

SPECIFICATION SHEET

BRIGHTONE ESS 230V 5KWH-15KWH

1

PRODUCT PRESENTATION

Home ESS refers to the storage of electricity locally by household energy storage equipment for later use. ESS consists of energy storage batteries, inverters, and other components.

We use brand new A grade LiFePo4 battery, equipped with an intelligent battery management system for charging and discharging cycles. The inverter converts DC energy to AC energy to meet the requirements for household electricity. Normally this product is installed in combination with PV system to provide green electricity to household users, reduce energy consumption, and reduce negative impacts on the environment. It's widely used in remote areas or areas with unstable power supply, to provide reliable, stable, and cost-effective energy supply.



WORKING DIAGRAM

2



ENERGY STORAGE SYSTEM

PRODUCT FEATURES

- Private mold integrated design, battery and inverter highly integrated without additional wiring, universal wheels, flexible movement.
- Integrated inverter and controller, Built-in Li-ion battery, Multiple current protection, MPPT max current over 100A/150A.
- Full power pure sine wave, stable discharge waveform better protection for household appliances.
- Brand new A grade LiFePo4, 6000/8000 times cycle life, Lifespan up to 10 years.
- Intelligent LCD display, LED indicator light, real-time monitoring of operating data.
- Support RS485 and CAN communication ports, support RS232, can be connected to WIFI module to check the working status of the inverter.

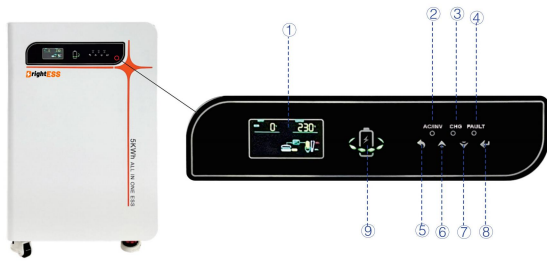
PRODUCT DIMENSION



OPERATION FUNCTION (5KWH)

3

Inverter LCD Screen



NO.	Name	Instruction
①	LCD Screen	Display system operation data
②	Status Indicator	Always on: grid mode,output from AC Flash: battery mode,output from battery or PV
③	Charging Indicator capacity	Always on: battery fully charged Flash: battery charging
④	Fault Indicator	Always on: Inverter failure Flash:Inverter warning
⑤	ESC	ESC Mode
⑥	UP	Back to last option
⑦	Down	Turn to next option
⑧	Confirm	Confirm a selection in setup mode or enter setup mode
⑨	Battery operation status	Battery level indicator

OPERATION FUNCTION

4

Remark: Inverter Terminal Instruction



NO. Interface Instruction

- ① PV-
- ② PV+
- ③ AC OUT PE
- ④ AC OUT N
- ⑤ AC OUT L
- ⑥ AC IN PE
- ⑦ AC IN N
- ⑧ AC IN L
- ⑨ AC In Air Switch
- ⑩ Ac Out 1 Air Switch
- ⑪ AC Out 2 Air Switch

NO. Interface Instruction

- ⑫ Battery switch
- ⑬ Inverter Switch
- ⑭ Ductwork cover
- ⑮ Dry contact NO,normally open contact
- ⑯ Dry contact C,commom contact
- ⑰ Dry contact NC,normally closed contact
- ⑱ Inverter communication port Rs232
- ⑲ BMS communication port Rs485
- ⑳ AC triangular plug output
- ㉑ AC triangular plug output



NO. Port Instruction

- ① 0%-16.6% capacity
- ② 16.6%-33.2% capacity
- ③ 33.2%-49.8% capacity
- ④ 49.8%-66.4% capacity
- ⑤ 66.4%-83% capacity
- ⑥ 83.0%-100% capacity
- ⑦ Warning Light

PRODUCT PARAMETER

5

 Inverter	Model	SCAS-5.5KW-5KWH
	Rated Power	5.5KW
	AC Rated Voltage	230VAC
	Rated Frequency	50Hz
	Efficiency	≥98%
	Transfer Time	10ms
	Waveform	Pure sinusoidal wave
	Battery Overvoltage	58.4V
	Battery Undervoltage Alarm	45V
	Constant Voltage Charge	58.4V
 AC Input	Float Voltage	56V
	Max Charging Current	100A
	Communication Interface	RS232 (Inverter)/RS485 (BMS)
	Nominal Voltage	230VAC
	Voltage Range	90-280VAC
 PV Input	Rated Frequency	50/60Hz
	Frequency Range	40-70Hz
	Rated Current	30A
	Max AC Current	60A
	Max Voltage	500V
 Battery	Optimum Voltage	300-400V
	Voltage Range	120V-500VDC
	Max Power	5500W
	Rated Capacity	5120Wh(100Ah)
	Nominal Voltage	51.2V
	Discharge Voltage Range	43.2V-58.4V
	Standard Charging Current	50A
	Max Charging Current	100A
	Max Discharging Current	100A
	Depth of Discharge	95%
	Communication Interface	CAN/RS485
	Cycle Life	≥6000, 25±2°C, 0.5C, EOL80%
	Working Temperature Range	Charge: 0°C -50°C; Discharge: -10°C -60°C
	Storage Temperature	-10°C -60°C
	Dimension	73*45.2*27cm

Packing List & Transportation Packing Details

6



+



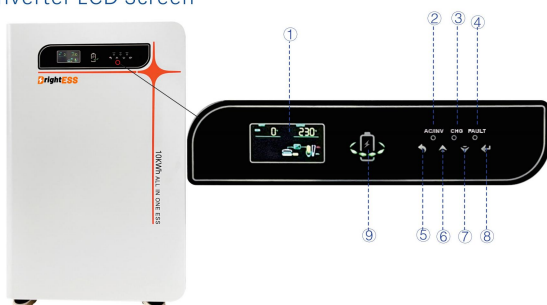
DC Fuse

Item No	Components	CNT	Carton Size	N.W (Kg)	G.W (Kg)	Unit CBM (m³)	Total CBM (m³)
SCAS-5.5KW-5KWH	Inverter+Battery	1	80.5*52.8*47.3CM	63.4	76.8	0.201	0.201

OPERATION FUNCTION (10KWH)

7

Inverter LCD Screen

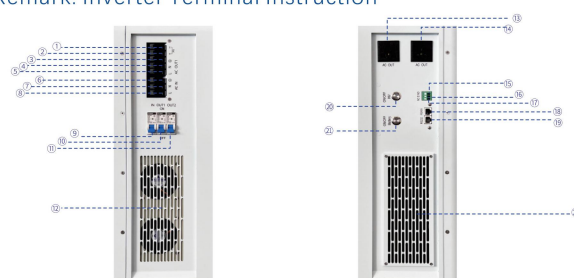


NO.	Name	Instruction
①	LCD Screen	Display system operation data
②	Status Indicator	Always on: grid mode,output from AC Flash: battery mode,output from battery or PV
③	Charging Indicator capacity	Always on: battery fully charged Flash: battery charging
④	Fault Indicator	Always on: Inverter failure Flash:Inverter warning
⑤	ESC	ESC Mode
⑥	UP	Back to last option
⑦	Down	Turn to next option
⑧	Confirm	Confirm a selection in setup mode or enter setup mode
⑨	Battery operation status	Battery level indicator

OPERATION FUNCTION

8

Remark: Inverter Terminal Instruction



NO.	Interface Instruction	NO.	Interface Instruction
①	PV -	⑪	AC Out 2 Air Switch
②	PV +	⑫	Cooling vents
③	AC OUT PE	⑬	AC triangular plug output
④	AC OUT N	⑭	AC triangular plug output
⑤	AC OUT L	⑮	Dry contact NO,normally open contact
⑥	AC IN PE	⑯	Dry contact C,common contact
⑦	AC IN N	⑰	Dry contact NC,normally closed contact
⑧	AC IN L	⑱	BMS communication port Rs485
⑨	AC In Air Switch	⑲	Inverter communication port Rs232
⑩	Ac Out 1 Air Switch	⑳	Inverter Switch
		㉑	Battery switch
		㉒	Dust cover

NO.	Port Instruction
①	0%-16.6% capacity
②	16.6%-33.2% capacity
③	33.2%-49.8% capacity
④	49.8%-66.4% capacity
⑤	66.4%-83% capacity
⑥	83.0%-100% capacity
⑦	Warning Light

PRODUCT PARAMETER

9

 Inverter	Model	SCAS-5.5KW-10KWH
	Rated Power	5.5KW
	AC Rated Voltage	230VAC
	Rated Frequency	50Hz
	Efficiency	≥98%
	Transfer Time	10ms
	Waveform	Pure sinusoidal wave
	Battery Overvoltage	58.4V
	Battery Undervoltage Alarm	45V
	Constant Voltage Charge	58.4V
	Float Voltage	56V
	Max Charging Current	100A
	Communication Interface	RS232 (Inverter)/RS485 (BMS)
	Nominal Voltage	230VAC
	Voltage Range	90~280VAC
 AC Input	Rated Frequency	50/60Hz
	Frequency Range	40~70Hz
	Rated Current	30A
	Max AC Current	60A
	Max Voltage	500V
 PV Input	Optimum Voltage	300~400V
	Voltage Range	120V~500VDC
	Max Power	5500W
	Rated Capacity	10240Wh(200Ah)
 Battery	Nominal Voltage	51.2V
	Discharge Voltage Range	43.2V~58.4V
	Standard Charing Current	50A
	Max Charging Current	100A
	Max Discharging Current	100A
	Depth of Discharge	95%
	Communication Interface	CAN/RS485
	Cycle Life	≥6000, 25±2℃, 0.5C, EOL80%
	Working Temperature Range	Charge: 0℃~50℃; Discharge: -10℃~60℃
	Storage Temperature	-10℃~60℃
	Dimension	48*84*30cm

Packing List & Transportation Packing Details

10



+



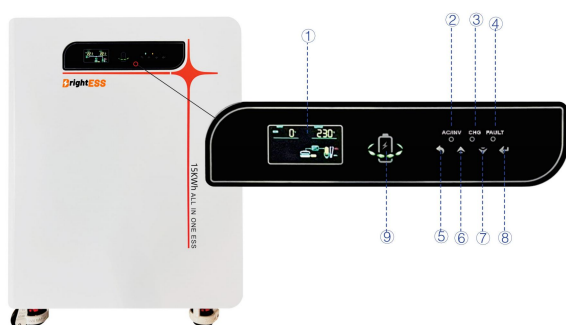
DC Fuse

Item No	Components	CNT	Carton Size	N.W (Kg)	G.W (Kg)	Unit CBM (m³)	Total CBM (m³)
SCAS-5.5KW-10KWH	Inverter+Battery	1	90*53*46.7CM	99.7	114	0.228	0.228

OPERATION FUNCTION (15KWH)

11

Inverter LCD Screen

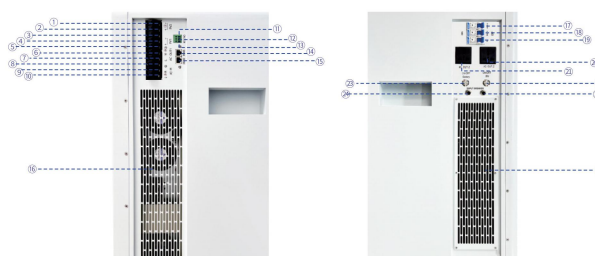


NO.	Name	Instruction
①	LCD Screen	Display system operation data
②	Status Indicator	Always on: grid mode,output from AC Flash: battery mode,output from battery or PV
③	Charging Indicator capacity	Always on: battery fully charged Flash: battery charging
④	Fault Indicator	Always on: Inverter failure Flash:Inverter warning
⑤	ESC	ESC Mode
⑥	UP	Back to last option
⑦	Down	Turn to next option
⑧	Confirm	Confirm a selection in setup mode or enter setup mode
⑨	Battery operation status	Battery level indicator

OPERATION FUNCTION

12

Remark: Inverter Terminal Instruction



NO. Interface Instruction

①	PV2-
②	PV2+
③	PV1-
④	Pv1+
⑤	AC OUT PE
⑥	AC OUT1 N
⑦	AC OUT1 L
⑧	AC IN PE
⑨	AC IN N
⑩	AC IN L
⑪	Dry contact NO,normally open contact
⑫	Dry contact C,commom contact
⑬	Dry contact NC,normally closed contact

NO. Interface Instruction

⑭	BMS communication port Rs485
⑮	Inverter communication port Rs232
⑯	Cooling vents
⑰	AC Out 2 Air Swith
⑱	Ac Out 1 Air Swith
⑲	AC In Air Switch
⑳	AC OUT 2
㉑	AC OUT 2
㉒	Inverter Switch
㉓	Battery switch
㉔	INPUT BREAKER
㉕	INPUT BREAKER
㉖	Dust cover



NO. Port Instruction

①	0%-16.6% capacity
②	16.6%-33.2% capacity
③	33.2%-49.8% capacity
④	49.8%-66.4% capacity
⑤	66.4%-83% capacity
⑥	83.0%-100% capacity
⑦	Warning Light

PRODUCT PARAMETER

13

 Inverter	Model	SCAS-11KW-15KWH
	Rated Power	11KW
	AC Rated Voltage	230VAC
	Rated Frequency	50Hz
	Efficiency	≥98%
	Transfer Time	10ms
	Waveform	Pure sinusoidal wave
	Battery Overvoltage	58.4V
	Battery Undervoltage Alarm	45V
	Constant Voltage Charge	58.4V
	Float Voltage	56V
	Max Charging Current	160A
	Communication Interface	RS232 (Inverter)/RS485 (BMS)
	Nominal Voltage	230VAC
	Voltage Range	90~280VAC
 AC Input	Rated Frequency	50/60Hz
	Frequency Range	40~70Hz
	Rated Current	60A
	Max AC Current	120A
 PV Input	Max Voltage	500V
	Optimum Voltage	300~400V
	Voltage Range	120V~500VDC
	Max Power	5500W *2
 Battery	Rated Capacity	15360Wh(300Ah)
	Nominal Voltage	51.2V
	Discharge Voltage Range	43.2V~58.4V
	Standard Charging Current	50A
	Max Charging Current	200A
	Max Discharging Current	200A
	Depth of Discharge	95%
	Communication Interface	CAN/RS485
	Cycle Life	≥8000, 25±2°C, 0.5C, EOL80%
	Working Temperature Range	Charge: 0°C ~50°C; Discharge: -10°C ~60°C
	Storage Temperature	-10°C ~60°C
	Dimension	57*78*40cm

Packing List & Transportation Packing Details

14



+



DC Fuse

Item No	Components	CNT	Carton Size	N.W (Kg)	G.W (Kg)	Unit CBM (m³)	Total CBM (m³)
SCAS-11KW-15KWH	Inverter+Battery	1	84.3*54.3*57.6CM	145	164	0.308	0.308