Tracer-LPLI Series

Solar Charge Controller with built in LED Driver

Overview

The Tracer LPLI series MPPT solar charge controller combines solar charge controller and LED constant current driver into one unit which is ideal for solar LED Lighting, especially when dimmer function is needed. The advanced Maximum Power Point Tracking charging methods enables the system charging and discharging management to obtain the most radical optimization. Increase the system flexibility, yet lower down the system cost.

Features

- Advanced Maximum Power Point Tracking (MPPT) technology, with tracking efficiency no less than 99.5%
- Maximum conversion efficiency of 98%
- Accurately recognizing and tracking of multiple power points
- Ultra-fast tracking speed and guaranteed tracking efficiency
- Adopt high quality components of ST,IR and Infineon, make sure product using lifespan
- Apply to lead-acid battery and lithium battery
- Lithium battery self-activating function
- Lithium battery low temperature protection function
- Charging current limit, with settable current
- Lithium battery limit current in low temperature
- Intelligent power mode with 365-day lighting control technology
- Load reduce power automatically
- Digital precision constant current control and the control accuracy are less than ±2%
- Maximum output efficiency of 96%
- PV and Load power limitation function
- The output current can be adjusted among the rated power and current range
- Real-time energy statistics function
- Monitoring and setting parameter via Mobile APP and RC10 with IR function
- Aluminum housing for better cooling
- Wide working environment temperature(-40℃ ~ 60℃)
- IP68 waterproof degree
- Long lifespan design, five years warranty

Electronic protections

- PV Reverse Polarity
- Battery Reverse Polarity
- Battery Over Voltage
- Battery Over Discharge
- Battery Overheating
- Lithium battery Low Temperature (Default 35℃)
- Lithium battery limit current in low temperature

Solar Car

Solar Home

Solar Backpack

Solar Boat

Solar Street Light

Solar Power Generator

Technical Specifications

Model		Tracer1305 LPLI	Tracer2606 LPLI	Tracer3906 LPLI	Tracer5206 LPLI	Tracer2610 LPLI	Tracer3910 LPLI	Tracer5210 LPLI
Nominal system voltage		12VDC	12/24VDC					
Battery input voltage range		8.5 ~ 16VDC	8.5 ~ 32VDC					
Rated charge current★		10A/12V	10A	15A	20A	10A	15A	20A
Rated charge power		130W/12V	130W/12V 260W/24V	195W/12V 390W/24V	260W/12V 520W/24V	130W/12V 260W/24V	195W/12V 390W/24V	260W/12V 520W/24V
Max. PV open circuit voltage		48V(Min. Temp.) 45V(25℃)	58V(at minimum operating environment temperature) 46V(at 25℃ environment temperature)			95V(at minimum operating environment temperature) 92V(at 25℃ environment temperature)		
MPP Voltage range		(Battery voltage+2V) ~ 36V				(Battery voltage+2V) ~ 72V		
Max. output current		3.3A	3.3A	4.5A	6.6A	3.3A	4.5A	6.6A
Max. output power		100W	100W	130W	200W	100W	130W	200W
Output voltage range		(Max. battery voltage+2V) ~ 46V	(Max. battery voltage+2V) ~ 58V			(Max. battery voltage+2V) ~ 80V		
Load open circuit voltage		46V	58V			80V		
Load over voltage protection		50V	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	Equalization Voltage	Sealed:14.6V; Flooded:14.8V;User:9-17V (24Vsystem×2)						
	Boost Voltage	Sealed:14.4V;Gel:14.2V;Flooded:14.6V;User:9-17V(24Vsystem×2)						
	Float Voltage	Sealed/Gel/Flooded:13.8V;User:9-17V(24Vsystem×2)						
	Low Voltage Reconnect Voltage	Sealed/Gel/Flooded:12.6V;User:9-17V(24Vsystem×2)						
	Low Voltage Disconnect Voltage	Sealed/Gel/Flooded:11.1V;User:9-17V(24Vsystem×2)						
Lithium	Boost Charging Voltage	LiFePO4(4s):14.5V/Li-NiCoMn(3s):12.5V/User:9-17V(24Vsystem×2)						
	Low Voltage Reconnect Voltage	LiFePO4(4s):12.8V/Li-NiCoMn(3s):10.5V/User:9-17V(24Vsystem×2)						
	Low Voltage Disconnect Voltage	LiFePO4(4s):11.1V/Li-NiCoMn(3s):9.3V/User:9-17V(24Vsystem×2)						

Self-consumption	≤15mA/12V;≤22mA/24V						
Communication	IR communication						
Working environment Tem.	-40℃ ~ +60℃						
Enclosure	IP68(1.5m,72h)						
Overall dimension（mm）	124×89×30		150×93.5×32.7	153×105×52.1	124×89×30	150×93.5×32.7	153×105×52.1
Mounting hole size（mm）	Φ3.5mm						
Mounting dimension（mm）	88×76mm		120×83mm	120×94mm	88×76mm	120×83mm	120×94mm
Power cable（AWG/mm^2）	PV/BAT:14AWG(2.5mm^2) LOAD:18AWG(1.0mm^2)			PV/BAT:12AWG (4mm^2) LOAD:16AWG (1.5mm^2)	PV/BAT:14AWG(2.5mm^2) LOAD:18AWG(1.0mm^2)		PV/BAT:12AWG (4mm^2) LOAD:16AWG (1.5mm^2)
Net weight	0.52kg	0.52kg	0.71kg	1.18kg	0.52kg	0.71kg	1.18kg

★The controller has the limit charge current function, the current can be set via the APP software and RC10.