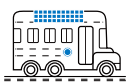## Overview

Tracer-BP series adopts advanced MPPT (Maximum Power Point Tracking) charging methods which will results in up to 30% charging efficiency increase compared with the PWM charge controllers. The RS485 interface with standard MODBUS communication protocol and 5V,150mA power supply makes it easy for the customer to expand the application. With the accessories like MT50, WiFi module, Bluetooth adapter, IoT module, users can realize remote monitoring and controlling the solar system via app and cloud platform.

Features

- MPPT（maximum power point tracking）charging

- Support lead-acid and lithium-ion batteries

- Lithium battery self-activating function

- Multi load control mode

- Extensive electronic protections

- RS 485 communication, support IoT monitoring

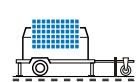- IP68 Ingress protection(1.5 meters, 72h)

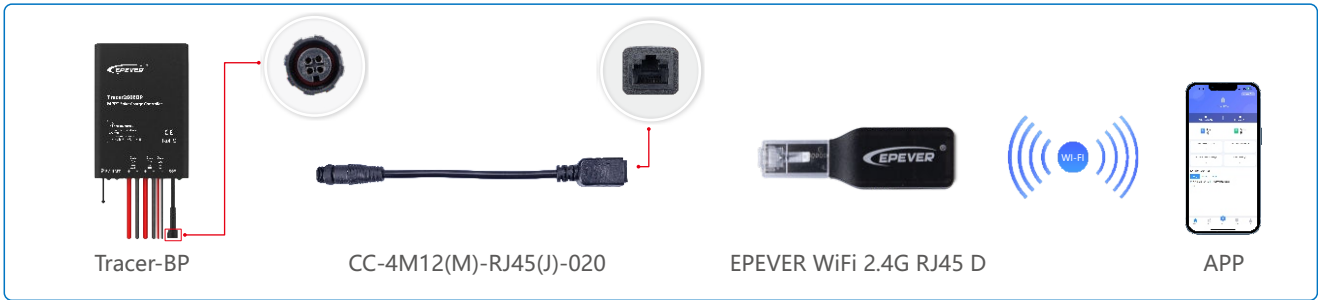Solar Car Solar Home Solar Backpack Solar Boat Solar Street Light Solar Power Generator

Technical Specifications

Item \ Model	Tracer2606BP	Tracer3906BP	Tracer5206BP	Tracer2610BP	Tracer3910BP	Tracer5210BP	Tracer7810BP
Nominal system voltage	12/24VDC Auto(Lithium battery cannot automatically identify system voltage)						
Battery input voltage range	8.5 ~ 32VDC						
Rated charge/discharge current	10A	15A	20A	10A	15A	20A	30A
Rated charge power	130W/12V; 260W/24V	200W/12V; 400W/24V	260W/12V; 520W/24V	130W/12V; 260W/24V	200W/12V; 400W/24V	260W/12V; 520W/24V	390W/12V; 780W/24V
Max. PV open circuit voltage	60V(at minimum operating environment temperature) 46V(at 25℃ environment temperature)			100V(at minimum operating environment temperature) 92V(at 25℃ environment temperature)			
MPP Voltage rangeBattery Type	(Battery voltage+2V) ~ 36V			(Battery voltage+2V) ~ 72V			
Battery Type	Lead-acid battery: Sealed(Default) / Gel / Flooded/User; Lithium battery:LiFePO4/ Li-NiCoMn/User						
Lead-acid — Equalize Charging Voltage	Sealed :14.6V, Gel：No, Flooded:14.8V, User:9-17V (×2/24V)						
Lead-acid — Boost Charging Voltage	Sealed :14.4V, Gel：14.2V, Flooded:14.6V, User:9-17V (×2/24V)						
Lead-acid — Float Charging Voltage	Sealed/Gel/Flooded:13.8V, User:9-17V (×2/24V)						
Lead-acid — Low Voltage Reconnect Voltage	Sealed/Gel/Flooded:12.6V, User:9-17V (×2/24V)						
Lead-acid — Low Voltage Disconnect Voltage	Sealed/Gel/Flooded:11.1V, User:9-17V (×2/24V)						
Lithium — Boost Charging Voltage	LiFePO4:14.5V, Li-NiCoMn:12.5V, User:9-17V (×2/24V)						
Lithium — Low Voltage Reconnect Voltage	LiFePO4:12.8V, Li-NiCoMn:10.5V, User:9-17V (×2/24V)						
Lithium — Low Voltage Disconnect Voltage	LiFePO4:11.1V, Li-NiCoMn:9.3V, User:9-17V (×2/24V)						
Self-consumption	≤13mA/12V; ≤11.5mA/24V						
Temperature compensation coefficient	-3mV/℃/2V(Lithium battery don't have temperature compensation coefficient)						
Communication	RS485						
Environment Temperature	-40℃ ~ +60℃						-40℃ ~ +50℃
Enclosure	IP68						
Overall dimension	124×89×30 mm	150×93.5×32.7 mm	153×105×52.1 mm	124×89×30 mm	150×93.5×32.7 mm	153×105×52.1 mm	153.3×105×52.1 mm
Mounting hole size	Φ3.5mm						
Mounting size	88×76mm	120×83mm	120×94mm	88×76mm	120×83mm	120×94mm	
Power cable	14AWG(2.5mm2)		12AWG(4mm2)	14AWG(2.5mm2)		12AWG(4mm2)	10AWG(6mm2)
Net weight	0.54kg	0.74kg	1.20kg	0.54kg	0.74kg	1.20kg	1.26kg

WIFI Module Connection Diagram

Tracer-BP can be connected to a WiFi module via an RS485 to WiFi communication cable. The mobile app software can then set the relevant parameters of the controller through the WiFi signal. For specific setup instructions, please refer to the app user manual.

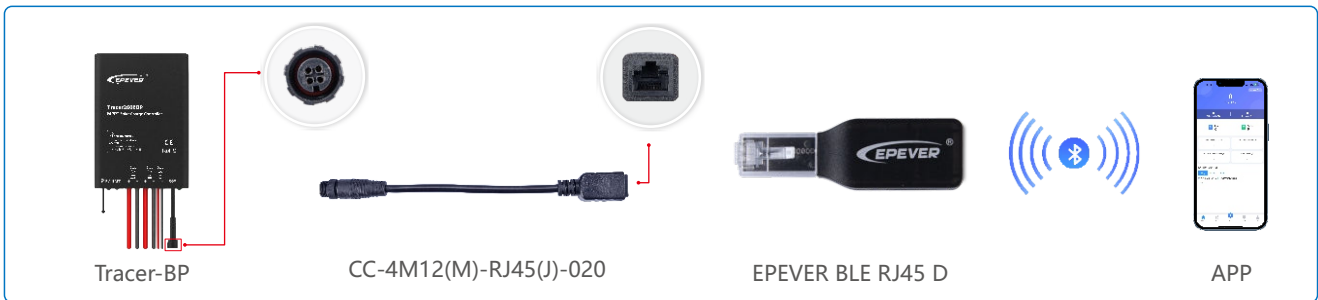| Tracer-BP | CC-4M12(M)-RJ45(J)-020 | EPEVER WiFi 2.4G RJ45 D | APP |

Communication Cable Options:

Name: RS485 to WiFi Communication Cable

Specification: CC-4M12(M)-RJ45(J)-020

Description: RJ45 female to 4-core M12 male connector, 0.2 meters long.

Name: RS485 to WiFi Communication Cable

Specification: CC-4M12(M)-RJ45(J)-150

Description: RJ45 female to 4-core M12 male connector, 1.5 meters long.

Bluetooth Module Connection Diagram

Tracer-BP can be connected to a Bluetooth module via an RS485 to WiFi communication cable. The mobile app software can then set the relevant parameters of the controller through the Bluetooth signal. For specific setup instructions, please refer to the app user manual.

| Tracer-BP | CC-4M12(M)-RJ45(J)-020 | EPEVER BLE RJ45 D | APP |

APP Monitoring

Apple App Store

Google Play Store