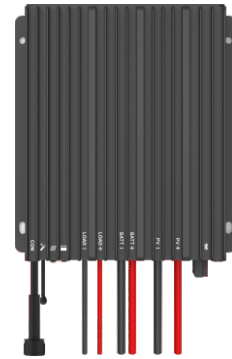


Overview

The Tracer-CPN solar charge controller adopts the advanced Maximum Power Point Tracking charging technology. Increase the system charging efficiency yet lower the system cost. The controller supports various batteries, such as sealed, gel, flooded, and lithium batteries. Users can view and modify the operational status and parameters. It can be widely used in a solar home system, traffic signal, street light, solar garden lamp, etc.



Features

- MPPT (maximum power point tracking) charging
- Support lead-acid and lithium-ion batteries
- Lithium battery self-activating function
- Constant voltage output function
- Multi load control mode
- Extensive electronic protections
- Built-in Bluetooth module (Only Tracer-CPN(BLE) supports)
- Low self-consumption design, lower than 15mA
- RS 485 communication, support IoT monitoring
- IP68 Ingress protection(1.5 meters, 72h)

Technical Specifications

Item	Model	Tracer7810CPN/Tracer7810CPN(BLE)
Rated system voltage		12/24VDC Auto(Lithium battery cannot automatically identify system voltage)
Battery work voltage range		8 ~ 32VDC
Rated charge/discharge current		30A
Rated charge power		390W/12V; 780W/24V
Max. PV open circuit voltage		100V (at minimum operating environment temperature) 92V(at 25°C environment temperature)
MPP Voltage range		(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)
	Boost Charging Voltage	Sealed: 14.4V, Gel: 14.2V, Flooded: 14.6V, User: 9-17V (×2/24V)
	Float Charging Voltage	Sealed/Gel/Flooded: 13.8V, User: 9-17V (×2/24V)
	Low Voltage Reconnect Voltage	Sealed/Gel/Flooded: 12.6V, User: 9-17V (×2/24V)
	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)
	Low Voltage Reconnect Voltage	LiFePO4: 12.8V, Li-NiCoMn: 10.5V, User: 9-17V (×2/24V)
	Low Voltage Disconnect Voltage	LiFePO4: 11.1V, Li-NiCoMn: 9.3V, User: 9-17V (×2/24V)
Self-consumption		≤15mA(12V); ≤9mA(24V)
Temperature compensation coefficient		-3mV/°C/2V (Lithium batteries don't have temperature compensation coefficient)
Communication		RS485/BLE
Work temperature (Above 45°C, please operate in derating)		-40°C ~ +50°C (Above 45°C, please operate in derating)
Enclosure		IP68
Dimension (L x W x H)		Tracer7810CPN: 155mm × 141mm × 51.5mm Tracer7810CPN(BLE): 165mm × 141mm × 51.5mm
Mounting hole size		Φ4.5mm
Mounting size (L x W)		132mm × 120mm
Power cable (PV/BAT/LOAD)		PV:11AWG, BAT/LOAD: 10AWG
Net weight		1.59kg