

# C Series PWM charge controller

## PV charge, diversion and load controller

The C35 and C60 are field configurable for 12 V and 24 V operation. The C40 may be configured for 12 V, 24 V, or 48 V operation. C35, C40 and C60 charge controllers can be used as a charge, diversion, or load controller and come with a standard multi-color charge status LED face plate.

### Why choose C Series PWM?



#### Higher return on investment

- Improve battery life with pulse width modulated (PWM) multi-stage temperature compensated charging
- Two-year standard warranty



#### Flexible

- PV charge, diversion, load controller
- Available remote display with cumulative AMP hours



#### Easy to service

- Electronic protection against short-circuit, overload, and over-temperature conditions
- Tolerance to hostile environments with conformal-coated boards and powder-coated enclosure

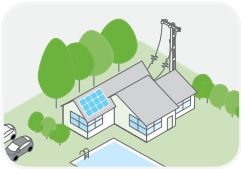


#### Easy to install

- Field adjustable voltage and battery set point
- Automatically disconnects from the battery at night
- Compatible with negative ground and ungrounded systems



### Product applications



Residential grid-tie solar with backup power



Off-grid solar

Device short name	C35	C40	C60
<b>Electrical specifications</b>			
Rated PV current	35 A	40 A	60 A
Charging / load current @ 25°C (77°F)	35 A	40 A	60 A
Voltage configurations	12 and 24 V	12, 24, and 48 V	12 and 24 V
Max. PV open circuit array voltage	55 V	125 V	55 V
Max. voltage drop through controller	0.30 V	0.30 V	0.30 V
Total operating consumption	15 mA	15 mA	15 mA
Recommended NEC breaker size	60 A rated at 100% continuous duty	60 A rated at 100% continuous duty	60 A rated at 100% continuous duty
Recommended wire size	#6 AWG rated at 90°C (194°F)	#6 AWG rated at 90°C (194°F)	#6 AWG rated at 90°C (194°F)
Lead acid battery settings	Adjustable	Adjustable	Adjustable
NiCd battery settings	Adjustable	Adjustable	Adjustable
Load control mode	Low voltage reconnect – adjustable (sticker provided with unit) all models Low voltage disconnect – user selectable manual or automatic reconnection – (includes warning flash before disconnect and provides a one time, user selected grace period) all models		
<b>General specifications</b>			
Power consumption, night time	3 mA	3 mA	3 mA
Enclosure material	Indoor, ventilated, powder coated steel with 2 cm and 2.5 cm knockouts	Indoor, ventilated, powder coated steel with 2 cm and 2.5 cm knockouts	Indoor, ventilated, powder coated steel with 2 cm and 2.5 cm knockouts
Product weight	1.2 kg (2.7 lb)	1.4 kg (3.1 lb)	1.4 kg (3.1 lb)
Shipping weight	1.4 kg (3.1 lb)	1.6 kg (3.5 lb)	1.6 kg (3.5 lb)
Product dimensions (H x W x D)	20.3 x 12.7 x 6.4 cm (8.0 x 5.0 x 2.5 in)	25.4 x 12.7 x 6.4 cm (10.0 x 5.0 x 2.5 in)	25.4 x 12.7 x 6.4 cm (10.0 x 5.0 x 2.5 in)
Shipping dimensions (H x W x D)	31.5 x 17.8 x 6.4 cm (12.4 x 7.0 x 2.5 in)	31.5 x 17.8 x 6.4 cm (12.4 x 7.0 x 2.5 in)	31.5 x 17.8 x 6.4 cm (12.4 x 7.0 x 2.5 in)
Device mounting	Vertical wall mount – indoor only	Vertical wall mount – indoor only	Vertical wall mount – indoor only
Ambient air temperature for operation	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)	0°C to 40°C (32°F to 104°F)
Operating altitude	4572 m (15000 ft)	4572 m (15000 ft)	4572 m (15000 ft)
Non-operating altitude	15240 m (50000 ft)	15240 m (50000 ft)	15240 m (50000 ft)
Warranty	Two-year standard	Two-year standard	Two-year standard
Part number	C35	C40	C60
<b>Features</b>			
Display type	Multi color LED indicates the operating and battery voltage status		
Regulation method	Solid state, three-stage (bulk, absorption, and float), pulse width modulation		
Field adjustable control setpoints	Two user adjustable voltage setpoints for control of loads or charging sources – settings retained if battery is disconnected		
Equalization charge	User selectable manual or automatic equalization – every 30 days		
<b>Options</b>			
CM/R-100	Backlit LCD remote, alphanumeric display showing battery voltage, DC amperage, cumulative amp hours, 30.5 m (100 ft) cable		
130-0004-02-01	Battery temperature sensor for increased charging precision, 7.62 m (25 ft) cable		
<b>Regulatory approval</b>			
Safety	UL listed to UL1741* and CSA 107.1-01; CE Marked for the Low Voltage Directive		
EMC	FCC and Industry Canada Class B, CE Marked for the EMC Directive		

Specifications are subject to change without notice. \*Assembly with optional digital meter is NOT UL listed.