



The Powerful Advantage

Since 1945

La MARCHÉ

ISO 9001:2008 CERTIFIED

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.

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 (102-264 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
- 2-Year Warranty

Optional Accessories

- 21S Modbus Communication
- 080 Drip Shield (IP22/NEMA Type 2)
- 11Y External Temperature Probe 100 feet

Specifications subject to change without notice



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 11.0 in 201 x 105 x 279.4 mm	104	5	2.9
	240	0.8						
USC-20-12V-U1	120	3.1	12	20	7.9 x 4.1 x 11.0 in 201 x 105 x 279.4 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	107	11.3	5.1
	240	2.3						
USC-10-24V-U1	120	2.6	24	10	7.9 x 4.1 x 11.0 in 201 x 105 x 279.4 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	107	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	107	11.3	5.1
	240	3.8						

* Weight does not include shipping packaging

** UL pending

Charger Specifications

AC Input

Single Phase Input

AC Input Range (102 - 264 VAC, 45 - 65 Hz)

DC Input Range (105 - 140 Vdc)

DC Output

10A/12V, 20A/12V, 30A/12V

10A/24V, 20A/24V, 30A/24V

Power Factor

0.99

Load Regulation

<±0.5%

Output Filtering (with or without connected battery)

<1% of Output Voltage

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 Equalize

Float Fault

Alarm Contacts

Charger Fail High DC Voltage

AC Fail Low DC Voltage

Summary

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 2.12-2.30 Volt/Cell

NiCad 1.39-1.45 Volt/Cell

Equalize*:

Lead Acid 2.25-2.40 Volt/Cell

NiCad 1.45-1.60 Volt/Cell

* Ultracapacitor (not applicable)

Mounting

Wall Mount

Cooling

Fan Assisted

Cable Entry

Left / Right / Bottom

Enclosure

NEMA 1

Standards

UL / CUL 1236

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

