



CE

Unit Shown: MSM-30-24V-U1

Pending:  

## Marine High Frequency Battery Charger

The MSM Series is a High Frequency Switch Mode charger specifically developed for Marine applications. MSM series incorporates Power Factor Correction (PFC) Circuitry with a wide input voltage range in order to accommodate many marine charging applications.

The MSM has an Integrated Battery Charge Divider / Isolator which provides connections for charging up to three independent batteries simultaneously with a three-stage charge cycle. MSM's filtered output is suitable to charge different types of batteries for Marine/Industrial applications. This series is equipped with an LCD display for ease of navigation through the configurations menu. The LCD also displays Input AC voltage, Output DC Voltage & Current, and Alarm Status. The front of the unit provides three status LED indicators for the overall status of the system.

The MSM charger is built in a robust, non-corrosive enclosure that addresses harsh Marine environments, meeting stringent safety and regulatory standards.

### Standard Features

- Microprocessor Controlled High Frequency Charging Technology
- Single Phase AC Input 102-264VAC, 45-65Hz
- Complete Isolation from AC to DC
- LCD Digital Voltmeter & Ammeter
- Adjustable Current Limit from 50% to 105%
- Filtered Output for VRLA (Gel-Cell & AGM) Batteries
- Battery Isolator (Charge Divider allows for charging up to three Batteries Simultaneously)
- Conformal Coated Circuit Boards
- Input & Output Fuses
- On/Off Switch with Disable Option
- Drip Shield
- AC Power Cord, 7ft NEMA 5-15 Plug
- AC Voltage Metering
- Temperature Compensation (Internal) with Disable Option
- Charger Failure Alarm with LED Indicator and Form "C" Dry Type Relay Contacts
- IP21/NEMA Type 2 (with dripshield)
- Meets USCG Requirements
- Meets ANSI C62.41
- CE Certified
- 2-Year Warranty

### Optional Accessories

- 21X** Ethernet Communications (SNMP & Remote Monitoring)
- 11W** External Temperature Probe 24 feet
- 551** VFD Display
- 545** Solar Input w/MPPT Controller

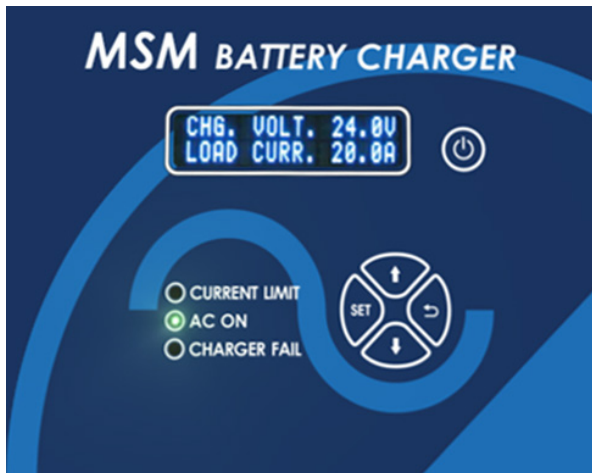


Model Number	AC Input 100% (load)		DC Output		Overall Dimensions W x D x H	Case No.	Net Weight*	
	Volts (Nominal)	Amps	Volts (Nominal)	Amps			lbs	kgs
MSM-10-12V-U1	120	1.5	12	10	9.6 x 4.6 x 15.9 in 243 x 116.1 x 403 mm	102	14	6.3
	240	0.8						
MSM-20-12V-U1	120	3.1	12	20	9.6 x 4.6 x 15.9 in 243 x 116.1 x 403 mm	102	14	6.3
	240	1.6						
MSM-40-12V-U1	120	5.6	12	40	9.6 x 4.6 x 15.9 in 243 x 116.1 x 403 mm	102	14	6.3
	240	3.0						
MSM-10-24V-U1	120	2.6	24	10	9.6 x 4.6 x 15.9 in 243 x 116.1 x 403 mm	102	14	6.3
	240	1.4						
MSM-20-24V-U1	120	5.2	24	20	9.6 x 4.6 x 15.9 in 243 x 116.1 x 403 mm	102	14	6.3
	240	2.7						
MSM-30-24V-U1	120	7.8	24	30	9.6 x 4.6 x 15.9 in 243 x 116.1 x 403 mm	102	14	6.3
	240	3.8						

\*Weight does not include shipping packaging

## Charger Specifications

<ul style="list-style-type: none"> <li>• <b>AC Input</b> Wide AC Input Range 105-264VAC Single Phase 45 - 65 Hz</li> <li>• <b>DC Output</b> 10A/12V, 20A/12V, 40A/12V 10A/24V, 20A/24V, 30A/24V</li> <li>• <b>Efficiency</b> &gt;85%</li> <li>• <b>Power Factor</b> &gt;0.95</li> <li>• <b>Load Regulation</b> &lt;±0.5%</li> <li>• <b>Input Protection</b> Fuse with surge and transient protection AC Over Voltage Protection</li> <li>• <b>Output Current Limit</b> Factory set at 100%, adjustable from 50-105%</li> <li>• <b>Output Protection</b> Fuse with surge protection Blocking Diode</li> <li>• <b>Thermal Protection</b></li> <li>• <b>Short Circuit Protection</b></li> <li>• <b>LED Indicators</b> Current Limit AC ON Charger Fail</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Alarm Contacts</b> Charger Failure</li> <li>• <b>LCD Digital Display</b> AC Input Voltmeter DC Output Voltmeter and Ammeter (1%)</li> <li>• <b>Environmental</b> Operating: -20° to 50°C (-4° to 122°F) (Derated up to 70°C) Storage: -40° to 85°C (-40° to 185°F) Relative Humidity: 0 to 95% non condensing</li> <li>• <b>Adjustable Voltage Range</b> 20.8V to 28.2V</li> <li>• <b>Mounting</b> Wall mount</li> <li>• <b>Cable Entry</b> Bottom</li> <li>• <b>Finish</b> Powder coated aluminum enclosure</li> <li>• <b>Standards</b> USCG requirements ANSI C62-41 EN 60335-1 (Electrical Safety) IEC 60335-2-29 (Electrical Safety) IEC 60068-2-6 (Sinusoidal Vibration) EN 55011 (Radiated EMI) IEC 1000-4-2 (Electrostatic Discharge) IEC 1000-4-4 (Electrical Fast Transient)</li> </ul>
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Optional VFD Display

## Model Number Nomenclature

