

### **EPSOLAR TECHNOLOGY**





### 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: 2008,2015, 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.

### **DIVERSIFIED PRODUCTS**

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

### **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 COMPONENTS**

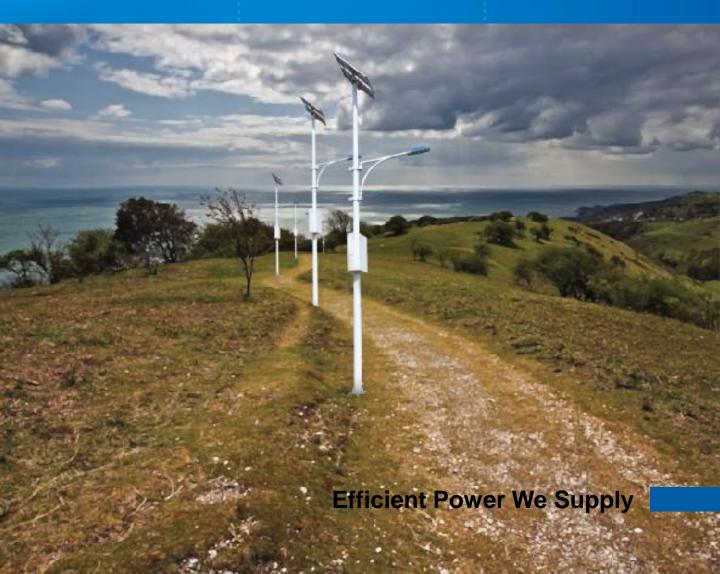
All our products use industrial grade electronic components from global well-known companies.

### **QUALITY CONTROL**

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

#### **HIGH COST PERFORMANCE**

We design and provide high quality products at reasonable price.





ISO9001:2008 ISO14001:2004 CE RoHS FC (T). IEC62509 IEC62109

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# TRIRON series MPPT solar charge controller

10A,20A,30A,40A 12/24V auto work

TRIRON series modular design base on MPPT solar charge controller. The modularized controller is composed of MPPT solar controller and different display modules (LED, LCD) or interface modules (Relay, USB and RS485). The controller can recognize and upload the modules driver automatically. Customers can choose the corresponding module according to actual application. Only replace the module and power on the controller, it will be working. It can be widely used in communication station, household system and field monitoring and other fields.

### **Application**











#### Features:

- Self-identifying, load the driver for each module
- Modular design, varied combination to meet different requiremer
- Support the hot swapping function(only for same model)
- Advanced MPPT control algorithm to minimize the
- MPP loss rate and loss time
- Ultra-fast tracking speed, and high tracking efficiency ≥99.5%
- Accurately tracking and recognizing of multiple MPP
- Peak conversion efficiency of 98%
- Auto limit function of charging power and charging current.
- Compatible with lead-acid batteries and lithium batteries
- Wide MPP operating voltage range

Model	TRIRON1206N	TRIRON2206N	TRIRON2210N	TRIRON3210N	TRIRON4210N	
Nominal system voltage	12/24V auto work					
Rated change current	10A	20A	20A	30A	40A	
Rated dischange current	10A	20A	20A	30A	40A	
MPP voltage range	(Vbat+2)	√)~36V		(Vbat+2V)~72V		
Max. PV open circuit voltage	60V( at min opera tem 46V( at 25°C en	1 /		imum operating env at 25℃ environmer		
Mary DV/ innert name	12V 130W	12V 2	60W	12V 390W	12V 520W	
Max. PV input power	24V 260W	24V 5	20W	24V 780W	24V 1040W	
Self-consumption		≤20r	mA(12V), ≤16mA(2	4V)		
Temp. compensation			-3mV/°C/2V			
Grounding			Common positive			
Overall dimension	180.8x135x47.3 mm	216x150x5	66.7mm	238.3x158x62.7 mm	256.8x183x66.7 mm	
Net weight	0.6kg	0.9kg		1.2kg	1.6kg	
Enclosure	IP30					
Working temperature	-25°C ~+55°C(LCD) -30°C ~+55°C (No LCD)					
Relative humidity		≤95% (N.C.)				





# Tracer A series MPPT Solar charge controller

10A,20A,30A,40A 12/24V auto work

Tracer A series adopts advanced MPPT technology. It can fast and accurately MPP of photovoltaic array in any situation and obtain the maximum solar energy at any time, which remarkably improves energy efficiency. With Modbus communication protocol interface, it is convenient for user to expand applications and meet monitoring requirements in various fields like telecommunication base station, household system, lighting system etc.

### **Application**











#### Features:

- Advanced MPPT technology
- High tracking efficiency no less than 99.5%
- Peak conversion efficiency of 98%
- · Ultra-fast tracking speed
- Accurately recognizing and tracking MPP of multiple wave crest
- Automatic PV power limit function
- Multi-function LCD displays system information intuitively
- User programmable for battery types, load control etc.
- 3-Stage charge with PWM output
- Common positive grounding design
- RS485 port with industrial standard MODBUS open architecture
- Fully programmable function via remote meter, PC software and Mobile APP.

### C€ RoHS IEC62109

Model	Tracer1210A	Tracer2210A	Tracer3210A	Tracer4210A	
Nominal system voltage		12/24V auto	o work		
Rated battery current	10A	20A	30A	40A	
Rated load current	10A	20A	30A	40A	
MPP voltage range		(Vbat+2V)	~72V		
Max. PV open circuit voltage	100\	at minimum operating e 92V at 25°C environm			
Man DV in the second	12V 130W	12V 260W	12V 390W	12V 520W	
Max. PV input power	24V 260W	24V 520W	24V 780W	24V 1040W	
Self-consumption		≤20mA(12V), ≤1	16mA(24V)		
Temp. compensation		-3mV/℃	/2V		
Grounding		Common p	ositive		
Overall dimension	172x139x44mm	220x154x52mm	228x164x55mm	252x180x63mm	
Net weight	0.6kg	1.1kg	1.2kg	1.9kg	
Enclosure	IP30				
Working temperature	-25℃ ~ +45℃				
Relative humidity	≤95% (N.C.)				





### Tracer AN series MPPT Solar charge controller

10A,20A,30A,40A 12/24V auto work

The Tracer AN series. Based on common negative design and advanced MPPT control algorithm, with LCD displaying running status, this product is artistic, economical and practical. This modular solar controller can be widely used for different applications, e.g., Communication base stations, household systems, and field monitoring, etc.

#### **Application**











#### Features:

- Advanced MPPT technology, with efficiency no less than 99.5%
- Ultra-fast tracking speed and guaranteed tracking efficiency
- · Advanced MPPT control algorithm to minimize the maximum power point loss rate and loss time
- Wide MPP operating voltage range
- High quality components, perfecting system performance, with maximum conversion efficiency of 98%
- · Accurate recognition and tracking of multiple-peaks maximum power point
- Battery temperature compensation function
- · Real-time energy statistics function
- Overheating power reduction function
- Multiple load work modes

### C€ RoHS IEC62109

Model	Tracer1206A N	Tracer2206A N	Tracer1210A N	Tracer2210 AN	Tracer3210 AN	Tracer4210A N
Nominal system voltage			12/24V a	auto work		
Rated charge current	10A	20A	10A	20A	30A	40A
Rated discharge current	10A	20A	10A	20A	30A	40A
MPP voltage range	(Vbat+2	V)∼36V		(Vbat+2	V)∼72V	
Max. PV open circuit voltage	environment ter	nimum operating nt temp.  C environment temp.  100V at minimum operating environment temp.  92V at 25℃ environment temp.			t temp.	
Man DV in and a sure	12V 130W	12V 260W	12V 130W	12V 260W	12V 390W	12V 520W
Max. PV input power	24V 260W	24V 520W	24V 260W	24V 520W	24V 780W	24V 1040W
Self-consumption			≤12	2mA		
Temp. compensation			-3mV/℃/2	V (Default)		
Grounding			Common	negative		
Overall dimension	172x139x44 mm	220x154x52 mm	172x139x44 mm	220x154x52 mm	228x164x55 mm	252x180x63 mm
Net weight	0.57kg	0.94kg	0.57kg	0.94kg	1.26kg	1.65kg
Enclosure	IP30					
Working temperature	-25℃~+50℃(100% input and output)					
Relative humidity		≤95% (N.C.)				





## Tracer BN series MPPT solar charge controller

10A,20A,30A,40A 12/24V auto work

Tracer-BN Series is a flagship member among all tracer MPPT controllers. We design with very long lifespan industrial materials and die-cast aluminum housing cooling system, to improve the controller's performance and life.

### **Application**











#### Features:

- Peak conversion efficiency of 98%
- High tracking efficiency ≥ 99.5%
- · Die-cast aluminum design and nature cooling
- Diversified load control to meet different requirements
- Battery type selection: Sealed, Gel, Flooded and User(programmable)
- RS485 port with industrial standard MODBUS open architecture
- Real-time data monitoring and parameters setting with MT50, APP or PC software
- Field upgradable firmware



IEC62109

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. PV open circuit voltage		150V at minimum operat 138V at 25℃ env				
MPP voltage range		(Vbat+2V)	~108V			
Battery input voltage range		8~3	32V			
May DV input navor	130W (12V)	260W (12V)	390W (12V)	520W (12V)		
Max. PV input power	260W (24V)	520W (24V)	780W (24V)	1040W (24V)		
Self-consumption		≤50mA(12V) :	≤27mA(24V)			
Grounding		Common	negative			
Temp. compensation		-3mV/°	C/2V			
Communication port		RS485 / RJ4	5 interface			
Overall dimension	196x118x36mm	217x143x56mm	281x160x60mm	303x183x64mm		
Net weight	0.9kg	1.5kg	2.3kg	2.9kg		
Enclosure	IP30					
Working temperature	-25℃ ~ +55℃					
Relative humidity	≤95% (N.C.)					





## Tracer CN series MPPT Solar charge controller

#### 20A,30A 12/24V auto work

Tracer CN series adopts common negative design and advanced MPPT control algorithm, and introduces original dry contact design to achieve the switch of external equipment. The integration design not only replaces traditional electrical design using external relay, what is more can achieve multiple control modes and working modes, it can be widely used in household system, field monitoring and communication station etc.

### **Application**











### Features:

- Dry contact design, achieve the switch of external equipment
- Multiple dry contact control mode, local, remote and cross- network
- Multiple dry contact working modes: manual control, light ON/OFF, light on+timer and time control
- High tracking efficiency no less than 99.5%
- Peak conversion efficiency of 98%
- · Accurately recognizing and tracking of multiple power point
- Automatic PV power limit function
- Real-time energy statistics function
- RS485 port with industrial standard MODBUS open architecture
- Fully programmable function via PC software or remote meter
- Support software upgrade

Model	Tracer2210CN	Tracer3210CN			
Nominal system voltage	12/24VDC auto work				
Rated charge current	20A 30A				
Battery input voltage range	9V	~32V			
Max. PV open circuit voltage	100V(at minimum operating environme	nt temp.);92V(at 25°C environment temp.)			
MPP voltage range	(Vbat+	2V)~72V			
Max. PV input power	260W(12V); 520W(24V) 390W(12V); 780W(24V)				
Self-consumption	≤20mA(12V); ≤23mA(24V)				
Grounding	Commo	on negative			
Temperature compensation coefficient	-3m\	// ° C/2V			
Overall dimension	173x150x79.9mm	173x163x86mm			
Net weight	1.21kg 1.46kg				
Enclosure	IP20				
Working environment temperature	-35 ° C ∼+55 ° C				
Relative humidity	≤95% (N.C.)				





## eTracer BND series MPPT solar charge controller

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

eTracer is an intelligent, efficient, high-speed solar charge controller with advanced Maximum Power Point Tracking (MPPT) algorithm, which can harvest the maximum power from the solar array to charge battery. It can be applied in the off-grid PV systems up to 3KW, and increase the efficiency up to 30%.

### **Application**











High tracking efficiency ≥ 99.5%

- Peak conversion efficiency of 98% and full load efficiency of 97%
- Accurately tracking and recognizing MPP among multiple wave crest
- Battery type selection: Sealed, Gel, Flooded and User(programmable)
- · Energy statistics recording
- Built-in running data and event logging
- RS485 port with industrial standard MODBUS open architecture
- Real-time data monitoring and parameters setting with MT50, APP or PC software

• Field upgradable firmware

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Model	ET4415BND	ET6415BND	ET6420BND			
Nominal system voltage	12/24/36/48V auto work					
Rated Battery current	45A		60A			
Max. PV open circuit voltage		ating environment temp. vironment temp.	190V at minimum operating environment temp. 180V at 25 <sup>°</sup> C environment temp.			
Battery input voltage range		8V∼68V				
MPP voltage range		(Vbat+2V)∼108V				
	600W (12V)	800	)W (12V)			
Max. PV input power	1200W (24V)	1600W (24V)				
	1800W (36V)	2400W (36V)				
	2400W (48V)	3200W (48V)				
Self-consumption		1.4~2.2W				
Grounding		Common negative				
Temp. compensation		-3mV/°C/2V				
Overall dimension	398.6x208x107mm	449x2	208x107mm			
Net weight	4.3kg 5.5kg					
Enclosure	IP20					
Working temperature	-25℃ ~ +55℃					
Relative humidity	≤95% (N.C.)					





## eTracer AD series MPPT solar charge controller

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

eTracer is an intelligent, efficient, high-speed solar charge controller with advanced Maximum Power Point Tracking (MPPT) algorithm, which can harvest the maximum power from the solar array to charge battery. It can be applied in the off-grid PV systems up to 3KW, and increase the efficiency up to 30%.

### **Application**













- High tracking efficiency ≥ 99.5%
- Peak conversion efficiency of 98% and full load efficiency of 97%
- Accurately tracking and recognizing MPP among multiple wave crest
- Battery type selection: Sealed, Gel, Flooded and User(programmable)
- · Energy statistics recording
- Built-in running data and event logging
- RS485 port with industrial standard MODBUS open architecture
- Real-time data monitoring and parameters setting with MT50, APP or PC software
- Field upgradable firmware

	FTUELD	FTOUEND			
Model	ET4415AD	ET6415AD			
Nominal system voltage	12/24/36/48V auto work				
Rated Battery current	45A	60A			
Max. PV open circuit voltage	150V at minimum operati 138V at 25℃ envi				
MPP voltage range	(Vbat+2V)	~108V			
Battery input voltage range	8V~6	8V			
	600W (12V)	800W (12V)			
Max. PV input power	1200W (24V)	1600W (24V)			
	1800W (36V)	2400W (36V)			
	2400W (48V)	3200W (48V)			
Self-consumption	1.4~2	.2W			
Grounding	Common p	positive			
Temp. compensation	-3mV/°C	C/2V			
Overall dimension	398.6x208x107mm	449x208x107mm			
Net weight	4.3kg	5.5kg			
Enclosure	IP20				
Working temperature	-25℃ ~ +55℃				
Relative humidity	≤95% (N.C.)				





### iTracer ND series MPPT controller with load control

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

iTracer is an intelligent, efficient, high-speed solar charge controller with advanced Maximum Power Point Tracking (MPPT) algorithm, which can harvest the maximum power from the solar array to charge battery. It can be applied in the off-grid PV systems up to 3KW, and increase the efficiency up to 30%.

### **Application**











#### Features:

- High tracking efficiency ≥ 99.5%
- Peak conversion efficiency of 98% and full load efficiency of 97%
- · Accurately tracking and recognizing MPP among multiple wave crest
- Battery type selection: Sealed, Gel, Flooded and User(programmable)
- Multiple load control modes
- Built-in running data and event logging
- RS485 port with industrial standard MODBUS open architecture
- Real-time data monitoring and parameters setting with MT50, APP or PC software



Field upgradable firmware		L <sub>large</sub> ILOUZ		
Model	IT4415ND	IT6415ND		
Nominal system voltage	12/24 /36/48V auto work			
Rated battery current	45A	60A		
Rated load current	45A	60A		
Max. PV open circuit voltage	150V at minimum operatin 138V at 25℃ envir			
Battery input voltage range	8~68	3V		
MPP voltage range	(Vbat+2V)^	~108V		
M 20/	600W (12V)	800W (12V)		
	1200W (24V)	1600W (24V)		
Max. PV input power	1800W (36V)	2400W (36V)		
	2400W (48V)	3200W (48V)		
Self-consumption	1.4~2.2	2W		
Grounding	Common ne	egative		
Temp. compensation	-3mV/℃	/2V		
Overall dimension	382x231x107mm	440x231x110mm		
Net weight	4.6kg	5.9kg		
Enclosure	IP20			
Working temperature	-25°C ~ +45°C			
Relative humidity	≤95% (N.C.)			





### iTracer AD series MPPT controller with load control

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

iTracer is an intelligent, efficient, high-speed solar charge controller with advanced Maximum Power Point Tracking (MPPT) algorithm, which can harvest the maximum power from the solar array to charge battery. It can be applied in the off-grid PV systems up to 3KW, and increase the efficiency up to 30%.

### **Application**











- High tracking efficiency ≥ 99.5%
- Peak conversion efficiency of 98% and full load efficiency of 97%
- · Accurately tracking and recognizing MPP among multiple wave crest
- Battery type selection: Sealed, Gel, Flooded and User(programmable)
- Multiple load control modes
- Built-in running data and event logging
- RS485 port with industrial standard MODBUS open architecture
- Real-time data monitoring and parameters setting with MT50, APP or PC software
- Field upgradable firmware



Model	IT4415AD	IT6415AD			
Nominal system voltage	12/24 /36/48V auto work				
Rated battery current	45A	60A			
Rated load current	45A	60A			
Max. PV open circuit voltage	150V at minimum operatin 138V at 25°C envir				
MPP voltage range	(Vbat+2V)~	~108V			
Battery input voltage range	8~68	3V			
Max. PV input power	600W (12V)	800W (12V)			
	1200W (24V)	1600W (24V)			
	1800W (36V)	2400W (36V)			
	2400W (48V)	3200W (48V)			
Self-consumption	1.4~2.2	W			
Grounding	Common po	ositive			
Temp. compensation	-3mV/°C	/2V			
Overall dimension	382x231x107mm	440x231x110mm			
Net weight	4.6kg	5.9kg			
Enclosure	IP20				
Working temperature	-25℃ ~ +45℃				
Relative humidity	≤95% (N.C.)				





### main part

XTRA- - N SERIES MPPT Solar Charge Controller

10A,20A,30A,40A 12/24V auto work

The XTRA-N series integrate the latest design philosophy, as the main part which is the solar charge controller can carry different display units(XDB1/XDS1/XDS2). The limitation function of the charging power and current and reducing charging power function automatic improve the stability which works even connecting oversize PV modules and in high temperature. Meanwhile, it adopts the water-proof design with the IP32 class, and increase the professional protection chip for the communication port, further improving the reliability and meeting the different application requirements.

#### Features:

- Optional LCD display units (XDB1/XDS1/XDS2)
- Full-load operation in the range of workingenvironment temperature
- Dustproof and waterproof design with IP32
- Advanced MPPT technology, with efficiency no less than 99.5%
- Ultra-fast tracking speed and guaranteed tracking efficiency
- Peak conversion efficiency of 98%
- Wide MPP operating voltage range
- Compatible with lead-acid and lithium-ion batteries
- Battery temperature compensation function

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<ul> <li>Overheating power reduce</li> </ul>	tion function				IEC0210	19 IEC62
Item	XTRA 1206N	XTRA 2206N	XTRA 1210N	XTRA 2210N	XTRA 3210N	XTRA 4210N
Nominal system voltage			12/24VDC	<sup>®</sup> Auto		
Rated charge current	10A	20A	10A	20A	30A	40A
Rated discharge current	10A	20A	10A	20A	30A	40A
Max. PV open circuit voltage	60V at minimum of environment temp 46V at 25℃ envir	).		minimum opera 92V at 25°C en		
MPP voltage range	(Battery voltage	e +2V)∼36V		(Battery voltage	ge +2V)∼72V	
Max. PV input power	130W/12V 260W/24V	260W/12V 520W/24V	130W/12V 260W/24V	260W/12V 520W/24V	390W/12V 780W/24V	520W/12V 1040W/24V
Battery voltage range			8~32	2V		
Self-consumption			≤12m	nΑ		
Grounding			Common r	negative		
Temp. compensation			-3mV/℃/2V	(Default)		
Dimension	175×143×48 mm	217×158×5 6.5mm	230×165×6 3mm	255×185×6 7.8mm	230×165× 63mm	255×185× 67.8mm
Weight	0.57kg	0.96kg	1.31kg	1.67kg	1.31kg	1.67kg
Enclosure	IP32					
Working environment temperature (100% input and output)	-25℃~+50℃(LCD) -30℃~+50℃(No LCD)					
Relative humidity	≤95%, N.C.					





# VS-A series PWM solar charge controller

10A,20A,30A 12/24V auto work

VS-A series is common positive controller with LCD display, adopting the most advanced digital technique, high cost performance.

### **Application**











### Features:

- PWM charging
- Battery type selection: Sealed, Gel, Flooded
- Multi-function LCD displays system information intuitively
- Multiple load control modes
- Energy statistics function
- Optional RTS for accurate temperature compensation
- Extensive electronic protection

	CC North				
Model	VS1024A	VS2024A	VS3024A		
Nominal system voltage	12/24V auto work				
Rated battery current	10A	10A 20A 30A			
Rated load current	10A	20A	30A		
Battery input voltage range		9~32V			
Max. PV open circuit voltage		50V			
Self-consumption		≤8.1mA(12V);≤6.5mA(24V	<b>(</b> )		
Grounding		Common positive			
Temp. compensation		-3mV/℃/2V			
Overall dimension	132x84.6 x39.7mm	149x94.1x46.1mm	177.5x106.6x46.2mm		
Terminals	4mm <sup>2</sup>	16mm <sup>2</sup>	16mm²		
Net weight	0.18kg 0.26kg 0.33kg				
Enclosure	IP30				
Working environment temperature	-25℃~+45℃				
Relative humidity		≤95% (N.C.)			





# VS-AU series PWM solar charge controller

10A,20A,30A,45A,60A 12/24/36/48V auto work

The VS-AU controller is a PWM charge controller with built in LCD display that adopts the most advanced digital technique. The multiple load control modes enable it can be widely used on solar home system, traffic signal, solar street light, solar garden lamp, etc.

### **Application**











### Features:

- 3-Stage intelligent PWM charging: Bulk, Boost/Equalize, Float
- Support 3 charging options: Sealed, Gel, and Flooded
- CD display design, dynamically displaying device's operating data and working condition
- Double USB design, the power supply charge for electronic equipment
- With humanized button settings, operation will be more comfortable and convenient
- Multiple load control modes
- Energy statistics function
- Extensive Electronic protection

	V04004411	.U VS2024AU	VS3024AU	VS4524AU	VS6024AU
Model	VS1024AU VS2024AU –	VS3048AU	VS4548AU	VS6048AU	
Nominal system voltage	VS**24AU 12/24V auto work				
Battery input voltage range		VS**24A	J 9∼32V VS**∠	18AU 9V∼64V	
Rated charge/discharge current*	10A	20A	30A	45A	60A
Max. PV open circuit voltage		VS	**24AU 50V VS**4	BAU 96V	
Grounding		Common positive			
USB output		5VDC/2.4A(Total)			
Overall dimension	142x85x41.5 mm	160x94.9x49. 3 mm	181x100.9x59.8 mm	194x118.4x63.8 mm	214x128.7x72.2 mm
Terminals	12AWG(4m m <sup>2)</sup>	8AWG(10mm <sup>2)</sup>	6AWG(16mm <sup>2)</sup>	6AWG(16mm <sup>2)</sup>	3AWG(25mm <sup>2)</sup>
NI=1 Sub-1	0.001	0.051	0.55kg	0.76kg	1.02kg
Net weight	U.ZZKG	0.22kg 0.35kg	0.58kg	0.88kg	1.04kg
Enclosure	IP30				
Working environment temperature	-25°C∼+55°C(Product can work continuously at full load)				
Relative humidity	≤95% (N.C.)				





# VS-BN series PWM solar charge controller

10A,20A,30A,45A,60A 12/24V auto work 20A,30A,45A,60A 12/24/36/48V auto work

This VS-BN series is common negative controller, with LCD display, working data programmable, It has communication function via RS485 port to PC monitoring software, realizing real-time monitoring and battery management parameter setting.

### **Application**











#### Features:

- Battery type selection: Sealed, Gel, Flooded, and User (programmable)
- . Intelligent lighting and timer control for solar lighting system
- Full control parameters setting and modification, diversified load control mode
- Humanized design of browser interface
- Adopt graphics dot-matrix LCD screen and 4 buttons for integrated menu displaying and operation
- Real-time energy statistics
- RS485 port with industrial standard MODBUS open architecture
- Real-time data monitoring and parameters setting with MT50, APP or PC software
- Support firmware upgrade

Model	VS1024BN	VS2024BN VS2048BN	VS3024BN VS3048BN	VS4524BN VS4548BN	VS6024BN VS6048BN
Rated battery current	10A	20A	30A	45A	60A
Rated load current	10A	20A	30A	45A	60A
Nominal system voltage	VS*	*24BN 12/24V auto	work, VS**48BN	12/24/36/48V auto	work
Max. battery voltage		12/24V	34V,12/24/36/4	8V 64V	
Self-consumption		≤15mA(12V); ≤′	0mA(24V); ≤9mA(	36V); ≤8mA(48V)	
Grounding		Common negative			
Temp. compensation			-3mV/℃/2V		
Overall dimension (mm)	162x85x40	162x100x50	200x103x58	201x109x59	205x129x67
Overall dimension (mm)	162x65x40	200x103x58	201x109x59	205x119x67	205x174x64
	0.41cm	0.4kg	0.7kg	0.9kg	1.3kg
Net weight	0.4kg	0.7kg	0.9kg	1.2kg	1.5kg
Enclosure	IP30				
Working temperature		-35℃ ~ +55℃			
Relative humidity		≤95% (N.C.)			





# LandStar E series PWM solar charge controller

5A,10A,20A 12V/24V

LS-E series is reliable, stable, and economical solar charge controller, easy for operation.

### **Application**





#### Features:

- PWM charging
- Use MOSFET as electronic switch
- Intuitive LED indicators showing battery voltage status
- Battery type selection: Gel, Sealed, and Flooded
- Manual control the output of the load
- Temperature compensation
- Industrial grade design

Model	LS0512E	LS1012E	LS1024E	LS2024E	
Rated battery current	5A	10A	10A	20A	
Rated load current	5A	10A	10A	20A	
Nominal system voltage	12V	12V	12/24V auto work	12/24V auto work	
Battery input voltage range	8~16V	8~16V	8~32V	8~32V	
Self-consumption		≤6mA			
Grounding	Common positive				
Temp. compensation		-5mV/℃/2V			
Overall dimension	92.8x65x20.2mm	92.8x65x20.2mm 101.2x67x21.8mm 101.2x67x21.8mm 128x85.6x34			
Net weight	74g	82.5g	82g	151.6g	
Enclosure	IP30				
Working temperature	-35℃ ~ +55℃				
Relative humidity	≤95% (N.C.)				





# LandStar EU series PWM solar charge controller

5A,10A,20A,30A 12V/24V

LS-EU series is reliable, stable, and economical solar charge controller, easy for operation.

USB output can charge mobile phone, DC fans, and other DC electronic device.

### **Application**





#### Features:

- With USB port
- PWM charging
- Use MOSFET as electronic switch
- Intuitive LED indicators showing battery voltage status
- Battery type selection: Gel, Sealed, and Flooded
- Manual control the output of the load
- Temperature compensation

CE RoHS

					C Kollo
Model	LS0512EU	LS1012EU	LS1024EU	LS2024EU	LS3024EU
Rated battery current	5A	10A	10A	20A	30A
Rated load current	5A	10A	10A	20A	30A
Nominal system voltage	12V	12V	12/24V auto work	12/24V auto work	12/24V auto work
Battery input voltage range	8~16V	8~16V	8~32V	8~32V	8~32V
Self-consumption		12V≤5mA; 24V≤7mA			
Grounding	Common positive				
Temp. compensation	-5mV/℃/2V				
USB output		5VDC/	1.2A		5VDC/2A
Overall dimension (mm)	109.7x65.5x20.8	120.3x67x21.8	120.3x67x21.8	148x85.6x34.8	148x106.8x43.7
Net weight	95g	103g	102g	179.6g	290g
Enclosure	IP20				
Working temperature	-35°C ~ +55°C				
Relative humidity	≤95% (N.C.)				





# LandStar B series PWM solar charge controller

10A,20A,30A 12/24V auto work

Landstar B series controller with high reliability, accuracy of sampling and full electronic protection. Programmable via remote meter MT50 ,PC software and APP.

### **Application**











#### Features:

- PWM charging
- Three LEDs shows PV charging, battery and load status
- Optional RTS for accurate temperature compensation
- RS485 port with industrial standard MODBUS open architecture
- Multiple load working modes: Manual Control, Light ON/OFF, Light On+Timer and Time Control
- Battery type selection: Sealed, Gel, Flooded and User(programmable)
- Battery temperature compensation
- Real-time energy statistics
- RS485 port with industrial standard MODBUS open architecture
- Real-time data monitoring and parameters setting with MT50, APP or PC software
- Support firmware upgrade

### C€ RoHS IEC62109

Model	LS1024B	LS2024B	LS3024B	
Rated battery current	10A	20A	30A	
Rated load current	10A	20A	30A	
Nominal system voltage		12/24V auto work		
Battery input voltage range		8~32V		
Self-consumption	≤8.4 mA/12V; ≤7.8mA/24V			
Grounding	Common positive			
Temp. compensation	-3mV/°C/2V			
Overall dimension	138.6x69.3x37mm 159.6x81.4x47.8mm 200.6x 101.3x57mm			
Net weight	0.13kg 0.3kg 0.5kg			
Enclosure	IP30			
Working temperature	-35℃ ~ +50℃			
Relative humidity	≤95% (N.C.)			





### LS-BP series PWM solar charge controller

10A,20A 12/24V auto work

New LandStar series is Epsolar's new generation programmable solar charge controller. Fully encapsulated PCB, IP67 design, aluminum case ensures the controller can work in extremely terrible, and increase system operation, reliability and efficiency.

### **Application**











#### Features:

- High efficient Series PWM charging, increase the battery lifetime and improve the solar system performance.
- Use MOSFET as electronic switch, without any mechanical switch.
- Multiple load control modes, increase the flexibility of the load output
- Gel, Sealed, Flooded and user-defined battery type option.
- New SOC method of calculating accurately displays the available battery capacity.
- The control function and the switch condition of the load can be modified by communication connection.
- Use of standard Modbus communication protocol for TTL-232 bus connections
- Support firmware upgrade
- Fully encapsulated PCB, IP67 protection
- Aluminumhousing

Model	LS1024BP LS2024BP		
Rated battery current	10A	20A	
Rated load current	10A	20A	
Nominal system voltage	12/24V	auto work	
Max. battery voltage	;	32V	
Self-consumption	≤8.4 mA/12V; ≤7.8mA/24V		
Grounding	Common positive		
Temp. compensation	-3mV/°C/2V		
Overall dimension	108.5x64.5x25.6mm	139x 76.5x28mm	
Net weight	0.4kg	0.6kg	
Enclosure	IP67		
Working temperature	-35℃ ~ +55℃		





# LS-BPD series PWM Solar Charge Controller

10A,20A 12/24V auto work

LS-BPD series is a waterproof charge controller with automatic lighting control function, ideal for extreme environments with corrosion, dust, moisture etc.

- PWM charging
- Battery type selection : Gel, Sealed and Flooded
- LVD programmable (10.6V 12V for 12V system)
- Temperature compensation function
- Automatic lighting control
- LED indicators for PV and battery status
- Diversified load control modes option
- Intelligent dual timer function with 1 ~ 14 hours option
- Fully encapsulated PCB, IP67 protection
- Aluminum housing for better cooling
- Application: solar lighting system, solar monitoring system, solar home system

Model	LS1024BPD	LS2024BPD	
Nominal system voltage	12/24V DC auto work	12/24V DC auto work	
Rated charge current	10A	20A	
Rated discharge current	10A	20A	
Max. PV open circuit voltage	50V		
Battery type	Sealed (Default) /	Gel / Flooded	
Self-consumption	9.4mA/12V;12.2mA/24V		
Temp. compensation coefficient	-3mV/℃/2V		
Grounding	Common positive		
Overall dimension	108.5x64x25.6mm 108.5x83x25.6		
Power cable	14AWG(2.5mm²) 12AWG(4m		
Net weight	0.33kg 0.41kg		
Enclosure	IP67		
Working environment temperature	-35℃~+55℃		





# LandStar series PWM solar charge controller

5A,10A,20A 12V/24V Light and timer control

LandStar series solar charge controller that adopts the most advanced digital technique and operates fully automatically. Light and timer control (Single timer and dual timer optional)Ideal for public lighting area, such as street light, path way, garden lights, parking area, bus station etc.

### **Application**







### Features:

- High efficient Series PWM charging
- Use MOSFET as electronic switch
- Widely used, automatically recognize day/night
- Digital LED menu with simple setting and easy using
- Intelligent timer function with 1-15 hours option
- Gel, Sealed and Flooded battery type option
- Temperature compensation

Model	LS0512R LS1024R LS2024F		LS2024R	
Rated battery current	5A	10A 20A		
Rated load current	5A	10A	20A	
Nominal system voltage	12V	12/24V a	auto work	
Max. battery voltage	16V	32	2V	
Self-consumption	≤6mA			
Grounding	Common positive			
Temp. compensation		-5mV/℃/2V		
Overall dimension	97x66x25mm	140x65x34mm	144x 75x45mm	
Net weight	0.05kg	0.05kg 0.15kg 0.25kg		
Enclosure	IP30			
Working temperature	-35°C ~ +55°C			
Relative humidity	≤95% (N.C.)			





# LS-EPD series PWM solar charge controller

10A,20A 12/24V auto work Light and timer control, Waterproof, IP67

LS-EPD series solar charge controller is an affordable waterproof charge controller with automatic lighting control function, ideal for extreme environments with corrosion, dust, moisture etc.

### **Application**







#### Features:

- PWM charging
- For sealed battery charging
- Temperature compensation function
- Automatic lighting control
- LED indicators for PV and battery status
- Digital tube menu, only one key solve all settings simply
- Intelligent timer function with 1∼13 hours option
- Fully encapsulated PCB, IP67 protection

Model	LS1012EPD	LS1024EPD	LS2024EPD
Rated battery current	10A	10A	20A
Rated load current	10A	10A	20A
Nominal system voltage	12V	12/24V a	auto work
Max. PV input voltage	30V	30V 50V 50V	
Self-consumption	12V: ≤4.58mA; 24V: ≤6.01mA		
Grounding	Common positive		
Temp. compensation	-5mV/℃/2V		
Overall dimension	108.5×75×25.6mm		
Net weight	408g 410g 435g		
Enclosure	IP67		
Working temperature	-35℃ ~ +55℃		





## LandStar series PWM solar charge controller

10A,20A 12/24V auto work Surfacing mounting, Manual ON/OFF

All the terminals backwards. Ideal for surfacing mounting solar system, such as solar home system, portable solar system.

### **Application**





#### Features:

- Surfacing mounting
- High efficient Series PWM charging
- Gel, Sealed and Flooded battery type option
- Select battery type by jumper, simple and practical
- LED indicator shows battery level, direct and convenient
- Use MOSFET as electronic switch
- Temperature compensation
- Electronic protection: over charging, over discharging, overload, short circuit, and overheating
- Reverse protection: any combination of solar module and battery



Model	LS1024S LS2024S		
Rated battery current	10A	20A	
Rated load current	10A	20A	
Nominal system voltage	12/24V	auto work	
Max. battery voltage	3	2V	
Self-consumption	≤6mA		
Grounding	Common positive		
Temp. compensation	-5mV/°C/2V		
Overall dimension	120x68x40mm 128x 87x48mm		
Net weight	0.15kg 0.25kg		
Enclosure	IP30		
Working temperature	-35°C ~ +55°C		
Relative humidity	≤95% (N.C.)		





# **EP series**PWM solar charge controller

10A,12/24V auto work

EP series 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.

### **Application**







#### Features:

- Intelligent System Optimum Control
- 12/24V auto work
- High efficient Series PWM charging with temperature compensation
- Use MOSFET as electronic switch, without any mechanical switch
- · Load and battery status indicators
- Electronic protection: over charging, over discharging, overload, and short circuit

Model	EPRC10-EC	
Rated battery current	10A	
Rated load current	10A	
Nominal system voltage	12/24V auto work	
Self-consumption	≤6 mA	
Grounding	Common positive	
Temp. compensation	-5mV/℃/2V	
Overall dimension	140 x89 x27mm	
Net weight	0.23kg	
Enclosure	IP30	
Working temperature	-35℃ ~ +55℃	
Relative humidity	≤95% (N.C.)	





# **EPIPDB-COM series**Dual battery solar controller

10A, 20A 12/24V auto work

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.

### **Application**



#### Features:

- Two battery charging eliminates the extra cost of two separate solar charging system
- Intelligent System Optimum Control
- 12/24V auto work
- Battery type selection
- Charging frequency optional
- High efficient Series PWM charging
- Local external temperature compensation
- Remote temperature sensor optional
- Use MOSFET as electronic switch, without any mechanical switch
- Remote meter MT-1 optional

• Electronic protection: over charging, short circuit, battery reverse polarity protection

Model	EPIPDB-COM	
Rated battery current	10A,.20A	
Rated load current	12/24V auto work	
Nominal system voltage	≤6 mA	
Self-consumption	Common positive	
Grounding	-5mV/℃/2V	
Temp. compensation	153 x76 x37mm	
Overall dimension	0.24kg	
Net weight	IP30	
Enclosure	-35°C ~ +55°C	
Relative humidity	≤95% (N.C.)	





## Tracer-EPLI series MPPT Solar Charge Controller & LED Driver

10A, 15A,20A 12V/24V

TRACER-EPLI series combines solar charge controller and LED driver into one unit. It is ideal for solar LED Lighting requiring dimmer function. The control parameter can be programmed by Mobile APP and SPP-02 via infrared(IR) communication

#### Features:

- High tracking efficiency ≥99.5%
- Peak conversion efficiency of 98%
- · Ultra-fast tracking speed and guaranteed tracking efficiency
- · Accurately recognizing and tracking MPP of multiple wave crest
- · Digital precision constant current control
- · Maximum output efficiency of 96%
- · Output current adjustable
- Flexible dimming function(0-100%)
- · Real-time energy statistics function
- · Easy to check system working status via Mobile APP

### CE RoHS

Madel		Tracer2606EPLI	Tracer3906EPLI	Tracer5206EPLI			
Model	Tracer1305EPLI	Tracer2610EPLI	Tracer3910EPLI	Tracer5210EPLI			
Nominal system voltage	12V		12/24V auto work				
Rated charge current	10A	10A	15A	20A			
Rated charge power	130W	130W/12V 260W/24V	195W/12V 390W/24V	260W/12V 520W/24V			
Max. PV open voltage	50V(Min.Temp.) 45V(25℃)	Tracer****06EPLI:60V(at Min. operating environment temp.) Tracer**10EPLI:46V (at 25°C environment temp.)					
MPP Voltage range	Tracer**0	5/06EPLI: (Vbat +2V)~36	SV, Tracer**10EPLI:(Vb	at +2V)~72V			
Max. output current	3.3A	3.3A	4.5A	6.6A			
Max. output power	100W	100W	130W	200W			
Maximum output efficiency		96	5%				
Self-consumption		≤15mA(12V)	;≤22mA(24V)				
Temp. compensation		-3mV	/°C/2V				
Communication		IR comm	unication				
Overall dimension	124x89	x30mm	150x93.5x32.7mm	153.3x105x52.1mm			
Net weight	0.51kg	0.52kg	1.19kg	1.19kg			
Enclosure	IP68(1.5m,72h)						
Working environment temperature	-40°C∼+60°C						





# Tracer-LPLI series Lithium Battery Solar Charge Controller with built-in LED Driver

10A, 20A 12/24V auto work

The Tracer LPLI series lithium battery 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:

- High tracking efficiency no less than 99.5%-
- Peak conversion efficiency of 98%
- Lithium battery self-activating function
- Lithium battery low temperature protection function
- Battery type selection: LiFePO4, Li-NiCoMn and User (programmable)
- Maximum output efficiency of 96%
- Flexible dimming function (0~100%)

Model	To a sed control DLI	Tracer2606LPLI	Tracer3906LPLI	Tracer5206LPLI Tracer5210LPLI		
wiodei	Tracer1305LPLI	Tracer2610LPLI	Tracer3910LPLI			
Nominal system voltage	12V	12/24V auto wor	k (Lithium battery no ra	ted voltage level)		
Rated charge current	10A	10A	10A 15A			
Rated charge power	130W	130W/12V 260W/24V	195W/12V 390W/24V	260W/12V 520W/24V		
Max. PV open voltage	50V(Min.Temp.) Tracer****06EPLI:60V(at Min. operating environment temp.)					
MPP Voltage range	Tracer**0	5/06EPLI: (Vbat +2V)~36	6V, Tracer**10EPLI:(Vb	at +2V)~72V		
Max. output current	3.3A	3.3A	3.3A 4.5A			
Max. output power	100W	100W	130W	200W		
Maximum output efficiency		96	6%			
Self-consumption		≤15mA(12V)	;≤22mA(24V)			
Temp. compensation		-3mV	/°C/2V			
Communication		IR comm	nunication			
Overall dimension	124x89	x30mm	150x93.5x32.7mm	153.3x105x52.1mm		
Net weight	0.51kg	0.52kg 1.19kg 1.		1.19kg		
Enclosure	IP68(1.5m,72h)					
Working environment temperature	-40℃~+60℃					





# Tracer-BPLseries MPPT Solar Charge Controller with built-in LED Driver

The Tracer-BPL series lithium battery 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:

- Adopt high quality components of ST,IR and Infineon, make sure product using lifespan
- Wide working environment temperature(-40°C ~60°C)
- Apply to lithium battery(LiFePO4/Li-NiCoMn)and battery(Sealed/Gel/Flooded)
- · Lithium battery self-activating and low temperature protection function
- · Advanced Maximum Power Point Tracking (MPPT) technology, with tracking efficiency no less than 99.5%
- · Maximum output efficiency of 96%
- The RS485 connector can provide power supply (5VDC/150mA)
- · IP67 waterproof degree

Model	Tracer2606BPL	Tracer3906BPL	Tracer5206BPL Tracer5210BPL			
Wodel	Tracer2610BPL	Tracer3910BPL				
Nominal system voltage	12/24VDC Auto (Lithium battery no rated voltage level)					
Rated charge current	10A 15A 20					
Rated charge power	130W/12V 260W/24V	195W/12V 390W/24V	260W/12V 520W/24V			
Max. PV open circuit voltage	ronment temperature erature ironment temperature erature					
MPP Voltage range	Tracer**06BPL: (Battery voltage+2V)~36V Tracer**10BPL: (Battery voltage+2V)~72V					
Max. output current	3.3A	4.5A	6.6A			
Max. output power	100W	130W	200W			
Output voltage range		er**06BPL: ( Max. battery voltage er**10BPL: ( Max. battery voltage				
Maximum output efficiency		96%				
Self-consumption		≤15mA/12V;≤22mA/24V				
Communication		RS485				
Overall dimension	124×89×30mm	150x93.5x32.7mm	153.3x105x52.1mm			
Net weight	0.54kg	0.73kg	1.18kg			
Enclosure	IP67					
Working environment temperature	-40℃~+60℃					





# Tracer-BPseries MPPT Solar Charge Controller with built-in LED Driver

The Tracer-BP series solar charge controller adopt the advanced Maximum Power Point Tracking charging methods, it enables the system charging and discharging management to obtain the most radical optimization. Increase the system flexibility, yet lower down the system cost. The controller support a variety of battery, for example sealed, gel, flooded and lithium battery. User can view and modify the working status and parameters. It can be widely used on solar home system, traffic signal, solar street light, solar garden lamp, etc.

#### Features:

- · Advanced MPPT technology
- High tracking efficiency no less than 99%
- Maximum conversion efficiency of 98%
- · Ultra-fast tracking speed and guaranteed tracking efficiency
- · Accurately recognizing and tracking of multiple power points
- Apply to lithium battery(LiFePO4/Li-NiCoMn)and battery (Sealed/Gel/Flooded)
- Lithium battery self-activating and low temperature protection function
- · Real-time energy statistics function
- PV power limitation function
- · Aluminum housing for better cooling

- C€ RoHS
- Monitoring and setting parameter via Mobile APP, PC Monitor setting software with RS485 communication interface.

Model	Tracer2606BP	Tracer3906BP	Tracer5206BP		
Wodel	Tracer2610BP	Tracer3910BP	Tracer5210BP		
Nominal system voltage	12/24VDC Auto (Lithium battery no rated voltage level)				
Rated charge current	10A	15A	20A		
Rated charge power 130W/12V 260W/24V		195W/12V 390W/24V	260W/12V 520W/24V		
Max. PV open circuit voltage		BP: 60V at minimum operating et 46V at 25°C environment te BP: 100V at minimum operating 92V at 25°C environment te	mp. environment temp.		
MPP Voltage range		acer**06BP: (Battery voltage+2 acer**10BP: (Battery voltage+2	,		
Self-consumption		≤13mA/12V;≤11.5mA/24V			
Overall dimension	124×89×30mm	150x93.5x32.7mm	153.3x105x52.1mm		
Net weight	0.54kg	0.74kg	1.2kg		
Enclosure	IP67				
Working environment temperature	-40℃~+60℃				





# LS-EPLI series Solar Charge Controller & LED Driver

10A, 20A 12V/24V

LS-EPLI series combines solar charge controller and LED driver into one unit. It is ideal for solar LED Lighting requireing dimmer function. The control parameter can be programmed by Mobile APP and SPP-02 via infrared(IR) communication.

#### Features:

- Battery type selection: Sealed, Gel, Flooded and User(programmable).
- · Maximum output efficiency of 96%
- · Output current adjustable
- Flexible dimming function(0-100%)
- · Digital precision constant current control
- · Real-time energy statistics function
- · Battery temperature compensation function
- · Fully encapsulated PCB, IP68 protection
- · Aluminum housing for better cooling
- · Easy to check system working status via Mobile APP

### CE RoHS

Model	LS101240EPLI	LS102460EPLI	LS2024100EPLI			
Nominal system voltage	12V	12/24V	12/24V			
Rated charge current	10A	10A	20A			
Max. PV input voltage	30V	50V	50V			
Rated output power	40W	30W/12V, 60W/24V	50W/12V, 100W/24V			
Battery terminal voltage	9~16V	9~32V	9~32V			
Rated output power	60W	100W	200W			
Rated output current	2.6A	2.0A	3.3A			
Self-consumption		12V:≤9.1mA; 24V:≤7.0mA				
Overall dimension	108.5x100.5x25.6mm	108.5x100.5x25.6mm	108.5x118x25.6mm			
Net weight	0.23kg	0.23kg	0.28Kg			
Enclosure	IP68					
Working temp.		-35℃~+55℃				





# LS-LPLI series Solar Charge Controller & LED Driver

10A, 20A 12V/24V

The LS-LPLI 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. The advanced pulse width modulation charging methods enables the system charging and discharging management to obtain the most radical optimization. Make the system cost reduce, and increase the system flexibility.

#### Features:

- · Apply to lithium battery
- · Lithium battery self-activating function
- · Lithium battery low temperature protection function
- · Load reduce power automatically
- Battery type selection: LiFePO4, Li-NiCoMn and User (programmable)
- · Maximum output efficiency of 96%
- · Output current adjustable
- Flexible dimming function (0~100%)
- · Real-time energy statistics function
- · Parameter setting via mobile APP(android only), RC-02 and SPP-02

Model	LS101240LPLI	LS10:	2460LPLI	LS2024100LPLI		
Nominal system voltage	12V	12/24V auto work				
Battery input voltage range	9~16V		9~32	2V		
Max. PV open circuit voltage	30V		50V	50V		
Rated charge current	10A		10A	20A		
Max. output power	40W	30W/12	V, 60W/24V	50W/12V, 100W/24V		
Max. output current	2.6A	2.0A	3.3A			
Max. output efficiency		96%				
Output voltage range	()	Max. battery v	oltage+2V)~60V	/		
Load open circuit voltage		6	60V			
Self-consumption		≤18mA(12V	); ≤23mA(24V)			
Battery Type		LiFePO4/ Li	-NiCoMn /User			
Communication		IR com	munication			
Overall dimension	107x68x20mm	n 108.5x88x25.6mm				
Net weight	0.23kg	0.23kg 0.39kg				
Enclosure	IP68					
Working environment temperature	-35℃~+55℃					





# LS-BPL series Solar Charge Controller & LED Driver

#### 10A, 20A 12/24V auto work

LS-BPL series combines solar charge controller and LED driver into one unit. It is ideal for solar LED Lighting requiring dimmer function. The control parameter can be programmed by Mobile APP,SPP-02 and PC software.

#### Features:

- Battery type selection: Sealed, Gel, Flooded and User(programmable).
- Flexible dimming function(0-100%)
- · Battery temperature compensation
- · Digital precision constant current control
- · Maximum output efficiency of 96.7%
- · Output current adjustable
- · Parameter programmable via Mobile APP, PC software
- · RS485 port with industrial standard MODBUS open architecture
- · Aluminum housing for better cooling
- Fully encapsulated PCB, IP67 protection

CE RoHS

Model	LS102460BPL	LS2024100BPL				
Nominal system voltage	12/24V auto work					
Battery input voltage range	9~3	32V				
Max. PV open circuit voltage	50	)V				
Rated charge current	10A	20A				
Max. output power	30W/12V, 60W/24V	50W/12V, 100W/24V				
Max. output current	2.0A	3.3A				
Max. output efficiency	96.7%					
Output voltage range	(Max. battery vo	ltage+2V)~60V				
Load open circuit voltage	60	OV .				
Self-consumption	≤11mA(12V)	; ≤9mA(24V)				
Temp. compensation coefficient	-3mV/	°C/2V				
Grounding	Commor	Positive				
Overall dimension	107x73x20mm 108.5x102x25.6mm					
Net weight	0.28kg 0.46kg					
Enclosure	IP67					
Working environment temperature	-35℃~+55℃					





# LS-GPLI series PWM Solar Charge Controller with built-in LED Driver

10A, 20A 12/24V auto work

LS-GPLI series 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. Full waterproof and IR communication design, it has the feature of high efficiency, high control accuracy and dimmer function. The product is dedicated in LED indoor and outdoor lighting application condition, such as road lighting, landscape lighting and billboard lighting etc.

#### Features:

- · Maximum output efficiency of 96%
- Without any button, parameter setting via Mobile APP and RC-01 with IR function
- Flexible dimmer function, 0 ~ 100% can be adjusted
- Multiple load control modes, LED rated current and current percentage can be set.
- Load test function for detecting the system, the controller power on, the load is ON.
- · Aluminum housing for better cooling
- Fully encapsulated PCB, IP68 protection (1.5 meters, 72h)
- · Long lifespan design

### CE RoHS

Model	LS102480GPLI	LS2024100GPLI			
Nominal system voltage	12/24VDC auto work				
Rated charge current	10A	20A			
Max. PV open circuit voltage	50V	50V			
Max. output power	40W/12V;80W/24V	50W/12V;100W/24V			
Max. output current	4A	5A			
Max. output voltage	Min. Vbat-0.5V(12V) Min. Vbat -1V(24V)				
Maximum output efficiency	96%				
Self-consumption	≤16mA(12V	/);≤20mA(24V)			
Temp. compensation coefficient	-3m	nV/°C/2V			
Overall dimension	107x68x20mm	108.5x88x25.6 mm			
Net weight	0.25kg 0.39kg				
Enclosure	IP68 (1.5m,72h)				
Working environment temperature	-35℃~+55℃				





### Features:

- · Apply to lead-acid battery and lithium battery
- · Lithium battery self-activating function
- Lithium battery low temperature protection function
- · Yroelectric infrared induction function
- · Load power limitation function
- · Maximum output efficiency of 96%
- Digital precision constant current control and the control accuracy are less than ±2%

# LS-LPLA/IR series IR Sensor Solar charge controller & LED Driver

10A, 20A 12/24V auto work

The IR Sensor Solar Charge controller & LED Driver 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. The advanced pulse width modulation charging methods enables the system charging and discharging management to obtain the most radical optimization. In addition, the external infrared induction module, with the aid of pyroelectric infrared induction, can output different power in man-available/man-unavailable state, provide humanized street lamp control, and reduce the energy consumption of battery in man-unavailable state.

Model	LS101240LPLA/IR **	LS102460LPLA/IR <sup>※</sup>			
Nominal system voltage	12VDC 12/24VDC auto work				
Rated charge current	10A				
Max. PV open circuit voltage	30V	50V			
Max. output power	40W	30W/12V; 60W/24V			
Max. output current	2.6A	2.0A			
Output voltage range	(Max. Battery Voltage +2V)∼60V				
Maximum output efficiency	Ş	96%			
Self-consumption	≤19mA(12V	/);≤21mA(24V)			
Com. way		IR			
Overall dimension	87x58x22.8mm	87x63x24.8mm			
Net weight	0.18kg 0.21kg				
Enclosure	IP68 (1.5m,72h)				
Working environment temperature	-40°C ~+55°C				



## DCCP-DPRI series LED driver

DCCP-DPRI Series DC LED driver adopts the step-up voltage control, constant current driver design. The rated current range and working time is adjustable via infrared communication. The IP68 protection allows this series to fit both indoor and outdoor LED lightings, especially for solar LED lighting application.

#### Features:

- · Maximum output efficiency of 95.7%
- Flexible dimming function (0-100%)
- · Input surge suppression function
- · Programmable via IR communication
- Wide working environment temperature (  $-40^{\circ}\text{C} \sim 80^{\circ}\text{C}$  )
- · Long lifespan design
- Fully encapsulated PCB, IP68 protection (1.5 meters, 72h)
- · Aluminum housing for better cooling

Model	DCCP6060DPRI	DCCP10060DPRI			
Input voltage range	(	9V∼33V			
Input surge voltage	3A/12V;6A/24V 6A/12V;12A/24V				
Max. output current	2.0A	3.3A			
Max. output power	30W/12V;60W/24V	50W/12V;100W/24V			
Output voltage range	(Input vo	oltage+2V)~60V			
Load open circuit voltage		60V			
Maximum output efficiency	95.7%				
Self-consumption	≤10mA(12	2V);≤14mA(24V)			
Overall dimension	108.5x58x25.6mm	108.5x79x25.6mm			
Net weight	0.25Kg 0.34Kg				
Enclosure	IP68				
Working temp.	-40°C ~+80°C				





### UPower series Inverter Charger

UPower series is a new type of hybrid Inverter charger which combines Solar energy &Utility electricity charging and AC output. It adopts the multi-core processor design and advanced control algorithm, with the feature of high response speed, high reliability and high industrial standards, etc. The inverter charger with LCD Display has four charging mode and two output mode. The extensive electronic protection ensures the system to work more safely, stably and durably.

#### Features:

- · Adoption of advanced SPWM technology, pure sine wave output
- Digital voltage & current double closed-loop control
- · Advanced MPPT technology, with efficiency no less than 99.5%.
- Support 4 charging mode: Solar priority, Utility priority, Solar, Utility & solar
- · Utility or Battery output mode
- · Display the system running status and data via LCD and indicator
- · User & Engineer setting interface
- · Convenient AC input breaker
- · AC OUT button control AC output
- · Battery temperature compensation function.
- · Extensive Electronic protection

Model	UP1500-M3222	UP3000-M2142				
Nominal battery voltage		24V		48V		
Input voltage range		21.6~32V		43.2~64V		
Output voltage		220\	VAC/230VAC±3%			
Max. PV open circuit voltage		100V(-20°C); 92V(25°C) 150V(-20°C);138V(2				
Max. PV input power	520W	780W	1040W			
Temp. compensation		-3mV	//℃/2V (默认)			
Dimension	386×300×126mm		444×300×126mm			
Net weight	7kg	8.5kg 9kg				
Enclosure		IP30				
Working environment	-20°C~ +55°C					





### SHI series Pure sine wave inverter

400VA,600VA, 1000VA 12V/24V/48V

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≤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

### CE RoHS IEC62109

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	10.8~16 Vdc	21.6~32 Vdc	10.8~16 Vdc	21.6~32 Vdc	21.6~32 Vdc	43.2~64 Vdc	21.6~32 Vdc	43.2~64 Vdc	21.6~32 Vdc	43.2~64 Vdc	
No Load Current	≤0.8A	≤0.45A	≤0.7A	≤0.45A	≤0.45A	≤0.35A	≤0.7A	≤0.7A	≤1.2A	≤1.0A	
Output Voltage		220Vac±3% / 230Vac±10%									
Frequency		50/60Hz±0.2%									
Continuous power	400W 600W			100	1000W 2000W		00W	3000W			
Surge power	900	WC	135	60W	2250W		46	4600W		6900W	
Max. efficiency	≥92%	≥93%	≥93%	≥94%	≥94%	≥94%	≥95%	≥95%	≥95%	≥95%	
Overall dimension	280×166×74.3m m 295×186×82mm 295×208×98mm 436×249×116r					9×116mm	507×249	×116mm			
Net weight	1.8kg 2.3kg				3.3kg 6.0kg 7.5kg				ikg		
Working temperature	-20℃~ +50℃										
Relative humidity	≤95% (N.C.)										



### **STI series**Pure sine wave inverter

200VA,300VA,500VA,700VA,1000VA 12V/24V/48V

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

Model	STI200-12- 220	STI200- 24-220	STI300- 12-220	STI300- 24-220	STI500- 12-220	STI500- 24-220	STI700- 24-220	STI1000- 24-220	STI1000- 48-220
	STI200-12- 230	STI200- 24-230	STI300- 12-230	STI300- 24-230	STI500- 12-230	STI500- 24-230	STI700- 24-230	STI1000- 24-230	STI1000- 48-230
Nominal system voltage	12V	24V	12V	24V	12V	24V	24V	24V	48V
Input voltage range	10.5~16V	21~32V	10.5~16V	21~32V	10.5~16V	21~32V	21~32V	21~32V	42~64V
Consumption no load(ON)	≤4W	≤5W	≤5W	≤6W	≤5W	≤6W	≤8.5W	≤10W	≤12W
Output voltage/ Frequency	AC220V/230V±3% / 50Hz±0.2%								
Continuous power	200VA		300VA		500VA		700VA	1000VA	
Surge power	640VA		960VA		1600VA		2240VA	320	0VA
Max. efficiency	≥88%	≥89%	≥90%	≥91%	≥91%	≥93%	≥93%	≥93%	≥94%
Overall dimension	315*166*101mm			325*187*112mm		335×232×1 23.3mm	373×232×123.3mm		
Net weight	4.5kg		5.3kg		7.3kg		9.4kg	11.8kg	
Working temperature	-20℃~ +50℃								
Relative humidity	≤95% (N.C.)								





### **IP350 series**Pure sine wave inverter

### IP350-12: 12V 350VA; IP350-22 24V 350VA

IP350 series is a pure sine wave inverter which can convert 12/24Vdc into 220/230Vac. It has the characteristics of concise outline, compact size, high reliability, high efficiency, easy to install and operate and so on. The inverter applicable to household emergency lighting system, vehicle mounted system and small field power supply, etc.

#### Features:

- Complete isolation-type inverter technology
- Adoption of advanced SPWM technology, pure sine wave output
- Low output harmonic distortion (THD≤5%)
- Optional output voltage and frequency at 220/230Vac,50/60Hz
- High conversion efficiency up to 91%
- USB output 5Vdc/1A
- Output power limitation function
- Extensive Electronic protection

Model	IP350-12	IP350-22				
Nominal system voltage	12VDC	24VDC				
Input voltage range	10.8~16VDC	21.6~32VDC				
No-load current	< 0.7A	< 0.5A				
Output voltage/Frequency	220VAC(±5%) 230VAC(-10%~+5%)					
Output Continuous Power	350VA(-20°C∼+45°C)					
Output way	Single phase					
Output Frequency	50/60Hz (±0.2%)					
Overall dimension	221×106.5×67.5mm					
Net weight	0.9kg					
Working temperature	-20℃~+45℃					
Relative humidity	≤93% (N.C.)					





### **EPE** series Portable DC system

Portable DC system is designed for solar energy independent power supply machine. Unified Integration effectively ensure that the controller, solar panels, batteries and other major devices match highly,to ensure system of high performance and compatibility.

Easy to carry, beautiful and practical, customizable according to needs .Suitable for a variety of application scenarios, meeting the daily life and travel in the DC power supply needs.

- 2000 cycles rechargeable lithium battery, long service life
- Endurance strong, series of products power are more than 150Wh, can guarantee the user's daily lighting and US charging required.
- Controller configuration MPPT controller, 99% tracking efficiency, 98% conversion efficiency, shorten the time charging battery fully to ensure the stability of the load work.
- The system adopts low power consumption industrial design, Self-consumption 10mA, greatly improve the system power supply performance.
- Solar panels with high efficiency monocrystalline silicon PV cells; conversion efficiency ≥ 17%, 10 years of light failure ≤ 10%, foldable, easy to carry.
- Chassis-style clever design, fine craft production, compact structure, small size, light weight.

	Model:	EPE-1240DBL				
Picture	System components	Spec				
	PV array (Mono)	17.5V/40Wp				
	LiFePO4	12V/12AH				
	Solar charge controller	12V/5A				
	Outroot	USB output: 5\	Qty: 2 pcs			
	Output	DC output:12V/1A		Qty: 2 pcs		
	Charging Mode	MPPT				
	Dimension	86.4*151.5*177.5mm	PV panel dimension	350*670*25mm×2 (folded)		
	Weight	3kg	PV panel Weight	6.4kg		
Item	Accessories					
1	LED lamp 12V/5W					
2	Lamp cables	4m				
3 Charging cables		5V/several connectors				







### **Solar Charge Controller** • **Inverter**



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