La Marche model MSM series chargers use High Frequency charging technology developed specifically for marine applications. The MSM incorporates Power Factor Correction Circuitry to achieve high efficiency and a wide input range.

Maximize your battery life with this intelligent charger. This filtered output unit is designed and built to charge VRLA (Gel-Cell, AGM), Flooded Lead Acid and Nickel Cadmium batteries.

The MSM is equipped with an LCD display showing DC Volts, DC Amps, and three status LEDs. Integrated Battery Charge Divider / Isolator provides connections for charging up to three independent batteries simultaneously.

The MSM model is built in a robust, non corrosive enclosure that addresses the harsh marine environments.

### Standard Features
- Microprocessor Controlled High Frequency Charging Technology
- Single Phase AC Input 105-264VAC, 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
- Meets USCG Requirements
- Meets ANSI C62-41
- 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
- 2-Year Warranty

### Optional Accessories
- 21X Ethernet Communications (SNMP, Remote Monitoring and Battery Testing)
- 03Y Low Current Alarm
- 551 VFD Display
- --- Solar Input w/MPPT Controller (pending )
## Charger Specifications

### AC Input
- Wide AC Input Range 105-264 VAC
- Single Phase 45 - 65 Hz

### DC Output
- 20A/12V, 40A/12V
- 10A/24V, 20A/24V, 30A/24V

### Line Regulation
±10%

### Efficiency
>85%

### Power Factor
>0.95

### Load Regulation
≤±0.5%

### Input Protection
- Fuse with surge and transient protection

### Output Current Limit
- Factory set at 100%, adjustable from 50-105%

### Output Protection
- Fuse with surge protection

### Thermal Protection
- Shuts down when overheated

### Short Circuit Protection

### AC Over Voltage Protection

### LED Indicators
- AC On
- Charger On
- Charger Failure

### Alarm Contacts
- Charger Failure

### Metering
- LCD DC Output Digital Voltmeter and Ammeter (1%)

### Environmental
- Operating: -40° to 50°C (-40° to 122°F) (Derated up to 70°)
- Storage: -40° to 85°C (-40° to 185°F)
- Relative Humidity: 0 to 95% non condensing

### Adjustable Voltage Range (per cell)
- Lead-Acid Cells: 2.15 VDC to 2.35 VDC
- Nickel-Cadmium: 1.39 VDC to 1.49 VDC

### Mounting
- Wall mounting

### Cable Entry
- Bottom

### Finish
- Powder coat finish

### Standards
- Meets USCG requirements
- Meets ANSI C62-41

### Optional
- Communications: SNMP Ethernet & Web Monitoring
- Low Current Alarm
- VFD Display

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### Model Number Nomenclature

<table>
<thead>
<tr>
<th>Model Number</th>
<th>AC Input Range (Amps)</th>
<th>DC Output (Vdc)</th>
<th>Overall Dimensions</th>
<th>Case No.</th>
<th>Net Weight*</th>
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<td>120 1.8 240 1.0</td>
<td>120 10</td>
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<td>11.3 5.1</td>
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</table>

*Weight does not include shipping packaging

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Optional VFD Display