

HearGrow



Lithium Battery Product Department
Photovoltaic Energy Tech Enterprise

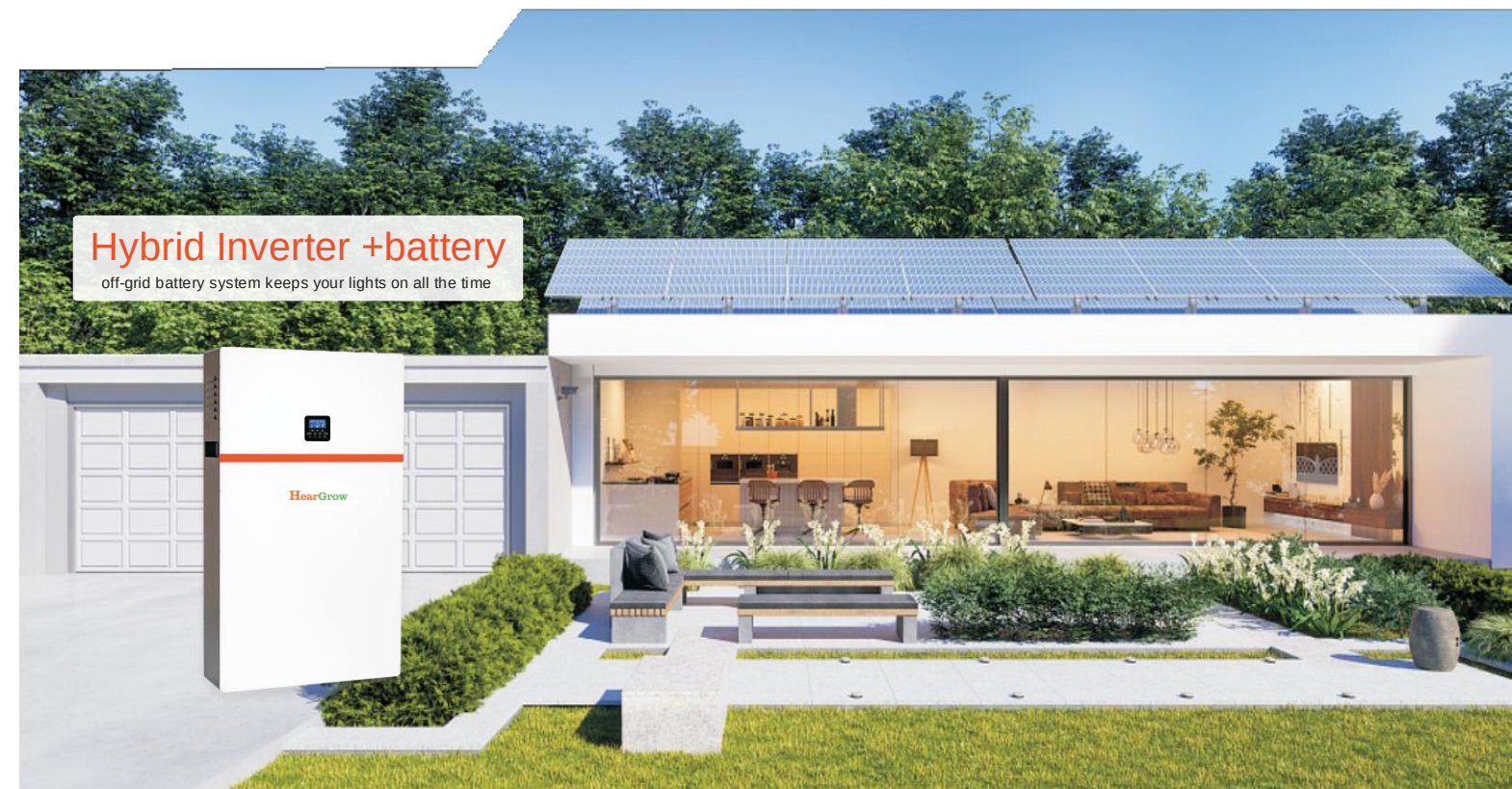
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Lithium Battery Product Department

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





Product introduction

EK-B100S16 - * Home energy storage all-in-one machine mainly includes battery module, BMS module, inverter, output interface, etc. It can store and release electric energy according to the requirements of AC/DC inverter system

- Freerecombination,Stackeddesign,Morebeautiful/convenient
- Maxparallelis15pcswithlargecapacity
- Movefreelywithp ulley



Rated Power	3500W(24V)/5500W(48V)/10000W(48V)
INPUT	
Voltage	230VAC
Selectable Voltage Range	170-280VAC(Forpersonal computers);90-280VAC(Forhome appliances)
Frequency Range	50Hz/60Hz(Autosensing)
OUTPUT	
AC Voltage Regulation(Battery Mode)	230VAC±5% 110VAC±5% (optional)
Surge Power	3500W/5500W10000W
Effi ciency(Peak)	Up to 95%
Transfer Time	10ms (For personal computers);20ms(Forhome appliances)
Waveform	Pure sine wave
BATTERY	
Battery Voltage	24VDC/48VDC
Floating Charge Voltage	27VDC/54VDC
Overcharge Protection	33VDC/63VDC
Solar Charger & AC charger	
Maximum PV Array Open Circuit Voltage	500VDC
Maximum PV Array Power	3500W/5500W10000W
MPPT Range @ Operating Voltage	120-450VDC
Maximum Solar Charger Current	80A
Maximum AC Charger Current	60A
Maximum Charger Current	80A
ENVIRONMENT	
Humidity	5% to 95% Relative Humidity(Non-condensing)
Operating Temperature	-10℃ to 50℃
Storage Temperature	-15℃ to 60℃

Battery products specification

Single module capacity	5.12KWh/PC(max15PCS, 61.44KWh)					
Module number	1PCS	2PCS	3PCS	4PCS	5PCS	6PCS
Total capacity	5.12KWh	10.24KWh	15.36KWh	20.48KWh	25.6KWh	30.72KWh
Standard voltage	51.2V					
Working voltage	43.2V-57.6V					
Standard discharge current	100A	200A	300A	400A	500A	600A
Standard charge current	50A	100A	150A	200A	250A	300A
Suggested DOD	80%					
Humidity	20%-60%					
Installation	Stacked					
IP rating	IP20					
Communication	CAN/RS485/RS232(WiFi/bluetooth/4Goptional)					
Product size/unit	620*550*480mm	620*550*760mm	620*550*1040mm	620*550*1320mm	620*550*1600mm	620*550*1880mm
N.W./unit	50kg	80kg	120kg	150kg	190kg	220kg

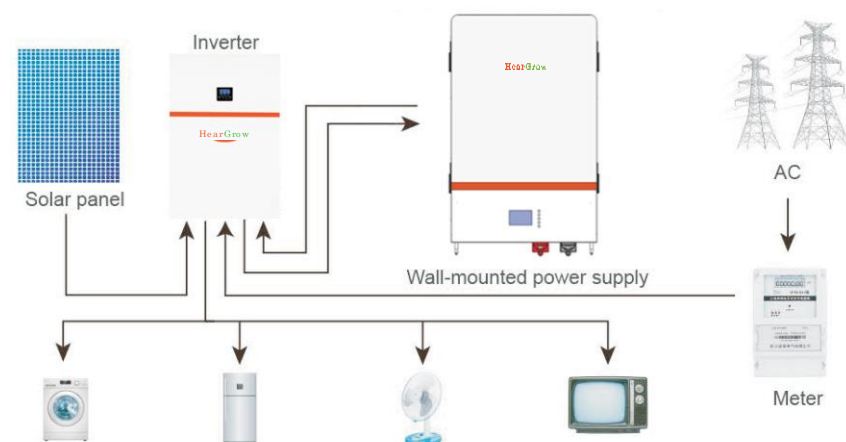




Product introduction

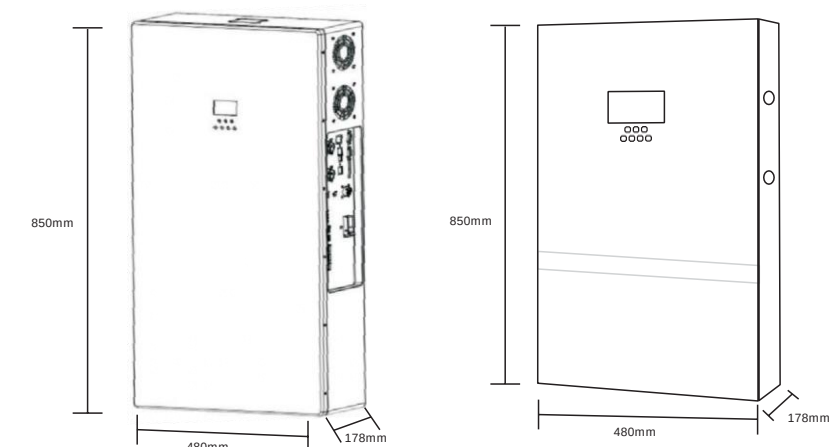
The household energy storage all-in-one machine and photovoltaic constitute the household optical storage system. Under the control of the all-in-one machine, the excess photovoltaic energy is stored in the battery, and when the photovoltaic energy is insufficient, the stored energy is released to supply power to the load.

- High safety, long life: the selection of high consistency, safety and reliability of lithium iron phosphate batteries;
- With methods of mains power bypass, inverter output, photovoltaic power generation, etc.
- With methods of mains power bypass, inverter output, photovoltaic power generation, etc., and has the function of uninterrupted power supply;
- Communication support CAN, RS485, Rs232;



Product model		-F	-F
Cell type	EVE-LFP square battery cell-3.2V100Ah		
Rated capacity	100Ah		200Ah
Rated total energy	5.12kWh		10.24kWh
Rated voltage	51.2V		
Voltage range	43.2~58.4V		
Photovoltaic power generation parameters			
	5000W		
MPPT voltage range	120~450V		
Solar charging current	0~80A		
AC parameters			
Rated output power	5000W		
Rated output voltage	230Vac (200/208/220/240Vac) ±5%		
Output frequency range	50Hz ± 0.3Hz /60Hz ±0.3 Hz		
Efficiency	input>95% , output>90%		
System parameters			
Weight	45kg	80kg	
Size (height * width * depth)	850*480*160mm	1120*480*180mm	
Protection class	IP54		
Cooling mode	Forced air cooling		
Ambient temperature	Charge:0℃~55℃/Discharge:-20℃~60℃/Storage:-10℃~45℃/		
Operating humidity	5~95% , relative humidity		
Installation mode	Wall-mounted		
Communication methods	CAN, RS485 , RS232		

Product dimensions





Product Introduction

The power wall lithium energy storage battery uses long working life LiFePO4 battery, wall mounted installation is more convenient and beautiful, high performance BMS to protect and manage the battery system, it has wider usage and longer life than traditional battery.

Product features

- High power, friendly interface, free combination
- High quality battery cell, precise combination
- CAN/RS485/WIFI/4G/Bluetooth communication
- BMS customization supported
- Thick shell, well protection for inside cells

Application area

- Energy storage system, control system, alarm system, power system, database
- Emergency lighting system, emergency power supply, UPS
- Telecommunication, communication, fire fighting system

BMS Protection



Over Current



Over Voltage



High Temperature

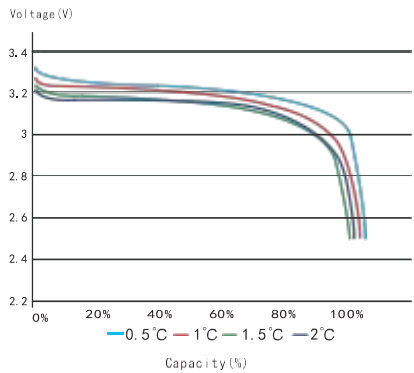


Low Voltage

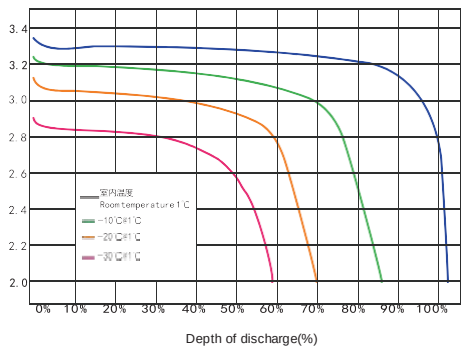


Short Circuit

(@Different Rates)



Typical discharge characteristics at different temperatures Voltage(V)

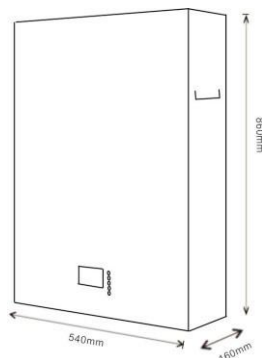
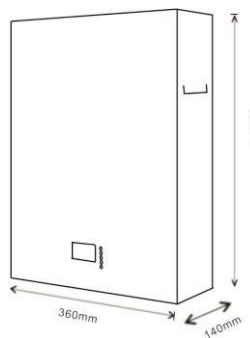


* The curves maybe different according to specific customer requirement

Products specification

Model	100Ah/48V	100Ah/51.2V	200Ah/48V	200Ah/51.2V
Capacity	4.8KWH	5.12KWH	9.6KWH	10.24KWH
Standard Discharging Current	50A	50A	50A	50A
Max Discharging Current	100A	100A	100A	100A
Working Voltage	40.5-54VDC	43.2-57.6VDC	40.5-54VDC	43.2-57.6VDC
Standard Voltage	48VDC	51.2VDC	48VDC	51.2VDC
Max Charging Current	50A	50A	100A	100A
Max Charging Voltage	54V	57.6V	54V	57.6V
Suggested DOD Model	90%		90%	
Humidity	20-60%		20-60%	
Installation	Wall mounted installation		Wall mounted installation	
IP Rating	IP20		IP20	
Max Number Of Parallel	16		16	
Communication	CAN/RS485/RS232(WiFi/bluetooth/4G optional)		CAN/RS485/RS232(WiFi/bluetooth/4G optional)	
Product Size	570*360*140mm		860*540*160mm	
Packing Size	690*480*285mm		980*660*305mm	
Net Weight	47Kg	53Kg	82Kg	90Kg
Gross Weight	55.5Kg	61.5Kg	90.5Kg	98.5Kg

Product dimensions



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

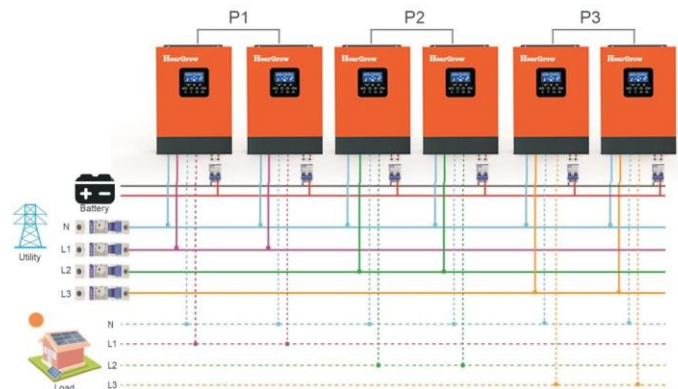
- Pure sine wave off-grid type optical storage integrated machine
 - Output power factor 1
 - Up to 6units can be paralleled,built-in dust screenfor use in harsh environments
 - Wide PV input voltage range(120-500VDC) It
 - can work normally without a battery
 - Built-in 100A MPPT solar charger
 - Battery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



- Without battery connected



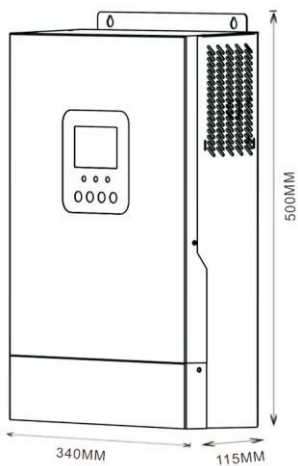
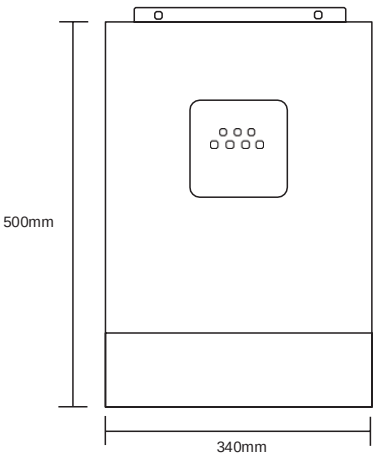
- Single phase output up to 33KW using 6 units
- Three phaseoutput using either 3units(16.5KW)or max 6units(33KW)



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



Standard Cabinet Type Energy Storage Battery



Product introduction

This product is an advanced product developed in response to the requirements of current communication operators for new backup power supply under the new trend of communication. It has a new type of square aluminum-shell lithium iron phosphate battery with integrated, miniaturized, lightweight, intelligent and environmental protection.

Product features

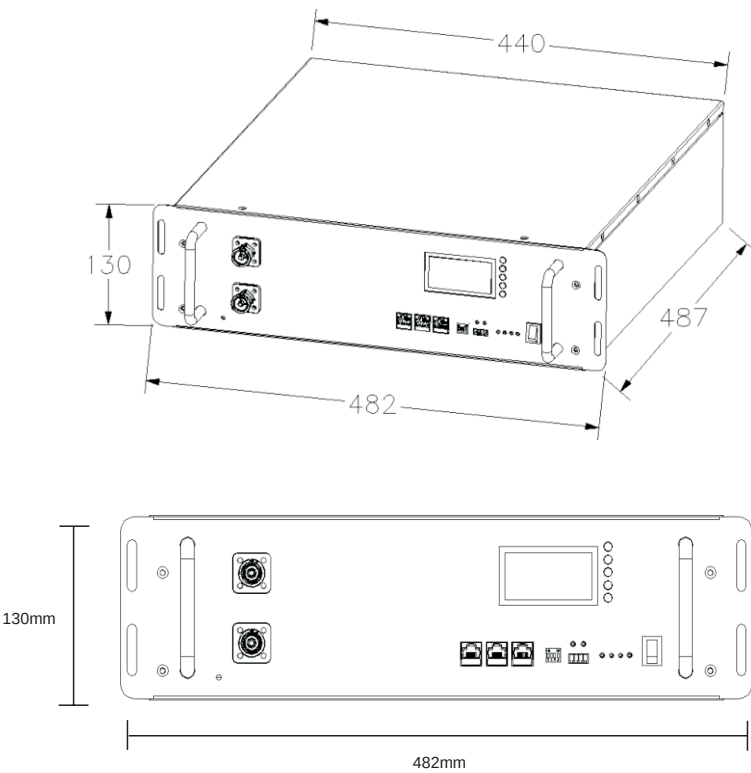
- Integrated design: 16 series battery modules+battery management system+rack type standard chassis
- The rack-mounted installation size of the standard cabinet conforms to EIA and ETSI specifications
- Strong environmental adaptability, wide working temperature range, RS232 interface and RS485 interface
- With automatic fire extinguishing module



Products specification

Core series-parallel connection	3.2V/100Ah
Rated capacity	1P16S
Nominal voltage	100Ah
Working voltage	51.2V
Volume	43.2-57.6V
Rated charge and discharge current	5.12kWh
Cycle life	5000 cycles
Operating temperature	0℃ ~ 55℃
Weight (Kg)	40±0.5Kg
4G/Bluetooth module	Optional

Product dimensions





Product introduction

Tohperloittheicutmanednemragny astgoertahgeebbaatttteerry suyssetelomn,giwt hoarksiwngidlieferr
uLsiFaegPeOa4nbdalottnegrey,ralinfedthhiagnhtpraedrfitoiromnaalnbcattBeMryS.
Product features.

Product features

- High power ,friendly interface ,free combination
- High quality battery cell,precise combination
- BMS customization supported

Application area

- Energy storage system, control system, ala m system, power system, database
- Emergency lighting system, emergency power supply,UPS
- Telecommunication, communication, fire fighting syste

BMS Protection



Over Current



Over Voltage



High Temperature

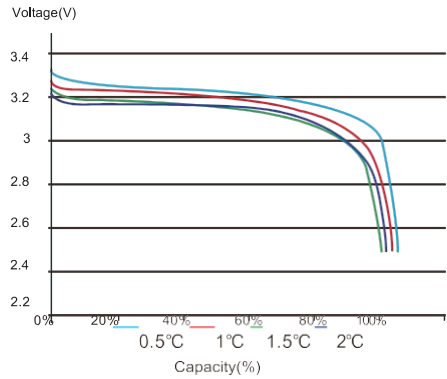


Low Voltage

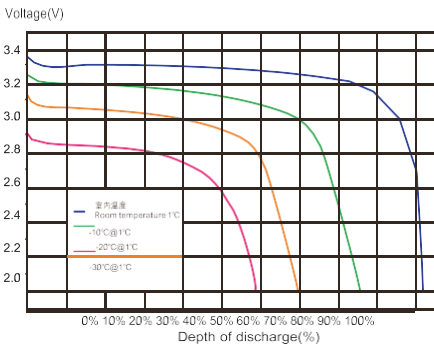


Short Circuit

(@Different rates)



Typical discharge characteristics at different temperatures

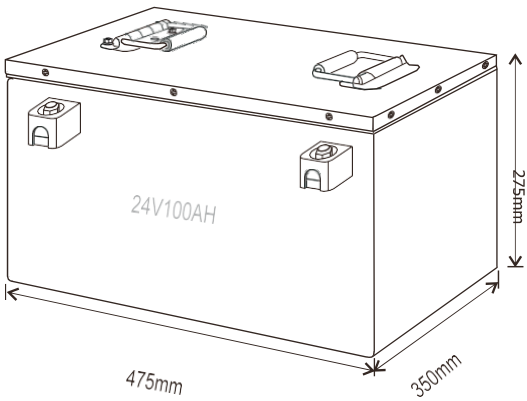
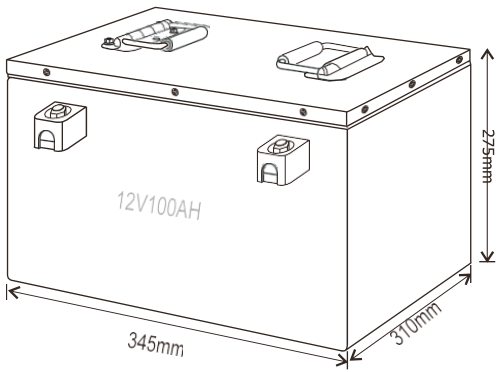


* The curves maybe different according to specific customer requirement

Products specification

Capacity	12V100AH	12V200AH	24V100AH	24V200AH	48V100AH	48V200AH
Continuous Discharge Current	50A	100A	50A	100A	50A	100A
Peak Protection Current	100A	200A	100A	200A	100A	200A
Working Voltage	10-14.6V	10-14.6V	20-29.2V	10-14.6V	37.5-54.75V	37.5-54.75V
Standard Voltage	12.8V	12.8V	25.6V	12.8V	48V	48V
Continuous Work Current	50A	100A	50A	100A	50A	50A
Max Charging Voltage	14.6V	14.6V	29.2V	14.6V	54.75V	54.75V
Suggested DOD Model	80%	80%	80%	80%	80%	80%
Size(mm)	345*310*275	475*350*275	475*350*275	525*490*275	525*490*275	560*520*320
Weight	12.5kg	22kg	22kg	40kg	40kg	75kg
Humidity	≤85%					
Cooling Type	Natural Cooling					
Warranty	10 years					

Product dimensions



Lithium Energy Storage Battery of Plastic Shell



Product introduction

The lithium energy storage battery use long working life LiFePO4 battery, and high performance BMS to protect and manage the battery system, it has wider usage and longer life than traditional battery.

Product features

- High power, friendly interface, free combination High
- quality battery cell, precise combination BMS
- customization supported
- Ip67

Application area

- Energy storage system, control system, alarm system, power system, database
- Emergency lighting system, emergency power supply, UPS Telecommunication,
- communication, firefighting system

Protection and use



Over Current



Over Voltage



High Temperature



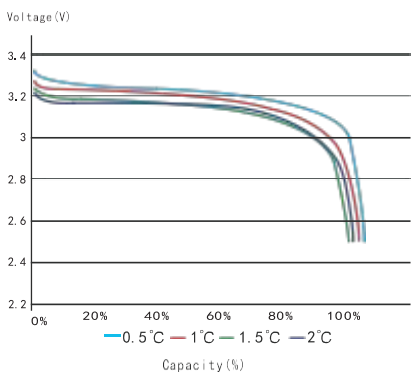
Low Voltage



Short Circuit

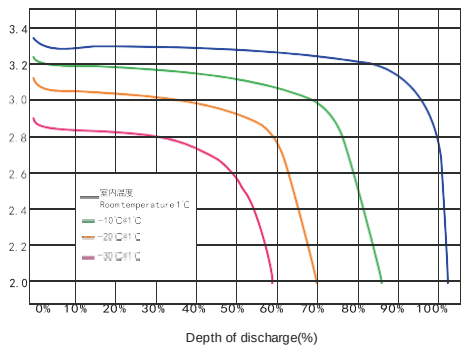
Performance curve

(@Different Rates)



* The curves maybe different according to speci fic customer requirement

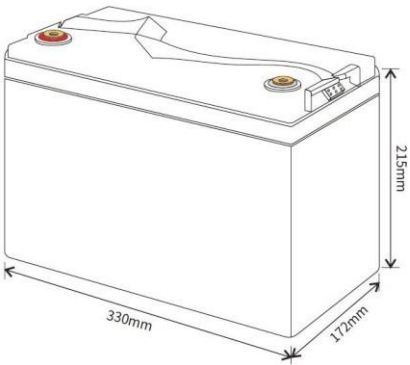
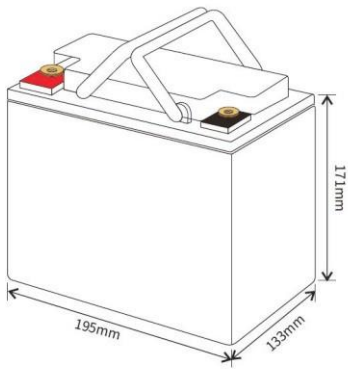
Typical discharge characteristics at
diff erenttemperatures Voltage(V)



Products specification

Capacity	12.8V7AH	12.8V12AH	12.8V30AH	12.8V50AH	12.8V100AH	12.8V150AH	12.8V200AH	25.6V50AH	25.6V100AH
Continuous Discharge Current	3.5A	8A	15A	25A	50A	75A	100A	25A	50A
Peak Protection Current	7A	12A	30A	50A	100A	150A	200A	50A	100A
Working Voltage	10-14.6V	10-14.6V	10-14.6V	10-14.6V	10-14.6V	10-14.6V	10-14.6V	20-29.2V	20-29.2V
Standard Voltage	12.8V	12.8V	12.8V	12.8V	12.8V	12.8V	12.8V	25.6V	25.6V
Max Charging Voltage	14.6V	14.6V	14.6V	14.6V	14.6V	14.6V	14.6V	29.2V	29.2V
Suggested DOD Model	80%	80%	80%	80%	80%	80%	80%	80%	80%
Size(mm)	147*64*93	151*99*94	195*133*171	229*138*208	256*165*210	483*170*240	521*238*218	256*165*210	521*238*218
Weight	0.9kg	1.5kg	3.2kg	4.5kg	10kg	15kg	19kg	10kg	19kg
Humidity	≤85%								
Cooling Type	Natural Cooling								
IP Rating	IP67								

Product dimensions



Car Start-stop Lithium Battery



Product introduction

The battery adopts a high-rate power type imported lithium iron phosphate battery pack. The lithium iron battery is light in weight and has strong starting performance. Excellent low temperature performance, easy to start in winter. It has comprehensive intelligent BMS protection, overcharge and overdischarge protection. Long service life, can be used for more than 10 years.

Product features

- Highpower,friendlyinterface,freecombination
- Highqualitybatterycell,precisecombination
- CAN/RS485/WIFI/4G/Bluetoothcommunication
- BMScustomizationsupported
- Thickshell,wellprotectionforinsidecells

Application area

- Energystoragesystem,controlsystem,alarmssystem,powersystem,database
- Emergency lightingsystem, emergency powersupply, UPS
- Telecommunication, communication, fi re fightingsystem

BMS Protection



Over Current



Over Voltage



High Temperature



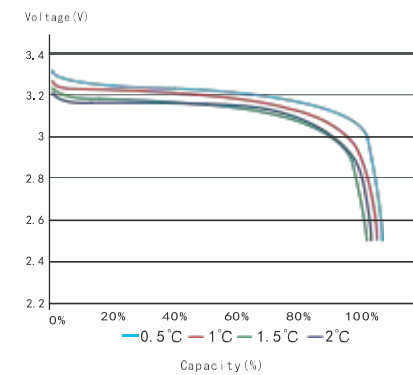
Low Voltage



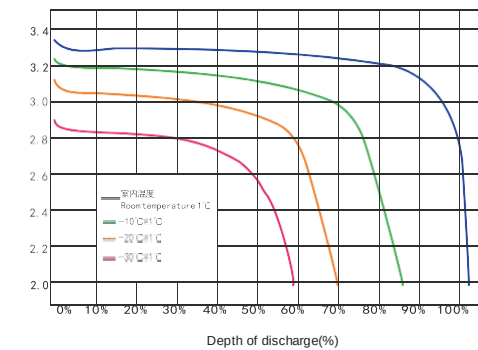
Short Circuit

Performance curve

(@Different Rates)



Typical discharge characteristics at different temperatures Voltage(V)



* The curves maybe different according to speci fic customer requirement

Products specification

Model	60	L2-400	55D23	57217	58043	100	120	25.6V50Ah	25.6V50Ah
With car mode	80D26/55D26/65D26-L/R	AGM-H5-60/055-27-L/R	60D23/86610R/86550-L/R	AGM-H6-70/57069/20-72-L/R	AGM-H7-80/082-20-L/R	AGM-92/H8-92/60038/100-20-L/R	AGN-H9	24V	24V
Capacity	60Ah	60Ah	70Ah	70Ah	80Ah	100Ah	120A	50A	60Ah
CCA	1400A	1400A	1600A	1600A	1800A	2000A	2200A	300A	500A
Working Voitage	10-14.6V	10-14.6V	10-14.6V	10-14.6V	10-14.6V	10-14.6V	10-14.6V	20-29.2V	20-29.2V
Standard Voitage	12.8V	12.8V	12.8V	12.8V	12.8V	12.8V	12.8V	25.6V	25.6V
Max Charging Voitage	14.6V	14.6V	14.6V	14.6V	14.6V	14.6V	14.6V	29.2V	29.2V
Suggested DOD Model	80%	80%	80%	80%	80%	80%	80%	80%	80%
Size(mm)	260*175*200	151*99*94	195*133*189	278*175*189	318*176*187	355*175*188	398*175*188	340*185*280	340*185*280
Weight(Kg)	6	6	6.5	6.5	8	9	10	15	15.5
Humidity	≤85%								
Cooling Type	Natural Cooling								
IP Rating	IK67								

Product dimensions

