

## CXN series (10 – 40 A)

Programmable Solar Charge Controller, Negative Grounded



- Built-in one-year data logger for system analysis
- Load disconnect prewarning by acoustic signal
- LCD display: battery state-of-charge and charge current
- Choose among five load disconnect algorithms
- Temperature-compensated three-stage PWM series charging regulation
- Automatic 12/24 V detection
- Prepared for DIN rail mounting (CX-DR2.1)
- Optional external temperature sensor (CXNT)
- Optional remote display (CXM multi-meter)
- Optional USB interface (CXI + CXCOM)

The CXN is a programmable solar charge controller series with negative grounding. The built-in data logger stores system information for a complete year, unique for its class. In addition to perfect PWM regulation with integrated temperature compensation, the controllers provide extraordinary display, programming, and safety functions. The

battery state of charge is clearly displayed using a bar graph. The deep discharge protection function can be set to up to five different modes: two voltage-controlled, two SOC-controlled, or one adaptive SOC-controlled. Acoustic warnings are built in as well as a programmable nightlight function. The compact case design is prepared for DIN rail mounting (mounting adaptor available as an accessory).

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Type	CXN 10	CXN 20	CXN 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	14.4/28.8V (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 < 12.1/24.2V		
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	10.5/21.0V		
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	< 6 mA		
Grounding	Negative grounding possible		
Ambient temperature	–20 to +50 °C		
Max. altitude	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		