

MASTERVOLT

BATTERY CHARGERS



MASS & IVO SERIES

- SWITCH MODE TECHNOLOGY
- 3-STAGE CHARGE TECHNOLOGY, EXTENDS BATTERY LIFE
- SUITABLE FOR ALL BATTERIES
- DUAL FREQUENCY 50/60 HZ
- VOLTAGE & TEMPERATURE SENSING
- HEAVY DUTY QUALITY, INDUSTRIAL GRADE
- WIDE MODEL RANGE IN 12, 24 OR 48 VDC, FOR 110 & 220 VAC
- TWO YEAR WARRANTY, WORLDWIDE COVERAGE
- FULL COMPLIANCE WITH CE AND ABYC



INDUSTRIAL, MOBILE & MARINE APPLICATIONS

Mastervolt has been a pioneer in the field of high output, high efficiency switch mode battery chargers for industrial, mobile and marine applications, since 1991. Hundreds of thousands of charger/power supply units have been sold in over fifty countries. Industrial and marine applications require the right charging methods for gel-cell batteries and other types of battery technologies.

Mastervolt's chargers were designed to protect your investment in your battery banks.

DESIGNED TO TAKE THE HEAT.....

Many of today's high frequency switch mode battery chargers suffer from insufficient RFI and EMC filtering resulting in DC and AC load disturbance. Mastervolt engineers have addressed this by optimizing filtering techniques. Another feature is the so-called intelligent square tunnel cooling concept. This makes the Mass and IVO chargers run clean and cool. This also keeps dust and dirt away from sensitive charger components, extending the charger's life.

All components are designed to operate at high efficiency rates in 105°F ambient temperatures with the charger operating at full output.

CERTIFIED MANUFACTURING

Mastervolt products are manufactured to ISO 9001. The highest design standards are followed, ensuring a maximizing of the life-span of the products. The standard warranty time is 24 months. Backed by a global dealer and service network, Mastervolt stands behind its products all the way.

TECHNICAL SPECIFICATIONS

Mass range: internal AC/DC connections / hard wiring / 230V AC 50/60Hz versions

Model	Mass 12/60-2	Mass 12/80-2	Mass 24/15-2	Mass 24/25-2	Mass 24/50-2	Mass 24/75	Mass 24/100	Mass 324/100****
Part #	04-00-10600	04-00-10800	04-00-20150	04-00-20250	04-00-20500	04-00-20750	04-00-21000	04-10-31010
DC output current (105°F)*	60A + 3A	80A + 3A	15A + 3A	25A + 3A	50A + 3A	75A	100A	100A
DC voltage bulk (77°F)**	14.25/14.4V	14.25/14.4V	28.5/28.8V	28.5/28.8V	28.5/28.8V	28.5/28.8V	28.5/28.8V	28.5/28.8V
Charge voltage float (77°F)**	13.25/13.8V	13.25/13.8V	26.5/27.6V	26.5/27.6V	26.5/27.6V	26.5/27.6V	26.5/27.6V	26.5/27.6V
Rec. battery capacity (min.)	140 Ah	200 Ah	55 Ah	140 Ah	200 Ah	200 Ah	200 Ah	200 Ah
AC input voltage	180-265V	180-265V	180-265V	180-265V	180-265V	180-265V	180-265V	360-485V
Input frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
AC input current (full load)	5A	6A	2A	3.5A	8A	12A	16A	5A
Cos phi regulation	> 0.99	> 0.99	> 0.99	> 0.99	> 0.99	> 0.99	1	1
+ and - sense connection	yes	yes	auto	auto	yes	yes	yes	yes
Cabinet type	C2	C2	C1	C1	C2	C3	C3	C3
Weight	11 lbs	11 lbs	6 lbs	6 lbs	11 lbs	20 lbs	20 lbs	28 lbs

IVO Smart range: external AC/DC connections / 90-260V AC models 50/60Hz

Model	IVO Smart 12/25-2	IVO Smart 12/40-3***	IVO Smart 24/15-2
Part #	04-30-12530	04-30-14010	04-30-21500
DC output current (105°F)*	25A + 3A	40A + 3A	15A + 3A
DC voltage bulk (77°F)	14.25V	14.25V	28.8V
Charge voltage float (77°F)**	13.25/14.8V	13.25/14.8V	26.5/27.6V
Min. battery capacity	85 Ah	140 Ah	55 Ah
AC input voltage	90-265V	90-265V	90-265V
Frequency	50/60Hz	50/60Hz	50/60Hz
AC input current (full load)	4A/2A*****	5A/3A*****	4A/2A*****
Cos phi regulation	> 0.99	> 0.99	> 0.99
+ and - sense connection	auto	auto	auto
Cabinet type	S1	S1	S1
Weight	6 lbs	7 lbs	6 lbs

Mass & IVO Smart range: 117V models 50/60Hz

Model	IVO Smart 12/50-2	Mass 12/80-2	Mass 24/50-2	Mass 24/75	Mass 24/100
Part #	04-31-15010	04-01-10800	04-01-20500	04-01-20750	04-01-21000
DC output current (105°F)*	50A + 3A	80A + 3A	50A + 3A	75A	100A
DC voltage bulk (77°F)	14.25V	14.25V	28.5V	28.5V	28.5V
Charge voltage float (77°F)**	13.25/14.8V	13.25/14.8V	26.5/27.6V	26.5/27.6V	26.5/27.6V
Min. battery capacity	200 Ah	200 Ah	200 Ah	200 Ah	200 Ah
AC input voltage	90-132V	90-132V	90-132V	90-132V	90-132V
Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
AC input current (full load)	7A	12A	16A	24A	32A
Cos phi regulation	> 0.99	> 0.99	> 0.99	> 0.99	1
+ and - sense connection	auto	yes	yes	yes	yes
Cabinet type	S1	C2	C2	C2	C3
Weight	7 lbs	19 lbs	18 lbs	18 lbs	29 lbs

* A 3A output is a standard feature to maintain the starting or auxiliary battery set. Optional for 75A and 100A models.

** The first voltage indicates the standard factory setting, the second is with temperature sensor and/or removed jumper to charge gel batteries.

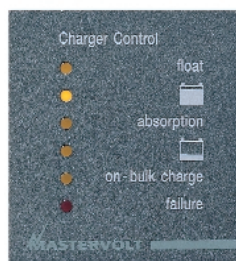
*** Three outputs as standard; 2x40 Amps (either battery 1 or battery 2) and a third 3 Amps. 12/40 Output limited to 20 Amps on 117V AC input.

**** Three-phase models, 3x400V AC.

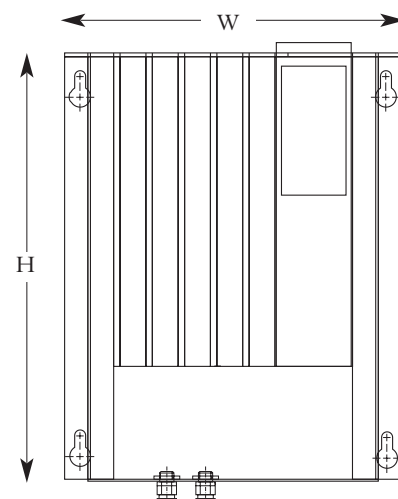
***** Auto ranging input: first current rating indicates current draw on 117V AC, second on 230V AC.

ACCESSORIES

part #	code	description	dimensions
07-04-04100	C4-RB	standard control panel	2.6" x 2.4"
07-04-03040	C3-RS	control panel + current control	2.6" x 4.8"
65-02-001030		6-wire telephone cable with 2 telejacks	19 feet
65-02-100100		6-wire telephone cable with 2 telejacks	32 feet
65-02-100150		6-wire telephone cable with 2 telejacks	49 feet
07-04-03100	Masterlink/MICC		2.6" x 4.8"

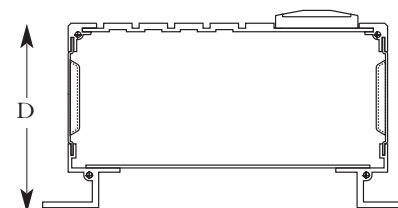


Optional: C4-RB, part # 07-04-04100. Charger status indicator.



Dimensions in inches:

	H	W	D
S1	12.3"	8.3"	4"
C1	12.8"	8.7"	4.4"
C2	13.5"	10.3"	5.9"
C3	16.6"	12.5"	5.9"



Optional: BTM1, part # 07-04-03160. Battery Monitor for Ah counting.

