

## CE SERIES | SOLAR CHARGE CONTROLLER

COST-EFFECTIVE, ESSENTIAL LED CHARGE CONTROLLER

### Introduction

The Magnum Energy CE Series Charge Controllers by Sensata Technologies are an excellent, cost-effective choice for when simple controls and low self consumption are in order for your charge controller. Available in 6, 10, 20, 30, and 40 amp models, the pulse width modulated (PWM) CE Series automatically recognizes 12V or 24V systems and adjusts accordingly.



### Features

- Serial topology with MOSFETs
- Automatic detection of voltage
- Voltage regulation
- PWM control
- Multistage charging technology
- Current compensated load disconnection
- Automatic load reconnection
- Temperature compensation
- Negative earthing of one or positive earthing of several terminals possible
- Monthly equalization charge
- Displays
- Multifunction LED display
- Multi-colored LED
- 4 LEDs show operating states for operation, state of charge, fault messages
- Electronic Protection Functions
- Overcharge protection
- Deep discharge protection
- Reverse polarity protection of module ( $\leq 36$  V), 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

- CE-6
- CE-10
- CE-20
- CE-30
- CE-40

### Works With

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

### Options

- Evening or night light function pre-set in the factory or adjustable via the optional RC100



# SPECIFICATIONS



	CE-6	CE-10	CE-20	CE-30	CE-40
<b>OPERATING PERFORMANCE</b>					
<b>System voltage</b>	12 V (24 V)	12 V (24 V)	12 V (24 V)	12 V (24 V)	12 V (24 V)
<b>Power consumption</b>	< 4 mA	< 4 mA	< 4 mA	< 4 mA	< 10.5 mA
<b>DC INPUT SIDE</b>					
<b>Open circuit voltage solar module (at minimum operating temperature)</b>	< 47 V	< 47 V	< 47 V	< 47 V	<47 V
<b>Module current</b>	6 A	10 A	20 A	30 A	40 A
<b>DC OUTPUT SIDE</b>					
<b>Load current</b>	6 A	10 A	20 A	30 A	40 A
<b>USB charge socket</b>	n/a	n/a	n/a	n/a	5.2 V / 1.5 A
<b>Reconnection voltage (LVR)</b>	12.4 to 12.7 V (24.8 V to 25.4 V)	12.4 to 12.7 V (24.8 V to 25.4 V)	12.4 to 12.7 V (24.8 V to 25.4 V)	12.4 to 12.7 V (24.8 V to 25.4 V)	12.4 to 12.7 V (24.8 V to 25.4 V)
<b>Deep discharge protection (LVD)</b>	11.2 V to 11.6 V (22.4 V to 23.2 V)	11.2 V to 11.6 V (22.4 V to 23.2 V)	11.2 V to 11.6 V (22.4 V to 23.2 V)	11.2 V to 11.6 V (22.4 V to 23.2 V)	11.2 V to 11.6 V (22.4 V to 23.2 V)
<b>BATTERY SIDE</b>					
<b>Battery voltage</b>	n/a	n/a	9 V to 17 V (17.1 V to 34 V)	9 V to 17 V (17.1 V to 34 V)	9 V to 17 V (17.1 V to 34 V)
<b>End-of-charge voltage</b>	13.9 V (27.8 V)	13.9 V (27.8 V)	13.9 V (27.8 V)	13.9 V (27.8 V)	13.9 V (27.8 V)
<b>Boost charge voltage</b>	14.4 V (28.8 V)	14.4 V (28.8 V)	14.4 V (28.8 V)	14.4 V (28.8 V)	14.4 V (28.8 V)
<b>Equalization charge</b>	n/a	n/a	14.7 V (29.4 V)	n/a	n/a
<b>Set battery type</b>	gel	gel	flooded	flooded	flooded
<b>Charge current</b>	6 ADC	10 ADC	20 ADC	30 ADC	40 ADC
<b>ENVIRONMENTAL SPECIFICATIONS</b>					
<b>Ambient temperature</b>	-13° F to 122° F (-25° C to +50° C)				
<b>PHYSICAL SPECIFICATIONS</b>					
<b>Terminal (fine/single wire)</b>	AWG 12 / 9 (4 mm <sup>2</sup> / 6 mm <sup>2</sup> )	AWG 12 / 9 (4 mm <sup>2</sup> / 6 mm <sup>2</sup> )	AWG 6 / 4 (16 mm <sup>2</sup> / 25 mm <sup>2</sup> )	AWG 6 / 4 (16 mm <sup>2</sup> / 25 mm <sup>2</sup> )	AWG 6 / 4 (16 mm <sup>2</sup> / 25 mm <sup>2</sup> )
<b>Degree of protection</b>	IP 31	IP 31	IP 31	IP 31	IP 30
<b>Dimensions (width x height x depth)</b>	5.7" x 3.9" x 1.2" (145 mm x 100 mm x 30 mm)	5.7" x 3.9" x 1.2" (145 mm x 100 mm x 30 mm)	7.4" x 3.8" x 1.8" (187 mm x 96 mm x 45 mm)	7.4" x 3.8" x 1.8" (187 mm x 96 mm x 45 mm)	7.4" x 3.8" x 1.8" (187 mm x 97 mm x 45 mm)
<b>Shipping dimensions (width x height x depth)</b>	5.7" x 3.9" x 1.2" (147 mm x 100 mm x 31 mm)	5.7" x 3.9" x 1.2" (147 mm x 100 mm x 31 mm)	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)	7.6" x 4.1" x 2" (195 mm x 105 mm x 50 mm)
<b>Weight</b>	.33 lb (150 g)	.33 lb (150 g)	.76 lb (345 g)	.76 lb (345 g)	.76 lb (345 g)
<b>Shipping weight</b>	.35 lb (160 g)	.35 lb (160 g)	.93 lb (420 g)	.93 lb (420 g)	.97 lb (440 g)
<b>GENERAL SPECIFICATIONS</b>					
<b>Warranty</b>	5 years				



## GENERAL NOTES

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

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