POWASTONE

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Integrated Solar,Energy Storage,Inverter Solution

Shandong Huison Electronics Technology Co.,Ltd.

HUISON

ABOUT US

Established in 2018,Shandong Huison Electronics Technology Co. Ltd dedicates to the R&D, production of New energy storage system , vertical integrates the leading comprehensive solution of Lithium ion battery,Sodium ion battery, PV,BMS, inverters,EMS and System integration solution.

Huison Electronics continuously provides users with a full range of 12V~1500V microgrid,industrial and commercial, Residential, Telecom,UPS and outdoor energy storage products and service.The products have obtained international certifications such as UL1973 CE,IEC62619,IEC62133,UN38.3,IS090001 etc.



01 Portable Power Supply 01/02

12V 24V 48V Battery

02 Home Energy Storage System 03/08

Wall mounted Storage Battery

48V Stackable Storage System

High Voltage Stackable Storage System





03 Centralized Battery Energy Storage System 09/14

High Voltage rack mounted storage system

48V rack mounted storage system

Commercial and Industrial BESS

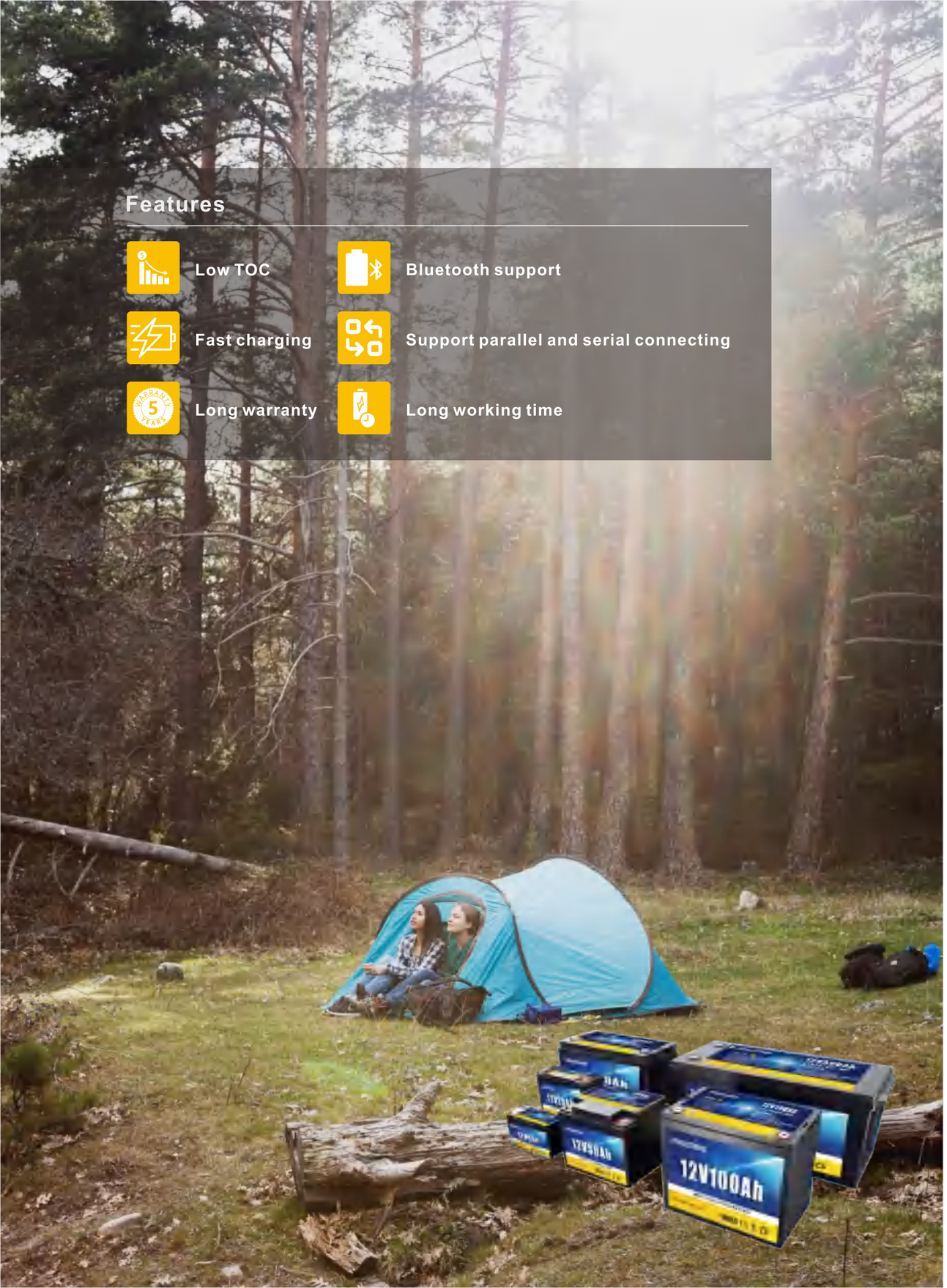
04 Distributed Battery Energy Storage System 15/16

Containerized Energy Storage System

Power-side Storage

Grid-side Storage





Features

- Low TOC
- Bluetooth support
- Fast charging
- Support parallel and serial connecting
- Long warranty
- Long working time

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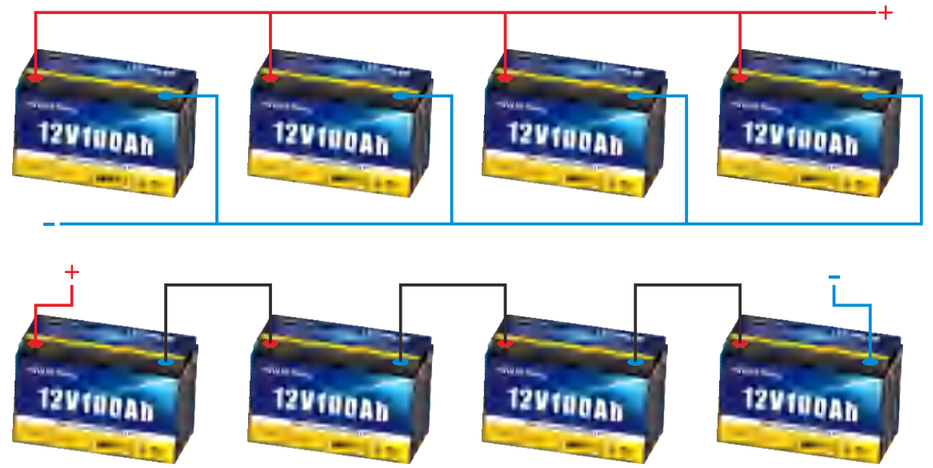
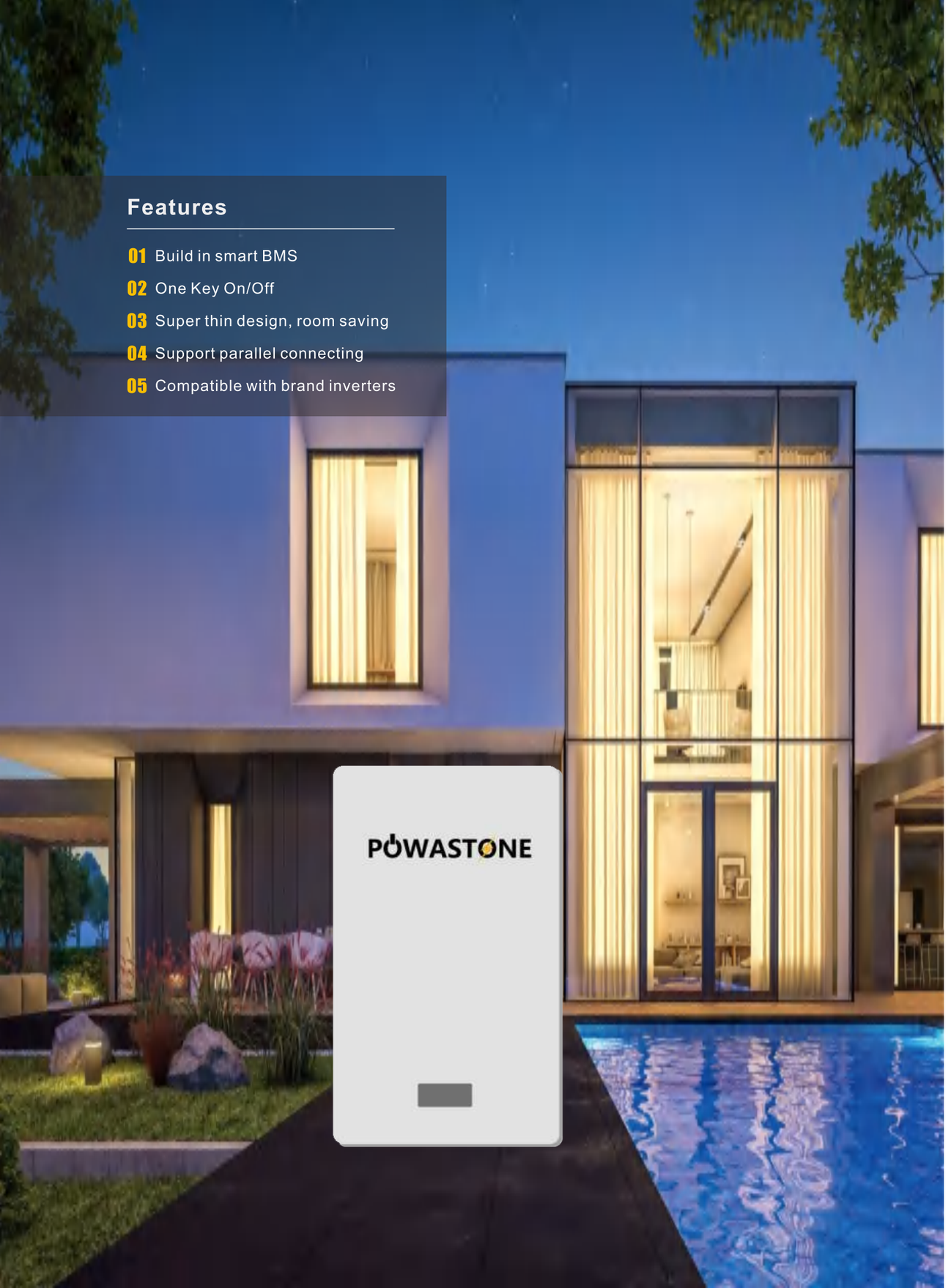
Portable Power Supply 12V 24V 48V Battery



Model	Voltage(V)	Capacity(Ah)	Size(mm)	BMS(A)	Power(W)	Weight	Terminal
PG-12F8	12.8	8	151*65*94	10	120	1.1	F1
PG-12F12	12.8	12	152*99*94	15	180	1.3	F2
PG-12F20	12.8	20	181*77*170	20	240	2.2	M5
PG-12F24	12.8	24	165*126*175	25	300	2.7	M5
PG-12F26	12.8	26	174*126*125	30	360	3.1	M5
PG-12F30	12.8	30	195*133*171	30	360	3.9	M6
PG-12F40	12.8	40	198*166*170	40	480	4.8	M6
PG-12F50	12.8	50	229*138*208	50	600	6.2	M6
PG-12F76	12.8	76	260*168*209	100	1200	8.6	M6
PG-12F100	12.8	100	307*169*208	100	1200	11.2	M8
PG-12F120	12.8	120	330*172*215	100	1200	12.5	M8
PG-12F180	12.8	180	483*170*240	150	1800	19	M8
PG-12F236	12.8	236	532*207*215	200	2400	25	M8
PG-12F250	12.8	250	522*240*218	200	2400	30	M8
PG-12F300	12.8	300	520*269*220	200	2400	35	M8



Features

01 Build in smart BMS

02 One Key On/Off

03 Super thin design, room saving

04 Support parallel connecting

05 Compatible with brand inverters

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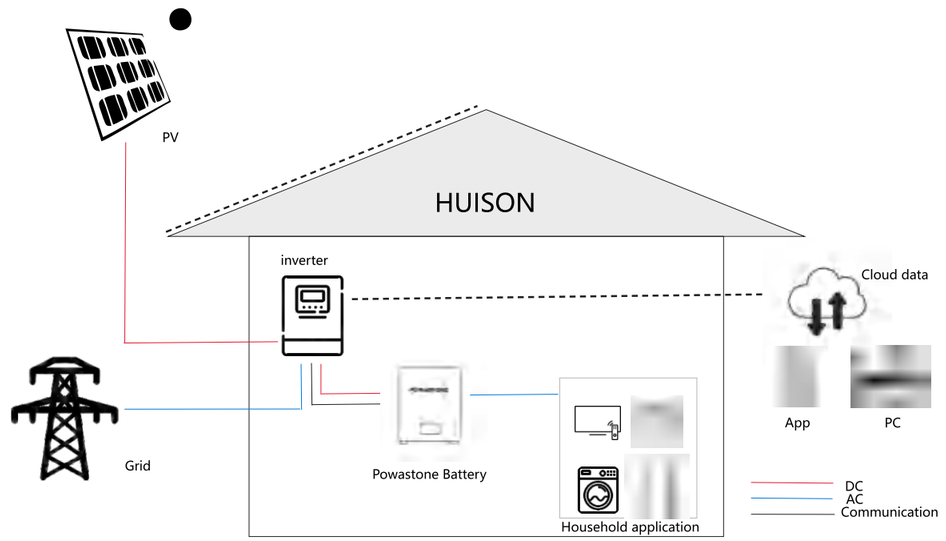
Home Energy Storage System

Wall mounted battery



Model	PS-5KWH-W
Usable Energy	5120Wh
Max charging current	50A
Size(L*W*T)	570*400*135mm
Weight	About 48kg
IP level	IP54
Max discharging current	100A
Discharge temperature	-20-55 ℃
Communication	RS485/RS232/CAN
Cycles	>6000 times 80% DoD 25℃ 0.5C
Parallel number	Max 15 modules
Protocol	SMA, GoodWe, Sol-Ark,Pylontech,etc
Cooling	Natural cooling

Features

01 Module design,

02 Support parallel connecting for different energy requirement

03 Self design BMS, safe and reliable

04 Compatible with most brand of inverters

05 Built-in inverter

06 Remote monitor and update via app



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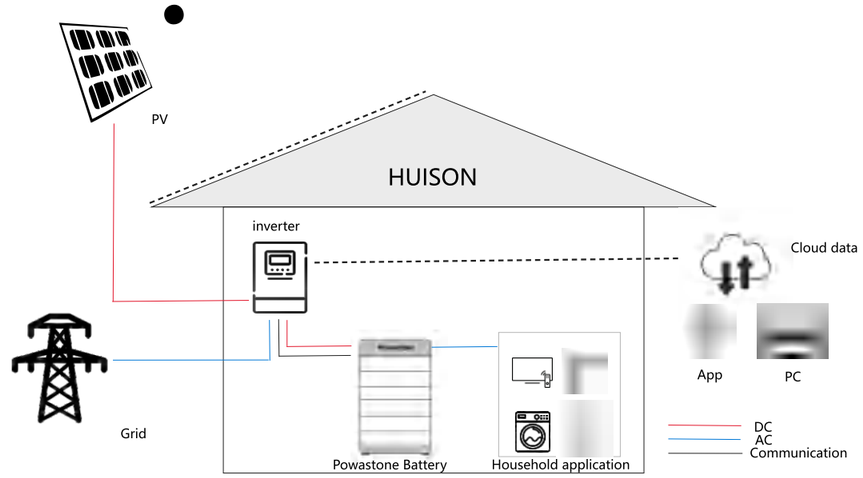
Home Energy Storage System

48V Stackable Storage System



Battery parameter						
Model	PS-5kwh	PS-10kwh	PS-15kwh	PS-20kwh	PS-25KWh	PS-30KWh
Usable energy	5	10	15	20	25	30
Size L*W*H	570*400*390	570*400*550	570*400*710	570*400*870	570*400*1030	570*400*1190
Rated voltage	51.2					
Rated discharge rate	0.5C					
DoD	90%	90%	90%	90%	90%	90%
Cycle(25℃ 80% SOC)	6000 times					
Communication	RS485/CAN/RS232					
Weight(kg)	70	120	170	220	270	320
Certification	CELL:UL1973,UL9540,IEC62619,IEC62133,CE/MODULE:UL1973,IEC62619,UN38.3,CE/EMC61000,MSDS					
Inverter parameter						
AC mode	110/120/220/230Vac					
Input voltage range	(90Vac-140Vac)±2%					
Frequency	50Hz-60Hz (Automatic detection)					
Frequency range	47±0.3Hz~55±0.3Hz(50Hz)/57±0.3Hz~65±0.3Hz(60Hz);					
Efficiency	> 95%					
Conversion time	10ms typical					
AC backflow protection	Yes					
Maximum bypass overload current	63A					
AC Charging						
Max charge current	40A					
Charging voltage range	40-60Vdc					
Circuit breaker	63A					
PV charging						
Max PV open circuit voltage	500Vdc					
PV working voltage range	120-500Vdc					
MPPT voltage range	120-450Vdc					
Battery voltage range	40-60Vdc					
Max output power	5000W					
PV charging current range	0-80A					



Features

01 Self designed Built-in BMS

02 Support serial connecting

03 Compatible with brand inverters

04 Maintenance free,Automatic switching of power supply mode

05 Support CAN/RS485 remote communication

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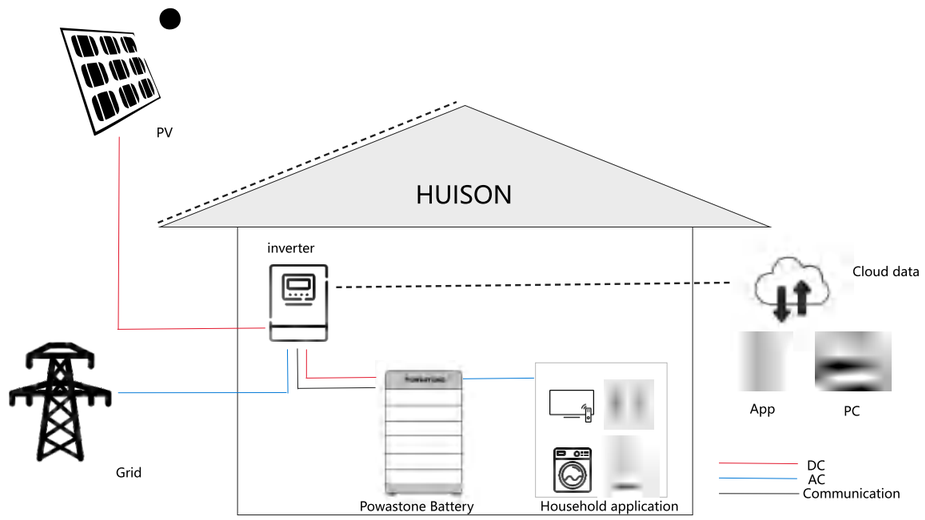
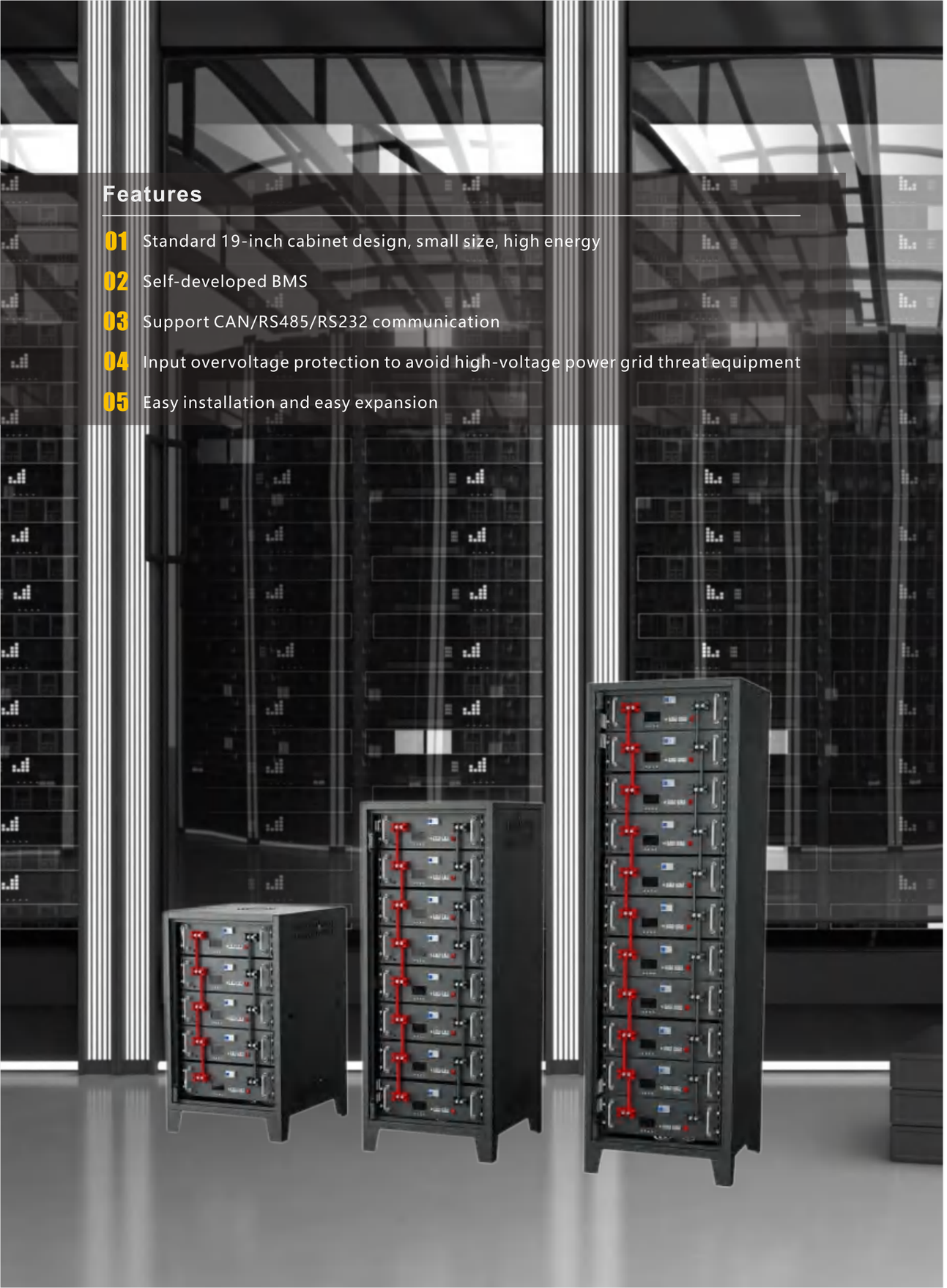
Home Energy Storage System

High Voltage Stackable Storage System



Parameter		PS-30KWh-HV	PS-40KWH-HV	PS-50KWH-HV
Battery parameter	Model	51.2V100Ah	51.2V100Ah	51.2V100Ah
	Serial connecting qty	6	8	10
	Total usable energy(KWH)	30	40	50
	Cycle life(times)	6000	6000	6000
Battery side	Working voltage range(V)	240-350	320-467	400-584
	Max charge/discharge current	100/100	100/100	100/100
	Communication	CAN	CAN	CAN
Mechanical parameter	Discharge temperature	-20℃~+55℃		
	Charge temperature	0℃-55℃		
	Noise(dB)	< 40		
	Cooling	Natural cooling		
	IP Level	IP54		
	Size	570*400*1220mm	570*400*1540mm	570*400*1860mm



Features

01 Standard 19-inch cabinet design, small size, high energy

02 Self-developed BMS

03 Support CAN/RS485/RS232 communication

04 Input overvoltage protection to avoid high-voltage power grid threat equipment

05 Easy installation and easy expansion

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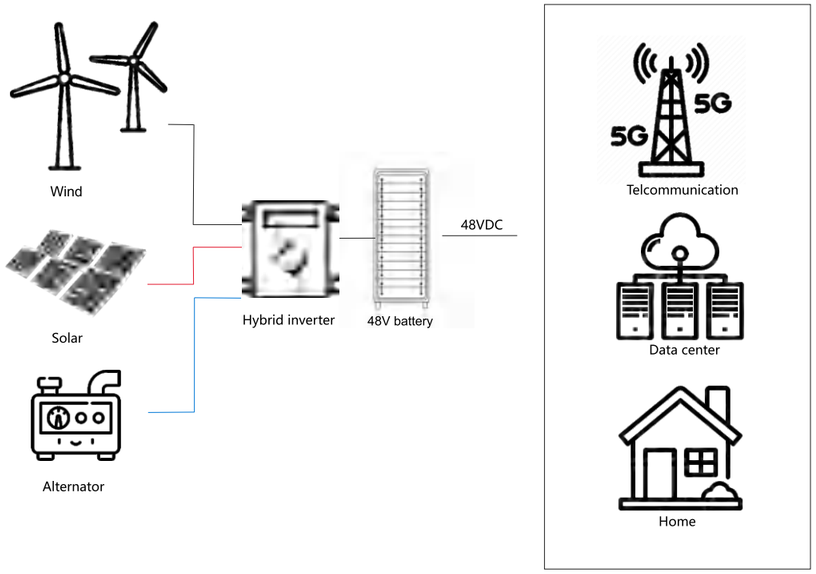
Containerized Energy Storage Series

Low voltage cabinet battery module



Model	PC-5KWH-LV	PCS-10KWH-LV
Rated capacity	100Ah	200Ah
Total energy	5120Wh	10240Wh
Maximum charge current	50A	100A
Size（L*W*H)	500*450*133mm	800*450*177mm
Weight(kg)	48Kg	78Kg
IP levels	IP54	IP54
Maximum discharge current	100A	100A
Charging temperature	0-55℃	0-55℃
Discharging temperature	-20-55℃	-20-55℃
Communication mode	RS485/RS232/CAN	RS485/RS232/CAN
Cycle life	≥6000 times 80% DoD 25 ℃ 0.5C	
Parallel quantity	Support 15 modules in parallel	
Protocol	Compatible with most brand inverters	
Cooling-down method	Natural cooling	



Features

01 Standard 19 inch design

02 High voltage discharge platform

03 Support CAN/RS485/RS232

04 High energy density, small size

05 High discharge rate,lifespan is not affect by frequent using

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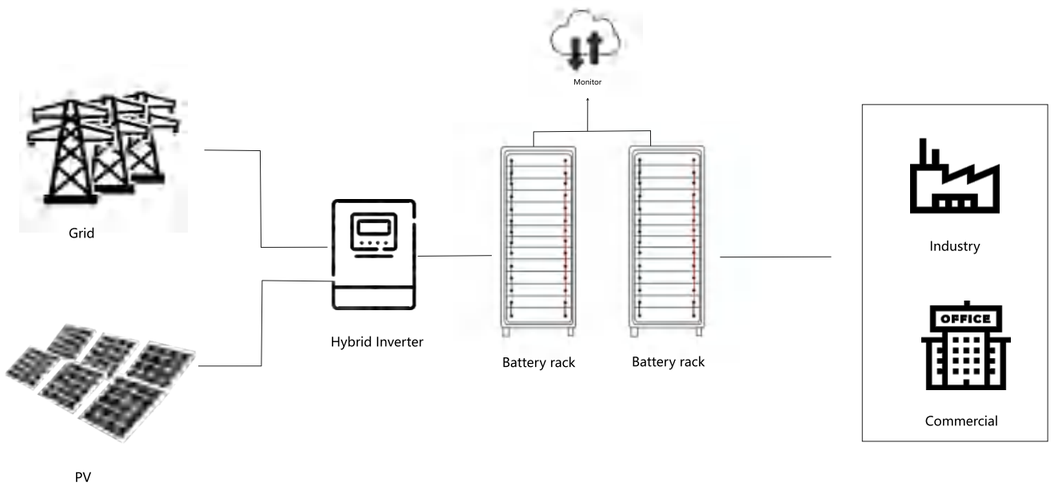
Centralized Battery Energy Storage System

High Voltage rack mounted storage system



Parameter		PC-30KWh-HV	PC-40KWH-HV	PC-50KWh-HV
Battery parameter	Model	51.2V100Ah	51.2V100Ah	51.2V100Ah
	Total usable energy(KWH)	30	40	50
	Cycle life	6000 times		
Battery side	Working voltage range(V)	240-350	320-467	400-584
	Max charge/discharge current	100/100A	100/100A	100/100A
	Communication	CAN,RS485,RS232		
Mechanical parameter	Discharge temperature	-20℃~+55℃		
	Charge temperature	0℃-55℃		
	IP Level	IP54		
	System size	570*400*1220mm	570*400*1540mm	570*400*1860mm

Features

01 Long design service life

02 Max 98.8% system conversion efficiency

03 Remote monitor, No manual attendance

04 Module deign, simple structure,easy to install

05 Integrated air conditioning and fire extinguishing equipment

06 Support On/Off grid using



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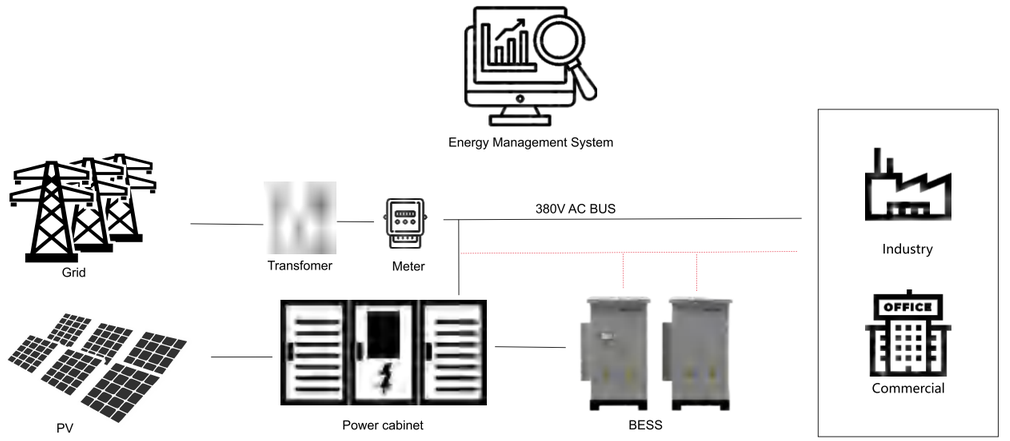
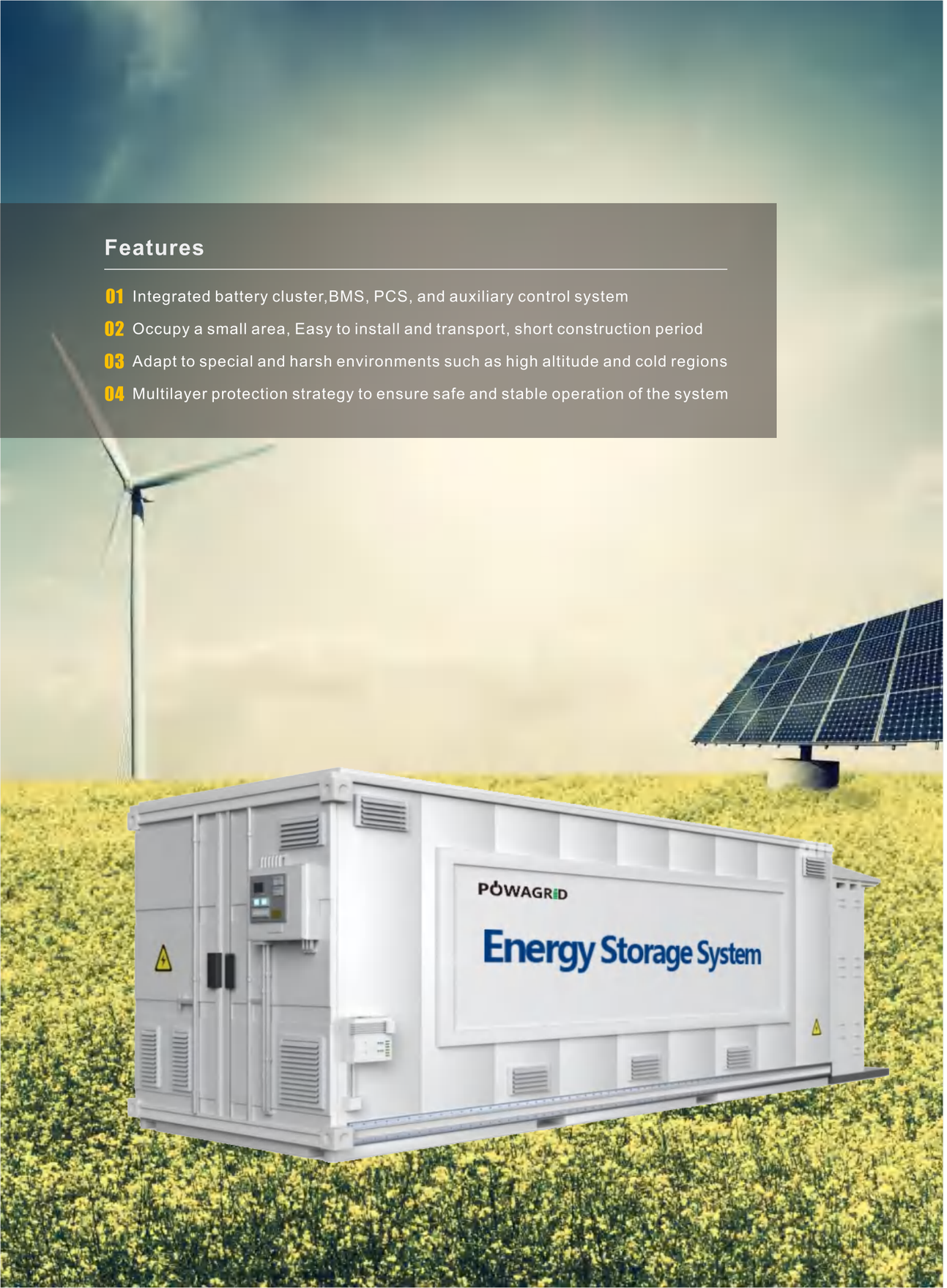
Commercial and Industrial BESS PE50/100/150/200



Rated energy	50kWh	100kWh	150kWh	200kWh
Rated voltage	672V			
Max charge/discharge power	50kW	100kW	150kW	200kW
Continuous charge/discharge power	0.5C			
Working voltage range	630V-756V			
Working temperature	0℃-50℃			
Calender life	>10Years			
Communication	CAN2.0B			
Working altitude	Standard 2000m (Max 3000m)			
Operating temperature range	-30℃ - +50℃(>45℃ Frequency reduction)			
Humidity	0%-95% no condensing			
IP level	IP54			
Size W*H*D	1300×2400×1000mm			
Cooling	Forced fan			
Mounting	Indoor/Outdoor			



Features

01 Integrated battery cluster,BMS, PCS, and auxiliary control system

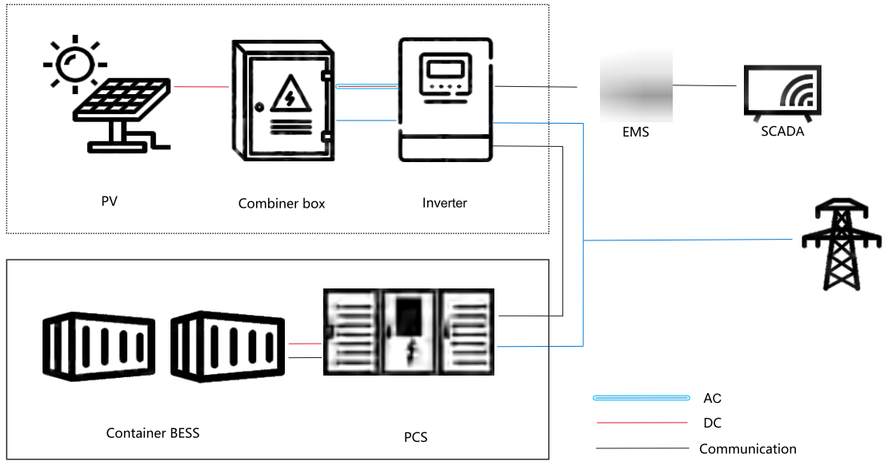
02 Occupy a small area, Easy to install and transport, short construction period

03 Adapt to special and harsh environments such as high altitude and cold regions

04 Multilayer protection strategy to ensure safe and stable operation of the system

Containerized Energy Storage System

Power-side Storage/Grid-side Storage



Model	20 foot (Include PCS)	40 foot (Include PCS)
DC side		
Rated voltage	768V	768V
Rated capacity	1MWh	2MWh
AC side		
Rated power	500kW	1000kW
Rated current/Max current	130A/150A	260A/280A
Rated voltage	380V(3 phase)	380V(3 phase)
Basic parameter		
IP level	IP54	
Temperature system	Industrial air conditioning	
Fire protection system	Gas Fire Extinguishing System	
Calender life	>10 years	
Working altitude	<2000m	
Communication	RS485,Ethernet,4G	

In addition, we provide overall solutions for distributed energy systems, microgrid systems, and smart energy

Equipment Support

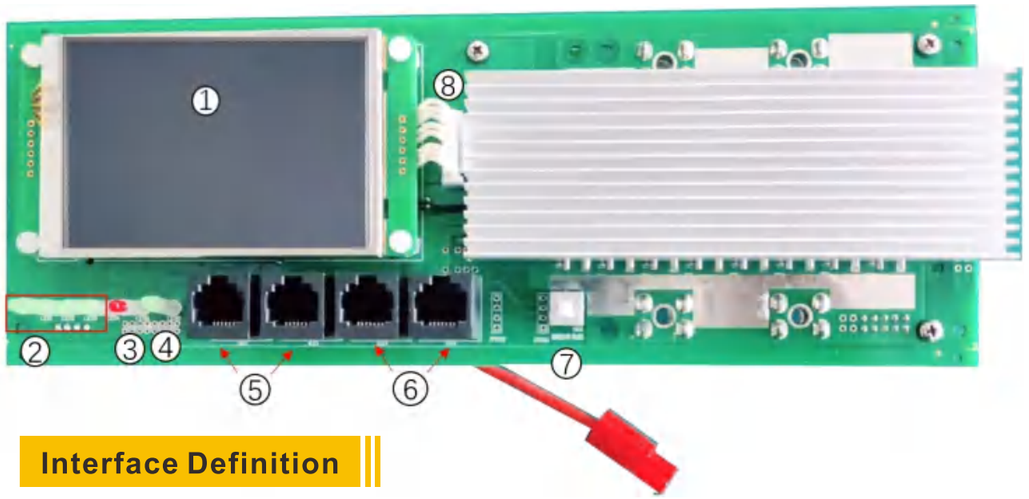
Smart BMS

About smart BMS

Huison Electronics Lithium Battery Management System is designed for products such as home energy storage, data center backup power supply, portable power supply, etc. It collects and protects real-time information on lithium battery voltage, current, temperature, etc. The system also has functions such as active charging and discharging balance, battery SOC, CANBUS/RS485, etc.

Features

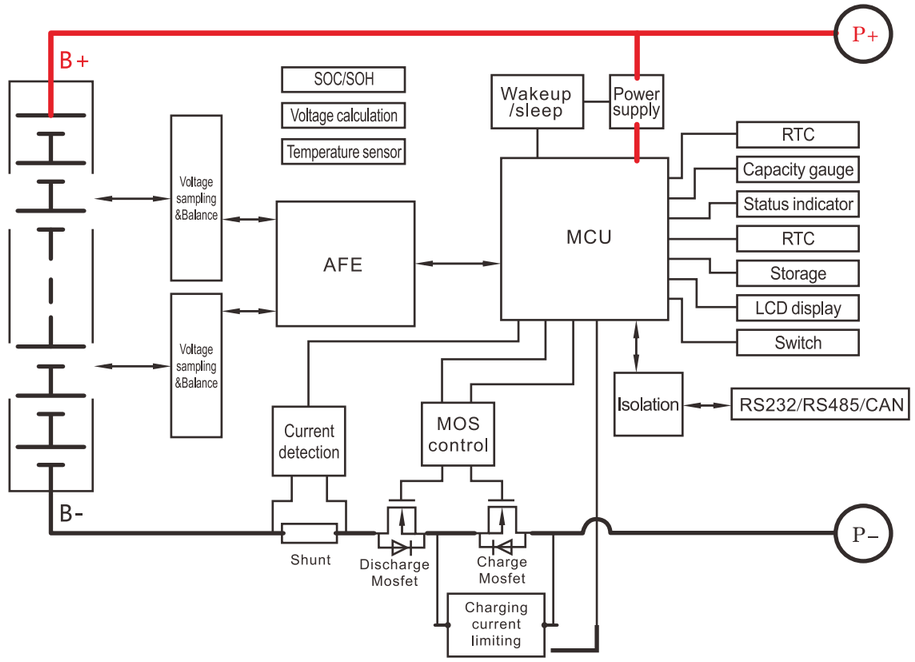
- Touch display setting
- Mul-channels temperature sensors(≤1℃)
- Highly integrated analog front end
- Active charge and discharge balancing
- SOC estimation
- RS485/CANBUS communication
- Short circuit protection
- Multiple wake-up methods
- Current limiting
- High voltage accuracy (≤5mV)
- High current accuracy (≤2%@FS)
- Adjustable parameter settings
- Data record
- Serial port upgrade function
- Low-power consumption
- SOH estimation



Interface Definition

① Touch display
② Indicator
③ Alarm
④ Run
⑤ Can port
⑥ Rs485 port
⑦ Switch
⑧ Display module interface

Topology diagram

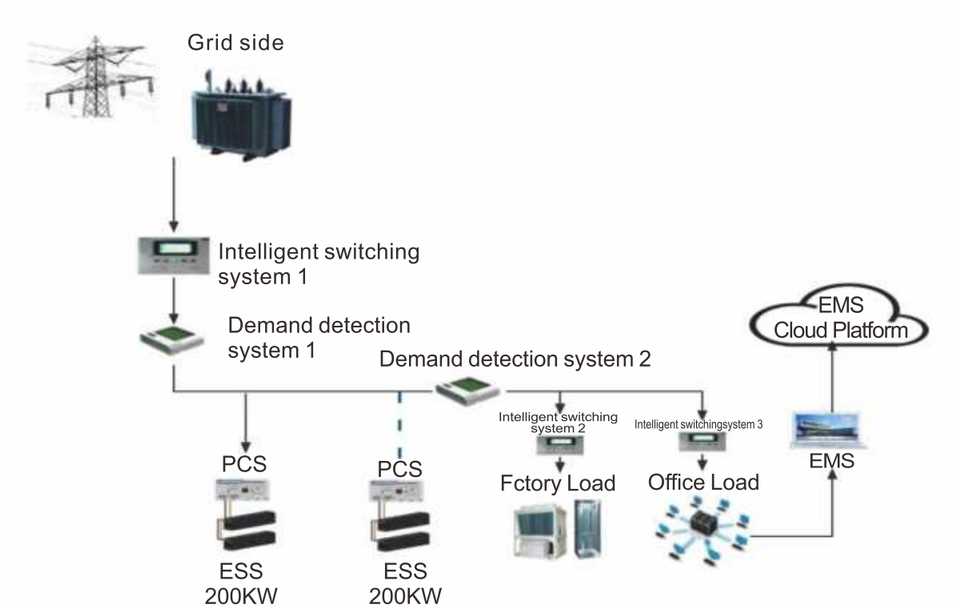


Technical parameter

project	Item	Standard
Battery	Chemistry	LiFePo4
Work method	Layout	16S
	Rated voltage	51.2V
	Charge/discharge port	Same port
	Battery temperature sensor	4pcs
	MOS temperature sensor	2pcs
	Max charge current(incl.Current limiting)	20A
	Max discharge current	150A
	Dry contact+heating current	Optional
Recommend working condition	Continuous charge/discharge current	<100A
	Allowed discharge current	150A
	Working temperature	-15~65℃
Resistance	PCM resistance	«5mΩ
PCM size(2U)	L*W*H	280*80*30mm

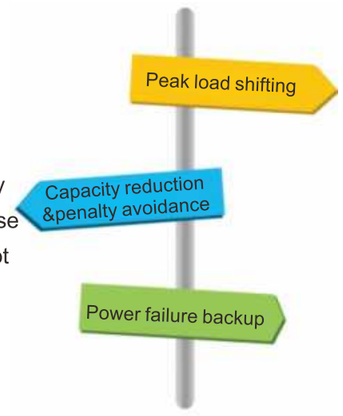
Smart microgrid energy management and control system

Diagram



Function

The smart energy system is a smart energy management and control system that combines "energy storage" and "grid electricity", providing users with efficient and economical new energy power solutions. The specific functions are as follows:



Maximize the reduction of electricity costs for enterprises by storing electricityin the valley for peak use

Real time detection of electricity demand to ensure that enterprise electricity consumption does not exceed capacity

In case of power outage, backup power supply provides protection for enterprise production

System Explanation

System name	Function Introduction
Intelligent switching system（ISS)	After receiving the switching command, "Intelligent cut-off system 1" switches the mains power, and after switching, "ESS" Put into work, "ISS 2" and "3" can be used according to user load needs Intelligent switching of progression line
Demand monitoring system(DMS)	The DMS 1 monitors the output side demand of the transformer in real-time, and when the demand side electricity demand reaches the capacity upper limit.The system automatically starts PCS to reduce the load side capacity, real-time monitoring of load side demand by "DMS 2", when the load side electricity consumption is less than the capacity upper limit will automatically shut down PCS.
200KW BESS	Discharge: When the battery is in a charged state and the system is powered on by 24V, If self check passes, the total negative and pre-charge relays , close the electrical appliances are pre charged; then close the main positive circuit relay and disconnect the pre charging relay. After the system is ready for discharge, it can be discharged externally; Charging: When the battery is low and needs to be charged, the BMS sends a charging request to the PCS after the self check and communication completed the PCS charges the battery. The charging and discharging time can be set on the PCS according to the actual peak and valley periods of the local power grid.
Energy management system(EMS)	The "DMS" data is uploaded to the "EMS". The "EMS" performs real-time calculations and analysis on the "DMS" data. Based on the results, commands are issued and controlled for the "ISS" and "ESS".Functions such as "peak shaving and valley filling", "capacity reduction and penalty avoidance", and "power outage backup" based on user actual needs. The 'EMS' simultaneously uploads data to the cloud server for remote monitoring and management on the user side. Users can view data statistics and analysis in real-time through mobile app and PC. At the same time, system faults will be notified to users through multiple channels such as "mobile app", "PC", and "SMS".