

absen Energy

absen

Stock code: (300389.SZ)



Ruidian Green Energy Technology Co.,Ltd

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4008-036-037 [www.absenenergy.com](http://www.absenenergy.com)   ABSEN ENERGY 

Trusted Green Energy Supplier

Company Milestones



Honorary Certificate



Service Network



Product Introduction



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Company Profile



Global Presence



Solutions



Project Case

# NO.1 COMPANY PROFILE >>

**26000m<sup>2</sup>**  
Productive Area

**2GWH+**  
Annual Output

**140+**  
Countries Global Reach

Powered by  
**Absen** Stock code:(300389.SZ)

Ruidian Green Energy Technology Co., Ltd., the main operator of Absen Energy business, is a majority-owned company under Absen (300389), headquartered at Cloud Park, Bantian, Longgang District, Shenzhen. It specializes in energy storage, focusing on the R&D, manufacturing, and sales of products for residential, commercial, and industrial energy storage system.

We are committed to being a trusted green energy provider.

**Absen Energy**



As a firm supporter of China's carbon peaking and neutrality goals, Absen Energy is committed to promoting the development of green energy, with sustainability at the center of its corporate purpose. Its intelligent manufacturing facility covers an area of 108,472 m<sup>2</sup>, of which the production area of EES products is up to 26,000 m<sup>2</sup>, the annual production capacity is expected to be up to 2GWH, and has obtained ISO9001 QMS, ISO14001 EMS, QC080000 HSPM system, ISO45001 OH&S management system certifications, and its products have obtained internationally recognized certifications such as UL, CB,CE,UL1973,UL9540A,BIS,ISO9001&ISO14001,andISO14064&ISO14067. Believing that "quality is the cornerstone of an enterprise," Absen Energy adheres to strict material selection criteria and normative manufacturing processes while paying attention to service details to create maximum value for its customers.

With a global strategy, Absen Energy's sales and service network covers the United States, Europe, Japan, Australia, Mexico, Brazil, and other countries and regions. We are committed to providing clean, smart, safe, and sustainable energy storage products and services that benefit every individual, family, and organization.

Trusted Green Energy Supplier

# NO.2 COMPANY MILESTONES >>

- 2001** ..... Ding Yanhui founded "Shenzhen Absen Industrial Co., Ltd." in Meilin Sub-district, Futian District, Shenzhen
- 2005** ..... Ding Yanhui visited Saudi Arabia, bringing Absen to the global market
- 2009** ..... Prized as a National High-tech Enterprise
- 2010** ..... Absen changed its name to "Shenzhen Absen Optoelectronic Co., Ltd." and finished its reorganization into a joint-stock company.
- 2011** ..... Absen's intelligent manufacturing facility, Huizhou Absen Optoelectronic Co., Ltd. was founded, occupying an area of 108,000 m<sup>2</sup>
- 2014** ..... Listed on the Shenzhen Stock Exchange (SZSE), stock code: 300389
- 2015** ..... Strong global presence established, with offices in the U.S., Germany, Japan, the Middle East, Mexico, Brazil, Russia
- 2016** ..... Absen China AEO Certificate issued by China's General Administration of Customs
- 2017** ..... Launched the smart factory MES project to support the national "Made in China 2025" strategy
- 2019** ..... Rolled out a customer-centric and process-oriented structure, reaching new heights in operation and management  
Cumulative sales contract value exceeded 10 billion yuan
- 2020** ..... The export volume of Absen's displays had been the highest in the industry for 12 consecutive years
- 2021** ..... Absen wins copyright infringement lawsuit against Ultravision, marking the first victory for a Chinese LED display manufacturer in a 337 investigation heard by a Texas court
- 2022** ..... The China National Intellectual Property Administration listed "Absen" (艾比森) as a China Well-Known Trademark. Absen applied for the ownership of 690 IP rights, including 160
- 2023** ..... Listed in "China's 500 Most Valuable Brands" by World Brand Lab.

NO.3  
Honorary Certificate >>



**ABSEN  
HONORARY  
CERTIFICATE**

China's  
**500**  
Most Valuable Brands

Brand value up to  
**US\$ 1,800 Million**

Source:World Brand Lab



# NO.4 GLOBAL PRESENCE >>

With a global strategy, Absen Energy's sales and service network covers the United States, Europe, Japan, Australia, Mexico, Brazil and other countries and regions.

Safe Intelligent Green Efficient



# NO.5 SERVICE NETWORK >>

Trusted Green Energy Supplier



## Best Service for Excellent Customer Experience

Proactive, Efficient, Disciplined, Considerate

### Service Scope >>



Solutions



Installation Guidance



After-Sales Service



Certification Support

### Benefits of Our Services >>

#### Industry-Leading Global Presence

With its high-caliber international team, 14 regional offices and 9 service centers, Absen has been providing excellent service to customers in 130 countries across six continents for 22 years. Absen is now an industry leader with a global service.

#### Effective After-Sales Service

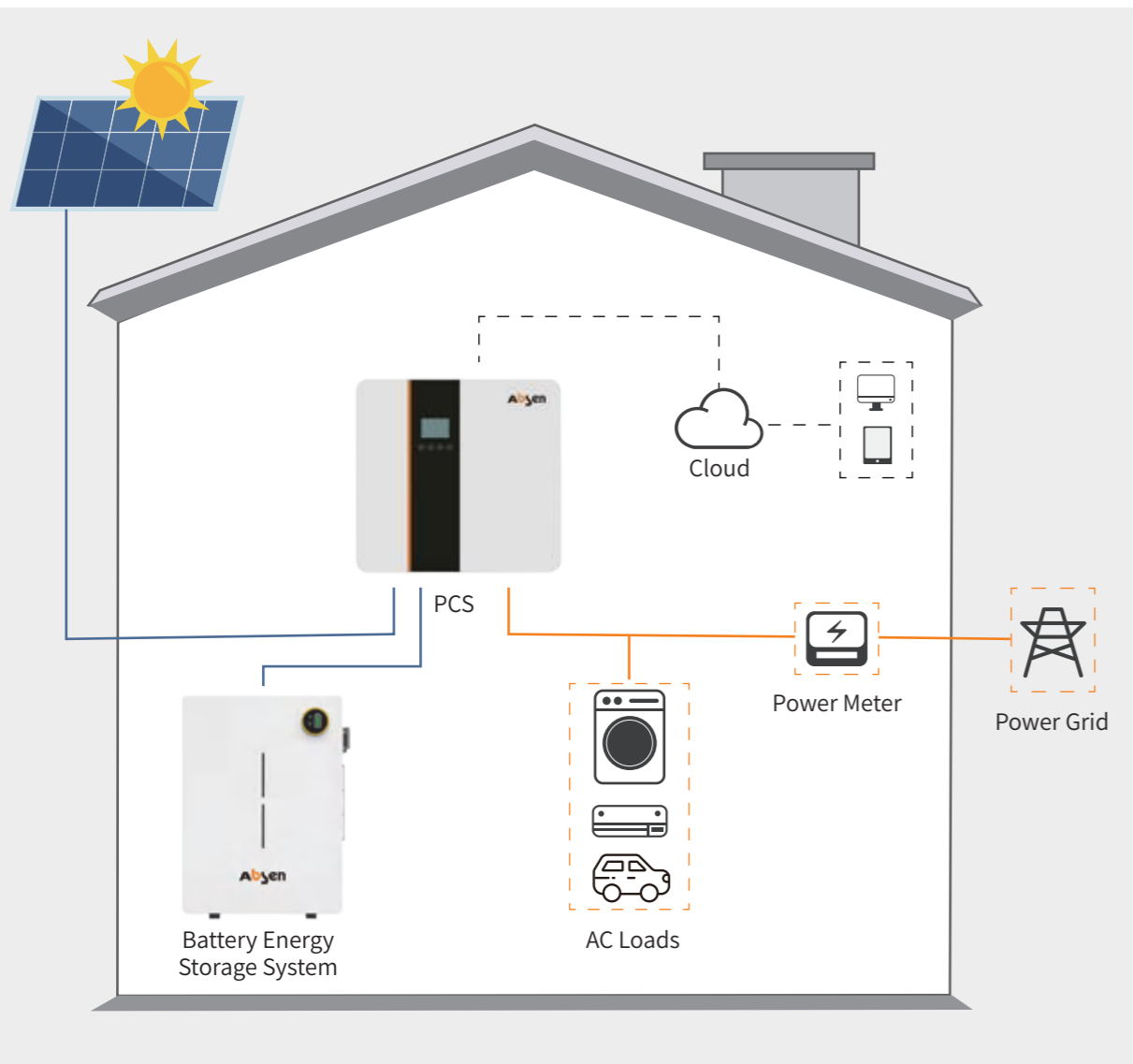
Absen integrates remote assistance with on-site services to provide customers with standardized services and management. This ensures excellent customer experience and high customer satisfaction, based on its cutting-edge Cloud-based Service Management System (CSMS).

#### Systematic Training for Partners

Absen follows a holistic approach with systematic training for certification and one-on-one technical guidance for its global service partners. It continuously aims to drive ongoing improvement of their delivery capabilities.

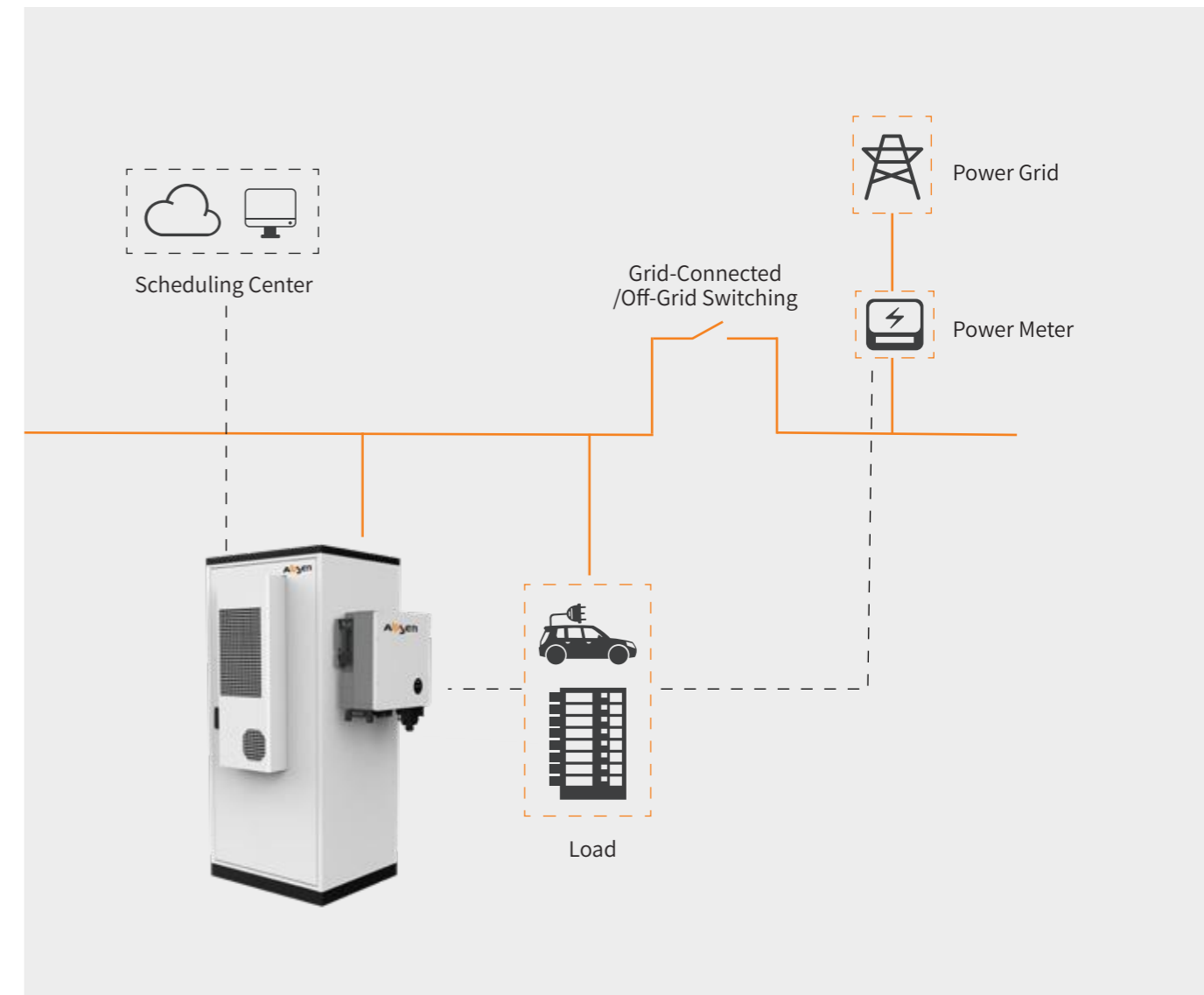
### Residential Energy Storage Solution

Residential Energy Storage refers to supplying power to residents through distributed PV power generation and energy storage technology, enabled by solar panels and other renewable power generation facilities, while storing excess power effectively to feed back into the grid. Available in emergencies, it is a cost-effective power source for general household appliances, computers, lighting, telecommunication equipment, etc.



### Commercial & Industrial Energy Storage Solution

Utilizing li-ion batteries, local and remote energy management systems (EMS), commercial and industrial energy storage systems can balance and optimize power supply and demand for the grid, batteries and loads. It also allows for easy access to new energy sources such as PV, enhancing feasibility for peak-valley pricing, expansion of distribution network capacity, and electrical security and power quality. At the same time, it is a key tool to enable the deployment of smart grids. It is widely adopted in commercial complexes, factories, hospitals, data centers and other areas.



# NO.7 PRODUCT INTRODUCTION >>

## Residential Energy Storage Product Introduction

### Anywhere, plug and play

Nothing complicated as you imagined to reach a Eco-Life. Absen Energy we provide solutions for all scenarios. Apartment Balcony, House and Garage, Anywhere, plug and play.



# Balcony Plug and play ESS Balcony S Series



### Safety

CATL battery inside, low starting voltage (up to 60Vdc PV input)



### All in One System

Integrated with inverter, MPPT charger, AC charger, LiFePo4 battery inside



### Hybrid System

support self consumption and feedback to grid



### User Define

Work mode, charging & discharge time and current are programmable



### Smart App

Free smart WIFI monitor, can be installed within 30S, user friendly



### DIY

Plug-and-play, easy installation and smart control and operation

Model	BXS-06/15-LS1	BXS-06/25-LS1	BXS-08/15-LS1	BXS-08/25-LS1	BXS-10/15-LS1	BXS-10/25-LS1
<b>Off Grid Operation</b>						
Max. PV input power	1200W					
Rated AC output power	1000W					
Output peak power (W)	2000W(200ms)					
<b>Grid-Tie Operation</b>						
Rated power	600W	800W	1000W			
Mains charging current	0-40A adjustable					
AC input voltage range	90-265VAC					
Input frequency range	50HZ/60HZ ±3HZ					
AC input connection type	L/N/PE					
<b>MPPT Solar Charger</b>						
Rated battery voltage	25.6V					
Charging current	40A max					
PV input voltage range	36-60VDC					
PV input power	1200W max.					
PV charging power	1000W max.					
Number of PV input tracker	1					
PV input interface	Anderson interface					
<b>Output (AC)</b>						
Nominal output Volt	230Vac, Single Phase					
output frequency	50/60hz					
Nominal output current	4.35A					
Power factor	1					
Max. conversion efficiency (DC/AC)	91.5%max					
<b>Energy Storage Information</b>						
Nominal battery voltage	25.6VDC					
Core material	Lithium iron phosphate battery					
Energy storage capacity	1.5KWh	2.5KWh	1.5KWh	2.5KWh	1.5KWh	2.5KWh
Core cycle	≥6000cycles&25°C Standard charging and discharging process@80% SOH					
<b>General Information</b>						
IP Rating	IP54					
Products dimension, D*W*H (mm)	744*420*160MM					
Product net weight(kgs)	30kg	43kg	30kg	43kg	30kg	43kg
Product gross weight(kgs)	31kg	45kg	31kg	45kg	31kg	45kg
<b>Environment</b>						
The noise	60dB Max (1 meter)					
Humidity	5% to 95% Relative Humidity(Non-condensing)					
Operating temperature	-10°C to 50°C					
Storage temperature	-15°C to 60°C					
<b>Certification</b>						
IEC 62619;IEC61000;UN3480;MSDS;ETSI EN301 489;ETSI EN 300 328;IEC62311;EN50665;IEC 62040;EN62109;EN62477;UN38.3						



# All In One Residential Energy Storage(Single Phase) Pile S Series



**Safe&Reliable**  
CATL high performance LFP battery

**All in one design**  
Easy installation and convenience

**Interconnection**  
No exposed cables

**Economical&Efficient**  
Save Capex, expanding as required

**High Efficiency**  
Up to 97.6%

**Anti-interference**  
DC/AC Surge protection

Model	PXS-36/51-LK1	PXS-36/102-LK1	PXS-36/153-LK1	PXS-36/204-LK1	PXS-50/51-LK1	PXS-50/102-LK1	PXS-50/153-LK1	PXS-50/204-LK1
<b>PV String Input</b>								
Nominal Voltage	400V							
MPPT Voltage Range	80V-560V							
Start Voltage	150V							
Number of MPPT Tracker	2							
Strings Per MPPT Tracker	1							
Max. Input Current Per MPPT	15A							
<b>AC Output (Grid)</b>								
Nominal AC Output Power	3680W				5000W			
Nominal AC Voltage	230Vac							
Max. Output Current	16A				22A			
Max. Input Current	32A							
<b>Battery Input</b>								
Battery Type	LFP (LiFePO4)							
Nominal Battery Voltage	48V							
Max. Charging Current	50A				100A			
Max. Discharging Current	80A				100A			
<b>Battery Specifications</b>								
Energy Capacity	5.12KWh	10.24KWh	15.36KWh	20.48KWh	5.12KWh	10.24KWh	15.36KWh	20.48KWh
Nominal Voltage	51.2V							
Cycle Life	10000cycle							
Modules Connection	Max. 4							
Power Consumption	<2W							
Warranty	10 years							
<b>AC Output (Backup)</b>								
Max. Output Apparent Power	4000VA				5000VA			
Max. Output Current	16A				20A			
Nominal Output Voltage	230V				230V			
<b>Efficiency</b>								
Max. PV Efficiency	97.60%							
Euro. PV Efficiency	97.00%							
<b>General Specifications</b>								
Products dimension,W*D*H (mm)	540*240*1080mm	540*240*1570mm	810*240*1570mm	1080*240*1570mm	540*240*1080mm	540*240*1570mm	810*240*1570mm	1080*240*1570mm
Weight	86KG	140KG	194KG	248KG	86KG	140KG	194KG	248KG
Operating Temperature Range	-10 to 50°C charging / -10 to 50°C discharging							
IP Grade	IP65							
Topology	Battery Isolation							
Communication	RS485/CAN2.0/WIFI/4G							
Display	LCD/APP							
Certification & Standard	IEC 62109;IEC61000;IEC60529;IEC 60068;IEC61683;IEC62116;IEC61727;EN50549; AS 4777.2;NRS 097;VDE-AR-N-4105;CEI0-21;G98;G99;C10/C11;UN38.3;UL1973							

Up to two battery packs in a cluster



# All In One Residential Energy Storage(Triple Phase) Pile S Series



Model	PXS-100/102-LK3	PXS-100/204-LK3	PXS-100/306-LK3	PXS-100/408-LK3
<b>PV String Input</b>				
Nominal Voltage				720V
MPPT Voltage Range				140V-1000V
Start Voltage				200V
Number of MPPT				2
Strings Per MPPT				1
Max. Input Current Per MPPT				15A
<b>AC Output (Grid)</b>				
Nominal AC Output Power				10kW
Nominal AC Voltage				400Vac
Nominal Output Current				14.5A
<b>Battery Input</b>				
Battery Type				LFP (LiFePO4)
Nominal Battery Voltage				51.2V
Max. Charging Current				160A
Max. Discharging Current				200A
<b>Battery Specifications</b>				
Energy Capacity	10.24KWh	20.48KWh	30.72KWh	40.96KWh
Nominal Voltage				51.2V
Cycle Life				10000cycle
Modules Connection				Max. 8
Warranty				10 years
<b>AC Output (Backup)</b>				
Nominal AC Output Power				9.2kW
Max. AC Output Power				10kVA
Nominal Output Current				13.3A
Nominal Output Voltage				400V
<b>Efficiency</b>				
Max. PV Efficiency				97.6%
Euro. PV Efficiency				97.0%
<b>General Specifications</b>				
Products dimension,W*D*H (mm)	540*240*1960mm	1080*240*1960mm	1620*240*1960mm	2160*240*1960mm
Weight		157kg 265kg	373kg 481kg	
Operating Temperature Range				0 to 50°C charging / -10 to 50°C discharging
IP Class				IP65
Topology				Battery Isolation
Communication				RS485/CAN2.0/WIFI/4G
Display				LCD/APP
Certification & Standard	IEC 62619;UN38.3;UL1973;IEC 60068;IEC 61000;IEC 61683;IEC61727;IEC62116;EN 50549;VDE-AR-N-4105;CEI-021			



### Safe&Reliable

CATL high performance LFP battery



### Increase the power input of PV

20KW PV input. 10KW charging and 10KW AC output



### UPS function

10KW 3 phase backup output, on/off grid switching time is less than 20ms



### Various Applications

EMS included,it is suitable for various applications

Up to two battery packs in a cluster



# Wall-Mounted Residential Battery Ebox Series



**Safe&Reliable**  
Lithium Iron Phosphate(LFP) battery



**Perfect Compatibility**  
Compatible with branded inverters



**Smart and Easy Operation**  
Supporting RS485/CAN remote monitoring



**Space Saving**  
Wall mounted installation, flexible and adaptable to the home

Model	EX-5.1-L	EX-10.2-L
Nominal Voltage	51.2V	51.2V
Nominal Capacity	5.12KWh	10.24KWh
Nominal Charge/Discharge Current	50A	100A
Max Charge/Discharge Current	100A	200A
Peak Current	200A@3sec	400A@3sec
Battery Type	LiFePO4	
Cycle Life	6000@80%DOD, 25°C/0.5C	

Structure		
Dimension(W*D*H)	520*141.5*470mm	590*142*800mm
Weight	47.2Kg	96.5Kg
IP Grade	IP65	
Scalability	1*N (N≤16PCS )	
Installation	Wal-mounted/Floor	

Working Environment		
Charge Temperature	-20°C~55°C	
Discharge Temperature	-20°C~60°C	

Communication		
Communication Port	RS485/CAN	
Display	SOC Status Indicator, LED Indicator	

Certifications		
CB, IEC62619, UKCA,CE-EMC, CE-GPSPD, EN61000-6-1/2/3/4, EN62619, UN38.3, MSDS		

Warrenty		
10years		



# Ultra thin Wall-Mounted Residential Battery

## Ebox Series



### Safety

BYD LiFePO4 battery, more stable and safe



### High Efficiency

Intelligent BMS equipped inside to maintain the battery always work at best condition .



### Perfect Balance

With equalizer can balance each lithium cell voltage difference as small as 0.05V in a very short time



### Space Saving

Wall mounted installation, flexible and adaptable to the home



### Smart App

With Bluetooth communication function, the operating status information of lithium battery pack can be queried through the mobile phone APP .

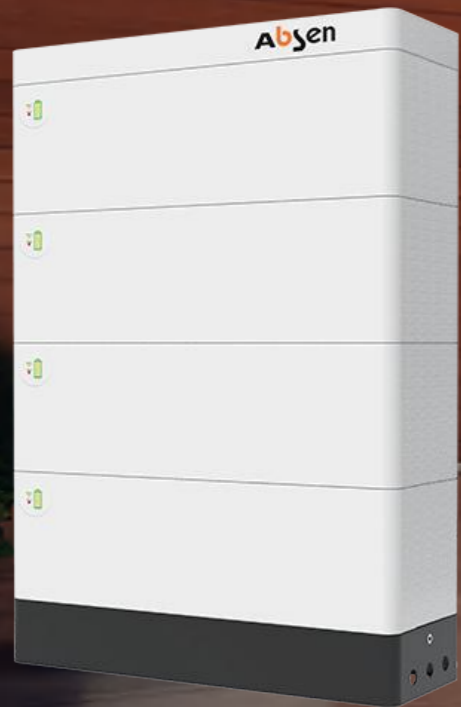


### Long Cycle Life

>8000 Cycles

<b>Model</b>	EX-6.6-LSB
Battery Type	LiFePO4
Total Energy	6.656KWh
Usable Energy(90%DOD)	5.990KWh
Nominal Voltage	51.2V
Fast Charge Voltage	57.6V
Float Charge Voltage	56.0V
Low DC Cut-off Voltage	46.8V
Max.continue discharge current	100A
Max.pulse discharge current	150A 1Sec.
Max.continue charge current	65A
Scalable	1~15 in parallel
Communication	CAN,RS485
Cycle life	>8000 Cycles@(+25°C,0.5C,90%DOD,60%EOL)
Terminal	M8
Storage temperature	0°C~30°C
Storage duration	6 months at 25°C
Safety standard	UN38.3,MSDS
IP degree	IP44
<b>Protection</b>	
Protection	Overcharge protection, Overdischarge protection, Overcurrent protection, Shortcircuit protection, Overtemperature protection
<b>Ambient</b>	
working Temperature	-10°C~+50°C
Humidity	0~95% ( no condensation)
<b>Dimension</b>	
L*W*H (products size) mm	1090*685*120mm
L*W*H (package size) mm	1150*720*205mm (UN wooden cases)
Weight(NW Kg)	78.6Kg
Weight(GW Kg)	97.2Kg
<b>Certification</b>	
IEC62619; UN38.3; MSDS; EN IEC61000	

# Low-Voltage Stackable Residential Battery Pile Series



**Module Design**  
Support 1~4 modules



**Safe & Reliable**  
Lithium Iron Phosphate(LFP) battery



**Perfect Compatibility**  
Compatible with branded inverters



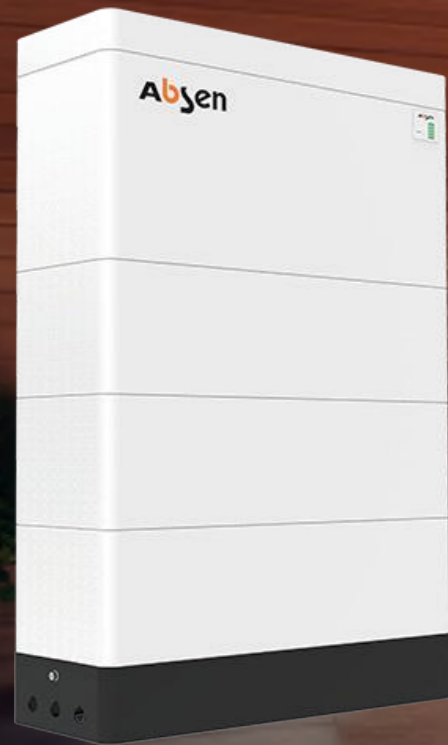
**Smart and Easy Operation**  
Supporting remote monitoring via RS485/CAN

Model	PX-5.1-L	PX-10.2-L	PX-15.3-L	PX-20.4-L
Nominal Voltage(Vdc)	51.2			
Nominal Capacity(KWh)	5.12	10.24	15.36	20.48
Working Voltage Range (Vdc)	44.8~56.16			
Charge Voltage(Vdc)	58.4			
Nominal Charge/Discharge Current(A)	50			
Max. Charge/Discharge Current(A)	100			
Peak Current(A)	200@3sec	200@3sec	200@3sec	200@3sec
Cycle Life	6000@80%DOD,25°C/0.5C			
<b>Structure</b>				
Dimension(W*D*H)(mm)	600*210*440	600*210*740	600*210*1040	600*210*1340
Weight(Kg)	57.2	106.9	156.6	206.3
IP Rating	IP65			
Installation	Stacking type			
<b>Working environment</b>				
Charge Working Temperature(°C)	-20~55°C			
Discharge Working Temperature	-20~60°C			
Altitude(M)	<2500			
Humidity(RH)	5-95%(w/o condensing)			
<b>Communication</b>				
Communication Port	RS485,CAN			
Display	SOC status Indicator, LED Indicator			
<b>Certification</b>				

CB, IEC62619,CE-EMC,EN61000-6-1/2/3/4;UKCA;UN38.3;MSDS

**CB UN38.3 EMC UK CA MSDS**

# High-Voltage Stackable Residential Battery Pile Series



**Module Design**  
Supportting 3~10 modules



**Easy Installation**  
Single person installs <30mins



**Safe&reliable**  
Lithium Iron Phosphate(LFP) battery



**Perfect Compatibility**  
Compatible With branded inverters

Model	PX-7.6-H	PX-10.2-H	PX-12.8-H	PX-15.3-H	PX-17.9-H	PX-20.4-H	PX-23.3-H	PX-25.6-H
Nominal Voltage(Vdc)	51.2							
Nominal Capacity(KWh)	7.68	10.24	12.80	15.36	17.92	20.48	23.04	25.60
Rated Voltage (Vdc)	153.6	204.8	256	307.2	358.4	409.6	460.8	512
Operating Voltage Range(Vdc)	129.6~561.6							
Nominal Charge/Discharge Current(A)	25							
Max. Charge/Discharge current(A)	50							
Peak Current(A)	100@3sec							
Series Connection	3~10pcs							
Cycle Life	6000@80%DOD,25°C/0.5C							

### Structure

Dimensions(W*D*H)(mm)	600*210*870	600*210*1030	600*210*1190	600*210*1350	600*210*1510	600*210*1670	600*210*1830	600*210*1990
Weight(kg)	103.5	130	156.5	183	209.5	236	262.5	289
High-Voltage Compartment Dimensions(mm)/weight(kg)	600*210*250/23							
IP Rating	IP65							
Installation	Stacking type							

### Working environment

Charge Working Temperature(°C)	-20-55°C
Discharge Working Temperature(°C)	-20-60°C
Altitude(M)	<2500
Humidity(RH)	5-95%(w/o condensing)

### Communication

Communication Port	RS485,CAN
Display	SOC status Indicator, LEDIndicator
Warranty	10 years

### Certification

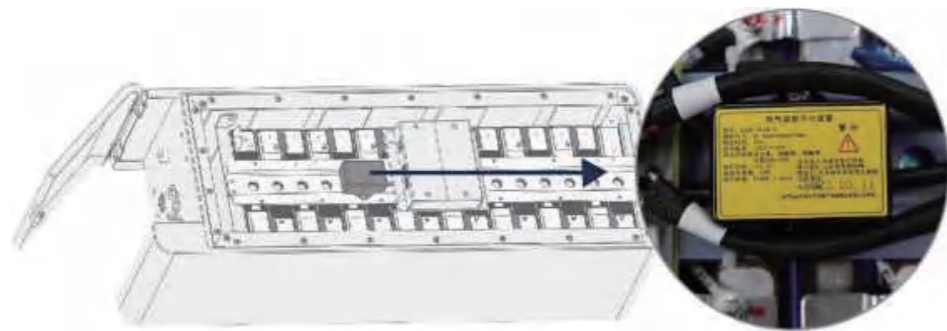
CB, IEC62619,CE-EMC,EN61000-6-1/2/3/4;EN62040,IEC62040;UN38.3,MSDS

**CB UN38.3 EMC UK MSDS**



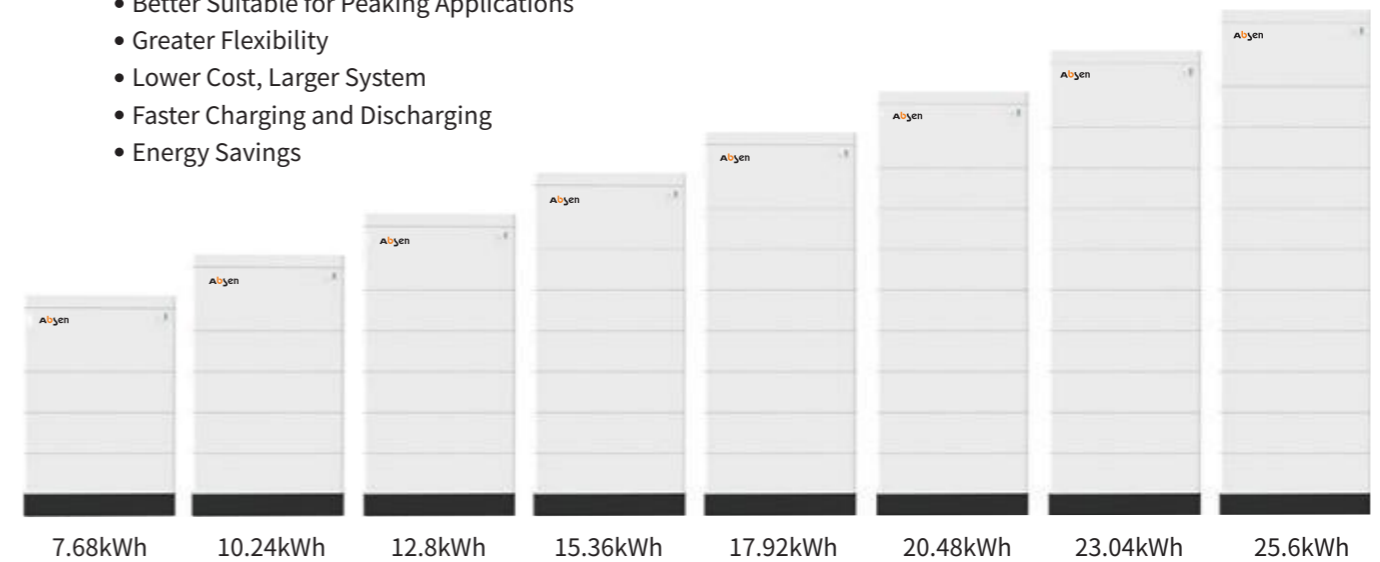
## HOT AIR AEROSOL FIRE EXTINGUISHER

The energy storage system is equipped with a breakthrough aerosol fire suppression device, boasting ultra-high efficiency and reliability. Its compact size, rapid response, and eco-friendly features make it ideal for enclosed spaces like battery compartments. Invest in our ESS today for top-of-the-line fire protection technology to ensure the safety of personnel and property.



## 3-10 Module Stackable → 153.6V-512V High Voltage

- Higher Conversion Efficiency
- Increased Independence from the Grid
- Better Suitable for Peaking Applications
- Greater Flexibility
- Lower Cost, Larger System
- Faster Charging and Discharging
- Energy Savings



# Rack Type Residential Battery Unity Series



Model	UX-5.1-LVB
Nominal Voltage	51.2V
Nominal Capacity	5.12KWh
Nominal Charge/Discharge Current	50A
Max Charge/Discharge Current	100A
Peak Current	200@3sec
Battery Type	LiFePO4
Cycle Life	6000@80%DOD, 25°C/0.5C

Structure	
Dimension(W*D*H)	550*440*130mm
Weight	47.2Kg
IP Rating	IP20
Scalability	≤16PCS
Installation	Rack/Wal-mounted/Cabinet Type

Working Environment	
Charge Temperature	0°C~55°C
Discharge Temperature	-20°C~60°C
Altitude	<2500m
Humidity	5%~95% (No condensation)

Communication	
Communication Port	RS485/CAN
Display	SOC Status Indicator, LED Indicator

Certifications	
	CB, IEC62619, UL1973, UL9540A, UKCA, CE-EMC, CE-GPSPD, EN62619, UN38.3, MSDS

Warrenty	
	10years



**Safe&Reliable**  
Lithium Iron Phosphate(LFP) battery

**Cost effectiveness balance**  
High cost-effectiveness

**Scalability**  
Maximum 16 in Parallel

**Perfect Compatibility**  
Compatible with branded inverters



# Hybrid Inverter (Single-phase) Rove Series



Supporting Parallel Connection



Supporting storing energy from diesel generator



Supporting load grading



DC reverse protection, AC anti reverse current

Model	RX-3.0-LM1	RX-3.6-LM1	RX-4.0-LM1	RX-4.6-LM1	RX-5.0-LM1	RX-6.0-LM1
<b>Input parameters (PV)</b>						
Max Capacity	4.6KW		6KW		7KW	
Max DC voltage	550V					
MPPT voltage range	125~500V					
MPPT number / maximum number of parallel group series	2/1					
<b>Output parameters (AC)</b>						
Output rating	3KVA	3.6KVA	4KVA	4.6KVA	5KVA	6KVA
Max output current	16A		20A		26A	
Power grid voltage range	230V/176~270V					
Power grid voltage frequency	50Hz/60Hz					
Power Factor	0.8lagging~0.8 leading					
<b>Battery parameters</b>						
Grid connection type	40V~58V					
Max charging voltage	58V					
Max charging/ discharging current	95/62.2A	95/75A	95/83.3A	95/95.8A	95/104.2A	95/110A
Battery type	LiFePO4 battery/lead-acid battery					
Communication	CAN/RS485					
<b>EPS</b>						
Power rating	3KVA	3.6KVA	4KVA	4.6KVA	5KVA	6KVA
Rated output voltage	230V					
Rated output current	13A	16A	17.4A	20A	21.7A	26A
Rated output frequency	50Hz/60Hz					
<b>System parameter</b>						
Dimensions (W*D*H)	550*200*515mm					
Weight	25Kg					
Battery charging and discharging efficiency	95.0%					
Certifications	IEC/EN62109-1/-2,IEC/EN62477-1,IEC/EN 61000-6-1,IEC/EN 61000-6-3, South Africa NRS097-2-1:2017, UK G98,G99					

# Hybrid Inverter (Three-phase) Rove Series



 Supporting storing energy from diesel generator

 Supporting load grading

 DC reverse protection, AC anti reverse current

 IP65 level, noise<35dB

Model	RX-6.0-HM3	RX-8.0-HM3	RX-10.0-HM3RX	12.0-HM3RX	15.0-HM3
<b>Input parameters (PV)</b>					
Max Capacity	9KW	12KW	15KW	18KW	22.5KW
Max DC voltage	1000V				
MPPT voltage range	180~850V				
MPPT number / maximum number of parallel group series	2/1				
<b>Output parameters (AC)</b>					
Output power Rating	6KVA	8KVA	10KVA	12KVA	15KVA
Max output current	8.7A	11.5A	14.4A	17.3A	21.7A
Power grid voltage range	400V/360~440V				
Power grid voltage frequency	50Hz/60Hz				
Power factor	0.8lagging~0.8 leading				
<b>Battery parameters</b>					
Battery voltage range	125V~600V				
Maxcharging voltage	600V				
Max charging/ discharging current	50A	50A	50A	50A	50A
Battery type	Lithium-battery / lead-acid batteries				
Communication	CAN/RS485				
<b>EPS</b>					
Power rating	6.6KVA	8.8KVA	11KVA	13.2KVA	16.5KVA
Rated output voltage	400V				
Max output current	8.7A	11.5A	14.4A	17.3A	21.7A
Rated output frequency	50Hz/60Hz				
<b>System parameter</b>					
Dimensions (W*D*H)	530*200*600mm				
Weight	29Kg				
Battery charging and discharging efficiency	96.5%	96.6%	96.7%	96.8%	96.9%
Certifications	IEC/EN62109-1/-2,IEC/EN62477-1,IEC/EN 61000-6-1,IEC/EN 61000-6-3, Europe: EN50549-1, Germany: VDE4105/0124, UK: G99, South Africa: NRS097-2-1:2017				






# NO.7

## PRODUCT INTRODUCTION >>

### Comprehensive C&I ESS Solutions For All Scenario

- Keep your business ahead of the curve with our cutting-edge commercial ESS technology. From increased efficiency to reduced costs, the benefits are endless.
- Whether it's for large-scale industrial operations or small commercial settings, Absen's energy storage solutions offer a flexible and adaptable solution to meet the diverse needs of clients.



-  Peak shaving
-  Microgrids
-  Emergency backup power
-  Electric vehicle charging stations
-  Large-scale energy storage projects

# Outdoor Distributed Energy Storage (Air-cooling) Cube Series



<b>Model</b>	CX-50100-A
Cell type	LiFePO4
Capacity of battery	102.4kWh
Nominal Voltage	512V
Operating voltage range	448V~565V
Charge/Discharge rate	Max.0.5C
D.O.D.	90%
<b>PV side</b>	
Max. Input Voltage	1000V
MPPT Voltage Range	350V~800V
Max. Current per MPPT	36A
Number of MPPT	3
Number of Inputs Per MPPT	2
<b>Battery Side of PCS</b>	
Max. Input Voltage	750V
Min. Input Voltage	350V
DC Voltage at Nominal Operation	500V~750V
Max. DC Current	55A
Max. DC Input Power	55kW
Number of DC Inputs	2
<b>AC Side(On Grid)</b>	
Nominal AC Output Power	50kW
Max. AC Output Power	55kVA
Max. AC Current	80A
Nominal AC Voltage	400V
AC Voltage Range	340V~440V
Nominal Grid Frequency/Frequency Range	50/60Hz±5Hz
THDv	<3%(100% Load)
Adjustable PF Range	-1(Lagging)~1(Leading)
<b>AC Side(Off Grid)</b>	
Nominal AC Voltage	230/400V±3%; 3L+N+PE
THDv	<3%(Linear Load)
Nominal Grid Frequency/Frequency Range	50/60Hz
Nominal AC Output Power	50kW
Max. AC Output Power	55kVA
<b>System parameter</b>	
Dimensions(WxDxH)	1100 x 1100 x2380 mm
Installation site	Outdoor
Weight	<1.5T
IP protection	IP54
Anti corrosion level	C4
Operation humidity	5%~95% (No condensing)
Operation temperature	-30°C~+50°C
Max. operation altitude	4000m (>3000m derating)
Communication port	Ethernet;CAN
Communication protocol	CAN;MODBUS TCP/IP
Cooling method	Air conditioner
Standards	UN38.3;IEC62477;IEC61000;CE;GB/T;IEC62109;IEC61683; IEC60068;IEC61727;IEC62116;EN50549;VDE4105;G99

**Safe&Reliablet**  
CATL high performance LFP battery

**Fire Fighting**  
Double fire suppression system design

**Easy installation**  
Pre-installed in factory for easy installation on site

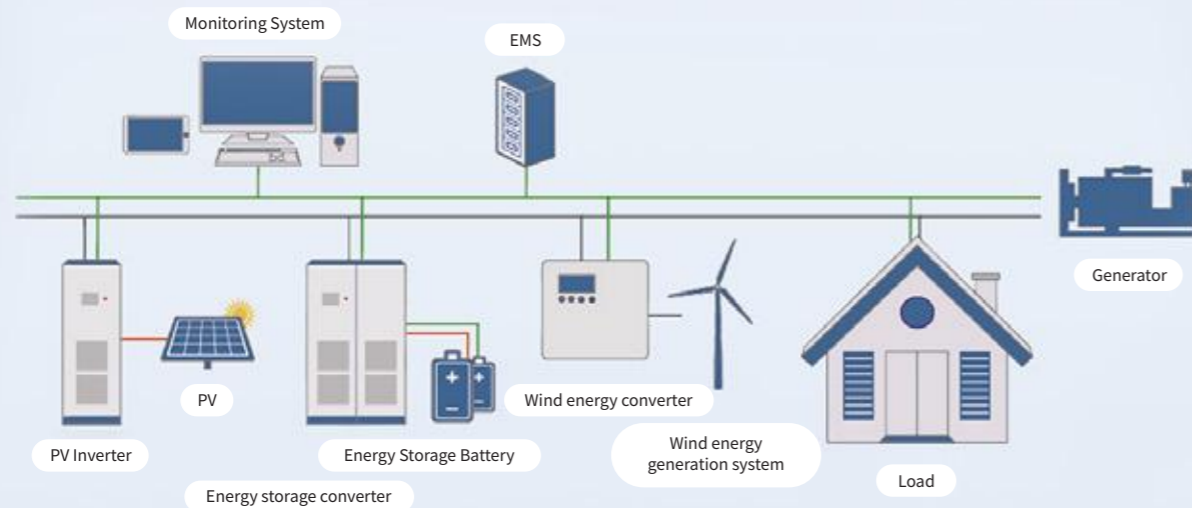
**Smart APP**  
Effortless operation, cloud control

**Economical&Efficient**  
Save Capex, expanding as required

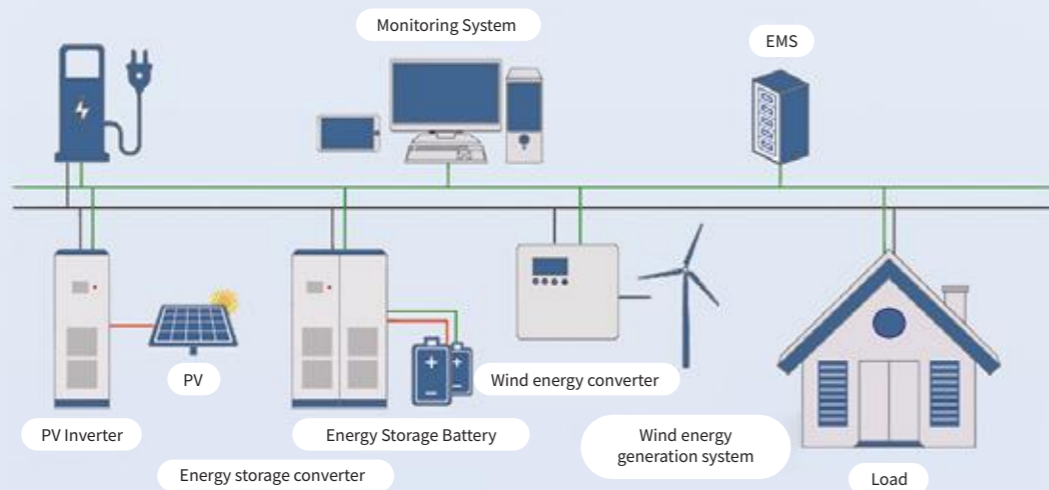
**Air cooling**  
Efficient and energy-saving HVAC design

## Off-grid/Microgrid Applications

**Off-grid:** Off-grid system is an independent energy system that does not rely on traditional power grids. Energy storage systems typically work with renewable energy devices (such as solar panels and wind turbines) to provide safe, clean, and reliable electricity to remote or geographically challenging areas while effectively reducing power supply costs.



**Microgrid:** Microgrid system is a distributed energy system connected to the power grid and operates in collaboration with it in a small area. It can improve autonomous power supply capability, reduce dependence on the grid, and balance loads through energy storage systems. As one of the core equipment of microgrid systems, energy storage systems ensure a smooth and reliable energy supply. Additionally, they optimize scheduling and improve the safety and stability of the grid through intelligent control.



## Absen Cloud monitoring system



### Real Time Monitoring

View SOC, SOH, offline /online status, and fault alarms of ESS

### Visible Historical Data

Weekly and monthly electricity savings statistics/historical revenue statistics



### Peak Load Shifting

Energy saving strategy management, customized charging and discharging time

### Disaster Prevention

When a storm arrives, ESS is fully charged to ensure stable residential electricity consumption

# NO.8 PROJECT CASE >>



## Loiret, France Residential Photovoltaic System

15kW/30kWh+10kwp PV  
2022.05  
On-Grid | Self-Sufficient  
Outdoor Installation

WALL-MOUNTED BESS



WALL-MOUNTED BESS



3U RACK-MOUNTED BESS

## Johannesburg, SA Residential PV System

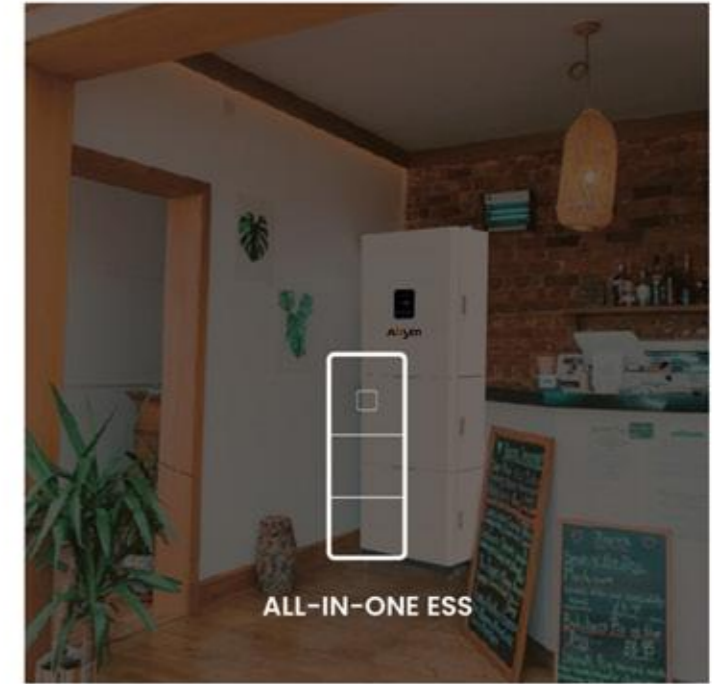
5kW/5kWh+5kwp PV  
2023.03  
On-Grid | Self-Sufficient  
Indoor Installation

## Texas, US Residential PV System

15kW/30kWh+10kwp PV  
2021.07  
On-Grid | Self-Sufficient  
Outdoor Installation

## Buenos Aires, Argentina Residential Backup Power System

10kW/20kWh+10kwp PV  
2020.07  
Off-Grid | Backup Power  
Indoor Installation



ALL-IN-ONE ESS

## Manila, Philippines Residential PV System

15kW/30kWh+10kwp PV 2022.10  
On-Grid | Self-Sufficient Outdoor Installation



HIGH-VOLTAGE STACKABLE ENERGY STORAGE

# NO.8 PROJECT CASE >>



## Brandenburg, Germany Outdoor Integrated ESS

25kW/50kWh  
2022.06  
On-Grid | Self-Sufficient  
Outdoor Cabinet

## Liverpool, United Kingdom ESS

10kW/20kWh+10kwp PV  
2020.07  
Off-Grid | Backup Power  
Indoor Installation



## Hunan, China Microgrids

250kW/520kWh+150kwp PV 2021.05  
Self-Sufficient | Backup Power Outdoor Container



## Johannesburg, South Africa ESS

600kW/1224kWh  
2021.05  
Self-Sufficient | Backup Power  
Outdoor Container

## Burriam, Thailand Outdoor Integrated ESS

50kW/100kWh  
2021.03  
On-Grid | Backup Power  
Outdoor Cabinet