



# EPSOLAR TECHNOLOGY

[www.epsolarpv.com](http://www.epsolarpv.com)

2015

Solar Charge Controller · Inverter



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# COMPANY PROFILE

## EPSOLAR TECHNOLOGY

Beijing Epsolar Technology Co., Ltd. was established in March 2007 with more than 30 million RMB registered capital. We are a new and high-tech enterprise which was specialized in power products researching, manufacturing and marketing.

We provide products including solar charge controllers, off-grid inverter, LED driver and special power units etc., as well as design and supply relevant solar application systems. The company has passed the ISO9001: 2008, and products have passed CGC-SOLAR ,CE ,ROSH, FCC and ETL certificate, as well as other domestic and international authoritative certification and a number of patents. The products have been extensively applied and highly appraised in a number of major projects at home and abroad. And sell in more than 120 foreign countries and regions.

In July 2014, we established Shenzhen branch as our production base. In August 2014, we were listed in NATIONAL EQUITIES EXCHANGE AND QUOTATIONS and launched into capital market successfully.

### BRAND INTRODUCTION



EP means "Efficient Power", SOLAR means "Solar photovoltaic". The Brand "EPSOLAR" indicates our main products and industry. It applies to solar charge controller products.



EP means "Efficient Power", EVER means "FOR EVER". The Brand "EPEVER" indicates our firm determination to provide high quality power products, and excellent customer service. It applies to inverters and all the controllers launched since 2015.

# OUR ADVANTAGE

### RAPID DEVELOPMENT

Since 2007, we have sold two million controllers for off grid systems in more than 120 countries and are in the process of developing many new products.

### INNOVATIVE DESIGN

Our technical team has over 20 years professional R&D experience. And our innovation will keep the customer one step ahead for ever.

### QUALITY CONTROL

With ISO9001 and ISO14001 certification, we build-up strict quality control systems from incoming components to final products.



### DIVERSIFIED PRODUCTS

We have 20 series, more than 100 models of products which can meet customers' different requirements.

### QUALITY COMPONENTS

All our products use industrial grade electronic components from global well-known companies.

### HIGH COST PERFORMANCE

We design and provide high quality products at reasonable price.

# CONTENTS



ISO9001:2008

ISO14001:2004

RoHS

CE

FC



## Solar Charge Controller

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## Solar Charge Controller & LED Driver

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# Tracer RN series MPPT solar charge controller



Tracer RN series controller adopts latest MPPT technology (Maximum Power Point Tracking) and advanced tracking algorithm to make the solar module operate at ideal voltage which the solar modules can produce the maximum available power.

Compared to conventional PWM controller, MPPT technology increases the charge efficiency up to 30% and potentially decrease the power of solar array needed.

The ability to step-down the higher voltage solar module to recharge a lower voltage battery bank greatly increases system design flexibility. The cable size can be reduced because of the small current from the solar array.

## FEATURES

- MPPT technology
- Peak conversion efficiency of 97%
- High Tracking efficiency of 99%
- Several seconds tracking speed
- 4-Stage charge with PWM output
- Nature convection cooling
- Full power output in ambient temperature up to 45 °C
- Temperature compensation
- Sealed, Gel and Flooded battery option
- Widely used, automatically recognize day/night
- Diversified load control
- RJ45 interface & optional remote meter



## ELECTRONIC PROTECTIONS

- PV short circuit protection
- PV reverse polarity protection
- PV overvoltage alarm protection
- PV over current alarm protection
- Battery overcharge protection
- Battery over discharge protection
- Battery reverse polarity protection
- Load short circuit protection
- Load overload protection

### Application



## PRODUCT FAMILY



Tracer-1210RN  
Tracer-1215RN  
12/24V auto work  
10A



Tracer-2210RN  
Tracer-2215RN  
12/24V auto work  
20A



Tracer-3215RN  
Tracer-4210RN  
12/24V auto work  
30A,40A

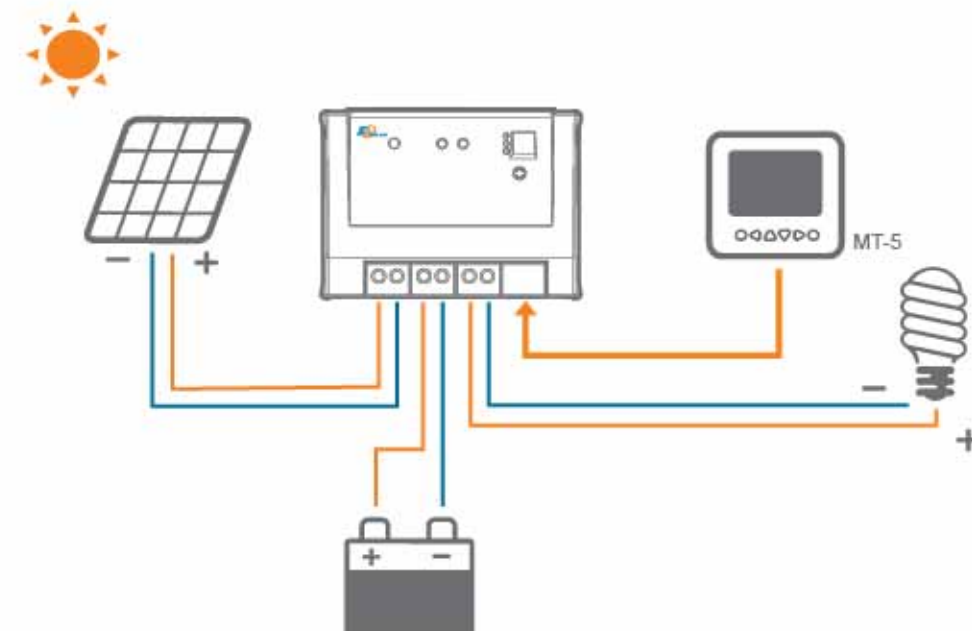


MT-5  
Remote meter and 2m  
communication cable

## TECHNICAL SPECIFICATIONS

Model	Tracer-1210RN Tracer-1215RN	Tracer-2210RN Tracer-2215RN	Tracer-3215RN	Tracer-4210RN
Nominal system voltage	12/24V auto work			
Rated battery current	10A	20A	30A	40A
Rated load current	10A	20A	20A	20A
Max. battery voltage	32V			
Max. PV open circuit voltage	100VDC Tracer-1210RN	100VDC Tracer-2210RN	150VDC	100VDC
	150VDC Tracer-1215RN	150VDC Tracer-2215RN		
Max. PV input power	12V 130W	12V 260W	12V 390W	12V 500W
	24V 260W	24V 520W	24V 780W	24V 1000W
Equalize charging voltage※	Sealed: 14.6V, Flooded: 14.8V			
Boost charging voltage※	Gel: 14.2V, Sealed: 14.4V, Flooded: 14.6V			
Float charging voltage※	Gel /Sealed /Flooded: 13.8V			
Low voltage reconnect voltage※	Gel /Sealed /Flooded: 12.6V			
Low voltage disconnect voltage※	Gel /Sealed /Flooded: 11.1V			
Self-consumption	≤10mA (24V)			
Grounding	Common negative			
Temp. compensation	-5mV/°C/2V			
Overall dimension	156x97x68mm	169x118x83mm	242x169x91mm	242x169x91mm
Net weight	0.55kg	0.95kg	2kg	2.05kg
Enclosure	IP30			
Working temperature	-35°C ~ +55°C			

※ Technical data for 12V system at 25°C, twice in 24V system rate.



# Tracer BN series

## MPPT solar charge controller



Tracer BN series is EPsolar's second generation of MPPT controller. Compared with CLASSIC Tracer series, it has extensive communication ability. And the die-cast aluminum design ensures excellent heat dispersion.

Compared to conventional PWM controller, MPPT technology increases the charge efficiency up to 30% and potentially decrease the power of solar array needed.

### FEATURES

- Innovative MPPT technology
- Peak conversion efficiency of 98%
- High tracking efficiency up to 99%
- Several seconds tracking speed
- Die-cast aluminum design and nature cooling
- Diversified load control to meet different requirements
- Four battery type options: Sealed, Gel, Flooded, and USER
- RS485 ports with MODBUS communication protocol
- Optional PC monitoring software and remote meter for real-time monitoring and battery management parameter setting
- Field upgradable firmware

### ELECTRONIC PROTECTIONS

- PV short circuit protection
- PV reverse polarity protection
- PV overvoltage alarm protection
- PV current limiting protection
- Battery overcharge protection
- Battery over discharge protection
- Battery reverse polarity protection
- Load short circuit protection
- Load overload protection
- Overheating protection



### Application



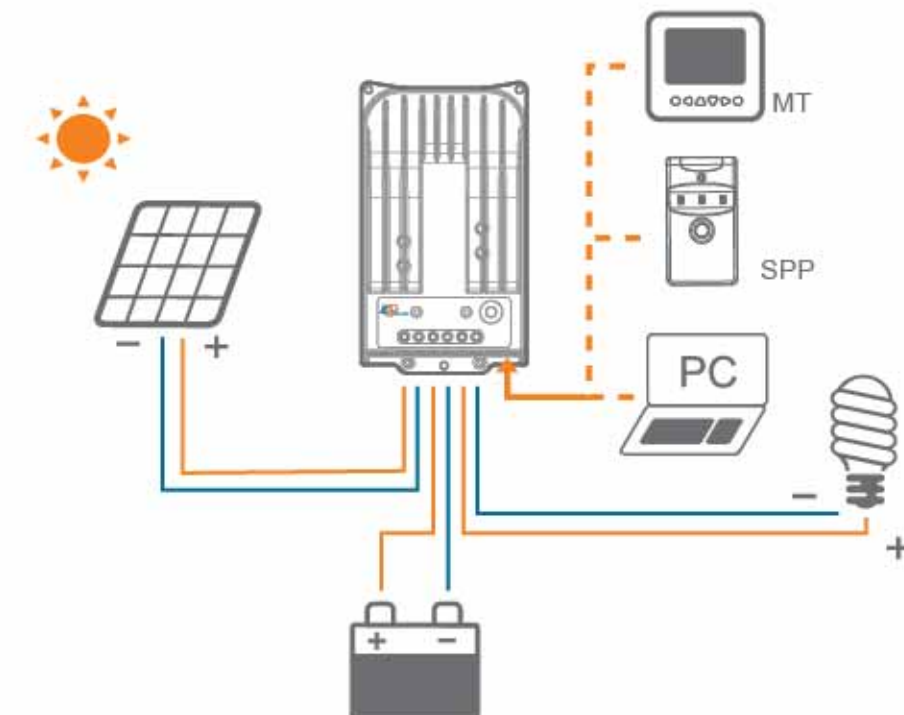
### PRODUCT FAMILY

 Tracer1215BN/Tracer2215BN Tracer3215BN/Tracer4215BN 12/24V auto work 10A,20A,30A,40A	 MT50 Remote meter with communication cable	 SPP-01 Super parameter programmer	 PC software
 CC-USB-RS485-150U PC communication cable	 RTS300R47K3.81A Remote temperature sensor		

### TECHNICAL SPECIFICATIONS

Model	Tracer1215BN	Tracer2215BN	Tracer3215BN	Tracer4215BN
Nominal system voltage	12/24V auto work			
Rated battery current	10A	20A	30A	40A
Rated load current	10A	20A	20A	20A
Max. battery voltage	32V			
Max. PV open circuit voltage	150V			
Max. PV input power	12V 130W	12V 260W	12V 390W	12V 520W
	24V 260W	24V 520W	24V 780W	24V 1040W
Equalize charging voltage <sup>※</sup>	Sealed: 14.8V, Flooded: 14.8V, User-defined: 9~17V			
Boost charging voltage <sup>※</sup>	Gel: 14.2V, Sealed: 14.4V, Flooded: 14.6V, User-defined: 9~17V			
Float charging voltage <sup>※</sup>	Gel /Sealed /Flooded: 13.8V, User-defined: 9~17V			
Low voltage reconnect voltage <sup>※</sup>	Gel /Sealed /Flooded: 12.6V, User-defined: 9~17V			
Low voltage disconnect voltage <sup>※</sup>	Gel /Sealed /Flooded: 11.1V, User-defined: 9~17V			
Self-consumption	≤50mA(12V); ≤27mA(24V)			
Grounding	Common negative			
Temp. compensation	-3mV/°C/2V			
Overall dimension	196x118x36mm	217x143x56mm	281x160x60mm	303x183x64mm
Net weight	0.9kg	1.5kg	2.3kg	2.9kg
Enclosure	IP30			
Working temperature	-35℃ ~ +55℃			

※ Technical data for 12V system at 25℃, twice in 24V system rate.



All product specifications are subject to change without notice.



# eTracer series

## MPPT solar charge controller

eTracer is an industrial grade product with advanced Maximum Power Point Tracking (MPPT) algorithm. It can deliver the maximum available power for charging batteries and charge a lower nominal voltage battery from a higher nominal voltage array. And can be applied in the off-grid PV systems up to 3KW. The die-cast aluminum design ensures excellent heat dispersion.

### FEATURES

- Advanced MPPT algorithm with the max. tracking efficiency of 99%
- Peak conversion efficiency of 98%
- Multiphase control technology
- 128\*64 dot-matrix LCD intuitively displays
- Four battery type options: Sealed, Gel, Flooded, and USER
- Energy statistics recording
- Programmable battery management parameters
- Built-in running data and event logging, max. 15 months
- Extensive communication capabilities (RS232,RS485 with Modbus protocol)
- PC software available for real time monitoring and parameter setting
- Field upgradable firmware



### ELECTRONIC PROTECTIONS

- PV short circuit protection
- PV reverse polarity protection
- PV overvoltage alarm protection
- PV over current alarm protection
- Battery overcharge protection
- Battery over discharge protection
- Battery reverse polarity protection
- Overheating protection

### Application



### PRODUCT FAMILY



ET4415BND/ ET6415BND  
12/24/36/48V auto work  
45A,60A



PC software



CC-USB-RS485  
-150U-3.81  
PC communication cable

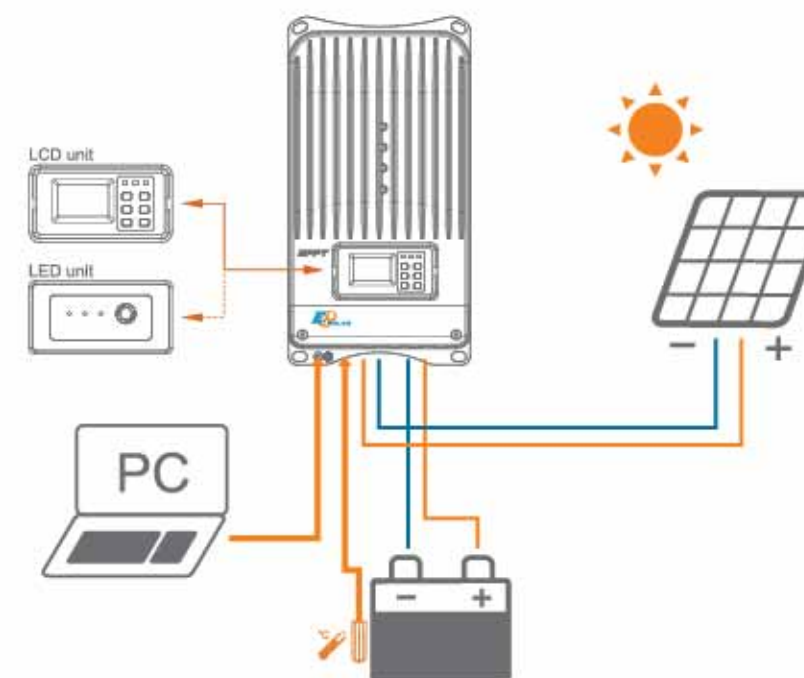


RTS300R10K5.08A  
Remote temperature sensor

### TECHNICAL SPECIFICATIONS

Model	ET4415BND	ET6415BND
Nominal system voltage	12/24/36/48V auto work	
Rated battery current	45A	60A
Max. battery voltage	72V	
Max. PV open circuit voltage	150V	
Max. PV input power	12V 800W	12V 800W
	24V 1200W	24V 1800W
	36V 1800W	36V 2400W
	48V 2400W	48V 3200W
Equalize charging voltage <sup>※</sup>	Sealed: 14.6V, Flooded: 14.8V, User-defined: 9~17V	
Boost charging voltage <sup>※</sup>	Gel: 14.2V, Sealed: 14.4V, Flooded: 14.6V, User-defined: 9~17V	
Float charging voltage <sup>※</sup>	Gel /Sealed /Flooded: 13.8V, User-defined: 9~17V	
Low voltage reconnect voltage <sup>※</sup>	Gel /Sealed /Flooded: 12.6V, User-defined: 9~17V	
Low voltage disconnect voltage <sup>※</sup>	Gel /Sealed /Flooded: 11.1V, User-defined: 9~17V	
Self-consumption	1.4~2.2W	
Grounding	Common negative	
Temp. compensation	-3mV/°C/2V	
Overall dimension	398.6x208x107mm	449x208x107mm
Net weight	4.3kg	5.5kg
Enclosure	IP20	
Working temperature	-25℃ ~ +55℃	

<sup>※</sup> Technical data for 12V system at 25℃, twice in 24V system rate, triple in 36V system rate and quadruple in 48V system rate.



All product specifications are subject to change without notice.



# iTracer series

## MPPT controller with load control

iTracer is an industrial grade product with advanced Maximum Power Point Tracking (MPPT) algorithm. It can deliver the maximum available power for charging batteries and charge a lower nominal voltage battery from a higher nominal voltage array. And can be applied in the off-grid PV systems up to 3KW. The die-cast aluminum design ensures excellent heat dispersion.

### FEATURES

- Advanced MPPT algorithm with the max. tracking efficiency up to 99%.
- Multi-phase synchronous rectification technology realizing peak conversion efficiency 98%
- Multiphase control technology
- Four battery type options: Sealed, Gel, Flooded and USER
- 128\*64 dot-matrix LCD intuitively displays data and state
- Energy statistics recording
- Diversified load control mode
- Programmable battery management parameters
- Built-in running data and event logging, max.15 months
- Extensive communication capabilities (RS232, RS485 with Modbus protocol, CAN Bus extendable)
- PC software available for real time monitoring and parameter setting
- Field upgradable firmware



### ELECTRONIC PROTECTIONS

- PV short circuit protection
- PV reverse polarity protection
- PV overvoltage alarm protection
- PV current limiting protection
- Battery overcharge protection
- Battery over discharge protection
- Battery reverse polarity protection
- Load overload protection
- Load short circuit protection
- Overheating protection

### Application



### PRODUCT FAMILY



IT3415ND/ IT4415ND / IT6415ND  
12/24/36/48V auto work  
30A,45A,60A



PC software



CC-USB-RS485  
-150U-3.81  
PC communication cable

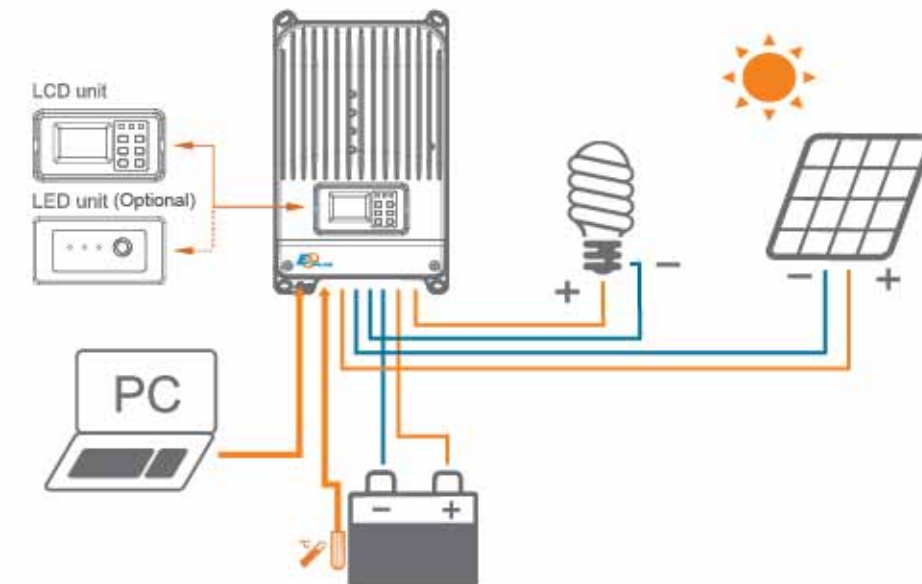


RTS300R10K5.08A  
Remote temperature sensor

### TECHNICAL SPECIFICATIONS

Model	IT3415ND	IT4415ND	IT6415ND
Nominal system voltage	12/24/36/48V auto work		
Rated battery current	30A	45A	60A
Rated load current	30A	45A	60A
Max. battery voltage	72V		
Max. PV open circuit voltage	150V		
Max. PV input power	12V 400W	12V 600W	12V 800W
	24V 800W	24V 1200W	24V 1600W
	36V 1200W	36V 1800W	36V 2400W
	48V 1600W	48V 2400W	48V 3200W
Equalize charging voltage※	Sealed: 14.6V, Flooded: 14.8V, User-defined: 9~17V		
Boost charging voltage※	Gel: 14.2V, Sealed: 14.4V, Flooded: 14.6V, User-defined: 9~17V		
Float charging voltage※	Gel /Sealed /Flooded: 13.8V, User-defined: 9~17V		
Low voltage reconnect voltage※	Gel /Sealed /Flooded: 12.6V, User-defined: 9~17V		
Low voltage disconnect voltage※	Gel /Sealed /Flooded: 11.1V, User-defined: 9~17V		
Self-consumption	1.4~2.2W		
Grounding	Common negative		
Temp. compensation	-3mV/°C/2V		
Overall dimension	358x219x102mm	382x231x107mm	440x231x110mm
Net weight	3.7kg	4.6kg	5.9kg
Enclosure	IP20		
Working temperature	-25°C to +55°C		

※ Technical data for 12V system at 25°C, twice in 24V system rate, triple in 36V system rate and quadruple in 48V system rate.



# ViewStar series

## PWM solar charge controller



ViewStar series solar controller is designed for off-grid solar system, such as street light, solar home system or small power station etc. It has LCD display, reliable battery charging, full electronic protection, and programmable parameters.

### FEATURES

- Adopt graphics dot-matrix LCD screen and HMI (human-machine interface) with 4 buttons, integrated menu displaying and operation
- 32 bit MCU with high speed
- High efficient Series PWM charging
- Use MOSFET as electronic switch
- Diversified load control modes : Manual, Light ON/OFF, Light ON+ Timer, Time Control
- Humanized design of browser interface, undertake every operating conveniently
- Full control parameters adjusting, diversified load control mode
- Battery type option: Gel, sealed, flooded and USER
- RS485 ports with MODBUS communication protocol
- Optional PC monitoring software and remote meter for real-time monitoring and battery management parameter setting
- Field upgradable firmware



### ELECTRONIC PROTECTIONS

- PV short circuit protection
- PV reverse polarity protection
- Battery overcharge protection
- Battery over discharge protection
- Battery reverse polarity protection
- Load overload protection
- Load short circuit protection
- Overheating protection

### Application



### PRODUCT FAMILY

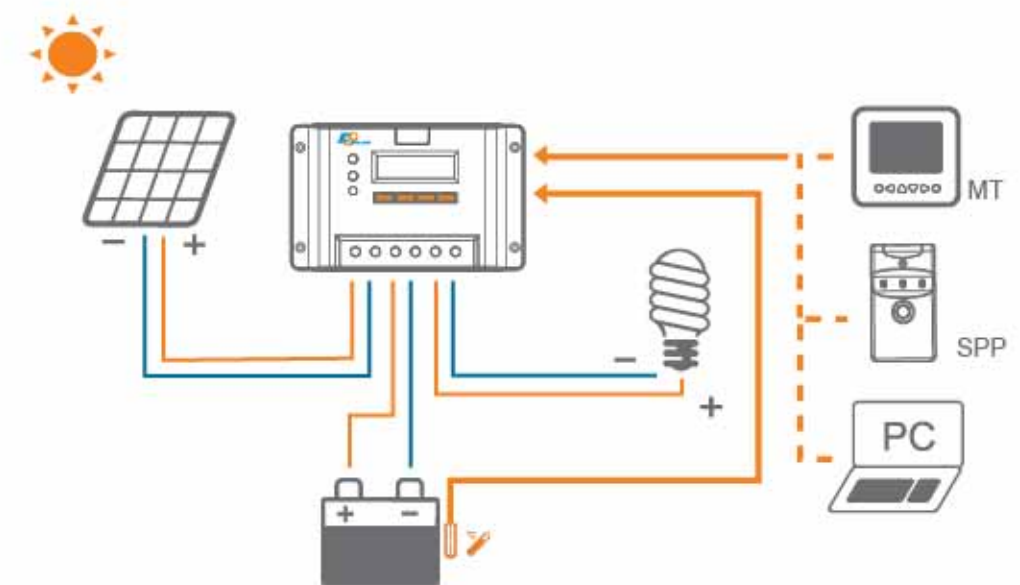


### TECHNICAL SPECIFICATIONS

Model	VS1024BN	VS2024BN	VS3024BN	VS4524BN	VS6024BN
		VS2048BN	VS3048BN	VS4548BN	VS6048BN
Nominal system voltage	12/24V auto work	VS**24BN 12/24V auto work VS**48BN 12/24/36/48V auto work			
Rated battery current	10A	20A	30A	45A	60A
Rated load current	10A	20A	30A	45A	60A
Max. battery voltage	12V/24V 32V; 12/24/36/48V 64V				
Equalize charging voltage※	Sealed: 14.6V, Flooded: 14.8V, User-defined: 9~17V				
Boost charging voltage※	Gel: 14.2V, Sealed: 14.4V, Flooded: 14.6V, User-defined: 9~17V				
Float charging voltage※	Gel/Sealed/Flooded: 13.8V, User-defined: 9~17V				
Low voltage reconnect voltage※	Gel/Sealed/Flooded: 12.6V, User-defined: 9~17V				
Low voltage disconnect voltage※	Gel/Sealed/Flooded: 11.1V, User-defined: 9~17V				
Self-consumption	≤15mA(12V); ≤10mA(24V); ≤9mA(36V); ≤8mA(48V)				
Grounding	Common negative				
Temp. compensation	-3mV/°C/2V				
Enclosure	IP30				
Working temperature	-25°C~+55°C				

※ Technical data for 12V system at 25°C, twice in 24V system rate, triple in 36V system rate and quadruple in 48V system rate.

Model	VS1024BN	VS2024BN	VS3024BN VS2048BN	VS4524BN VS3048BN	VS4548BN	VS6024BN	VS6048BN
Dimension	162×85×40mm	162×100×50mm	200×103×58mm	201×109×58mm	205×119×57mm	205×129×57mm	205×174×64mm
Net weight	0.2kg	0.4kg	0.7kg	0.9kg	1.2kg	1.3kg	1.5kg



All product specifications are subject to change without notice.



# LandStar E series PWM solar charge controller



LandStar E economic solar controller is new member of LandStar family and ideal for small solar system especially home system. It has the beautiful appearance, and simple operation. And the industrial grade design ensures its reliability. Based on the LS-E series, LS-EU series add a +5V/1.2A USB terminal output which can charge mobile phone, fans and other electronic device.

## FEATURES

- High efficient Series PWM charging, increase battery lifetime and improve solar system performance
- Use MOSFET as electronic switch, without any mechanical switch
- Gel, Sealed, and Flooded battery type optional
- Manual control the output of the load
- Intuitive LED indicators showing battery voltage status
- The USB will provide 5VDC which can charge for electronic equipment
- Temperature compensation



## PRODUCT FAMILY



## ELECTRONIC PROTECTIONS

- Battery over discharge protection
- Battery reverse polarity protection
- Load short circuit protection
- Load overload protection

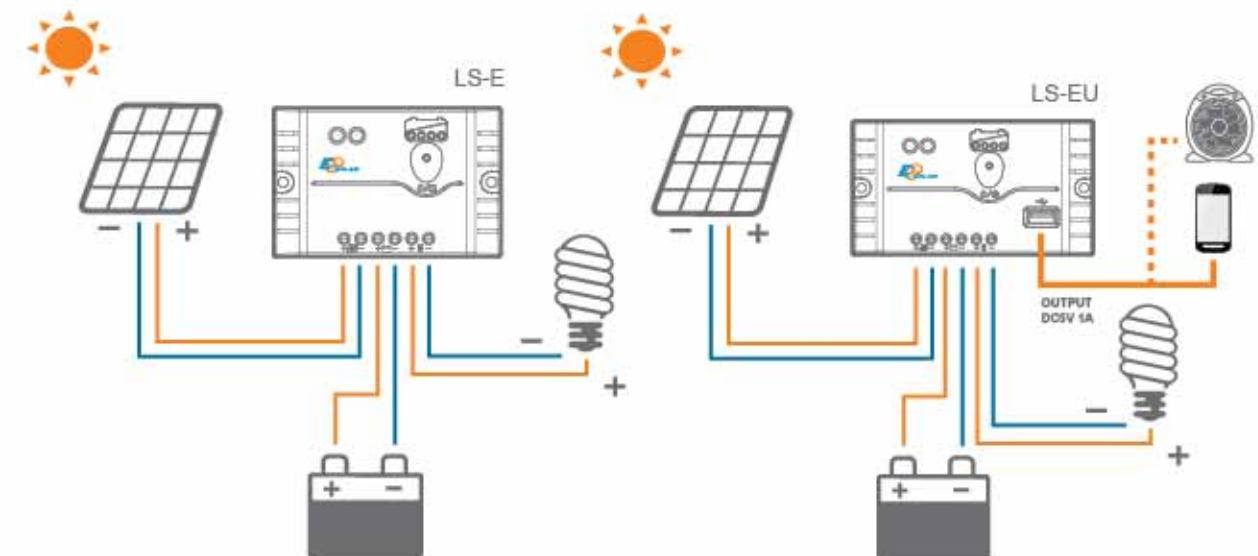
### Application



## TECHNICAL SPECIFICATIONS

Model	LS0512E	LS0512EU	LS1012E	LS1012EU	LS1024E	LS1024EU	LS2024E	LS2024EU
Nominal system voltage	12V		12V		12/24V auto work		12/24V auto work	
Rated battery current	5A		10A		10A		20A	
Rated load current	5A		10A		10A		20A	
Max. battery voltage	16V			32V				
Equalize charging voltage※	Sealed: 14.6V, Flooded: 14.8V							
Boost charging voltage※	Gel: 14.2V, Sealed: 14.4V, Flooded: 14.6V							
Float charging voltage※	Gel /Sealed /Flooded: 13.8V							
Low voltage reconnect voltage※	Gel /Sealed /Flooded: 12.8V							
Low voltage disconnect voltage※	Gel /Sealed /Flooded: 11.1V							
Self-consumption	≤8mA							
Grounding	Common positive							
Temp. compensation	-5mV/°C/2V							
Dimension(mm)	92.8x65x20.2	109.7x65.5x20.8	101.2x67x21.8	120.3x67x21.8	101.2x67x21.8	120.3x67x21.8	128x85.6x34.8	148x85.6x34.8
Net weight	74g	95g	82.5g	103g	82g	102g	151.6g	179.6g
Enclosure	IP30	IP20	IP30	IP20	IP30	IP20	IP30	IP20
Working temperature	-35°C ~ +55°C							

※ Technical data for 12V system at 25°C, twice in 24V system rate.



# LandStar B series PWM solar charge controller



LandStar B series is Epsolar's new generation programmable solar charge controller. All the models adopt aluminum heat sink which enables the reliability in high temperature environments. RS-485 or RS-232 connects to a remote meter or PC for real-time monitoring, custom setting and control etc.

## FEATURES

- Three system voltage configuration : 12V, 24V or 12/24V auto work
- High efficiency PWM charging with temperature compensation
- External temperature sensor interface
- RS-485 or RS-232 bus communication
- Open standard Modbus communication protocol
- Field software update by connecting to PC
- **More powerful function via MT50 or PC**
- Diversified load control modes : Manual, Light ON/OFF, Light ON+ Timer, Time Control
- Battery type option: Gel, sealed, flooded and USER
- Real-time monitor
- Programmable parameters
- LVD or SOC load disconnect function
- Energy statistics function



## ELECTRONIC PROTECTIONS

- PV short circuit protection
- PV reverse polarity protection
- Battery overcharge protection
- Battery over discharge protection
- Battery reverse polarity protection
- Load short circuit protection
- Load overload protection
- Overheating protection

## Application



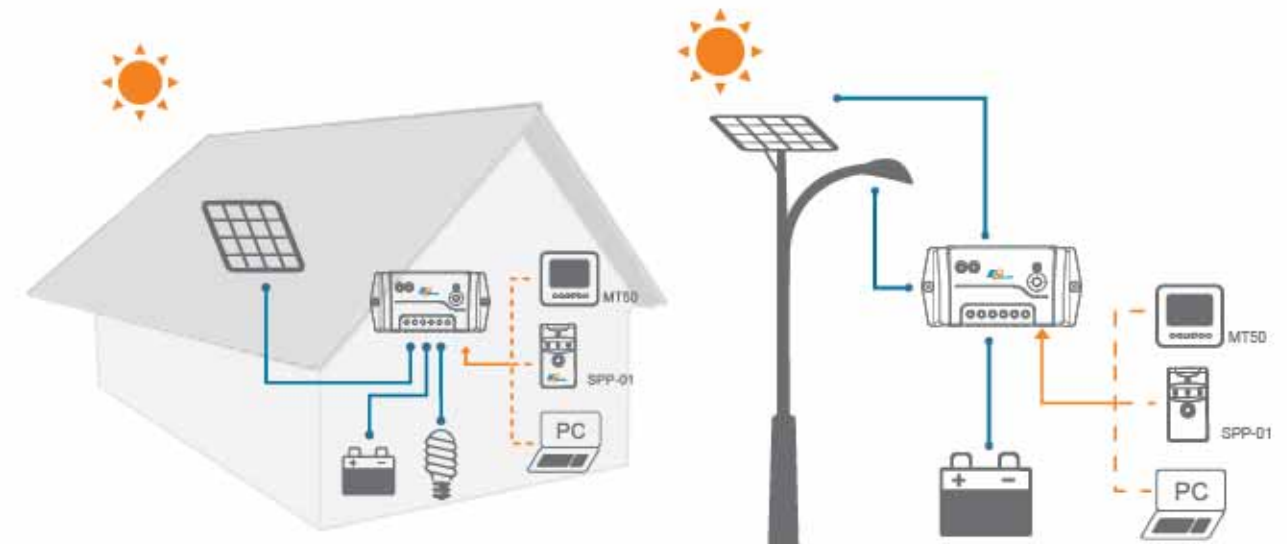
## PRODUCT FAMILY

 LS1024B/ LS2024B / LS3024B 12/24V 10A,20A,30A	 LS1024BP LS2024BP 12/24V 10A,20A Waterproof, IP67	 MT50 Remote meter with communication cable	 SPP-01 Super parameter programmer
 PC software	 CC-USB-RS485-150U PC communication cable for LS-B	 CC-USB-TTL-150U PC communication cable for LS-BP	 RTS300R47K3.81A Remote temperature sensor

## TECHNICAL SPECIFICATIONS

Model	LS1024B	LS1024BP	LS2024B	LS2024BP	LS3024B
Nominal system voltage	12/24V auto work				
Rated battery current	10A	10A	20A	20A	30A
Rated load current	10A	10A	20A	20A	30A
Max. battery voltage	34V				
Equalize charging voltage <sup>※</sup>	Sealed: 14.6V, Flooded: 14.8V, User-defined: 9~17V				
Boost charging voltage <sup>※</sup>	Gel: 14.2V, Sealed: 14.4V, Flooded: 14.6V, User-defined: 9~17V				
Float charging voltage <sup>※</sup>	Gel /Sealed /Flooded: 13.8V, User-defined: 9~17V				
Low voltage reconnect voltage <sup>※</sup>	Gel /Sealed /Flooded: 12.6V, User-defined: 9~17V				
Low voltage disconnect voltage <sup>※</sup>	Gel /Sealed /Flooded: 11.1V, User-defined: 9~17V				
Self-consumption	≤8.4mA(12V), ≤7.8mA(24V)				
Grounding	Common positive				
Temp. compensation	-3mV/°C/2V				
Dimension	138.6×69.3×37mm	108.5×64.5×25.6mm	159.6×81.4×47.8mm	139×76.5×28mm	200.6×101.3×57mm
Net weight	0.13kg	0.4kg	0.3kg	0.6kg	0.5kg
Enclosure	IP30	IP67	IP30	IP67	IP30
Working temperature	-35°C ~ +55°C				

<sup>※</sup> Technical data for 12V system at 25°C, twice in 24V system rate.



# LandStar series PWM solar charge controller



LandStar series is for off-grid solar system, such as home system, traffic system, CCTV system, street light, garden lights, parking area, and bus station. It adopts the most advanced digital technique and operates fully automatically. The Pulse Width Modulation (PWM) battery charging can greatly increase the lifetime of battery.

## FEATURES

- High efficient Series PWM charging
- Use MOSFET as electronic switch
- Gel, Sealed and Flooded battery type option
- Temperature compensation
- LED indicators indicate battery voltage state



## ELECTRONIC PROTECTIONS

- PV short circuit protection
- PV reverse polarity protection
- Battery overcharge protection
- Battery over discharge protection
- Battery reverse polarity protection
- Load short circuit protection
- Load overload protection

## Application



## PRODUCT FAMILY



LS0512  
12V, 5A  
Manual ON / OFF



LS0512R  
12V, 5A  
Light and timer control



LS1024 / LS2024  
12/24V auto work  
10A,20A  
Manual ON / OFF



LS1024R / LS2024R  
12/24V auto work  
10A,20A  
Light and timer control



LS1024RP / LS2024RP  
12/24V auto work  
10A,20A  
Waterproof, IP68  
Light and timer control



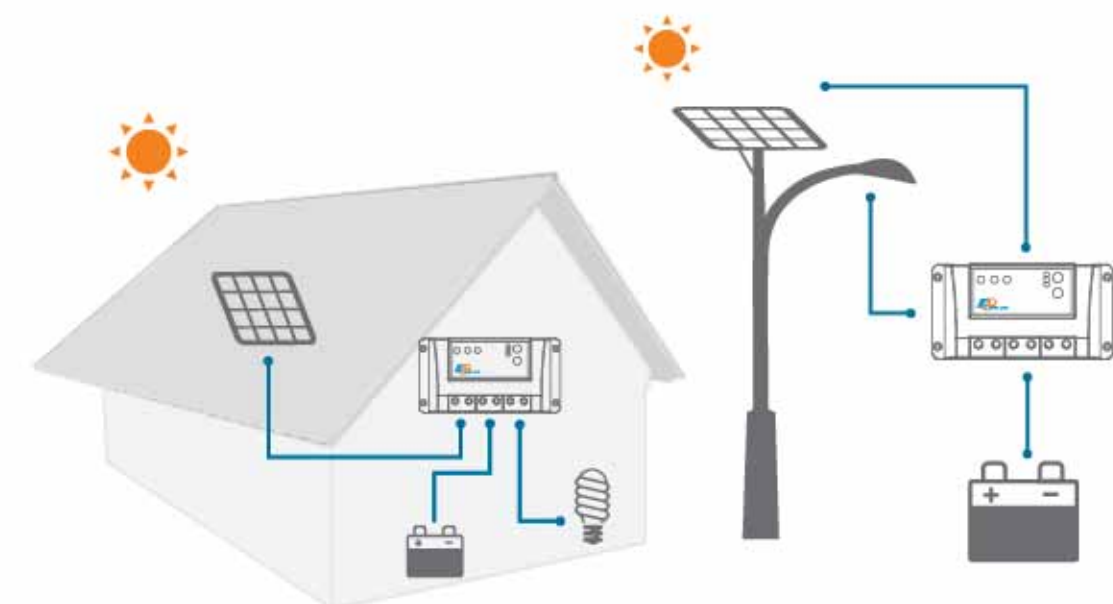
LS1024S / LS2024S  
12/24V auto work  
10A,20A  
Surfacing mounting

## TECHNICAL SPECIFICATIONS

Model	LS0512 LS0512R	LS1024 LS1024R LS1024RP LS1024S	LS2024 LS2024R LS2024RP LS2024S
Rated system voltage	12V	12/24V auto work	
Rated battery current	5A	10A	20A
Rated load current	5A	10A	20A
Max. battery voltage	16V	32V	
Equalize charging voltage※	Sealed: 14.6V, Flooded: 14.8V		
Boost charging voltage※	Gel: 14.2V, Sealed: 14.4V, Flooded: 14.8V		
Float charging voltage※	13.8V		
Low voltage reconnect voltage※	12.8V		
Low voltage disconnect voltage※	11.1V		
Self-consumption	≤8mA		
Grounding	Common positive		
Temp. compensation	-5mV/°C/2V		
Working temperature	-35°C ~ +55°C		

※Technical data for 12V system at 25°C, twice in 24V system rate.

Model	LS0512 LS0512R	LS1024 LS1024R	LS2024 LS2024R	LS1024RP LS1024S	LS2024RP LS2024S
Dimension	97×86×25mm	140×85×34mm	144×75×45mm	145×89×31mm	145×85×34mm
Net weight	0.05kg	0.15kg	0.25kg	0.3kg	0.4kg
Enclosure	IP30	IP30	IP30	IP68	IP68





## LandStar EPD series PWM solar charge controller

LandStar EPD series solar charge controller adopts the most advanced digital technique and operates fully automatically. It is ideal for extreme environments with corrosion, dust, moisture etc., and has various functions.

### FEATURES

- High efficient PWM charging
- Widely used, automatically recognize day/night
- LED indicators for PV and battery status
- Industrial design, wide application range
- Digital tube menu, only one key solve all settings simply
- Intelligent timer function with 1~13 hours option
- IP67 protection

### ELECTRONIC PROTECTIONS

- PV reverse polarity protection
- Battery overcharge protection
- Battery over discharge protection
- Battery reverse polarity protection
- Battery overheating protection
- Load short circuit protection
- Load overload protection

Model	LS1012EPD	LS1024EPD	LS2024EPD
Nominal system voltage	12V	12/24V auto	
Rated battery current	10A	10A	20A
Rated load current	10A	10A	20A
Max. PV input voltage	30V	50V	50V
Equalize charging voltage※	14.8V		
Boost charging voltage※	14.4V		
Float charging voltage※	13.7V		
Low voltage reconnect voltage※	12.6V		
Low voltage disconnect voltage※	11.2V		
Self-consumption	12V: ≤4.58mA; 24V: ≤8.01mA		
Grounding	Common positive		
Temp. compensation	-5mV/°C/2V		
Overall dimension	108.5×75×25.6mm		
Net weight	408g	410g	435g
Enclosure	IP67		
Working temperature	-35°C to +55°C		

※ Technical data for 12V system at 25°C, twice in 24V system rate.

## EP series PWM solar charge controller

### EPIPDB-COM Dual battery solar controller

EPIPDB-COM is dual battery charge controller for caravans, RVs, boats and golf cart etc. Two batteries charging eliminate the extra cost of two separate solar charging systems. The charging priority is selectable. Extensive electronic protections: over charging, short circuit, and reverse polarity.

Model	EPIPDB-COM
Nominal system voltage	12/24V auto work
Rated current	10A, 20A
Dimension	153x76x37mm
Net weight	0.24kg



EPIPDB-COM  
12/24V auto work  
10A,20A



MT-1  
Remote meter and 2m  
communication cable

### EPRC10-EC/EPHC10-EC Solar charge controller

EPRC10-EC / EPHC10-EC is economic controller for solar home system, street light system and other small solar systems. All the electronic components are industrial grade without any mechanical switch. The electronic protections ensure the reliability of system.

Model	EPRC10-EC	EPHC10-EC
Nominal system voltage	12V/24V	
Rated current	10A	
Dimension	140x89x27mm	
Net weight	0.23kg	



EPRC10-EC  
12V/24V auto work  
10A  
Light and timer control



EPHC10-EC  
12V/24V auto work  
10A  
Manual ON/OFF

# Tracer RPLI series

## Solar Charge Controller & LED Driver



It combines solar charge controller and constant current LED driver into one unit which is ideal for solar LED Lighting, especially when dimmer function is needed. The control parameter can be programmed via Mobile APP, Remote Meter and SPP-01.

### FEATURES

- MPPT technology
- Peak conversion efficiency of 98 %
- High Tracking efficiency of 99%
- Parameter setting via Mobile APP, Remote Meter and SPP-01 with IR function
- Maximum output efficiency of 98%
- Dimming function
- Control accuracy are within ±2%
- Temperature compensation
- Widely used, automatic recognize day/night
- Fully encapsulated PCB, IP68 protection
- Aluminum housing for better cooling



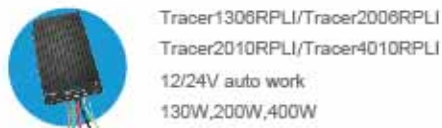
### ELECTRONIC PROTECTIONS

- PV short circuit protection
- PV current limiting protection
- PV reverse polarity protection
- Battery overcharge protection
- Battery over discharge protection
- Battery reverse polarity protection
- Battery overheating protection
- Load overload protection
- Load short circuit protection

### Application



### PRODUCT FAMILY



Tracer1306RPLI/Tracer2006RPLI  
Tracer2010RPLI/Tracer4010RPLI  
12/24V auto work  
130W,200W,400W



SPP-01  
Super Parameter Programmer  
( for bulk quantity products  
setting )



App  
on mobile phone or PAD  
with Android system

### TECHNICAL SPECIFICATIONS

Model	Tracer1306RPLI	Tracer2006RPLI	Tracer2010RPLI	Tracer4010RPLI
Nominal system voltage	12/24VDC auto work			
Rated charge current	10A/12V; 5A/24V	15A/12V; 7.5A/24V	15A(12V,24V)	
Max. PV input voltage	60V	60V	100V	100V
Rated charge power	130W	200W	200W/12V,400W/24V	
Battery terminal voltage	9 ~ 32V			
Rated output power	60W	100W	200W	
Rated output Current	2.0A	3.3A	6.6A	
Output voltage range	V <sub>bat</sub> +2V~80V		V <sub>bat</sub> +2V~80V	
Load open circuit voltage	60V		80V	
Max output efficiency	98%			
Control accuracy	±2%			
Equalize charging voltage※	Sealed: 14.8V, Flooded: 14.8V			
Boost charging voltage※	Gel: 14.2V, Sealed: 14.4V, Flooded: 14.8V			
Float charging voltage※	13.8V			
Low voltage reconnect voltage※	12.6V			
Low voltage disconnect voltage※	11.1V			
Self-consumption	≤21mA/12V;≤13mA/24V			
Grounding	Common positive			
Temp. compensation	-3mV/°C/2V			
Overall dimension	153x118x29mm	172.3x118x41.5mm	193.3x98.6x45.9mm	
Net weight	0.85kg	1.11kg	1.41kg	
Enclosure	IP68			
Working temperature	-35°C~+55°C			

※ Technical data for 12V system at 25°C, twice in 24V system rate.



All product specifications are subject to change without notice.

**TECHNICAL SPECIFICATIONS**

Model	LS101240EPLI	LS102460EPLI	LS2024100EPLI
Nominal system voltage	12VDC	12/24VDC	12/24VDC
Max. PV input voltage	30V	50V	50V
Battery terminal voltage	9 ~ 16V	9 ~ 32V	9 ~ 32V
Rated charge current	10A	10A	20A
Rated output power	40W/12V	30W/12V, 60W/24V	50W/12V, 100W/24V
Rated output Current	2.6A	2.0A	3.3A
Max efficiency	96%	96%	96%
Output voltage range	V <sub>BAT</sub> +2V ~ 60V		
Load open circuit voltage	60V		
Control accuracy	±2%		
Equalize charging voltage※	Sealed: 14.6V, Flooded: 14.8V		
Boost charging voltage※	Gel: 14.2V, Sealed: 14.4V, Flooded: 14.6V		
Float charging voltage※	13.8V		
Low voltage reconnect voltage※	12.6V		
Low voltage disconnect voltage※	11.1V		
Self-consumption	12V:≤9.1mA; 24V:≤7.0mA		
Temp. compensation	-3mV/°C/2V		
Overall dimension	108.5x100.5x25.6mm		108.5x118x25.6 mm
Net weight	0.23kg		0.28kg
Enclosure	IP68		
Working temperature	-35°C~+55°C		

※Technical data for 12V system at 25°C, twice in 24V system rate.

# LandStar EPLI series

## Solar Charge Controller & LED Driver

It combines solar charge controller and constant current LED driver into one unit which is ideal for solar LED Lighting, especially when dimmer function is needed. The control parameter can be programmed via Mobile APP, Remote Meter and SPP-01.



**FEATURES**

- High efficient PWM charging
- Parameter setting via Mobile APP, Remote Meter and SPP-01 with IR function
- Maximum output efficiency of 96%
- Dimming function
- Control accuracy are within ±2%
- Temperature compensation
- Widely used, automatic recognize day/night
- Fully encapsulated PCB, IP68 protection
- Aluminum housing for better cooling

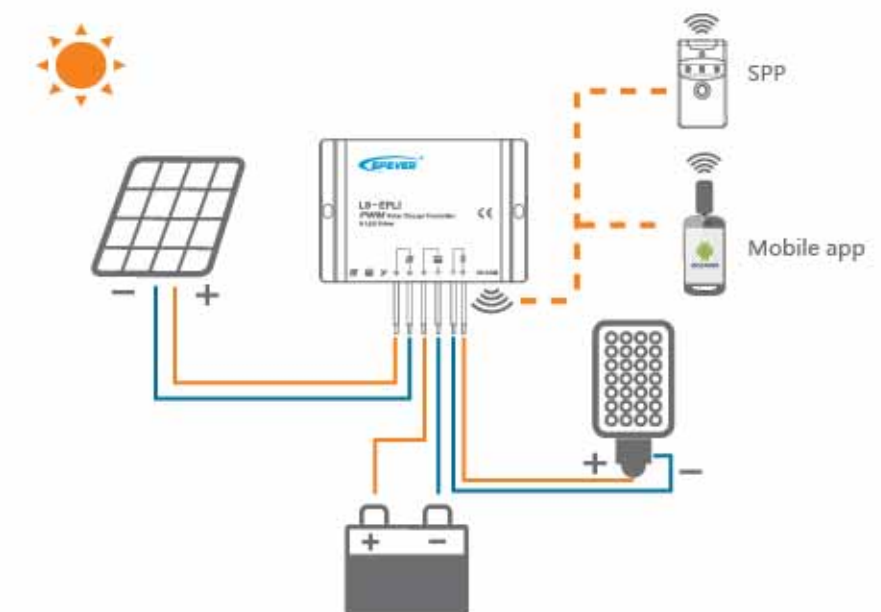
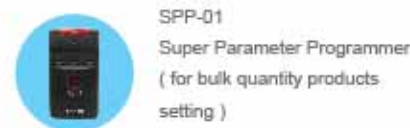
**ELECTRONIC PROTECTIONS**

- PV short circuit protection
- PV reverse polarity protection
- Battery overcharge protection
- Battery over discharge protection
- Battery reverse polarity protection
- Load overload protection
- Load short circuit protection
- Overheating protection

**Application**



**PRODUCT FAMILY**



All product specifications are subject to change without notice.

# LandStar BPL series

## Solar Charge Controller & LED Driver



LandStar BPL series solar charge controller combines the solar charge controller and LED constant current driver into one unit which is ideal for solar LED Lighting, especially for the application for LED lamp which requires dimmer function. It can also reduce the system cost and increase the system flexibility. Fully encapsulated PCB, IP67 design, aluminum case ensures the controller can work in extremely terrible, and increase system operation, reliability and efficiency.

### FEATURES

- High efficient PWM charging
- Four battery type options: Sealed, Gel, Flooded, and USER
- Maximum output efficiency of 95%
- Dimming function
- Control accuracy are within ±2%
- Temperature compensation
- Widely used, automatic recognize day/night
- Fully encapsulated PCB, IP67 protection
- Aluminum housing for better cooling
- Extensive communication capabilities (TTL232 with Modbus protocol)



### ELECTRONIC PROTECTIONS

- PV short circuit protection
- PV reverse polarity protection
- Battery overcharge protection
- Battery over discharge protection
- Battery reverse polarity protection
- Load overload protection
- Load short circuit protection
- Overheating protection

### Application



### PRODUCT FAMILY



LS102460BPL/  
LS2024100BPL  
12/24V  
10A,20A



PC software



CC-USB-TTL-150U  
PC communication cable

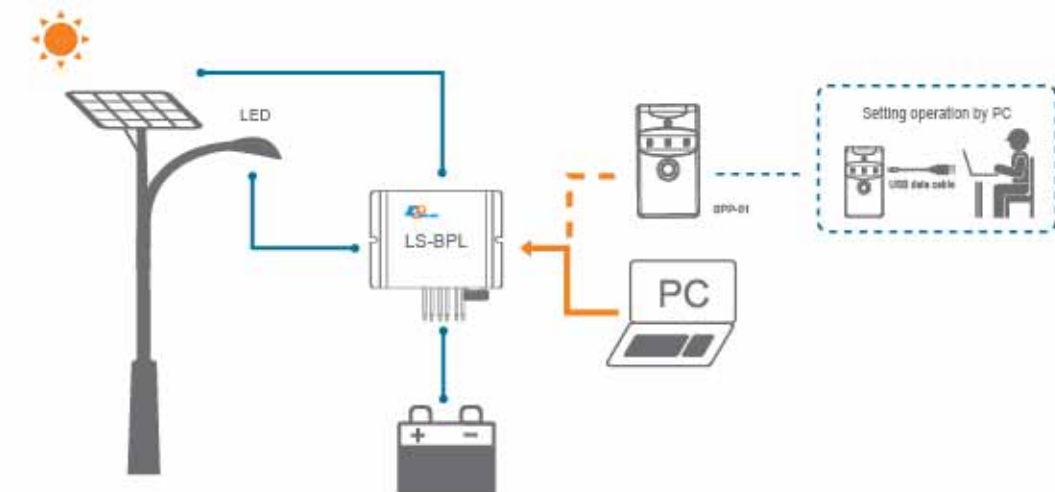


SPP-01  
Super Parameter  
Programmer( for bulk  
quantity products setting )

### TECHNICAL SPECIFICATIONS

Model	LS102460BPL	LS2024100BPL
Nominal system voltage	12/24VDC	
Max. PV input voltage	50V	
Battery terminal voltage	8 ~ 32V	
Rated charge current	10A	20A
Rated output power	30W/12V 60W/24V	50W/12V, 100W/24V
Rated output Current	2.0A	3.3A
Max efficiency	95%	
Output voltage range	V <sub>BAT</sub> ~ 80V	
Load open circuit voltage	60V	
Control accuracy	±2%	
Equalize charging voltage※	Sealed: 14.6V, Flooded: 14.8V	
Boost charging voltage※	Gel: 14.2V, Sealed: 14.4V, Flooded: 14.6V	
Float charging voltage※	13.8V	
Low voltage reconnect voltage※	12.8V	
Low voltage disconnect voltage※	11.1V	
Self-consumption	≤9.1mA(12V); ≤7.0mA(24V)	
Grounding	Common positive	
Temp. compensation	-3mV/°C/2V	
Overall dimension	108.5x73x25.6mm	108.5x110x25.6mm
Net weight	0.4kg	0.6kg
Enclosure	IP67	
Working temperature	-35°C ~ +55°C	

※ Technical data for 12V system at 25°C, twice in 24V system rate.



# DCCP series LED driver



The DCCP-DPR series is designed for LED indoor and outdoor lighting application condition, such as road lighting, landscape lighting and billboard lighting etc. It has the feature of high efficiency, high control accuracy, portable volume and fully waterproof design. The load control mode can be set freely.

## FEATURES

- Wide input voltage range DC9.5V—DC33V, compatible with 12V/24V full voltage range
- Digital high precision constant current control and the control accuracy are better than  $\pm 2\%$
- Max. conversion efficiency is 95%
- Adjustable rated output current in the rated power and current range
- Triangular timers output control, and dual exact timers output control, and the output parameters can be programmed at each timer
- The RS232 serial port (TTL) for connection via the open standard Modbus protocol
- Fully encapsulated design, IP67 protection



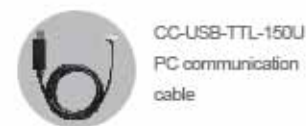
## ELECTRONIC PROTECTIONS

- Load overload protection
- Load short circuit protection
- Input reversed polarity protection
- Overheating protection

## Application



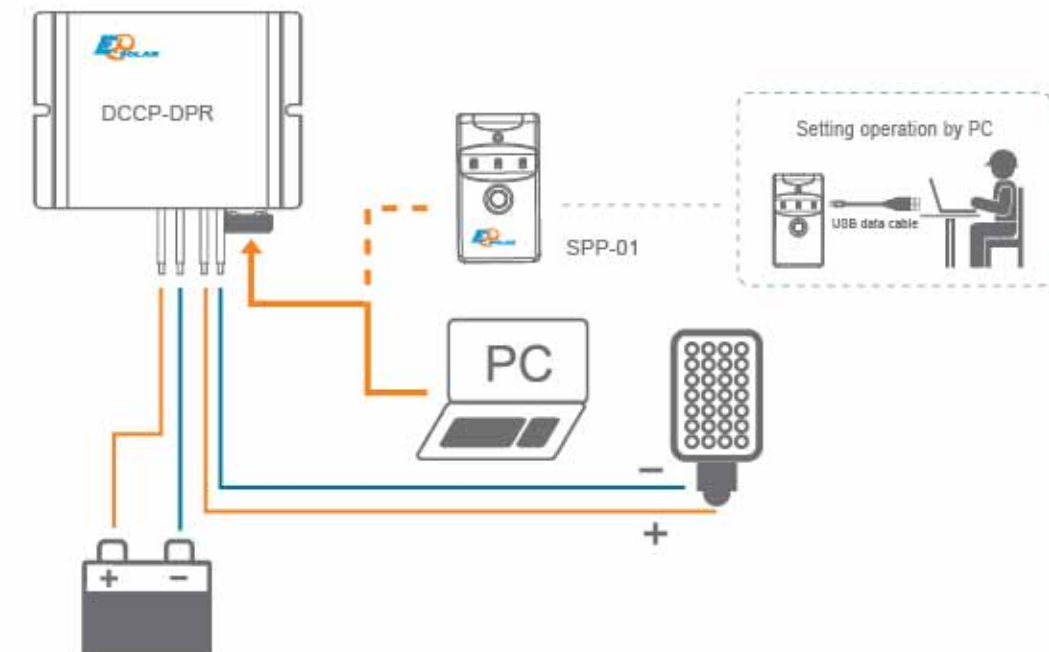
## PRODUCT FAMILY



## TECHNICAL SPECIFICATIONS

Model	DCCP6060DPR	DCCP10060DPR
Nominal system voltage	12V/24V	
Input voltage range	9.5~33.0V	
Rated output power	30W/12V, 60W/24V	50W/12V, 100W/24V
Rated output current	2.0A	3.3A
Load current	60W/Load voltage	100W/Load voltage
Max efficiency	93%/12V; 95%/24V	
Output voltage range	Voltage of input $\sim$ 60V	
Load open circuit voltage	60V	
Power output adjustment time	<10s	
Self-consumption	$\leq 8.5\text{mA}$ (12V), $\leq 11.0\text{mA}$ (24V)	
Control accuracy	$\pm 2\%$	
Overall dimension	106×60×21 mm	108.5×82×25.6 mm
Net weight	0.23Kg	0.39Kg
Enclosure	IP67	
Working temp.	-35℃ $\sim$ +55℃	

※ Technical data at 25℃





# SHI series

## Pure sine wave inverter



SHI series is a pure sine wave inverter which can convert 12/24/48Vdc to 220/230Vac 50/60Hz based on full digital and intelligent design. It features high reliability, high efficiency, concise outline, small volume, easy installation and operation. The inverter can be applied in many fields, such as household appliances, electric tools and industrial devices etc, especially for solar photovoltaic power system.

### FEATURES

- Input & output fully isolation
- Adoption of advanced SPWM technology, pure sine wave output
- Dynamic current loop control technology to ensure inverter reliable operation
- Wide DC input voltage range
- The output voltage and frequency can be switched
- Low output harmonic distortion (THD $\leq$ 3%)
- LED indicators for input voltage range, load power range, normal output & failure state
- Optional energy saving mode
- Wide working temperature range (industrial level)
- Continuous operation at full power



### PRODUCT FAMILY



SH400/ SHI600/ SHI1000/ SHI2000/ SHI3000  
12V/24V/48V  
400W, 600W, 1000W, 2000W, 3000W

### ELECTRONIC PROTECTIONS

- Output short circuit protection
- Overload protection
- Input low voltage protection
- Input over voltage protection
- Inverter abnormal protection
- Overheating protection

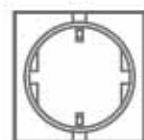
### Application



### Output socket (option)



Universal



European

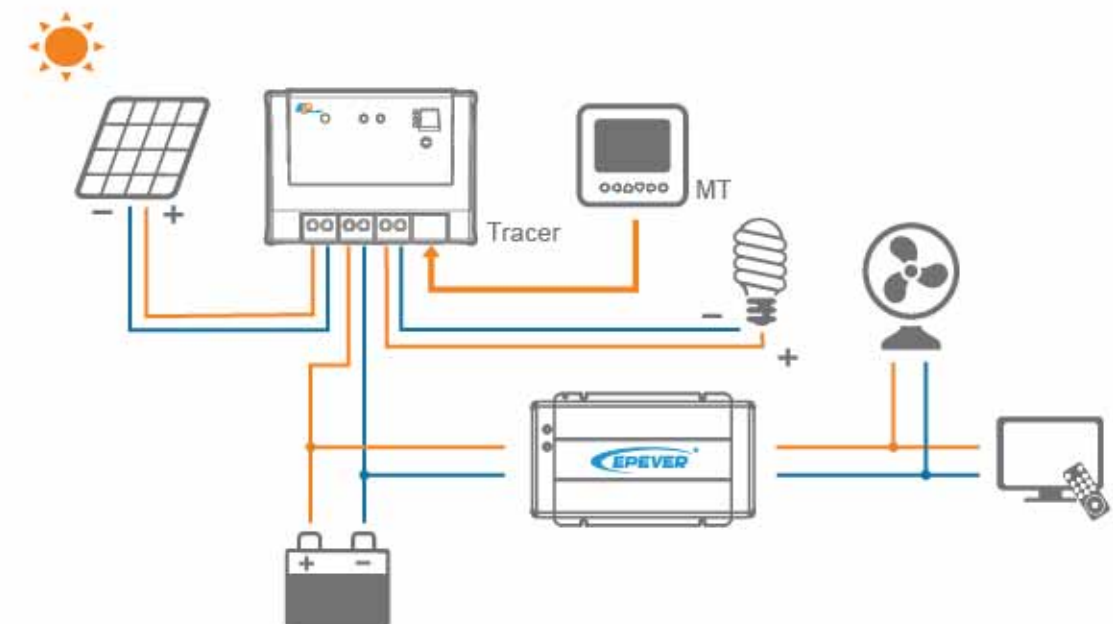


Australia/  
New Zealand

### TECHNICAL SPECIFICATIONS

Model	SHI400-12	SHI400-22	SHI600-12	SHI600-22	SHI1000-22	SHI1000-42	SHI2000-22	SHI2000-42	SHI3000-22	SHI3000-42
Nominal system voltage	12V	24V	12V	24V	24V	48V	24V	48V	24V	48V
Input voltage range	10.8~18Vdc	21.6~32Vdc	10.8~18Vdc	21.6~32Vdc	21.6~32Vdc	43.2~64Vdc	21.6~32Vdc	43.2~64Vdc	21.6~32Vdc	43.2~64Vdc
No Load Current	$\leq$ 0.8A	$\leq$ 0.45A	$\leq$ 0.7A	$\leq$ 0.45A	$\leq$ 0.45A	$\leq$ 0.35A	$\leq$ 0.7A	$\leq$ 0.7A	$\leq$ 1.2A	$\leq$ 1.0A
Output voltage	220Vac $\pm$ 3% / 230Vac $\pm$ 10%									
Continuous power	400W	600W	800W	1000W	1500W	2000W	3000W	4000W	6000W	8000W
Power 10sec	600W	900W	1200W	1500W	2000W	3000W	4000W	6000W	8000W	10000W
Power 1.5sec	800W	1200W	1600W	2000W	2500W	3000W	4000W	6000W	8000W	10000W
Surge power	900W	1350W	1800W	2250W	3000W	4000W	6000W	8000W	10000W	13000W
Output mode	Single phase									
Wave form	Pure Sine Wave									
Frequency	50/60Hz $\pm$ 0.2%									
Distortion THD	$\leq$ 3%(resistive load)									
Efficiency at rated power	$\geq$ 91%	$\geq$ 92%	$\geq$ 91%	$\geq$ 92%	$\geq$ 93%	$\geq$ 93.5%	$\geq$ 93%	$\geq$ 94%	$\geq$ 93%	$\geq$ 94%
Max. efficiency	$\geq$ 92%	$\geq$ 93%	$\geq$ 93%	$\geq$ 94%	$\geq$ 94%	$\geq$ 94%	$\geq$ 95%	$\geq$ 95%	$\geq$ 95%	$\geq$ 95%
Dimension	280x188x74.3mm	295x188x82mm	295x188x82mm	295x208x98mm	295x208x98mm	438x249x116mm	438x249x116mm	438x249x116mm	507x249x116mm	507x249x116mm
Net weight	1.8kg	2.3kg	2.3kg	3.3kg	3.3kg	6.0kg	6.0kg	6.0kg	7.5kg	7.5kg
Enclosure	IP30									
Working temperature	-20 $^{\circ}$ C ~ +50 $^{\circ}$ C									

※ Technical data at 25 $^{\circ}$ C.



All product specifications are subject to change without notice.

# STI series

## Pure sine wave inverter



STI series is a sine wave power frequency inverter which can convert 12V/24V/48Vdc to 220V/230V 50Hz based on full digital and intelligent design. It features high reliability, high efficiency, concise outline, full protection functions, easy installation and operation. The inverter can be applied in many fields especially for solar photovoltaic power system.

### FEATURES

- Complete isolation-type inverter technology, noiseless output
- Adoption of advanced SPWM technology, pure sine wave output
- Dynamic current loop control technology to ensure inverter reliable operation
- Wide DC input voltage range
- Excellent EMC design
- Low output harmonic distortion (THD≤3%)
- LED indicators for input voltage range, load power range, normal output & failure state
- Optional energy saving mode
- Wide working temperature range (industrial level)
- Continuous operation at full power



### PRODUCT FAMILY



STI200/ STI300/ STI500/ STI700/ STI1000  
12V/24V/48V  
200W,300W,500W,700W,1000W

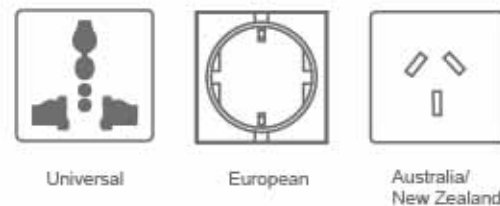
### ELECTRONIC PROTECTIONS

- Output short circuit protection
- Overload protection
- Input low voltage protection
- Input over voltage protection
- Input reverse polarity protection
- Inverter abnormal protection
- Overheating protection

### Application



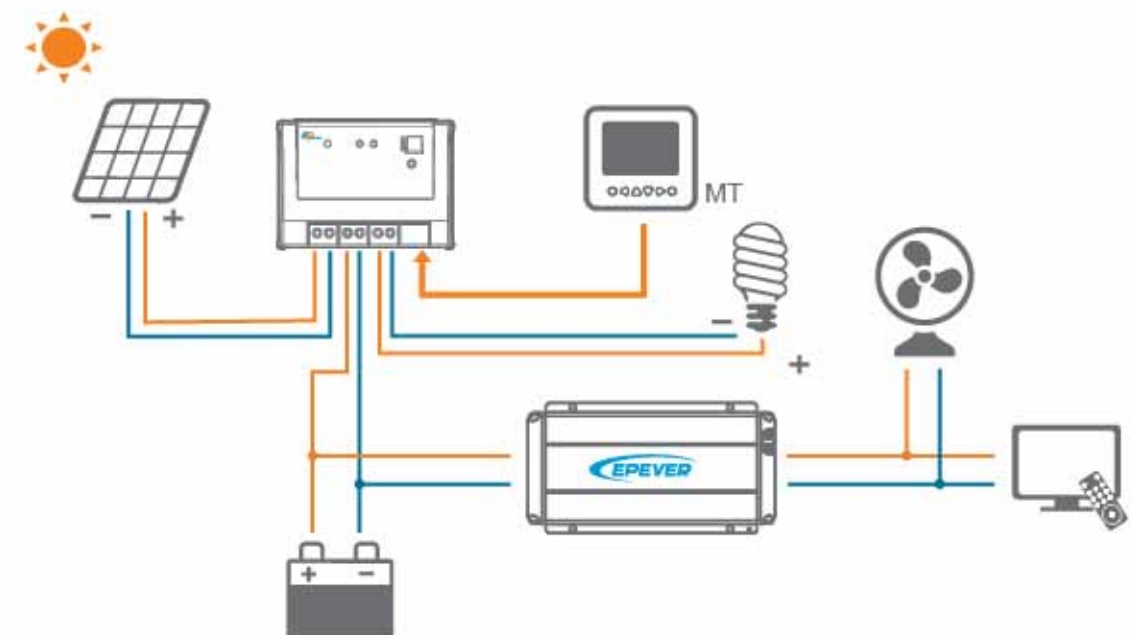
### Output socket (option)



### TECHNICAL SPECIFICATIONS

Model	STI200-12	STI200-24	STI300-12	STI300-24	STI500-12	STI500-24	STI700-24	STI1000-24	STI1000-48
	-220	-220	-220	-220	-220	-220	-220	-220	-220
	STI200-12	STI200-24	STI300-12	STI300-24	STI500-12	STI500-24	STI700-24	STI1000-24	STI1000-48
	-230	-230	-230	-230	-230	-230	-230	-230	-230
Nominal system voltage	12V	24V	12V	24V	12V	24V	24V	24V	48V
Consumption no load(ON)	≤4W	≤5W	≤5W	≤6W	≤5W	≤6W	≤8.5W	≤10W	≤12W
Consumption no load (Saving)	≤2W	≤2W	≤2W	≤2W	≤2W	≤2.5W	≤3W	≤3W	≤4W
Input voltage range	10.5~18V	21~32V	10.5~18V	21~32V	10.5~18V	21~32V	21~32V	21~32V	42~64V
Output voltage	AC220V/230V±3%								
Continuous power	200W		300W		500W		700W	1000W	
Power 10sec	300W		450W		750W		1050W	1500W	
Power 1.5sec	400W		600W		1000W		1400W	2000W	
Surge power	640W		960W		1600W		2240W	3200W	
Output mode	Single phase								
Wave form	Pure Sine Wave								
Frequency	50Hz±0.2%								
Distortion THD ( resistive load)	≤3%	≤2%	≤3%	≤2%	≤5%	≤2%	≤3%	≤3%	≤2%
Efficiency at rated power	≥81%	≥85%	≥81%	≥87%	≥81%	≥87%	≥87%	≥87%	≥89%
Max. efficiency	≥88%	≥89%	≥90%	≥91%	≥91%	≥93%	≥93%	≥93%	≥94%
Dimension	315×168×101mm		315×168×101mm		325×187×112mm		335×232×123.3mm	373×232×123.3mm	
Net weight	4.5kg		5.3kg		7.3kg		9.4kg	11.8kg	
Enclosure	IP30								
Working temperature	-20℃~+50℃								

※ Technical data at 25℃.



All product specifications are subject to change without notice.



