xantrex SOLAR

MPPT CHARGE CONTROLLER DATASHEET

AVAILABLE IN:

30A

ADVANCED POWER UPGRADE, MAXIMIZE DAILY ENERGY HARVEST

The Xantrex Solar Charger Controller MPPT 30A PRO delivers superior efficiency and performance, supporting up to 100V of PV input and 30A for optimal power harvesting and seamless scalability in your solar system. Featuring advanced Maximum Power Point Tracking (MPPT) technology, it offers up to 99% efficiency and 30% more power compared to PWM charge controllers. Compatible with 12V and 24V battery systems, the MPPT 30A PRO optimizes performance across various energy requirements. This controller provides real-time energy monitoring and comprehensive historical data in the Xantrex APP, empowering informed decisions for improved system performance, energy savings, and reliability.

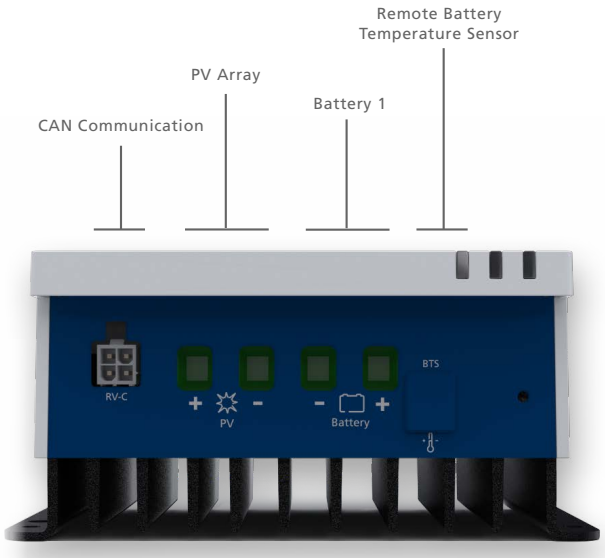
- 30% Higher Output than Traditional PWM
- RV Short circuit protection, charge over-current protection
- Lead-acid, AGM (Sealed), Gel, Flooded, Lithium-batteries and custom
- 12V/24V System Voltage
- MPPT tracking efficiency is up to 99.5%
- RV-C, Modbus and Bluetooth built-in
- Current limiting charging mode
- Xantrex App for ultimate control

APPLICATIONS:

www.xantrex.com
CUSTOMER CARE: 1.800.670.0707

5 YEAR WARRANTY

BLUE PANEL OPENS TO REVEAL PORTS

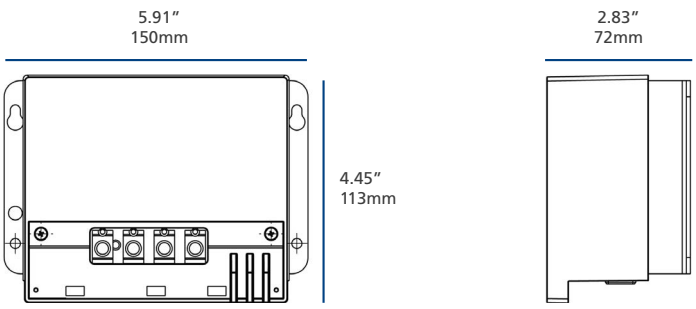


BOTTOM PORTS

PRODUCT FEATURES

- Ultra-fast tracking speed including multiple power point peaks with a 99% efficiency rating
- Xantrex MPPT control algorithm maximizes solar system efficiency and energy harvesting effectiveness
- Manages and optimizes power output from a diverse array of solar panels under varying environmental conditions
- Regulates power and current flow to protect and prolong battery lifespan
- The battery's status is monitored, and charging current is adjusted to prevent overcharging when fully charged
- Protection against short-circuiting enhances safety, while protection against input overloading enhances system reliability and longevity
- Battery temperature compensation boosts both system performance and charging efficiency
- Real-time monitoring provides data on energy usage and solar power system efficiency
- Dynamic power reduction prevents overheating and improves battery performance and safety
- LED indicators display PV charging, charger stage, and event status
- Remote panel for monitoring and setting (requires the Solar MPPT Remote Panel)

DIMENSIONS



ELECTRICAL DATA

CHARGE CONTROLLER	30 A PRO
Part Number	710-3044-01
Nominal System Voltage	12/24 Vdc Auto-Detect
Rated Charging Current	30 A
Max. PV Open Circuit Voltage	100 V
MPP Voltage Range	(Battery voltage + 2 V) up to 72 V
Max. PV Input Power	12 V: 400 W 24 V: 800W
MPPT Tracking Efficiency	>99%
Charging Conversion Efficiency	≤98%
Battery Types Supported*	Battery 1 (House): Lead-acid battery (Sealed(AGM) / Gel / Flooded) Lithium-Iron Phosphate ($LiFePO_4$)
Absorption Charging Voltage	By default: 14.4 V Configurable: 9~17 V
Float Charging Voltage	By default: 13.8 V Configurable: 9~17 V
Zero Load Loss	<40 mA
Communication	Bluetooth, CAN Network (RV-C)
Protection	Solar Input Input Limit Protection, Reverse Polarity Protection, PV Input Voltage Protection, Over-Temperature Protection

ENVIRONMENTAL DATA

CHARGE CONTROLLER	30 A PRO
Temperature Compensation Coefficient	-3mV/°C/2V (default)
Operating Temperature Range	-31–113°F (-35–60°C), fully-rated output
Storage Temperature Range	-40–176°F (-40–80°C)
Altitude	≤2000 meters
IP Rating	IP32
Relative Humidity	10 - 95 %RH, non-condensing

MECHANICAL DATA

CHARGE CONTROLLER	30 A PRO
Dimensions (H x W x D)	5.91 x 4.45 x 2.83 in (150 x 113 x 72 mm)
Net Weight	1.98 lbs / 900 g

REGULATORY

CHARGE CONTROLLER	30 A PRO
Compliance	UL1741, CSA C22.2#107.1

SOLAR PANEL COMPATIBLE CONFIGURATION

PANEL SPECIFICATIONS	SYSTEM VOLTAGE	SOLAR ARRAY CONFIGURATION
120W 19VOC	12 V	1S1P, 1S2P, 1S3P 2S1P, 3S1P
	24 V	1S1P, 1S2P, 1S3P 1S4P, 1S5P, 1S6P 2S1P, 2S2P, 2S3P 3S1P, 3S2P, 4S1P, 5S1P
240W 19VOC	12 V	1S1P
	24 V	1S1P, 1S2P, 1S3P 2S1P, 3S1P
330W 31VOC	12 V	1S1P
	24 V	1S1P, 1S2P, 2S1P
440W 31VOC	24 V	1S1P