

Solutions **ESS** Catalogue

Bluesun ESS Co., Ltd is the subsidiary of Bluesun Group Co.,Ltd , who is mainly for storage solutions like battery , hybrid inverter , ESS , All In One and solar mirco grid projects.

Energy Storage Systems with or without battery , ready for installatton when you receive them.

All in one package , well protect the cargoes , easy to distribute and efficient installation.

Mission:

To be a complete Renewable Energy Firm that helps residential and commercial customers reduce their energy consumption and environmental impact through advanced, turn-key solar energy systems.

Vision:

We help our customers realize all the benefits of renewable energy, such as solid financial returns and a positive impact on the environment, through a unique "Commitment to Solar, Commitment to You" approach, which means our in-house installation and customer support teams make the process easy and convenient with little or no upfront investment.

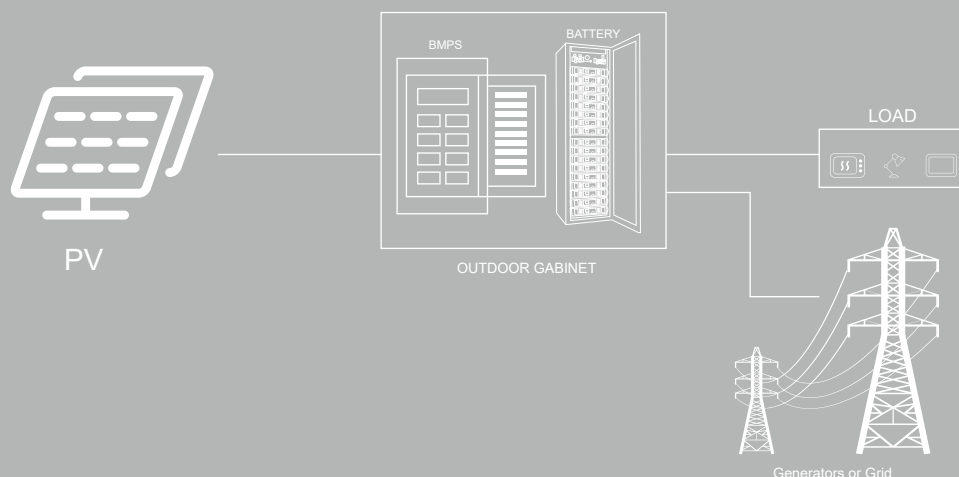




Certificate

ESS solutions include residential and commercial PV system with battery , Bi-directional inverters with battery bank for Peak shaving ,Utilize electricity price difference, charge battery at low price and discharge at high price to maximize system profit, compensate local transformer limit. All of our products comply with global industry standards. Bluesun offer multiple certificates for all of our components in our product line that follow local standards . Like CE , IEC , UL , CEC , INMETRO and so on.

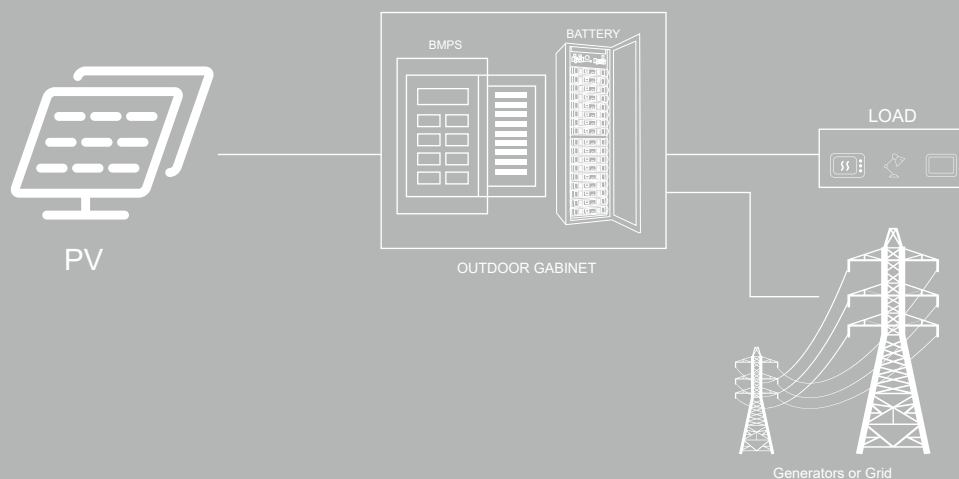




30KW/30KWh Off&On-Grid ESS

No.	Equipment	Specifications	Unit
1.	PV system	30KW	SET
2.	Battery system	30KWh	SET
3.	PCS	30KW off-grid or on-grid	SET
4.	Cable&Accessories	Including DC Cable, AC Cable, Cable trunking, etc.	SET
5.	System testing Charge	Hardware &software Installation&testing before shipping	SET

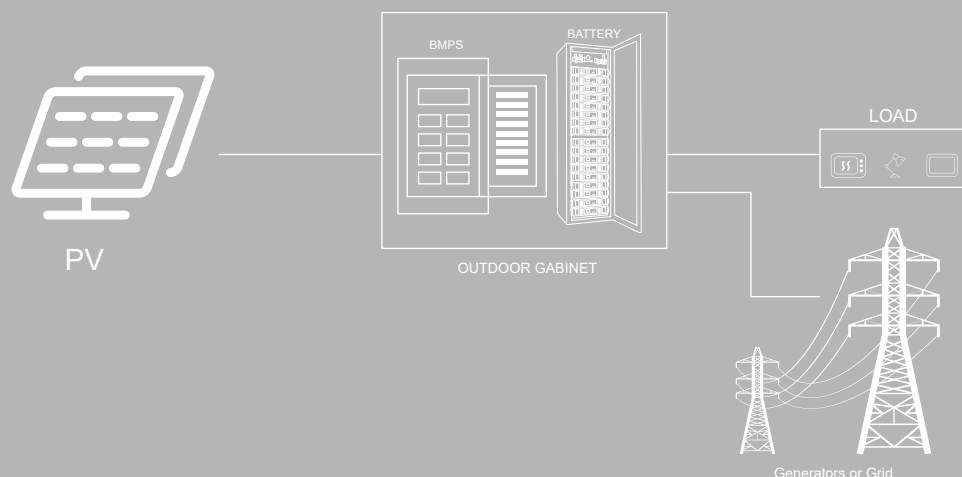
MODEL	BMPS30	BATTERY SYSTEM GENERAL PARAMETERS	
AC (on-grid)		Battery System	
Apparent power	30KVA	Rated power	30KW
Rated power	30KW	Rated current	98A
Rated voltage	400V	Rated capacity	30KWh
Rated current	43A	Operation voltage range	264V-350.4V
Voltage range	320V-460V	Cell	
Rated frequency	50Hz/60Hz	Nominal capacity	105Ah
Frequency range	45-55Hz/55-65Hz	Optimal working temperature range	-15℃~55℃
THDI	<3%	Cycle life (0.5C RT)	>6500 times
PF	±1	Dimension	≤27mmT×174mmW×200mmH
AC connection	3W+N+Pe	Weight	2060±50g
Transformer	Yes		
AC (OFF-GRID)		PACK	
Apparent power	30KVA	Connecting way	1P16S
Rated power	30KW	Voltage	51.2V
Rated voltage	400V	Capacity	105Ah
Rated current	43A	Balance way	passive
THDU	≤2% linear	Weight	53Kg
Rated frequency	50/60Hz		
Overload capability	110%-10min 120%-1min		
PV		BATTERY SYSTEM GENERAL PARAMETERS	
Max.PV open-circuit voltage	1000VDC	Nominal voltage	358.4V
MAX PV power	60/120KWp	Nominal capacity	105AH
PV mppt voltage range	200VDC-850VDC	Nominal energy	30KWh
MPPT number	1/2	Voltage range of charge & discharge	308V-408.4V
BATTERY		Connecting way	1P112S /1 cluster
voltage range	250V-850V	Battery rack dimension	500mmW×500mmT×1800mmH
Full Load operating voltage range	450V-850V	Installation way	indoor/in container (recommend to equipped with air condition)
GENERAL		Communication interface	RS485、CAN、LAN
MAX efficiency	95%	BAMS display screen	7 inch
Dimension(W*D*H)	800mm*800mm*1900mm		
Weight	440KG		
Environmental temperature	-25℃~+55℃		
Relative humidity	0-95% non-condensing		
Protection degree	IP21		
Noise emission	<75Db		
Max. operating altitude	5000m(>3000m derating)		
Cooling	Forced-air		
COMMUNICATION			
BMS	Modbus-RTU,CAN		
EMS	Modbus-TCP, Modbus-RTU		



50KW/50KWh Off&On-Grid ESS

No.	Equipment	Specifications	Unit
1.	PV system	50KW	SET
2.	Battery system	50KWh	SET
3.	PCS	50KW off-grid or on-grid	SET
4.	Cable&Accessories	Including DC Cable, AC Cable, Cable trunking, etc.	SET
5.	System testing Charge	Hardware &software Installation&testing before shipping	SET

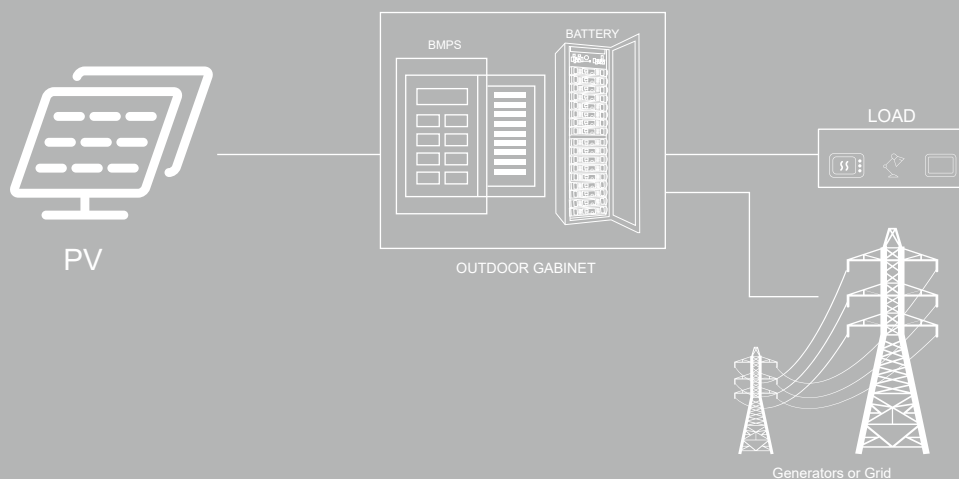
MODEL	BMP50	BATTERY SYSTEM GENERAL PARAMETERS	
AC (on-grid)		Battery System	
Apparent power	50KVA	Rated power	50KW
Rated power	50KW	Rated current	98A
Rated voltage	400V	Rated capacity	50KWh
Rated current	72A	Operation voltage range	440V-584V
Voltage range	320V-460V	Cell	
Rated frequency	50Hz/60Hz	Nominal capacity	105Ah
Frequency range	45-55Hz/55-65Hz	Optimal working temperature range	-15℃~55℃
THDI	<3%	Cycle life (0.5C RT)	>6500 times
PF	±1	Dimension	≤27mmT×174mmW×200mmH
AC connection	3W+N+Pe	Weight	2060±50g
Transformer	Yes		
AC (OFF-GRID)		PACK	
Apparent power	50KVA	Connecting way	1P16S
Rated power	50KW	Voltage	51.2V
Rated voltage	400V	Capacity	105Ah
Rated current	72A	Balance way	passive
THDU	≤2% linear	Weight	53Kg
Rated frequency	50/60Hz		
Overload capability	110%-10min 120%-1min		
PV		BATTERY SYSTEM GENERAL PARAMETERS	
Max.PV open-circuit voltage	1000VDC	Nominal voltage	512V
MAX PV power	60/120KWp	Nominal capacity	105AH
PV mppt voltage range	200VDC-850VDC	Nominal energy	50KWh
MPPT number	1/2	Voltage range of charge & discharge	440V-584V
BATTERY		Connecting way	1P160S /1 cluster
voltage range	250V-850V	Battery rack dimension	500mmW×500mmT×1800mmH
Full Load operating voltage range	450V-850V	Installation way	indoor/in container (recommend to equipped with air condition)
GENERAL		Communication interface	RS485、CAN、LAN
MAX efficiency	96.50%	BAMS display screen	7 inch
Dimension(W*D*H)	800mm*800mm*1900mm		
Weight	620KG		
Environmental temperature	-25℃~+55℃		
Relative humidity	0-95% non-condensing		
Protection degree	IP21		
Noise emission	<75Db		
Max. operating altitude	5000m(>3000m derating)		
Cooling	Forced-air		
COMMUNICATION			
BMS	Modbus-RTU,CAN		
EMS	Modbus-TCP, Modbus-RTU		



100KW/100KWh Off&On-Grid ESS

No.	Equipment	Specifications	Unit
1.	PV system	100KW	SET
2.	Battery system	100KWh	SET
3.	PCS	100KW off-grid or on-grid	SET
4.	Cable&Accessories	Including DC Cable, AC Cable, Cable trunking, etc.	SET
5.	System testing Charge	Hardware &software Installation&testing before shipping	SET

MODEL	BMPS100	BATTERY SYSTEM GENERAL PARAMETERS	
AC (on-grid)		Battery System	
Apparent power	100KVA	Rated power	100KW
Rated power	100KW	Rated current	195A
Rated voltage	400V	Rated capacity	100KWh
Rated current	72A	Operation voltage range	440V-584V
Voltage range	320V-460V	Cell	
Rated frequency	50Hz/60Hz	Nominal capacity	205Ah
Frequency range	45-55Hz/55-65Hz	Optimal working temperature range	-15℃~55℃
THDI	< 3%	Cycle life (0.5C RT)	> 6500 times
PF	±1	Dimension	≤ 54mmT×174mmW×201mmH
AC connection	3W+N+Pe	Weight	4200±100g
Transformer	Yes		
AC (OFF-GRID)		PACK	
Apparent power	100KVA	Connecting way	1P16S
Rated power	100KW	Voltage	51.2V
Rated voltage	400V	Capacity	205Ah
Rated current	144A	Balance way	passive
THDU	≤ 2% linear	Weight	86Kg
Rated frequency	50/60Hz		
Overload capability	110%-10min 120%-1min		
PV		BATTERY SYSTEM GENERAL PARAMETERS	
Max.PV open-circuit voltage	1000VDC	Nominal voltage	512V
MAX PV power	120/180/240KWp	Nominal capacity	205AH
PV mppt voltage range	200VDC-850VDC	Nominal energy	100KWh
MPPT number	3/4	Voltage range of charge & discharge	440V-584V
BATTERY		Connecting way	1P160S/1 cluster
voltage range	420V-850V	Battery rack dimension	500mmW×500mmT×1800mmH
Full Load operating voltage range	450V-850V	Installation way	indoor/in container (recommend to equipped with air condition)
GENERAL		Communication interface	RS485、CAN、LAN
MAX efficiency	96.50%	BAMS display screen	7 inch
Dimension(W*D*H)	1200mm*800mm*2050mm		
Weight	900KG		
Environmental temperature	-25℃~+55℃		
Relative humidity	0-95% non-condensing		
Protection degree	IP21		
Noise emission	< 75Db		
Max. operating altitude	5000m(>3000m derating)		
Cooling	Forced-air		
COMMUNICATION			
BMS	Modbus-RTU,CAN		
EMS	Modbus-TCP, Modbus-RTU		

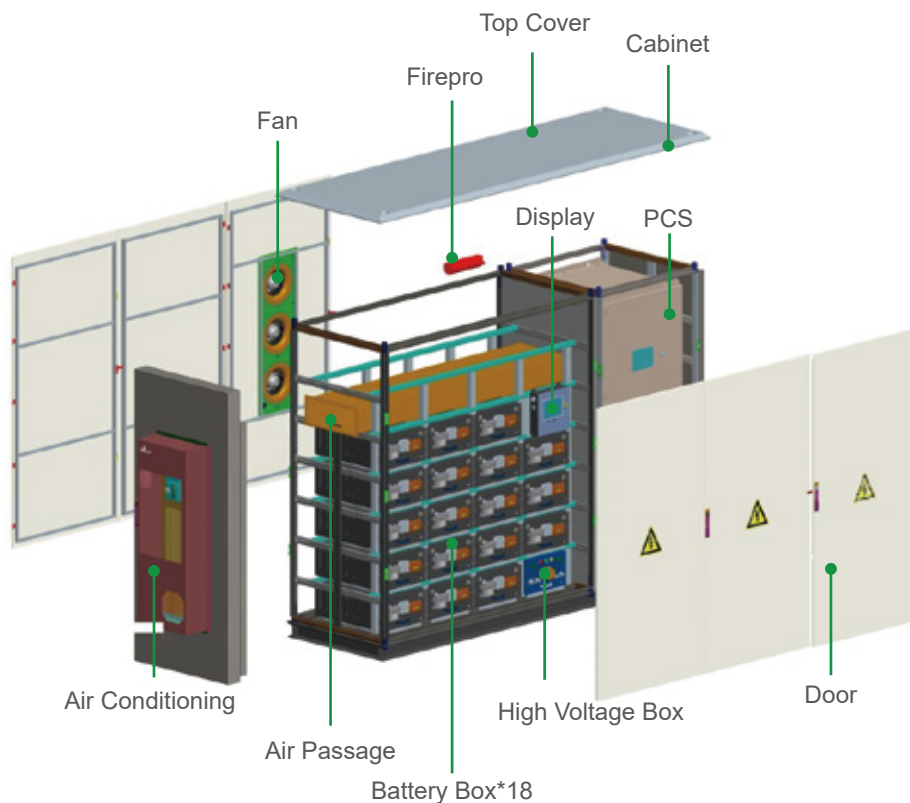


150KW/150KWh Off&On-Grid ESS

No.	Equipment	Specifications	Unit
1.	PV system	150KW	SET
2.	Battery system	150KWh	SET
3.	PCS	150KW off-grid or on-grid	SET
4.	Cable&Accessories	Including DC Cable, AC Cable, Cable trunking, etc.	SET
5.	System testing Charge	Hardware &software Installation&testing before shipping	SET

MODEL	BMPS150	BATTERY SYSTEM GENERAL PARAMETERS	
AC (on-grid)		Battery System	
Apparent power	150KVA	Rated power	150KW
Rated power	150KW	Rated current	210A
Rated voltage	400V	Rated capacity	150KWh
Rated current	217A	Operation voltage range	616V~817.6V
Voltage range	320V~460V	Cell	
Rated frequency	50Hz/60Hz	Nominal capacity	260Ah
Frequency range	45~55Hz/55~65Hz	Optimal working temperature range	-15℃~55℃
THDI	<3%	Cycle life (0.5C RT)	>6500 times
PF	±1	Dimension	≤73mmT×174mmW×201mmH
AC connection	3W+N+Pe	Weight	5400±100g
Transformer	Yes		
AC (OFF-GRID)		PACK	
Apparent power	150KVA	Connecting way	1P16S
Rated power	150KW	Voltage	51.2V
Rated voltage	400V	Capacity	260Ah
Rated current	217A	Balance way	passive
THDU	≤2% linear	Weight	130Kg
Rated frequency	50/60Hz		
Overload capability	110%~10min 120%~1min		
PV		BATTERY SYSTEM GENERAL PARAMETERS	
Max.PV open-circuit voltage	1000VDC	Nominal voltage	716.8V
MAX PV power	120/180/240KWp	Nominal capacity	260AH
PV mppt voltage range	200VDC~850VDC	Nominal energy	150KWh
MPPT number	3/4	Voltage range of charge & discharge	616V~817.6V
BATTERY		Connecting way	1P224S / 1 cluster
voltage range	420V~850V	Battery rack dimension	500mmW×600mmT×1800mmH
Full Load operating voltage range	450V~850V	Installation way	indoor/in container (recommend to equipped with air condition)
GENERAL		Communication interface	RS485、CAN、LAN
MAX efficiency	96.50%	BAMS display screen	7 inch
Dimension(W*D*H)	1200mm*800mm*2050mm		
Weight	1250KG		
Environmental temperature	-25℃~+55℃		
Relative humidity	0~95% non-condensing		
Protection degree	IP21		
Noise emission	<75Db		
Max. operating altitude	5000m(>3000m derating)		
Cooling	Forced-air		
COMMUNICATION			
BMS	Modbus-RTU,CAN		
EMS	Modbus-TCP, Modbus-RTU		

250KW/250KWh Off&On-Grid ESS



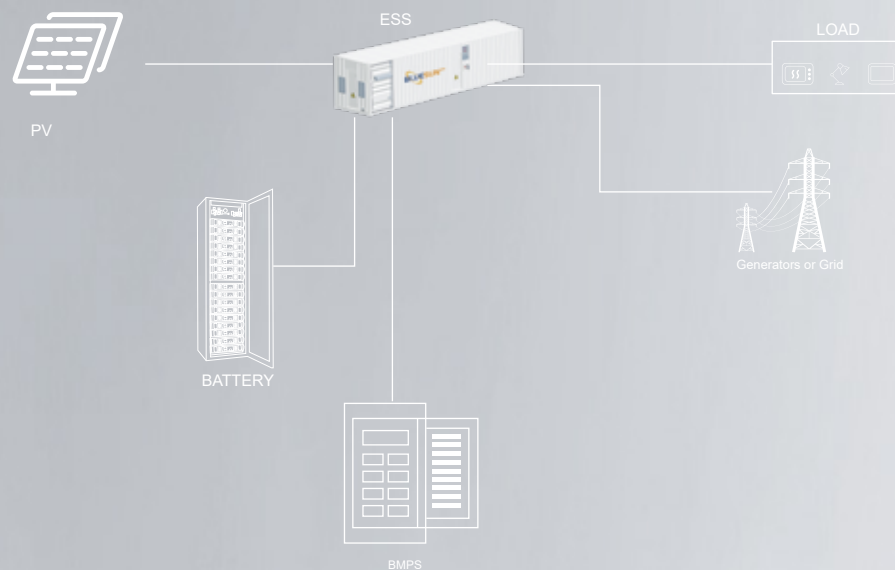
No.	Equipment	Specifications	Unit
1.	PV system	250KW	SET
2.	Battery system	250KWh	SET
3.	PCS	250KW off-grid or on-grid	SET
4.	Cable&Accessories	Including DC Cable, AC Cable, Cable trunking, etc.	SET
5.	System testing Charge	Hardware &software Installation&testing before shipping	SET

MODEL	BMPS250	BATTERY SYSTEM GENERAL PARAMETERS	
AC (on-grid)		Battery System	
Apparent power	250KVA	Rated power	250KW
Rated power	250KW	Rated current	174A
Rated voltage	400V	Rated capacity	250KWh
Rated current	361A	Operation voltage range	616V~817.6V
Voltage range	320V~460V	Cell	
Rated frequency	50Hz/60Hz	Nominal capacity	205Ah
Frequency range	45~55Hz/55~65Hz	Optimal working temperature range	-15℃~55℃
THDI	<3%	Cycle life (0.5C RT)	>6500 times
PF	±1	Dimension	≤54mmT×174mmW×201mmH
AC connection	3W+N+Pe	Weight	4200±100g
Transformer	Yes		
AC (OFF-GRID)		PACK	
Apparent power	250KVA	Connecting way	1P16S
Rated power	250KW	Voltage	51.2V
Rated voltage	400V	Capacity	205Ah
Rated current	361A	Balance way	passive
THDU	≤2% linear	Weight	86Kg
Rated frequency	50/60Hz		
Overload capability	110%~10min 120%~1min		
PV		BATTERY SYSTEM GENERAL PARAMETERS	
Max.PV open-circuit voltage	1000VDC	Nominal voltage	716.8V
MAX PV power	300/360KWp	Nominal capacity	205AH
PV mppt voltage range	200VDC~850VDC	Nominal energy	250KWh
MPPT number	5/6	Voltage range of charge & discharge	616V~817.6V
BATTERY		Connecting way	1P224S/2 clusters
voltage range	420V~850V	Battery rack dimension	2x(500mmW×500mmT×1800mmH)
Full Load operating voltage range	420V~850V	Installation way	indoor/in container (recommend to equipped with air condition)
GENERAL		Communication interface	RS485、CAN、LAN
MAX efficiency	97%	BAMS display screen	7 inch
Dimension(W*D*H)	1800mm*800mm*2050mm		
Weight	1700KG		
Environmental temperature	-25℃~+55℃		
Relative humidity	0~95% non-condensing		
Protection degree	IP21		
Noise emission	<75Db		
Max. operating altitude	5000m(>3000m derating)		
Cooling	Forced-air		
COMMUNICATION			
BMS	Modbus-RTU,CAN		
EMS	Modbus-TCP, Modbus-RTU		

500KW/500KWh Off&On-Grid ESS

No.	Equipment	Specifications	Unit
1.	PV system	500KW	SET
2.	Battery system	500KWh	SET
3.	PCS	500KW off-grid or on-grid	SET
4.	Cable&Accessories	Including DC Cable, AC Cable, Cable trunking, etc.	SET
5.	System testing Charge	Hardware &software Installation&testing before shipping	SET

MODEL	BMP500	BATTERY SYSTEM GENERAL PARAMETERS	
AC (on-grid)		Battery System	
Apparent power	500KVA	Rated power	500KW
Rated power	500KW	Rated current	232A
Rated voltage	400V	Rated capacity	500KWh
Rated current	722A	Operation voltage range	616V~817.6V
Voltage range	320V~460V	Cell	
Rated frequency	50Hz/60Hz	Nominal capacity	260Ah
Frequency range	45~55Hz/55~65Hz	Optimal working temperature range	-15℃~55℃
THDI	<3%	Cycle life (0.5C RT)	>6500 times
PF	±1	Dimension	≤73mmT×174mmW×201mmH
AC connection	3W+N+Pe	Weight	5400±100g
Transformer	Yes		
AC (OFF-GRID)		PACK	
Apparent power	500KVA	Connecting way	1P16S
Rated power	500KW	Voltage	51.2V
Rated voltage	400V	Capacity	260Ah
Rated current	722A	Balance way	passive
THDU	≤2% linear	Weight	130Kg
Rated frequency	50/60Hz		
Overload capability	110%~10min 120%~1min		
PV		BATTERY SYSTEM GENERAL PARAMETERS	
Max.PV open-circuit voltage	1000VDC	Nominal voltage	716.8V
MAX PV power	600/660/720KWp	Nominal capacity	260AH
PV mppt voltage range	200VDC~850VDC	Nominal energy	500KWh
MPPT number	10/11/12	Voltage range of charge & discharge	616V~817.6V
BATTERY		Connecting way	1P224S/3 clusters
voltage range	500V~850V	Battery rack dimension	3x(500mmW×500mmT×1800mmH)
Full Load operating voltage range	500V~850V	Installation way	indoor/in container (recommend to equipped with air condition)
GENERAL		Communication interface	RS485、CAN、LAN
MAX efficiency	97.50%	BAMS display screen	7 inch
Dimension(W*D*H)	2800mm*1050mm*2050mm		
Weight	3520KG		
Environmental temperature	-25℃~+55℃		
Relative humidity	0~95% non-condensing		
Protection degree	IP21		
Noise emission	<75Db		
Max. operating altitude	5000m(>3000m derating)		
Cooling	Forced-air		
COMMUNICATION			
BMS	Modbus-RTU,CAN		
EMS	Modbus-TCP, Modbus-RTU		



Project Application Case



Capacity : BMPS50+123KWH lithium battery

Site : Turkey
Time : Oct. 2020
Installation type : Outdoor
Application : Micro Grid DG & Solar Storage System



Capacity : BMPS150+118KWH lithium battery

Site : Gambia
Time : Oct. 2021
Installation type : Indoor
Application : On/off Grid Solar Storage System



Capacity : BMPS100+400KWH gel battery

Site : Paraguay
Time : Nov. 2021
Installation type : Outdoor
Application : Micro Grid Solar Storage System



Capacity : BMPS250+800KWH gel battery

Site : Africa
Time : Mar. 2019
Installation type : Indoor
Application : Micro Grid Solar Storage System