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?

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Higher return on investment</td>
<td>• Improve battery life with pulse width modulated (PWM) multi-stage temperature compensated charging</td>
</tr>
<tr>
<td></td>
<td>• Two-year standard warranty</td>
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<tr>
<td>Flexible</td>
<td>• PV charge, diversion, load controller</td>
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<td></td>
<td>• Available remote display with cumulative AMP hours</td>
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<tr>
<td>Easy to service</td>
<td>• Electronic protection against short-circuit, overload, and over-temperature conditions</td>
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<td></td>
<td>• Tolerance to hostile environments with conformal-coated boards and powder-coated enclosure</td>
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<tr>
<td>Easy to install</td>
<td>• Field adjustable voltage and battery set point</td>
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<td>• Automatically disconnects from the battery at night</td>
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<td></td>
<td>• Compatible with negative ground and ungrounded systems</td>
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</tbody>
</table>

Product applications

- Residential grid-tie solar with backup power
- Off-grid solar

solar.schneider-electric.com
## Device short name

<table>
<thead>
<tr>
<th></th>
<th>C35</th>
<th>C40</th>
<th>C60</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Electrical specifications</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated PV current</td>
<td>35 A</td>
<td>40 A</td>
<td>60 A</td>
</tr>
<tr>
<td>Charging / load current @ 25°C (77°F)</td>
<td>35 A</td>
<td>40 A</td>
<td>60 A</td>
</tr>
<tr>
<td>Voltage configurations</td>
<td>12 and 24 V</td>
<td>12, 24, and 48 V</td>
<td>12 and 24 V</td>
</tr>
<tr>
<td>Max. PV open circuit array voltage</td>
<td>55 V</td>
<td>125 V</td>
<td>55 V</td>
</tr>
<tr>
<td>Max. voltage drop through controller</td>
<td>0.30 V</td>
<td>0.30 V</td>
<td>0.30 V</td>
</tr>
<tr>
<td>Total operating consumption</td>
<td>15 mA</td>
<td>15 mA</td>
<td>15 mA</td>
</tr>
<tr>
<td>Recommended NEC breaker size</td>
<td>60 A rated at 100% continuous duty</td>
<td>60 A rated at 100% continuous duty</td>
<td>60 A rated at 100% continuous duty</td>
</tr>
<tr>
<td>Recommended wire size</td>
<td>#6 AWG rated at 90°C (194°F)</td>
<td>#6 AWG rated at 90°C (194°F)</td>
<td>#6 AWG rated at 90°C (194°F)</td>
</tr>
<tr>
<td>Lead acid battery settings</td>
<td>Adjustable</td>
<td>Adjustable</td>
<td>Adjustable</td>
</tr>
<tr>
<td>NiCd battery settings</td>
<td>Adjustable</td>
<td>Adjustable</td>
<td>Adjustable</td>
</tr>
<tr>
<td>Load control mode</td>
<td>Low voltage reconnect – adjustable (sticker provided with unit) all models</td>
<td>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</td>
<td></td>
</tr>
</tbody>
</table>

## General specifications

### Power consumption, night time
- C35: 3 mA
- C40: 3 mA
- C60: 3 mA

### Enclosure material
- Indoor, ventilated, powder coated steel with 2 cm and 2.5 cm knockouts

### Product weight
- C35: 1.2 kg (2.7 lb)
- C40: 1.4 kg (3.1 lb)
- C60: 1.4 kg (3.1 lb)

### Shipping weight
- C35: 1.4 kg (3.1 lb)
- C40: 1.6 kg (3.5 lb)
- C60: 1.6 kg (3.5 lb)

### Product dimensions (H x W x D)
- C35: 20.3 x 12.7 x 6.4 cm (8.0 x 5.0 x 2.5 in)
- C40: 25.4 x 12.7 x 6.4 cm (10.0 x 5.0 x 2.5 in)
- C60: 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)
- C35: 31.5 x 17.8 x 6.4 cm (12.4 x 7.0 x 2.5 in)
- C40: 31.5 x 17.8 x 6.4 cm (12.4 x 7.0 x 2.5 in)
- C60: 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

### Ambient air temperature for operation
- 0°C to 40°C (32°F to 104°F)

### Operating altitude
- 4572 m (15000 ft)

### Non-operating altitude
- 15240 m (50000 ft)

### Warranty
- Two-year standard

### Part number
- C35
- C40
- C60

## Features

### 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

## Options

### 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

## Regulatory approval

### 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

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