



BLUESUN

Storage System

Standard Proposal

ABOUT BLUESUN

Bluesun Solar---is one of the solar power solution leading companies in China. Specializing in research and development of solar panel, lithium battery and BMS. Bluesun product has exported to more than 185 countries and regions by the end of 2022. We devote ourselves to providing excellent solar solution to all over world.

BLUESUN ESS

42,000 Sq.m

Digital Energy
Production

8 GWH

Lithium Battery
Capacity

Full ESS Solution

Residential, Commerical &
Industrial



BLUESUN MILESTONE

8GWH New ESS Factory Launched

2025

10+ Oversea
Companies Happening...

Global Footprints 180+ Countries

Blunsun Japan Founded

2023

2024

Buesun S. Africa & Italy
Founded

PV Production (800MW)
Base Launched
Thailand & Vietnam

2019

2021

Bluesun ESS Founded

Lithium Pack Factory
(1 GWH) BMS R&D Center Set Up

BLUESUN^{ESS}

1st 10MW project in Malta.

Build up EPC Team

2015

2018

Bluesun US Founded

Built Up US/EU Warehouse

Solarhome

2013

Bluesun Solar founded

500MW PV Factory @jia xing, Zhejiang

CATALOGUE

BSE Series ----- 01-09

BSE-1.5KW-2.66KWh	02
BSE-4.2KW-5.32KWh	04
BSE-6.2KW-10.24KWh	06
BSE-11KW-16KWh	08

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BSI-150KW-321KWh	27
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BSI-500KW/2411.52KWh(40ft)	41
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Installation Case ----- 45-46



BSE Series

Economic energy storage system standard proposal

BSE-1.5KW-2.66KWh

BSE-4.2KW-5.32KWh

BSE-6.2KW-10.24KWh

BSE-11KW-16KWh

BSE Series

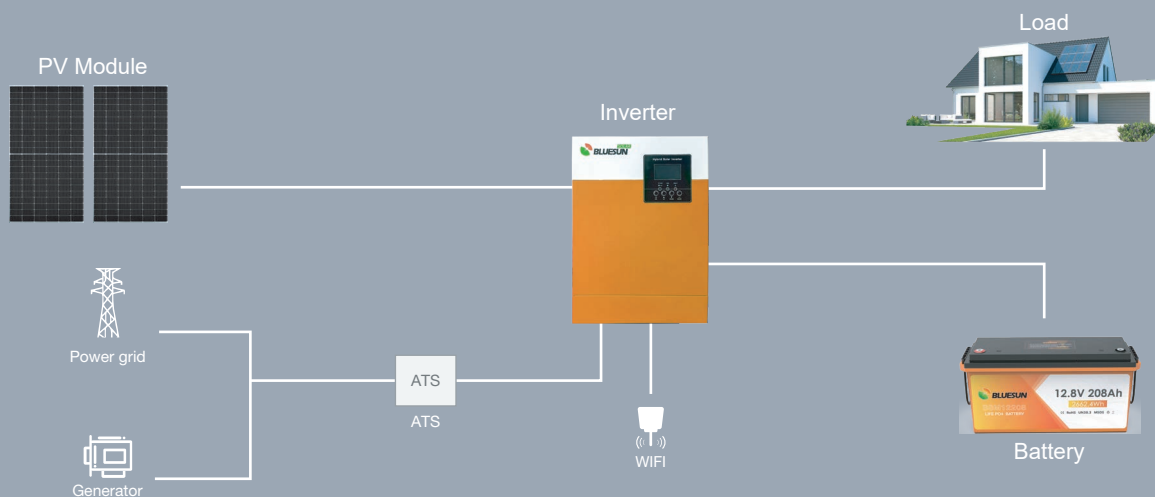
BSE-1.5KW-2.66KWh

Highlights:

- Bluesun provides the integrated system solution with one stop service.
- Optimal configuration, high cost performance ratio.
- Lifepo4 battery, extra long life span.



Product Topology:



ECONOMIC ENERGY STORAGE SYSTEM STANDARD PROPOSAL

PV Power	Equipment	Model	Unit	Quantity	Remark
BSE-1.5KW-2.66KWh 1300Wp/1.5kW/2662Wh	PV Modules	BSM650G12-60HNH	pcs	2	2PCS/string, 1string
	Inverter	BSM-1500LV-12	pcs	1	
	Battery	BSM12208	pcs	1	
	Connector	MC4	pair	3	
	PV Cable	PV1-F 1*4mm ²	m	100	
	Moniting	WIFI module	pcs	1	Standard
	PV Mounting System	Mounting structures for 2 modules	set	1	

MODEL BSE-1.5KW-2.66KWh

System Parameter

AC Rated Power	1500W
Battery Capacity	2662.4Wh
AC Voltage	220/230V
Rated Grid Frequency	50/60Hz

Inverter Parameter

Model	BSM-1500LV-12
Rated Power	1500W
Frequency	50/60 Hz
Nominal Voltage	220/230VAC
Peak Efficiency (PV to INV)	>92%
Max . PV Array Open Circuit Voltage	108VDC
PV Array MPPT Voltage Range	15~90VDC
Max . Solar Input Current	15A
Max . Charge Current	60A
Dimensions, D x W x H(mm)	357.5*235*103
Weight (Kgs)	5.5

Battery Parameter

Model	BSM12208
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	12.8
Nominal Capacity (WH)	2662.4
Voltage Range (V)	10~14.6
Max. Charge/Discharge Current(A)	200
Communicaiton	/
Dimensions, D x W x H(mm)	502*186.5*242
Weight (Kgs)	22.3
Design Life	5 years+
Cycle Life	>6000(0.5C@25°C, 80% DOD)

Environment

Operation Humidity Range	0~95% (no condensation)
Maximum Operation Altitude	2000m
Working Temperature	0°C~50°C Charge ; -10°C ~50°C Discharge
Shelf Temperature	-20°C~60°C

BSE Series

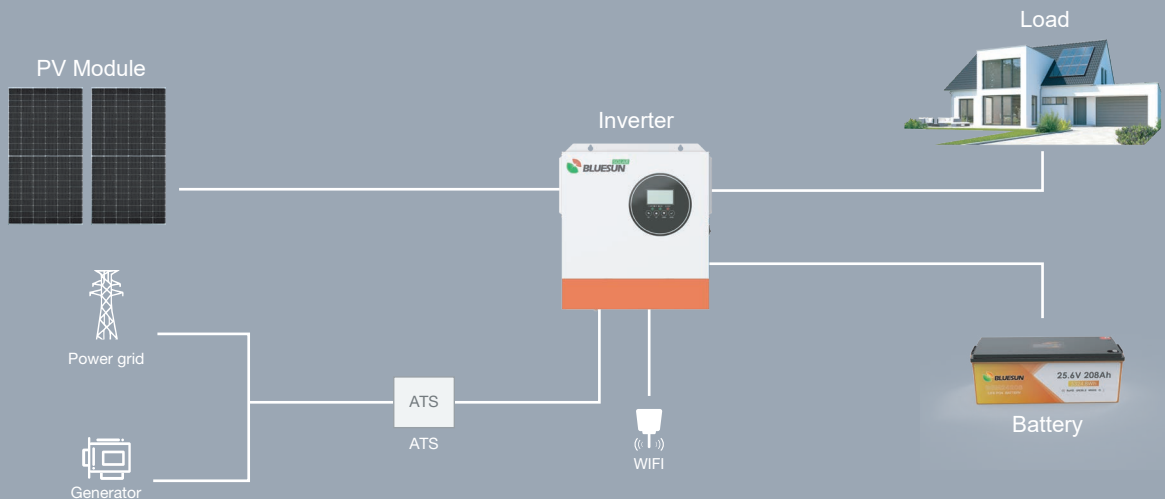
BSE-4.2KW-5.32KWh

Highlights:

- Bluesun provides the integrated system solution with one stop service.
- Optimal configuration, high cost performance ratio
- Lifepo4 battery, extra long life span



Product Topology:



ECONOMIC ENERGY STORAGE SYSTEM STANDARD PROPOSAL

PV Power	Equipment	Model	Unit	Quantity	Remark
BSE-4.2KW-5.32KWh 4550Wp/4.2kW/5324Wh	PV Modules	BSM650G12-60HNH	pcs	7	7PCS/string, 1string
	Inverter	BSM-4200LV-24	pcs	1	
	Battery	BSM24208	pcs	1	
	Connector	MC4	pair	3	
	PV Cable	PV1-F 1*4mm ²	m	100	
	Moniting	WIFI module	pcs	1	Standard
	PV Mounting System	Mounting structures for 7 modules	set	1	

MODEL BSE-4.2KW-5.32KWh

System Parameter

AC Rated Power	4200W
Battery Capacity	5324.8Wh
AC Voltage	220/230V
Rated Grid Frequency	50/60Hz

Inverter Parameter

Model	BSM-4200LV-24
Rated Power	4200W
Frequency	50/60 Hz
Nominal Voltage	220/230VAC
Peak Efficiency (PV to INV)	>94%
Max . PV Array Open Circuit Voltage	500VDC
PV Array MPPT Voltage Range	60~500VDC
Max . Solar Input Current	27A
Max . Charge Current	120A
Dimensions, D x W x H(mm)	371.8*342*116.5
Weight (Kgs)	7.9

Battery Parameter

Model	BSM24208
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	25.6
Nominal Capacity (WH)	5324.8
Voltage Range (V)	20~29.2
Max. Charge/Discharge Current(A)	200
Communicaiton	/
Dimensions, D x W x H(mm)	635*244*220.5
Weight (Kgs)	35.4
Design Life	5 years+
Cycle Life	>6000(0.5C@25°C, 80% DOD)

Environment

Operation Humidity Range	0~95% (no condensation)
Maximum Operation Altitude	2000m
Working Temperature	0°C~50°C Charge ; -10°C ~50°C Discharge
Shelf Temperature	-20°C~60°C

BSE Series

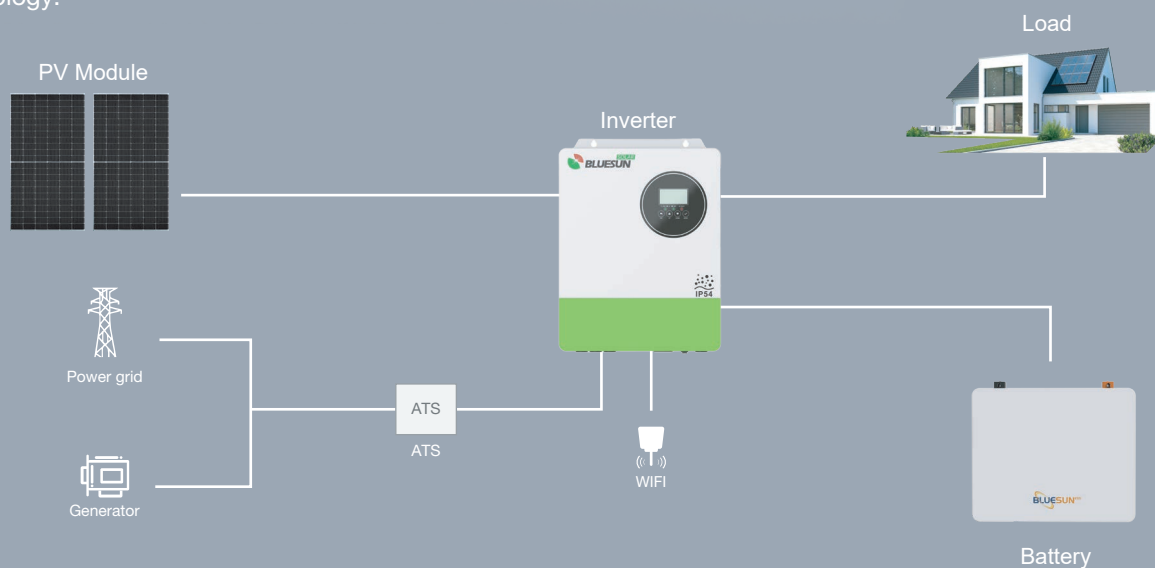
BSE-6.2KW-10.24KWh

Highlights:

- Bluesun provides the integrated system solution with one stop service.
- One unit 10.24kwh battery, most cost effective.
- Lithium battery and inverter communication match, running perfectly.



Product Topology:



ECONOMIC ENERGY STORAGE SYSTEM STANDARD PROPOSAL

PV Power	Equipment	Model	Unit	Quantity	Remark
BSE-6.2KW-10.24KWh 5850Wp/6.2kW/10240Wh	PV Modules	BSM650G12-60HNH	pcs	9	9PCS/string, 1string
	Inverter	BSM-6200LV-48	pcs	1	Communicate with battery
	Battery	BSM48200	pcs	1	Cables included
	Connector	MC4	pair	3	
	PV Cable	PV1-F 1*4mm ²	m	100	Red or black
	Moniting	WIFI module	pcs	1	Standard
	PV Mounting System	Mounting structures for 9 modules	set	1	

MODEL BSE-6.2KW-10.24KWh

System Parameter

AC Rated Power	6200W
Battery Capacity	10240Wh
AC Voltage	220/230V
Rated Grid Frequency	50/60Hz

Inverter Parameter

Model	BSM-6200LV-48
Rated Power	6200W
Frequency	50/60 Hz
Nominal Voltage	220/230VAC
Peak Efficiency (PV to INV)	>96%
Max . PV Array Open Circuit Voltage	500VDC
PV Array MPPT Voltage Range	60~500VDC
Max . Solar Input Current	27A
Max . Charge Current	120A
Dimensions, D x W x H(mm)	441*334*125.5
Weight (Kgs)	9

Battery Parameter

Model	BSM48200
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	51.2
Nominal Capacity (WH)	10240
Voltage Range (V)	40~58.4
Max. Charge/Discharge Current(A)	200
Communicaiton	CAN/RS485
Dimensions, D x W x H(mm)	691*605*163
Weight (Kgs)	81.7
Design Life	10 years+
Cycle Life	>6000(0.5C@25°C, 80% DOD)

Environment

Operation Humidity Range	0~95% (no condensation)
Maximum Operation Altitude	2000m
Working Temperature	0°C~50°C Charge ; -10°C ~50°C Discharge
Shelf Temperature	-20°C~60°C

BSE Series

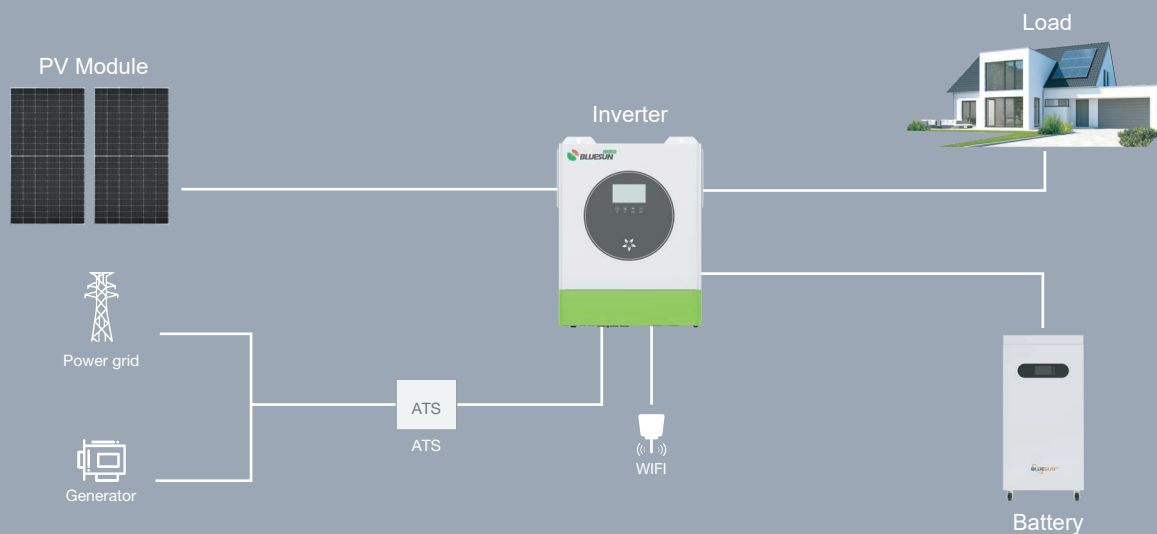
BSE-11KW-16KWh

Highlights:

- Bluesun provides the integrated system solution with one stop service.
- One unit 16kwh battery, most cost effective.
- Lithium battery and inverter communication match, running perfectly.



Product Topology:



ECONOMIC ENERGY STORAGE SYSTEM STANDARD PROPOSAL

PV Power	Equipment	Model	Unit	Quantity	Remark
BSE-11KW-16KWh 11700Wp/11kW/16kWh	PV Modules	BSM650G12-60HNH	pcs	18	9 PCS/string, 2 string
	Inverter	BSM-11000BLV-48	pcs	1	Communicate with battery
	Battery	BSM48314	pcs	1	Cables included
	Connector	MC4	pair	6	
	PV Cable	PV1-F 1*4mm ²	m	200	Half in red and half in black
	Moniting	WIFI module	pcs	1	Standard
	PV Mounting System	Mounting structures for 18 modules	set	1	

MODEL BSE-11KW-16KWh

System Parameter

AC Rated Power	11000W
Battery Capacity	16076.8Wh
AC Voltage	220/230V
Rated Grid Frequency	50/60Hz

Inverter Parameter

Model	BSM-11000BLV-48
Rated Power	11000W
Frequency	50/60 Hz
Nominal Voltage	220/230VAC
Peak Efficiency (PV to INV)	>96%
Max . PV Array Open Circuit Voltage	500VDC
PV Array MPPT Voltage Range	60~500VDC
Max . Solar Input Current	18A*2
Max . Charge Current	160A
Dimensions, D x W x H(mm)	540*415*122
Weight (Kgs)	15.5

Battery Parameter

Model	BSM48314
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	51.2
Nominal Capacity (WH)	16076.8
Voltage Range (V)	40~58.4
Max. Charge/Discharge Current(A)	200
Communicaiton	CAN/RS485
Dimensions, D x W x H(mm)	445*251*944
Weight (Kgs)	117.6
Design Life	10 years+ (25°C)
Cycle Life	>6000(0.5C@25°C, 80% DOD)

Environment

Operation Humidity Range	0~95% (no condensation)
Maximum Operation Altitude	2000m
Working Temperature	0°C~50°C Charge ; -10°C ~50°C Discharge
Shelf Temperature	-20°C~60°C



BSR Series

Residential energy storage system standard proposal

BSR-6KW-16KWh

BSR-10KW-16KWh

BSR-15KW-32.1KWh

BSR Series

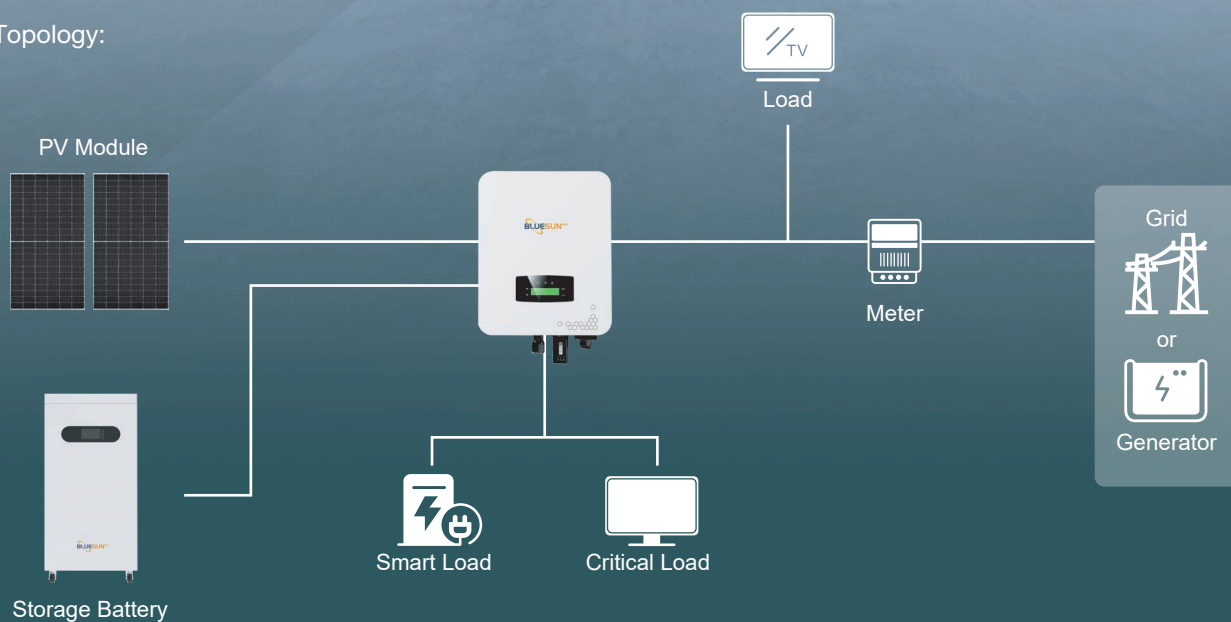
BSR-6KW-16KWh

Highlights:

- Bluesun provides the integrated system solution with one stop service.
- One unit 16kwh battery, most cost effective.
- Lithium battery and inverter communication match, running perfectly.



Product Topology:



RESIDENTIAL ENERGY STORAGE SYSTEM STANDARD PROPOSAL

PV Power	Equipment	Model	Unit	Quantity	Remark
BSR-6KW-16KWh 7.8kWp/6kW/16kWh	PV Modules	BSM650G12-60HNH	pcs	12	6PCS/string, 2string
	Inverter	BSE6KL1	pcs	1	1P/230V
	Battery	BSM48314W	pcs	1	Power cable included
	Connector	MC4	pair	6	
	PV Cable	PV1-F 1*4mm ²	m	200	Half in red and half in black
	Moniting	WIFI module	pcs	1	Standard
	PV Mounting System	Mounting structures for 12 modules	set	1	

MODEL

BSR-6KW-16KWh

System Parameter

AC Rated Power	6KW
Battery Capacity	16kWh
AC Voltage	220/230V
Rated Grid Frequency	50/60Hz

Inverter Parameter

Model	BSE6KL1
Rated Power	6KW
Frequency	50/60 Hz
Nominal Voltage	220/230VAC
Peak Efficiency (PV to INV)	97.6%
Max . PV Array Open Circuit Voltage	550VDC
PV Array MPPT Voltage Range	80~500VDC
Max . Solar Input Current	18.5A*2
Max . Charge Current	26A*2
Dimensions, D x W x H(mm)	370*513*192
Weight (Kgs)	17

Battery Parameter

Model	BSM48314W
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	51.2
Nominal Capacity (WH)	16076.8
Voltage Range (V)	58.4
Max. Charge/Discharge Current(A)	200
Communicaiton	RS485/CAN
Dimensions, D x W x H(mm)	445*251*944
Weight (Kgs)	117.6
Design Life	10 years+(25°C)
Cycle Life	>6000(0.5C@25°C, 80% DOD)

Environment

Maximum Operation Altitude	4000m
Working Temperature	0°C~55°C Charge ; -10°C ~55°C Discharge
Shelf Temperature	-20°C~60°C

BSR Series

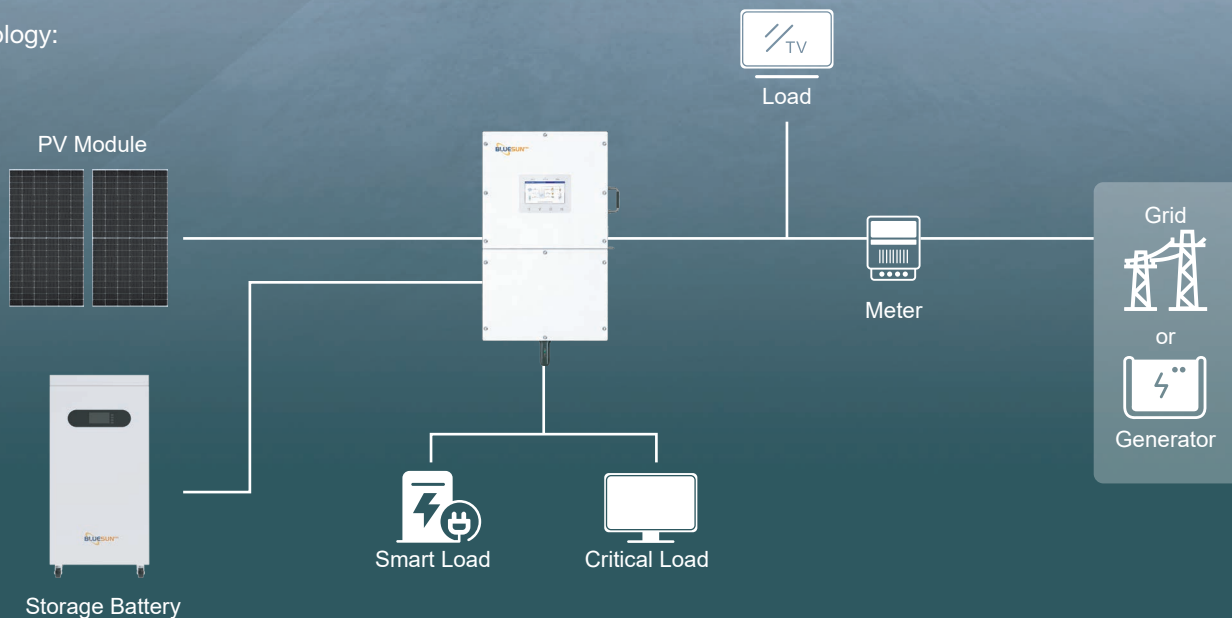
BSR-10KW-16KWh

Highlights:

- Bluesun provides the integrated system solution with one stop service.
- Supports up to 10KW three-phase output.
- Using stacked lithium batteries, easy to install.
- Reasonable configuration and high cost performance ratio.



Product Topology:



RESIDENTIAL ENERGY STORAGE SYSTEM STANDARD PROPOSAL

PV Power	Equipment	Model	Unit	Quantity	Remark
BSR-10KW-16KWh 10.4kWp/10kW/16kWh	PV Modules	BSM650G12-60HNH	pcs	16	8PCS/string, 2string
	Inverter	BSE3P10KH3	pcs	1	3P/400V
	Battery	BSM48314W	pcs	1	Power cable included
	Connector	MC4	pair	6	
	PV Cable	PV1-F 1*4mm ²	m	200	Half in red and half in black
	Moniting	WIFI module	pcs	1	Standard
	PV Mounting System	Mounting structures for 16 modules	set	1	

MODEL BSR-10KW-16KWh

System Parameter

AC Rated Power	10KW
Battery Capacity	32.1kWh
AC Voltage	3P/400V
Rated Grid Frequency	50/60Hz

Inverter Parameter

Model	BSE3P10KH3
Rated Power	10KW
Frequency	50/60 Hz
Nominal Voltage	230/400VAC
Peak Efficiency (PV to INV)	97.5%
Max . PV Array Open Circuit Voltage	1000VDC
PV Array MPPT Voltage Range	200~850VDC
Max . Solar Input Current	20A / 40A
Max . Charge Current	30A / 50A
Dimensions, D x W x H(mm)	430*660*305
Weight (Kgs)	42

Battery Parameter

Model	BSM48314W
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	51.2
Nominal Capacity (WH)	16076.8
Voltage Range (V)	58.4
Max. Charge/Discharge Current(A)	200
Communicaiton	RS485/CAN
Dimensions, D x W x H(mm)	445*251*944
Weight (Kgs)	117.6
Design Life	10 years+(25°C)
Cycle Life	>6000(0.5C@25°C, 80% DOD)

Environment

Maximum Operation Altitude	4000m
Working Temperature	0°C~55°C Charge ; -10°C ~55°C Discharge
Shelf Temperature	-20°C~60°C

BSR Series

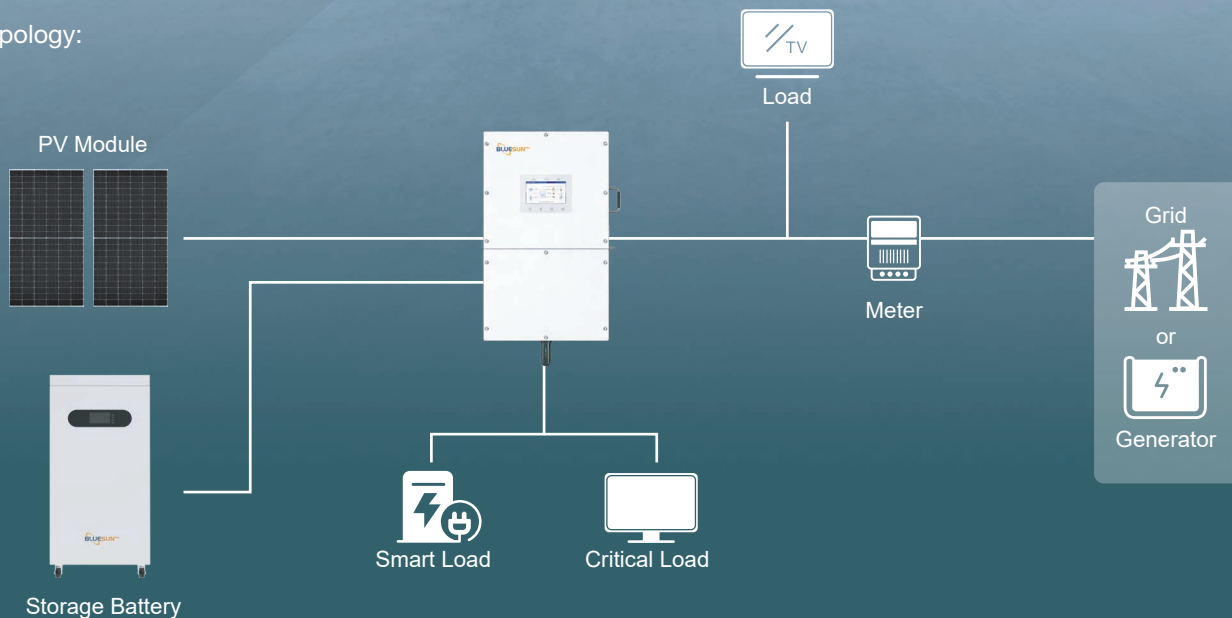
BSR-15KW-32.1KWh

Highlights:

- Bluesun provides the integrated system solution with one stop service.
- Supports up to 15KW three-phase output.
- Using stacked lithium batteries, easy to install.
- Reasonable configuration and high cost performance ratio.



Product Topology:



RESIDENTIAL ENERGY STORAGE SYSTEM STANDARD PROPOSAL

PV Power	Equipment	Model	Unit	Quantity	Remark
BSE-15KW-32.1KWh 15.6kWp/15kWh/32.1kWh	PV Modules	BSM650G12-60HNH	pcs	24	10PCS/string, 2string
	Inverter	BSE3P15KH3	pcs	1	3P/400V
	Battery	BSM48314W	pcs	2	Power cable included
		Busbar	pcs	2	Half red and half black
	Connector	MC4	pair	6	
	PV Cable	PV1-F 1*4mm ²	m	200	Half in red and half in black
	Moniting	WIFI module	pcs	1	Standard
	PV Mounting System	Mounting structures for 24 modules	set	1	

MODEL	BSE-15KW-32.1KWh
System Parameter	
AC Rated Power	15KW
Battery Capacity	32.1kWh
AC Voltage	3P/400V
Rated Grid Frequency	50/60Hz
Inverter Parameter	
Model	BSE3P15KH3
Rated Power	15KW
Frequency	50/60 Hz
Nominal Voltage	230/400VAC
Peak Efficiency (PV to INV)	97.5%
Max . PV Array Open Circuit Voltage	1000VDC
PV Array MPPT Voltage Range	200~850VDC
Max . Solar Input Current	40A*2
Max . Charge Current	50A*2
Dimensions, D x W x H(mm)	430*660*305
Weight (Kgs)	42
Battery Parameter	
Model	BSM48314W
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	51.2
Nominal Capacity (WH)	16076.8
Voltage Range (V)	58.4
Max. Charge/Discharge Current(A)	200
Communicaiton	RS485/CAN
Dimensions, D x W x H(mm)	445*251*944
Weight (Kgs)	235.2(Total weight of two units)
Design Life	10 years+(25°C)
Cycle Life	>6000(0.5C@25°C, 80% DOD)
Environment	
Maximum Operation Altitude	4000m
Working Temperature	0°C~55°C Charge ; -10°C ~55°C Discharge
Shelf Temperature	-20°C~60°C



BSC Series

Commercial energy storage system standard proposal

BSC-20KW-43.4KWh

BSC-30KW-54KWh

BSC-50KW-112KWh



BSC Series

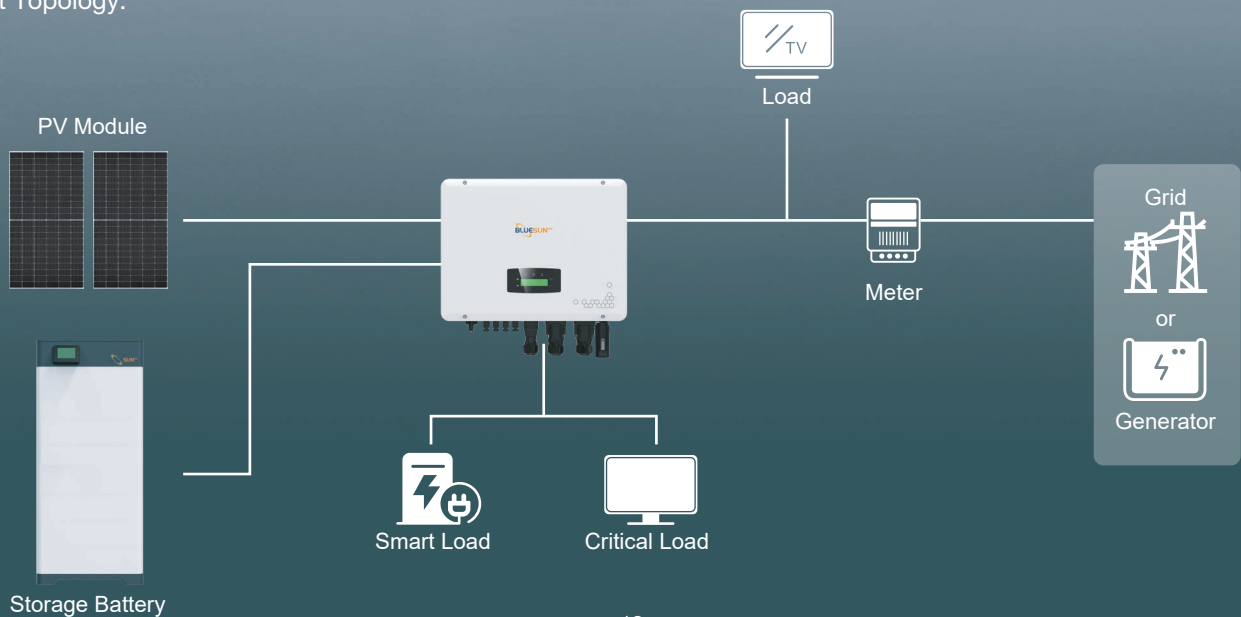
BSC-20KW-43.4KWh

Highlights:

- Bluesun provides the integrated system solution with one stop service.
- Supports up to 20KW three-phase output.
- Using stacked lithium batteries, easy to install.
- Reasonable configuration and high cost performance ratio.



Product Topology:



COMMERCIAL ENERGY STORAGE SYSTEM STANDARD PROPOSAL

PV Power	Equipment	Model	Unit	Quantity	Remark
BSC-20KW-43.4KWh 20.8kWp/20kW/43.4kWh	PV Modules	BSM650G12-60HNH	pcs	32	16PCS/string, 2string
	Inverter	BSE20KH3	pcs	1	3P/400V
	Batttery	BSM48106H	pcs	8	Power cable included
		Control Box	pcs	1	
	Connector	MC4	pair	6	
	PV Cable	PV1-F 1*4mm ²	m	200	Half in red and half in black
	Moniting	WIFI module	pcs	1	Standard
	PV Mounting System	Mounting structures for 32 modules	set	1	

MODEL

BSC-20KW-43.4KWh

System Parameter

AC Rated Power	20KW
Battery Capacity	43.4kWh
AC Voltage	3P/400V
Rated Grid Frequency	50/60Hz

Inverter Parameter

Model	BSE20KH3
Rated Power	20kVA/20KW
Frequency	50/60 Hz
Nominal Voltage	230/400VAC
Peak Efficiency (PV to INV)	98.3%
Max . PV Array Open Circuit Voltage	1000VDC
PV Array MPPT Voltage Range	200~850VDC
Max . Solar Input Current	32A*2
Max . Charge Current	48A*2
Dimensions, D x W x H(mm)	558*535*260
Weight (Kgs)	29

Battery Parameter

Model	BSM48106HP*8
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	51.2
Nominal Capacity (WH)	5427
Voltage Range (V)	40~58.4
Max. Charge/Discharge Current(A)	100
Communicaiton	RS485/RS232/CAN
Weight (Kgs)	416
Design Life	10 years+(25°C)
Cycle Life	>6000(0.5C@25°C, 80% DOD)

Environment

Maximum Operation Altitude	4000m
Working Temperature	0°C~55°C Charge ; -10°C ~55°C Discharge
Shelf Temperature	-20°C~60°C

BSC Series

BSC-30KW-54KWh

Highlights:

- Bluesun provides the integrated system solution with one stop service.
- Supports up to 30KW three-phase output.
- Using stacked lithium batteries, easy to install.
- Reasonable configuration and high cost performance ratio.



Product Topology:



COMMERCIAL ENERGY STORAGE SYSTEM STANDARD PROPOSAL

PV Power	Equipment	Model	Unit	Quantity	Remark
BSC-30KW-54KWh 31.2kWp/30kW/54.27KWh	PV Modules	BSM650G12-60HNH	pcs	48	16 PCS/string, 3 string
	Inverter	BSE30KH3	pcs	1	3P/400V
	Battery	BSM48106H	pcs	10	Power cable included
		Control Box	pcs	1	
		Battery Rack	pcs	1	
	Connector	MC4	pair	12	
	PV Cable	PV1-F 1*4mm ²	m	300	Half in red and half in black
	Moniting	WIFI module	pcs	1	Standard
	PV Mounting System	Mounting structures for 48 modules	set	1	

MODEL BSC-30KW-54KWh

System Parameter

AC Rated Power	30KW
Battery Capacity	54kWh
AC Voltage	3P/400V
Rated Grid Frequency	50/60Hz

Inverter Parameter

Model	BSE30KH3
Rated Power	30kVA/30KW
Frequency	50/60 Hz
Nominal Voltage	230/400VAC
Peak Efficiency (PV to INV)	98.5%
Max . PV Array Open Circuit Voltage	1000VDC
PV Array MPPT Voltage Range	150~850VDC
Max . Solar Input Current	40A
Max . Charge Current	60A
Dimensions, D x W x H(mm)	260*535*558
Weight (Kgs)	36

Battery Parameter

Model	BSM48106H*10
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	51.2
Nominal Capacity (WH)	5427
Voltage Range (V)	(44.8~57.6)*10
Max. Charge/Discharge Current(A)	100
Communicaiton	RS485/CAN
Weight (Kgs)	860
Design Life	10 years+(25°C)
Cycle Life	>8000(0.5C@25°C, 80% DOD)

Environment

Maximum Operation Altitude	4000m
Working Temperature	0°C~50°C Charge ; -10°C ~50°C Discharge
Shelf Temperature	-20°C~60°C

BSC Series

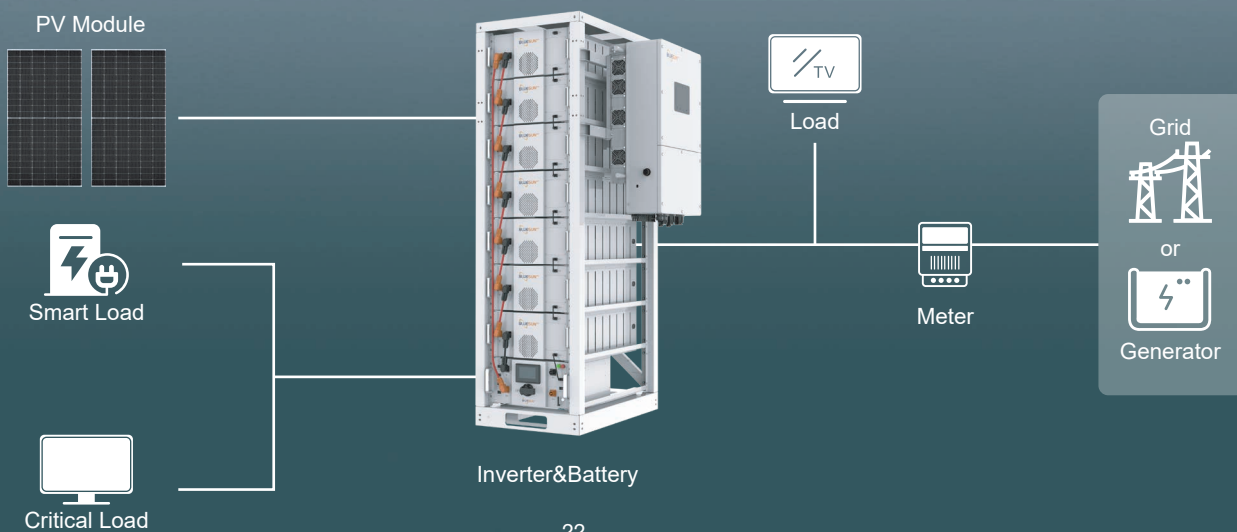
BSC-50KW-112KWh

Highlights:

- Bluesun provides the integrated system solution with one stop service.
- Supports up to 50KW three-phase output.
- Using stacked lithium batteries, easy to install.
- Reasonable configuration and high cost performance ratio.



Product Topology:



COMMERCIAL ENERGY STORAGE SYSTEM STANDARD PROPOSAL

PV Power	Equipment	Model	Unit	Quantity	Remark
BSC-50KW-112KWh 52kWp/50kW/112.5kWh	PV Modules	BSM650G12-60HNH	pcs	80	16 PCS/string, 5 string
	Inverter	BSE50KH3	pcs	1	3P/400V
	Battery	BSM48314H	pcs	7	Power cable included
		Control Box	pcs	1	
		Battery Rack	pcs	1	1*8 Layers
	Connector	MC4	pair	20	
	PV Cable	PV1-F 1*4mm ²	m	500	Half in red and half in black
	Moniting	WIFI module	pcs	1	Optional
	PV Mounting System	Mounting structures for 80 modules	set	1	

MODEL	BSC-50KW-112KWh
System Parameter	
AC Rated Power	50KW
Battery Capacity	112.5kWh
AC Voltage	3P/400V
Rated Grid Frequency	50/60Hz
Inverter Parameter	
Model	BSE50KH3
Rated Power	50kVA/50KW
Frequency	50/60 Hz
Nominal Voltage	230/400VAC
Peak Efficiency (PV to INV)	97.8%
Max . PV Array Open Circuit Voltage	1000VDC
PV Array MPPT Voltage Range	150~850VDC
Max . Solar Input Current	40A*4
Max . Charge Current	70A*2
Dimensions, D x W x H(mm)	290*530*880
Weight (Kgs)	73
Battery Parameter	
Model	BSM48314H*7
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	51.2
Nominal Capacity (WH)	16076.8
Voltage Range (V)	(44.8~57.6)*7
Max. Charge/Discharge Current(A)	300
Communicaiton	RS485/CAN
Weight (Kgs)	1210
Design Life	10 years+(25°C)
Cycle Life	>8000(0.5C@25°C, 80% DOD)
Environment	
Maximum Operation Altitude	4000m
Working Temperature	0°C~50°C Charge ; -10°C ~50°C Discharge
Shelf Temperature	-20°C~60°C



BSI Series

Industrial energy storage system standard proposal

BSI-100KW-257KWh

BSI-150KW-321KWh

BSI-300KW-643KWh

BSI-500KW-964KWh

BSI-1000KW-1929KWh

1MW/2MWH

2MW/4MWH

250KW/964.6KWH

500KW/2411.52KWH

4.1MWH/5.0MWH

BSI Series

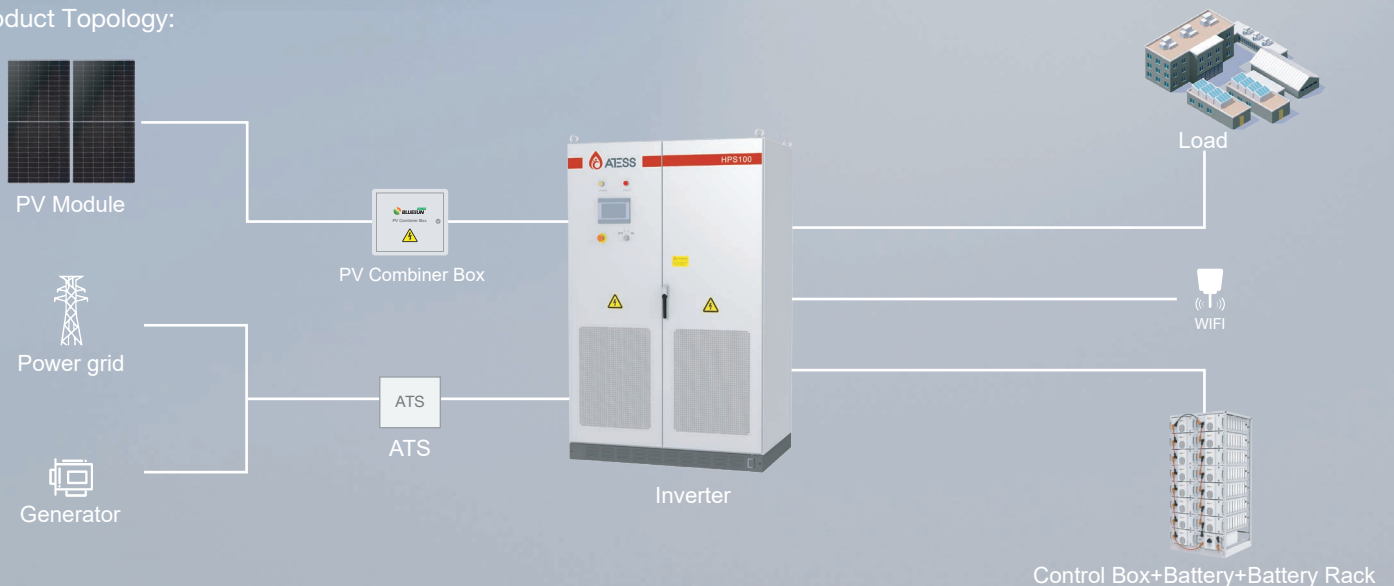
BSI-100KW-257KWh

Highlights:

- Bluesun provides the integrated system solution with one stop service.
- With multiple operating modes to meet customer needs.
- Optimal configuration, high cost performance ratio.



Product Topology:



INDUSTRIAL ENERGY STORAGE SYSTEM STANDARD PROPOSAL

PV Power	Equipment	Model	Unit	Quantity	Remark
BSI-100KW-257KWh 104kWp/100kW/257kWh	PV Modules	BSM650G12-60HNH	pcs	160	16 PCS/string, 10 string
	PV Combiner Box	10 Inputs 1 Output	pcs	1	Open-circuit voltage of 851V, and short-circuit current of 155.3A.
	Inverter	HPS100	pcs	1	3P/400V
	Battery	BSM48314H	pcs	16	51.2V/314Ah
		Control Box	pcs	2	BCU Included
		Battery Rack	pcs	4	4*5 Layers
	Connector	MC4	pair	30	
	PV Cable	PV1-F 1*4mm ²	m	1000	
	Wifi	Enerlog	pcs	1	Monitoring datalogger
	PV Mounting System	Mounting structures for 160 modules	set	1	

MODEL

BSI-100KW-257KWh

System Parameter

AC Rated Power	100KW
Battery Capacity	257kWh
AC Voltage	3P/400V
Rated Grid Frequency	50/60Hz

Inverter Parameter

Model	HPS100
Rated Power	110kVA/100KW
Frequency	50/60 Hz
Nominal Voltage	230/400VAC
Overload Capability	110%-10 mins 120%-1 min
Max. PV Voltage (V)	1000VDC
PV Array MPPT Voltage Range	480~800VDC
MAX PV power	150KW
Cooling	Forced-air
Dimensions, D x W x H(mm)	1200*1900*800
Weight (Kgs)	948

Battery Parameter

Model	BSM48314H*16
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	51.2
Nominal Capacity (WH)	16076.8
Voltage Range (V)	44.8~56
Max. Charge/Discharge Current(A)	157
Communicaiton	RS485/CAN
Weight (Kgs)	2076
Design Life	10 years+(25°C)
Cycle Life	>6000(0.5C @25°C, 80% DOD)

Environment

Maximum Operation Altitude	4000m
Working Temperature	0°C~50°C Charge ; -10°C ~50°C Discharge
Shelf Temperature	-20°C~60°C

BSI Series

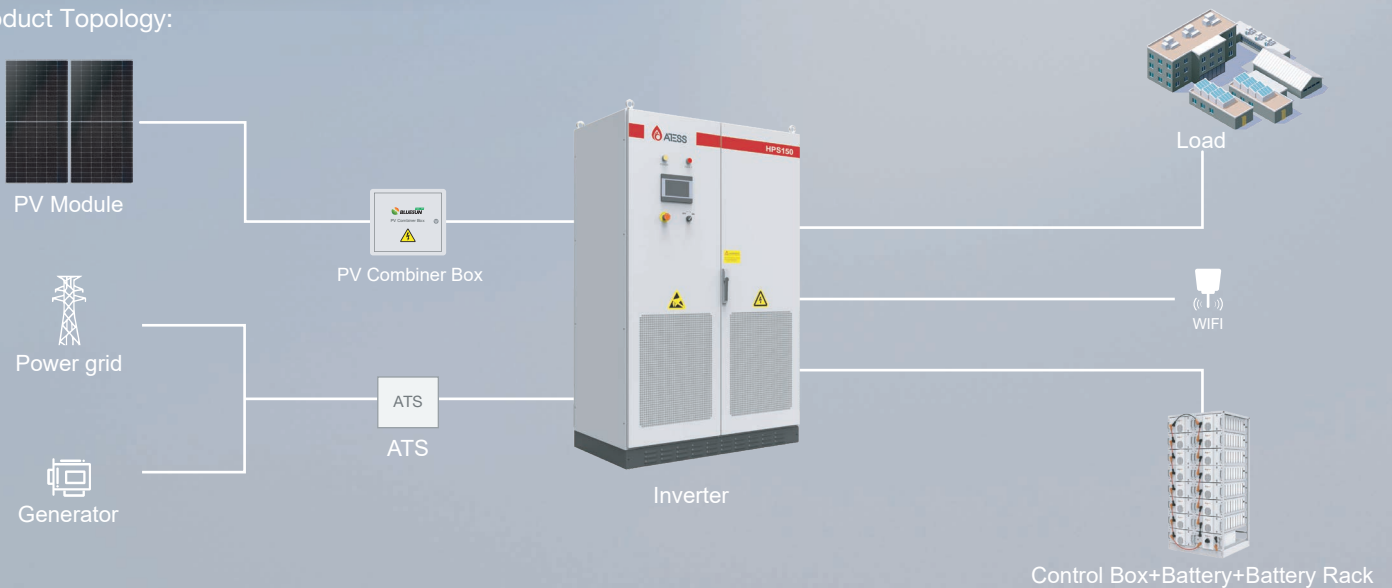
BSI-150KW-321KWh

Highlights:

- Bluesun provides the integrated system solution with one stop service.
- With multiple operating modes to meet customer needs.
- Optimal configuration, high cost performance ratio.



Product Topology:



INDUSTRIAL ENERGY STORAGE SYSTEM STANDARD PROPOSAL

PV Power	Equipment	Model	Unit	Quantity	Remark
BSI-150KW-321KWh 156kWp/150kW/321kWh	PV Modules	BSM650G12-60HNH	pcs	240	16 PCS/string, 15 string
	PV Combiner Box	15 Inputs 1 Output	pcs	1	Open-circuit voltage of 851V, and short-circuit current of 232.95A.
	Inverter	HPS150	pcs	1	3P/400V
	Battery	BSM48314H	pcs	20	51.2V/314Ah
		Control Box	pcs	2	BCU Included
		Battery Rack	pcs	4	4*6 Layers
	Connector	MC4	pair	55	
	PV Cable	PV1-F 1*4mm ²	m	1500	
	Wifi	Enerlog	pcs	1	Monitoring datalogger
	PV Mounting System	Mounting structures for 240 modules	set	1	

MODEL

BSI-150KW-321KWh

System Parameter

AC Rated Power	150KW
Battery Capacity	321kWh
AC Voltage	3P/400V
Rated Grid Frequency	50/60Hz

Inverter Parameter

Model	HPS150
Rated Power	165kVA/150KW
Frequency	50/60 Hz
Nominal Voltage	230/400VAC
Overload Capability	110%-10 mins 120%-1 min
Max. PV Voltage (V)	1000VDC
PV Array MPPT Voltage Range	480~800VDC
MAX PV power	225KW
Cooling	Forced-air
Dimensions, D x W x H(mm)	1200*1900*800
Weight (Kgs)	1230

Battery Parameter

Model	BSM48314H*20
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	51.2
Nominal Capacity (WH)	16076.8
Voltage Range (V)	44.8~56
Max. Charge/Discharge Current(A)	157
Communicaiton	RS485/CAN
Weight (Kgs)	2556
Design Life	10 years+(25°C)
Cycle Life	>6000(0.5C @25°C, 80% DOD)

Environment

Maximum Operation Altitude	4000m
Working Temperature	0°C~50°C Charge ; -10°C ~50°C Discharge
Shelf Temperature	-20°C~60°C

BSI Series

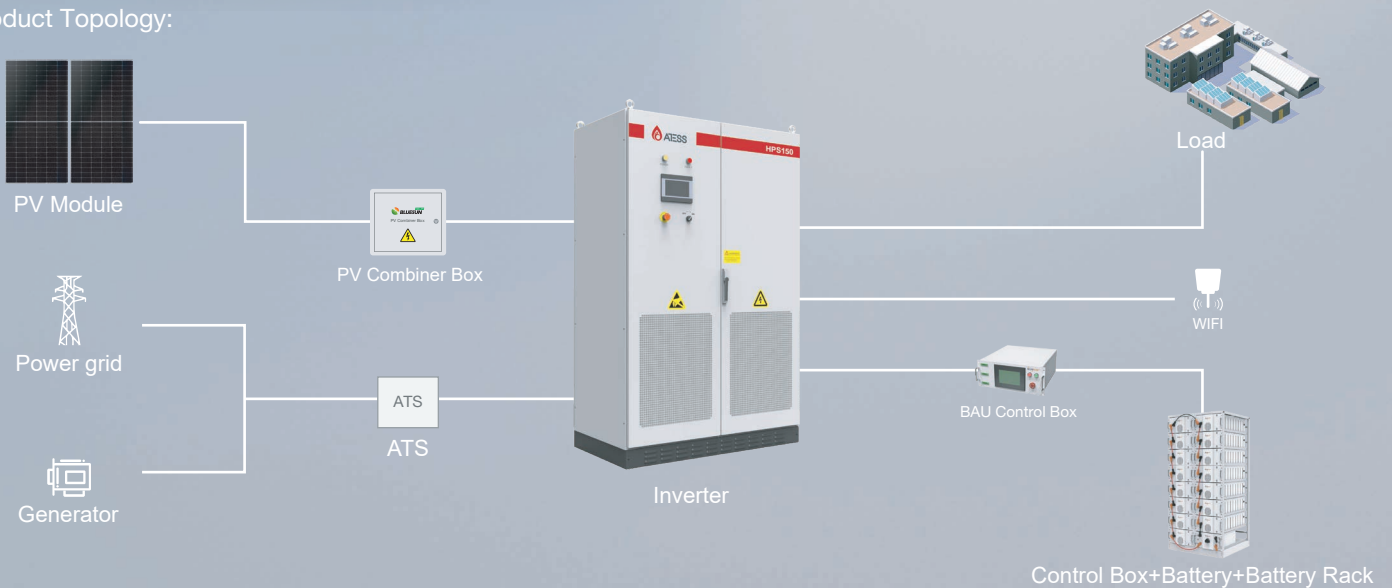
BSI-300KW-643KWh

Highlights:

- Bluesun provides the integrated system solution with one stop service.
- With multiple operating modes to meet customer needs.
- Optimal configuration, high cost performance ratio.



Product Topology:



INDUSTRIAL ENERGY STORAGE SYSTEM STANDARD PROPOSAL

PV Power	Equipment	Model	Unit	Quantity	Remark
BSI-300KW-643KWh 312kWp/300kW/643kWh	PV Modules	BSM650G12-60HNH	pcs	480	16 PCS/string, 30 string
	PV Combiner Box	15 Inputs 1 Output	pcs	2	Open-circuit voltage of 851V, and short-circuit current of 232.95A.
	Inverter	HPS150	pcs	2	3P/400V
	Battery	BSM48314H	pcs	40	51.2V/314Ah
		Control Box	pcs	4	BCU Included
		Battery Rack	pcs	8	4*6 Layers
		BAU Control Box	pcs	1	BAU included
	Connector	MC4	pair	90	
	PV Cable	PV1-F 1*4mm ²	m	3000	
	Wifi	Enerlog	pcs	1	Monitoring datalogger
	PV Mounting System	Mounting structures for 480 modules	set	1	

MODEL

BSI-300KW-643KWh

System Parameter

AC Rated Power	300KW
Battery Capacity	643kWh
AC Voltage	3P/400V
Rated Grid Frequency	50/60Hz

Inverter Parameter

Model	HPS150*2
Rated Power	165kVA/150KW
Frequency	50/60 Hz
Nominal Voltage	230/400VAC
Overload Capability	110%-10 mins 120%-1 min
Max. PV Voltage (V)	1000VDC
PV Array MPPT Voltage Range	480~800VDC
MAX PV power	225KW
Cooling	Forced-air
Dimensions, D x W x H(mm)	1200*1900*800(1 PCS)
Weight (Kgs)	1230*2

Battery Parameter

Model	BSM48314H*40
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	51.2
Nominal Capacity (WH)	16076.8
Voltage Range (V)	44.8~56
Max. Charge/Discharge Current(A)	157
Communicaiton	RS485/CAN
Weight (Kgs)	5112
Design Life	10 years+(25°C)
Cycle Life	>6000(0.5C @25°C, 80% DOD)

Environment

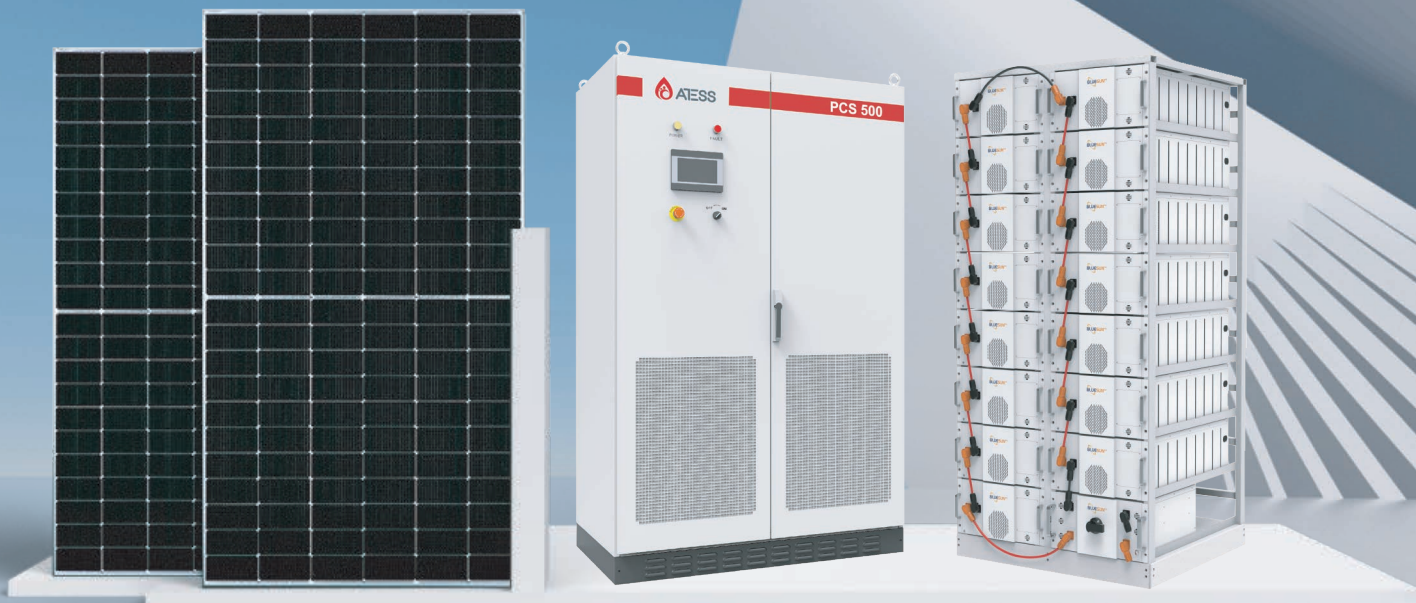
Maximum Operation Altitude	4000m
Working Temperature	0°C~50°C Charge ; -10°C ~50°C Discharge
Shelf Temperature	-20°C~60°C

BSI Series

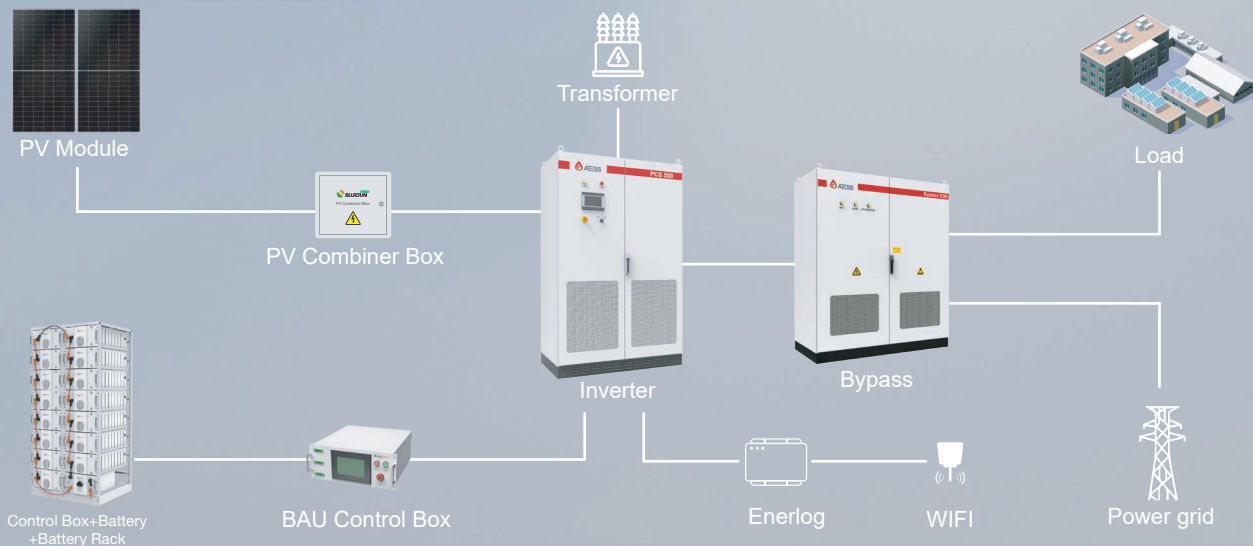
BSI-500KW-964KWh

Highlights:

- Bluesun provides the integrated system solution with one stop service.
- With multiple operating modes to meet customer needs.
- Optimal configuration, high cost performance ratio.



Product Topology:



INDUSTRIAL ENERGY STORAGE SYSTEM STANDARD PROPOSAL

PV Power	Equipment	Model	Unit	Quantity	Remark
BSI-500KW-964KWh 499.2kWp/500kW/964kWh	PV Modules	BSM650G12-60HNH	pcs	768	24 PCS/string, 32 string
	DC Transformer	SMC 200	pcs	4	
	Inverter	PCS 500	pcs	1	3P/400V
	Isolation Transformer	500KVA	pcs	1	
	Bypass Distribution Cabinet	Bypass 500KW	pcs	1	
	Battery	BSM48314H	pcs	60	51.2V/314Ah
		Control Box	pcs	4	BCU Included
		Battery Rack	pcs	8	8*8 Layers
		BAU Control Box	pcs	1	BAU included
	Connector	MC4	pair	96	
	PV Cable	PV1-F 1*4mm ²	m	3200	
	Wifi	Enerlog	pcs	1	Monitoring datalogger
	PV Mounting System	Mounting structures for 768 modules	set	1	

MODEL	BSI-500KW-964KWh
System Parameter	
AC Rated Power	500KW
Battery Capacity	964kWh
AC Voltage	3P/400V
Rated Grid Frequency	50/60Hz
Inverter Parameter	
Model	PCS500
Rated Power	550kVA/500KW
Frequency	50/60 Hz
Nominal Voltage	230/400VAC
Overload Capability	110%-10 mins 120%-1 min
Rated current	722A
THDI	<3%
PF	0.8 lagging~0.8 leading
Cooling	Forced-air
Dimensions, D x W x H(mm)	1200*1900*800
Weight (Kgs)	870
Battery Parameter	
Model	BSM48314H*60
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	51.2
Nominal Capacity (WH)	16076.8
Voltage Range (V)	44.8~56
Max. Charge/Discharge Current(A)	157
Communicaiton	RS485/CAN
Weight (Kgs)	7580
Design Life	10 years+(25°C)
Cycle Life	
Environment	
Maximum Operation Altitude	4000m
Working Temperature	0°C~50°C Charge ; -10°C ~50°C Discharge
Shelf Temperature	-20°C~60°C

BSI Series

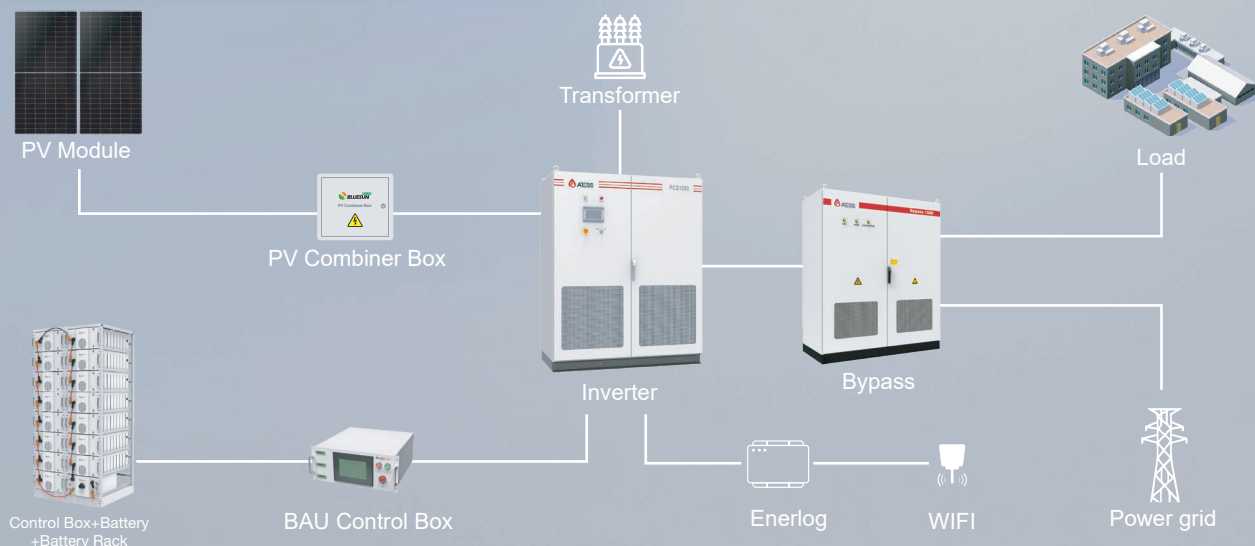
BSI-1000KW-1929KWh

Highlights:

- Bluesun provides the integrated system solution with one stop service.
- With multiple operating modes to meet customer needs.
- Optimal configuration, high cost performance ratio.



Product Topology:



INDUSTRIAL ENERGY STORAGE SYSTEM STANDARD PROPOSAL

PV Power	Equipment	Model	Unit	Quantity	Remark
BSI-1000KW-1929KWh 998.4kWp/1000kW/1929kWh	PV Modules	BSM650G12-60HNH	pcs	1536	24 PCS/string, 64 string
	DC Transformer	SMC200	pcs	8	
	Inverter	PCS 1000	pcs	1	3P/400V
	Isolation Transformer	1000KVA	pcs	1	
	Bypass Distribution Cabinet	Bypass 1000KW	pcs	1	
	Battery	BSM48314H	pcs	120	51.2V/314Ah
		Control Box	pcs	8	BCU Included
		Battery Rack	pcs	16	16*8 Layers
		BAU Control Box	pcs	1	BAU included
	Connector	MC4	pair	192	
	PV Cable	PV1-F 1*4mm ²	m	6400	
	Wifi	Enerlog	pcs	1	Monitoring datalogger
	PV Mounting System	Mounting structures for 1536 modules	set	1	

MODEL

BSI-1000KW-1929KWh

System Parameter

AC Rated Power	1000KW
Battery Capacity	1929kWh
AC Voltage	3P/400V
Rated Grid Frequency	50/60Hz

Inverter Parameter

Model	HPS1000
Rated Power	1000kVA/1000KW
Frequency	50/60 Hz
Nominal Voltage	230/400VAC
Overload Capability	110%-10 mins 120%-1 min
Rated current (A)	1443
THDI	< 3%
PF	0.8 lagging~0.8 leading
Cooling	Forced-air
Dimensions, D x W x H(mm)	1510*1900*850
Weight (Kgs)	1500

Battery Parameter

Model	BSM48314H*120
Battery Type	LiFePO4(LFP)
Nominal Voltage (V)	51.2
Nominal Capacity (WH)	16076.8
Voltage Range (V)	44.8~56
Max. Charge/Discharge Current(A)	157
Communicaiton	RS485/CAN
Weight (Kgs)	15160
Design Life	10 years+(25°C)
Cycle Life	>6000(0.5C @25°C, 80% DOD)

Environment

Maximum Operation Altitude	4000m
Working Temperature	0°C~50°C Charge ; -10°C ~50°C Discharge
Shelf Temperature	-20°C~60°C

BSI Series

1MW/2MWH Energy Storage System

System Configure

Highlights:



The system application scenario is solar energy storage system self-using.

**1MW/
2MWh**

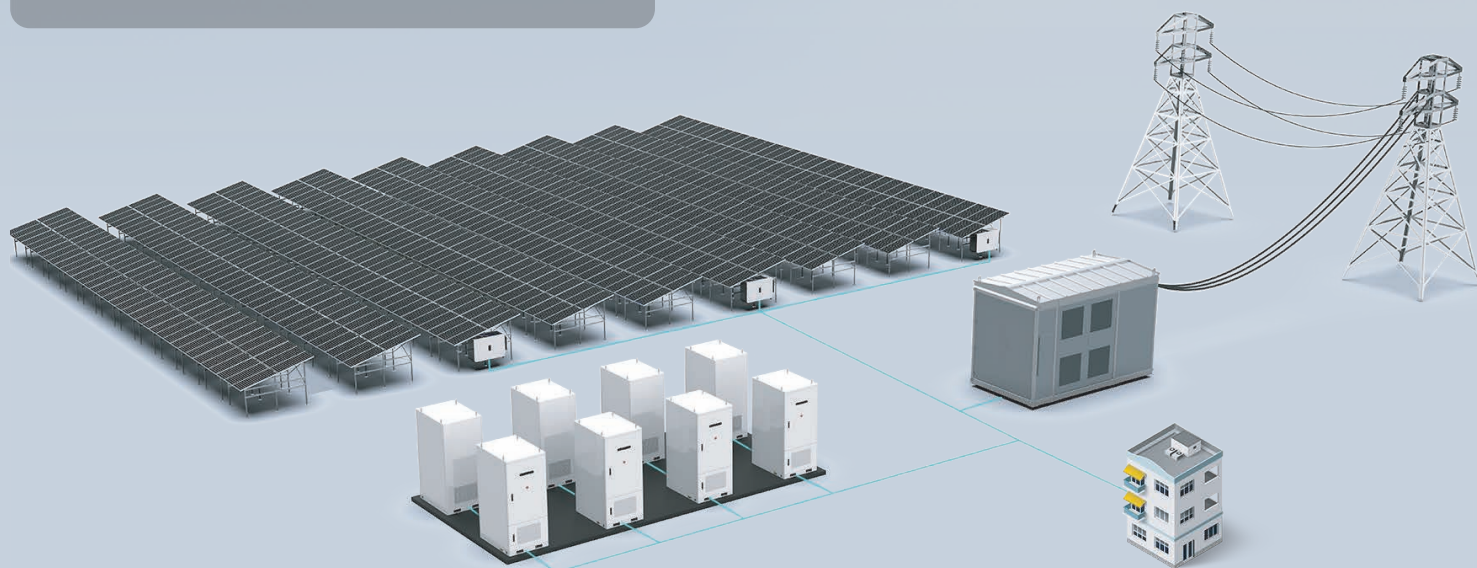
The requirement for the battery system is 1MW/2MWh available.

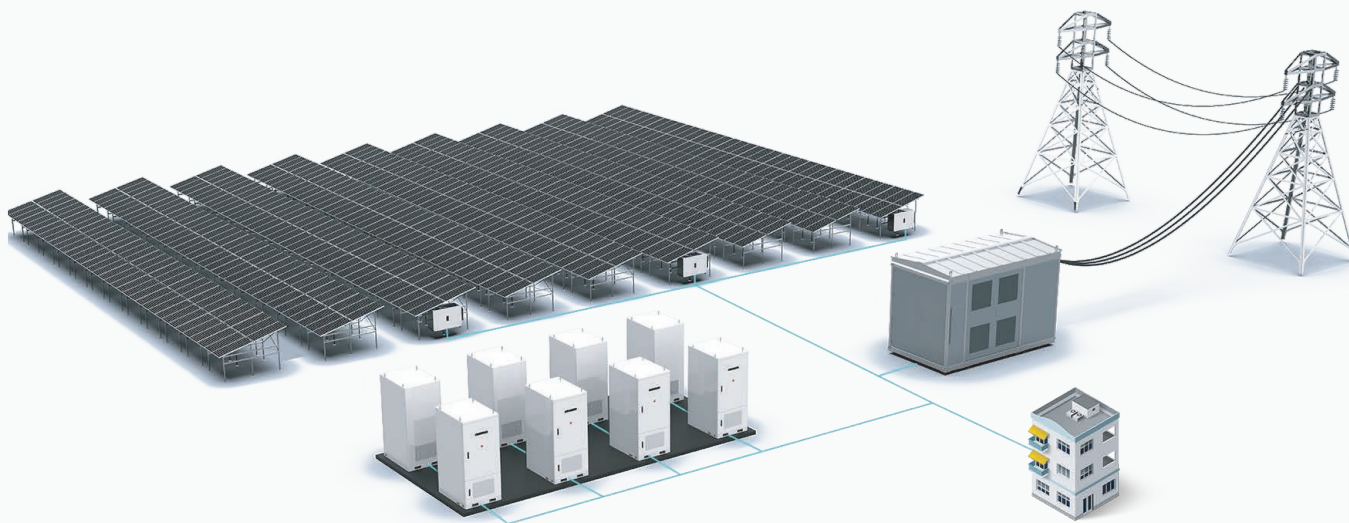
400V

The system will output 400V AC voltage.



For this system, we provide the a all-in-one liquid cooling battery as proposal.





Specification		Qty	Unit	
PV Panel 610W Solar Panel	Half cell topcon	1638	pieces	
DC Combiner Box	12 lines in and 12 lines out	8	pieces	
Solar Panel Rack		1	set	
ON-grid String Inverter 125KW		8	pieces	
125KW/261KWH Energy Storage System Cabinet	166.4V 314Ah lithium battery mouldle including bms	5	piecess	
	High voltage control box	1	piece	
	Liquid cooling machine	1	piece	
	125KW PCS	1	piece	
	Fire protection system	1	set	

Battery sizing calculation and capacity profile for 10 years (for 1 MW / 2.08MWh BESS)

Year	Designed Gross Battery Capacity	Degradation for 1 Cycle/day	AC Output Efficiency
Year 0	2.08	98.40%	85.06%
Year 1	2.08	92.01%	83.05%
Year 2	2.08	88.03%	82.26%
Year 3	2.08	85.32%	81.57%
Year 4	2.08	84.06%	80.95%
Year 5	2.08	82.75%	80.35%
Year 6	2.08	81.57%	79.78%
Year 7	2.08	80.35%	79.22%
Year 8	2.08	79.13%	78.66%
Year 9	2.08	77.91%	78.12%
Year 10	2.08	76.69%	77.57%

BSI Series

2MW/4MWH Energy Storage System

System Configure

Highlights:



The system application scenario is solar energy storage system self-using.

**2MW/
4MWh**

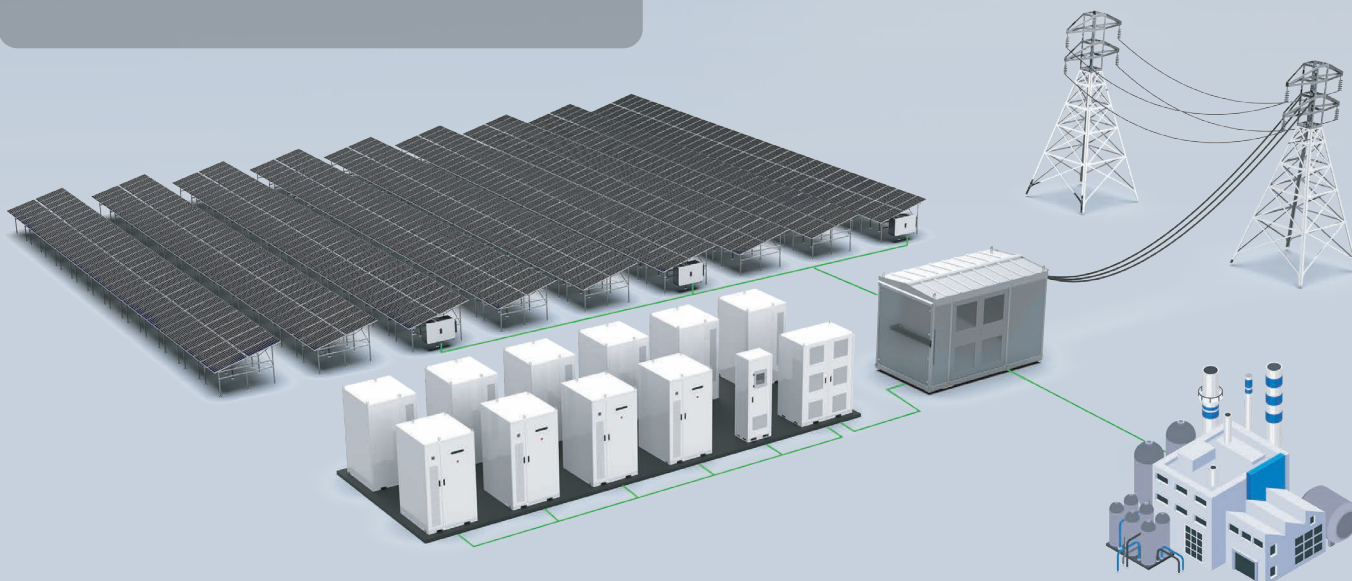
The requirement for the battery system is 2MW/4MWh available.

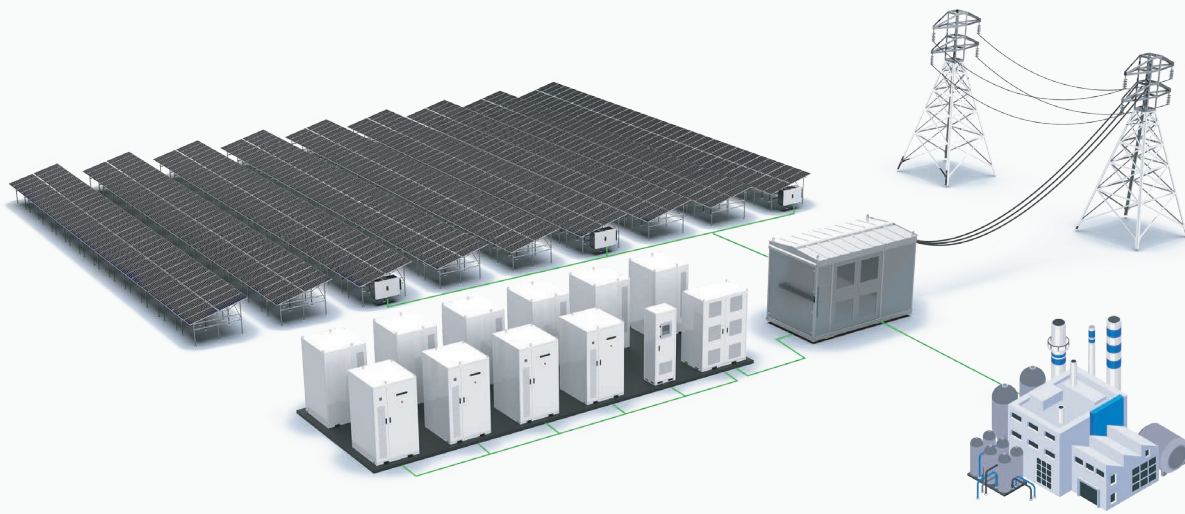
400V

The system will output 400V AC voltage.



For this system, we provide the a all-in-one liquid cooling battery as proposal.





Specification		Qty	Unit	
PV Panel 610W Solar Panel	Half Cell Topcon	3276	pieces	
DC Combiner Box	12 Lines In And 12 Lines Out	16	pieces	
Solar Panel Rack		1	set	
ON-grid String Inverter 125KW		16	pieces	
418KWH Energy Storage System Cabinet	166.4V 314AH Lithium Battery Moudle Including BMS	8	piecess	
	High Voltage Control Box	1	piece	
	Liquid Cooling Machine	1	piece	
	PCS 1000	2	piece	
	Fire Protection System	1	set	
EMS	Energy Storage System	1	piece	
1000KW Inverter	1000KW	2	pieces	

Battery sizing calculation and capacity profile for 10 years (for 2 MW / 4MWh BESS)			
Year	Designed Gross Battery Capacity	Degradation for 1 Cycle/day	AC Output Efficiency
Year 0	4.179	98.40%	85.06%
Year 1	4.179	92.01%	83.05%
Year 2	4.179	88.03%	82.26%
Year 3	4.179	85.32%	81.57%
Year 4	4.179	84.06%	80.95%
Year 5	4.179	82.75%	80.35%
Year 6	4.179	81.57%	79.78%
Year 7	4.179	80.35%	79.22%
Year 8	4.179	79.13%	78.66%
Year 9	4.179	77.91%	78.12%
Year 10	4.179	76.69%	77.57%



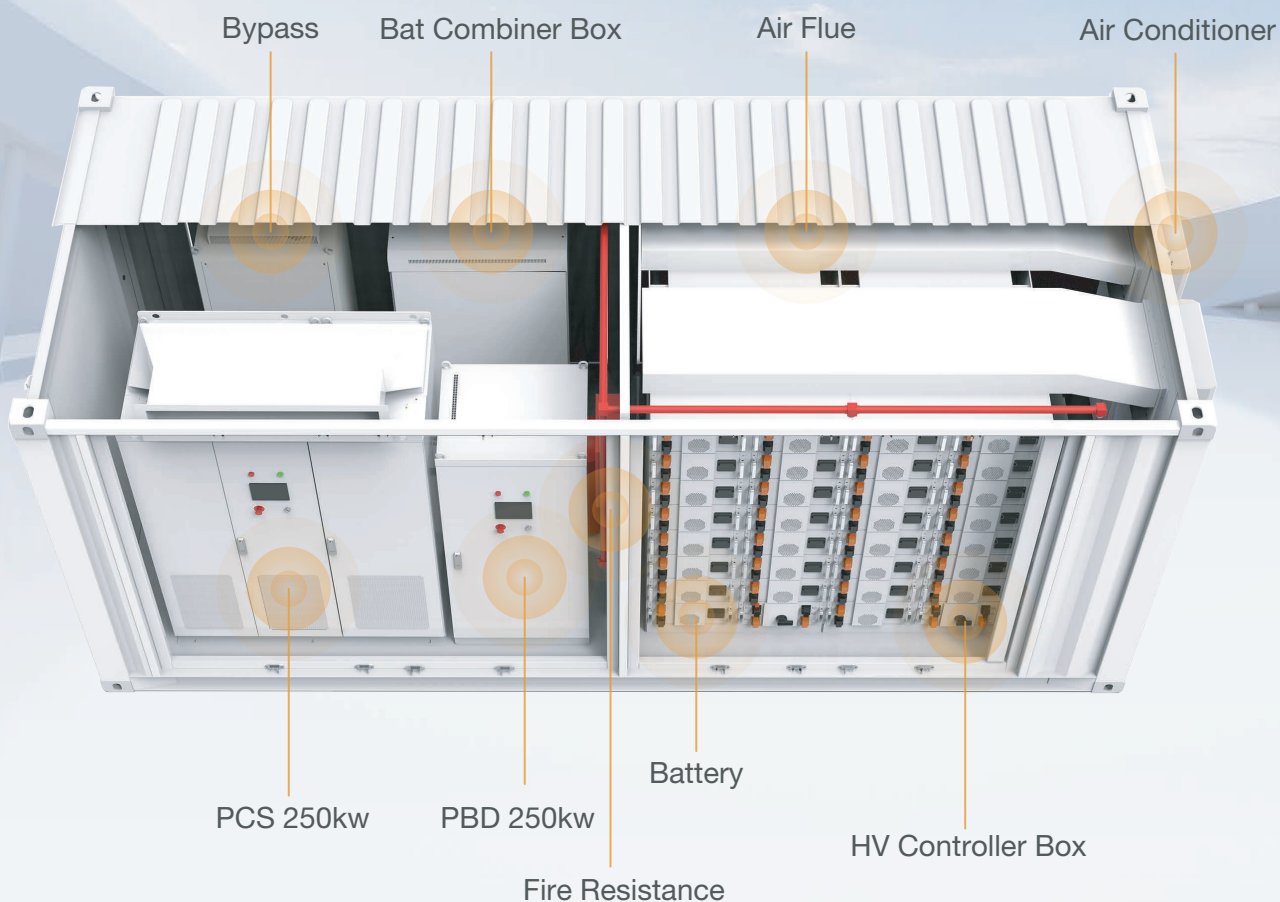
BSI Series

250KW/964.6KWH

Container Energy Storage System

20ft all in one





Item	Quantity		Description
PV	BSM610M10-78HNH	480	12 pieces/string; a total of 40 strings; a total of 292.8kw
Battery 964.6KWH (771.69KWH available at 80% DOD) Backup	BAT-Conbiner box 1000V-1500A	1	For combination of multiple battery racks
	BLUESUN-51.2V 314AH moudle	60	Battery with bmu module 51.2v 314ah capacity 16kwh
	BIUESUN-HV-Controller 1000V 300A	4	High voltage controller box
PV-Combiner Box	8 Inputs 1 Output	5	For combination of multiple pv module strings
PBD250		1	250kw solar charge controller
PCS250		1	250kw battery inverter
Bypass 250		1	Switch between on-grid and off-grid
EnerLog		1	Monitoring datalogger
20 FT Container		1	For outdoor installation, IP54,including lighting, fire-resistance system, battery rack, air conditioner



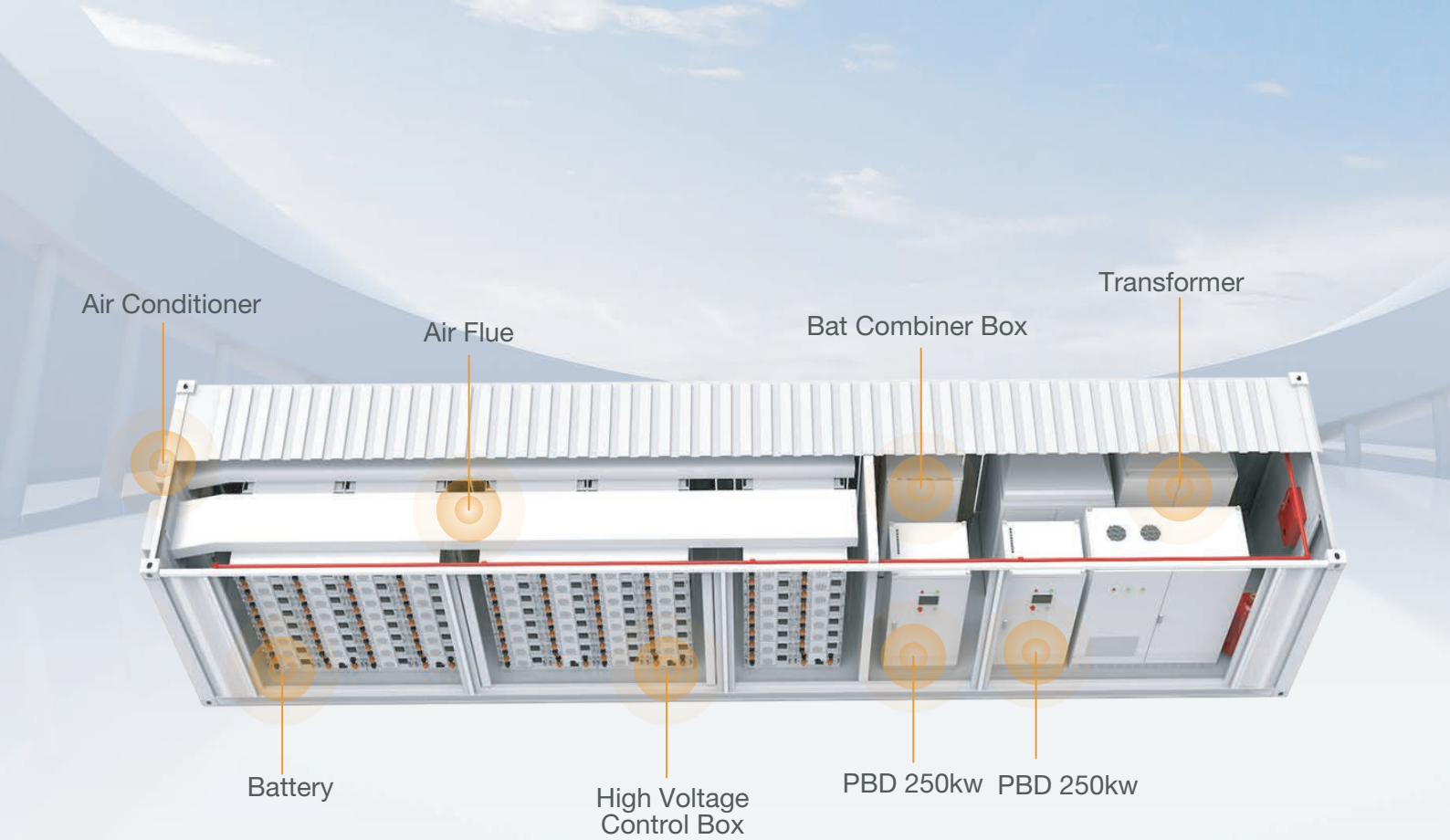
BSI Series

500KW/2411.52KWH

Container Energy Storage System

40ft all in one





Item	Quantity		Description
PV	BSM610M10-78HNH	960	12 pieces/string; a total of 80 strings; a total of 585.6kw
Battery 2411.52KWH (1929.22KWH Available At 80% DOD) Backup	BAT-Combiner Box 1000V-1500A	1	For combination of multiple battery racks
	BLUESUN-51.2V 314Ah Moudle	150	Battery with bmu module 51.2v 314ah capacity 16kwh
	BIUESUN-HV-Controller 1000V 300A	10	High voltage controller box
PV-Combiner Box	8 Inputs 1 Output	10	For combination of multiple PV module strings
PBD250		2	250kW solar Charge Controller
PCS500		1	250kw battery inverter
Isolation Transformer 500		1	500kva isolation transformer
Bypass 500		1	Switch between on-grid and off-grid
EnerLog		1	Monitoring datalogger
40 FT Container		1	For outdoor installation, IP54, including lighting, fire-resitance system, battery rack, air conditioner



BSI Series

4.1MWH/5.0MWH

DC VERSION

Modular BESS Container

Liquid-cooling energy storage system





Model	BSMESSCONTAINER I DC VERSION 4.1MWH
DC Side	
Battery Type	LFP-314Ah
Configuration	10P416S
Rated Energy	4179.96 kWh
Rated Voltage (Vdc)	1331.2 V
Voltage Range(Vdc)	1206.4~1476.8 V
Rated Power	1996.8 kW@25°C
Rated Charge and Discharge Current	1500 A
Maximum Pulse Current	1660.7 A (30s)
General Parameters	
Dimensions (WxDxH)	6058×2438×2896mm
Weight	≤38000 kg
IP Rating	Pack-IP67, PDU-IP55, Container-IP55
Operating Humidity	0~95%RH (non-condensing)
Operating Temperature	-20~60°C
Altitude	≤2000 m
Auxiliary Power Supply	400Vac 50Hz/480Vac 60Hz
Communication Interface	Ethernet, RS485
Cooling Method	Smart Liquid Cooling
Fire Suppression System	Temperature sensing, smoke sensing, combustible gas detection, cabin level aerosols (electric starting) ventilation system, water fire protection

Installation Case



Hungary
1MW+4MWH

Maldives
1MW+748.9KWh



Myanmar
150KW+600KWh

Mauritius
5.5KW+10KWh



Installation Case



Bulgaria
375KW+783KWh



Iraq
11KW+20KWh



Ivory Coast
30KW+54KWh



Netherlands
50KW+112KWh



BLUESUN, Your Trusted & Reliable ESS Partner



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