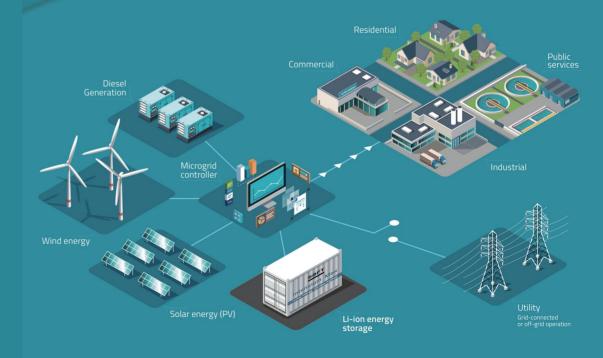
# **PKNERGY**. Inergy Storage System

# PKNERGY PRODUCT CATALOGUE



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- **Fax:** 86-755-86670609
- Website: www.pknergy.com/www.pknergypower.com
- E-mail: sales@pknergy.com/sales@pknergypower.com
- Address: 902,Tower B, Hongrongyuan North Station Center, North Station Community, Minzhi Street, Longhua District, Shenzhen, China







## **Company History**

• **1998** Parent company Pkcell

and entry into the battery

#### • 2006

Dongguan factory has been put into production with an annual output value of \$5 million.

## **2020**

#### • 2016

Pkcell Group's output value exceeded \$50 million.

#### Canada, the United States office was officially established. At the same time, Pknergy was officially established and officially entered

• 2013

Yongzhou, Changsha office was established

Company Profile **v** 

Shenzhen Pknergy Energy Co., Ltd is a new energy company established in 1998, mainly engaged in lithium batteries, lithium iron phosphate(LiFePO4) batteries, and lithium lead-acid batteries, li-polymer batteries. PKnergy specializes in R&D, production, sales of energy storage solutions, and renewable energy solutions. Focus on becoming a high-tech enterprise of green energy and a battery solution provider for customized applications.

Since its establishment, Pknergy has been committed to serving communication, IT, home applications, finance, security, transportation, high-end consumer electronics, medical equipment, power tools and other industries involving batteries and power. After years of development, Pknergy has become one of the top lithium battery solution providers in the global market.

After years of development, Pknergy has become one of the top lithium battery solution providers in the global market.

At the same time, we have the most advanced ODM service, processing and production and the most powerful full supply chain system. As a participant in the global market, PKNERGY's products have passed CB, UL, CE/IEC, reach, RoHS and other international certifications. In addition, PKNERGY has also introduced ISO9001 and ISO14001 systems. Due to its rapid growth,

PKNERGY has introduced the best equipment, the most advanced technology and management system. The innovative attitude always brings customers the best product and service experience.

PKNERGY has established lots of logistics warehousing bases to efficiently serve customers in North America Canada, USA, etc.

**2021** Pknergy has officially enter the energy storage sector,

successively launching

other basic models.

Pknergy is officially entering the industrial and commercial energy storage space.

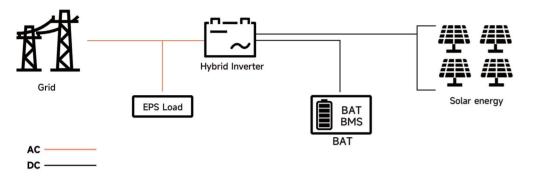
2023



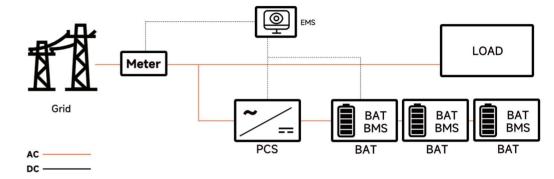
**PKNERGY**.



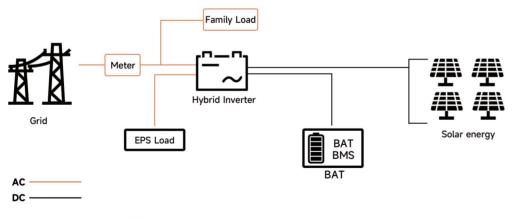
Industrial Power Solutions



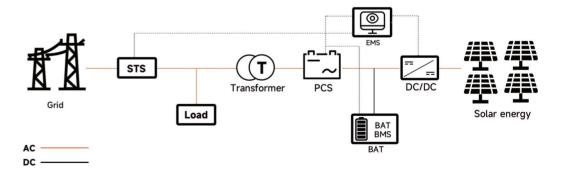
**OFF-Grid energy storage system** 



### **ON-Grid energy storage system**







### **ON/OFF-Grid energy storage system**





## Application scenarios





## No Electricity Areas

## Industrial Project



Family



## Building



**Communication Station** 





### Ship

## **PKNERGY Full Range Of Products**



Islands

## **LiFePO4 Battery Series**





• PK-HMT-11KW



Pk-48100P-N
Pk-512100P-N
Pk-24200P-N

PKNERGY

PK-HES-6KW

#### **Rack-mounted Battery Seires**



PK-48100R/PK-512100R
PK-48200R/PK-512200R

### LiFePo4 Battery Pack





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• PK-48200P-S

• PK-512200P-S

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## **BESS Series**

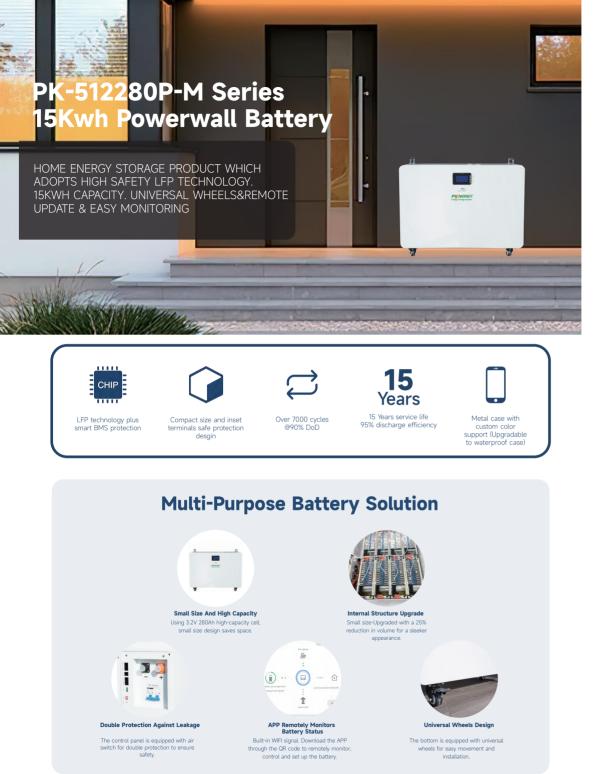












## **Technical Specifications(BAT)**

Model	РК-512280Р-М	
Nomingl Voltage	51.2v	
Cell model/Configuration	3.2V280Ah(EVE)/16S1P(51.2)	
Capacity	280AH	
Raled Energy	14.336KVH	
Usable Energy	12.9KWH	
Max.Charge/Discharge Current	150A/150A	
Voltage Range	48—56.5V	
Scalability	Up to 10 parallel	
Connunieation	RS232-PC, TYPE-C, RS485-Inverter, Canbus-Inverter	
cycle Life	≥7000cycles@25°C, 90%DOD,60%ECL	
Design Life	≥15 Years	
MECHANICAL SPECIFICATIONS		
Weight	Approx : 115kg	
Dimension	780*240*500mm	
Installation Mode	Round Installation	
iP Grade	IP21	
SECURITY AND CERTIFICATION		
Safety (Pack)	CE-EMC,UN38. 3,MSDS	
Safety (Cell)	UN38.3,NSDS	
Protection	BMS, Breaker	
ENVIRONMENTAL SPECIFICATIONS		
Operating Temperature	Charge:-10°C~50°C;Discharge:-20°C-50°C	
Altitude (m)	≤2000	
Humidity	≤95%	

**PKNERGY**.





#### **Multi-Purpose Battery Solution**



Double Protection Against Leakage The control panel is equipped with an air switch with insulating nut for double protection to improve safety



Small Size Reduce Volume Occupied Upgraded with a 25% reduction in volume for a sleeker appearance.



Upgraded External To Prevent Touch Positive & negative poles protected, After wiring, tighten the screws to



Side Handles & Back Hanger To Easy Installation The back hanger adopts an inverted triangle design, easy to install with a load of over 300Kg.

### **Technical Specifications(BAT)**

Model	PK-24200P-N/PK-48100P-N	PK-512100P-N			
Nominal Voltage	25.6V(8series)/48V(15series)	51.2V(16series)			
Cell model/Configuration	3.2V100Ah/8S2P(25.6V) 3.2V100Ah/15S1P(48V)	3.2V(100Ah)/16S1P(51.2V)			
Capacity	200AH/100AH	100AH			
Rated Energy	5.12KWH/4.8KWH	5.12KWH			
Usable Energy	4.6-4.8	зкwн			
Max. Charge/Discharge Current	100-200A(Optional)	100-200A(Optional)			
Voltage Range	23-28.5V/43-53V	48-56.5V			
Scalability	Up to 16	parallel			
Communication	RS232-PC,TYPE-C(PC),RS485-Inverter,Canbus-Inverter				
Cycle Life	≥7000cycles@25°C,90% DOD,60%EOL				
Design Life	≥15Years				
MECHANICAL SPECIFICATIONS					
Weight	Approx:48kg Approx:49kg				
Dimension	580*390*185 mm				
Installation Mode	Wall Ha	anging			
IP Grade	lP21/IP65	Optional]			
MECHANICAL SPECIFICATIONS					
Safety (Pack)	CE-EMC,UN38.3,MSDS				
Safety (Cell)	UN38.3,MSDS,IEC62619,CE,UL1973,UL2054				
Protection	BMS. Breaker				
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature	Charge:-10°C~50°C;Discharge:-20°C-50°C				
Altitude (m)	≤2000				
Humidity	≤95%				

**PKNERGY**.

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APP Remotely Monitors Battery Status

Built-in WIFI signal. Download the APP

through the QR code to remotely monitor,

... (5)

(i) ··· (ii)

## PK-512200P-E Series 10KWH PowerWall battery





#### **Multi-Purpose Battery Solution**

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18

APP Remotely Monitors Battery Status

Built-in WIFI signal. Download the APP

through the QR code to remotely monitor,

control and set up the battery.

16

(i) ··· (i) ··· (i)



Double Protection Against Leakage The control panel is equipped with an air switch with insulating nut for double protection to improve safety



Small Size Reduce Volume Occupied Upgraded with a 25% reduction in volume for a sleeker appearance.



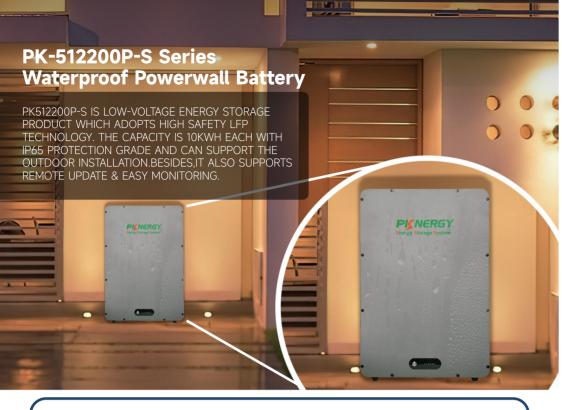
Upgraded External To Prevent Touch Positive & negative poles protected, After wiring, tighten the screws to



Side Handles & Back Hanger To Easy Installation The back hanger adopts an inverted triangle design, easy to install with a load of over 300Kg.

## **Technical Specifications(BAT)**

Model	РК-48200Р-Е	РК-512200Р-Е				
Nominal Voltage	48V	51.2V				
Cell model/Configuration	3.2V100Ah 15S2P	3.2V100Ah 16S2P				
Capacity	200/	AH				
Rated Energy	9.6KWH	10.24KWH				
Usable Energy	8.64KWH	9.2KWH				
Max. Charge/Discharge Current(A)	100-200A(Optional)	100-200A(Optional)				
Voltage Range	43-53V	48-56.5V				
Scalability	Up to 16	parallel				
Communication	RS232-PC,RS485(B)-BAT,RS48	5(A)-Inverter,Canbus-Inverter				
Cycle Life	≥7000cycles@25°C,9	90% DOD,60%EOL				
Design Life	≥15Years					
	ICAL SPECIFICATIONS					
Weight	92kg 96kg					
Dimension	485*690*186mm					
Installation Mode	Wall Hanging					
IP Grade	IP	21				
MECHANICAL SPECIFICATIONS						
Safety (Pack)	IEC62619, UL1973,CE-EMC,UN38.3,MSDS					
Safety (Cell)	UN38.3,MSDS,IEC62619,CE,UL1973,UL2054					
Protection	BMS. Breaker					
ENVIRONMENTAL SPECIFICATIONS						
Operating Temperature(°C)	Charge:-10°C~50°C;Discharge:-20°C-50°C					
Altitude (m)	≤2000					
Humidity	≤95%					





## **FEATURES AND ADVANTAGES**



The DIP switch is improved and adopts a DIP-free desig fou do not need to perform dialing operations when usi alone or in parallel, and the address is automatically ecognized







Advar and de



Fashionable arance on are using the most manufacturing processes.The



Maintenance Window easy to replace fuse

APP remotely monitors battery status Bult-in WFI signal. We will provide a QR code to download the battery remote control APP to belin your monitor and sat in the battery

## **Technical Specifications(BAT)**

Model	PK-48200P-S	PK-512200P-S	
Nomingi Voltage	48V	51.2V	
Cell model/Configuration	3.2V100Ah/15S2P	3.2V100Ah/16S2P	
Capacity(Ah)	200	)AH	
Rated Energy(KWH)	9.6KWH	10.24KWH	
Usable Energy(KWH)	8.64KWH	9.2KWH	
Max. Charge/Discharge Current(A)	100-200A(Optional)	100-200A(Optional)	
Voltage Range(Vdc)	43-53V	48-56.5V	
Scalability	Up to 1	6 parallel	
Communication	RS232-PC,RS485(B)-BAT RS485(A)-Inverter,Canbus-Inverter		
Cycle Life	≥7000cycles@25°C,90% DOD,60%EOL		
Design Life	≥15Year	s (25°C)	
MECHANICAL SPECIFICATIONS			
Weight (Approx)(KG)	92kg	96kg	
Dimension (W/D/H)(mm)	485*690*	*186mm	
Installation Mode	Wall H	langing	
IP Grade	IP	65	
Safety(Pack)	IEC62619, UL1973,C	E-EMC,UN38.3,MSDS	
Safety(Cell)	UN38.3,MSDS,IEC62	619,CE,UL1973,UL2054	
Protection	BMS.Breaker		
ENVIRONMENTAL SPECIFICATIONS			
Operating Temperature(°C)	Charge:-10°C~50°C;Discharge:-20°C-50°C		
Altitude (m)	≤2000		
Humidity	≤95%(Non-	-condensing)	



#### **Multi-Purpose Battery Solution**







With UL Certificate.

15 Years Of Service Life With A 10-Year Warranty.



Upgraded BMS And More Compact Internal Layout.



Up To 25 Units In Parallel & Supports Stacking Into Cabinets

## **Technical Specifications(BAT)**

Model	PK-48100R/PK-512100R PK-48200R/PK-512				
Cell model/Configuration	3.2V 100Ah/15S1P 3.2V 100Ah/16S1P	3.2V 200Ah/15S2P 3.2V 200Ah/16S2P			
Voltage	48V/51.2V				
Capacity	100AH	200AH			
Rated Energy	4.8/5.12KWH	9.6/10.24WH			
Usable Energy	4.6KWH	9.45KWH			
Max.Charge/Discharge Current	100-2	200A			
Voltage Range	43-53V/4	18-56.5V			
Scalability	Up to 25	parallel			
Communication	RS232-PC,TYPE-C(PC).RS485-Inverter,Canbus-Inverter				
Cycle Life	≥7000cycles@25°C,90% DOD,60%EOL				
Design Life	15Years				
	ONS				
Weight	48kg	92kg			
Dimension	L480*W482*H133mm L460*W482*H178mm L680*W482*H178mm				
Installation Mode	Sta	ack			
IP Grade	IP	21			
MECHANICAL SPECIFICATIO	ONS				
Safety (Pack)	UN38.3,MSDS,IEC62619 CE-EMC,UL1973	CE-EMC,UN38.3,MSDS			
Safety (Cell)	UN38.3,MSDS,IEC62619 CE,UL1973,UL2054 UN38.3.MSDS				
Protection	BMS. Breaker				
ENVIRONMENTAL SPECIFICATIONS					
Operating Temperature(°C)	) Charge: -10°C~50°C; Discharge: -20°C-50°C				
Altitude (m)	≤2000				
Humidity	≤95%				

## PK LFP Series Lithium Phosphate Battery Pack Lead Acid Peplacement Battery

PK LFP SERIES LIFEP04 BATTERIES PROVIDE EFFICIENT ENERGY OUTPUT CELLS AND ACCEPT CONTINUOUS HIGH-RATE CHARGING CURRENT. SUPPORTS OVERVOLTAGE, OVERCURRENT, OVERDISCHARGE, AND OVERTEMPERATURE PROTECTION.



Multi-Purpose	Battery	Solution
---------------	---------	----------



Load Bearing Capacity Of 50Kg



ABS Case-IP65 Waterproof And Dust Proof Grade, And Can Be Customized To Upgrade The Metal Shell



Adhere To The Use Of Brand New Cells, Support 3 Times Refund During The Warranty Period





25.6V 100Ah 2560Wh

RO

12.8V 100Ah 1280Wh

XO

12.8V 100Ah 1280Wh

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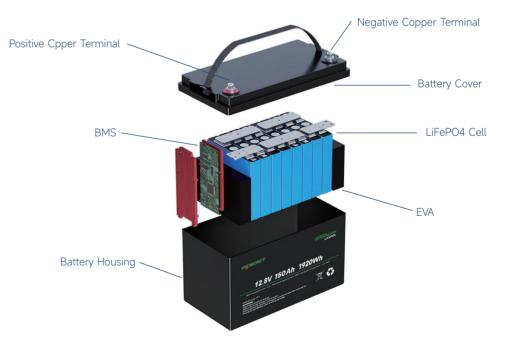
10 Years Of Service Life With A 5-Year Warranty



Internal Integrated BMS With Autonomous Monitoring Of Battery Safety

BATTERY TY	/PE	LIFEPO4 BATTERY					
Model		PK-1250-LFP	PK-12100-LFP	PK-12150-LFP	PK-12200-LFP	PK-24100-LFP	PK-24200-LF
Norminal vo	ltage(V)	12.8 12.8 12.8 12.8 25.6 25.6				25.6	
Nominal cap	acity(Ah)	50	100	150	200	100	200
Charging current Max	0.2C	0.2C	0.2C	0.2C	0.2C	0.2C	
	Max	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C
Discharging	0.5C	0.5C	0.5C	0.5C	0.5C	0.5C	
current Max		1C	1C	1C	1C	10	1C
Dimension(m	m)	197*165*170         330*172*215         522*240*218         483*170*240         522*240*2			522*240*218		

1. TEST CONDITIONS: CELL VOLTAGE 2.5 ~ 3.65V, 0.5C CHARGE & DISCHARGE AT +25 ±2 °C FOR BATTERY SYSTEM AT BEGINNING LIFE. 2. NOMINAL DIS- / CHARGE CURRENT AND POWER DERATING WILL OCCUR RELATED TO TEMPERATURE AND SOC







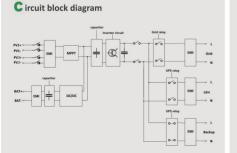
#### **P**roduct characteristcs

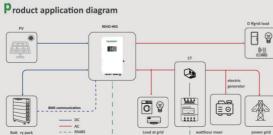


① CT/Dry AC OUTPUT
 AC OUTPUT ② PARALLEL ① AC INPUT ③ WIFI SWITCH ④ Rs232 ⑤ Rs485 PV PORT
 PV
 PORT
 ⑦ BATTERY GROUNDING () GEN



LCD touch screen

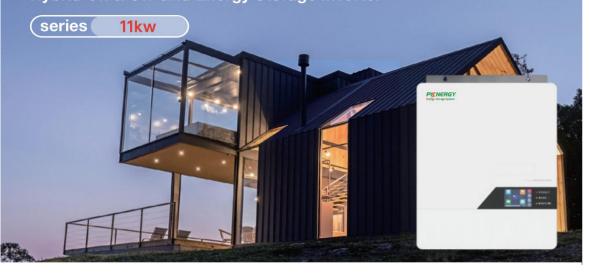




ENERGY STORAGE INVERTER IP65

Technical Specificaaon	PK-HES-6KW		
PV INPUT			
Max. power(kW)	7		
Max. DC voltage(V)	550		
MPPT voltage range(V)	90~450		
Max.input current(A)	30		
MPPT number/Max. input strings number	1/2		
AC OUTPUT(GRID-TIED)			
Grid voltage/range(V)	230/90-280(For Personal Computers);170~280(For Home Appliances)		
Frequency (Hz)	50 /60		
PF	0.8lagging-0.8leading		
THDI	<3%		
AC output topology	L+N+PE		
BATTERY	L+N+PE		
Batery voltage range(V)	42~63		
Max. charging voltage(V)	63		
	100/120		
Max. charge/discharge current(A) Batery type			
	Lithium /Lead-acid		
UPS OUTPUT			
Rated power (kw)	6		
Rated output voltage(V)	220/230/240		
Rated output current(A)	25/27/27.2		
Rated frequency (Hz)	50/60		
Transfer Time(ms)	<10		
THDu	<2%		
Overload capacity	5s≥110% oad;10s≥101%~110% oad		
PROTECTION& FEATURE			
Anti-island po ttection	Yes		
Insulation monioring	Yes		
Residual current monitoring	Yes		
Arc fault protection	Yes(Optional)		
Parallel function	Yes,6 units		
Other protection	AC overcurrent, AC overvoltage, Over temperature protection		
GENERAL PARAMETER			
Efficiency(Peak)	94%		
Degree of protection	I P 65		
Operation empe ture	- 25°C~ 60°C,>45°C derating		
Cooling	smart cooling		
Relatve humidity	0 ~95%(non-condensing)		
Alttude	(>2,000m Derating)		
Dimensions W x D x H (mm)	345*197*661		
Net Weight(KG)	22.5		
Isolation anformer	Νο		
Self-consumption(W)	<5		
DISPLAY AND COMMUNICATION			
Display	Touch screen		
Interface	Standard:RS232,CAN&RS485, Optional: Blueooth, WiFi,CT		
Safety standard	EN/IEC 62109-1,EN/IEC 62109-2		

## Pknergy HMT Hybrid On & Off Grid Energy Storage Inverter





Easy access

smart load management

M

REVO HMT series is suitable for on-grid and off-grid applications.

Accessible through a LCD touch screen and through the web. Two outputs for

Remote Monitoring  $\odot$ Control and monitor your smart system on the move via our monitoring App and website

temperature protection

 $(\checkmark)$ 

Safe Built-in anti-dust kit for harsh environment AC overcurrent,AC overvoltage,over

Flexible Rate Tariff (5 Charge from the grid at off-peak time when energy is cheaper and discharge at peak time when energy is more expensive.

BMS Communication for lithium battery

- +

BMS

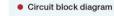


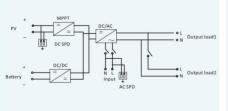


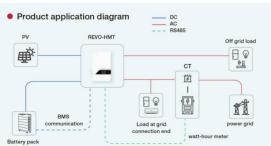




LCD touch screen

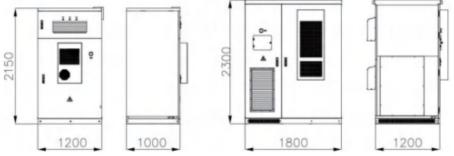






Technical Specification	PKHMT-11KW		
Rated Power	11000VA/11000W		
ACINPUT			
AC Voltage	230VAC		
Voltage Range	170-280VAC (For Personal Computers) ; 90-280 VAC (For Home Appliances)		
Frequency Range	50/60Hz (Auto sensing)		
AC OUTPUT			
Surge Power	22000VA		
Voltage Regulation (Battery Mode)	230VAC ± 5%		
Rated frequency	50/60Hz		
Efficiency (Peak)	93%		
Transfer Time	10ms (For Personal Computers) ; 20ms (For Home Appliances)		
BATTERY			
Battery Voltage	48VDC		
Floating Charge Voltage	54VDC		
Overcharge Protection	63VDC		
Battery type	Lithium/Lead-acid		
SOLAR CHARGER & AC CHARGER			
Maximum PV Array Open Circuit Voltage	500VDC		
Maximum PV Array Power	11000W		
MPPT voltage range(V)	90~450VDC		
Maximum input current	27A		
MPPT tracker/strings	2		
Maximum solar charge current	150A		
Maximum AC charge current	150A		
Maximum charge current	150A		
PROTECTION & FEATURE			
AC overcurrent	Yes		
AC overvoltage	Yes		
Over temperature protection	Yes		
Smart load management	Yes		
On Grid	Yes		
Parallel function	Yes,6 units		
GENERAL PARAMETERS			
Operation temperature	-10°C ~ 50°C		
Relative humidity	5% ~ 95% (Non-condensing)		
Altitude	(>2000m Derating)		
Dimensions D x W x H(mm)	147.4*43*553.6		
Net Weight(KG)	18.4		
DISPLAY AND COMMUNICATION			
Display	Touch screen		
Interface	Standard:RS232,CAN&RS485 Optional: WiFi,Bluetooth,CT		
Safety standard	EN/IEC 62109-1,EN/IEC 62109-2		





#### High energy storage battery series

- Highly integrated:Productized system. integrating energy storage battery.
- PCs and power distribution, temperature control fire extinguishing, water immersion door magnetic and monitoring communication to fully control the operating status and risks of the system.
- Fexible parallel functions:with patent technology of VSG features and functions .can realize the functions of multiple equipment remotely parallel and on/off grid switching without communication lines.
- Excellent protection:Patent outdoor cabinet protection design, optimizing heat dissipation and air ventilation, prevent dust and raino Front back and two sides with door for maintenance, easy to make multiple sets of systems side by side deployment on site,saving the floor space.
- Various functions:Standardized structure design, menu function configuration, solar charging module [DC-DC], and on/off grid switching module, isolation transformer and other components can be selected flexibly and efficiently under micro-grid and other applications.
- Space saving:Door mounted integrated air conditioning. does not occupy cabinet space, improving the available space of outdoor cabinet, keep top structure integrity, results in better waterproof effects.
- Intelligent management:Local monitoring screen can realize various functions such as system operation monitoring, energy management formulation and remote software upgrade of equipment.

Model	PK-BESS-100 PK-BESS-215 (ON) (ON)		PK-BESS-83 (ON/OFF)	PK-BESS-215 (ON/OFF)
Max.PV input power	/	/ /		100kW
Max.PV input power	/	/	620V	680V
STS	/	/	STS optional	STS optional
Transformer	/	/	Transformer inside	Transformer inside
		Batter	y (DC)	
Rated battery capacity	100kW	215kW	83kW	215kW
Rated system voltage	844.8V	768V	691.2V	768V
Battery type		Lithium iron phos	phate battery(LFP)	
Battery Cell capacity	120Ah	280Ah	120Ah	280Ah
Series of battery	1P*24S*11S	1P*20S*12S	1P*24S*9S	1P*20S*12S
		ļ	AC	
Rated AC power	50KW	100KW	50KW	100KW
Rated AC current	72A	72A 144A		144A
Rated AC voltage		400V, 3P+N	+PE, 50/60Hz	
THDi		<3%(rate	ed power)	
PF		1 leading t	to+1 lagging	
		General F	Parameters	
Protection level	IP55			
Isolation mode	Non-Isolation (Adding isolation transformer is optional)			
Operating remperature	·25~60°C (Derating above 45°C)			
Altitude (m)	3000m (>3000m derating)			
Communication interface	RS485/CAN 2.0/Ethernet/dry contact			
Dimension(W*D*H)	1200*1000*2150mm 1800*1200*2300mm 1400*1000*2300mm 1800-1200-2300			
Weight(with battery)	1200kg	2400kg	1750kg	3000kg

**PKNERGY**.















120KW Hy-Grid Solar System In Thailand



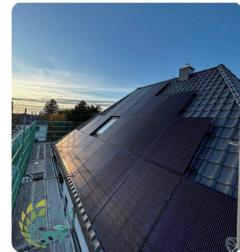
**BESS Container** 



20KW Hy-Grid Solar System In Indonesia



**Base station UPS power projects** 



70KW Resdential Use in Singapore



20KW Resdential Use in USA



14MW Hy-Grid Solar System



100KW On-grid Solar System in Hungary



#### Head Office

SHENZHEN PKNERGY ENERGY CO., LTD FUSPOWER INC(USA)

Address 7th Floor, block B, Yicheng Huanzhi center, Renmin Road,Longhua District, Shenzhen,China Tel 86-755-86670672 www.pknergy.com

www.pknergypower.com

#### **USA Branch Office**

Address 4650 Arrow Hwy Ste E6/7, Montclair, Ca,91763 Tel +1-909-971-3484 Fax +1-909-971-3483



#### Canada Branch Office

DURNERGY Inc. Address Unit #11, 270 Esna Park Dr., Markham, ON L3R 1H3, Canada Tel +1-(905) 604-7556 Fax +1-(905) 604-7559



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