Catalogue 2023

VANTOM®

Solar Energy

Lithium Batteries

www.vantompower.com

A Dedicated BESS(battery energy storage system) Provider

VANTOM is a dedicated BSS (battery storage system) provider, by consolidating our expertise in electrochemistry power electronics and system integration, we have been providing reliable and affordable ESS battery products and solutions to the global market, and been significantly contributing to a 10-years increasing rate by double, enabling our market position as one of the reliable suppliers of lithium battery storage world widely.

Long History&Experienced

- 10Years in Energy Storage Industry
- 100+ Countries & Regions
- Residential Energy Storage System
- C&I Energy Storage System

Wide Product Senario

1/ 12.8V 25.6V 48V Low Voltage LFP Bsttery

2/ 25.6V 48V Wall Mounted LFP Battery

3/ 25.6V 48V Rack Mount LFP Battery

4/ High Voltage Stacked LFP Battery System

5/ High Voltage Rack Mount LFP Battery System

6/ Container Lithium Battery System

Global Cumulative Sales Performance

3.95+ GWh of cumulative Sales

100+ Countries &Regions global footprints

7500+ systems sold globally

Obtain certification

CE UL MSDS UN38.3

12.8V/25.6V

LiFePO4 Battery

- Certified Grade A Cells
- Safety&Reliability with LiFePO4
- Lighter Weight & Easy to Install
- 4500 Cycles Long Life Time
- Multiple Protection
  Over charger/
  Over discharge/Over-current, etc.
- OEM/ODM Service
  Wide application: RV/marine/
  Campler Van/Backup/UPS/EPS/
  Off Grid Solar System/ESS.....

Specification

Model	LFP12-100	LFP12-150	LFP12-200	LFP24-100	LFP24-200
Battery Type	liFePO4(LFP)	liFePO4(LFP)	liFePO4(LFP)	liFePO4(LFP)	liFePO4(LFP)
Nominal Voltage (V)	12.8V	12.8V	12.8V	25.6V	25.6V
Nominal Capacity	100Ah	150Ah	200Ah	100Ah	200Ah
Nominal Capacity (Wh)	1280Wh	1920Wh	2560Wh	2560Wh	5120Wh
Discharge Cut-off Voltage (V)	10V	10V	10V	20V	20V
Charge Voltage (V)	14.4V	14.4V	14.4V	28.8V	28.8V
Dimension(mm)	330x171x214 mm	385*190*245mm	530*207*215 mm	530x207x215 mm	440*442*179mm
Weight(kg)	12Kg	16Kg	24Kg	24Kg	45Kg
MAX Charge/Discharge Current	100A(Max)				
Working Temperature	0℃~50℃ Charge -10℃ ~50℃Disharge				
Case	ABS	ABS	ABS	ABS	Metal
Design Life	15 years+				
Cycle Life	4500Cycles				

Main Application:

UPS, EPS, Telecom, Solar or Wind Energy Storage, Medical Equipment, Security Equipment, Lighting, LED, Fire Emergency, Energy Storage, RV, Boat.....

Powerwall

LiFePO4 Battery

EnergyStorage | Outage Protection | Power Your Home

- Best Suitable for ESS HESS Off-grid/Hybrid Solar System UPS
- >6500Cycles
- Intergrated Advanced BMS
- Easy Move&Installation
- Parallel Connection to expand capacity
- Most Inverters can be matched with our Battery

Specification

Model	GLiB-5.0L	GLiB-10.0L
Battery Type	liFePO4(LFP)	liFePO4(LFP)
Nominal Voltage (V)	48V	48V
Nominal Capacity	100Ah	200Ah
Nominal Capacity (Wh)	4800Wh	9600Wh
Discharge Voltage (V)	37.5V	37.5V
Charge Voltage (V)	54V	54V
Dimension(mm)	535*520*160mm	790*580*215mm
Weight(kg)	47.5Kg	92Kg
MAX Charge/Discharge Current	100A(Max)	
Communicaiton	RS485/RS232/CAN	
Working Temperature	0℃~50℃ Charge -10℃ ~50℃ Disharge	
Shelf Temperature	-20℃~60℃	
Design Life	15 years+	
Cycle Life	6500Cycles	

* 16S 51.2V 100AH/200AH is available

Rack Mount

LV LiFePO4 Battery

Safety
Adopt LiFePO4 battery &Multi-protection from BMS

Compatibility
Compatible with most brands inverter

Optimal Electricity Cost
Long cycle life and superior performance

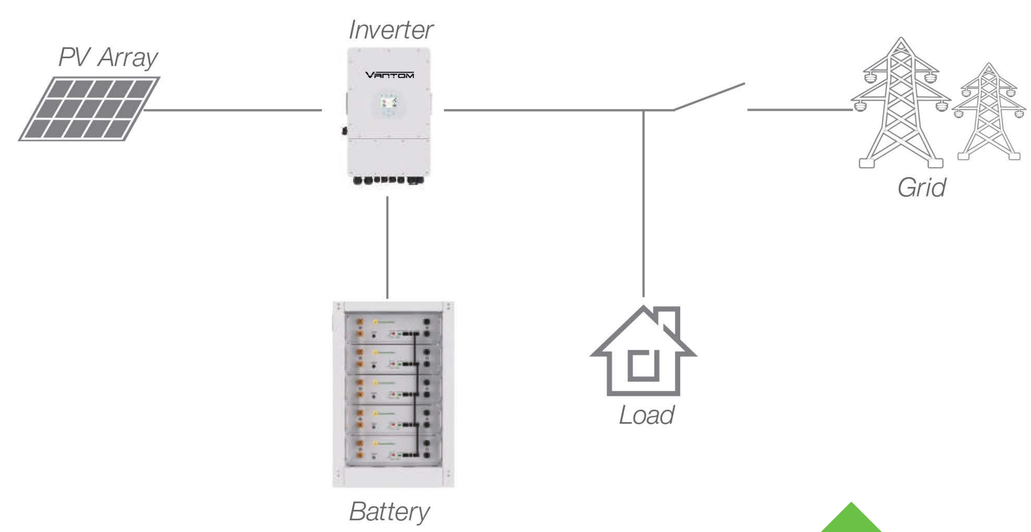
Easy to Scale Up
Be workable to be parallel

Compact Size & East Installation
Module design help for quick installation

Specification

Model	GLiB-5.0L	GLiB-10.0L
Battery Type	liFePO4(LFP)	liFePO4(LFP)
Nominal Voltage (V)	48V	48V
Nominal Capacity	100Ah	200Ah
Nominal Capacity (Wh)	4800Wh	9600Wh
Discharge Voltage (V)	37.5V-54.75v	37.5V-54.75v
Charge Voltage (V)	52.5V-54.75V	52.5V-54.75V
Dimension(mm)	440*442*179mm	480*602*250mm
Weight(kg)	45Kg	85Kg
MAX Charge/Discharge Current	50A(Recommended) 100A(Max)	
Communicaiton	RS485/RS232/CAN	
Operating Temp Range	-10℃ ~50℃	
Transport or StorageTemp Range	-20℃~45℃	
Design Life	15 years+	
Cycle Life	>6500Cycles. 25℃	

* 16S 51.2V 100AH/200AH is available



Rack Mount

HV LiFePO4 Battery

Safety & Reliable
LiFePO4 & Smart BMS

Compact Size & East Installation
Module and Rack design for quick installation

High Compatibility BMS
Seamless communication with most brands inverters

Optimal Electricity Cost
Long cycle life and superior performance

Expand capacity flexibly
Parallel to expand capacity easily

Wide Applications
Self-Use, Peak Shaving, UPS, Backup, ESS, HESS, BESS, Bank, Hospital, School, Hotel, Telecom, Base Station

Specification

Model	GRB-16.28H	GRB-21.70H	GRB-27.13H	GRB-32.56H	GRB-37.98H	GRB-43.41H	GRB-48.84H	GRB-54.27H
Battery Type	liFePO4(LFP)							
Battery Module Data								
Nominal Voltage (V)	51.2V							
Nominal Capacity (Wh)	106Ah							
Nominal Energy	54.27KWh							
Dimension(mm)	440*442*133mm							
Battery System Data								
Module Qty& Configuration	3pcs in series	4pcs in series	5pcs in series	6pcs in series	7pcs in series	8pcs in series	9pcs in series	10pcs in series
Nominal Voltage (V)	153.6V	204.8V	256V	307.2V	358.4V	409.6V	460.8V	512V
Battery System Energy	16.28KWH	21.70KWH	27.13KWH	32.56KWH	37.98KWH	43.41KWH	48.84KWH	54.27KWH
System Usable Energy 90% DOD	14.65KWH	19.53KWH	24.41KWH	29.30KWH	34.18KWH	39.06KWH	43.95KWH	48.84KWH
Operating Voltage Range	134.4-172.8V	179.2-230.4V	224-288V	268.8-345.6V	313.6-403.2V	358.4-460.8V	403.2-518.4V	448-576V
Dimension(W*D*H)	6*4*6.85cm	6*4*8.35cm	6*4*9.85cm	6*4*11.35cm	6*4*12.85cm	6*4*14.35cm	6*4*15.85cm	6*4*17.35cm
Weight	175Kg	220Kg	265Kg	310Kg	355Kg	400Kg	445Kg	490Kg
Charge Current	100A(MAX); 50A(Recommended)							
Discharge Current	100A(MAX); 50A(Recommended)							
Communication	CAN/RS-485							
Operating Temp. Range	Charge: 0~55℃; Discharge: -20~55℃							
Transport or Storage Temp.Range	-20℃-45℃							
Humidity	10% - 95% (No Condensing)							
Design Life	15Years+							
Cycle Life	>6000Cycles，25℃							

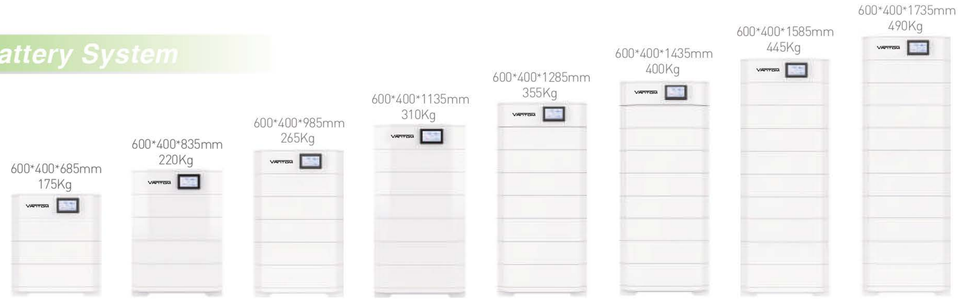
Stacked

LiFePO4 Battery

LiFePO4 battery can be widely used in household energy storage, ESS, solar/wind energy system, industrial and commercial energy storage and other application.

- Easy installation with modular and stacked design
- Excellent safety of LiFePO4 battery
- High compatibility BMS, seamless communication with energy storage inverter
- Suitable for long-term charge and discharge cycle

High Volage Battery System



Specification

Model	GRB-16.28H	GRB-21.70H	GRB-27.13H	GRB-32.56H	GRB-37.98H	GRB-43.41H	GRB-48.84H	GRB-54.27H
Battery Type	liFePO4(LFP)							
Battery Module	51.2V 106AH(5.427KWH, Size&Weight: 600x400x150mm, 45KG)							
Battery System Data								
Modules	3pcs in series	4pcs in series	5pcs in series	6pcs in series	7pcs in series	8pcs in series	9pcs in series	10pcs in series
Nominal Voltage (V)	153.6V	204.8V	256V	307.2V	358.4V	409.6V	460.8V	512V
Nominal	16.28KWH	21.70KWH	27.13KWH	32.56KWH	37.99KWH	43.41KWH	48.84KWH	54.27KWH
Usable Capacity	14.65KWH	19.53KWH	24.41KWH	29.30KWH	34.19KWH	39.06KWH	43.95KWH	48.84KWH
Operating Voltage Range	134.4-172.8V	179--230.4V	224-288V	268-345.6V	313.6-403.2V	358-460.8V	403.2-518.4V	448-576V

Charge Current	100A(MAX); 20-50A(Recommended)
Discharge Current	100A(MAX); 20-50A(Recommended)
Communication	CAN/RS-485/WIFI
Operating Temp. Range	-10℃-50℃
Transport or Storage Temp.Range	-20℃-45℃
Humidity	10% - 95% (No Condensing)
Design Life	15Years+
Cycle Life	>6000Cycles，25℃

High Voltage

Rack Type LiFePO4 Battery

Safety & Reliable
LiFePO4 & Smart BMS

Compact Size & East Installation
Module and Rack design for quick installation

High Compatibility BMS
Seamless communication with most brands inverters

Optimal Electricity Cost
Long cycle life and superior performance

Expand capacity flexibly
Parallel to expand capacity easily

Wide Applications
Self-Use, Peak Shaving, UPS, Backup, ESS, HESS, BESS, Bank, Hospital, School, Hotel, Telecom, Base Station

Specification

Model	GRB-100H	GRB-200H	GRB-344H	GRB-516H
Battery Type	liFePO4(LFP)	liFePO4(LFP)	liFePO4(LFP)	liFePO4(LFP)
Battery Module Data				
Nominal Voltage (V)	25.6V	51.2V	51.2V	51.2V
Nominal Capacity (Wh)	200Ah	280Ah	280Ah	280Ah
Nominal Energy	5.12KWh	14.33KWh	14.33KWh	14.33KWh
Dimension(mm)	440*442*179mm	435*234*800mm	435*234*800mm	435*234*800mm
Battery System Data				
Module Qty& Configuration	20pcs in series	14pcs in series	12pcs in series as a cluster 2 Clusters in parallel	12pcs in series as a cluster 3 Clusters in parallel
Nominal Voltage (V)	512V	716.8V	614.4V	614.4V
Battery System Energy	102.4KWH	200.72KWH	344.06KWH	516.09KWH
System Usable Energy 90% DOD	92.16KWH	180.65KWH	309.65KWH	464.48KWH
Operating Voltage Range	448-576V	627.2-806.4V	537.6-691.2V	537.6-691.2V
Dimension(W*D*H)	1250*800*2200mm	1050*820*2200mm	2*1052*797*1990mm	3*1052*797*1990mm
Weight	1070Kg	1730Kg	3200Kg	4800Kg
Max. charge current	100A	140A	280A	420A
Max. discharge current	100A	140A	280A	420A
Ip grade	IP20	IP20	IP20	IP20
Discharge temp	-20℃~45℃	-20℃~45℃	-20℃~45℃	-20℃~45℃
Charge temp	0℃~45℃	0℃~45℃	0℃~45℃	0℃~45℃
Humidity	10% - 95% (No Condensing)			
Design Life	15Years+			
Cycle Life	>6000Cycles，25℃			

Container

ENERGY STORAGE SYSTEM

- Vertical industry integration chain
- Modular design with different density, suits all scenarios.
- Flexible voltage range from 100VDC to 1500VDC.
- Three levels management system design delivers highest reliablitiy.
- Rack mounted or container based system configuration

Specification

Basic Parameters	1003.52KWH 70PCS 51.2V 280Ah LiFePO4 Battery Modules
Battery System Capacity(kWh)	1003.52
Battery System Voltage(Vdc)	716.8
System Voltage Range(Vdc)	644-784
Efficiency	96%
Depth of Discharge	90%
System Charge Rate	0.5℃
System Discharge Rate	0.5℃-1℃
Design Life	15+Years
Operation Temperature (℃)	0~50
Humidity	5%~95%
Altitude	＜2000m
Battery Module Qty	70pcs 51.2v 280ah
Combination	14pcs 51.2V 280Ah as one battery cluster, 5 Battery Clusters in Parallel
Communication	CANBUS/Modebus TCP/IP

12V Lead Acid Battery

AGM/GEL Series

Applications:

- Solar and wind energy storage system
- EPS and UPS battery backup
- Signal system,emergency lighting system,security system
- Telecommunication equipment
- Power plant and transmission system

AGM Series

Model	Voltage(V)	Capacity(Ah)	Dimension(mm)			
			Length	Width	Height	Total Height
FM4-12	12	4	90	70	101	105
FM5-12	12	5	90	70	101	105
FM7-12	12	7	151	65	95	100
FM9-12	12	9	151	65	110	115
FM12-12	12	12	151	98	98	103
FM17-12	12	17	181	76	170	170
FM24-12	12	24	165	125	175	175
FM33-12	12	33	195	130	164	178
FM38-12	12	38	197	165	170	170
FM55-12	12	55	229	138	205	211
FM65-12	12	65	348	167	178	178
FM80-12	12	80	259	168	208	214
FM90-12	12	90	330	173	212	220
FM100-12	12	100	330	173	212	220
FM120-12	12	120	408	177	225	225
FM150-12	12	150	483	170	238.5	238.5
FM180-12	12	180	532	207	214	220
FM200-12	12	200	522	240	218	224
FM250-12	12	250	522	268	220	226

GEL Series

Model	Voltage(V)	Capacity(Ah)	Dimension(mm)			
			Length	Width	Height	Total Height
JFM17-12	12	17	181.5	77	167.5	167.5
JFM38-12	12	38	197	165	170	170
JFM65-12	12	65	348	167	178	178
JFM100-12	12	100	330	173	212	243
JFM150-12	12	150	483	170	238.5	238.5
JFM200-12	12	200	522	240	228	224
JFM250-12	12	250	522	268	220	226

12V Front Terminal Battery

Front Terminal Series

Applications:

- Solar and wind energy storage system
- EPS and UPS battery backup
- Telecommunication equipment
- Power source for portable devices or tools
- Signal system,emergency lighting system,security system

Front Terminal Series

Model	Voltage(V)	Capacity(Ah)	Dimension(mm)			
			Length	Width	Height	Total Height
JFM100-12	12	100	410	110	295	295
JFM150-12	12	150	550	110	288	288
JFM180-12	12	180	560	125	316	316
JFM200-12	12	200	560	125	316	316

2V Lead Acid Battery

AGM/GEL Series

Applications:

- Solar and wind energy storage system
- EPS and UPS battery backup
- Telecommunication equipment
- Power source for portable devices or tools
- Signal system,emergency lighting system,security system

AGM Series

Model	Voltage(V)	Capacity(Ah)	Dimension(mm)			
			Length	Width	Height	Total Height
GFM200-2	2	200	170	110	328	350
GFM300-2	2	300	170	150	328	350
GFM400-2	2	400	210	175	330	350
GFM500-2	2	500	240	175	330	350
GFM600-2	2	600	300	175	330	350
GFM800-2	2	800	410	175	330	350
GFM1000-2	2	1000	475	175	328	350
GFM1200-2	2	1200	475	175	328	350
GFM1500-2	2	1500	403	354	339	349
GFM2000-2	2	2000	490	350	339	349
GFM3000-2	2	3000	709	350	337	347

GEL Series

Model	Voltage(V)	Capacity(Ah)	Dimension(mm)			
			Length	Width	Height	Total Height
JFM200-2	2	200	170	110	328	337
JFM300-2	2	300	170	150	328	337
JFM400-2	2	400	210	175	330	339
JFM500-2	2	500	240	175	330	340
JFM600-2	2	600	300	175	330	340
JFM800-2	2	800	410	175	330	340
JFM1000-2	2	1000	475	175	328	338
JFM2000-2	2	2000	490	350	339	349
JFM3000-2	2	3000	709	350	337	349

2V OPZV Battery

OPZV Series

Applications:

- Solar and wind energy storage system
- EPS and UPS battery backup
- Telecommunication equipment
- Power source for portable devices or tools
- Signal system,emergency lighting system,security system

OPZV Series

Model	Voltage(V)	Capacity(Ah)	Dimension(mm)			
			Length	Width	Height	Total Height
GFM200-2	2	200	103	206	356	389
GFM300-2	2	300	145	206	356	389
GFM400-2	2	400	145	206	473	505
GFM500-2	2	500	166	206	473	505
GFM600-2	2	600	145	175	646	678
GFM800-2	2	800	191	210	646	678
GFM1000-2	2	1000	233	210	646	678
GFM1200-2	2	1200	275	210	646	678
GFM1500-2	2	1500	275	310	795	827
GFM2000-2	2	2000	399	212	770	802
GFM2500-2	2	2500	487	212	770	802
GFM3000-2	2	3000	567	212	770	802

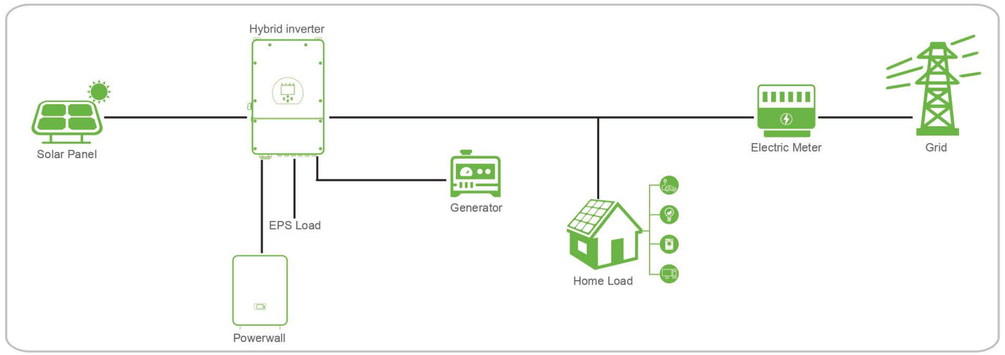
Residential Energy Storage Solution

Residential Energy Storage Inverter(5-20KW) + Battery Storage (LiFePO4 Battery/Lead Acid)

ESS + Solar

ESS without Solar

ESS System Configuration					
MODEL	ESS 5.12-5KW	ESS 10.24-8KW	ESS 20.48-10KW	ESS 20.48-12KW	ESS 30.72-20KW
Battery Input Data					
Battery Type	Lithium-ion LiFePO4 (Lead-acid or Lithium-ion)				
Battery Capacity	5.12KWH	10.24KWH	20.48KWH	20.48KWH	30.72KWH
Battery Voltage Range (V)	40-60V				
External Temperature Sensor	Yes				
Charging Curve	3 Stages / Equalization				
Charging Strategy for Li-Ion Battery	Self-adaption to BMS				
PV String Input Data（Optional)					
Max. DC Input Power (W)	6500	10400	13000	15600	26000
Rated PV Input Voltage (V)	370(125-500)	550（160-800)	550（160-800)	550（160-800)	180-900
Start-up Voltage (V)	125	160	160	160	180
MPPT Voltage Range (V)	150-425	200-650	200-650	200-650	180-900
Full Load DC Voltage Range (V)	300-425	350-650	350-650	350-650	
PV Input Current (A)	13+13	13+13	26+13	26+13	23/23
Max. PV Isc (A)	17+17	17+17	34+17	34+17	30/30
No.of MPP Trackers	2				
No.of Strings per MPP Tracker	1+1	1+1	2+1	2+1	2/2
AC Output Data And UPS					
Rated AC Output Power (W)	5000	8000	10000	12000	20000
Max AC Output Power (W)	5500	8800	11000	13200	20000
AC Output Rated Current (A)	22.7	12.1	15.2	18.2	31
Max AC Current (A)	25	18.2	22.7	27.3	31
Peak Power (off grid)	2 time of rated power, 10 S				
Power Factor	0.8 leading to 0.8 lagging				
Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac				
Grid Type	Three Phase				
Total Harmonic Distortion (THD)	<3% (of nominal power)				
DC current injection	<0.5% In				



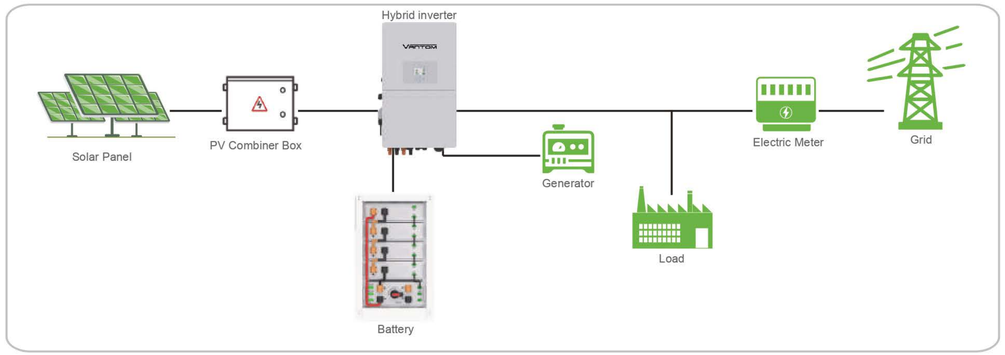
ESS

Energy storage systems have been proven to be "extremely lucrative" for commercial and industrial (C&I) field.

Dedicated
Commercial& Industrial ESS

- Self-Consumption
- Demand Charge
- Micro-grid
- Off grid
- DG+BESS
- V2G
- Back Up
- Peak Shifting

ESS System Configuration					
MODEL	ESS 48-30KW	ESS 102.4-50KW	ESS 204.8-100KW	ESS 368.64-150KW	ESS 516.09-250KW
Battery System Data					
Battery Type	Li-ion (LFP)				
Nominal Capacity（kWh）	48KWH	102.4KWH	204.8KWH	368.64KWH	516.09KWH
DC Voltage Range (V)	450-540V	480-560V	480-560V	576-672V	576-672V
Battery Module Data					
Battery Module	48V 100AH	51.2V 200AH	51.2V 200AH	51.2V 200AH	51.2V 280AH
Battery Module Qty.	10pcs	10pcs	20pcs	36pcs	36pcs
Max. Charge/Discharge Current (A)	1C/1C	1C/1C	1C/1C	1C/1C	1C/1C
Efficiency	95%				
PCS DC/AC Data On-grid Mode					
Rated AC Power (KW)	30KW	50KW	100KW	150KW	250KW
Rated AC Output Voltage (V)	400V	400V	400V	400V	400V
Rated AC Output Frequency (Hz)	50-60Hz	50-60Hz	50-60Hz	50-60Hz	50-60Hz
Rated Current (A)	43A	72A	144A	217A	361A
AC PF	0.8lagging~0.8leading				1lagging~1leading
THDi	＜3%				
PCS DC/AC Data Off-grid Mode					
Rated Power (KW)	30KW	50KW	100KW	150KW	250KW
Rated Current (A)	43A	72A	144A	217A	361A
Rated Voltage (V)	400V	400V	400V	400V	400V
Rated Frequency (Hz)	50-60Hz	50-60Hz	50-60Hz	50-60Hz	50-60Hz
THDU	≤2%Linear				＜1% Linear; or＜5% nonlinear
Overload Capacity	110%-10 mins 120%-1min				
PV DC/DC Data Parameter					
Max.PV Input Voltage(V)	1000VDC				
Max. PV Power(KW)	45KW	75KW	150KW	225KW	300/360KW
MPPT Voltage Range(V)	480-800VDC				450-850VDC



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