

**USC SERIES****HIGH FREQUENCY ULTRA SERIES CHARGER**

The La Marche Ultra Series Charger is a High Frequency Switch Mode charger specifically developed for Batteries and Ultra Capacitors used in starting applications. This programmable charger with filtered output is designed to charge various types of chemistries, such as Lead Acid, Nickel Cadmium and Ultra Capacitors.

The USC series incorporates Power Factor Correction (PFC) Circuitry with a wide input voltage range. The user friendly interface allows the user to navigate easily through the configuration menu. The two line LCD displays Output DC Voltage & Current and Alarm Status. The front of the unit provides four status LED indicators for the overall status of the system.

The case is designed using primed 16 Ga galvanized steel with powder coat finish for maximum strength against corrosion, while its weight gives the customer easy handling and installation, without the necessity of a second person. Case is equipped with knockouts, for optional cable entry, either from the sides or the bottom. Removable cover, located on the front, gives access to the customer connections, temperature probe, as well as, the alarm terminals.

* Pending

Standard Features

- Microprocessor Controlled High Frequency Charging Technology
- Ultra Capacitor Module Charging Mode
- Float and Equalize Battery Charging Mode
- Filtered Output for VRLA (Gel-Cell & AGM) Batteries
- Single Phase AC Input (105-264 VAC, 45-65Hz)
- Complete Isolation from AC to DC
- Input & Output Protection Fuses
- Adjustable Current Limit from 50% to 105%
- LCD Digital Voltmeter & Ammeter
- Conformal Coated Circuit Boards
- Temperature Compensation (Internal) with Disable Option
- External Temperature Probe 24 feet
- Alarms with LED Indicators and Form "C" Dry Type Relay Contacts
- IP20/NEMA Type 1
- Meets NFPA 110 and ANSI C62.41A
- UL and CUL 1236 (pending)
- 2-Year Warranty

Optional Accessories

- 21S Modbus Communication
- 080 Drip Shield (IP21/NEMA Type 2)
- 11Y External Temperature Probe 100 feet
- 551 Digital Controller with VFD Display

Specifications subject to change without notice

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Model Number Chart

| 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 |
| USC-10-12V-U1 | 120 | 1.5 | 12 | 10 | 7.9 x 4.1 x 10.7 in 201 x 105 x 272 mm | 104 | 5 | 2.9 |
| | 240 | 0.8 | | | | | | |
| USC-20-12V-U1 | 120 | 3.1 | 12 | 20 | 7.9 x 4.1 x 10.7 in 201 x 105 x 272 mm | 104 | 5 | 2.9 |
| | 240 | 1.6 | | | | | | |
| USC-30-12V-U1 | 120 | 4.4 | 12 | 30 | 9.6 x 4.6 x 15.9 in 244 x 117 x 404 mm | 102 | 11.3 | 5.1 |
| | 240 | 2.3 | | | | | | |
| USC-10-24V-U1 | 120 | 2.6 | 24 | 10 | 7.9 x 4.1 x 10.7 in 201 x 105 x 272 mm | 104 | 5 | 2.9 |
| | 240 | 1.4 | | | | | | |
| USC-20-24V-U1 | 120 | 5.2 | 24 | 20 | 9.6 x 4.6 x 15.9 in 244 x 117 x 404 mm | 102 | 11.3 | 5.1 |
| | 240 | 2.7 | | | | | | |
| USC-30-24V-U1 | 120 | 7.8 | 24 | 30 | 9.6 x 4.6 x 15.9 in 244 x 117 x 404 mm | 102 | 11.3 | 5.1 |
| | 240 | 3.8 | | | | | | |

*Weight does not include shipping packaging

Charger Specifications

- **AC Input**
Single Phase Input
Wide AC Input Range (105-264 VAC, 45 - 65 Hz)
- **DC Output**
10A/12V, 20A/12V, 30A/12V
10A/24V, 20A/24V, 30A/24V
- **Efficiency**
>85%
- **Power Factor**
>0.95b
- **Load Regulation**
<±0.5%
- **Input Protection**
Fuse with surge and transient protection
AC Over Voltage Protection
- **Output Current Limit**
Factory set at 100%, adjustable from 50-105%
- **Output Protection**
Fuse with surge protection
Blocking Diode
- **Thermal Protection**
- **Short Circuit Protection**
- **LCD Digital Display**
DC Output Voltmeter and Ammeter (1%)
- **LED Indicators**
AC on
Float
Equalize
Fault
- **Alarm Contacts**
Charger Fail High DC Voltage
AC Fail Summary
Low DC Voltage

- **Environmental**
Operating: -40° to 65°C (-40° to 149°F) (Derated up to 70°C)
Storage: -40° to 85°C (-40° to 185°F)
Relative Humidity: 0 to 95% non condensing
- **Battery Charging Voltage Range**
Float:
Lead Acid 2.12-2.35 Volt/Cell
NiCad 1.35-1.45 Volt/Cell
Equalize:
Lead Acid 2.25-2.40 Volt/Cell
NiCad 1.5-1.6 Volt/Cell
Ultracapacitor (not applicable)
- **Mounting**
Wall mount
- **Cooling**
Fan Assisted
- **Cable Entry**
Left / Right / Bottom
- **Enclosure**
NEMA 1
- **Standards**
UL / CUL 1236 (pending)
NFPA 110
ANSI C62.41A
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)

Front Display Panel



Model Number Nomenclature

