

## CX series (10 – 40 A)

Solar Charge Controller with LC Display



- LC display
- Display indicates charge and discharge status
- Load disconnect prewarning by acoustic signal
- Load status indication
- Choose among five load disconnect algorithms
- Four-stage PWM charging algorithm with integrated temperature compensation
- Protected terminals (up to 16 mm<sup>2</sup> wire size)
- Full electronic protection
- Programmable nightlight function

The CX series offers outstanding features in this class. In addition to sophisticated PWM charge regulation with integrated temperature compensation, the CX controllers provide substantial display, programming, and safety functions. The battery state of charge is clearly displayed by means of a bar graph, as well as energy flow from and to the battery and the load status (e.g. overload, load short circuit).

The deep discharge protection function can be set to five different modes: two voltage-controlled, two SOC-controlled, or one adaptive (battery deep discharge protection). Acoustic alarms are built in and a programmable nightlight function as well. The CX-DR can optionally be used for DIN rail mounting.

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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		
Overvoltage protection	15.5/31.0 V		
Undervoltage protection	10.5/21.0 V		
Max. panel voltage (Overvoltage protection by varistor)	30 V in 12 V system 50 V in 24 V system		
Temperature compensation (Charge voltage)	–25 mV/K at 12 V –50 mV/K at 24 V		
Own consumption	< 4 mA		
Grounding	Positive grounding		
Ambient temperature	–40 to +50 °C (–20 °C: LC display)		
Max. height	4,000 m above sea level		
Battery type	Lead acid (GEL, AGM, flooded)		
Wire cross section	Up to 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		