

# Product Brochure

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## C&I Energy Storage Product

### **Overview:**

High-voltage energy storage products are specially designed for high power residential and regional microgrid applications by Enershare, including rack-mount and stackable form. Each form owns several battery modules and each high-voltage system consist of multi-level BMS(BMU+BCMU+BSMU), battery modules, and battery cabinet. Built-in intelligent & high-precision BMS, combined with LFP batteries, the system has great advantages in safety, cycle life, energy density, temperature range and environmental protection.

### **Features:**

Simple: Easily installation and capacity expansion, Maintenance-free (15Y design life)

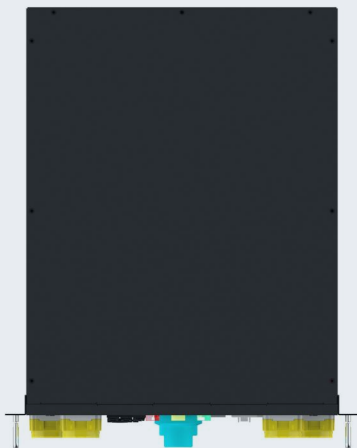
Intelligent: Real-time monitoring and control, passive balance, matching mainstream inverters, multi-level architecture BMS

Safe: LFP cell & system safety design

Performance: High energy density & excellent service life & wide operation temperature range

# Energy Storage Battery Rack Product

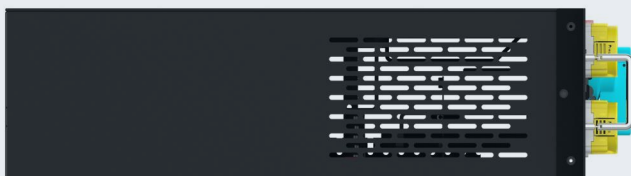
HVB



Aerial View

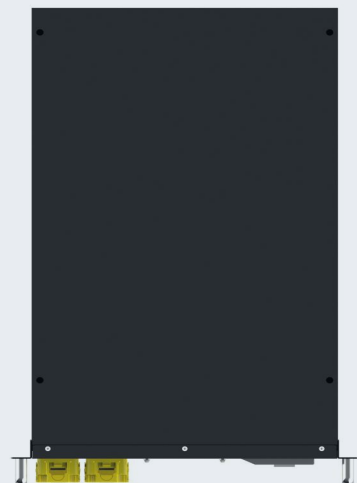


Front View

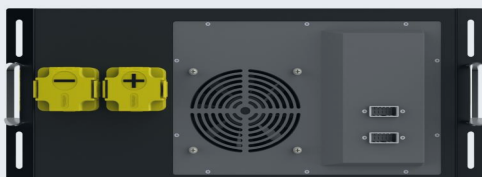


Side View

Battery Module



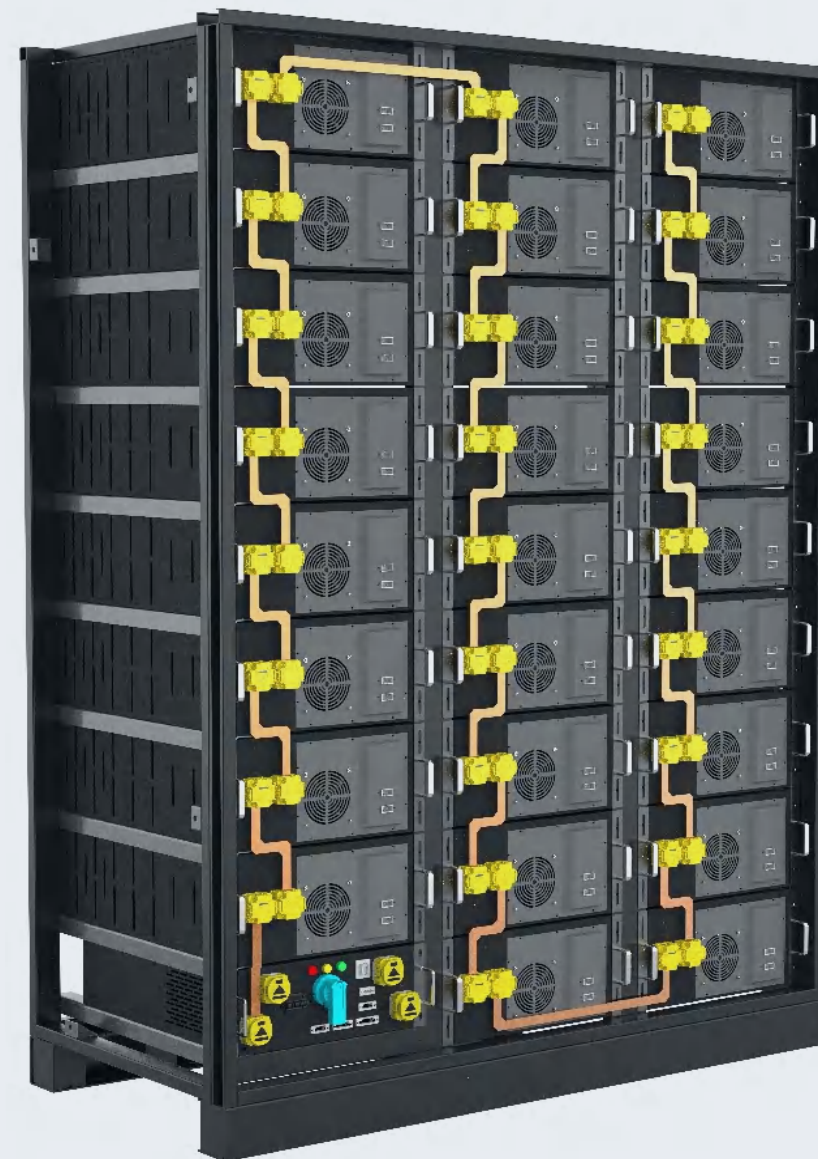
Aerial View



Front View



Side View

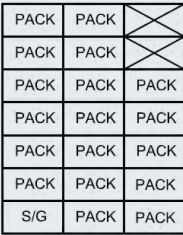
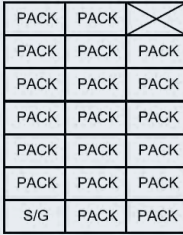
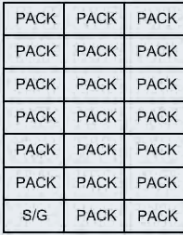

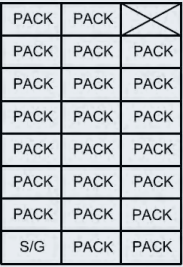
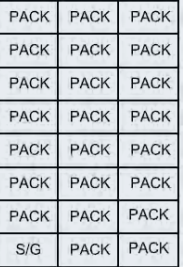
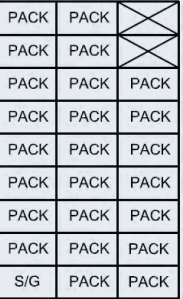
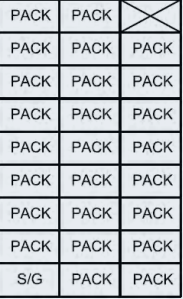
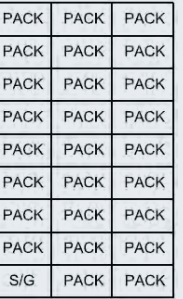


Rack

# Energy Storage Battery Rack Product-1000V

Type/Parameter	ES51280S10	ES51280S11	ES51280S12	ES51280S13	ES51280S14	ES51280S15	ES51280S16	ES51280S17																																																																																																																
System Schematic	<table border="1"> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>S/G</td><td>⊗</td></tr> </table>	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	S/G	⊗	<table border="1"> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>S/G</td><td>PACK</td></tr> </table>	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	S/G	PACK	<table border="1"> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>S/G</td><td>⊗</td></tr> </table>	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	S/G	⊗	<table border="1"> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>S/G</td><td>PACK</td></tr> </table>	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	S/G	PACK	<table border="1"> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>S/G</td><td>⊗</td></tr> </table>	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	S/G	⊗	<table border="1"> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>S/G</td><td>PACK</td></tr> </table>	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	S/G	PACK	<table border="1"> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>S/G</td><td>⊗</td></tr> </table>	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	S/G	⊗	<table border="1"> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>PACK</td><td>PACK</td></tr> <tr><td>S/G</td><td>PACK</td></tr> </table>	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	PACK	S/G	PACK
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Battery Module Type	ES51280																																																																																																																							
Module Number	10	11	12	13	14	15	16	17																																																																																																																
Rated Voltage(V)	512	563.2	614.4	665.6	716.8	768	819.2	870.4																																																																																																																
Voltage Range(V)	448~560	492.8V-616V	537.6V-672V	582.4V-728V	627.2V-784V	672V-840V	716.8V-896V	761.6V-952V																																																																																																																
Rated Energy(kWh)	143.36	157.7	172.03	186.36	200.7	215.04	229.38	243.71																																																																																																																
Standard Discharge Current(A)	140																																																																																																																							
Max Discharge Current(A)	200																																																																																																																							
Dimension(W*D*H, mm)	1070*750*1566	1070*750*1566	1070*750*1802	1070*750*1802	1070*750*2038	1070*750*2038	1070*750*2274	1070*750*2274																																																																																																																
Weight(kg)	1500	1620	1740	1860	1995	2115	2250	2370																																																																																																																
Environment Parameter																																																																																																																								
Humidity(%)	5~95% RH																																																																																																																							
Charge Temperature Range(°C)	5~45																																																																																																																							
Discharge Temperature Range(°C)	-20~60																																																																																																																							
Service Life																																																																																																																								
Design Life(Year)	>10																																																																																																																							
Certification																																																																																																																								
Safety & Certification	IEC62619, CE, EMC																																																																																																																							
Transportation	UN38.3																																																																																																																							

# Energy Storage Battery Rack Product-1500V

Type/Parameter	ES51280S18	ES51280S19	ES51280S20	ES51280S21	ES51280S22	ES51280S23	ES51280S24	ES51280S25	ES51280S26
System Schematic									
Battery Module Type	ES51280								
Module Number	18	19	20	21	22	23	24	25	26
Rated Voltage(V)	921.6	972.8	1024	1075.2	1126.4	1177.6	1228.8	1280	1331.2
Voltage Range(V)	806.4V-1008V	851.2V-1064V	896V-1120V	940.8V-1176V	985.6V-1232V	1030.4V-1288V	1075.2V-1344V	1120V-1400V	1164.8V-1456V
Rated Energy(kWh)	258.04	272.38	286.72	301.06	315.39	329.72	344.06	358.4	372.74
Standard Discharge Current(A)	140								
Max Discharge Current(A)	280								
Dimension(W*D*H, mm)	1070*750*1802	1605*750*1802	1605*750*1802	1605*750*2038	1605*750*2038	1605*750*2038	1605*750*2274	1605*750*2274	1605*750*2274
Weight(kg)	2505	2625	2745	2880	3000	3120	3255	3375	3495
Environment Parameter									
Humidity(%)	5~95% RH								
Charge Temperature Range(°C)	0~45								
Discharge Temperature Range(°C)	-20~60								
Service Life									
Design Life(Year)	>10								
Certification									
Safety & Certification	IEC62619, CE, EMC								
Transportation	UN38.3								

## Distributed Energy Storage Product--DC Coupled

### Advantage

- Modular and flexibly expandable battery storage system at capacity level from 60kWh to 2MWh
- DC-coupled solution, compatible with series inverter
- Individual energy content-perfectly matched to your requirements
- Max. Battery cell life
- Outdoor housing, easy to install and maintenance due to modular design(Battery modules, BMS, control design)
- Internal and external protection

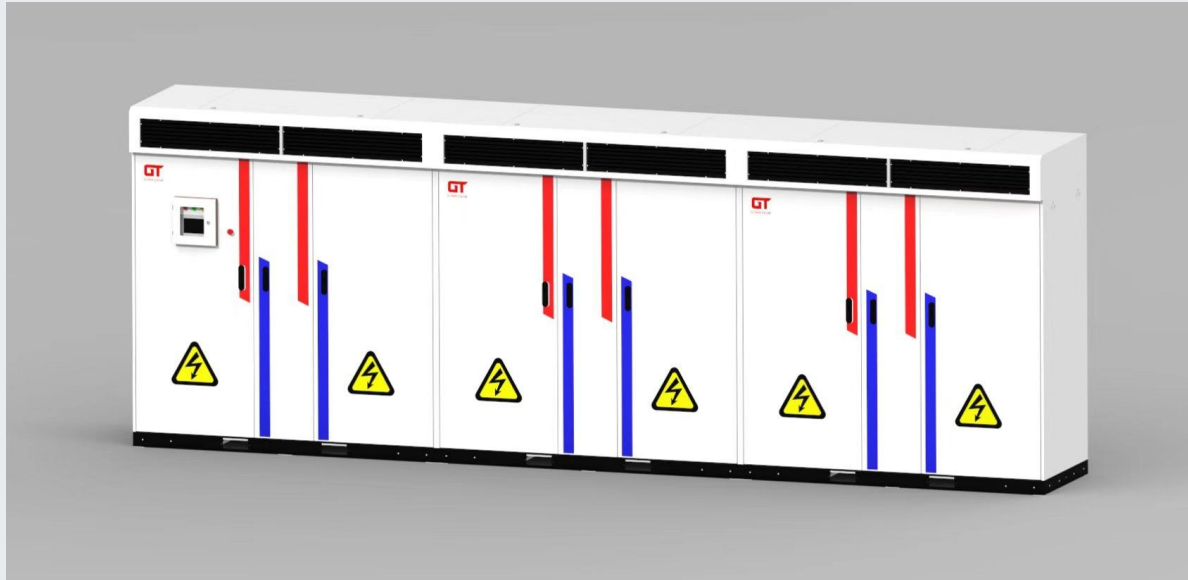
### Application scenarios

- Expansion and reconstruction of photovoltaic power station
- Self consumption of renewable energy.
- Power boost and EV charging optimization.
- Peak shaving.
- Back-up and foo-grid.



DC Coupled Battery Cabinet

# Distributed Energy Storage Product--DC Coupled



Name	Description	Remark
A	PV String Array	Mono silicon, poly silicon, thin film battery without grounded
B	PV Energy Storage Converter	Luxpower LSP100K
C	Grid-tied Solar Inverter	Such as SG100CX SUN2000 etc.
D	Grid Transformer	Converting the output voltage of the inverter to meet the requirements of the grid
E	Grid	Grid supported by inverter
F	Battery	Enershare Battery

Type	ESbox200-1	ESbox200-2
<b>Battery Parameter</b>		
Voltage Range(V)	250~850	480~560V
Rated Capacity(Ah)	280	412
Rated charge/discharge current(A)	70/70	103/103
Rated Energy(kWh)	50~215	210
Maximum Discharge Current(A)	140	200
Maximum Charge Current(A)	140	200
<b>General Parameter</b>		
Dimension (W* D* H)	1220*1100*2280mm	2150*950*2350mm
IP Grade	IP54	
Total Weight (Kg)	Max.2300	2700
Battery Thermal Management	HVAC	
Fire Fighting	Integrated	
Operating temperature	-20~ 55°C	
Operating humidity	5%~95%R.H	
Communication	CAN/RS485/Modbus TCP/IP	
Parallel	Max. 10 cabinets	
<b>Certification</b>		
Safety & Certification	IEC62619	
Transportation	UN38.3	

## All-in-one Energy Storage Product-AC Coupled

### Advantage

- Modular and flexibly expandable battery storage system at the power and capacity level
- All-in-one design, AC-coupled solution
- Individual energy content-perfectly matched to your requirements
- Max. Battery cell life
- Lithium iron phosphate batteries for high operational & fire safety
- Outdoor housing for any installation site
- Easy maintenance due to modular design(Battery modules, BMS, control design)
- Internal and external protection
- Suitable for series application such as control reserve, self-consumption increase
- 15 years design life, stable performance, maintenance-free

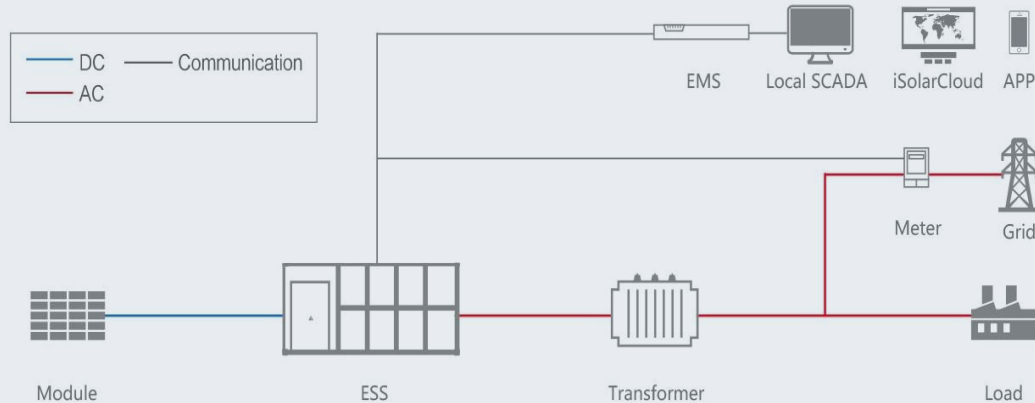


AC Coupled Battery  
Cabinet



# All-in-one Energy Storage Product-AC Coupled

## System Schematic:



## Application scenarios

- Self consumption of renewable energy.
- Power boost and EV charging optimization.
- Peak shaving.
- Back-up and foo-grid.

Type	ESBlock-30P	ESBlock-60P
<b>Battery Parameters</b>		
Cell Type	LFP	
Battery Capacity	67kWh~168kWh	118kWh~168kWh
Voltage Range(V)	250~850	320~850
Max. Charging Power(kW)	60/120	60/120
<b>AC On-grid Parameter</b>		
Grid Type	3W+N+PE	
Rated Charge/Discharge Power	30kW	60kW
Rated Grid Voltage	AC400V, ±15%	
Applicable Grid Frequency	50Hz±5Hz	
Rated Current	43A	86A
Output Harmonics	<3%	
Power Factor	0.8(Leading)~0.8(Lagging)	
<b>AC Off-grid Parameter</b>		
Rated Charge/Discharge Power	30kW	60kW
Voltage Accurary	1%	
Rated Grid Voltage	AC400V	
Rated Frequency	50Hz	
Frequency accurary	0.2Hz	
Rated Current	43A	86A
<b>Photovoltaic Input</b>		
Max Input Power	60/120kW	60/120kW
MPPT Voltage Range	250~850V	
<b>General Parameter</b>		
Dimension (W*D*H)	1900mm*1230mm*2100mm	
Max. Weight	2500kg	
IP Degration	IP54+IP34	
Operating Temperature Range	-20~50°C	
Relative Humidity	5~95%(No condensation)	
Attitude	<2000m	
Cooling Method	Air Conditioner+Forced Air Cooling	
Noise	≤75dB	
System Efficiency	≥85%	
Firefighting System	Intetared	
Communication	Ethernet, Modbus TCP/IP	

## Container Energy Storage Product

### Advantage

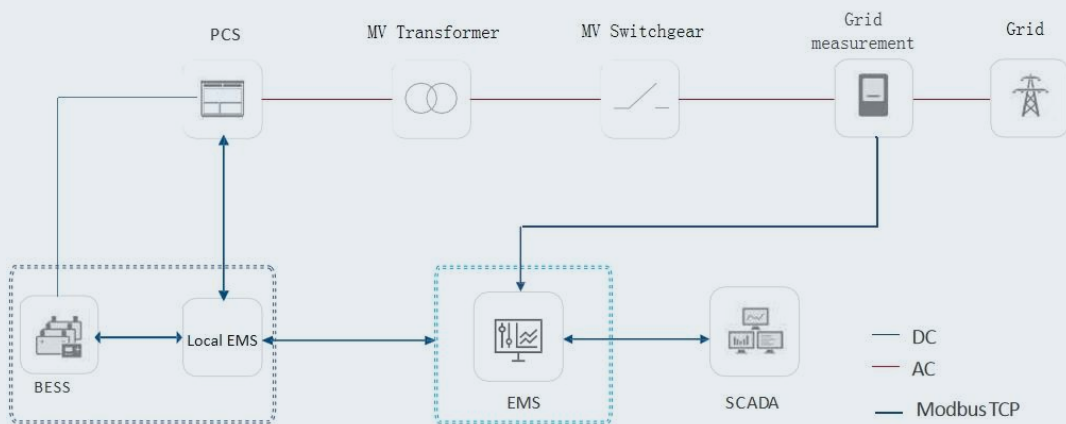
- Modular and flexibly expandable battery storage system
- Integrated with multi-level fire-fighting and intelligent protection
- Individual energy content-perfectly matched to your requirements
- Intelligent string type uniform temperature design, max. system life
- Intelligent control, in-time monitoring
- Non-walk-in container, full cabin shipping, saving on-side construction work
- Internal and external protection
- 15 years design life, Stable performance, maintenance-free



Container

# Container Energy Storage Product

## System Schematic:



## Application scenarios

- Large wind & solar power station.
- Independent energy station.
- Large user-side energy station.
- Peak shaving.
- Large micro-grid.

Technical parameter	0.5-1.0MWH	1.0-2.0MWH	4.0MWH
Rate power (kW)	100/250/500/630		
Rated charging/discharging current (A)	320*N	320*N	280*12
Max charging and discharging rate	≤0.5C@25°C	≤0.5C@25°C	≤0.5C@25°C
Total rack quantity	N	N	12
Max. Capacity (kWh)	1000	2000	4472
Dimension (W*H*D)	6,058 x 2,896 x 2,438 mm	12,116 x 2,896 x 2,438 mm	12,116 x 2,896 x 2,438 mm
Weight	<30T	<40T	<50T
IP degree	IP54	IP54	IP54
Working temperature range	-20°C~55°C	-20°C~55°C	-20°C~55°C
Storage temperature range	-30°C~60°C	-30°C~60°C	-30°C~60°C
Humidity range	0~95% (No Condensation)	0~95% (No Condensation)	0~95% (No Condensation)
DC lightning protection	Type II	Type II	Type II
Max working attitude	4000m	4000m	4000m
Battery cooling mode	Industrial HVAC	Industrial HVAC	Industrial HVAC
Auxiliary power supply	TBD	TBD	TBD
Fire fighting system	FM-200	FM-200	FM-200
System communication ports	Ethernet/Optical fiber	Ethernet/Optical fiber	Ethernet/Optical fiber
System communication protocol	Modbus TCP	Modbus TCP	Modbus TCP
Environmental requirements	Rohs6	Rohs6	Rohs6
Certification	IEC62619; UN38.3;	IEC62619; UN38.3;	IEC62619; UN38.3;

