



CX Solar Charge Controller

Phocos CX series is a sophisticated solar charge controller which offers exceptional features at an extremely competitive price.

- **Innovative fuzzy logic algorithm**

Significantly reduces the danger of battery sulfation.

- **High reliability design**

Superior design ensures high degree of reliability through PCB conformal coating and anti-corrosive screws and terminals. Full electronic protection against short circuits, overload, overcurrent, reverse flow, wrong polarity and over-temperature.

- **Multifunctional LCD display**

The SOC bar indicates the exact state of charge (available energy) as a percentage through the battery gauge symbol. Any decrease in the SOC to sub-optimal levels is signalled by an electronic beep. Also has load status symbol and manual load switch.

- **Basic datalogging function**

Software and basic datalogger system for automatic data recording and fault analysis in stand-alone systems. Through the CXI USB interface and the CXCOM software, users can now gain immediate and easy access to the CX solar controller directly from their computer.

Technical Data	CX10	CX20	CX40
Nominal voltage	12/24V, automatic detection		
Max. solar panel current	10A	20A	40A
Max. load current	10A	20A	40A
Overcharge protection	Constant voltage PWM series regulation: boost charge, float charge and optional equalization charge.		
Overdischarge protection selectable LVD modes	High or low fixed voltage setting; high or low SOC (state of charge); adaptive low voltage disconnect (fuzzy logic algorithm)		
Ambient temperature range	-25°C to +50°C		
Max. wire size	16mm ² (AWG#6)		
Self consumption	4mA		
Weight	200g		

Low voltage disconnect function:

The CX controller has 5 different modes to protect the battery from deep discharging:

Mode 1: Disconnect at 11.4V (at nominal load current) to 11.9V (at no load current). Normal operation mode for good battery protection.

Mode 2: Disconnect at 11.0V (at nominal load current) to 11.75V (at no load current). Mode with lower disconnection point. Battery is cycled deeper, which can shorten battery lifetime.

Mode 3: Disconnect at 11.0 to 12.2V depending on load current and previous charging cycles. This adaptive mode leads to a longer battery lifetime because it allows recovery of the battery by full recharge, thus maximizing battery life.

Mode 4: Disconnect at 11.5V fixed setting. Appropriate if bypass loads draw current directly from battery.

Mode 5: Disconnect at 11.0V fixed setting. Appropriate if bypass loads draw current directly from battery. Mode with lower disconnection point. Battery is cycled deeper, which can shorten battery lifetime.

Flexible nightlight function:

Automatically detects day/night.

Programmable day/night threshold (light on/off point).

Lighting timing modes include dusk to dawn and ON/OFF/ON.

