

MPPT 100/30

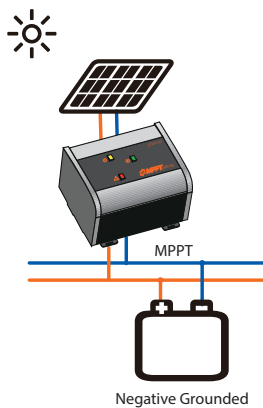
Modular Solar Charge Controller with Maximum Power Point Technology



Scalable Charge Controlling Solution

- Optimal Charging in ANY condition
- Power+ Current Limiting
- Modular design allows up to 8 parallel controllers for same battery bank

Build your optimal charge system with MPPT100/30 and the MPM System



With innovative maximum power point tracking technology, Phocos' MPPT 100/30 ensures optimal performance from your solar array at all times and in all weather conditions. The MPPT can yield an energy gain from your PV array (up to 30%).

When a central unit (MCU) is used, up to 8 MPPTs can be used to charge the same battery bank. This allows you to increase your system charging capacity substantially and makes MPPT100/30 and ideal solution for systems up to 7.2 kWp.

The temperature-compensated three-stage I-U curve charge algorithm significantly extends the lifespan of your battery.

Power+™ current limiter allows for over-sizing PV power by up to 50% for winter months

Fully Protected

- Thermal overload protection and temperature compensation
- Equipped with a short circuit disconnect function

Flexible Design

- Works in 12 or 24V systems (automatic battery voltage detection)
- Use as a stand alone 30A controller or as part of a modular (MPM) system

Maximized Charging

- Charges your battery faster by taking excess PV voltage and converting it into additional charge current
- Highest charging efficiency in low irradiation conditions

Application Examples

- Telecommunication
- Wifi/Repeater Stations
- Oil & Gas
- SCADA Systems
- Solar Home Systems



Technical Data

Type	MPPT 100/30
System voltage	12/24 V, auto recognition
Nominal charge current	30 A
Max. battery charge current	33 A
Float charge	13.8/27.6 V (77 °F/25 °C)
Main charge	14.4 V/28.8 V (77 °F/25 °C), 0.5 h (daily)
Boost charge / activation	14.4/28.8 V (77 °F/25 °C), 2 h / battery voltage < 12.3/24.6 V
Equalization charge / activation	14.8/29.6 V (77 °F/25 °C), 2 h / battery voltage < 12.1/24.2 V
Max. battery voltage	32 V
Max. PV voltage	95 V
Min. PV voltage	17/34 V
Max. PV input power	450 W@12 V, 900 W@24 V
Standby power consumption	< 30 mW at 12 V system voltage (< 2 mA); < 80 mW at 24 V system voltage (< 3 mA)
Temperature compensation	-24 mV/K (12 V); -48 mV/K (24 V)
Power conversion efficiency	Up to 98%
Grounding	Negative grounded
Ambient temperature	-40 °F to 122 °F (-40 °C to +50 °C)
Battery type	Lead acid (GEL, AGM, flooded)
Max. wire cross section	2 AWG (35 mm ²)
Dimensions (W x H x D)	7.2 x 6 x 4.5 in (185 x 150 x 115 mm)
Weight	3.5 lbs (1.6 kg)
Type of protection	IP20

Available Accessories



MCU

Modular Control Unit
Selectable System Voltage:
12/24/48 V
Up to 5-Years Datalogging



MRD

Remote Display for MCU
Display panel current,
load current, battery voltage,
Ah, SOC, etc.



MODCOM

Application software for MCU
communication with computer



MCS

Modular Current Sensor
Selectable System Voltage: 12/24/48 V
RS485 socket
Current measurement range
50/100/200/400/800 A



MTS

External temperature
sensor for MCU



MXI

Interface for MCU
communications with computer
RS232/USB interface