

HearGrow



Electric Product Department

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Hear the world, feel the growth!



Company Profile

Heargrow has 12 years of experience in the production of solar-related products and 5 years of grow lights OEM/ODM production experience.

Heargrow independently developed and designed two grow lights brands, Heargrow, HearGrow, has been CE, RoHS, FCC, EMC and PSE international certification, in today's market has become well-known products favored by growers around the world. Heargrow has overseas distributors, warehousing and service centers in the United States, Europe, Japan, Thailand, which provides customers with fast delivery and thoughtful after-sales service. We accept OEM/ODM/wholesale/retail services and agent cooperation to meet the different needs of customers.

Whether you are an e-commerce seller, a planting company or an individual planting enthusiast, we have a complete planting plan and supporting products to meet your needs. Most importantly, we provide reasonable prices, high-quality products and five-star service. Sincerely look forward to becoming your best partner and hope to have more cooperation with you!



Automated factory

The concept of automation is a dynamic development process. With the development of electronic and information technology, especially with the emergence and wide application of computers, the concept of automation has been expanded to use machines (including computers) not only to replace human physical labor, but also to replace or assist mental labor to automatically complete specific tasks.



Certificate



Model	CPE-08020			CPE-08030			CPE-08050			CPE-08060		
Output voltage	12V	24V	48V	12V	24V	48V	12V	24V	48V	12V	24V	48V
Voltage range DC	18V-80V(12V Batt);36V-120V(24V Batt);72V-150V(48V Batt)											
Rated power W	240	480	960	480	960	1920	640	1280	2560	720	1440	2880
Pvmaximum power	300	600	1200	550	1200	2400	700	1600	3200	800	1800	3600
mode	3 stage: I-(Maximum power tracking) , 2-(Constant current) , 3-(Constant pressure)											
Float charging voltage	2.15V/Cell											
Constant pressure voltage	2.25V/Cell											
As the voltage	2.35V/Cell											
Maximum efficiency	99%											
Maximum current	30A			50A			60A			80A		
power consumption	<=1.2W			<=1.2W			<=2W			<=2W		
Display mode	LCD											
Communication methods	Rs485/Bluetooth/wifi											
The cooling wa	shell+fan											
environment temperature	25°C~+55°C											
Environmental humidity	0-90%,No condensation											
Protection class	Ip30											

MPPT solar charge controller

Product presentation

CPT series solar charge controller is a high -end product, which based on mult phase pynchronous rectification technology (MSRT). It is suitable for off grid solar power system The controller is built in with advanced MPPT control algorithm, in any situation it can fast and accurately track out the beat maximum power point (MPP)ofPV array, in order to obtain the maximum solar energy in time. it can also sharply improve the energy efficiency of solar system

- ◆ Visual LCD graphic symbol
- ◆ Automatic identification system voltage level
- ◆ Automatic temperature compensation
- ◆ Settable operating modes of loads
- ◆ Battery low voltage disconnection (LVD)
- ◆ Cumulative function of charge anddischarge
- ◆ Intelligent PWM charge mode
- ◆ Adjustable charge-discharge control parameters
- ◆ Overload short circuit protection
- ◆ Battery reverse-discharge protection
- ◆ Battery reverses connection protection



Inverter products specification

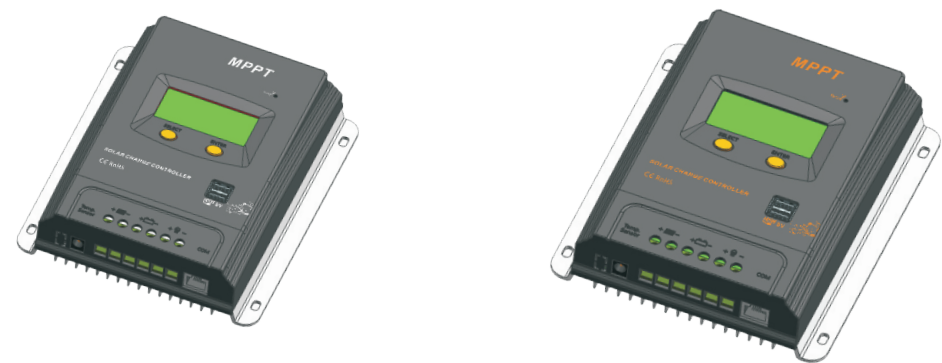
Series			20A	30A	40A	50A	60A
Product category	Controller Properties		MPPT (maximum power point tracking)				
	MPPT efficiency		≈99.5%				
	Standby power		0.5W~1.2W				
	System voltage		Automatic recognition				
	Heat-dissipating method		Intelligent fan cooling				
	Range of system voltage identification	12V system	DC9V~DC15V				
		24V system	DC18V~DC30V				
		36V system	DC32V~DC40V				
48V system		DC42V~DC60V					
Input Characteristics	Max.PV input voltage(VOC)		DC150V				
	Start the charge voltage point		Battery voltage + 3V				
	Low input voltage protection point		Battery voltage + 2V				
	Over voltage protection point		DC150V				
	Over voltage recovery point		DC145V				
	Rated PV power	12V system	260W	390W	520W	650W	780W
		24V system	520W	780W	1040W	1300W	1560W
		36V system	780W	1170W	1560W	1950W	2340W
		48V system	1040W	1560W	2080W	2600W	3120W
	Charge Characteristics	Selectable Battery Types (Default Gel battery)		Sealed lead acid, Gel battery, Flooded (Other types of the batteries also can be defined)			
20A				30A	40A	50A	60A
Charge rated current							
Temperature Compensation		-3mV/°C/2V (default)					
Charge Method		3-Stage: constant current(fast charging)-constant voltage-floating charge					
Output Voltage Stability Precision		≈±1.5%					
LOAD Characteristics		Load voltage		The same as the battery voltage			
	Load rated current		40A			60A	
	Load control mode		On\Off mode, PV voltage control mode, Dual-time control mode, PV + Time control mode				
	Low voltage protection		The default protection point is 10.5V, and it is restored to 11V (can be set)				
	Setup mode		PC software /APP/ controller display				
Display & Communication	Display mode		High-definition LCD segment code backlight display				
	Communication mode		8-pin RJ45 port/RS485/support PC software monitoring/ support WiFi module to realize APP cloud monitoring				
Other Parameters	Protect function		Input-output over \ under voltage protection, Prevention of connection reverse protection,battery shedding protection etc.				
	Operation Temperature		-20℃~+50℃				
	Storage Temperature		-40℃~+75℃				
	IP(Ingress protection)		IP21				
	Noise		≈40dB				
	Altitude		0~3000m				
	Max. connection size		20mm²			30mm²	
	Net Weight (kg)		2.12			2.45	
	Gross Weight (kg)		3			3.5	
	Product Size (mm)		197*189*68			220*194*86	
	Packing Size(mm)		245*220*110			270*226*116	

MPPT solar charge controller

Product presentation

CPK series adopts common positive design and advanced MPPT control algorithm. The products can track the MPP point fast and accurately in any situation which will improve energy efficiency and obtain the maximum solar energy.

- Advanced MPPT technology
- High tracking efficiency no less than 99.5%
- Peak conversion efficiency of 98%
- Ultra-fast tracking speed
- Accurately recognizing and tracking of multiple power point
- 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



technical parameters

Model	CPK-2410	CPK-2420	CPK-2430	CPK-2440
Nominal system voltage	12/24VDC autowork			
Rated charge current	10A	20A	30A	40A
Rated discharge current	8V ~ 32V			
MPP voltage range	VBAT+2V ~ 72V			
Max. PV open circuit voltage	100V(at minimum operating environment temperature),92V(at 25°C environment temperature)			
Max. PV input power	130W(12V) 260W(24V)	260W(12V) 520W(24V)	390W(12V) 780W(24V)	520W(12V) 1040W(24V)
Equalize charging voltage	Sealed: 14.6V, Flooded: 14.8V			
Boost charging voltage	Gel: 14.2V, Sealed: 14.6V, Flooded: 14.8V			
Float charging voltage	13.8V			
Low voltage reconnect voltage	12.6V			
Low voltage disconnect voltage	11.1V			
Self-consumption	≤20mA(12V) ≤16mA(24V)			
Temperature compensation coefficient	-3mV/ °C/2V(25 °C)			
Working temperature	-25 °C ~ +45 °C			
Enclosure	Ip30			
Overall dimension	172x139x44mm	220x154x52mm	228x164x55mm	252x180x63mm
Power terminals	12AWG(4mm ²)	6AWG(16mm ²)	6AWG(16mm ²)	6AWG(16mm ²)
Net weight	0.6kg	1.1kg	1.2kg	1.9kg

MPPT solar charge controller

Product presentation

- Use single-chip microcomputer control
- 12V/24V auto work,intuitive battery status indication
- With over charging,over discharging,overload,short circuit and reverse polarity protection
- Adopts the MPPT(maximum power point tracking)technology,the efficiency is up to 99%
- With USB 5V or DC12V output,can charge different digital products



Model	CPT-2410	CPT-2420	CPS-2410 CPY-2410	CPS-2420 CPY-2420
Max. charge current	10A	20A	10A	20A
Max. discharge current	10A	20A	10A	20A
Rated voltage	12V/24V auto work		12V/24V auto work	
Max. charge voltage	14.4V/28.8V		10.5V/21V	
Max. charge voltage	10.5V/21.0V		12V/23V	
Over discharge recovery voltage	12.4V/24.8V		15V/29V	
Protection	With over charge, over discharge, over current, short circuit and reverse polarity protection		With over charge, over discharge, over current, short circuit and reverse polarity protection	
USB output	Dual USB 5V output, total load capacity is 3A,with over current protection		5V 1A	
Dimension of controller	192.1×91.6×30(mm)		CPS:131x99x34(mm) CPY:131x99x29.5(mm)	
Weight	400g	420g	275g	300g

technical parameters

Model	CPL-2410
System voltage	12V/24V auto work
Output power	50W(12V system)100W(24V system)
Output constant current range	0.3-3A
MPPT efficinecy	>99%
Max.charging power	150W(12V system)/260W(24V system)
Input withstand voltage	50V
Output voltage range	15-45V(12V system)/30-45V(24V system)
Temperature compensation	-3mv/°C/2V
Output constant current accuracy	≤3%
Average efficiency of constant current	≥94%
Noload current	≤10mA
Ambient temperature	-25°C~+65°C
Cut off charge voltage	14.7V/29.4V
Float charging voltage	13.8V/27.6V
Discharge recovery voltage	12.0V/24.0V
Over discharge voltage	10.8V/21.6V
Protection level	Ip68
dimension(LxWxH)	99x84.5x23mm
Weight	300g

PWM Solar Charge Controller

Product presentation

Home use solar charge controller is a kind of intelligent, multi-functional solar charge and discharge controller. These serial products adopt customized LCD display screen, which makes the operation on the interface rather convenient. All the controlling parameters can be reset flexibly to satisfy your different needs.

- ♦ Metal shell,good heat dissipation
- ♦ Multiplexed output(with load,DC12V and US 5V output)
- ♦ High efficient Series pWM charging,orolong the life span of battery and improve the system performance
- ♦ With temnperature compensation,can adjust the battery charging parameters according to the environmental temperature atomatically
- ♦ Charge and discharge parameters can be set flexibly,fully meet the needs of different requirements.
- ♦ With over charging,over discharging,overload,and short circuit and revese polarity protection



technical parameters

Rated voltage	12V/24V autowork						12V/24V autowork			
Rated current	10A	20A	30A	40A	50A	60A	30A	40A	50A	60A
Max.solar panel input voltage	≤50V						≤100V			
Low voltage protection	10.7V/21.4V						42.8V			
Low voltage recovery	12.6V/25.2V						50.4V			
Stop charge voltage	13.7V/27.4V						54.8V			
USB output voltage/total current							5V/650mA			
DC output voltage/total current							12V/1.5A			
No load loss							≤10mA			
Loop voltage drop Temperature compensation							≤170mV			
Operationg temperature							-4mV/Cell/°C			
Humidity requirements							-20°C~60°C			
Telecommunication							≤90%, no condensation			
Installation cable area							RS485/RS232(need to install))			
Dimension of controller(mm)							> 3# AWG (25mm2)			

CMT Series Solar Street Lamp Controller

Product presentation

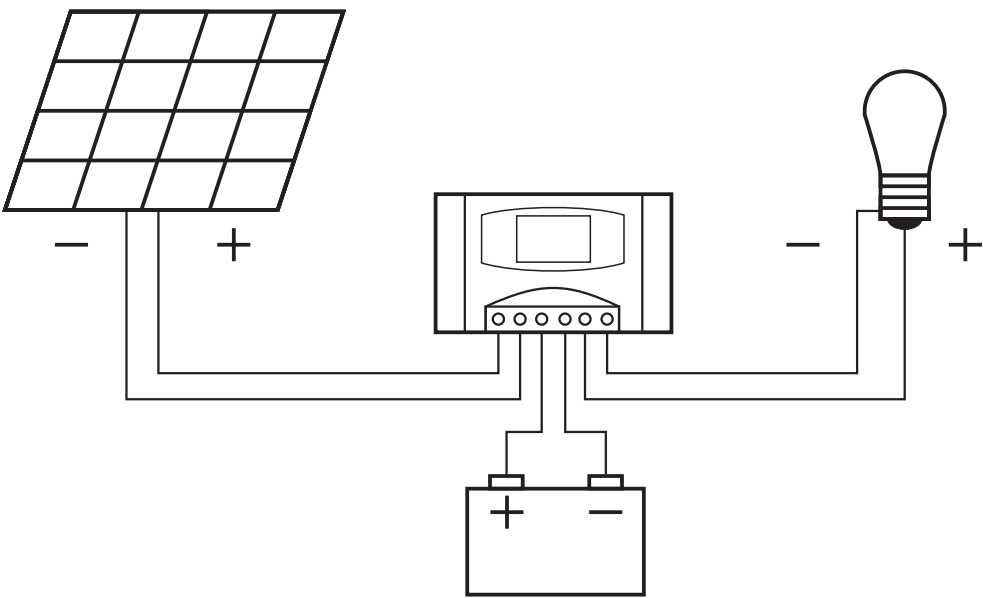
This controller is a kind of intelligent, multi-purpose solar charge and discharge controller. These serial products adopt customized LCD display screen, which makes the operation on the interface rather convenient. All the controlling parameters can be reset flexibly to satisfy your different needs.

- ◆ Visual LCD graphic symbol
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- ◆ Battery low voltage disconnection (LVD)
- ◆ Cumulative function of charge and discharge
- ◆ Intelligent PWM charge mode
- ◆ Adjustable charge-discharge control parameters
- ◆ Overload & short circuit protection
- ◆ Battery reverse-discharge protection
- ◆ Battery reverses connection protection



technical parameters

Model	LD3024					LD5024					LD3048		LD5048		
Rated Voltage	12V/24V					48V									
Rated Current	10A	20A	30A	40A	50A	20A	30A	40A	50A	60A					
USB output voltage	5V														
DC output voltage	12V														
Voltage of solar panels	≤50V					≤100V									
Float charging voltage	13.7V/27.4V					54.8V									
Low voltage protection	10.5V/21V					42V									
Low voltage recovery	12.2V/24.4V					48.8V									
Characteristic	No load loss:≤10mA; Loop voltage drop:≤170mV;Temperature compensation:-4mV/Cell/°C														
Working Environment	Operating Temperature:-20℃~60℃; Storage temperature:-30℃~70℃; Humidity requirements:≤90%, no condensation														
Installation cable area	≤7# AWG (16mm ²)					>3# AWG (25mm ²)					≤7# AWG (16mm ²)		>3# AWG (25mm ²)		
out packing size	209×110 ×63 mm					217 ×158 ×95mm					209×110 ×63 mm		217 ×158 ×95mm		
weight	500g					790g					520g		810g		



Household Light Storage Hybrid Inverter



Product introduction

Household energy storage all-in-one machine mainly used in household solar power generation,used to drive household small power load of electrical appliances

- Pure sine wave off-grid type optical storage integrated machine
- Output power factor 1
- Up to 6units can be paralleled,built-in dust screenfor use in harsh environments
- Wide PV input voltage range(120-500VDC)
- It can work normally without a battery
- Built-in 100A MPPT solar charger
- Battery balancing feature optimizes battery performance and extends life
- Built-in dust screen for use in harsh environments

With battery connected

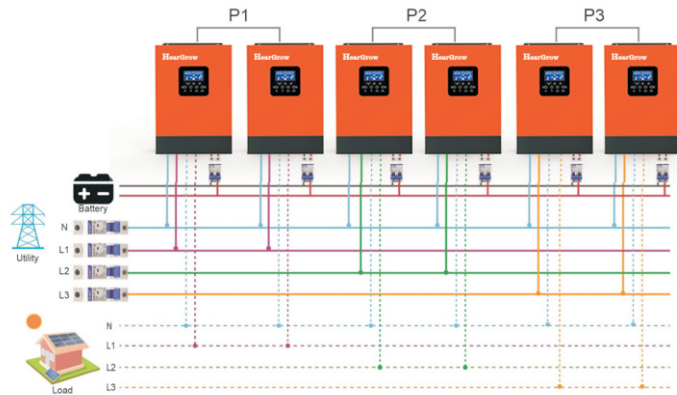


Without battery connected



Single phase output up to 33KW using 6 units

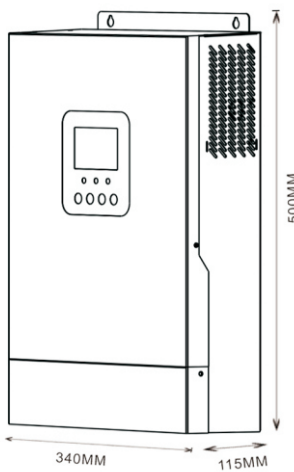
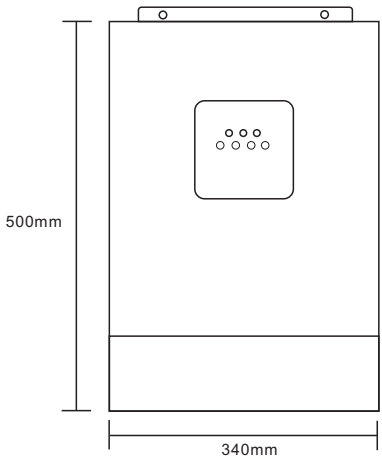
Three phaseoutput using either 3units(16.5KW)or max 6units(33KW)



Products specification

Product display	EP 3500-24	EP 5500-48
Reted power	3500VA/3500W	5500VA/5500W
Input		
Voltage	230VAC	
Voltage range	170-280VAC(Suitable for personal computers) 90-280VAC(Suitable for household appliances)	
Frequency range	50Hz/60Hz(Automatic adaptation)	
Output		
Grid voltage regulation(battery mode)	230VAC±5%	
Surge power	7000VA	11000VA
Peak efficiency	>93.6%	
Switch time	10ms	
Waveform	Pure sie wave	
Battery		
battery mode voltage	24VDC	48VDC
Float charge voltage	27VDC	54VDC
Overcharge protection	33VDC	63VDC
PV Charge&Ac Charge		
MAX.PV Array Power	5000W	6000W
PV maximum open circuit voltage	500VDC	
MPPT operating voltage range	120VDC-450VDC	
Maximum PV charge current	100A	
Maximum AC charge current	80A	
Physical properties		
Package size D*W*H(mm)	500*340*115mm	
Gross Weight(kgs)	10.5	11.5
Communication interface	Rs232/USB(Standard) WiFi(Optional)	
Environment		
Humidity	50% to 95% Relative humidity(non-condensing)	
Operating temperature	-10° C-50° C	

Productdimensions



Mounted Series Multi-Function Inverter

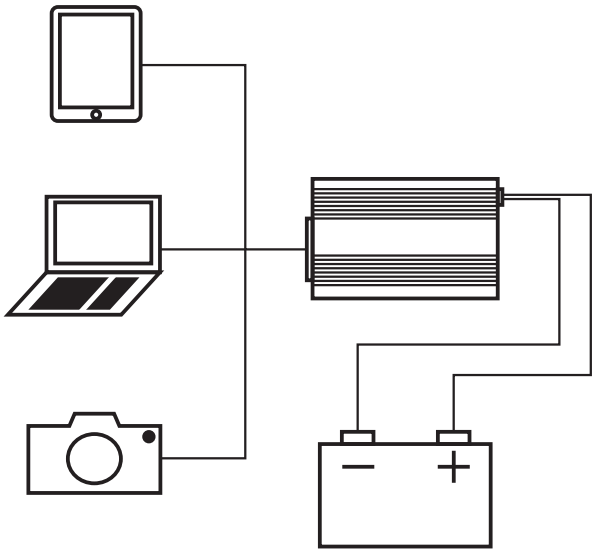
Product presentation

This series of inverters is simple to use. By connecting the inverter to a battery, you can convert DC power into household AC power, including clip type and car type.
Can provide stablr AC power for: lightings electrical tools, laptop, digital pohto printer, electric shavers, digital cameras, mobile phone charging, camcorders, portable audio tv, fans and other electrical equipents

Model	Car/clamp
ES-150W	
ES-150W	
ES-154C	
ES-154C	

technical parameters

Model	ES-150W	ES-150W	ES-154C	ES-154C
Output power	150W			
Rated output voltage	220V±10% · 50±2Hz or 110v±10% · 60±2Hz			
Rated input voltage	12V			
Output waveform	Modify sine wave			
Low voltage alarm	10.5±0.5V			
Low voltage disconnected	≤9.6V			
High voltage disconnected	≥14.5V			
Efficiency	≥85%			
Fuse currents	25A			15A
Battery level display	-	yes	yes	-
Anion	-	-	-	-
Product size (mm)	86*63.5*43 (L*W*H)			97.7*63.5*42.5
Package size (mm)	118*96*43 (L*W*H)	110*100*50 (L*W*H)		118*96*43 (L*W*H)
Weight (kg)	0.3	0.35	0.35	0.36
Fast chargingType-C PD	-	-	yes	yes



Modified Sine Wave Inverter

Product presentation

This inverter is easy to use, it can convert DC power 12V to AC power 220V or 110V as output, you can enjoy the intelligent life and mobile business after connect inverter to car cigarette lighter or lead-acid battery .
Can provide stablr AC power for: lightings electrical tools, laptop, digital pohto printer, electric shavers, digital cameras, mobile phone charging, camcorders, portable audio tv, fans and other electrical equipents .

- These advanced safety features are built into the inverter:
- Electronic overload protection with automatic shutdown.
 - Built-in internal backup DC fuse provides added safety.
 - Low battery voltage protection with automatic shutdown.
 - Over temperature protection with automatic shutdown.
 - Output short circuit protection.



technical parameters

Model	500W	1000W	2000W	3000W
Output waveform	Sinusoidal wave			
Output power	500	1000	2000	3000
Load adjustment rate	—			
Rated power	500	1000	2000	3000
Maximum output power	1000	2000	4000	6000
Input voltage range	DC-12V/24V	DC-12V/24V	DC-12V/24V	DC-12V/24V
Output frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
Continuous output power	500	1000	2000	3000
Output voltage	AC220V	AC220V	AC220V	AC220V
Measurement	240*173*66	247*173*66	280*173*66	345*190*130
Heat dissipation method	Air cooled heat dissipation	Air cooled heat dissipation	Air cooled heat dissipation	Air cooled heat dissipation
show	—			
No-load output current	—			