
- The Skylla-i is provided with a voltage sense facility so that the battery always receives the correct charge voltage.
- Li.OIN READY (Life PO4)



SKYLLA-I SERIES

Item Number	Output Volts	Amps	Dimensions in "(mm) HxWxD	Battery Capacity	Price
<b>Skylla TG Series</b>					
SDTG2400503	24	50	14.4(366) x 9.9(250) x 5.8(147)	150-500	\$1,234.44
SDTG24050300	24	50	14.4(366) x 9.9(250) x 5.8(147)	150-500	\$1,836.66
SDTG2401003	24	100	16(406) x 9.9(250) x 5.9(150)	500-100	\$2,439.99
<b>Centaur Series</b>					
Centaur 12/20	12	20	14(356) x 8.5(216) x 4.3(109)	80-200	\$476.66
Centaur 12/30	12	30	14(356) x 8.5(216) x 4.3(109)	120-300	\$528.88
Centaur 12/40	12	40	16.8(427) x 9.4(239) x 5.3(135)	160-400	\$647.77
Centaur 12/50	12	50	16.8(427) x 9.4(239) x 5.3(135)	200-500	\$673.33
Centaur 12/60	12	60	16.8(427) x 9.4(239) x 5.3(135)	240-600	\$701.11
Centaur 12/80	12	80	19.9(505) x 10(254) x 5.2(132)	320-800	\$1,162.22
Centaur 24/30	24	30	14(356) x 8.5(216) x 4.3(109)	120-300	\$817.77
Centaur 24/40	24	40	19.9(505) x 10(254) x 5.2(132)	160-400	\$1,067.77
Centaur 24/60	24	60	19.9(505) x 10(254) x 5.2(132)	240-600	\$1,222.22
Centaur 12/100	12	100	19.9(505) x 10(254) x 5.2(132)	400-1000	\$1,421.11
<b>Skylla I Series</b>					
SKI024080002	24	80	16(406) x 9.9(251) x 5.9(150)	400-800Ah	\$1,851.11
SKI024100002	24	100	16(406) x 9.9(251) x 5.9(150)	500-1000Ah	\$2,246.66

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## Blue Smart IP22 Charger

### 120 VAC - VE.Smart Network enabled

- The wireless solution to monitor voltage and current , to change settings and to update the charger when new features become available.
- Adaptive 6-stage charge algorithm : test – bulk absorption – recondition – float – storage. The Blue Smart Charger features a microprocessor controlled ' adaptive ' battery management. The adaptive feature will automatically optimize the charging process relative to the way the battery is being used.
- Fully programable charge algorithm. Absorption, Float and storage voltages as well as the Recondition setting and the temperature compensation value ca be programmed with the Bluetooth app. After enabling the expert mode, the app allows changing practically all parameters and time limits used by the charge algorithm.
- Also charges Li-ion batteries. Li-ion batteries are charged with a simple bulk-absorption – float algorithm.
- Fully discharged battery recovery function. Will initiate charging even if the battery has been discharged to zero volts. Will reconnect to a fully discharged Li-ion battery with internal disconnect function.



Item Number	Amps	Dimensions in "(mm) HxWxD	Output Volts	Price
BPC123048102	30A	235 x 108 x 65 mm " (9.7 x 4.3 x 2.6 inch)	12	\$298.88

## Blue Smart IP65 Charger

- The Blue Smart IP65 Charger is the new professional battery charger with built-in Bluetooth. The Blue Smart IP65 Charger can be used on devices in your workshop and on motor vehicles, such as (classic) cars; motorbikes; boats and camper-vans.
- Water, dust and mechanical resistant
- Seven step smart charge algorithm
- Recovery of fully discharged "dead" batteries
- Low power mode to charge smaller batteries
- Li-ion battery mode
- Setup and configure, readout of voltage and current by Bluetooth Smart

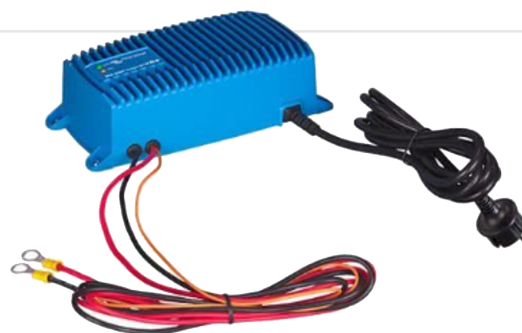


Item Number	Amps	Dimensions in "(mm) HxWxD	Output Volts	Price
BPC240831104R	8	60 x 105 x 190 mm (2.3 x 4.1 x 7.5 inches)	8	\$208.89
BPC121031104R	10	47 x 95 x 190 mm (1.8 x 3.7 x 7.5 inches)	12	\$181.11
BPC121531104R	15	47 x 95x 190 mm (2.4 x 4.1 x 7.5 inches)	15	\$208.89

## Blue Smart IP65 Charger

### Bluetooth Smart enabled

- The Blue Smart IP67 Charger is the wireless solution to monitor voltage and current, to change settings and update the charger when new features become available.
- Completely encapsulated: waterproof, shockproof and ignition protected water, oil or dirt will not damage the Blue Smart IP67 Charger. The casing is made of cast aluminium and the electronics are moulded in resin.
- Adaptive 5-stage charge algorithm: bulk – absorption – recondition – float – storage.
- Storage Mode: Less maintenance and aging when the battery is not in use
- Also charges Li-ion (LifePO) batteries
- LiFePO batteries are charged with a simple bulk – absorption – float algorithm.
- Protected against over heating can be used in a hot environment such as a machine room. Put current will reduce as temperature increases up to 60 C. but the charger will not fail.
- Two LEDs for status indication Yellow LEDL bulk charge (blinking fast), absorption (blinking slow), float (solid), storage (off) Green LED: power on



Item Number	Banks	Amps	Dimensions	Price
BPC122547106	12	25	99 x 219 x 65	\$249.00
BPC240515106	24	5	85 x 211 x 60	\$145.00
BPC241247106	24	12	99 x 219 x 65	\$245.00

Images are representative of products listed and may not be actual product.



# Battery Chargers and Equipment

XANTREX + PROLITE + DOLPHIN

## True Charge2 Series

- Wide voltage range operation (90-135 volt AC, 47-63 Hz)
- Parallel stacking feature allows two chargers to work together to combine the output current
- Drip proof design
- Settings for AGM, flooded or gel lead-acid batteries
- Power factor corrected, temperature compensated during charging
- Automatic 21 day top-up program
- Durable and corrosion resistant chassis
- CSA E60335-2-29, CE Marked
- Ignition protected rated UL1564 and UL1236, including the Marine Supplement, drip test
- Ingress protection rated IP32 per EN/IEC 60529
- 2 year manufacturer warranty



TRUE CHARGE2 SERIES



REMOTE PANEL

Item Number	Banks	Amps	Dimensions in "(mm) HxWxD	Output Volts	Price
804-1220-02	3	20	2.8(71) x 6.7(170) x 9.8(249)	12	\$467.48
804-1240-02	3	40	2.8(71) x 6.7(170) x 9.8(249)	12	\$618.70

## Prolite Series

- 40% smaller and 50% lighter than most competitors
- IP 65 Water Resistant
- ISO certified 8846 for use in gasoline boats
- Works with any battery technology on the market
- Will charge from 0 VDC
- Bluetooth Interface
- Simple installation
- 92% Super Efficient



Item Number	Output	Battery Capacity	Dimensions in"(mm) HxWxD	Price
<b>Premium Series</b>				
99225	12V-25A	-	9-5/8" x 5-1/2" x 2-3/4"	\$545.00
99030	12V-40A	80-400 Ah	4.75(121) x 13.88(353) x 3.75(95)	\$875.00
99040	24V-20A	40-200 Ah	4.75(121) x 13.88(353) x 3.75(95)	\$994.00
99050	12V-60A	n/a	9.44(240) x 4.21(107) x 10.79(274)	\$1,019.00

## Dolphin Pro Series

- Can operate up to 65° C without de-rating
- Internal diode isolator without voltage drop
- Solid casing in aluminum, mounting by 4 easily accessible screws
- Integrated control panel, LED display indicating the charging curve as well as anomalies and faults
- Can Bus J1939 interface
- Automatic switchover: equipped with three isolated outputs, automatic switchover 115 volt / 230 volt / 60Hz.
- Conformal coating of PCB to prolong the life of the charger
- Using built in CAN BUS J1939 interface
- 9 charging programs



PRO SERIES

Item Number	Output	Battery Capacity	Dimensions in"(mm) HxWxD	Price
<b>Pro Series</b>				
99501	12V-90A	180-900 Ah	13.4(340) x 14.2(361) x 4.9(124)	\$1,735.00
99502	24V-40A	80-400 Ah	13.4(340) x 14.2(361) x 4.9(124)	\$1,576.00
99503	24V-60A	120-600 Ah	13.4(340) x 14.2(361) x 4.9(124)	\$1,693.00
99504	24V-100A	200-1000 Ah	13.4(340) x 14.2(361) x 7.5(191)	\$2,955.00

Item Number	Description	Price
<b>Accessories</b>		
99047	Temperature sensor adjusts the charging voltage depending on battery temperature	\$62.00

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## Pro Nautic Series

- Automatically senses and distributes up to full capacity to any one bank or combination of all banks
- Up to 12 performance & precision 4 stage charging profiles: charge, condition, auto maintain, and recondition
- Automatic dockside power mode for 12 volt DC lighting and appliances
- Conservation energy mode
- Automatically programs conditioning time based on discharge state of batteries
- Remote temperature probe included
- Meets marine spec ULc 1236, CE marked, CTick, FCC class B, CEDC, and ABYC approved
- 5 Year warranty

### 5 Year Warranty



DIGITAL DISPLAY AND CONTROL REMOTE



PRONATIC P SERIES

Item Number	Output Voltage	Amps	Dimensions LxWxH in "(mm)	Weight lbs(kg)	Price
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### Pro Nautic P Series

#### 100-260 Autoarranging AC input Voltage, 50/60 cycle, 3 banks

63120	12	20	10.25(260) x 8.50(215) x 3.50(89)	5(2.2)	\$562.57
63130	12	30	10.25(260) x 8.50(215) x 3.50(89)	5(2.2)	\$688.56
63140	12	40	10.25(260) x 8.50(215) x 3.50(89)	5(2.2)	\$739.96
63150	12	50	12.25(311) x 8.50(215) x 3.50(89)	7(3.1)	\$947.55
63160	12	60	12.25(311) x 8.50(215) x 3.50(89)	7(3.1)	\$1,169.96
63170	24	20	10.25(260) x 8.50(215) x 3.50(89)	5(2.2)	\$1,187.13
63180	24	30	12.25(311) x 8.50(215) x 3.50(89)	7(3.1)	\$1,187.13

Item Number	Description	Price
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### Accessories

63106	Remote temperature sensor	\$17.23
63100	Digital display and control remote	\$145.86



# Battery Chargers and Equipment

## INFORMATION



The following definitions are derived from the American Boat and Yacht Council standards and are meant to be for reference only.

**Bulk Charge:** This is initiated at power up and provides the charger's full-rated current to the battery bank until a predetermined voltage level is attained and/or a certain time has passed. This mode provides a rapid recharge.

**Absorption Charge** (also called acceptance charge): This stage immediately follows the bulk charge mode. It maintains the battery voltage at the bulk charge voltage level; the current decreases as the battery accepts its final charge. This mode continues for a given time or until a predetermined current level is reached.

**Float Charge:** This stage is designed to hold the battery at a safe, lower voltage while providing up to the charger's full-rated amperage to accommodate DC load requirements. Most units will remain in this mode until the AC power is cycled off and then on again, or battery voltage drops to a predetermined level due to excessive load.

**Equalization:** This feature can be found in some linear and multi-stage chargers. It is important that the voltage and time of this cycle be very well controlled so that its primary purpose of removing residual sulfate, bringing all flooded battery cells to an equal potential and mixing of the electrolyte occurs without damaging the battery. This mode of charging is not recommended for SVR batteries.

**Note:** Different manufacturers have different philosophies regarding the operation of these four stages. This includes the amount of time the charger stays in the bulk mode or if a certain DC load demand will trigger the charger to return to the bulk mode. Careful consideration should be given to these important characteristics, based on the anticipated application. Due to the frequencies involved, electrical interference can be an issue and may show up in radios or televisions if the charger is not properly installed.