



The Powerful Advantage Since 1945

La MARCHÉ

ISO 9001:2008 CERTIFIED

USC PLUS 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. 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)
- Modbus Communication (RTU)
- SAE J-1939 Communication (CAN Bus)
- 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%
- Low Voltage Cranking Disconnect

- 3-Stage Deep Discharge Battery Algorithm
- LCD Digital Voltmeter & Ammeter
- Conformal Coated Circuit Boards
- Temperature Compensation (Internal) with Disable Option
- Alarms with LED Indicators and Form "C" Dry Type Relay Contacts
- Complete Isolation from AC to DC
- IP20/NEMA Type 1
- Meets NFPA 110 and ANSI C62.41A
- UL and CUL 1236
- 2-Year Warranty

Optional Accessories

- 080 Drip Shield (IP22/NEMA Type 2)
- 11W External Temperature Probe 24 feet

- 11Y External Temperature Probe 100 feet
- 57Y Modbus Ethernet

Specifications subject to change without notice

P25-DSUSC-1
ECN 23001
08/21

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Model Number Chart

Model Number	AC Input 100% (load)		DC Output		Case No.	Net Weight*	
	Amps @ 120 Volts Nominal	Amps @ 240 Volts Nominal	Volts (Nominal)	Amps		lbs	kgs
USC-10-12V-U1	1.5	0.8	12	10	201	5	2.3
USC-20-12V-U1	3.1	1.6	12	20	201	5	2.3
USC-30-12V-U1	4.6	2.4	12	30	203	11	5.0
USC-40-12V-U1	6.0	3.2	12	40	203	11	5.0
USC-60-12V-U1	9.2	4.8	12	60	205	18	8.2
USC-80-12V-U1	12.0	6.4	12	80	205	18	8.2
USC-10-24V-U1	2.6	1.4	24	10	201	5	2.3
USC-20-24V-U1	5.2	2.7	24	20	203	11	5.0
USC-25-24V-U1	6.5	3.1	24	25	203	11	5.0
USC-30-24V-U1	7.8	3.8	24	30	203	11	5.0
USC-35-24V-U1	9.1	4.4	24	35	203	11	5.0
USC-45-24V-U1	13	6.3	24	45	205	18	8.2
USC-50-24V-U1	13	6.3	24	50	205	18	8.2
USC-65-24V-U1	16.9	8.2	24	65	205	18	8.2
USC-100-24V-U1	26.0	12.6	24	100	207	32.6	14.8
USC-10-32V-U1	3.4	1.7	32	10	203	11	5.0
USC-20-32V-U1	6.9	3.4	32	20	203	11	5.0
USC-10-48V-U1	5.2	2.7	48	10	203	11	5.0
USC-20-48V-U1	10.6	5.3	48	20	205	18	8.2
USC-6-130V-U1	8.6	4.3	130	6	203	11.3	5.1
USC-12-130V-U1	17.2	8.6	130	12	205	18	8.2

*Weight does not include shipping packaging

Charger Specifications

- **AC Input**
Single Phase Input
AC Input Range (102 - 264 VAC, 45 - 65 Hz)
- **DC Output**
10-80A / 12V, 10-100A / 24V, 10-20A / 32V,
10-20A / 48V, 6-12A / 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
 - ▶ Low Current
 - ▶ Current Limit
 - ▶ Charger Fail
 - ▶ Summary
- **Alarm Contacts**
 - ▶ Charger Fail
 - ▶ AC Fail
 - ▶ Low DC Voltage
 - ▶ High DC Voltage
- **Communication**
 - ▶ Modbus (RTU)
 - ▶ SAEJ-1939

- **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
** Doesn't apply to Supercapacitor or LIFEP04*
- **LIFEP04**
Adjustable Charger Profile
- **SUPERCAP**
Adjustable Charger Profile
- **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

