Tracer-BPL Series

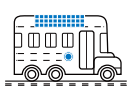
Solar charge controller with built in LED Driver

Overview

Tracer-BPL series MPPT solar charge controller combines solar charge controller and LED constant current driver into one unit. It has multiple load control modes which are ideal for various solar LED Lighting applications, especially when a dimming function is needed. This series adopts the advanced MPPT (Maximum Power Point Tracking) charging methods which will results up to 30% charging efficiency increase compared with the PWM charge controllers. Thanks to the RS485 communication, the Tracer-BPL has the ability to realize remote monitoring via IoT.

Features

- MPPT charging mode
- LED load dimmer function
- Support lead-acid and lithium-ion batteries
- Lithium battery self-activating function
- Intelligent power derating to ensure 365 days lighting on
- Multiple load control modes
- Extensive electronic protection
- RS485 communication port to realize IOT monitor
- IP68 Ingress protection(1.5 meters, 72h)

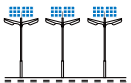


Solar Car

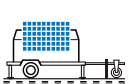
Solar Home

Solar Backpack

Solar Boat



Solar Street Light



Solar Power Generator

Technical Specifications

Item		Tracer2606BPL	Tracer3906BPL	Tracer5206BPL	Tracer2610BPL	Tracer3910BPL	Tracer5210BPL
Nominal system voltage		12/24VDC Auto(Lithium batteries cannot identify system voltage automatically)					
Battery input voltage range		9~32VDC					
Rated charge current		10A	15A	20A	10A	15A	20A
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
Max. PV open circuit voltage		60V (at minimum operating environment temperature) 46V(at 25°C environment temperature)			100V (at minimum operating environment temperature) 92V (at 25°C environment temperature)		
MPP Voltage range		(Battery voltage+2V) ~ 36V			(Battery voltage+2V) ~ 72V		
Max. output current		3.3A	4.5A	6.6A	3.3A	4.5A	6.6A
Max. output power		100W	130W	200W	100W	130W	200W
Output voltage range		(Max. battery voltage+2V) ~ 58V			(Max. battery voltage+2V) ~ 80V		
Load open circuit voltage		58V			80V		
Load over voltage protection		63V			100V		
Maximum output efficiency		96%					
Output current control accuracy		≤2%					
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; ≤22mA/24V					
Temperature compensation coefficient		-3mV/°C/2V(Lithium batteries don't have temperature compensation coefficient)					
Communication		RS485					
Environment temperature		-40°C ~ +60°C					
Enclosure		IP67					
Dimension (L x W x H)		124×89×30mm	150×93.5×32.7mm	153×105×52.1mm	124×89×30mm	150×93.5×32.7mm	153×105×52.1mm
Mounting hole size		Φ3.5mm					
Mounting size (L x W)		88×76mm	120×83mm	120×94mm	88×76mm	120×83mm	120×94mm
Power cable		PV/BAT: 14AWG(2.5mm^2)		PV/BAT: 12AWG(4mm^2)	PV/BAT: 14AWG(2.5mm^2)		PV/BAT: 12AWG(4mm^2)
		LOAD: 18AWG(1.0mm^2)		LOAD: 16AWG(1.5mm^2)	LOAD: 18AWG(1.0mm^2)		LOAD: 16AWG(1.5mm^2)
Net weight		0.54kg	0.73kg	1.18kg	0.54kg	0.73kg	1.18kg

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