

CC SERIES | SOLAR CHARGE CONTROLLER

OPTIMIZE BATTERY MAINTENANCE AND MONITORING VIA A LARGE LCD DISPLAY

Introduction

The Magnum Energy CC Series Charge Controllers by Sensata Technologies provide exceptional control and state-of-charge determination via an easy-to-read LCD display. The large display shows operating modes with the aid of symbols, and the state of charge is represented visually in the form of a level meter. Voltage, current, and an energy meter can also be displayed. The CC-40 also features an integrated USB charging port for charging smartphones and tablets.



Features

- Shunt topology with MOSFETs
- Accurate state of charge (SOC) determination
- Automatic detection of voltage
- PWM control
- Multistage charging technology
- Load disconnection depending on SOC
- Automatic load reconnection
- Temperature compensation
- Option to use negative earthing of one or positive earthing of several terminals
- Integrated data logger (energy meter)
- Evening, night light and daylight functions
- Integrated self test
- Monthly equalization charge
- USB charge socket for smartphones and tablets (CC-40 only)
- Overcharge protection
- Deep discharge protection
- Reverse polarity protection of module, load and battery
- Automatic electronic fuse
- Short circuit protection of load and module
- Overvoltage protection at module input
- Open circuit protection without battery
- Reverse current protection at night
- Overtemperature and overload protection
- Load disconnection on battery overvoltage

Model Numbers

- CC-30
- CC-40

Works With

- Works as a stand-alone controller using internal settings.

Available Accessories

- Alarm contact
- External temperature sensor



On the CC-40



SPECIFICATIONS



	CC-30	CC-40
OPERATING PERFORMANCE		
System voltage	12 V (24 V)	12 V (24 V)
Power consumption	12.5 mA	18.5 mA
DC INPUT SIDE		
Open circuit voltage solar module (at minimum operating temperature)	< 47 V	< 47 V
DC OUTPUT SIDE		
Load current	30 A	40 A
USB charge socket	n/a	5.2 V / 1.5 A
Reconnection voltage (SOC/LVR)	> 50% / 12.6 V (25.2 V)	> 50% / 12.6 V (25.2 V)
Deep discharge protection < 30% (SOC/LVD)	< 30% / 11.1 V (22.2 V)	< 30% / 11.1 V (22.2 V)
BATTERY SIDE		
End-of-charge voltage	13.9 V (27.8 V)	13.9 V (27.8 V)
Boost charge voltage	14.4 V (28.8 V)	14.4 V (28.8 V)
Equalization charge	14.7 V (29.4 V)	14.7 V (29.4 V)
Set battery type	flooded (adjustable via menu)	flooded (adjustable via menu)
Charge current	30 ADC	40 ADC
ENVIRONMENTAL SPECIFICATIONS		
Ambient temperature	14° F to 122° F (-10° C to +50° C)	14° F to 122° F (-10° C to +50° C)
GENERAL FEATURES		
Warranty	5 years	5 years
PHYSICAL SPECIFICATIONS		
Terminal (fine/single wire)	AWG 6 / 4 (16 mm ² / 25 mm ²)	AWG 6 / 4 (16 mm ² / 25 mm ²)
Degree of protection	IP 31	IP 30
Dimensions (width x height x depth)	7.4" x 3.8" x 1.7" (187 mm x 96 mm x 44 mm)	7.4" x 3.8" x 1.8" (187 mm x 97 mm x 45 mm)
Shipping dimensions (width x height x depth)	7.6" x 4.1" x 2" (195 mm x 105 mm x 50 mm)	7.6" x 4.1" x 2" (195 mm x 105 mm x 50 mm)
Weight	.77 lb (350 g)	.77 lb (350 g)
Shipping weight	1 lb (450 g)	1.1 lb (480 g)



GENERAL NOTES

Testing for specifications at 25° C.
Specifications subject to change without notice.

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Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.

CONTACT US

Americas

Everett, WA
425-353-8833
MagnumSales@sensata.com

International

[MagnumInternationalSales@
sensata.com](mailto:MagnumInternationalSales@sensata.com)

Power Conversion

www.SensataPower.com