



SMARTER HOME
ENERGY STORAGE
SOLUTIONS

Shenzhen Betterion Energy Technology Co., Ltd.

Address: Room 705, Building 1, Shenhui Building, Ma'antang Community,
Bantian Subdistrict, Longgang District, Shenzhen, Guangdong

 www.betterion.com.cn

 marketing@betterion.com.cn



Smarter Home Energy Storage Solutions



About Betterion

Betterion Energy is a global provider of intelligent residential energy storage solutions. We offer wall-mounted home batteries, all-in-one energy storage systems, stackable ESS and lead-acid replacement lithium batteries to meet demands of household power backup, off-grid and hybrid energy use. Committed to innovation, safety and stable performance, we help families worldwide realize energy independence and build a smarter, greener sustainable future.

>20000m²

Production Base

3GWh

Annual Capacity

>45

Countries and Regions'
Business Coverage

• Mission

Make clean energy accessible, reliable and efficient for every household worldwide.

• Vision

Lead intelligent residential energy storage, build a sustainable low-carbon future.

• Core Values

Innovation, Safety, Reliability, Sustainability

Global Footprint

Betterion Energy is a global provider of intelligent residential energy storage solutions.



7X24 Hours

Response Service



Global

Service Network



300+

Service Partners



2

Production Centres



2

R&D Centres

Residential ESS

The Betterion residential energy storage system employs an efficient architecture, equipped with optimized lithium iron phosphate battery modules that are easy to expand. It supports flexible configuration and scaling to meet diverse needs, ensuring households have uninterrupted power 24/7. Intelligent control technology makes system operation more stable and reliable, bringing convenience and peace of mind to users.

Save on Bills With Residential ESS

Load Shifting

Schedule energy-intensive appliances to run when energy prices are lowest, and utilize stored energy during peak demand times.

Peak Shaving

Use stored energy during peak demand hours to reduce reliance on grid electricity and avoid high rates

Community Energy

Participate in community energy programs to contribute excess energy to the grid, earning credits and further reducing costs.

Product Portfolio

Floor-Standing Battery IonHome



All-in-one ESS IonOne



Stackable Battery IonStack



12.8V LFP Battery IonSwap



Floor-Standing Battery

IonHome Series



Flexible Expansion

40% smaller volume, max 16 parallel units for flexible capacity



Safe & Reliable

6000+ cycles, dual BMS+circuit protection



Plug-and-Play

Auto address matching, compatible with all mainstream inverters, auto-sleep anti-over discharge

Specification

Model	IH5	IH10	IH16	IH20
Main Parameters				
Battery Type	LiFePO4	LiFePO4	LiFePO4	LiFePO4
Nominal Voltage (V)	51.2	51.2	51.2	51.2
Nominal Capacity (Ah)	100	200	314	400
Nominal Energy (kWh)	5.12	10.24	16.07	20.48
Operating Voltage Range (V)	44~58	44~58	44~58	44~58
Maximum Parallel Connection Quantity	16	16	16	16
Max. Continuous Charge Current (A)	100	150	200	200
Peak Charge Current (A)	103A@3s	153A@3s	205A@3s	205A@3s
Max. Continuous Discharge Current (A)	100	150	200	200
Peak Discharge Current (A)	120A@1s	160A@1s	210A@1s	210A@1s
Recommended Depth of Discharge	90%			
Cycle Life of Battery Cell	>6000@25°C, 0.5C/0.5C, 80%DOD, 80%EOL			
Communication Port	CAN/RS485			
General Parameters				
Dimensions (D*W*H, mm)	368*160*658.2	415.5*240*708.2	416*240*858.2	515*240*978.2
Net Weight (kg)	50±5	85±5	120±5	160±5
Operating Temperature/Charge (°C)	0~+60			
Operating Temperature/Discharge (°C)	-10~+65			
Recommend Operating Temperature (°C)	15~+35			
Storage Temperature (°C)	0~+35			
Humidity	10%~95%			
Altitude (m)	2000			
Ingress Protection	IP20			
Cooling Method	Natural Cooling			
Shell Material	Metal			
LCD Display	4.3-inch touch screen (color)			
WiFi	Yes			
Bluetooth	Yes			
Certification	IEC62619/UN38.3/MSDS/DGM			
Protection				
Circuit Breaker	Yes			
Fuse	NO			
Voltage Protection	Yes			
Current Protection	Yes			
Temperature Protection	Yes			
Short Circuit Protection	Yes			

Stackable Battery

IonStack Series-ST



Flexible Expansion

With a modular design, it can be expanded from 4 modules to 16 capacity



Safe & Reliable

Stable performance and can reach up to 6000 charge - discharge cycles



Smart and Easy Operation

Cloud analysis significantly reduces operation and maintenance costs

Specification

Model	IS-ST-1	IS-ST-2	IS-ST-3	IS-ST-4	IS-ST-5
Product Pattern					
Battery Module Type	LiFePO4				
Inverter Module Quantity	1				
Operating Voltage (Input)	5.5kW: 90-140Vac±3V 6.2kW: 90-280Vac±3V (APP Mode) 170-280Vac±3V (UPS Mode)				
Operating Voltage (Output)	5.5kW: 110/120Vac±5% 6.2kW : 220/230/240Vac±5%				
Nominal Capacity	5.5kW / 6.2kW (optional)				
Max. Continuous Discharge Power	5.5KW / 6.2kW (optional)				
MAX PV Input Power	8.5KW				
Maximum PV Input Voltage	500Vdc				
Maximum PV Input Current	27A				
Best PV Voltage	360~430Vdc				
Inverter Module Dimensions [W/D/H] (mm)	500*600*160mm				
Inverter Module Weight [kg]	20kg				
Battery Module Quantity	1	2	3	4	5
Nominal Energy	5KWh	10kWh	15KWh	20KWh	25KWh
Usable Energy	5KWh	10kWh	15KWh	20KWh	25KWh
Dimensions [W/D/H] (mm)	500*600*425mm	500*600*585mm	500*600*745mm	500*600*905mm	500*600*1065mm
Weight [kg]	88kg	143kg	198kg	253kg	308kg
Battery Module Dimensions [W/D/H] (mm)	500*600*160mm				
Battery Module Weight [kg]	55kg				
Operating Voltage	43.2-58.4V				
Recommended Depth of Discharge (DOD)	90%				
Charging Temperature Range	0~60°C				
Discharging Temperature Range	-10~60°C				
Communication	RS485/CAN				
Cycle life	2500 circulate				
Protection Level	IP20				
Maximum Parallel Connection Quantity	16				
Certification	MSDS/UN38.3				

Stackable Battery

IonStack Series-SL



Flexible Expansion

With a modular design, it can be expanded from 4 modules to 16 capacity



Safe & Reliable

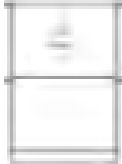
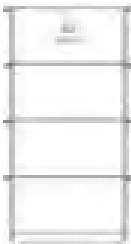
stable performance and can reach up to 6000 charge - discharge cycles



Smart and Easy Operation

Cloud analysis significantly reduces operation and maintenance costs

Specification

Model	IS-SL-1	IS-SL-2	IS-SL-3
Product Pattern			
Battery Module Type	LiFePO4		
Inverter Module Quantity	1		
Operating Voltage (Input)	5.5KW: 90-140Vac±3V 6.2kW: 90-280Vac±3V (APP Mode) 170-280Vac±3V (UPS Mode)		
Operating Voltage (Output)	5.5KW: 110/120Vac±5% 6.2kW: 220/230/240Vac±5%		
Nominal Capacity	5.5kW / 6.2kW (optional)		
Max. Continuous Discharge Power	5.5kW / 6.2kW (optional)		
MAX PV Input Power	8.5KW		
Maximum PV Input Voltage	500Vdc		
Maximum PV Input Current	27A		
Best PV Voltage	360~430Vdc		
Inverter Module Dimensions [W/D/H] (mm)	590*155*400mm		
Inverter Module Weight [kg]	19kg		
Battery Module Quantity	1	2	3
Nominal Energy	5KWh	10KWh	15KWh
Usable Energy	5KWh	10KWh	15KWh
Dimensions [W/D/H] (mm)	590*155*860mm	590*155*1260mm	590*155*1660mm
Weight [kg]	80kg	135kg	190kg
Battery Module Dimensions [W/D/H] (mm)	590*155*400mm		
Battery Module Weight [kg]	55kg		
Operating Voltage	43.2-58.4V		
Recommended Depth of Discharge (DOD)	90%		
Charging Temperature Range	0~60°C		
Discharging Temperature Range	-10~60°C		
Communication	RS485/CAN		
Cycle life	2500 circulate		
Protection Level	IP20		
Maximum Parallel Connection Quantity	6		
Certification	MSDS/UN38.3		

All-in-one ESS

IonOne Series



All-in-one design

40% smaller volume, max 16 parallel units for flexible capacity



Safe & Reliable

Stable performance and can reach up to 6000 charge - discharge cycles



Intuitive Control & Visibility

Equipped with a high-brightness LCD screen for real-time monitoring of key operational data

Specification

Model	IO5-55	IO5-62	IO16-110
Battery Module Type	LiFePO4	LiFePO4	LiFePO4
Operating Voltage (Input)	90-140Vac±3V	90-280Vac±3V (APP Mode) 170-280Vac±3V (UPS Mode)	90-280Vac±3V (APP Mode) 170-280Vac±3V (UPS Mode)
Operating Voltage (Output)	110/120Vac±5%	220/230/240Vac±5%	220/230/240Vac±5%
Nominal Capacity	5.5KW	6.2KW	6.2KW
Max. Continuous Discharge Power	5.5KW	6.2KW	6.2KW
MAX PV Input Power		8.5KW	
Maximum PV Input Voltage		500Vdc	
Maximum PV Input Current		27A	
Best PV Voltage		360-430Vdc	
Nominal Energy	5KWh	5KWh	16KWh
Usable Energy	5KWh	5KWh	16KWh
Dimensions [W/D/H] (mm)	530*180*970mm	530*180*970mm	650*265*1170mm
Weight [kg]	75kg	75kg	170kg
Operating Voltage		43.2-58.4V	
Recommended Depth of Discharge (DOD)		90%	
Charging Temperature Range		0-60°C	
Discharging Temperature Range		-10-60°C	
Communication		RS485/CAN	
Cycle life		2500 circulate	
Protection Level		IP20	
Maximum Parallel Connection Quantity		16	
Certification		MSDS/UN38.3	

12.8V LFP Battery

IonSwap Series



Built-in BMS Full Protection | 3000+ Long Cycles | Lightweight Build



Wide temperature tolerance up to 60°C, ultra-long shelf storage



Full replacement for lead-acid batteries, ideal for solar, caravan, marine & off-grid storage scenarios

Specification

ELECTRICAL PERFORMANCE	IW12.8V 100Ah	IW12.8V 100Ah S
Nominal Voltage	12.8 V	
Nominal Capacity	100 Ah	
Capacity @ 20A	300 min	
Energy	1280 Wh	
Resistance	≤20 mΩ @ 50% SOC	
Self Discharge	<3% / Month	
Cells	Prismatic Cell 100Ah	
CHARGE PERFORMANCE		
Recommended Charge Current	20 A	
Maximum Charge Current	50 A	
Recommended Charge Voltage	14.6 V	
Charge Cut-Off Voltage	<15.2 V (0.5 ~ 1.5 s)	
Reconnect Voltage	>14.4 V	
Balancing Voltage	<14 V	
Maximum Parallel Connection Quantity	4	
DISCHARGE PERFORMANCE		
Maximum continuous Discharge Current	150A	150A
Peak Discharge Cut-Off Current	450A (200~500ms)	450A (200~500ms)
Discharge Cut-Off Voltage	10V (2000ms)	10V (2000ms)
Reconnect Voltage	>11.2V	>11.2V
Short Circuit Protection	1000~2000A+ 400A(200 ~ 800μs)	1000~2000A+ 400A(200 ~ 800μs)
TEMPERATURE PERFORMANCE		
Discharge Temperature	-4 ~ 140 °F (-20 ~ 60 °C)	
Charge Temperature	32 ~ 113 °F (0 ~ 45 °C)	
Storage Temperature	23 ~ 95 °F (-5 ~ 35 °C)	
High Temperature Cut-Off	149 °F (65 °C)	
Reconnect Temperature	118 °F (48 °C)	
DIMENSION		
Dimensions (L*W*H)	330*172*215mm	395*110*286mm
MECHANICAL PERFORMANCE		
Weight	11.5kg	12.0kg
Terminal Type	M8	M8
Terminal Torque	80~100 in-lbs (9~11 N-m)	
Case Material	ABS	
Ingress Protection Code	IP65	
Bluetooth	Bluetooth 4.0 with smartphone App	
COMPLIANCE		
Certifications	CE, UN38.3, UL1642 & IEC62133	
Shipping Classification	UN 3480, CLASS 9	

12.8V LFP Battery

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Wide temperature tolerance up to 60°C, ultra-long shelf storage



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Specification

ELECTRICAL PERFORMANCE	IW-12.8V 150Ah	IW-12.8V 200Ah	IW-12.8V 300Ah
Nominal Voltage	12.8 V	12.8 V	12.8 V
Nominal Capacity	150 Ah	200 Ah	300 Ah
Capacity @ 40A	300 min	300 min	300 min
Energy	1920 Wh	2560 Wh	3840 Wh
Resistance	≤50 mΩ @ 50% SOC	≤20 mΩ @ 50% SOC	≤15 mΩ @ 50% SOC
Self Discharge	<3% / Month	<3% / Month	<3% / Month
Cells	32700 Cell 6000mAh	Prismatic Cell 104Ah	Prismatic Cell 3.2V304Ah
CHARGE PERFORMANCE			
Recommended Charge Current	30 A	40 A	60 A
Maximum Charge Current	75 A	100 A	150 A
Recommended Charge Voltage	14.6 V		
Charge Cut-Off Voltage	<15.2 V (0.5 ~ 1.5 s)		
Reconnect Voltage	>14.4 V		
Balancing Voltage	<14V		
Maximum Parallel Connection Quantity	4		
DISCHARGE PERFORMANCE			
Continuous Discharge Current	75 A	40 A	60 A
Max Discharge Current	120 A	200 A	300 A
BMS Discharge Cut-Off Current	300 A (5 ~15 ms)	600 A(20~80ms)	900 A (20~80ms)
Recommended Low Voltage Disconnect	10 V	10 V	10 V
BMS Discharge Cut-Off Voltage	>8.4 V (50 ~ 150 ms)	>8.8 V (50 ~ 150 ms)	>8.8V (50 ~ 150 ms)
Reconnect Voltage	>10 V	>9.2V	>9.2V
Short Circuit Protection	200 ~ 600 μs		
TEMPERATURE PERFORMANCE			
Discharge Temperature	-4 ~ 140 °F (-20 ~ 60 °C)		
Charge Temperature	32 ~ 113 °F (0 ~ 45 °C)		
Storage Temperature	23 ~ 95 °F (-5 ~ 35 °C)		
BMS High Temperature Cut-Off	149 °F (65 °C)		
Reconnect Temperature	118 °F (48 °C)		
MECHANICAL PERFORMANCE			
Dimension (L*W*H)	483*170*240mm	540*207*215mm	520*269*220mm
	19.01*6.69*9.45"	21.26*8.15*8.46"	20.47*10.59*8.66"
Approx. Weight	17.8 kg	21.0 kg	29.0 kg
Terminal Type	M8		
Terminal Torque	80 ~ 100 in-lbs (9 ~ 11 N-m)		
Case Material	ABS		
Enclosure Protection	IP65		
COMPLIANCE			
Certifications	CE, UN38.3, UL1642 & IEC62133		

Cases



Italy | Residential Backup Power System
10kw/20kwh | On-Grid | Self-Sufficient | Outdoor Installation



Romania | Residential Backup Power System
5.5kw/15kwh | Off-Grid | Self-Sufficient | Indoor Installation



Australia | Residential Backup Power System
5.5kw/5kwh | Off-Grid | Self-Sufficient | Indoor Installation



Germany | Residential Backup Power System
5.5kw/10kwh | off-Grid | Self-Sufficient | Indoor Installation