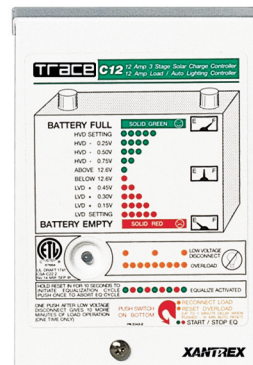


C12 Controller

Small System Charge or Lighting or Load Controller



Reliable Controller Technology

The C12 is the most advanced small-system solar charge, lighting, or DC load controller available on the market today. Intelligent microprocessor control and feature packed design brings unsurpassed reliability to even the smallest PV systems.

Product Features

- ▶ The circuitry comes standard with field-adjustable low voltage disconnect and reconnect points, and a low battery disconnect warning.
- ▶ Silent, pulse width modulated (PWM), high efficiency operation.
- ▶ Easy to read, front panel status LED.
- ▶ Automatic overload protection (in both active and passive modes).
- ▶ PV array short circuit and reverse polarity protection.
- ▶ Backed by a two-year warranty.
- ▶ Optional plug-in remote temperature sensor for increased battery performance.

Solar Charge Controller Features

- ▶ Three-stage battery charging, user-definable voltage parameters, and automatic equalization.
- ▶ Selectable settings for flooded lead acid, gel, or absorbed glass mat batteries.
- ▶ 12 VDC array operation.

As a DC Load Controller

- ▶ Low voltage disconnect warning system.
- ▶ Field adjustable set points (automatic low and high voltage disconnect).

As an Automatic Lighting Controller

- ▶ Automatic day and night detection circuitry.
- ▶ Adjustable run duration from 2 to 8 hours or "dusk to dawn" operation.

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Electrical Specifications

Maximum PV Amps	12 amps at 12 VDC only
Maximum DC Load	12 amps with auto reset
Minimum Operating Voltage	6 volts
Maximum Voltage Drop - PV to Battery	0.3 volts
Maximum Voltage Drop - Battery to DC Load	0.15 volts
Regulation Setting	13 to 15 VDC
Equalize Setting	Bulk plus 1 volt for two hours
Typical Consumption while Charging	0.007 amps
Typical Consumption at Night	0.003 amps
Typical Consumption with Load Disconnected	0.003 amps
Maximum Stranded Wire Size	#10 AWG stranded (5.2 mm ²)

General Specifications

Allowed Temperature Range	32 °F to 104 °F (0 °C to 40 °C)
Enclosure Type	Powder coated steel with strain relief for wiring and knockouts for up to three ½" conduits
Unit Weight	2 lb (0.9 kg)
Shipping Weight	2.5 lb (1.13 kg)
Dimensions	6.25" H x 4.3" W x 1.5" D (16.5 cm H x 11 cm W x 4 cm D)
Shipping Dimensions	8" H x 4.6" W x 1.6" D (20.3 cm H x 11.7 cm W x 4 cm D)
Mounting	Vertical wall mount - indoor
Warranty	2 years
Part Numbers	C12 - charge controller BTS - optional battery temperature sensor

Features & Options

Regulation Method	Standard - three-stage (bulk, absorption, and float), solid state, pulse width modulation
Field Adjustable Control Setpoints	Standard - removable knobs and calibrated scales
Setting Protection	Standard - knobs can be removed to prevent tampering
Testpoints	Standard - provided for each setting
Automatic Equalization	Standard - every 30 days or after voltage reaches low voltage disconnect - can be disabled
External Battery Temperature Compensation	Optional - battery temperature sensor (BTS)
Short Circuit Protection	Standard - fully electronically protected with auto reset and manual reset switch, protects both the loads and PV array from damage from short circuits - a fuse for the battery is still advised to protect the battery wires if located separately
Reverse Polarity Protection	Standard - fully protected
Low Voltage Disconnect	Standard - adjustable automatic or manual operation, manual reconnection includes warning flash of loads five minutes before and a ten minute grace period

Regulatory Approvals

ETL Listed to UL 1741 No. 2 and CSA C22.2 No 14