

A Global Leading Lithium Ion
Battery Energy Storage Solutions Provider



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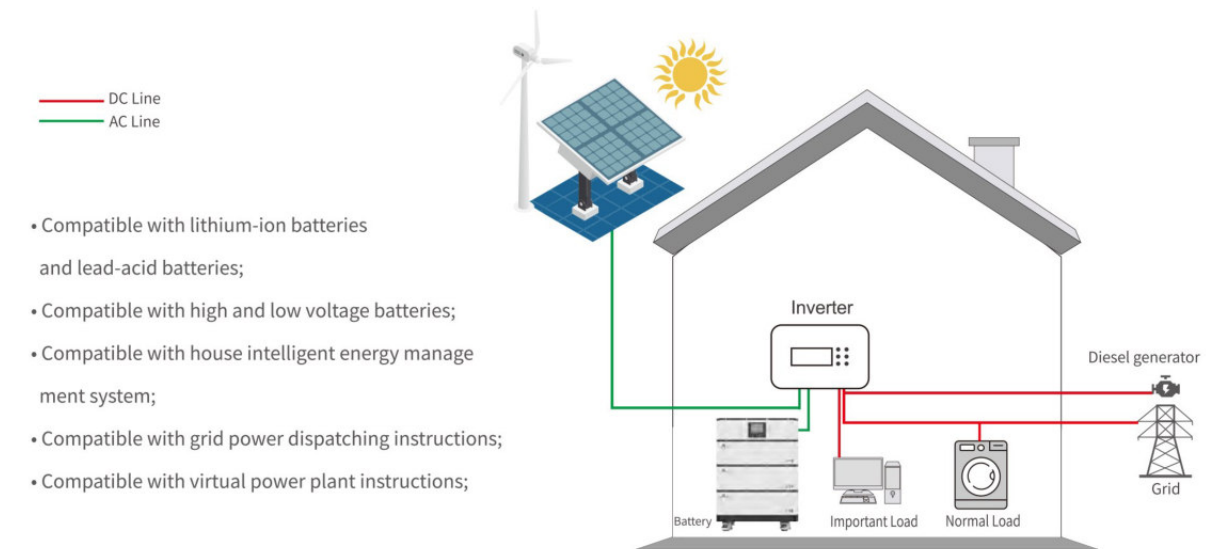


2024
NEW ENERGY
Green Energy For A Better Life

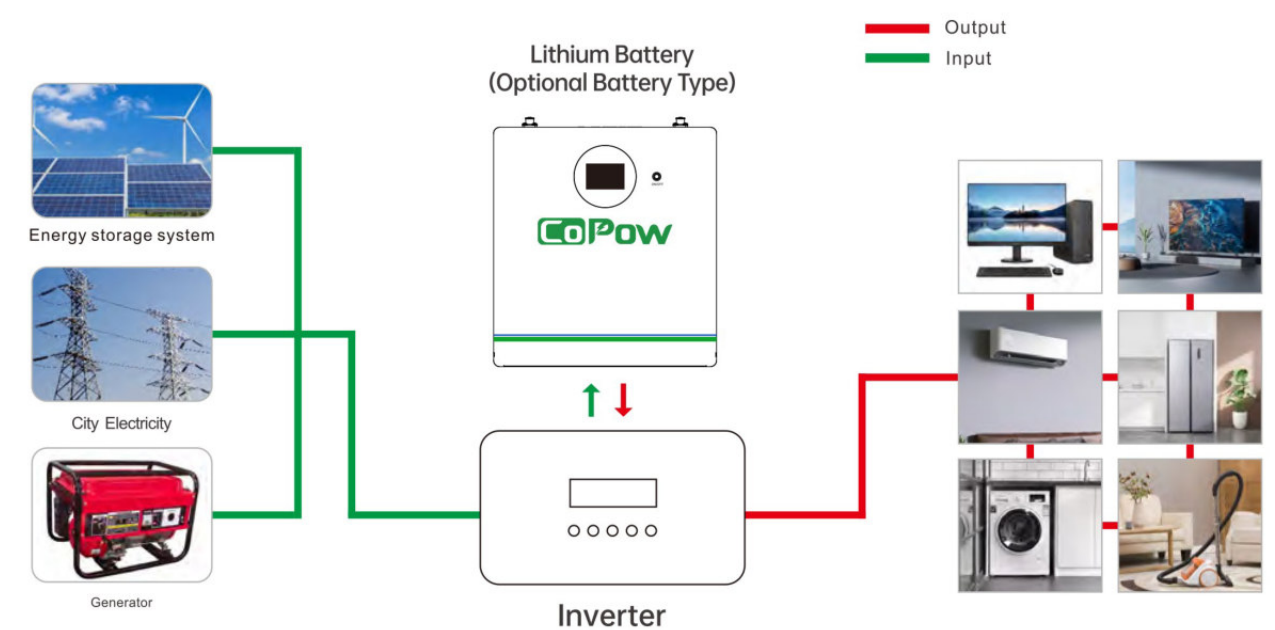
Residential ESS Series

Residential Energy Storage

Based on the low-carbon concept, and thanks for the competitiveness of the energy storage technology, the residential application of PV+ESS will be gradually realized in developed areas. Residential hybrid system solutions can quickly respond to EMS dispatching instructions, and form an intelligent and friendly power supply system with rooftop PV, making, electricity safer. The system is designed to operate perfectly with the grid to realize uninterruptable power supply for the users.



Application Process



Wall-Mounted Model

RPES-WM4



Rated Voltage	25.6V		51.2V	
Rated Capacity	100Ah	200Ah	100Ah	200Ah
Rated Energy	2.56kWh	5.12kWh	5.12kWh	10.24kWh
Output Voltage Range	21.6V~29.2V		43.2V~58.4V	
Charging Voltage	28.8~29.2V		57.6~58.4V	
Cut-off Voltage	21.6V		43.2V	
Max.Charging Current	100A		100A	
Recommended Charging Current	50A		50A	
Max.Discharging Current	100A		100A	
Efficiency	>98%			
Dimension L*W*H(mm)	434*384*142	650*384*142	650*384*142	680*412*231
Weight (kg)	≈25	≈48	≈48	≈86
Humidity	5%~95% Relative humidity			
Charging Temperature	0℃~55℃			
Discharging Temperature	-20℃~60℃			
Storage Temperature	-10℃~30℃			
Cycle Life	>6000 times (0.2C, @25℃, 80%DOD)			
Design Life	>10 years			
Operating Mode	Touchable Screen			

Optional Customization Types

Multiple Modes Of Operation

Customized Logo

Multiple Shell Colors

Customized Capacity

Product Details



- Optional colorful LCD screen & Bluetooth, WIFI
 - Compatible with most of the inverters
 - Long lifespan, 5 years warranty
- Built-in BMS
 - Supports 16 parallel connections
 - Higher energy density and efficiency

Optional Customization Types

Touchable Screen

Customized Logo

Multiple Shell Colors

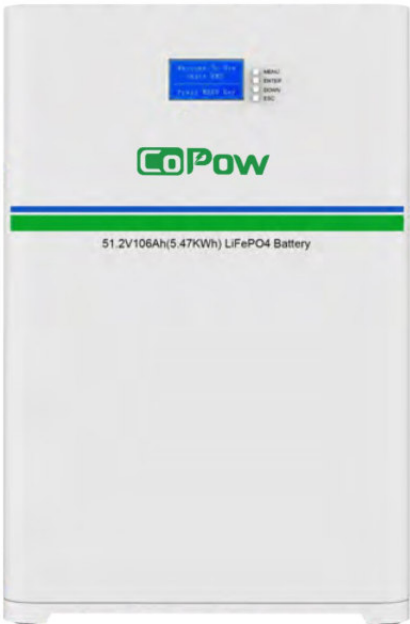
Customized Capacity

Product Details



- Optional colorful LCD screen & Bluetooth, WIFI
 - Compatible with most of the inverters
 - Long lifespan, 5 years warranty
- Built-in BMS
 - Supports 16 parallel connections
 - Higher energy density and efficiency

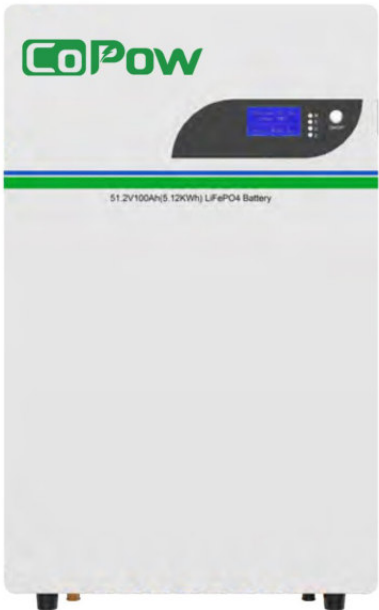
RPES-WM3



Rated Voltage	25.6V	51.2V	51.2V
Rated Capacity	200Ah	100Ah	280Ah
Rated Energy	5.12kWh	5.12kWh	14.34kWh
Output Voltage Range	21.6V~29.2V	43.2V~58.4V	
Charging Voltage	28.8~29.2V	57.6~58.4V	
Cut-off Voltage	21.6V	43.2V	
Max.Charging Current	100A	100A	150A
Recommended Charging Current	50A	50A	
Max.Discharging Current	100A	100A	150A
Efficiency	>98%		
Dimension L*W*H(mm)	622*400*153	622*400*153	825*413*233
Weight (kg)	≈45	≈45	≈110
Humidity	5%~95% Relative humidity		
Charging Temperature	0°C~55°C		
Discharging Temperature	-20°C~60°C		
Storage Temperature	-10°C~30°C		
Cycle Life	>6000 times (0.2C, @25°C, 80%DOD)		
Design Life	>10 years		

Wall-Mounted Model

RPES-WM2



Rated Voltage	51.2V	
Rated Capacity	100Ah	200Ah
Rated Energy	5.12kWh	10.24kWh
Output Voltage Range	43.2V~58.4V	
Charging Voltage	57.6~58.4V	
Cut-off Voltage	43.2V	
Max. Charging Current	100A	
Recommended Charging Current	50A	
Max.Discharging Current	100A	
Efficiency	>98%	
Dimension L*W*H(mm)	495*540*217	495*780*217
Weight (kg)	≈55	≈92
Humidity	5%~95% Relative humidity	
Charging Temperature	0°C~55°C	
Discharging Temperature	-20°C~60°C	
Storage Temperature	-10°C~30°C	
Cycle Life	>6000 times (0.2C, @25°C, 80%DOD)	
Design Life	>10 years	
Operating Mode	Press Button	

Optional Customization Types

Touchable Screen

Customized Logo

Multiple Shell Colors

Customized Capacity

Product Details



- Optional colorful LCD screen & Bluetooth, WIFI
 - Compatible with most of the inverters
 - Long lifespan, 5 years warranty
- Built-in BMS
 - Supports 16 parallel connections
 - Higher energy density and efficiency

Optional Customization Types

Touchable Screen

Customized Logo

Multiple Shell Colors

Customized Capacity

Product Details



- Optional colorful LCD screen & Bluetooth, WIFI
 - Compatible with most of the inverters
 - Long lifespan, 5 years warranty
- Built-in BMS
 - Supports 16 parallel connections
 - Higher energy density and efficiency

RPES-WM1

Rated Voltage	48V	
Rated Capacity	100Ah	200Ah
Rated Energy	4.80kWh	9.60kWh
Output Voltage Range	43.2V~58.4V	
Charging Voltage	57.6~58.4V	
Cut-off Voltage	43.2V	
Max. Charging Current	100A	
Recommended Charging Current	50A	
Max.Discharging Current	100A	
Efficiency	>98%	
Dimension L*W*H(mm)	400*629*160	400*640*223
Weight (kg)	≈53	≈85
Humidity	5%~95% Relative humidity	
Charging Temperature	0°C~55°C	
Discharging Temperature	-20°C~60°C	
Storage Temperature	-10°C~30°C	
Cycle Life	>6000 times (0.2C, @25°C, 80%DOD)	
Design Life	>10 years	
Operating Mode	Press Button	



Wheel-Mounted Model

Optional Customization Types

-  Touchable Screen
-  Customized Logo
-  Multiple Shell Colors
-  Customized Capacity

Product Details



- Extra long cycle life
 - A safe & reliable BMS
 - Easy plug and play
- Ground-standing for easy installation
 - RS485 & CAN communication
 - Compatible with most of the inverters

RPES-W1

Rated Voltage	51.2V
Rated Capacity	200Ah
Rated Energy	10.24kWh
Output Voltage Range	43.2V~58.4V
Charging Voltage	57.6~58.4V
Cut-off Voltage	43.2V
Max. Charging Current	100A
Recommended Charging Current	50A
Max.Discharging Current	100A
Efficiency	>98%
Dimension L*W*H(mm)	495*780*217
Weight (kg)	≈92
Humidity	5%~95% Relative humidity
Charging Temperature	0°C~55°C
Discharging Temperature	-20°C~60°C
Storage Temperature	-10°C~30°C
Cycle Life	>6000 times (0.2C, @25°C, 80%DOD)
Design Life	>10 years



RPES-W2

Rated Voltage	51.2V	
Rated Capacity	280Ah	300Ah
Rated Energy	14.34kWh	15.36kWh
Output Voltage Range	43.2V~58.4V	
Charging Voltage	57.6~58.4V	
Cut-off Voltage	43.2V	
Max. Charging Current	150A	
Recommended Charging Current	50A	
Max.Discharging Current	150A	
Efficiency	>98%	
Dimension L*W*H(mm)	825*413*233	825*413*233
Weight (kg)	≈110	≈112
Humidity	5%~95% Relative humidity	
Charging Temperature	0°C~55°C	
Discharging Temperature	-20°C~60°C	
Storage Temperature	-10°C~30°C	
Cycle Life	>6000 times (0.2C, @25°C, 80%DOD)	
Design Life	>10 years	
Operating Mode	Touchable Screen	



Optional Customization Types

-  Multiple Modes Of Operation
-  Customized Logo
-  Multiple Shell Colors
-  Customized Capacity

Product Details



- Extra long cycle life
 - A safe & reliable BMS
 - Easy plug and play
- Ground-standing for easy installation
 - RS485 & CAN communication
 - Compatible with most of the inverters

Rack-Mounted Model

RPES-RM1



Rated Voltage	51.2V	
Rated Capacity	100Ah	200Ah
Rated Energy	5.12kWh	10.24kWh
Output Voltage Range	43.2V~58.4V	
Charging Voltage	57.6~58.4V	
Cut-off Voltage	43.2V	
Max. Charging Current	100A	
Recommended Charging Current	50A	
Max.Discharging Current	100A	
Efficiency	>98%	
Dimension L*W*H(mm)	480*442*155	680*442*226
Weight (kg)	≈47	≈82
Humidity	5%~95% Relative humidity	
Charging Temperature	0°C~55°C	
Discharging Temperature	-20°C~60°C	
Storage Temperature	-10°C~30°C	
Cycle Life	>6000 times (0.2C, @25°C, 80%DOD)	
Design Life	>10 years	
Operating Mode	Press Button	

Optional Customization Types

Racked Placement

Customized Logo

Multiple Shell Colors

Customized Capacity

Product Details



- LFP (lithium iron phosphate) cell to ensure the highest safety
- Built-In BMS protects the cell such as temperature, current, voltage, SoC, SoH
- Extra long cycle life times with 6000 cycles with 80% DoD
- Compatible with most of the available inverters
- Possibility of parallel connection with up to 16 pieces

Stackable Model

Optional Customization Types

Stackable Quantity

Customized Logo

Multiple Shell Colors

Customized Capacity

Product Details



- Long Life Circle, offers a lifespan of more than 5 years, ensuring durability and reliability
- Built-in BMS monitors and safeguards battery operation within design limits
- Easily expandable by adding parallel-connected expansion battery packs with each module providing
- Compact and Easy Installation, ideal for spaces with limitations, discreet installation with simplified maintenance compared to larger systems

RPES-SM1

Battery Module NO.	1 module	2 modules	3 modules	4 modules
Rated Voltage	51.2V			
Rated Capacity	100A			
Rated Energy	5.12kWh	10.24kWh	15.36kWh	20.48kWh
Output Voltage Range	43.2V~58.4V			
Charging Voltage	57.6~58.4V			
Cut-off Voltage	43.2V			
Max. Charging Current	100A	100A	100A	100A
Recommended Charging Current	50A	50A	50A	50A
Max.Discharging Current	100A	100A	100A	100A
Efficiency	>98%			
Dimension L*W*H(mm)	600*500*363	600*500*540	600*500*717	600*555*894
Weight (kg)	≈75	≈127	≈179	≈231
Humidity	5%~95% Relative humidity			
Charging Temperature	0°C~55°C			
Discharging Temperature	-20°C~60°C			
Storage Temperature	-10°C~30°C			
Cycle Life	>6000 times (0.2C, @25°C, 80%DOD)			
Design Life	>10 years			



Residential ESS Series

All-In-One ESS

RPES-SMAIO1



Rated Voltage	51.2V	51.2V
Rated Capacity	100A	200A
Rated Energy	5.12kWh	10.24kWh
Rated output Voltage	230V/50Hz	120V/60Hz
Rated output Power	5KW	
Max. Peak Power	10KVA	
Max. AC Charge Power	3150W	2100W
Input Voltage Range	90~280V	90~140V
Overload Current	35A	55A
Battery voltage/Range	46.7~57V	
Dimension L*W*H(mm)	610*620*502	610*620*723
Weight (kg)	≈80	≈125
Humidity	5%~85%	
Charging Temperature	0°C~55°C	
Discharging Temperature	-20°C~60°C	
Storage Temperature	-10°C~30°C	
Cycle Life	>6000 times (0.2C, @25°C, 80%DOD)	
Design Life	>10 years	

Optional Customization Types

Independent Module

Customized Logo

Multiple Shell Colors

Customized Capacity

Product Details



- Cobalt-Free Lithium Iron Phosphate Battery(LFP) with safety. Longer lifespan,high power & energy density,light weight
- Integrated with off-grid inverter and built-in BMS to avoid communication compatibility issues
- Fast plug-in & plug-out with simple connection, easy installation & maintenance
- LCD display show the information about the equipment within real time for fast monitoring

Optional Customization Types

Touchable Screen

Customized Logo

Multiple Shell Colors

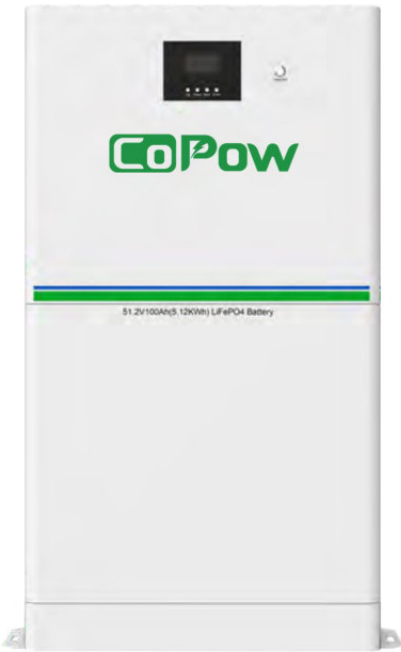
Customized Capacity

Product Details



- Cobalt-Free Lithium Iron Phosphate Battery(LFP) with safety longer lifespan & energy density, light weight
- Integrated with off-grid inverter, battery built-in BMS to avoid communication compatibility problem
- Modular flat design,ground-mounted, saving installation space, easy maintenance
- LCD display show the information about the equipment within real time for fast monitoring

RPES-GMAIO2

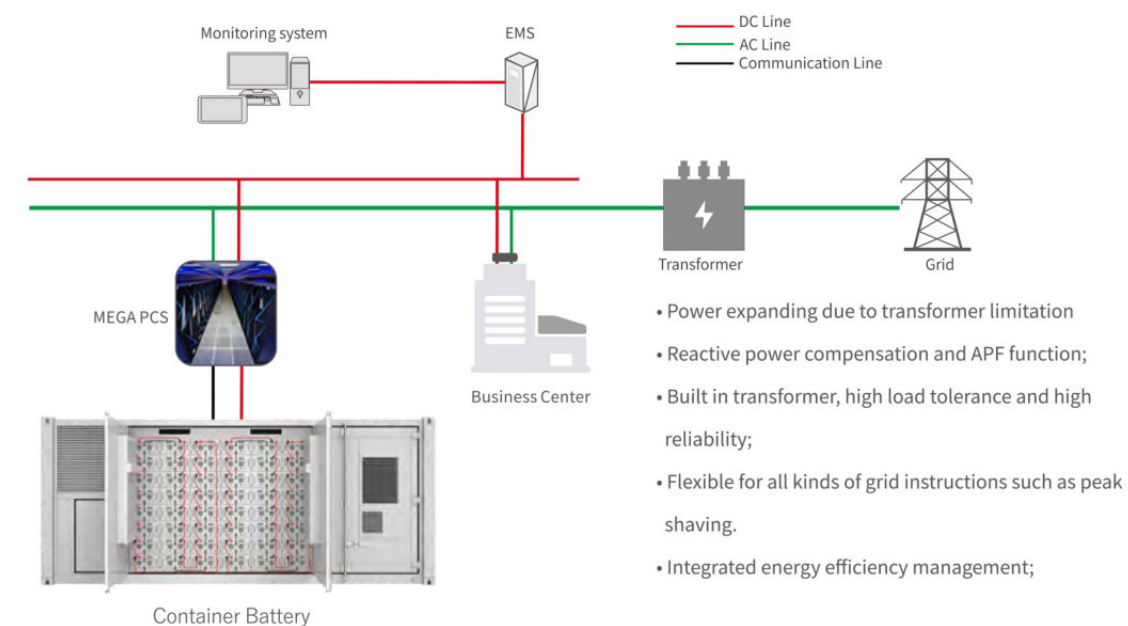


Rated Voltage	51.2V	51.2V
Rated Capacity	100A	200A
Rated Energy	5.12kWh	10.24kWh
Rated output Voltage	230V/50Hz	120V/60Hz
Rated output Power	5KW	
Max. Peak Power	10KVA	
Max. AC Charge Power	3150W	2100W
Input Voltage Range	90~280V	90~140V
Overload Current	35A	55A
Battery voltage/Range	46.7~57V	
Dimension L*W*H(mm)	700*245*1330	700*245*1490
Weight (kg)	≈80	≈125
Humidity	5%~85%	
Charging Temperature	0°C~55°C	
Discharging Temperature	-20°C~60°C	
Storage Temperature	-10°C~30°C	
Cycle Life	>6000 times (0.2C, @25°C, 80%DOD)	
Design Life	>10 years	

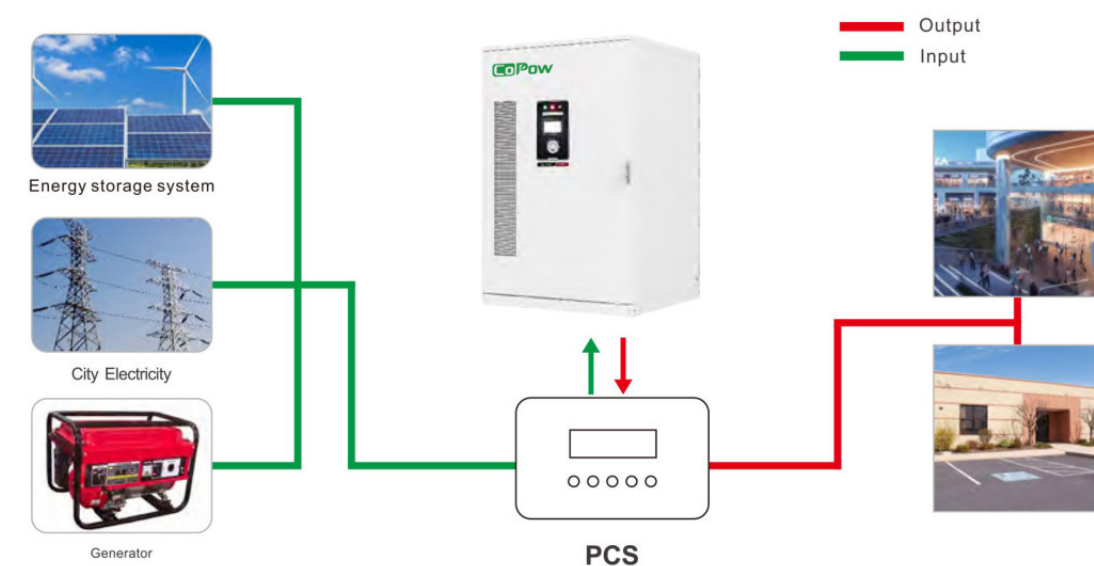
C & I ESS Series

Commercial ESS Solution

Industrial and commercial energy storage systems can not only realize peak shaving, but also reduce transformer capacity costs. RPT energy storage systems can achieve 98.7% conversion efficiency, increase the return on investment(ROI) for users.



Application Process



Outdoor Solar Energy Storage System



RPCI-HVC1

Battery Parameters

Cell Chemistry	LiFePO4
Module Energy	5.12 kWh
Module Nominal Voltage	51.2V
Module Capacity	100Ah
Battery Module Qty	10*2
System Energy	102.4kWh
System Nominal Voltage	512V
Operating Voltage Range	456V~576V
Charge/Discharge Efficiency	Max.0.5C
Dimension(W*D*H)	1553mm*1000mm*2150mm
Weight	1430KG
Operating Temperature Range	-25C ~ +50°C
Cooling Method	Air Conditioner

Inverter Parameters

DC - PV

Max. PV Voltage	1000V
MPPT Range/Nominal	180V~900V
Max. Input Current/String	36A
Qty.of MPPT	4
Max. Input Power/String	75kW

AC-On-Grid

Rated AC Output Power	50kW
Max. AC Output Power	55kVA
Max.AC Current	75A
Rated AC Voltage	400V 3L/N/PE
Rated Grid Frequency/Range	50/60Hz ± 5Hz
AC Current Harmonics	< 3% (100% LOAD)

AC-Off-Grid

Rated AC Voltage	400V 3L/N/PE
Rated Grid Frequency/Range	50/60Hz
Rated AC Output Power	50KW
Max. AC Charge/Discharge Current	75A
Switch Time	≤10ms

Product Details



• Safety & Reliability

- ♦LiFePO4 battery with higher safety & longer lifetime
- ♦1+1 redundant design

• Simple & Friendly

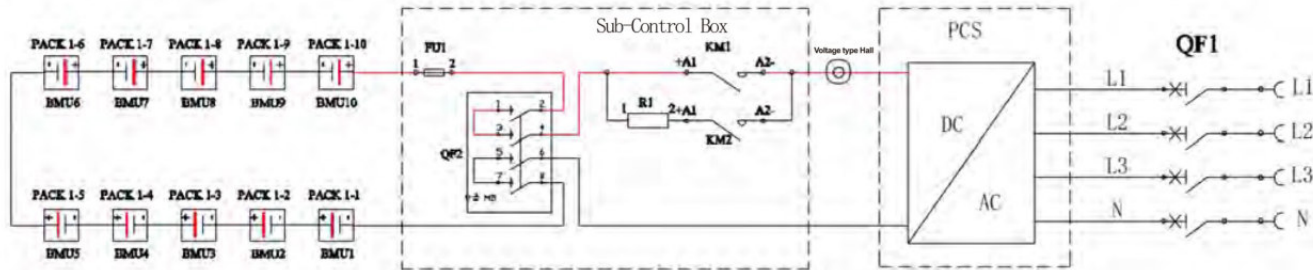
- ♦Easy installation, pre-installed before delivery
- ♦Backup time with 2-5 hours

• Cost-Effective & High Efficiency

- ♦100% DOD, improve return on investment

Intelligent Distributed Energy Storage System

Electrical Primary Diagram



- High modularity degree, simple structure, easy installation and maintenance
- Integrated self-developed BMS products for real-time monitoring and management
- Supporting 10pcs energy storage systems in parallel, with a maximum scalability of 1MW/2MWh
- PACK level firefighting system (optional)
- Adopting a comprehensive battery protection strategy and fault detection and isolation measures to ensure the safety of the energy storage system
- Adopting mature, safe, economical, environmentally friendly, ultra long lifespan, and high reliability lithium iron phosphate battery modules
- Independent intelligent temperature control system ensures small temperature differences between modules and gentle modules temperature fluctuations, prolongs battery life

RPCI-HVC2

Rated Battery Capacity	215.04kWh
Nominal Voltage	768Vdc
Charge and Discharge Rate	≤0.5CP
Cooling Method	Intelligent air cooling
Auxiliary electrical parameters	2kW-220Vac/50Hz
Fireprotection system	S type aerosol
Anti-corrosion level	C3
IP Rating	IP54
Operating temperature range	-15 ~ +45°C
Storage temperature	-20 ~ +55°C
Operating humidity range	0~95% RH
Operating Condition	Maximum 2 charges and 2 discharges per day
System communication interface	Ethernet/RS485
External communication protocol	Modbus TCP/IEC61850/Modbus RTU
Altitude	Within 3000m
Dimension[mm](D*W*H)	1450*1330*2200
Weight(kg)	2800
Certification	CE / EN IEC 6100 / UN38.3
Installation method	Outdoor



High Voltage Lithium Ion Battery Energy Storage System



RPCI-HVC3

Module Energy	5.12 kWh	
Module Nominal Voltage	51.2V	
Module Capacity	100A	
Battery Module Qty 1 in Series	7	10
System Nominal Voltage (V)	358.4V	512V
Charge Voltage (V)	386.4V~403.2V	552V~576V
Cut-Off Discharge Voltage(V)	386.4V	552V
Float Charge Voltage(V)	386.8V~386.4V	544V~442V
System Energy	35.80kWh	51.20kWh
Recommend Depth of Discharge	90%	
Storage Temperature	0~45°C	
Communication Port	CAN/RS485	
Status Indicator	RUN-Green Light;Alarm-Red Light	
IP Rating of Enclosure	IP20	
Dimension (W/D/H, mm)	600*800*1500	600*800*2000
Installation Location	Rack/ Cabinet,Indoor	
Cycle Life	≥4000 cycles at 0.5C/0.5C ,25°C	
Warranty	5 years	
Certification	IEC62619,UN38.3,MSDS	

Product Details



- Safety & Reliability**

 - ♦ Air conditioner in cabinet, fans & fire extinguishing device in battery module
 - ♦ LiFePO4 battery with higher safety & longer lifetime
- Convenience**

 - ♦ Standard 19 inch rack design for easy installation and maintenance
 - ♦ Supporting USB upgrade software
- Flexibility**

 - ♦ Standard modular design with 5.12kWh per battery modules
 - ♦ Flexible design from 4~14 battery modules in series
- ♦ Three-layer architecture built in BMU+RBMS+SBMS for multiple protection**
- ♦ Touchable screen design for choosing different communication protocol**
- ♦ Flexible capacity & power scalability with up to 8 clusters in parallel**

Application Scenarios



- Safety & Reliability**

 - ♦ Air conditioner in cabinet, fans & fire extinguishing device in battery module
 - ♦ LiFePO4 battery with higher safety & longer lifetime
- Convenience**

 - ♦ Standard 19 inch rack design for easy installation and maintenance
 - ♦ Supporting USB upgrade software
- Flexibility**

 - ♦ Standard modular design with 5.12kWh per battery modules
 - ♦ Flexible design from 4~14 battery modules in series
- ♦ Three-layer architecture built in BMU+RBMS+SBMS for multiple protection**
- ♦ Touchable screen design for choosing different communication protocol**
- ♦ Flexible capacity & power scalability with up to 8 clusters in parallel**

RPCI-HVC4

Module Energy	5.12 kWh	
Module Nominal Voltage	51.2V	
Module Capacity	100A	
Battery Module Qty 1 in Series	12	14
System Nominal Voltage (V)	614.4V	716.8V
Charge Voltage (V)	662.4V~691.2V	772.8V~806.4V
Cut-Off Discharge Voltage(V)	518.4V	608.4V
Float Charge Voltage(V)	652.8V~662.4V	761.6V~772.8V
System Energy	61.44kWh	71.68kWh
Recommend Depth of Discharge	90%	
Storage Temperature	0~45°C	
Communication Port	CAN/RS485	
Status Indicator	RUN-Green Light;Alarm-Red Light	
IP Rating of Enclosure	IP20	
Dimension (W/D/H, mm)	800*1300*1500	800*1300*1500
Installation Location	Rack/ Cabinet,Indoor	
Cycle Life	≥4000 cycles at 0.5C/0.5C ,25°C	
Warranty	5 years	
Certification	IEC62619,UN38.3,MSDS	

