



The Powerful Advantage

Since 1945

La MARCHÉ

ISO 9001:2015 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 Super Capacitors used in Engine Starting applications. This programmable charger is designed to charge various types of chemistries, such as Lead Acid, Nickel Cadmium Super Capacitors and LIFEP04 Technology.

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

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

Complete Isolation from AC to DC

Float and Equalize Battery Charging Mode

Super Capacitor Module Charging Mode

Filtered Output for VRLA (Gel-Cell & AGM) Batteries

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

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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 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						
USC-20-48V-U1**	120	10.6	48	20	9.6 x 9.9 x 15.9 in 244 x 152 x 404 mm	205	18	8.1
	240	5.3						
USC-6-130V-U1**	120	8.6	130	6	9.6 x 4.6 x 15.9 in 244 x 117 x 404 mm	107	11.3	5.1
	240	4.3						
USC-12-130V-U1**	120	17.2	130	12	9.6 x 9.9 x 15.9 in 244 x 152 x 404 mm	205	18	8.1
	240	8.6						

* 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
20A/48V, 6A/130V, 12A/130V
- 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
Float
Equalize
Fault
- Alarm Contacts**
Charger Fail
AC Fail
High DC Voltage
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*: Adjustable
 - Lead Acid 2.12-2.30 Volt/Cell
 - NiCad 1.39-1.45 Volt/Cell
 - Equalize*: Adjustable
 - Lead Acid 2.25-2.40 Volt/Cell
 - NiCad 1.45-1.60 Volt/Cell
- LIFEP04**
Adjustable
Charger Profile
- SUPERCAP**
Adjustable
Charger Profile
- * Doesn't apply to Supercapacitor or LIFEP04*
- 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

