FirstPower®

CATALOG

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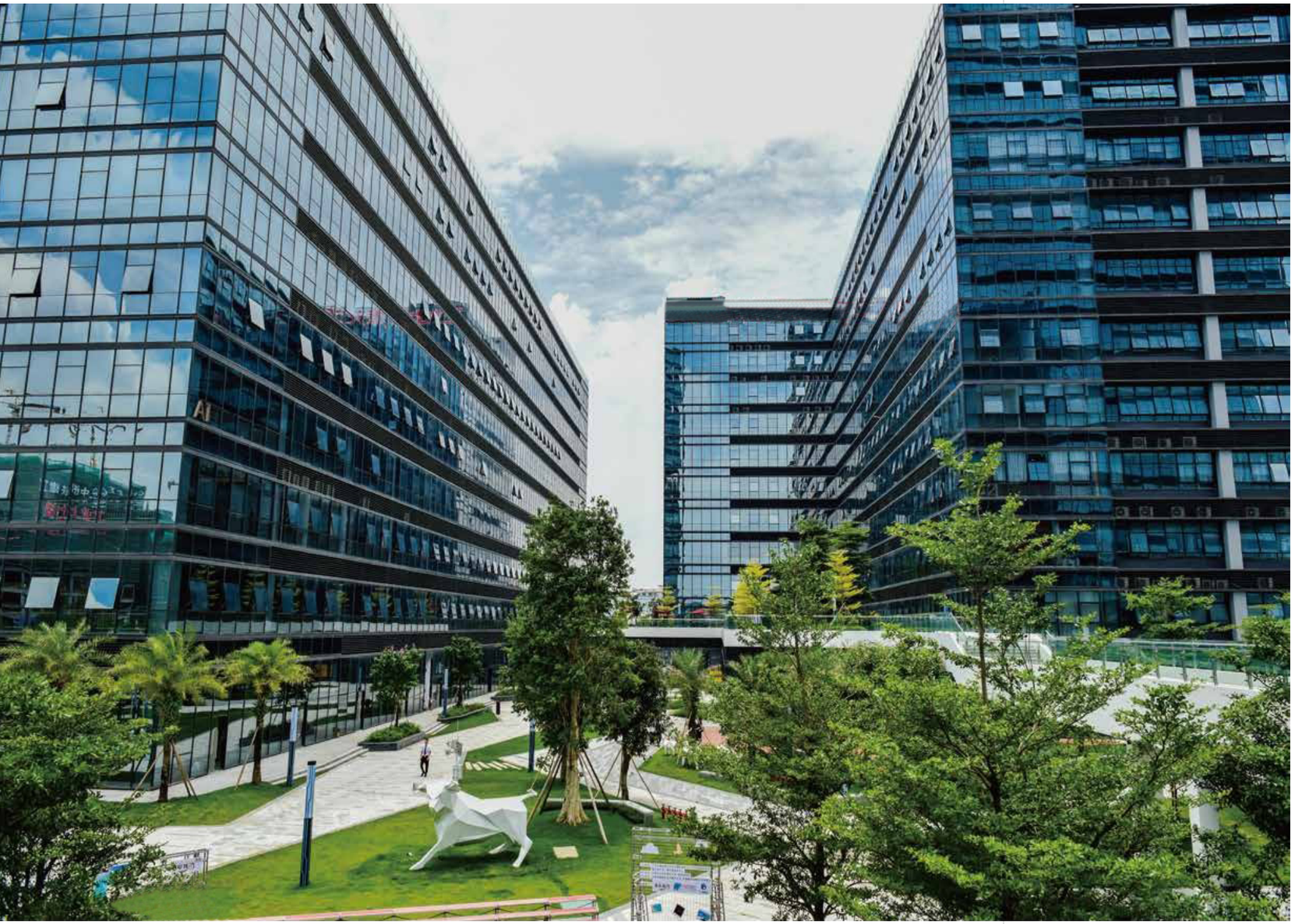
FirstPower®

NEW ENERGY

Shenzhen All Technology Co., Ltd

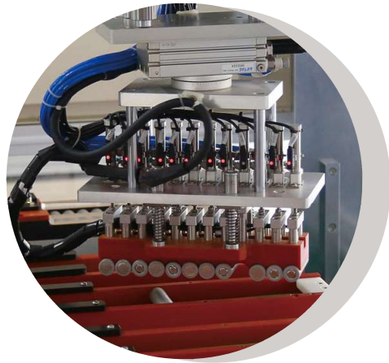
Green Energy
Powers The Future

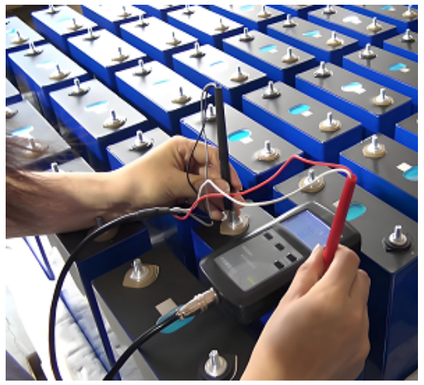


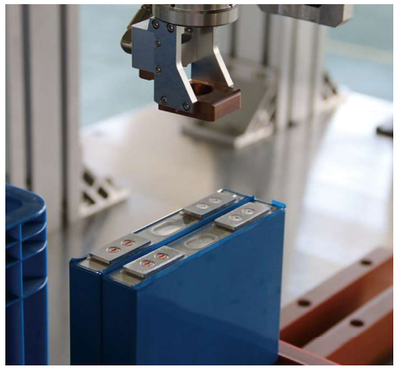
Company Introduction
Product Catalog

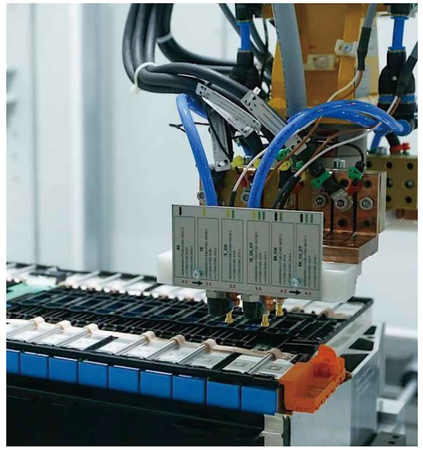
Company Profile

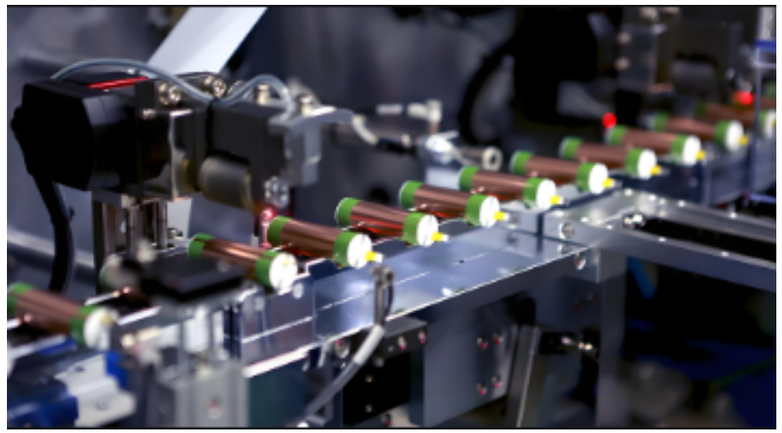
PRODUCTION & TESTING EQUIPMENT











Company Profile

All Technology Co., Ltd is a wholly-owned subsidiary of FirstPower Technology Co.,Ltd, founded in 2013, it is a leader in valve-controlled maintenance-free lead-acid batteries, lithium battery and technology.

After years of continuous and stable development, company has built a complete research and development systemfor lead-acid batteries and lithium batteries, and has established several modern production bases in China.

We specialize in developing and manufacturing customized new energy products, including LifePO4 battery pack, lithium polymer battery pack, and Solid-state Na+ battery pack.

Our products are widely used in outdoor energy storage systems, household solar energy storage systems, RV , golf carts,E-bike. E-tricycles, low-speed vehicles, marine and emergency equipments.

Cylindrical Batteries Series

Features and application:

18650 21700 26650 32700 Lithium Cell

Key Features:

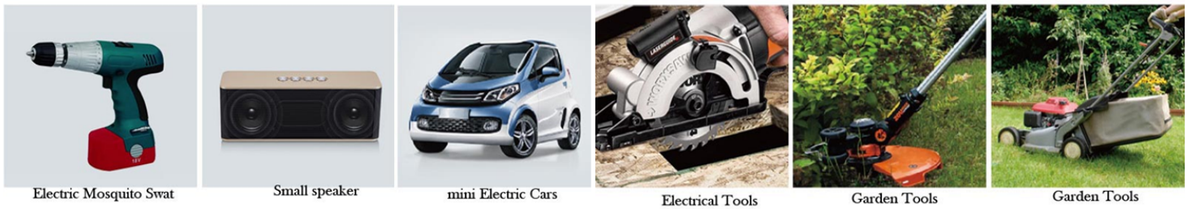
High energy density
Long cycle life over 1000 times.
No memory effect, low self-discharge technology, small resistance
Excellent Performance under extreme-20°C~+60°C temperature
With automatic production, the consistency of the battery is ensured

LiFeOP4 Cell Battery Features:

1. High operation voltage.
2. High energy density.
3. Long cycle life, more than 3000 charge/discharge cycles (80% capacity remained).
4. Minimal self-discharge, less than 10% monthly.
5. Wide temperature range, operation from :-20°C~+60°C
6. Be charged & discharged at anytime because of non-memory.
7. Environmentally compatible.
8. High level of safety, vision Lithium ion batteries catch no fire and cause no explosion in breaking experiment, with acupuncture, smash, drop, and so on.

No:	Model	Nominal Voltage	Nominal Capacity	Weight	Internal Resistance	Max Charge Rate	Maximum continuous discharge current	Cycle life 80%
1	INR18650-1000-3C	3.7V	1000mAh	40.5g	≤50mΩ	1C	10A	≥500times
2	INR18650-1200-3C	3.7V	1200mAh	42.5g	≤45mΩ	1C	10A	≥500times
3	INR18650-1500-3C	3.7V	1500mAh	43.0g	≤40mΩ	1C	15A	≥500times
4	INR18650-1800-3C	3.7V	1800mAh	43.5g	≤40mΩ	1C	15A	≥500times
5	INR18650-2000-10C	3.7V	2000mAh	43.5g	≤50mΩ	3C	30A	≥1000times
6	INR18650-2600-5C	3.7V	2600mAh	44.5g	≤30mΩ	1C	20A	≥1000times
7	INR18650-3000-3C	3.7V	3000mAh	46.0g	≤20mΩ	1C	25A	≥1000times
8	INR18650-3200-3C	3.7V	3200mAh	47.0g	≤12mΩ	1C	10A	≥1000times
9	INR18650-3350-3C	3.7V	3350mAh	47.5g	≤10mΩ	1C	10A	≥1000times
10	INR18650-3500-3C	3.7V	3500mAh	48.0g	≤8mΩ	1C	10A	≥1000times
11	INR21700-4000-5C	3.7V	4000mAh	65.0g	≤20mΩ	3C	30A	≥500times
12	INR21700-5000-3C	3.7V	5000mAh	70.0g	≤18mΩ	3C	15A	≥1000times
13	IFR26650-3200-1C	3.2V	3200mAh	83.5g	≤20mΩ	3C	10A	≥3000times
14	IFR26650-4000-1C	3.2V	4000mAh	90.0g	≤20mΩ	3C	12A	≥3000times
15	IFR26650-5000-1C	3.2V	5000mAh	95.0g	≤20mΩ	3C	10A	≥3000times
16	IFR32700-6000-1C	3.2V	6000mAh	143.5g	≤10mΩ	3C	18A	≥3000times
17	IFR32140-15000-1C	3.2V	15000mAh	268.0g	≤5mΩ	3C	30A	≥3000times
18	NCR4680-23000-1C	3.7V	23000mAh	355.0g	≤3mΩ	3C	30A	≥5000times

Different types of batteries are assembled into a battery pack suitable for your needs, Providing OEM/ ODM.


Electric Mosquito Swat
Small speaker
mini Electric Cars
Electrical Tools
Garden Tools
Garden Tools

Application : Toys, Power Tools, Home Appliances, Consumer Electronics, BOATS, Golf Carts, SUBMARINES, Electric Bicycles/Scooters, electric vehicles, Electric Wheelchairs, Electric Power Systems, Solar Energy Storage Systems

Lead acid replaced by lithium battery

Features and application:

3.2V-96V 0.2Ah-800Ah

- o BMS are powerful manufacturer(Daly and JaBaiDa BMS) More.
- o Bluetooth (BMS) functionality allows full visibility and monitoring from your cellphone or any smart device.
- o The LCD screen displays the corresponding voltage and battery level percentage
- o Super safe lithium iron phosphate (LiFePO4) chemistry reducing the risk of explosion or combustion due to high impact, over-charging or short circuit situation
- o Battery Management System (BMS) controls the parameters of the battery to provide optimum safety by protecting against over-charging and over-discharging
- o BMS enhanced design balances the battery cells, optimizing battery performance
- o Higher capacity or voltage capability through parallel or serial connections
- o Delivers twice the power of lead acid batteries, even at high discharge rates, while maintaining constant power
- o Faster charging and lower self-discharge
- o Brand new Grade A+ Cell
- o Cell: CATL. BYD. EVE. Gotion. SVOLT.etc
- o Up to 10 times more cycles than lead acid batteries
- o Cycle Life: 6000 Times more
- o Compact and only 40% of the weight of comparable lead acid batteries
- o Provide OEM, ODM services
- o Rugged impact resistant thermal stretch film, ABS, Acrylic, Iron case

Model	Nominal Voltage	Nominal Capacity (Ah)	Internal Resistance (mΩ)	Life Cycles	Maximum Charge Voltage	Cut-off Discharge Voltage	Continuous Discharge Current	Battery weight (Approx.)	Measurement (L*W*H)mm
FPLi12.86.0	12.8V	6Ah	≤60	≥2000	14.6V	10.0V	5A	1.00Kg	151*65*95mm
FPLi12.87.0	12.8V	7Ah	≤60	≥2000	14.6V	10.0V	5A	1.08Kg	151*65*95mm
FPLi12.812	12.8V	12Ah	≤60	≥2000	14.6V	10.0V	10A	1.40Kg	151*98*95mm
FPLi12.820	12.8V	20Ah	≤30	≥2000	14.6V	10.0V	20A	2.45Kg	151*98*95mm
FPLi12.830	12.8V	30Ah	≤30	≥2000	14.6V	10.0V	30A	3.63Kg	182*130*195mm
FPLi12.840	12.8V	40Ah	≤30	≥2000	14.6V	10.0V	40A	4.80Kg	195*132*170mm
FPLi12.850	12.8V	50Ah	≤28	≥6000	14.6V	10.0V	50A	6.00Kg	260*158*246mm
FPLi12.8100A	12.8V	100Ah	≤25	≥6000	14.6V	10.0V	100A	10.50Kg	260*158*246mm
FPLi12.8100B	12.8V	100Ah	≤25	≥6000	14.6V	10.0V	100A	10.50Kg	330*173*225mm
FPLi12.8150	12.8V	150Ah	≤25	≥6000	14.6V	10.0V	100A	14.60Kg	295*178*345mm
FPLi12.8200	12.8V	200Ah	≤23	≥7000	14.6V	10.0V	100A	20.10Kg	520*238*203mm
FPLi12.8280	12.8V	280Ah	≤20	≥7000	14.6V	10.0V	200A	26.08Kg	520*238*203mm
FPLi12.8300	12.8V	300Ah	≤20	≥7000	14.6V	10.0V	200A	26.80Kg	520*269*230mm
FPLi12.8400	12.8V	400Ah	≤20	≥7000	14.6V	10.0V	200A	36.00Kg	522*269*230mm
FPLi25.6100	25.6V	100Ah	≤12	≥6000	29.2V	20.0V	100A	19.80Kg	520*239*203mm
FPLi25.6200	25.6V	200Ah	≤12	≥7000	29.2V	20.0V	200A	36.00Kg	520*269*230mm
LFP-GP48100	48V	100Ah	≤25	≥6000	44.8V±0.2V	57.6V±0.2V	100A	40Kg	480*360*175mm
LFP-GP48150	48V	150Ah	≤20	≥6000	44.8V±0.2V	57.6V±0.2V	100A	57Kg	600*275*290mm
LFP-GP48200	48V	200Ah	≤12	≥7000	44.8V±0.2V	57.6V±0.2V	200A	78Kg	560*360*252mm
LFP-GP72100	72V	100Ah	≤25	≥6000	60.0V±0.2V	87.6V±0.2V	100A	59Kg	740*320*240mm
LFP-GP72200	72V	200Ah	≤12	≥7000	60.0V±0.2V	87.6V±0.2V	200A	122Kg	850*260*320mm

Application : Toys, Power Tools, Home Appliances, Consumer Electronics, BOATS, Golf Carts, SUBMARINES, Electric Bicycles/Scooters, electric vehicles, Electric Wheelchairs, Electric Power Systems, Solar Energy Storage Systems

Wall-mounted Residential Battery Storage

Features and application:

PV energy storage system
Wall-mounted, space-saving
Match the international mainstream inverter brand
UN38.3, MSDS certification

Main parameters:

Cell type: LiFePO4
Nominal voltage: 51.2V
51.2V100Ah/51.2V200Ah
Model: 51.2V100Ah/51.2V150Ah/51.2V200Ah
Max discharge current: 100A
Communication port: RS485、CAN
Circulation control: Built-in parallel circulation control module

Model	FP51100LFP-WM	FP51200LFP-WM
Performance		
Cell Format	LFP 16S1P	LFP 16S2P
Nominal Capacity	100Ah	200Ah
Battery Usable Energy	5.12kWh	10.24kWh
Nominal Voltage	51.2V	51.2V
Charge Voltage	57.6V	57.6V
Discharge Cut-off Voltage	44.8V	44.8V
Rate Discharge Current	50A	100A
Max Discharge Current	100A	200A
Rate Charge Current	50A	100A
Max Charge Current	100A	200A
Communication		
Display	LCD，SOC status indicator, LED indicator	
Communication	CAN/RS485/RS232	
General Specifcation		
Dimension (L*W*H)	600*410*166mm	600*450*266mm
Weight	50kg	94kg
Charge Temperature	0°C to 55°C	
Operating Temperature [2]	-20°C to 55°C	
Storage Temperature	0°C to 40°C	
Environmental Humidity	< 95%RH	
Protection Rating	IP55	
Cycle Life	6000Cycle@25°C, 80%DOD, 0.5C	
Scalability	Max 15 parallel	
Certification		
Cell	IEC62619/UL1642	
Battery Pack	UN38.3/CE/IEC62619	

[1]Test conditions: 100% depth of discharge (DoD), 0.2C rate charge & discharge at 25℃to 55 ℃
[2]Charge/discharge derating occurs when the operating temperature from -10℃ to 5 ℃.& 45 ℃
[3]Condition apply. Refer to Warranty Letter

Low Voltage Rack Ess

Feature and Application:

For photovoltaic energy storage systems.
Modular models cabinet installation.
Match the international mainstream inverter brands.
With UN38.3,MSDS, CE and other international certification.

Main parameters:

Battery type: lithium iron phosphate.
Rated voltage:51.2V.
Series model: 51.2V50Ah/51.2V100Ah/51.2V150Ah/51.2V200Ah.
Maximum discharge current: 100A.
Communication interface: RS485/CAN.
Parallel function: Support up to 16 units for parallel expansion.
Circulation control: Built-in parallel circulation control module to enhance safety.

Model	FP5150LFP-HES	FP51100LFP-HES	FP51150LFP-HES	FP51200LFP-WM
Performance				
Cell Format	LFP 16S1P	LFP 16S1P	LFP 16S1P	LFP 16S2P
Nominal Capacity	50Ah	100Ah	150Ah	200Ah
Battery Usable Energy	2.56kWh	5.12kWh	7.68kWh	10.24kWh
Nominal Voltage	51.2V	51.2V	51.2V	51.2V
Charge Voltage	57.6V	57.6V	57.6V	57.6V
Discharge Cut-off Voltage	44.8V	44.8V	44.8V	44.8V
Rate Discharge Current	25A	50A	75A	100A
Max Discharge Current	50A	100A	150A	200A
Rate Charge Current	25A	50A	75A	100A
Max Charge Current	50A	100A	150A	200A
Communication				
Display	LCD，SOC status indicator, LED indicator			
Communication	CAN/RS485/RS232			
General Specifcation				
Dimension (L*W*H)	483*440*133mm	483*440*133mm	483*440*190mm	483*550*222mm
Weight	26kg	46kg	64kg	86kg
Charge Temperature	0°C to 55°C			
Operating Temperature [2]	-20°C to 55°C			
Storage Temperature	0°C to 40°C			
Environmental Humidity	< 95%RH			
Protection Rating	IP20			
Cycle Life	6000Cycle@25°C, 80%DOD, 0.5C			
Scalability	Max 15 parallel			
Certification				
Cell	IEC62619/UL1642			
Battery Pack	UN38.3/CE/IEC62619/UL1973			

[1]Test conditions: 100% depth of discharge (DoD), 0.2C rate charge & discharge at 25℃ to 55 ℃
[2]Charge/discharge derating occurs when the operating temperature from -10℃ to 5 ℃.& 45 ℃
[3]Condition apply. Refer to Warranty Letter

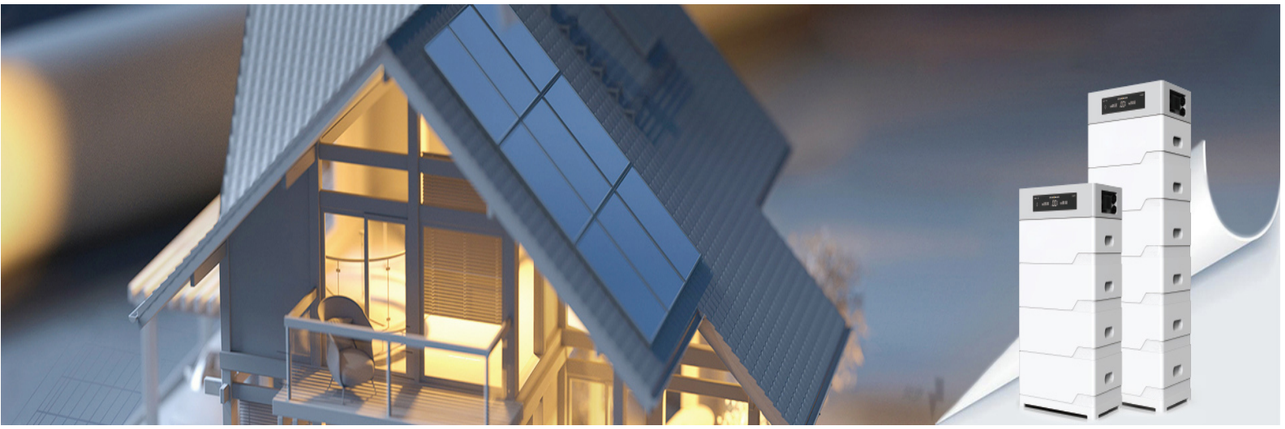
Low Voltage Stacked Energy Storage Batteries

Features and application:

PV energy storage system.
New stackable plug-in design, installed easily and no need for external parallel cables.
Match the international mainstream inverter brand.
Standard modular design, free stacking combination.
UN38.3, MSDS, CE certification.

Main parameters:

Cell type: LiFePO4
Nominal voltage: 48V/51.2V
Standard module power: 48V/51.2V 100Ah
Max discharge current: 100A
Communication port: RS485、CAN
Up to 8 standard modules can be stacked (38.4kWh)
Circulation control: Built-in parallel circulation control module



Model	51.2V200Ah	51.2V300Ah	51.2V400Ah	51.2V500Ah	51.2V600Ah	51.2V700Ah	51.2V800Ah
Performance							
Cell Format	LFP 16S2P	LFP 16S3P	LFP 16S4P	LFP 16S5P	LFP 16S6P	LFP 16S7P	LFP 16S8P
Nominal Capacity	200Ah	300Ah	400Ah	500Ah	600Ah	700Ah	800Ah
Battery Usable Energy	10.24kWh	15.36kWh	20.48kWh	25.6kWh	30.72kWh	35.84kWh	40.96kWh
Nominal Voltage	51.2V						
Charge Voltage	57.6V						
Discharge Cut-off Voltage	44.8V						
Rate Discharge Current	50A						
Max Discharge Current	100A						
Rate Charge Current	50A						
Max Charge Current	100A						
Communication							
Display	LCD, SOC status indicator, LED indicator						
Communication	CAN/RS485/RS232						
General Specifcation							
Dimension (L*W*H)	605*413*474	605*413*666	605*413*858	605*413*1050	605*413*1242	605*413*1434	605*413*1818
Weight	107kg	157kg	207kg	257kg	307kg	357kg	407kg
Charge Temperature	0˚C to 55˚C						
Operating Temperature [2]	-20˚C to 55˚C						
Storage Temperature	0˚C to 40˚C						
Environmental Humidity	< 95%RH						
Protection Rating	IP20						
Cycle Life	6000Cycle@25˚C, 80%DOD, 0.5C						
Scalability	Max 8 parallel						
Certification							
Cell	IEC62619/UL1642						
Battery Pack	UN38.3/CE/IEC62619/						

Note: The above products are data parameters for regular models. If you have any other requirements, please communicate with our sales personnel to customize a satisfactory product for you

Floor Removable Energy Storage

Features and application:

PV energy storage system
Floor removable.
Match the international mainstream inverter
UN38.3, MSDS certification
Content screen display , customization suppor

Main parameters:

Cell type: LiFePO4
Nominal voltage:51.2V/48V
51.2V 300Ah 15KWh
51.2V 400Ah 20KWh
51.2V 500Ah 25KWh
51.2V 600Ah 30KWh

PRODUCT	DESCRIPTION	IMAGE	QUANTITY	UNIT
GROWATT Inverter SPF12000T HVM	12KVA /12KW Split Phase 220Vac&240Vac		1	SETS
LiFePO4 Battery	15.36KWh 51.2V300Ah		1	PCS
JA Solar Panel	MONO 550w Half Cut 144(6*24) cells		20	PCS
PV Cable- Module to DC Combiner	1x6mm2		300	METERS
DC Switch	2P50A		1	PCS
Connector	MC4 Compatiable		32	PAIRS
PV Tools			1	SETS
Wooden Box	For All Products		1	PCS

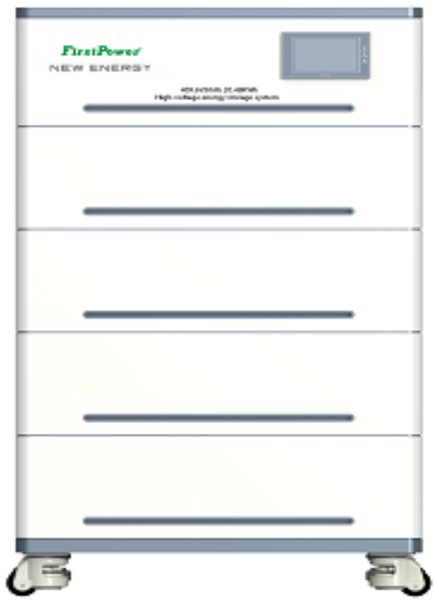
Model	FP51100LFP-FS	FP51200LFP-FS
Performance		
Cell Format	LFP 16S1P	LFP 16S2P
Nominal Capacity	300Ah	400Ah
Battery Usable Energy	15.36kWh	20.48kWh
Nominal Voltage	51.2V	51.2V
Charge Voltage	57.6V	57.6V
Discharge Cut-off Voltage	44.8V	44.8V
Rate Discharge Current	50A	50A
Max Discharge Current	100A	100A
Rate Charge Current	50A	50A
Max Charge Current	100A	100A
Communication		
Display	LCD, SOC status indicator, LED indicator	
Communication	CAN/RS485/RS232	
General Specifcation		
Dimension (L*W*H)	515*515*1100mm	515*515*1100mm
Weight	140kg	170kg
Charge Temperature	0°C to 55°C	
Operating Temperature [2]	-20°C to 55°C	
Storage Temperature	0°C to 40°C	
Environmental Humidity	< 95%RH	
Protection Rating	IP55	
Cycle Life	6000Cycle@25°C, 80%DOD, 0.5C	
Scalability	Max 15 parallel	
Certification		
Cell	IEC62619/UL1642	
Battery Pack	UN38.3/CE/IEC62619	

[1]Test conditions: 100% depth of discharge (DoD), 0.2C rate charge & discharge at 25℃ to 55 ℃
[2]Charge/discharge derating occurs when the operating temperature from -10℃ to 5 ℃.& 45 ℃
[3] Condition apply. Refer to Warranty Letter

High Voltage Stacked Energy Storage Batteries

Features and application:

Standard module design, available in two: 102.4V/50Ah (5.12kwh)
High voltage intelligent BMS management, sec-ondary management architecture
Main control automatic high-voltage identification



Battery parameters					
Model	HVS200-50	HVS300-50	HVS400-50	HVS500-50	HVS600-50
Capacity	204.8V50Ah	307.2V50Ah	409.6V50Ah	512V50Ah	614.4V50Ah
Battery Module	102.4V 5.12 kWh 630*450*192mm 60kg				
Rated Energy	10.24 kWh	15.36 kWh	20.48 kWh	25.6 kWh	30.72 kWh
Number of Modules	2	3	4	5	6
Cell Type	LFP (LiFePO4)				
Cell Configuration	32S1P(x2)	32S1P(x3)	32S1P(x4)	32S1P(x5)	32S1P(x6)
Nominal Voltage	204.8V	307.2V	409.6V	512V	614.4V
Cycle Life	⩾6000 Cycles @0.3C/0.3C				
Communication	RS485/CAN/RS232				
Charge Voltage	230.4V	345.6V	460.8V	576V	691.2V
Charge Current	9A(Recommend)				
Max Charge Current	12.5A				
Peak Charge Current	50A				
Charging Mode	Constant current / constant voltage				
Discharge Cut-off Voltage	185.6V	278.4V	317.2V	464V	556.8V
Discharge Current	12.5A(Recommend)				
Max Discharge Current	25A				
Peak Discharge Current	50A ,30S				
Charge Temperature	0℃ to 55℃ (32°F to 131°F)				
Discharge Temperature	-20℃ to 60℃ (-4°F to 140°F)				
Storage Temperature	0℃ to 40℃ (32°F to 104°F)				
Dimensions (H/W/D)mm	630*450*629	630*450*821	630*450*1013	630*450*1205	630*450*1397
Pack weight	168Kg	230Kg	292Kg	354Kg	416Kg
Protection Class	IP55				
Certificate	UN38.3/MSDS/CE				
Warranty	3/5/10 Year				

All-in-one Energy Storage System

Feature and Application:

Integrated stacked design of inverter and battery
Support ON Grid/Hybrid working mode, high voltage Three-phase electric power electrical output
With multiple national grid connection certifications
Equipped with safety functions such as anti islanding protection, overload protection, short circuit protection, etc

Main Parameter:

AC input range: AC380V/400V, 3W+N+PE
Inverter output range: AC380V/400V, 3W+N+PE
AC output power: 10000VA
Battery capacity: 20KWh
Max discharge current: 25A
Max PV input power: 15000W

Inverter parameters		
AC output power	10000VA	
Rated output voltage	AC380V/400V , 3W+N+PE	
Rated frequency	50Hz/60Hz	
Inversion efficiency	97%	
Working mode	ON-Grid/off-Grid/Hybrid	
PV input voltage	250V~850V	
PV input power	15000W	
Battery input voltage	150~550V	
Product Certification	VDE 4105:EN50549	
Battery parameters		
Battery type	LiFePo4	
Energy	11.06KWh	
Rated Capacity	50Ah	
Rated Voltage	409.6V	204.8V*2
Max Charge Current	50A	
Max Discharge current	25A	
Working Temperature	-10℃ to 50℃	
Cycle Life	6000 cycles	

All-in-one Energy Storage System

Feature and Application:

Integrating energy storage battery and inverter
Supporting PV input and AC mains electricity input
Supporting max 5000W output
Suitable for residential energy storage and emergency backup power supply

Main Parameter:

AC input range: AC110V-AC240V @ 50Hz/60Hz
Inverter output range: AC 110V-AC240V @ 50Hz/60Hz
AC output power: 5000W
AC output current: 45A
Battery capacity: 3KWh/5KWh/7.5KWh/10KWh
Max discharge current: 100A
Max PV input power: 1000W-2000W

Model	FP24120-3KW	FP51100-5KW	FP51150-8KW	FP51200-10KW
Performance				
Cell Format	LFP 8S2P	LFP 16S1P	LFP 16S1P	LFP 16S2P
Nominal Capacity	120Ah	100Ah	150Ah	200Ah
Battery Usable Energy	2.56kWh	5.12kWh	7.68kWh	10.24kWh
Nominal Voltage	25.6V	51.2V	51.2V	51.2V
Charge Voltage	28.8V	57.6V	57.6V	57.6V
Discharge Cut-off Voltage	22.4V	44.8V	44.8V	44.8V
Rate Discharge Current	60A	50A	75A	100A
Max Discharge Current	100A	100A	150A	200A
Rate Charge Current	60A	50A	75A	100A
Max Charge Current	100A	100A	150A	200A
Inverter				
Rate Output power	3000W	5000W	8000W	10000W
Peak Power	6000W	10000W	12000W	15000W
AC Rate input Voltage	220-230-240V (Single Phase)			
AC input Voltage Range	APL DG model: 90Vac-280Vac; UPS City Power: 170Vac-280Vac;			
Rate AC Frequency	50/60Hz			
Discharge Cut-off Voltage	22.4V	44.8V	44.8V	44.8V
Monitoring Option	Wifi			
Peak Efficiency	92%			
Transfer Time	10ms (typical)			
Parallel capacity	1-6 unit			
Wave Form	Pure Sine Wave			
Solar Charger & AC Charger				
Max PV Array Power	4000W	5200W	5500+5500W	5500+5500W
PV input Range	120-450V			
Max Solar Charge Current	13A	18A	22+22A	22+22A
Max AC Charge Current	30A	40A	63A	63A
Rate AC Frequency	50/60Hz			
Max.Voltage of Open Circuit	500V	500V	500+500V	500+500V
Monitoring Option	Wifi			
Max.MPPT Charging Current	80A	80A	180A	200A
Max.DC Charge Current	60A	80A	100A	120A
Communication				
Display	LCD, SOC status indicator, LED indicator			
Communication	CAN/RS485/RS232			
General Specifcation				
Dimension (L*W*H)	520*707*222mm	520*788*222mm	980*675*245mm	1250*675*245mm
Weight	52kg	65kg	104kg	132kg
Charge Temperature	0°C to 55°C			
Operating Temperature [2]	-20°C to 55°C			
Storage Temperature	0°C to 40°C			
Environmental Humidity	< 95%RH			
Protection Rating	IP20			
Cycle Life	6000Cycle@25°C, 80%DOD, 0.5C			
Certification				
Cell	IEC62619/UL1642			
Battery Pack	UN38.3/CE/IEC62619			
Inverter	IEC62109/CE			

200KWh Outdoor Cabinets

Energy Storage System Supplier

Feature and Application:

IP54 protection, internal circulation forced air cooling design, independent thermal management temperature control system, to meet the needs of most scene environments
Pack + system + shell thermal insulation triple fire protection design, independent relay protection, cell-level thermal monitoring, single point of fault physical isolation
By combining with PowerNet outdoor control inverter cabinet, the modular expansion of distributed energy storage system is realized to meet the deployment needs of large-scale application scenarios

Main Parameter:

Rated energy: 200KWh
Output power: 100kw
Output voltage: AC380V 3W+N+PE
System DC voltage: 716.8V
System capacity: 280Ah
Size:1257*1280*2400mm

Battery parameters	
Battery type	3.2V/280Ah
System battery configuration	1P224S
Battery rated capacity	200KWh
Battery voltage range	627.2~806.4V
BMS communication interface	Ethernet
BMS communication protocol	Modbus TCPbus
AC side parameters	
AC side power rating	100kVA
AC current distortion rate	<3% (Rated power)
DC component	<0.5%
AC side rated voltage	380V
Voltage range of power grid	342~418V
Power factor	>0.99 (Rated power)
Reactive power adjustable range	-105%~105%
Rated grid frequency	50Hz
Power Grid frequency range	45~55Hz
Isolation Mode	Non-quarantined
System parameters	
Battery cabinet size (L*W*H)	1257*1280*2400 mm
Weight of container	3T
Protection level	IP54
Operating temperature range	(-30°C~50°C) (>45°CReduction)
Operating humidity range	0~95% (No condensation)
Battery temperature control mode	Intelligent air-cooled
Cooling mode of converter	Intelligent air-cooled
Fire fighting system (battery container)	Aerosol
System communication interface	RS485、Ethernet、CAN
External system communication protocolal	Modbus TCP、Modbus RTU、CAN2.0

Parameters				
Inverter cabinet	PowerNet 300	PowerNet 300	PowerNet 300	PowerNet 500
Number of battery cabinets	1	2	3	4
Rated Energy	200 kWh	400 kW	600 kW	800 kWh
Rated power	100kw	200kw	300kw	400kw
System efficiency	≤90	≤90	≤90	≤90
Dimensions (H/W/D)mm	1257*1280*2400 (Single cabinet)			
Cycle Life	≥6000 Cycles @0.3C/0.3C			
Protection Class	IP54			
Warranty	10 Year			
Installation method	Outdoors			
Cooling method	Air conditioning			
Noises	≤70			

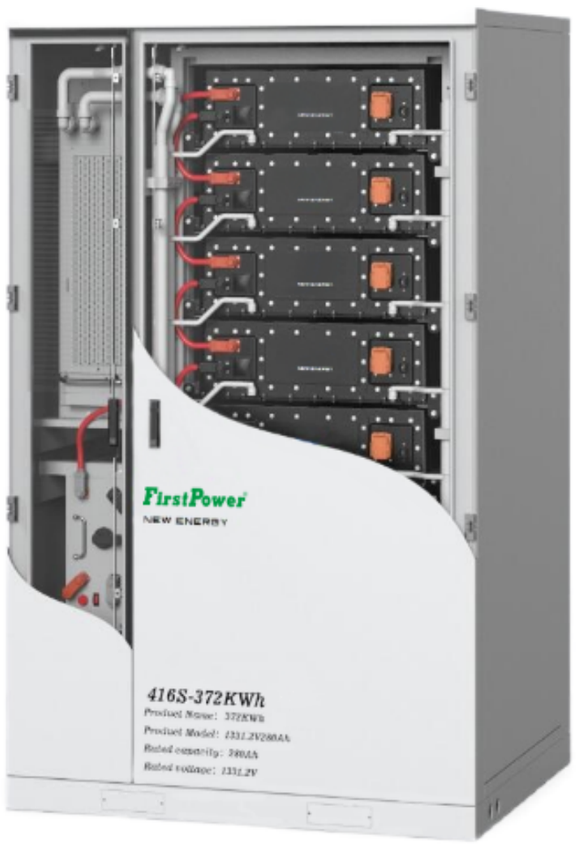
372KWH
Liquid-cooled cabinet

Feature and Application:

Intelligent liquid-cooled temperature control, reduce system auxiliary power consumption.
Configure the local control and remote monitoring platform.
System running data analysis, intelligent terminal display

Main parameters:

Battery rated capacity:
372KWh
Battery voltage range:
1075.2-1382.4V
Battery temperature control mode:
Liquid-cooled
Fire fighting system (energy storage cabinet):
Aerosols
control module to enhance safety.



Battery parameters	
Battery type	3.2V/302Ah
System battery configuration	1P384S
Battery rated capacity	372KWh
Battery voltage range	1075.2~1382.4V
BMS communication interface	Ethernet
BMS communication protocol	Modbus TCP
System parameters	
Battery cabinet size（L*W*H)	L1450*W2100*H1700mm
Weight of container	3700kg
Protection level	IP54
Battery pack protection level	IP67
Operating temperature range	(-30°C~50°C)（>45°CReduction)
Operating humidity range	0~95%（No condensation)
Battery temperature control mode	Intelligent air-cooled
Fire fighting system (battery container)	Aerosol
System communication interface	RS485、Ethernet、CAN
External system communication protocolal	Modbus TCP、Modbus RTU、CAN2.0

20-feet
Air–cooled cabinet

Feature and Application:

Battery Modular design, distributed cooling design, better temperature control.
Configuration of flammable gas detection, early warning system safety status.
System running data analysis, intelligent terminal display

Main parameters:

Battery rated capacity: 1MWh
Battery voltage range: 627.2~806.4V
Battery temperature control mode: Intelligent air–cooled
Fire fighting system (battery container): Aerosol, flammable gas detection + exhaust, water fire (optional)

Battery parameters	
Battery type	3.2V/280Ah
System battery configuration	1P224S*5
Battery rated capacity	1MWh
Battery voltage range	627.2~806.4V
BMS communication interface	Ethernet
BMS communication protocol	Modbus TCPbus
AC side parameters	
AC side power rating	500kVA
AC current distortion rate	＜3% （Rated power）
DC component	＜0.5%
AC side rated voltage	380V
Voltage range of power grid	342~418V
Power factor	＞0.99 （Rated power）
Reactive power adjustable range	–105%~105%
Rated grid frequency	50Hz
Power Grid frequency range	45~55Hz
Isolation Mode	Transformer isolation
System parameters	
Battery cabinet size （L*W*H）	L6058*W2591*H2438mm
Weight of container	20T
Protection level	IP54
Operating temperature range	(–30°C~50°C) （＞45°CReduction)
Operating humidity range	0~95% （No condensation)
Battery temperature control mode	Intelligent air–cooled
Cooling mode of converter	Temperature control forced air cooling
Fire fighting system (battery container)	Aerosol, flammable gas detection + exhaust, water fire (optional)
System communication interface	RS485、Ethernet、CAN
External system communication protocolal	Modbus TCP、Modbus RTU、CAN2.0

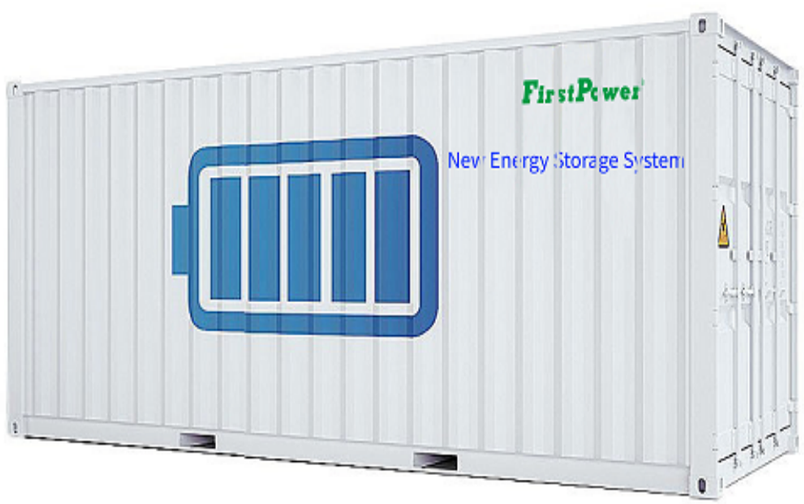
20-feet
Liquid-cooled cabinet

Feature and Application:

Intelligent liquid-cooled temperature control, reduce system auxiliary power consumption.
Configure the local control and remote monitoring platform.
System running data analysis, intelligent terminal display

Main parameters:

Battery rated capacity: 3.44MWh
Battery voltage range: 1075.2~1382.4V
Battery temperature control mode: Liquid-cooled
Fire fighting system (battery container): Aerosol, flammable gas detection + exhaust, water fire (optional)



Battery parameters	
Battery type	3.2V/280Ah
System battery configuration	10P384S
Battery rated capacity	3.44MWh
Battery voltage range	1075.2~1382.4V
BMS communication interface	Ethernet
BMS communication protocol	Modbus TCPbus
AC side parameters	
AC side power rating	500kVA
AC current distortion rate	<3% (Rated power)
DC component	<0.5%
AC side rated voltage	380V
Voltage range of power grid	342~418V
Power factor	>0.99 (Rated power)
Reactive power adjustable range	-105%~105%
Rated grid frequency	50Hz
Power Grid frequency range	45~55Hz
Isolation Mode	Transformer isolation
System parameters	
Battery cabinet size (L*W*H)	L6058*W2438*H2896mm
Weight of container	30T
Protection level	IP54
Operating temperature range	(-30°C~50°C) (>45°CReduction)
Operating humidity range	0~95% (No condensation)
Battery temperature control mode	Liquid-cooled
Cooling mode of converter	Temperature control forced air cooling
Fire fighting system (battery container)	Aerosol, flammable gas detection + exhaust, water fire (optional)
System communication interface	RS485、Ethernet、CAN
External system communication protocolal	Modbus TCP、Modbus RTU、CAN2.0

40-feet
Air-cooled cabinet

Feature and Application:

This system is designed using a 40 feet container to facilitate subsequent power expansion
Configure EMS energy management system
Adopting air-cooled air conditioning temperature control

Main Parameter:

System current: 3.44MWh
Output power: 630kw
Output voltage: AC380V/AC400V 3W+N+PE
System DC voltage: DC768V
System capacity: 4,480Ah
Size:12192*2438*2591

Battery parameters	
Battery type	3.2V/280Ah
System battery configuration	16P240S
Battery rated capacity	3440KWh
Battery voltage range	672-864V
BMS communication interface	Ethernet
BMS communication protocol	Modbus TCPbus
System parameters	
Converter dimensions（L*W*H)	L1600*H2096*W935mm
Container Dimensions（L*W*H)	L12192*W2438*H2591
Weight of container	32T
Protection level	IP54
Operating temperature range	(-30°C~50°C)（>45°CReduction)
Operating humidity range	0~95%（No condensation)
Battery temperature control mode	Intelligent air-cooled
Cooling mode of converter	Temperature control forced air cooling
Fire fighting system (battery container)	Aerosol, flammable gas detection + exhaust, water fire (optional)
System communication interface	RS485、Ethernet、CAN
External system communication protocol	Modbus TCP、Modbus RTU、CAN2.0

Solar Panel Partners

BMS Partner

Cells Partner

ESS Compatibility To Brand Inverters

S.N	Supplier	Brand	Name of Protocol	Communication	Baud Rate	Communication Cable
1	SMA		SMA	CAN	500K	Customized Pin
2	GOODWE		GOODWE	CAN	500K	Customized Pin
3	PYLON		PYLON	CAN	500K	Customized Pin
4	SOLARFAM		SOLARFAM	CAN	500K	Customized Pin
5	VICTRON		VICTRON	CAN	500K	Customized Pin
6	GROWATT		GROWATT	CAN	500K	Customized Pin
7	SOLAX		SOLAX	CAN	500K	Customized Pin
8	SOFAR		SOFAR	CAN	500K	Customized Pin
9	LUXPOWER		LUXPOWER	CAN	500K	Customized Pin
10	MUST		PV1800F	CAN	500K	Customized Pin
11	AFORE		AFORE	CAN	500K	Customized Pin
12	SOROTEC		SOROTEC	CAN	500K	Customized Pin
13	MEGAREVO		MEGAREVO	CAN	500K	Customized Pin
14	VOLTRONIC POWER		VoltronicPower	RS485	9600	Customized Pin
15	SRNE		SRNE	RS485	9600	Customized Pin
16	PYLON		PYLON TECH	RS485	9600	Customized Pin
17	Deye		Deye	CAN	500K	Customized Pin
18	SMK		SMK SOLAR	RS485	9600	Customized Pin

Remark: Don't worry if you go with other inverter brands! We can adjust our battery modules to be compatible with your inverters. You just need to advise the brand and protocol of your inverters.