

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.

Sensata Technologies, Inc. ("Sensata") data sheets are solely intended to assist designers ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products. Sensata data sheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular data sheet. Sensata may make corrections, enhancements, improvements and other changes to its data sheets or components without notice.

Buyers are authorized to use Sensata data sheets with the Sensata component(s) identified in each particular data sheet. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATA SHEETS ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATA SHEETS OR USE OF THE DATA SHEETS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATA SHEETS OR USE THEREOF.

All products are sold subject to Sensata's terms and conditions of sale supplied at www.sensata.com SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.

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

CONTACT US

651-653-7000
800-553-6418
InverterInfo@sensata.com

Power Conversion
www.magnum-dimensions.com