



MSCR Battery Charger with Charge Divider



Unit Shown: MSCR-10-24V-AV1



The MSCR battery charger product line utilizes microprocessor controlled SCR charging technology. The PWM control provides the highest reliability that is required for maintaining and recharging batteries. This charger is suitable for various types of batteries such as flooded lead acid, VRLA and NiCad.

Automatic input sensing for 120/208-240 VAC 50/60Hz does not require any tap changes while multi-output (12V/24V) makes this product line flexible. The 0.5% regulation, temperature compensation, battery check, equalize timer along with adjustable output voltage and current limiting assures longevity and performance for your batteries. This unit has the capability to restore amp hours to a fully discharged battery. This economical solution equipped with advanced features incorporates La Marche quality and reliability.

The front panel is equipped with an LCD display, alarm status LED's and controls. The two-line LCD displays output voltage and current, along with alarm status text description. Individual LED indicators provide local supervision.

Form "C" contacts are available for remote annunciation. Push button controls are used for Float/Equalize mode, Reset, Lamp Test and Configure.

Standard Features

- Microprocessor Controlled SCR Technology
- Programmable Output 12/24 VDC
- Available Output Ranges 10-20 Amps
- LCD Display
- Alarm LED's and Form "C" Contacts
- Adjustable Float and Equalize Voltages
- Automatic AC Input Voltage Compensation
- AC to DC Isolation
- Filtering Suitable for VRLA Batteries
- Battery Fault Detection
- Internal Temperature Compensation
- Equalize Timer
- Powder Coated Aluminum Case
- Drip Shield
- Water Tight Connectors
- 3 Isolated Charge Dividers (Negative Common)
- Soft Start
- On/Off Switch
- ABS Type Approval
- Meets USCG Requirements
- UL 1236 Listed
- CE Certified
- 3 Year Warranty

Optional Accessories

- 11W** External Temperature Compensation Probe
- 18L** Output Disconnect Relay
- 530** CUL Listing



Model Number	DC Output		AC Input		Overall Dimensions W x D x H	Case No.	Shipping Weight	
	Volts (Nominal)	Amps	Volts (Nominal)	Amps			lbs	kgs
MSCR-10-24V-AV1	24	10	120/208-240	6.0/3.0	9.7" x 8.1" x 14.3" 246 x 206 x 364mm	98	29	13.2
MSCR-20/10-12/24V-AV1	12 12 24	10 20 10	120/208-240	3.2/1.6 5.4/3.0 6.0/3.0	9.7" x 8.1" x 14.3" 246 x 206 x 364mm	98	29	13.2

AC INPUT

- 120/208 - 240 VAC $\pm 10\%$, 50/60HZ, Single Phase

DC OUTPUT (Field Selectable)

- 10A / 12V or 20A / 12V or 10A / 24V

REGULATION

- **Line:** $< \pm 0.5\%$
- **Load:** $< \pm 0.5\%$

Output Filtering (With Connected Battery)

- **Less than 500 mV RMS**

PROTECTION

- **Input**
Fuse with Surge Protection
- **Output**
Fuse with Surge Protection
Reverse Polarity Protection

BATTERY CELL SELECTION

- **12 Volts**
6L
9NC
10NC
- **24 Volts**
12L
18NC
19NC
20NC

OUTPUT CURRENT LIMIT

- Factory set at 105%
Adjustable from 50 - 110%

METERS

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

ADJUSTABLE VOLTAGE RANGE

- **Float Voltage**
2.12 - 2.3 volts/cell (Lead)
1.39 - 1.45 volts/cell (NiCad)
- **Equalize Voltage**
2.25 - 2.40 volts/cell (Lead)
1.45 - 1.6 volts/cell (NiCad)

CONTROLS

- **AC On/ Off Switch**
- **Float and Equalize Button**
Switch from Float to Equalize
- **Configure Button**
Output Settings
Voltage and Cells
Adjust Voltage for Float & Equalize
Adjust Alarm Settings and Delay
Enable/Disable Temperature Compensation
Equalize Timer
~ Multi-Mode Equalize Timer and Light;
adjustable from 1 - 144 hrs
~ Five selectable modes: Manual, 7-day,
14-day, 30-day and Equalize after Low DC
Voltage and/or AC Failure
(Default Factory Setting)
- **Reset Button**
Restarts the Unit
- **Lamp Test Button**
Tests LCD Display & LED's

ALARM CONTACTS

- AC Failure
- Low DC Voltage
- High DC Voltage
- Charger Failure

MONITORING

- **LCD Display**
Volts
Amps
Status
- **LED Indications**
Float (Green)
Equalize (Yellow)
AC ON (Green)
Charger Failure (Red)
Battery Fault (Red)
Current Limit (Red)
High DC Voltage (Red)
Low DC Voltage (Red)

ENVIRONMENTAL

- **Operating**
-20° to 50° C
- **Storage**
-40° to 85° C
- **Relative Humidity**
5% to 95% non condensing

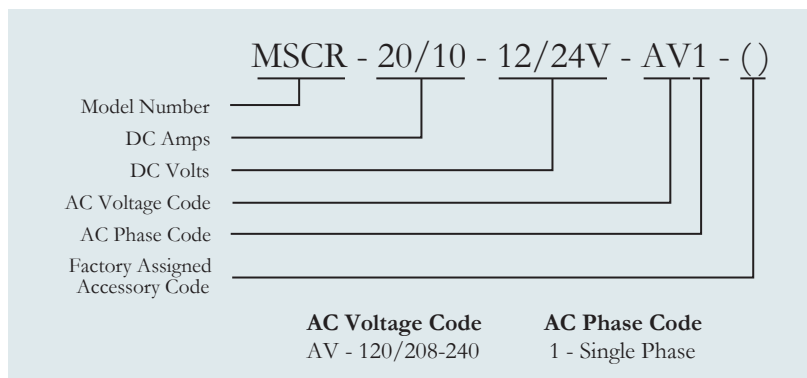
ENCLOSURE

- **Structural Design**
Housed in NEMA 1 powder coated aluminum wall mount
- **Cable Entry**
Left Side
Water tight connectors

STANDARDS

- UL 1236
- ABS
- CE
- Optional CUL
- USCG

Model Number Nomenclature



Charge Divider

