

Solar Charge Controller XW-MPPT60-150



The Xantrex XW Solar Charge Controller (XW SCC) is a photovoltaic (PV) charge controller that tracks the electrical maximum power point of a PV array to deliver the maximum available current for charging batteries. When charging, the XW SCC regulates battery voltage and output current based on the amount of energy available from the PV array and state-of-charge of the battery.

The XW SCC can be used with 12, 24, 36, 48, and 60-volt DC battery systems and is able to charge a lower nominal-voltage battery from a higher nominal-voltage array. For example, the XW SCC can charge a 12-volt battery from a 36-volt array. This provides flexibility for installers to use longer wiring runs without compromising efficiency. The XW Solar Charge Controller can be installed (in single or multi-unit configurations) with Xantrex XW Hybrid Inverter/Charger(s) or can be used in other solar energy systems where a solar charge controller is needed.

The XW SCC incorporates a dynamic Maximum Power Point Tracking (MPPT) algorithm designed to maximize energy harvest from the PV array. The MPPT constantly adjusts the operating points of the array to ensure it stays on the maximum power point. It does not stop energy harvest to sweep the array like some other competing products. This feature is beneficial all sunlight conditions, especially in areas with fast moving cloud cover and quickly changing solar conditions.

Standard features of the Solar Charge Controller include:

- ▶ Maximum Power Point Tracking (MPPT) delivers maximum available power from PV array to battery bank
- ▶ Integrated PV ground-fault protection
- ▶ Ultra-reliable, convection-cooled design does not require a cooling fan – large, aluminum, die-cast heat-sink allows full output current up to 45°C without thermal derating
- ▶ Selectable two or three-stage charging algorithms with manual equalization to maximize system performance and improve battery life
- ▶ Configurable auxiliary output
- ▶ Two-line, 16-character liquid crystal display (LCD) and four buttons for configuration and system monitoring
- ▶ Input over-voltage and under-voltage protection, output over-current protection, and backfeed (reverse current) protection (warning and fault messages appear on LCD when unit shuts down as a protective measure)
- ▶ Over-temperature protection and power derating when output power and ambient temperature are high
- ▶ Battery Temperature Sensor (BTS) included – automatically provides temperature-compensated battery charging
- ▶ Xanbus™-enabled network communications protocol (developed by Xantrex)
- ▶ Communicates settings and activity to other Xanbus™-enabled devices, such as the XW Hybrid Inverter/Charger, the XW System Control Panel (XW SCP), XW Automatic Generator Start (XW AGS), and other XW Solar Charge Controllers.
- ▶ Five-year warranty

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Customer Service/Technical Support

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XW Solar Charge Controller

Electrical Specifications

| | |
|--|---------------------------------------|
| Nominal battery voltage | 12, 24, 36, 48, 60 Vdc |
| Maximum PV array voltage (operating) | 140 Vdc |
| Maximum PV array open circuit voltage | 150 Vdc |
| Array short-circuit current | 60 Adc maximum |
| Maximum and minimum wire size in conduit | #6 AWG to #14 AWG |
| Total power consumption while operating | 2.5 W (tare) |
| Charger regulation method: | Three-stage (bulk, absorption, float) |
| | Two-stage (bulk, absorption) |

Mechanical Specifications

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|---------------------------------|--|
| Dimensions (H × W × D) | 14 ½ × 5 ¾ × 5 ½" (368 × 146 × 138 mm) |
| Weight (Controller only) | 10.75 lb (4.8 kg) |
| Weight (shipping) | 17.6 lb (8 kg) |
| Shipping dimensions (H × W × D) | 19 × 9 × 9 ¾" (483 × 229 × 350 mm) |
| Mounting | Vertical wall mount |
| Standard warranty | Five years |
| Part number | 865-1030 |

Environmental Specifications

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|--|---|
| Enclosure type | Indoor, ventilated, sheet metal chassis with 7/8" and 1" (22.22 mm and 27.76 mm) knockouts and aluminum heat-sink |
| Operating temperature range (full power) | -4 to 113 °F (-20 to +45 °C) |
| Storage temperature | -40 to 185 °F (-40 to +85 °C) |
| Altitude limit (operating) | Sea level to 15,000 feet (4572 m) @ 15 °C |

Optional Accessories

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|------------------------------|---------------------------------|
| XW System Control Panel | 865-1050 |
| XW Automatic Generator Start | 865-1060 |
| Network cables: | |
| 3 feet (0.9 m) | 809-0935 |
| 5 feet (1.5 m) | 809-0936 |
| 7 feet (2.0 m) | 809-0937 |
| 10 feet (3.0 m) | 809-0938 |
| 14 feet (4.3 m) | 809-0939 |
| 25 feet (7.6 m) | 809-0940 |
| 50 feet (15.2 m) | 809-0941 |
| 75 feet (22.9 m) | 809-0942 |
| Network terminators: | Male (two per pack): 809-0901 |
| | Female (two per pack): 809-0905 |

Regulatory Approvals

Certified to UL 1741 1st Edition and to CSA 107.1-01 and carries the c(CSA)us mark

Specifications subject to change without notice.

For more information on the XW Series System please visit www.xantrex.com/xw