

## CX series (10 – 40 A)

Solar Charge Controller with LCD Display



- Battery State-of-Charge display LCD
- Charge and discharge status display
- Acoustic load disconnect pre-warning
- Load status indication
- Choose between 5 load disconnect algorithms
- Boost/absorption/float PWM-regulation (series type)
- Integrated temperature compensation
- Covered terminals (up to 16 mm<sup>2</sup> wire size)
- Full solid-state protection

The CX series is a sophisticated solar charge controller family with exceptional features in this price range. Beside a perfect PWM regulation with integrated temperature compensation the controllers provide extraordinary display, programming and safety functions.

The battery state of charge is clearly displayed with a bar chart, as well as energy flows from and to the battery and the load status (e.g. overload, load short circuit). The deep discharge protection function can be set up to three

different modes: voltage controlled, SOC controlled or adaptive (fuzzy logic).

Acoustic warnings are built in, also a programmable nightlight function. As an accessory we can provide an Excess Energy Management output to control special Phocos appliances like the SF solar refrigerators/coolers. The compact case design is prepared for DIN rail mounting (mounting device available as an accessory).

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Type	CX 10	CX 20	CX 40		
System voltage	12/24 V auto recognition				
Max. charge/load current	10 A	20 A	40 A		
Float charge	13.7/27.4 V (25 °C)				
Main charge	14.4/28.8 V (25 °C), 30 min. (daily)				
Boost charge	14.4/28.8 V (25 °C), 2 h activation: battery voltage < 12.3/24.6 V				
Equalization	14.8/29.6 V (25 °C), 2 h activation: battery voltage < 12.1/24.2 V				
Deep discharge protection:					
State of charge dependent	A: 11.4 – 11.9 V / 22.8 – 23.8 V B: 11.0 – 11.75 V / 22.0 – 23.5 V				
Voltage dependent	A: 11.0/22 V B: 11.5/23 V				
Adaptive	11.0 – 12.2 V / 22.0 – 24.4 V				
Reconnect level	12.8/25.6 V				
Oversupply protection	15.5/31.0 V				
Undervoltage protection	10.5/21.0 V				
Max. panel voltage	30 V in 12 V system				
(Oversupply protection by varistor)	50 V in 24 V system				
Temperature compensation (Charge voltage)	–25 mV/K at 12 V –50 mV/K at 24 V				
Self consumption	< 4 mA				
Grounding	positive grounding possible				
Ambient temperature	–20 to +50 °C				
Max. height	4,000 m above sea level				
Battery type	lead acid (GEL, AGM, flooded)				
Wire cross section	< 16 mm <sup>2</sup>				
Weight	168 g	179 g			
Dimensions (W x H x D)	92 x 93 x 38 mm				
Type of protection	IP22				