

# **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

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Specifications subject to change without notice

P25-DSUSC-1 ECN 21290 11/16

### Model Number Chart

Model Number	AC Input (100% load)		DC Output		Overall Dimensions	Case No.	Net Weight*	
	Volts (Nominal)	Amps	Volts (Nominal)	Amps	W x D x H	0000110.	lbs	kgs
USC-10-12V-U1	120	1.5	12	10	7.9 x 4.1 x 10.7 in	104	5	2.9
	240	0.8			201 x 105 x 272 mm			
USC-20-12V-U1	120	3.1	12	20	7.9 x 4.1 x 10.7 in	104	5	2.9
	240	1.6			201 x 105 x 272 mm			
USC-30-12V-U1	120	4.4	12	30	9.6 x 4.6 x 15.9 in	102	11.3	5.1
	240	2.3			244 x 117 x 404 mm			0.11
USC-10-24V-U1	120	2.6	24	10	7.9 x 4.1 x 10.7 in	104	5	2.9
	240	1.4			201 x 105 x 272 mm	101	5	
USC-20-24V-U1	120	5.2	24	20	9.6 x 4.6 x 15.9 in	102	11.3	5.1
	240	2.7			244 x 117 x 404 mm			
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					11.5	5.1

• Environmental

Float:

Equalize:

Mounting

Wall mount

Fan Assisted

Cable Entry

Enclosure

NEMA 1

Standards

NFPA 110

ANSI C62.41A

Cooling

Operating: -40° to 65°C (-40° to 149°F) (Derated up to 70°C)

Storage: -40° to 85°C (-40° to 185°F)

• Battery Charging Voltage Range

Lead Acid 2.12-2.35 Volt/Cell

Lead Acid 2.25-2.40 Volt/Cell

Ultracapacitor (not applicable)

NiCad 1.35-1.45 Volt/Cell

NiCad 1.5-1.6 Volt/Cell

Left / Right / Bottom

UL / CUL 1236 (pending)

EN 55011 (Radiated EMI)

EN 60335-1 (Electrical Safety)

IEC 60335-2-29 (Electrical Safety)

IEC 60068-2-6 (Sinusoidal Vibration)

IEC 1000-4-2 (Electrostatic Discharge)

IEC 1000-4-4 (Electrical Fast Transient)

Relative Humidity: 0 to 95% non condensing

\*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  $<\pm 0.5\%$
- 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 ContactsCharger FailHighAC FailSummerLow DC VoltageHigh

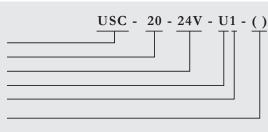
High DC Voltage Summary

# Front Display Panel



# Model Number Nomenclature

Model Number DC Amps DC Volts AC Voltage Code AC Phase Code Factory Assigned Accessory Code



AC Voltage Code U1 - 105-264 VAC AC Phase Code 1 - Single Phase