

# EPSOLAR TECHNOLOGY

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

2014-2015

Solar Charge Controller · Inverter



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# COMPANY PROFILE

## EPSOLAR TECHNOLOGY

Beijing Epsolar Technology Co., Ltd. is a new and high-tech enterprise specialized in power products researching, manufacturing and marketing in Beijing. We provide products including solar charge controller, off-grid inverter, LED driver and special power units etc., as well as design and supply relevant solar systems. We have passed the ISO9001 – 2008, and our products have passed CGC-SOLAR certification and CE certification as well as other domestic and international authoritative certification and a number of patents.

### BRAND INTRODUCTION



"EP" is an abbreviation of "Electronic Power"; it indicates our main product-Electronic Power Supply; "SOLAR" refers to Solar Industry.

Brand "EPSOLAR" applies to solar charge controller series product made by EPSOLAR Technology.



"EP" is an abbreviation of "Electronic Power"; it indicates our main product-Electronic Power Supply; "EVER" means "FOR EVER"; it indicates that EPSOLAR Technology firmly focuses on R&D and is determined and committed to creating high quality power supply products under its User Centric philosophy.

Brand "EPEVER" applies to inverter series and other power supply product made by EPSOLAR Technology.

# OUR ADVANTAGE

### RAPID DEVELOP

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.



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ISO9001:2008 ISO14001:2004 RoHS



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# Tracer series MPPT solar charge controller



Tracer 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

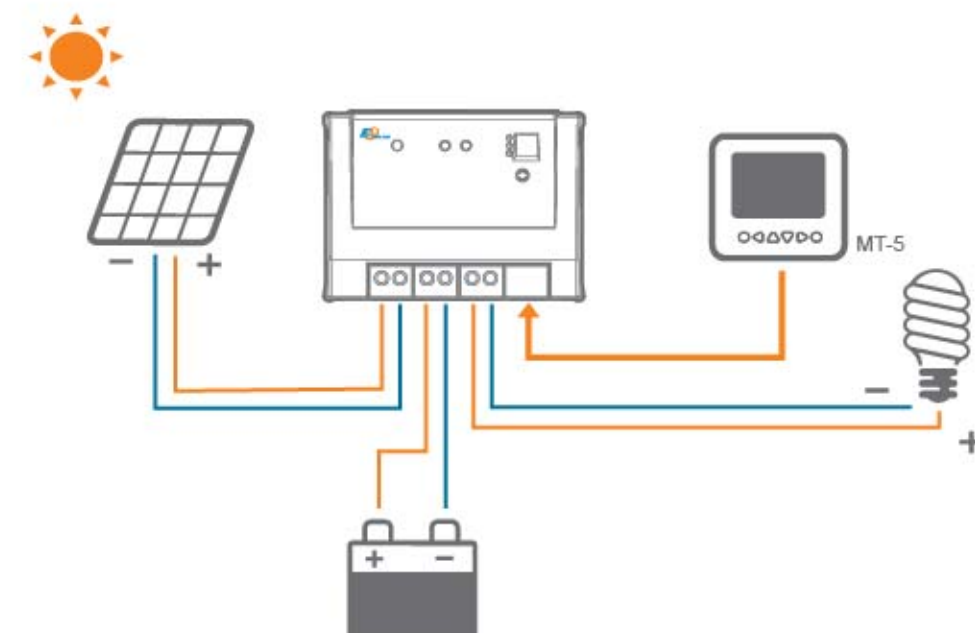


MT-5  
Remote meter and 2m  
communication cable

## 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 280W	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	156x97x88mm	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.





# New Tracer series MPPT solar charge controller



New Tracer 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



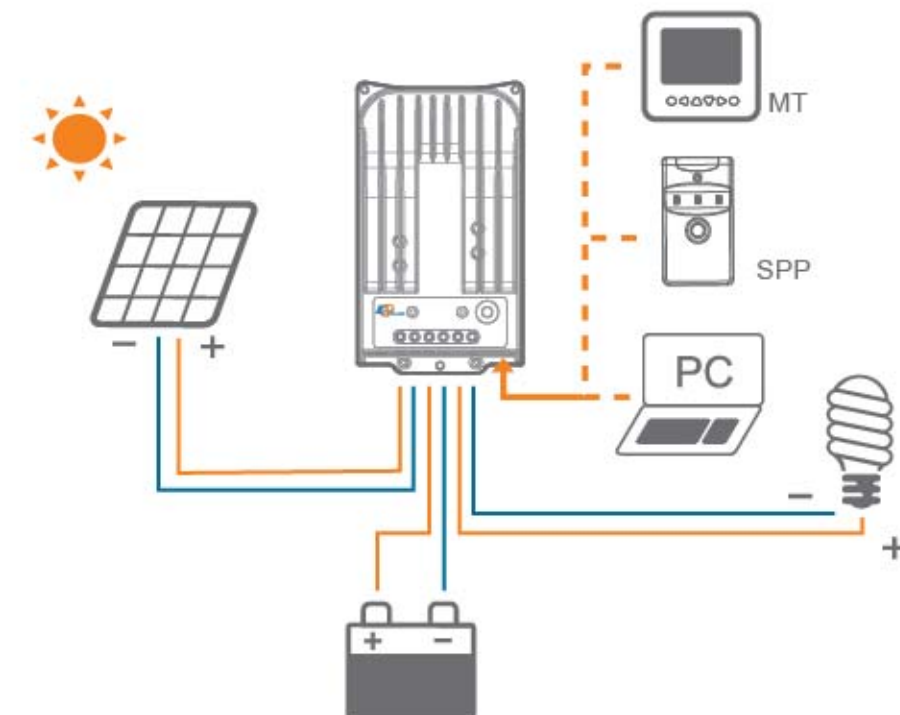
## PRODUCT FAMILY

 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	Sealed: 14.8V, Flooded: 14.8V, User-defined: 9~17V			
Boost charging voltage	Gel: 14.2V, Sealed: 14.4V, Flooded: 14.8V, 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	≤50mA(12V); ≤27mA(24V)			
Grounding	Common negative			
Temp. compensation	-3mV/°C/2V			
Overall dimension	198x118x38mm	217x143x56mm	281x160x60mm	303x183x64mm
Net weight	0.9kg	1.5kg	2.3kg	2.9kg
Enclosure	IP30			
Working temperature	-25°C ~ +55°C			

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



# eTracer series

## Network MPPT solar charge controller



eTracer is an advanced Maximum Power Point Tracking (MPPT) controller for off-grid photovoltaic (PV) systems up to 3KW. The controller features a smart tracking algorithm that maximizes the energy harvest from the PV by rapidly finding the solar array peak power point in all the weather condition. The controller provides higher efficiency up to 98% with lower power loss.

Up to 450 days data logg by connecting to Ethernet.

### FEATURES

- Advanced MPPT technology
- Several seconds tracking speed
- High Tracking efficiency of 99%
- Multiphase synchronous rectification technology
- Peak conversion efficiency of 98%
- DSP&ARM processors architecture ensures high speed and performance
- Full control charging parameters adjusting
- Real Time PV, battery data monitoring, daily generated energy monitoring
- Gel, Sealed, Flooded battery option
- Max. 450 days data logging by connection to PC
- Multifunction LCD displays system data and status
- Three kinds of communication ports :RS232, CAN BUS and Ethernet
- Three stages charging optimizes battery performance
- Software update by users



### PRODUCT FAMILY



ET3415N/ ET4415N/ ET6415N  
12/24/36/48V auto work  
30A,45A,80A

### 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

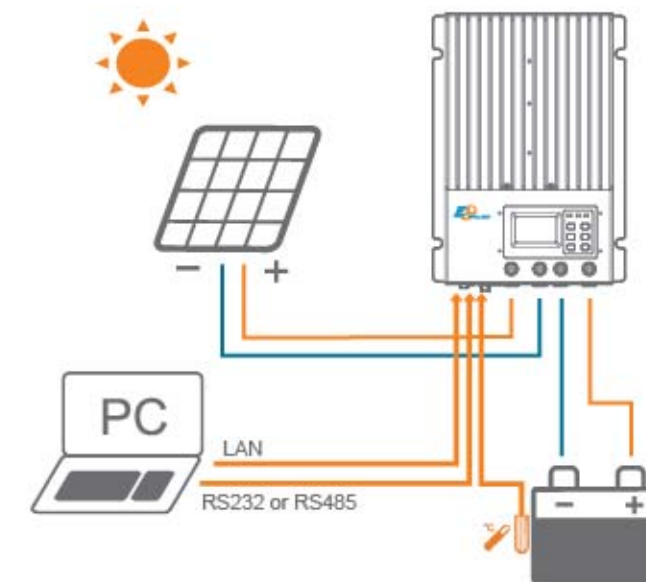


TS-R  
Remote temperature sensor

### TECHNICAL SPECIFICATIONS

Model	ET3415N	ET4415N	ET6415N
Nominal system voltage	12/24/36/48V auto work		
Rated battery current	30A	45A	80A
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: 14.8V, Flooded: 14.8V (Default)		
Boost charging voltage	Gel: 14.2V, Sealed: 14.4V, Flooded: 14.8V (Default)		
Float charging voltage	Gel /Sealed /Flooded: 13.8V (Default)		
Low voltage reconnect voltage	Gel /Sealed /Flooded: 12.8V (Default)		
Low voltage disconnect voltage	Gel /Sealed /Flooded: 11.1V (Default)		
Self-consumption	1.4~2.2W		
Grounding	Common negative		
Temp. compensation	-5mV/°C/2V		
Overall dimension	231x203x105mm	285x203x105mm	285x203x121mm
Net weight	4.1kg	4.4kg	5.0kg
Enclosure	IP20		
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.







# 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,80A



PC software



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

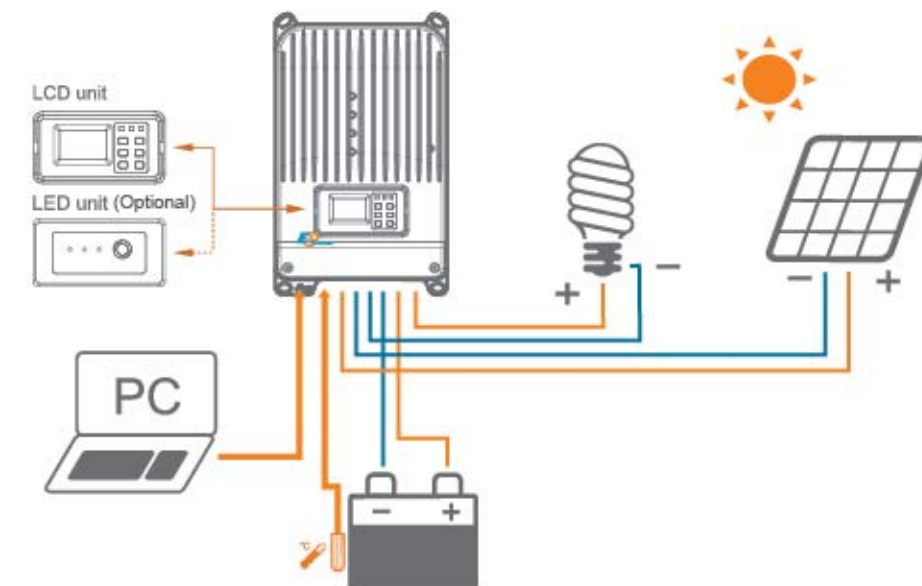


RTS300R10K5.08A  
Remote temperature sensor

### 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: 14.8V, 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.



# New LandStar series PWM solar charge controller



New LandStar 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



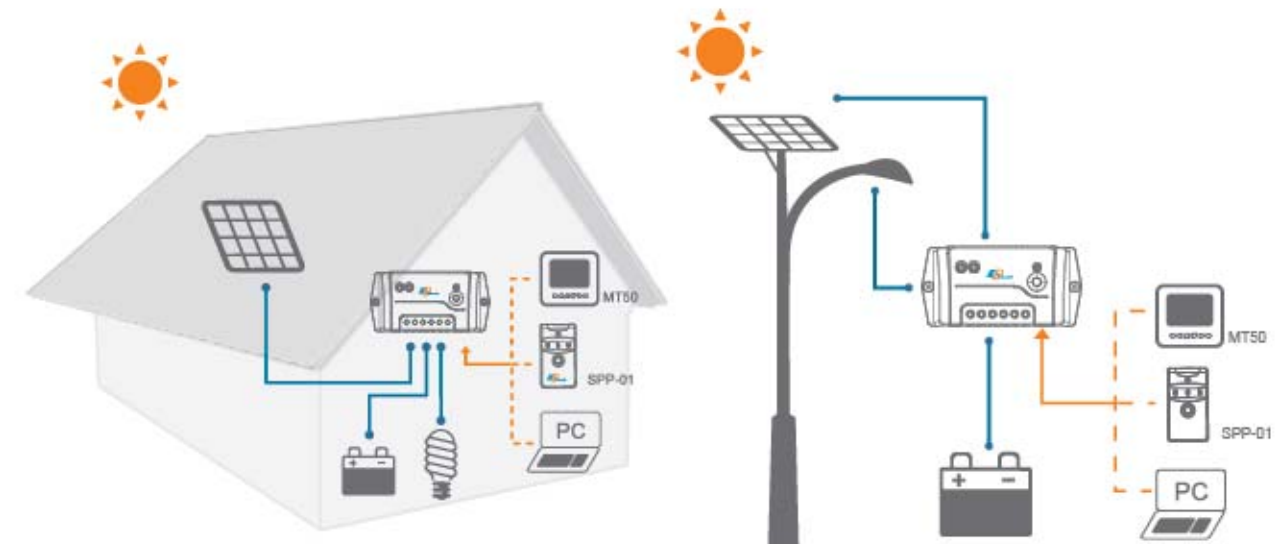
## PRODUCT FAMILY

	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	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	≤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				

\*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



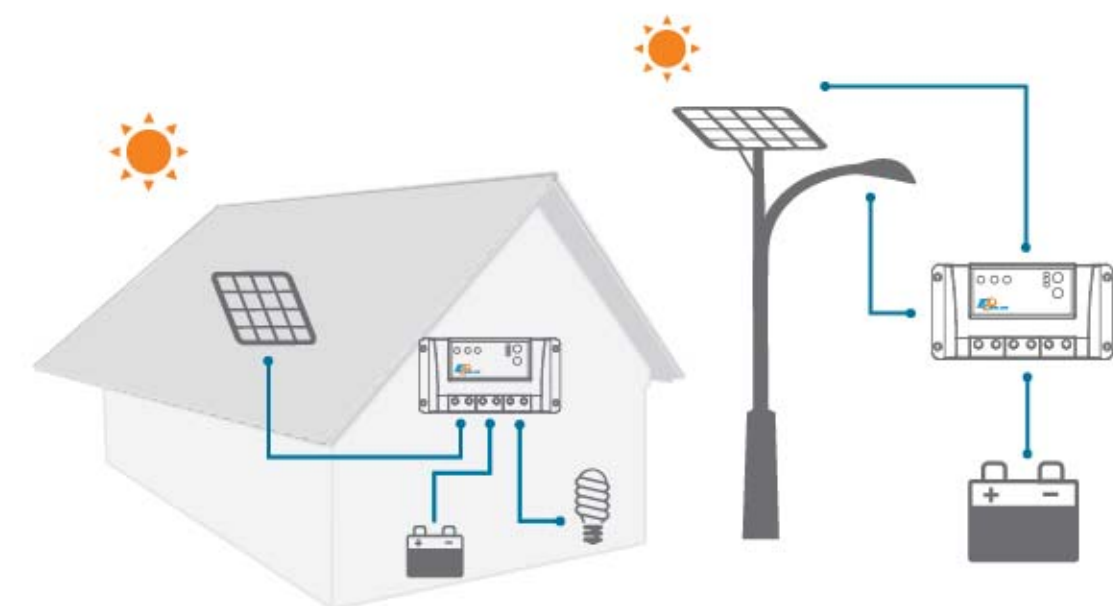
LS1024S / LS2024S  
12/24V auto work  
10A,20A  
Surfacing mounting

## 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	12.6V		
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 LS2024RP	LS1024S LS2024S	LS2024S
Dimension	97×86×25mm	140×85×34mm	144×75×45mm	145×69×31mm	145×85×34mm	120×88×40mm
Net weight	0.05kg	0.15kg	0.25kg	0.3kg	0.4kg	0.15kg
Enclosure	IP30	IP30	IP30	IP68	IP68	IP30



# 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

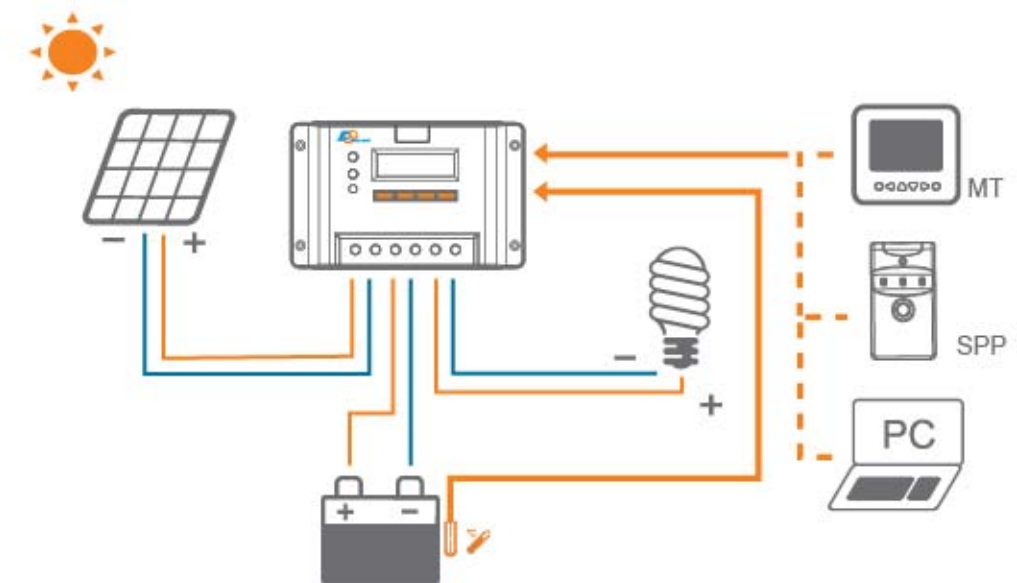


### TECHNICAL SPECIFICATIONS

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	205×119×67mm	205×129×67mm	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.



# 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

### EPHC10-EC Solar charge controller

EPHC10-EC is economic controller for solar home 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	EPHC10-EC
Nominal system voltage	12/24V auto work
Rated current	10A
Dimension	140x89x27mm
Net weight	0.23kg



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

# EP series

## PWM solar charge controller

### EPRC-G Solar & Grid hybrid controller

EPRC-G is specially designed for solar & grid hybrid lighting system. They are suitable for the energy saving reform of the existing solar lighting systems which is powered by grid, and for the solar systems that request reliable power supply. Solar system supplies the power to the load first. When solar energy is not enough, the grid power will supply the power as backup.

Model	EPRC-G
Nominal system voltage	12V/24V
Rated charge current	10A,15A,20A
Continuous output power	50W~150W
Max. output power	60W~200W



EPRC-G  
Solar & Grid hybrid controller  
12V or 24V  
60W/100W/150W/200W

### EPRC10-EC Solar light controller

EPRC10-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
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

# eModule series

## Modular solar power station controller



eModule series is the modular solar controller for solar photovoltaic telecommunication power supply, stand alone solar photovoltaic station and solar photovoltaic-diesel / gasoline generator or solar -utility power hybrid power supply system, which control and manage the system with the lowest power loss, the highest power supply quality and reliability, the lowest cost and the optimal electromagnetic compatibility and redundancy.

### FEATURES

- Modular design, random assembly of charge module (2~8pcs), load module, management module and auxiliary module.
- Distributed control, each module are connected by CAN bus
- Charging and discharging adopt optimum control by compensation algorithm, like discharging rate, temperature, and other parameters
- HMI with monochrome dot matrix LCD screen and poly dome, easy to operate
- Adjustable charge and discharge control parameters with password protection
- Multiple isolated power supply for each module ensures high reliability, high anti - interference and electromagnetic compatibility
- High-performance 12-bit analog-digital converter, with high sampling resolution and accuracy
- RS232, RS485 communication port

### PRODUCT FAMILY

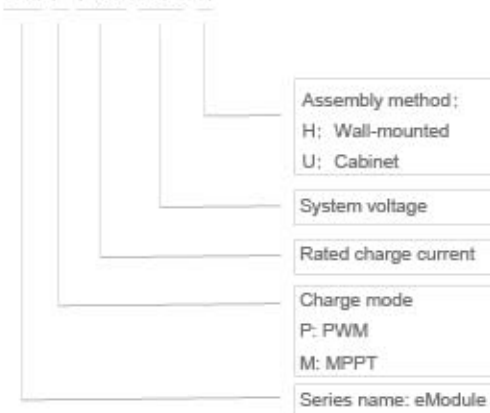


EMP120048H  
EMP180048H  
EMP240048H  
Wall mounted, PWM charge mode

### ELECTRONIC PROTECTIONS

- PV reverse polarity protection
- Reverse current protection at night
- Load short circuit protection
- Load overload protection

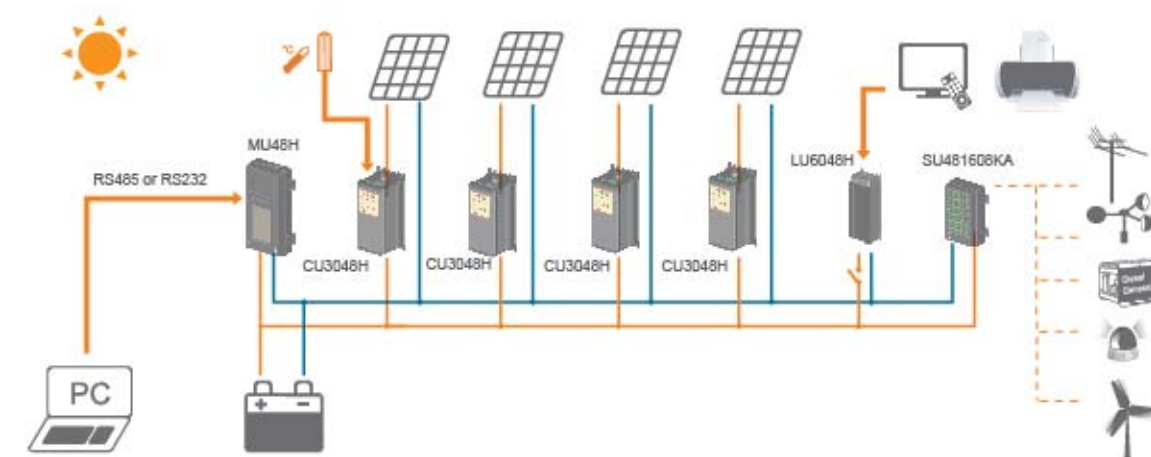
E M P 1 2 0 0 4 8 H



### TECHNICAL SPECIFICATIONS

Model	EMP120048H	EMP180048H	EMP240048H
Nominal system voltage	48V		
Rated charge current	120A (CU3048H*4)	180A (CU3048H*6)	240A (CU3048H*8)
PV arrays	4 groups	6 groups	8 groups
Rated load current	60A		
Self consumption	320mA/15W		
Overall dimension	906×770×200mm		
Mounting dimension	750×730mm		
Enclosure	IP65		
PV terminals	16 mm <sup>2</sup>		
Battery terminals	90 mm <sup>2</sup>		
Load terminals	35 mm <sup>2</sup>		
Communication interface	RS232, RS485		
Working temperature	-20℃ ~ + 55℃		
Altitude	< 3000 m		

※ Technical data at 25℃





# eModule series

## Modular solar power station controller

### CHARGE MODULE

- Control charging of the batteries
- Reverse polarity protection
- Over charging protection
- Can be used in both common positive and common negative solar system
- Connected by CAN bus communication interface

Model	CU3048H
Nominal system voltage	48V
Charge voltage range	battery voltage ~ 88V
Rated charge current	30A
Communication interface	CAN



CU3048H  
48V, 30A  
PWM charge module  
Wall mounted

### MANAGEMENT MODULE

- Real-time data status display
- Control parameter inquiry and set
- Communication function by PC or GPRS
- Data logging function

Model	MU48H
Nominal system voltage	48V
Self-consumption	≤13mA
Communication interface	RS232, RS485, CAN
Screen resolution	240x128



MU48H  
Wall mounted

# eModule series

## Modular solar power station controller

### LOAD MODULE

- Control discharging of the batteries
- Multiple load control mode

Model	LU6048HA
Nominal system voltage	48V
Rated load current	60A
Self-consumption	≤15mA
Communication interface	CAN



LU6048HA  
48V, 60A  
Wall mounted

### I/O MODULE

- Detect the ON/OFF signal and analog signal
- Control output signal

Model	SU481608KA
Nominal system voltage	48V
Self-consumption	≤8mA
Internal communication interface	CAN
External communication interface	RS232, RS485



SU481608KA  
Signal input:  
8 roots ON/OFF signal  
+8 roots analog signal  
Signal output: 8 roots relay

# 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  
200VA/300VA/500VA/700VA/1000VA

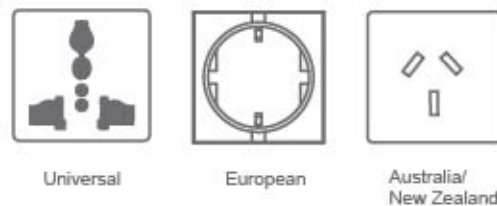
### ELECTRONIC PROTECTIONS

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

### Application



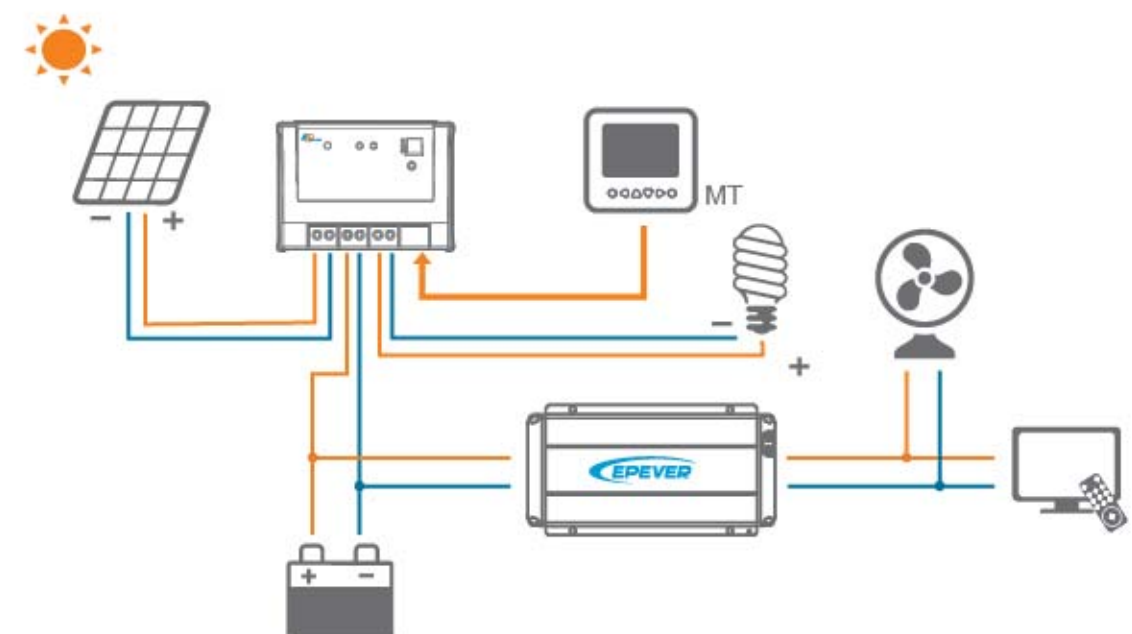
### Output socket (option)



### 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	≤8W	≤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	200VA		300VA		500VA		700VA	1000VA	
Power 10sec	300VA		450VA		750VA		1050VA	1500VA	
Power 1.5sec	400VA		600VA		1000VA		1400VA	2000VA	
Surge power	640VA		960VA		1600VA		2240VA	3200VA	
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	315×166×101mm		315×166×101mm		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.



# 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



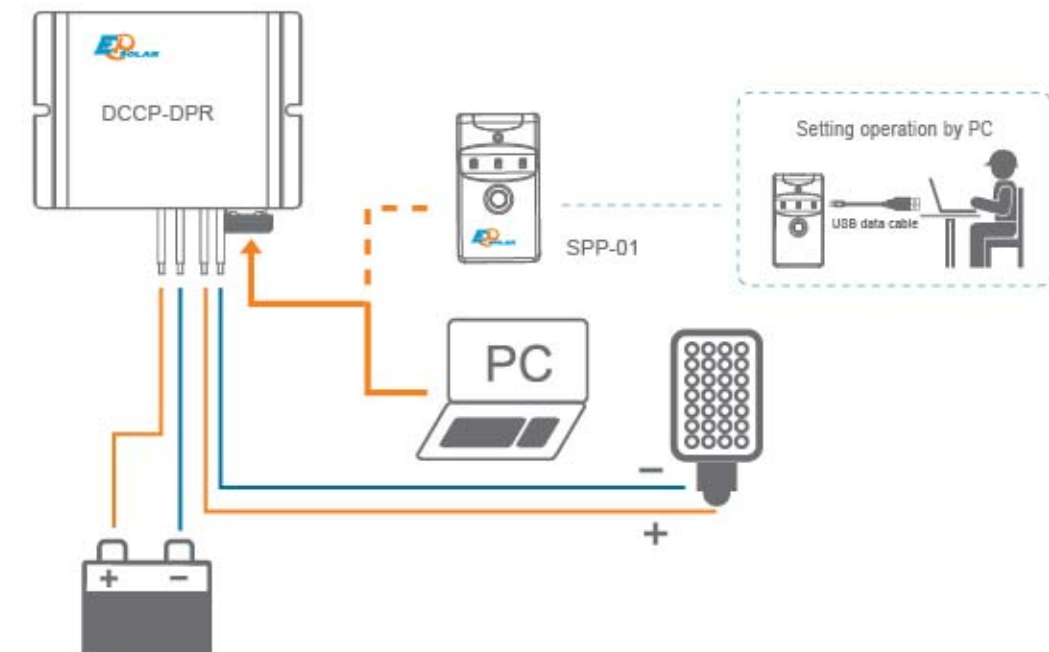
## PRODUCT FAMILY



## 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 ~ 60V	
Load open circuit voltage	60V	
Power output adjustment time	<10s	
Self-consumption	≤8.5mA(12V), ≤11.0mA(24V)	
Control accuracy	±2%	
Overall dimension	106×60×21 mm	108.5×82×25.6 mm
Net weight	0.23Kg	0.39Kg
Enclosure	IP67	
Working temp.	-35℃~+55℃	

※ Technical data at 25℃





# Product Application

