

C12 Charge Controller



The C12 charge, lighting, or load controller is uniquely sophisticated. As a charge controller, it features three-stage charging, user definable voltage parameters, and automatic equalization. Standard in the C12's load control circuitry are field adjustable low voltage disconnect and reconnect points, along with a five minute low battery disconnect warning. The C12 also functions as a lighting controller. Lighting run time is adjustable from 2 to 8 hours or can be set from dusk to dawn operation. It is used worldwide in a variety of applications, including remote village lighting systems and automatic outdoor lighting in Africa, Latin America, and Asia. An optional battery temperature sensor ensures precise battery charging regardless of battery temperature fluctuations.

Features

- ▶ Silent, pulse width modulated microprocessor control (maximizing battery life)
- ▶ Field adjustable voltage and battery set points
- ▶ Electronic protection against short-circuit, overload, over-temperature and reverse polarity conditions

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Our evolution to Schneider Electric, the global specialist in energy management, re-affirms our commitment to provide you with innovative solutions, best-in-class customer service, and exceptional quality in everything we do. We are proud to be your partner, and we are dedicated to helping you make the most of your energy.

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Electrical Specifications

Maximum PV amps	12 A at 12 Vdc only
Maximum DC load	12 A with auto reset
Minimum operating voltage	6 V
Maximum voltage drop - PV to battery	0,3 V
Maximum voltage drop - battery to DC load	0,5 V
Regulation setting	13 to 15 Vdc
Equalize setting	Bulk plus 1 volt for two hours
Typical consumption while charging	0,007 A
Typical consumption at night	0,003 A
Typical consumption with load disconnected	0,003 A
Maximum stranded wire size	10 AWG stranded (5.2 mm ²)

General Specifications

Allowed temperature range	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	0,9 kg
Shipping weight	1,13 kg
Dimensions (H x W x L)	16,5 x 11 x 4 cm
Shipping dimensions (H x W x L)	20,3 x 11,7 x 4 cm
Mounting	Vertical wall mount – indoor
Warranty	Two years
Part number	C12 – charge controller

Features and 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

Note: Specifications subject to change without notice.