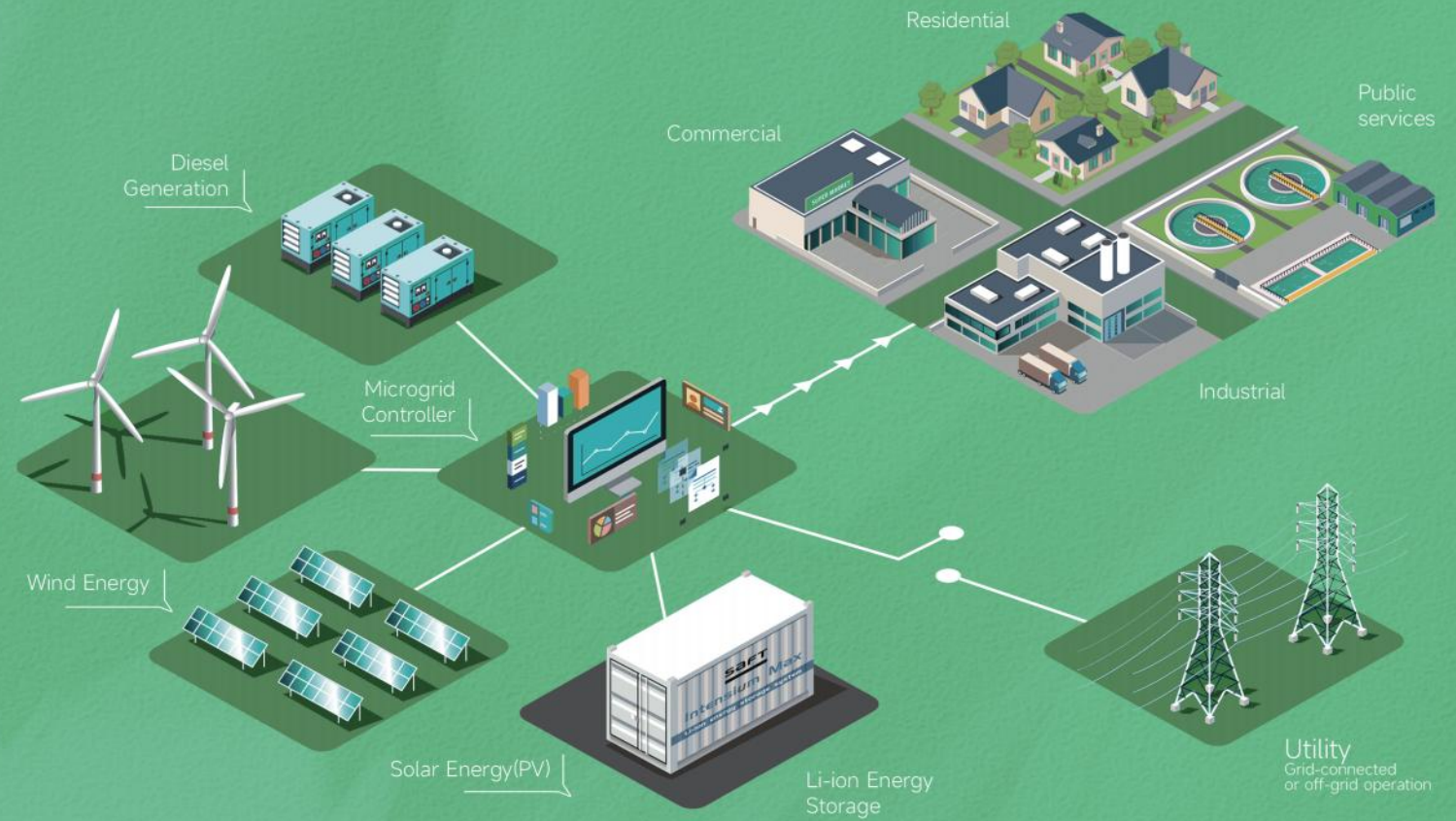


PKENERGY

PRODUCT CATALOGUE





POWERING FUTURE EMBRACE YOUR NATURE

About Us

PKnergy, headquartered in Shenzhen, China, operates three state-of-the-art manufacturing facilities in Dongguan. As a subsidiary of PKcell, with over 18 years of expertise in battery production, we employ more than 200 professionals. Our R&D team, comprising over 50 specialists with 8+ years of experience in the New Energy sector, possesses a deep understanding of energy storage systems and global carbon neutrality initiatives.

PKnergy holds a wide array of internationally recognized certifications, including TUV, UL, CE, ISO, and IEC. Our products have been shipped to over 100 countries across Europe, the Americas, the Middle East, and Africa, serving more than 300,000 households worldwide.

PKnergy is committed to providing intelligent energy solutions that enhance the utilization of renewable energy and actively support global carbon neutrality efforts.

20+
R&D Engineers

6000+
Square Meters

200+
Workers

12
Production Lines



Company History

1998

Parent company-Pkcell establishment and entry into the battery market.

2006

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

2013

Yongzhou, Changsha offices were established.

2023

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

2021

Pknergy has officially entered the energy storage sector, successively launching Rack-Mounted, Power wall and other basic models.

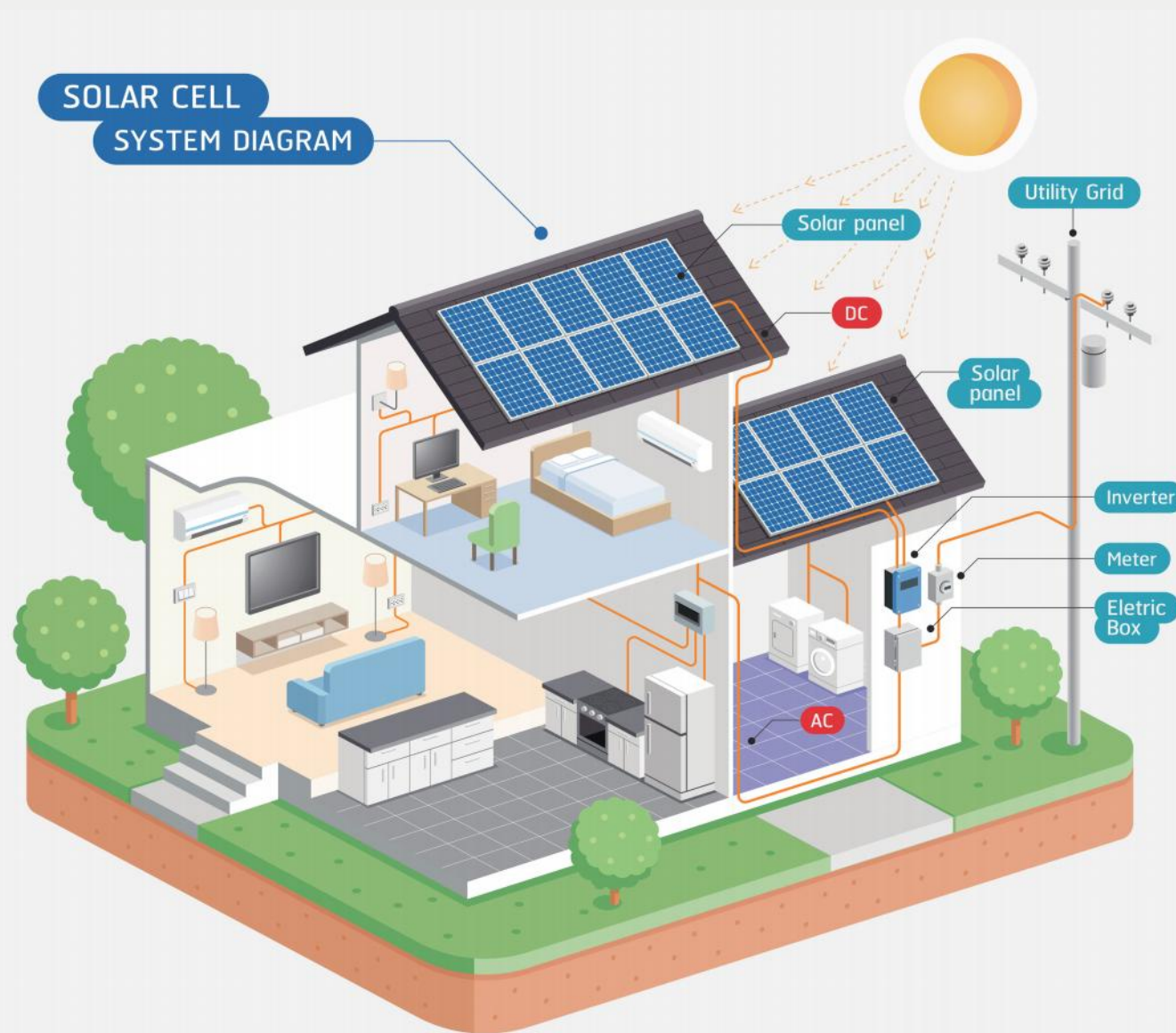
2020

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

2016

Canada, the United States office was officially established. At the same time, Pknergy was officially established and officially entered the field of lithium battery.

HOW DO SOLAR PANELS ACTUALLY WORK?



Solar energy is energy derived from sunlight. Whether you realise it or not, the sun already powers our planet, providing the necessary energy to keep the Earth's ecosystem alive and thriving. The amount of sunlight that reaches the earth's atmosphere is enough to power all our needs.

According to the US Department of Energy, 173000 terawatts of solar energy strike the earth continuously, which is more than 10000 times the world's total energy use. The sun is a free, sustainable, clean resource we can utilise in place of conventional electricity to power our day-to-day lives. Solar energy can be used to provide heat, light, and other electricity-dependent needs in residential and commercial buildings.

Solar panels are made of highly excitable, conductive materials. When the sun's rays hit the solar panels, the reaction creates direct current (DC) electricity. Do they work even on overcast days? Absolutely, since the sun's rays can still penetrate clouds and reach solar panels. Since most homes and businesses use alternating current (AC) electricity, your solar-generated DC energy will pass through an inverter to become AC electricity. This energy can be rationed into load for everyday essential appliance use, the rest stored into a battery, reverted back into a grid-entirely dependent on your choice and solar power system goals.

Solar panels enable humanity to maximise solar energy-a free, clean, energy resource. This is a major step in lowering carbon footprint and eventually achieving net-zero. Pknergy's new Energy catalogue aims to promote clean energy access with energy supplies at the best prices, and contributing to economic growth by pushing for energy savings.

WHY SOLAR ENERGY IS IMPORTANT?

There's a reason why so many homeowners and businesses are turning to solar power. The benefits are undeniable, and not just for individuals, but for the planet as a whole. Here are just a few of the many reasons that support the importance of solar energy.

IT SAVES YOU MONEY IN THE LONG RUN

Though the cost of installing solar panels or a solar electric system has decreased in recent years, some may still find the initial investment in solar energy to be intimidating. However, the key is remembering that installation is a one-time event, whereas paying for conventional electricity is a frequent, ongoing, and an expensive obligation, especially as electric rates continue to rise.

IT'S A RELIABLE, COST-EFFECTIVE ENERGY SOURCE

The sun is a renewable energy source. Fossil fuels will eventually run out, but sunlight won't. For that reason, solar energy is highly reliable. And unlike fossil fuels which are expensive to mine and utilize, it doesn't cost anything to receive sunlight. A one-time installation of solar equipment is all that's needed to reap the benefits.

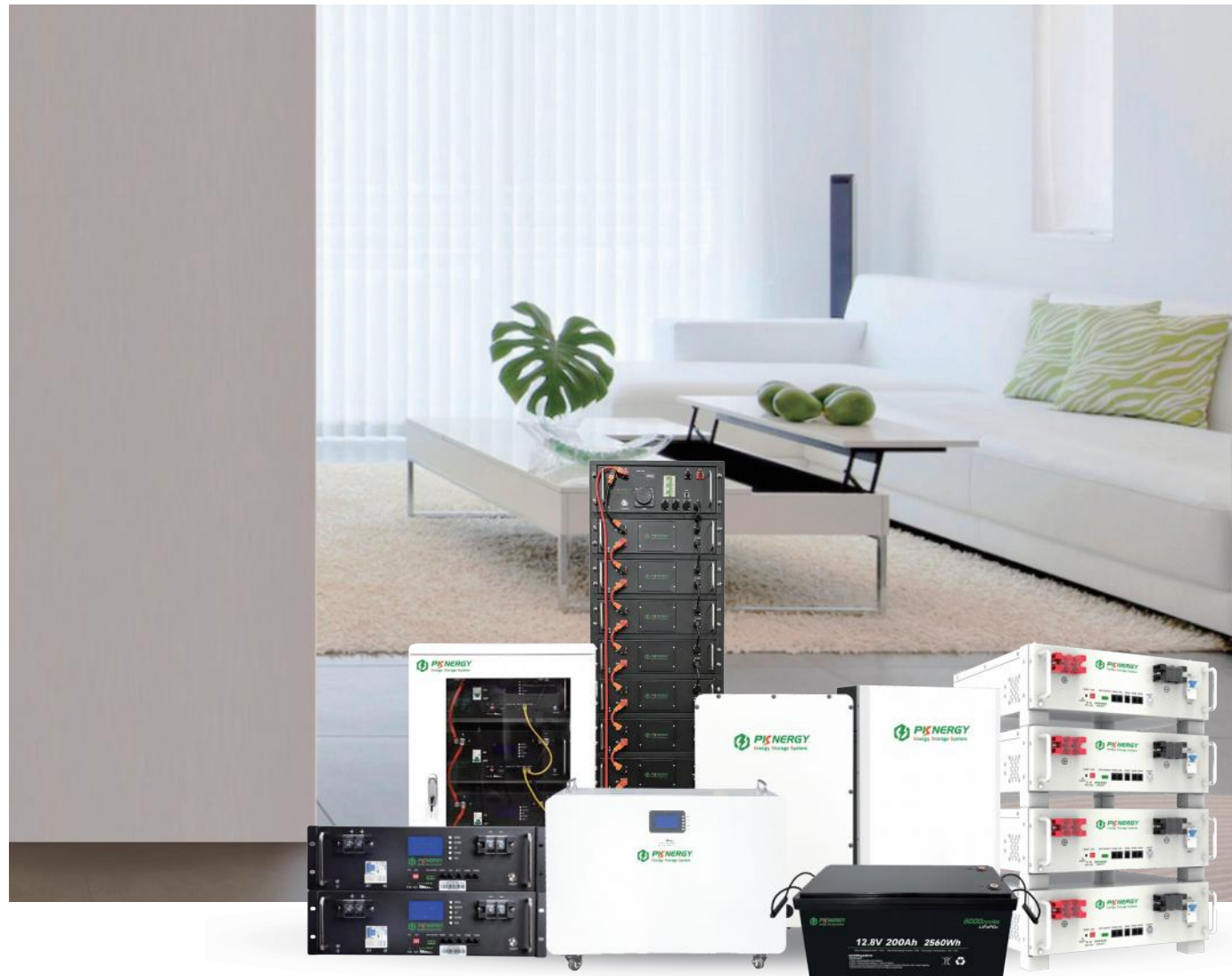
IT PROMOTES ENERGY INDEPENDENCE

Energy independence means not having to rely on the power grid. With no other means of powering your home, you could run into a variety of issues in the event of bad weather or damage to power lines. Using solar energy, especially when paired with a backup battery system, allows you to not be tied to unreliable power grids when you need energy most.

IT'S GOOD FOR THE ENVIRONMENT

The difference between solar energy and conventional electricity is that solar energy does not rely on the use of fossil fuels, does not pollute air or water, and does not contribute to global warming, making it the preferable option for many. Solar energy works with the earth's natural resources, whereas conventional electricity depletes or harms them.





Home Storage Battery Solutions

Our cutting-edge solar energy storage battery provide efficient and reliable power for homes worldwide. Designed to harness clean energy, they reduce electricity bills and provide backup power during outages, ensuring your home stays powered, day and night. By investing in our advanced inverters and batteries, you not only contribute to a greener future but also enjoy long-term savings on energy costs. Explore sustainable living with our innovative solutions tailored for modern households. Pknergy batteries are designed to be modular and scalable, allowing you to easily configure them to meet your desired load requirements. With IP65 waterproof, whether installed outdoors or used in wet environments, our batteries ensure safety and stability.

Inverter Solutions

Solar inverters are a crucial component in solar power systems, responsible for transforming the direct current (DC) produced by solar panels into alternating current (AC), which powers homes and businesses. Often referred to as the "heart" of a solar system, inverters are indispensable for making solar energy practical. Pknergy's solar inverters go beyond standard energy conversion, incorporating features such as data monitoring, advanced utility control, and energy management, enhancing both their intelligence and efficiency.



PK-512100P-N Series 5KWH Power Wall Battery



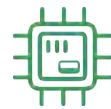
Easy Installation with wall-mounted latches



LFP technology with smart BMS protection

IP65

IP65 Upgradable



+ Intelligent BMS and App to monitor and track battery capacity



+7000 cycles lifespan with 10 years warranty



Model	PK-24200P-N/PK-48100P-N	PK-512100P-N
Nominal Voltage	25.6V(8 Series)/ 48V(15 Series)	51.2V(16 Series)
Cell Model/ Configuration	3.2V100Ah/ 8S2P(25.6V) 3.2V100Ah/ 15S1P(48V)	3.2V100Ah/ 16S1P(51.2V)
Capacity	200Ah/100Ah	100Ah
Rated Energy	5.12 kWh/4.8 kWh	5.12 kWh
Usable Energy	4.6-4.8 kWh	
Max.Charge/ Discharge Current(A)	100A-200A(Optional)	100A-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: 48 kg	Approx: 49 kg
Dimension	580*390*185mm	
Installation Mode	Wall Hanging	
IP Grade	IP21/IP65(Optional)	
Security And Certification		
Safety(Pack)	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%	



PK-512280P-M Series 15KWH Powerwall Battery



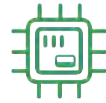
High Energy Density



LFP technology with smart BMS protection



+7000 cycle lifespan with 10 years warranty



+ Intelligent BMS and App to monitor and track battery capacity



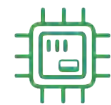
Easy Installation with Universal Wheels Design



Model	PK-512280P-M
Nominal Voltage	51.2V
Cell Model/ Configuration	3.2V280Ah(EVE)/16S1P(51.2V)
Capacity	280Ah
Rated Energy	14.336 kWh
Usable Energy	12.9 kWh
Max.Charge/ Discharge Current(A)	150A/150A
Voltage Range	48-56.5V
Scalability	Up to 10 parallel
Communication	RS232-PC, TYPE-C, RS485-Inverter, Canbus-Inverter
Cycle Life	≥7000cycles@25°C, 90%DOD, 60%EOL
Design Life	≥15Years
Mechanical Specifications	
Weight	Approx: 115 kg
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, 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-512200P-E Series 10 KWH Powerwall Battery



+ Intelligent BMS and App to monitor and track battery capacity



+7000 cycle lifespan with 10 years warranty



High Performance & Expandability



Easy Installation with wall-mounted latches



LFP technology with smart BMS protection



Model	PK-48200P-E	PK-512200P-E
Nominal Voltage	48V	51.2V
Cell Model/ Configuration	3.2V100Ah 15S2P	3.2V100Ah 16S2P
Capacity	200Ah	
Rated Energy	9.6 kWh	10.24 kWh
Usable Energy	8.64 kWh	9.2 kWh
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, RS485(A)-Inverter, Canbus-Inverter	
Cycle Life	≥7000cycles@25°C, 90%DOD, 60%EOL	
Design Life	≥15Years	
Mechanical Specifications		
Weight	92 kg	96 kg
Dimension	485*690*186mm	
Installation Mode	Wall Hanging	
IP Grade	IP21	
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%	



PK-512200P-S Series Waterproof 10KWH Powerwall Battery



IP65 IP65 Rating



+ Intelligent WIFI and APP automatically monitor and track battery capacity



LFP technology with smart BMS protection



+7000 cycle lifespan with 10 years warranty



Easy Installation with wall-mounted latches



Model	PK-48200P-S	PK-512200P-S
Nominal Voltage	48V	51.2V
Cell Model/ Configuration	3.2V100Ah/ 15S2P	3.2V100Ah/ 16S2P
Capacity	200Ah	
Rated Energy	9.6 kWh	10.24 kWh
Usable Energy	8.64 kWh	9.2 kWh
Max.Charge/ Discharge Current(A)	100A-200A(Optional)	100A-200A(Optional)
Voltage Range	43-53V	48-56.5V
Scalability	Up to 16 parallel	
Communication	RS232-PC, RS485(B)-BAT, RS485(A)-Inverter, Canbus-Inverter	
Cycle Life	≥7000cycles@25°C, 90%DOD, 60%EOL	
Design Life	≥15Years(25°C)	
Mechanical Specifications		
Weight	Approx: 92 kg	Approx: 96 kg
Dimension	485*690*186mm	
Installation Mode	Wall Hanging	
IP Grade	IP65	
Security And Certification		
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%	



5-10KWH Rack-Mounted Battery PK-512100R/PK-512200R



UL certificate



+7000 cycle lifespan
with 10 years warranty



Module Design &
Flexible expansion



Easy Installation &
Stackable with
flexible brackets



LFP technology
with smart BMS
protection



Model	PK-48100R/PK-512100R	PK-48200R/PK-512200R
Cell model/ Configuration	3.2V100Ah/15S1P 3.2V100Ah/16S1P	3.2V200Ah/15S2P 3.2V200Ah/16S2P
Voltage	48V/51.2V	
Capacity	100Ah	200Ah
Rated Energy	4.8/5.12 kWh	9.6/10.24 kWh
Usable Energy	4.6 kWh	9.45 kWh
Max.Charge/ Discharge Current(A)	100A-200A	
Voltage Range	43-53V/48-56.5V	
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	
Mechanical Specifications		
Weight	48 kg	92 kg
Dimension	480*482*133mm 460*482*178mm	680*482*178mm
Installation Mode	Stack	
IP Grade	IP21	
Security And Certification		
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%	

Single Phase Hybrid Solar Inverters



6 KW
PK-HES-6KW

05 YEARS
WARRANTY

Number of MPP Trackers*2

String per MPPT 1



MPPT channels up to 2 MPPT channels



Easy access with LCD Touch Screen



Remote Monitoring



IP65 rated

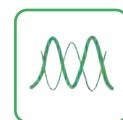


11 KW
PK-HMT-11KW

05 YEARS
WARRANTY

Number of MPP Trackers *2

String per MPPT 1



Flexible Rate Tariff



Easy access with LCD Touch Screen



Remote Monitoring



MPPT channels up to 2 MPPT channels

Single Phase Hybrid Solar Inverters

Hybrid inverters enable you to produce solar energy from panels, access power from the grid, and store any surplus energy produced by the panels in battery packs for use when needed. Power from the grid, solar PV system, or battery flows exclusively through one active wire, while the neutral wire is earthed at the switchboard



3-10 KW
R3K-10KL1DA-G2S

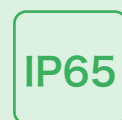
05 YEARS
WARRANTY

Number of MPP Trackers *2

String per MPPT 1



Zero export function (Integrated)



IP65 rating



Smart Energy Management



Battery reverse protection



With Bluetooth +WiFi setting and maintenance.



Lead-acid/ lithium Battery

Split-Phase hybrid inverter

The Low-Voltage North American Hybrid Inverter Series operates at 48V split-phase and supports up to 10kW for home energy storage. The Megarevo 48V model allows parallel connections of up to six units for scalable power. An intelligent display ensures easy monitoring and maintenance, making it an efficient solution for expanding home energy systems.



5-12 KW
 R5KLNA-R12KLNA

05
 WARRANTY YEARS

Number of MPP Trackers *2
 String per MPPT 2+1

Three Phase Hybrid Solar Inverters

Three-phase power includes four wires: three active wires and a neutral wire, which is earthed at the switchboard. This electrical setup is commonly found in larger homes, commercial buildings, and older residences. It provides the benefit of using thinner, more affordable wiring while operating at lower voltage levels.



8 KW
 SEI-8K-H3P

05
 WARRANTY YEARS



10 KW
 SEI-10K-H3P

05
 WARRANTY YEARS



12 KW
 SEI-12K-H3P

05
 WARRANTY YEARS



Touch LCD



Support storing energy from diesel generator



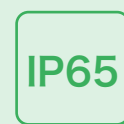
Split Phase 110Vac/220Vac & parallel function available



AC couple to retrofit existing solar system



Zero export function (Integrated)



IP65 protection degree



Up to 260A charging current



Touch LCD, IP65 protection degree



48V low voltage battery transformer isolation design



With software and hardware security protection



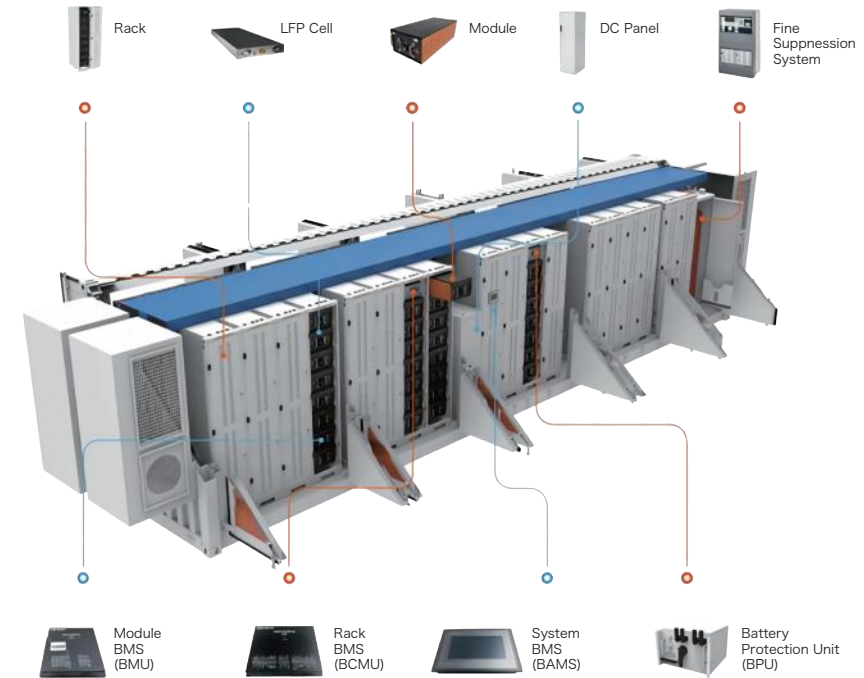
Easy to install and simple to use



Support storing energy from diesel generator



What would you expect in PKNERGY BHO/BHC/BHL BESS?



BESS Series

Pknergy's BESS series includes three series: PK-BHC(Container BESS) PK-BHO(Outdoor Cabinet BESS) and PK-BHL(Liquid Cooling BESS From CATL)

PK-BHO(Outdoor Cabinet BESS) contains 83 kWh (50 kW), 100 kWh (50 kW), 215 kWh (100 kW), and Power module, battery, refrigeration, fire protection, dynamic environment monitoring and energy management in one. It is suitable for microgrid scenarios such as small-scale commercial and industrial energy storage, string energy storage, PV-Diesel storage, and PV Storage.

PK-BHC(Container BESS) contains up to 5MWH (2.5MW) of a single cabinet and supports customization. The system integrates energy storage inverter, battery, fire protection, refrigeration, isolation transformer, dynamic environment monitoring and energy management, friendly grid adaptability, accepts grid dispatching, carries out active and reactive power compensation, supports peak shaving and valley filling, demand-side response, assists new energy grid integration and other applications.



Application scenario

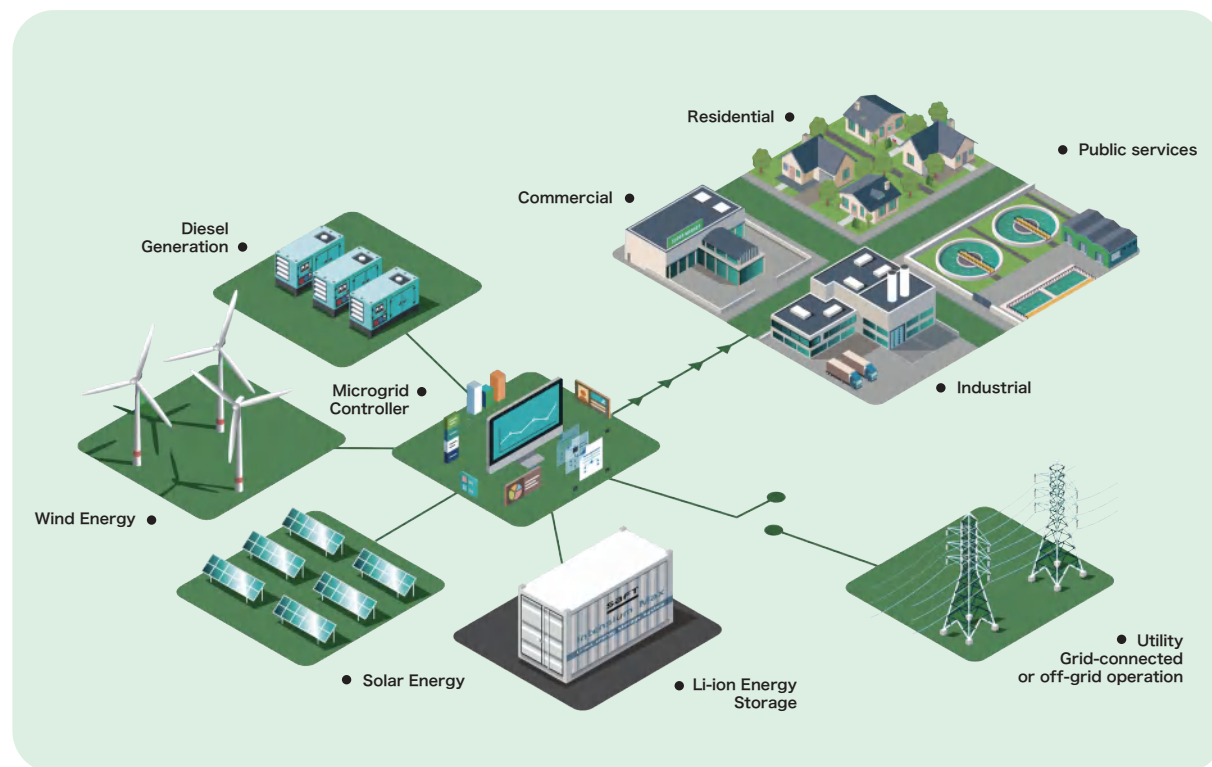
Micro-grid

The BHC/BHO integrates EMS and PCS to provide a powerful solution in helping operators prioritize power sources for different load needs and run critical and other loads independently.

From generating and absorbing power, to regulating actual and reactive power quality, PK BHC/BHO series energy storage systems serve a variety of roles as primary and backup power sources in micro-grids. It is perfectly compatible with solar, wind turbine diesel and gas generators, and on/off-grid.

Benefits of adding BHC/BHO BESS to your micro-grid solution

- 1 Efficient and flexible, suitable for any hybrid renewable energy power generation system
- 2 Realize self-power supply and reduce dependence on public power grid
- 3 The energy storage system can realize the black start of the micro-grid
- 4 Makes up for the negative impact of distributed output randomness on power grid security and economic operation, and can participate in power grid peak regulation, frequency modulation, voltage regulation and other auxiliary services.



Application scenario

User-side energy storage And Back-UP Power

User-side energy storage

In essence, user-side energy storage refers to the energy storage system used by industrial customers. The nature of these systems is to charge when the electricity price is low and discharge when the electricity price is high, and at the same time can be equipped with PV, wind and other new energy systems, thus reducing the overall electricity cost. If you're a small or medium business owner, or a homeowner looking to embrace clean energy, the Pknergy BSC/BSO Series Energy Storage System is your ideal partner.



Back-UP Power

Pknergy's BSC/BSO series integrates EMS, PCS, and STS for a robust energy storage solution. When the grid and photovoltaic systems operate normally, the BESS charges and stores energy. In the event of a grid failure, power outage, or voltage instability, it swiftly switches to load power supply, ensuring seamless system operation. Pknergy's BSC/BSO series is the ideal solution for critical applications such as communication rooms, hospitals, financial centers, and more.



Case Study

Energy Storage With PK-BHC-500/1000K-A.
Energy Storage Capacity: 500 kW/1000 kWh
Location: Zhejiang, China



- Charge/Discharge PK-BHC-500/1000K-A once per day

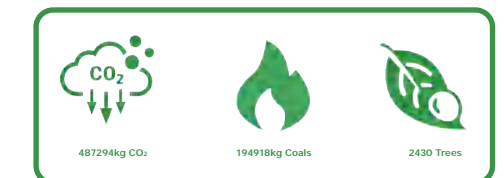
270MWH Annual Discharge	\$41,550 Revenue Per Year	4.5 YEARS Payback Period
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- Charge/Discharge PK-BHC-500/1000K-A twice per day

540MWH Annual Discharge	\$80,281 Revenue Per Year	2.5 YEARS Payback Period
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GO with PV 500 kwp

Average Sunshine 1528/ year
PK-BHC-500/1000K-A Charge from Grid & PV Discharge Twice per day
PK-HBC-500/1000-A Annual Revenue of energy arbitrage:
Peak to Valley \$62,480
PV Self-supply \$213,484
Solar Feed-in: \$58,733/year





PK-BHO-50/100K-A/B
PK-BHO Outdoor Cabinet BESS Series



Long-life LFP battery cells, cycle life > 7000 times, warranty 5 years, conversion efficiency up to 99.0%



Air-cooling temperature control design, battery pack temperature difference < 3°C, auxiliary power consumption reduced by 30%, extending system lifespan by 2 years+



Grade A long-life LFP battery cells, cycle life >7000 times



Modular expansion, supports up to 20 units in parallel



Support off-grid operation, providing backup power for critical loads

Model	PK-BHO-50/100K-B	PK-BHO-50/100K-A
Configuration	50kW/100kWh	50kW/100kWh
Max.PV input power	/	50 kW
Max.PV input voltage	/	620V
STS	/	STS optional
Transformer	/	Isolating Transformer inside
Battery(DC)		
Rated battery capacity	100 kWh	100 kWh
Rated system voltage	844.8V	844.8V
Battery type	Lithium iron phosphate battery (LFP)	
Battery Cell capacity	120Ah	120Ah
Series of battery	1P*24S*11S	1P*24S*11S
AC		
Rated AC power	50 kW	50 kW
Rated AC current	72A	72A
Rated AC voltage	400V,3P+N+PE,50/60Hz	
THDi	<3%(rated power)	
PF	-1 leading to+1 lagging	
General Parameters		
Protection level	IP55	
Isolation mode	Non-Isolation (Adding isolation transformer is optional)	
Operating temperature	-25~60°C(Derating above 40°C)	
Altitude	3000m(>3000m derating)	
Communication interface	RS485/CAN 2.0/Ethernet/dry contact	
Dimension(W*D*H)	1200*1000*2150mm	1800*1200*2300mm
Weight (with battery)	1200 kg	3000 kg



PK-BHO-100/215K-A/B
PK-BHO Outdoor Cabinet BESS Series



Long-life LFP battery cells, cycle life > 7000 times, warranty 5 years, conversion efficiency up to 99.0%



Air-cooling temperature control design, battery pack temperature difference < 3°C, auxiliary power consumption reduced by 30%, extending system lifespan by 2 years+



Grade A long-life LFP battery cells, cycle life > 7000 times



Modular expansion, supports up to 20 units in parallel



Support off-grid operation, providing backpower for critical loads

Model	PK-BHO-100/215K-B	PK-BHO-100/215K-A
Configuration	50kW/100kWh	50kW/100kWh
Max.PV input power	/	100kW
Max.PV input voltage	/	680V
STS	/	STS optional
Transformer	/	Isolating Transformer inside
Battery(DC)		
Rated battery capacity	215 kwh	215 kwh
Rated system voltage	768V	768V
Battery type		
Battery Cell capacity	280Ah	280Ah
Series of battery	1P*20S*12S	1P*20S*12S
AC		
Rated AC power	100 kW	100 kW
Rated AC current	144A	144A
Rated AC voltage	400V,3P+N+PE,50/60Hz	
THDi	<3%(rated power)	
PF	-1 leading to+1 lagging	
General Parameters		
Protection level	IP55	
Isolation mode	Non-Isolation (Adding isolation transformer is optional)	
Operating temperature	-25~60°C(Derating above 45°C)	
Altitude	3000m(>3000m derating)	
Communication interface	RS485/CAN 2.0/Ethernet/dry contact	
Dimension(W*D*H)	1800*1200*2300mm	1800*1200*2300mm
Weight (with battery)	2400 kg	3000 kg



PK-BHC-500/1000K-A/PK-BHC-1000/2000K-A
PK-HBC Container BESS Series



Long-life LFP battery cells, cycle life > 7000 times, warranty 5 years, conversion efficiency up to 99.0%



Air-cooling temperature control design, battery pack temperature difference < 3°C, auxiliary power consumption reduced by 30%, extending system lifespan by 2 years+



Grand A long-life LFP battery cells, cycle life > 7000 times

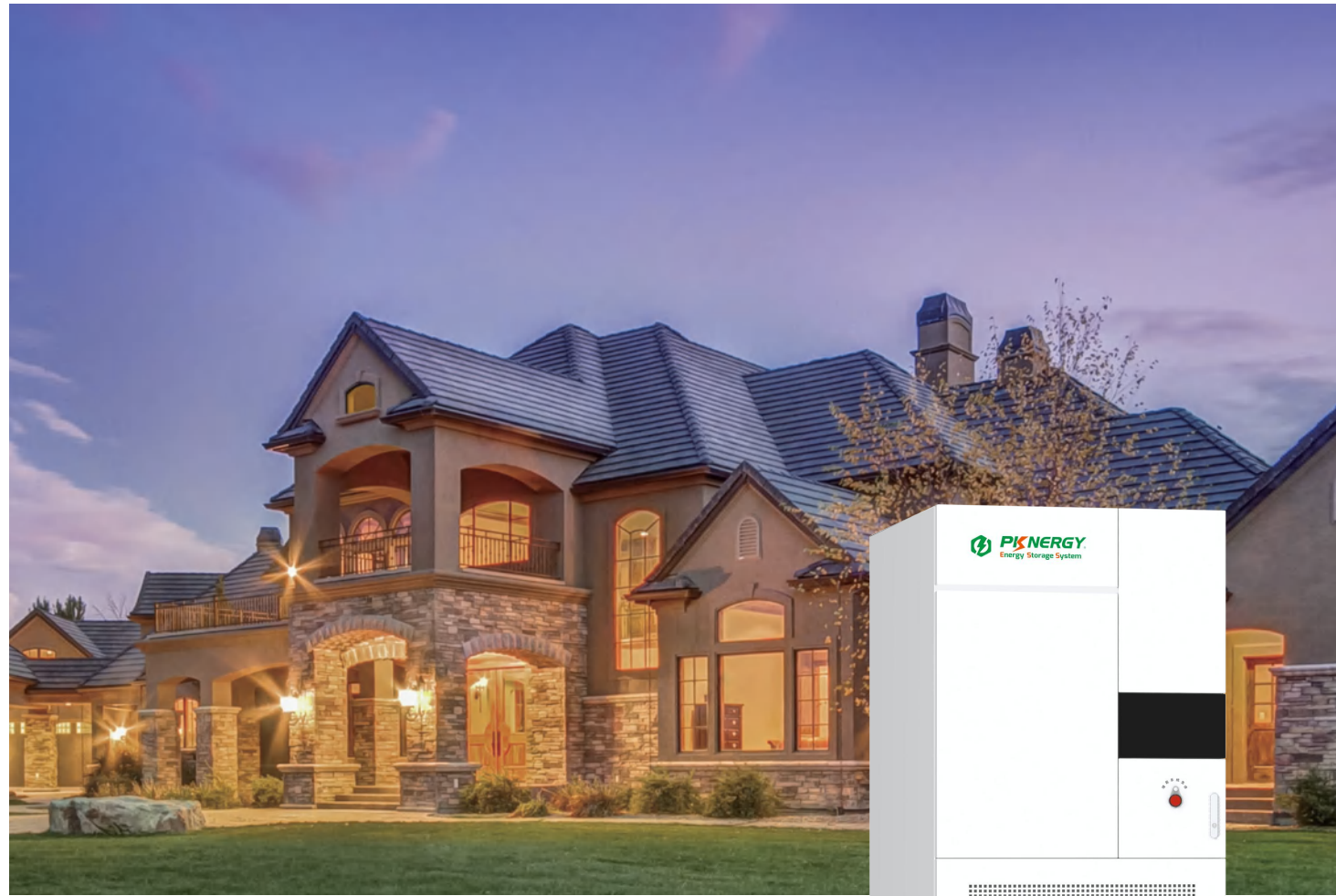


Modular expansion, supports up to 20 units in parallel

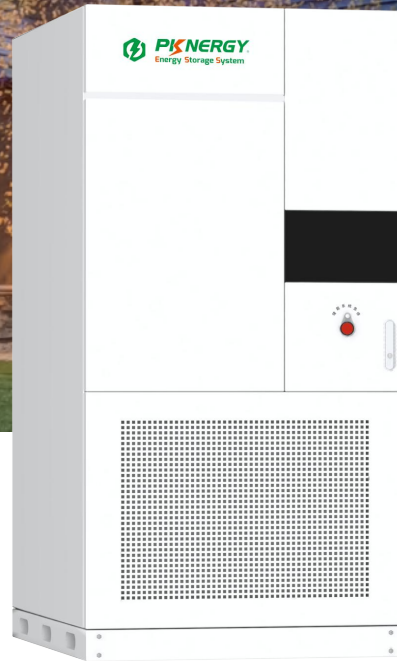



Support off-grid operation, providing backpower for critical loads


Product Model	PK-BHC-500/1000K-A	PK-BHC-1000/2000K-A
DC Side		
Cell Type	LFP/280Ah	LFP/280Ah
Rated Energy	1000kWh	2000kWh
Rated Battery Voltage	716.8Vdc	716.8Vdc
Max.DC Current	140A	140A
Battery Configuration/Cluster	1P16S*14	1P16S*14
Number of Battery Clusters	5	10
Charge/Discharge C-Rate	≤0.5P	≤0.5P
AC Side		
Rated Output Power	500 kW	1000 kW
Rated Output Voltage	400Vac	400Vac
Rated Output Voltage Range	-15%~10%(Adjustable)	-15%~10%(Adjustable)
Rated Grid Frequency	50Hz/60Hz(±5Hz)	50Hz/60Hz(±5Hz)
Output Power Factor	-1~+1	-1~+1
Operating Phase	3L+N/3L+N+PE	3L+N/3L+N+PE
Rated AC voltage	TT/TN	TT/TN
Isolation transformer	Equipped (optional)	Equipped (optional)
General Data		
Surge Protection	DC Typell/AC Type II	DC Typell/AC Type II
Protection level	IP55	IP55
Fire Control	Hexafluoropropylene	Hexafluoropropylene
Installation Method	Outdoor installation	Outdoor installation
Battery Cooling Concept	Air Cooling (Liquid cooling Optional)	Air Cooling (Liquid cooling Optional)
Running Temperature	-30°C~+55°C(Derating above 45°C)	-30°C~+55°C(Derating above 45°C)
Operating Surroundings Humidity	0~95%(No condensation)	0~95%(No condensation)
Permissible Altitude	3000m(>3000m Derating)	3000m(>3000m Derating)
Cabinet Size(WxHxD mm)	6058*2438*2896mm	12196*2438*2896 mm
Weight	<18T	<35T
Display	LED+Web+APP	LED+Web+APP
Interface	RS485/Ethernet/4G/Modbus RTU /Modbus TCP	RS485/Ethernet/4G/Modbus RTU /Modbus TCP
Safety EMC/Standard	IEC6261,UN38.3,UL1973,CE	IEC6261,UN38.3,UL1973,CE





PK-BHL-115/232K-A/PK-BHL-125/261K-A
PK-BHL Liquid Cooling BESS Series From CATL




 Three-level topology, conversion efficiency up to 99.0%

 Liquid-cooling temperature control design, battery pack temperature difference < 3°C, auxiliary power consumption reduced by 30%, extending system lifespan by 2 years+

 CATL long-life LFP battery cells, cycle life > 8000 times


 Support off-grid operation, providing backup power for critical loads


 Modular expansion, supports up to 10 units in parallel


Product Model	PK-BHL-115/232K-A	PK-BHL-125/261K-A
DC Side		
Cell Type	LFP/280Ah	LFP/314Ah
Rated Energy	232.96 kwh	261.24 kwh
Rated Battery Voltage	832Vdc	
Operating Voltage Range	655Vdc~949Vdc	
Max. DC Current	140A	157A
Battery Configuration	1P260S	
Number of Battery Packs	5	
Charge/Discharge C-Rate	≤0.5P	
AC Side		
Rated Output Power	115kW	125kW
Rated Output Voltage	400Vac	
Rated Output Current	193A	199A
Rated Output Voltage Range	-20%~15%	
Rated Grid Frequency	50Hz/60Hz (±5Hz)	
Output Power Factor	-1~+1	
Grid Connection Method	3L+N+PE	
Adaptation to Grid Types	TT/TN	
Topology	Transformerless	
Efficiency		
Max. Efficiency	90%	
General Data		
Surge Protection	DC Type II / AC Type II	
Pollution Level	Class II	
Corrosion Protection Rating	C3, C5 (Optional)	
Fire Control	Perfluorohexanone	
Ingress Protection	IP55	
Installation Method	Outdoor installation	
Battery Cooling Concept	Liquid cooling	
Running Temperature	-30°C~+60°C(Derating above 50°C)	
Operating Surroundings Humidity	0~95% (No condensation)	
Permissible Altitude	4000m (Derating above 2000m)	
Cabinet Size (WxHxD mm)	1120*2379*1400 mm	
Weight	≤2700 kg	≤3000 kg
Display	LED+Web+APP	
Interface	CAN, RS485, Ethernet, 4G	
Safety EMC / Standard	EN 62477-1, EN 61000-6-2, EN 61000-6-4, EN 50581, IEC 62474, IEC 62321	





PK-BHL-920/1863K-A
PK-BHL Liquid Cooling BESS Series From CATL

 Three-level topology, conversion efficiency up to 99.0%

 Liquid-cooling temperature control design, battery pack temperature difference < 3 °C, auxiliary power consumption reduced by 30%, PK-BHL Liquid Cooling BESS Series From CATL extending system lifespan by 2 years+

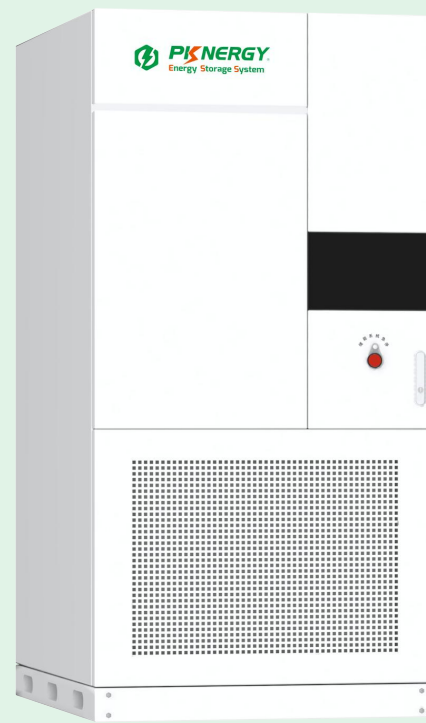
 CATL long-life LFP battery cells, cycle life > 8000 times

 Intelligent string-level architecture, one cluster per management

 Thermal runaway detection + hexafluoropropylene oxide + water spray interlock for three-level fire protection

Product Model	PK-BHL-920/1863K-A
DC Side	
Cell Type	LFP/280Ah
Rated Energy	1863.68 kWh
Rated Battery Voltage	832Vdc
Operating Voltage Range	728Vdc~936Vdc
Max. DC Current	140A
Battery Configuration	1P52S*5
Number of Battery Packs	8
Charge/Discharge C-Rate	≤0.5P
On-grid Side	
Rated Output Power	931.84kW
Rated Output Voltage	380Vac
Rated Output Voltage Range	-15%~10% (Adjustable)
Rated Grid Frequency	50Hz/60Hz (±5Hz)
Output Power Factor	-1~+1
Operating Phase	3L+N+PE
Adaptation to Grid Types	TT/TN
Topology	Transformerless
Efficiency	
Max. Efficiency	90%
General Data	
Surge Protection	DC Type II / AC Type II
Pollution Level	Class II
Fire Control	Perfluorohexanone
Ingress Protection	IP55
Installation Method	Outdoor installation
Battery Cooling Concept	Liquid cooling
Running Temperature	-30°C~+60°C(Derating above 50°C)
Operating Surroundings Humidity	0~95% (No condensation)
Permissible Altitude	≤2000m
Cabinet Size (WxHxD mm)	6058*2896*2438 mm
Weight	< 2500 kg
Display	LED+Web+APP
Interface	RS485, Ethernet, 4G
Safety EMC / Standard	EN 62477-1, EN 61000-6-2, EN 61000-6-4, EN 50581, IEC 62474, IEC 62321

PK-BHL-115/232K-A/PK-BHL-125/261K-A
 PK-BHL Liquid Cooling BESS Series From CATL



115kW / 232.96kWh
 125kW / 261.24kWh

PK-BHL Liquid Cooling BESS Series From CATL

Features:



Higher Profits

- Intelligent string-level architecture, cluster-level management.
- PCS three-level topology, overall energy conversion efficiency >90%.
- Smart balancer with pack-level management increases available system capacity by 10%.
- Liquid cooling with temperature control maintains battery pack temperature difference <3°C, reduces auxiliary power consumption by 30%, and extends system lifespan by 2 years



Flexible Setup

- All-in-one design, plug-and-play grid connection, no commissioning required.
- Modular expansion, supports up to 10 units in parallel.
- 280Ah/314Ah high-energy density cells, increases system energy density by 40% per unit area.
- 0.4kV low-voltage grid connection for efficient deployment.



Stable Security

- CATL long-life LFP cells, cycle life >8000 cycles.
- Explosion-proof vent design with hexafluoropropylene fire suppression, multiple safety measures.
- Supports off-grid load carrying, providing backup power for critical loads



Smart Management

- Cloud platform online monitoring, real-time system fault alerts.
- Supports remote and local upgrades for critical equipment, intelligent operation and maintenance.
- High-precision BMS, accurate SOC calibration, maintenance without expert on-site visits.

PK-BHL-920/1863K-A
 PK-BHL Liquid Cooling BESS Series From CATL



920kW / 1863.68kWh

PK-BHL Liquid Cooling BESS Series From CATL

Features:



Higher Profits

- Intelligent string architecture, cluster-level management.
- PCS three-level topology, system energy conversion efficiency >90%.
- Smart balancer, pack-level management increases system throughput by approximately 10%.
- Liquid cooling with temperature control maintains battery temperature difference <3° C, reduces auxiliary power consumption by 30%, and extends system lifespan by 2 years



Flexible Setup

- All-in-one design, plug-and-play grid connection, no need for commissioning.
- Intelligent string-level balancing a, supports mixed use of new and old battery packs, supports phased investment in battery supplementation.
- 280Ah high-energy density cells, increases system energy density by 40%.
- Transformerless design for lightweight and high efficiency



Stable Security

- CATL long-life LFP cells, cycle life >8000 cycles.
- Three-tier fire suppression with thermal runaway detection, hexafluoropropylene, and water spray linkage.
- Supports off-grid load carrying, providing backup power for critical loads.



Smart Management

- Cloud platform online monitoring, real-time system fault alerts.
- Supports remote and local upgrades for critical equipment, intelligent operation and maintenance.
- High-precision BMS, precise calibration, maintenance-free expert on-site visits

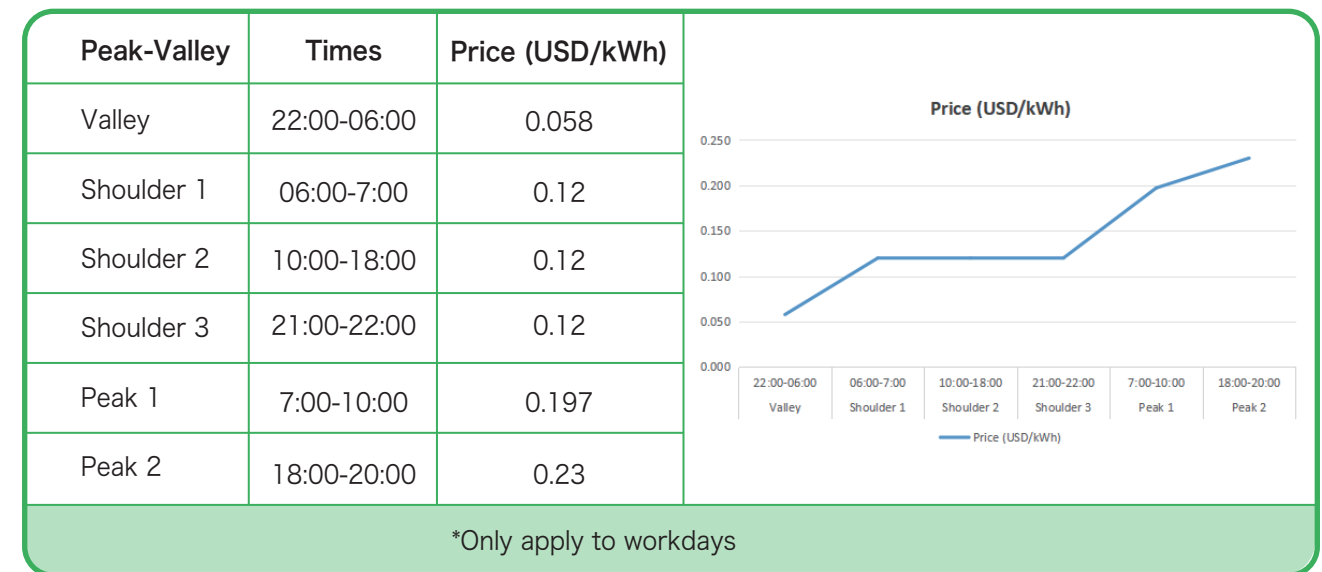
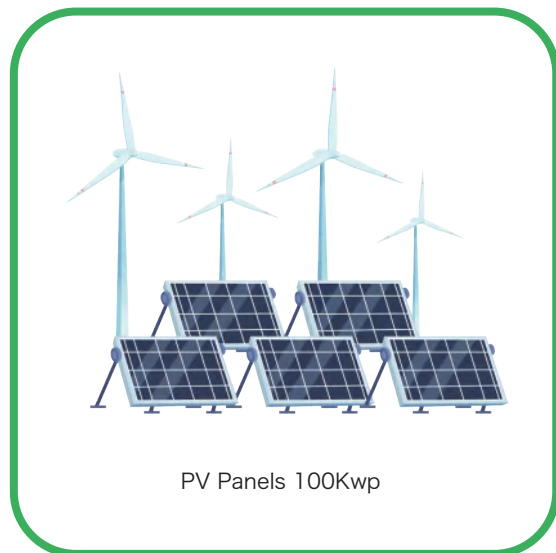


Location: South Africa

- **Application scenarios:**
Farm irrigation system
- **Location:**
South Africa
- **Period of ROI 2.8 Years**
- **Saving \$88,019 USD/year**
- **Operation:** Load Rated Power(100 kW)
10h/day with 2h @100% load,
1h @ 75% load, 4h @ 50% load, 3h @ 25%



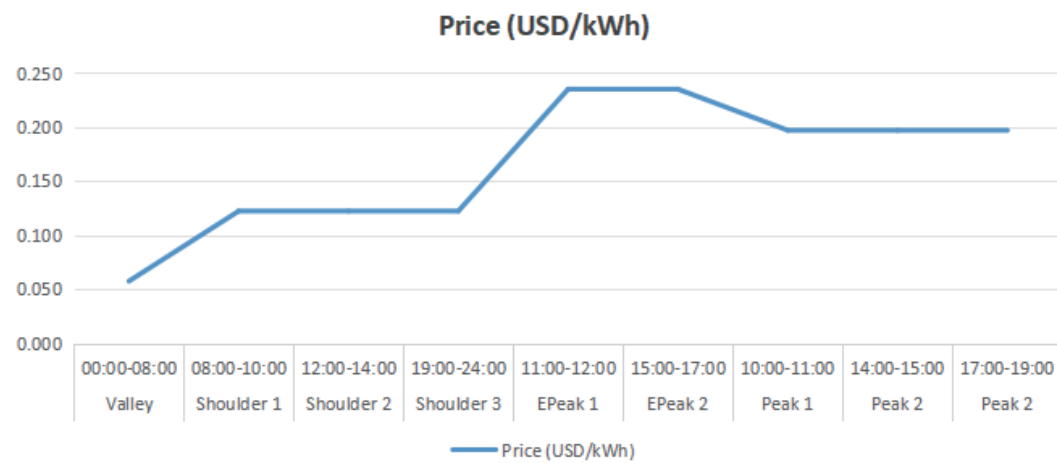
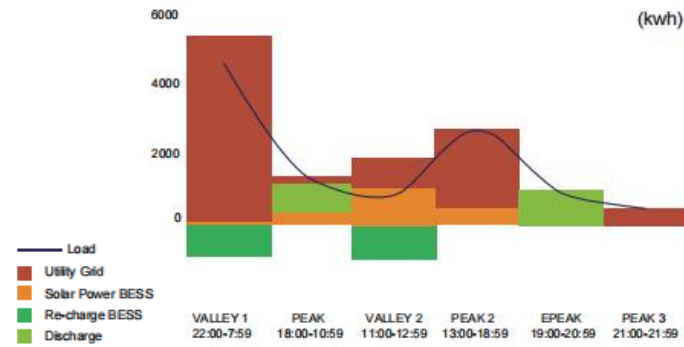
User-side energy storage SOLAR+BESS



Location: Hainan, China

Energy Storage With PK-BHC-500/1000K-A Energy Storage Capacity: 500 kW/1000 kWh

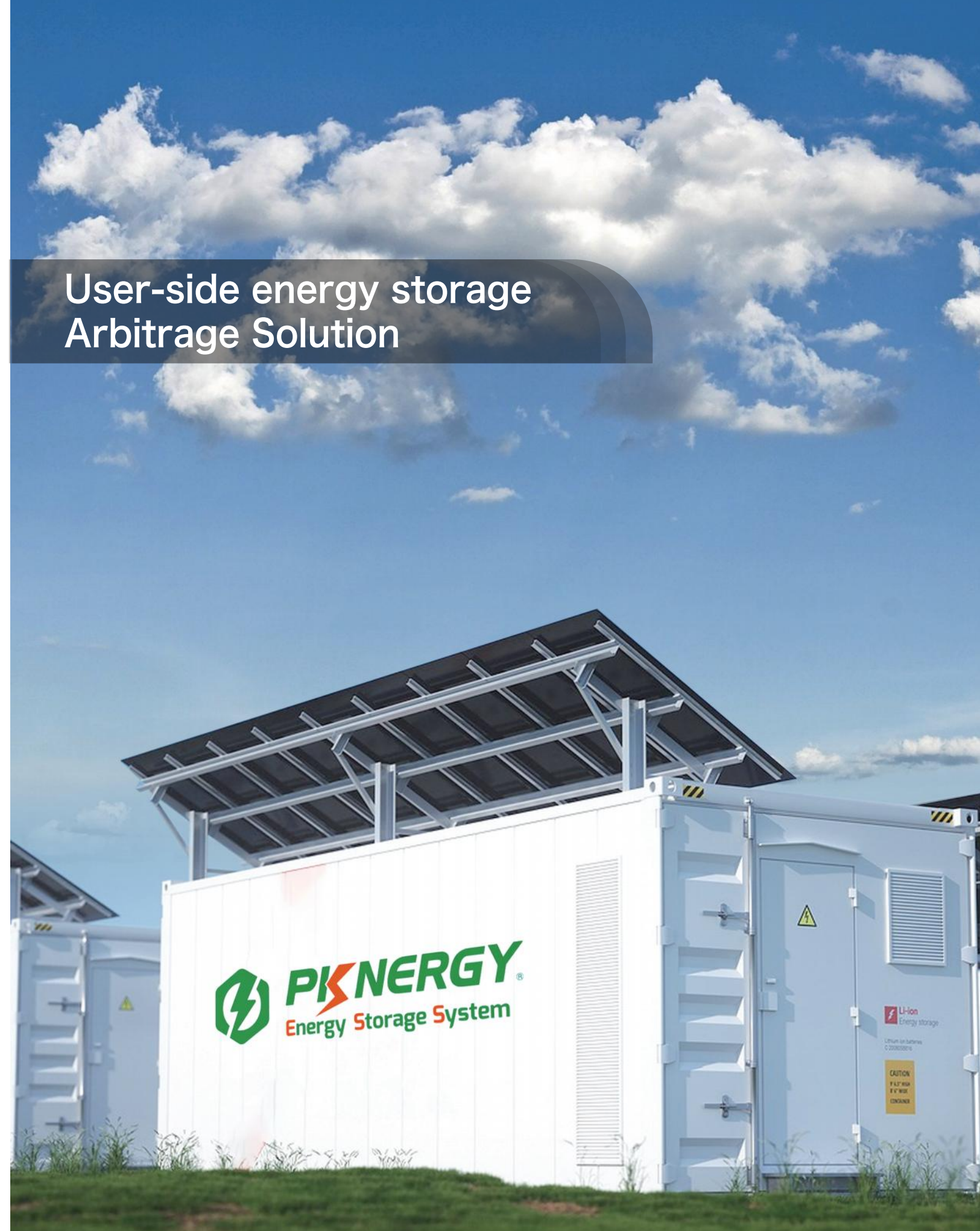
Valley: \$0.058 /kWh
 Peak: \$0.197 /kWh
 EPeak: \$0.235 /kWh
 Shoulder: \$0.123 /kWh
 \$78,840USD/year
 Saving \$216 USD/day
 Period of ROI 2.5 Years



Peak-Valley	Times	Price (USD/kWh)
Valley	00:00-08:00	0.058
Shoulder 1	08:00-10:00	0.123
Shoulder 2	12:00-14:00	0.123
Shoulder 3	19:00-24:00	0.123
EPeak 1	11:00-12:00	0.235
EPeak 2	15:00-17:00	0.235
Peak 1	10:00-11:00	0.197
Peak 2	14:00-15:00	0.197
Peak 2	17:00-19:00	0.197


*Only apply to workdays

User-side energy storage Arbitrage Solution





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