All In One ESS
Energy Storage System

SESS Portable & Wheeled ESS
LiFePO4 Battery + Smart Inverter
Tiny or Big Home Solar Solutions

CS SUN



SESS Series Brief Introduction

Safety | Long Life | Simple

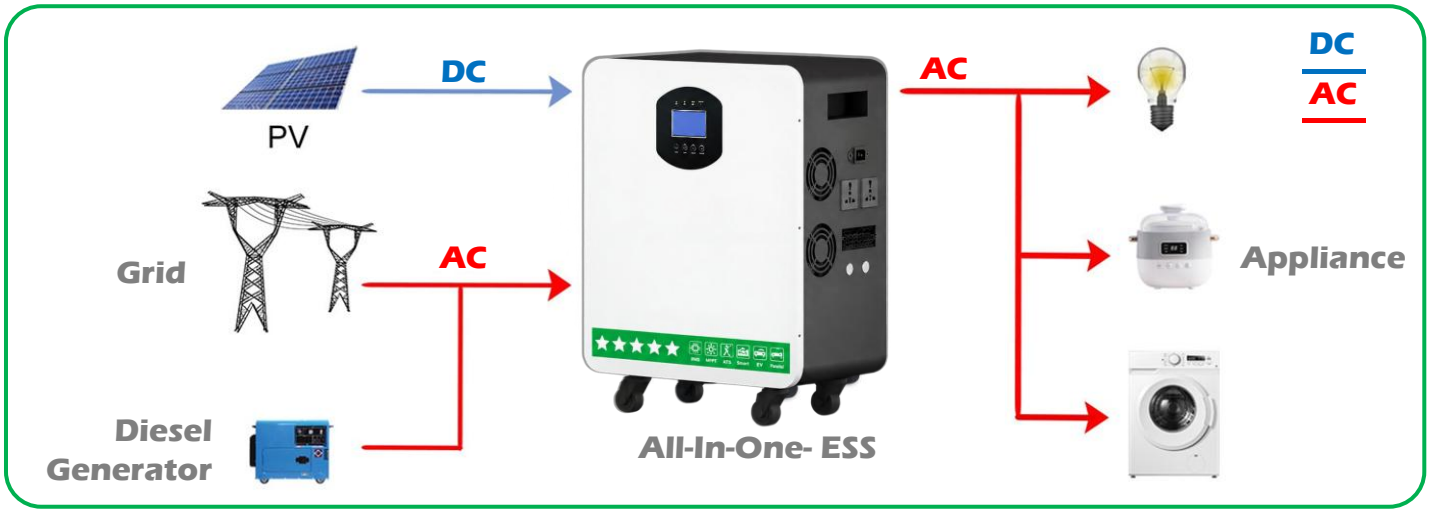
The SESS series combines a LiFePO4 battery and inverter in one compact system. The 11 models cover 1–16 kWh of battery energy and 0.5–12 kW of AC output power, with handle and wheeled designs for different applications.

Designed for home energy storage, backup power and solar applications, the range supports flexible product selection by battery capacity, inverter power, PV input and cabinet size. Communication interfaces and protection ratings vary by model. Refer to the comparison tables and individual datasheets for details. OEM and customization options are available on request.



Application Block Diagram

ISO 9001 | ISO 14001 | cULus | CE | IEC 62619



Power Your Home Choose CSSUN

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Specifications | 001–005

Group	Parameter	SESS 1+0.5	SESS 2+1	SESS 1.28+1	SESS 2.6+2	SESS 4+2
Battery	Battery Type	LiFePO4 Battery	LiFePO4 Battery	LiFePO4 Battery	LiFePO4 Battery	LiFePO4 Battery
	Battery Energy	1kWh	2kWh	1.28KWh	2.6kWh	4kWh
	Nominal Voltage	3.2V	6.4V	12.8V	12.8V	12.8V
	Rated Capacity	314Ah	314Ah	100Ah	206Ah	314Ah
	Voltage Range	3.0~3.65V	6.0~7.3V	11.0~14.0V	10.0 ~ 14.4V	10.0 ~ 14.4V
	Cycle Life @ 80%DOD	> 8000 cycles	> 8000 cycles	> 6000 cycles	> 6000 cycles	> 8000 cycles
PV	Max. Power	300W	500W	600W	3kW	3kW
	Max. PV Voltage	60 Vdc	75 Vdc	150VdC	450Vdc	450Vdc
	MPPT Voltage Range	11~55V	12~60V	20~50Vdc	30~400Vdc	30~400Vdc
	Max. Input / Charge Current	10A	15A	40A	18A	18A
AC Output	Rated Power	500W	1000W	1.0KW	2kW	2kW
	AC Voltage	230Vac±5Vac	230Vac±5Vac	230Vac±5%	230Vac±5%	230Vac±5%
	AC Frequency	50Hz±5%	50Hz±5%	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
	Efficiency	Peak ≈90%	Peak ≈90%	≤93%	≤93%	≤93%
	Transfer Time	≤20 ms	≤20 ms	10ms (for PC) 20ms (for Appliance)	<20ms	<20ms
	Waveform	Pure sine wave	Pure sine wave	Pure sine wave	Pure sine wave	Pure sine wave
AC Input	Rated AC Voltage	230Vac	230Vac	230Vac	230Vac	230Vac
	Voltage Range	90~280Vac±5Vac	90~280Vac±5Vac	170~264Vac(for PC) 90~280Vac(for Applies)	170~264Vac(for PC) 90~280Vac(for Applis)	170~264Vac(for PC) 90~280Vac(for Applis)
	Frequency Range	45~65Hz	45~65Hz	50Hz/60Hz(Auto sensing)	50Hz/60Hz	50Hz/60Hz
DC Output	USB-A1 Output	USB 5V1A	USB 5V1A	Optional / TBC	Optional / TBC	Optional / TBC
General	Communication	Internal BMS only	Internal BMS only	CAN/RS485	RS485/WiFi	RS485/WiFi
	IP Grade	IP20 (indoor)	IP20 (indoor)	IP20 (indoor)	IP20	IP20
	Work Temperature	-10°C~40°C	-10°C~40°C	-10°C ~50°C	-10°C~50°C	-10°C~50°C
	Altitude	≤3000m	≤3000m	≤2000m	≤2000m	≤2000m
	Humidity	5%~95%	5%~95%	5%~95%	5%~95%	5%~95%
	Size (L × W × H, mm)	260×151×320 mm	290×246×330 mm	310×220×460 mm	370×225×510 mm	390×230×670 mm
	c Weight (kg)	15kg	20kg	25kgs	20kg	30kg

Red = provisional estimate or disputed source value; confirm before quotation or system sizing.







Note: All above information shall be changed without prior notice, we reserves the right to explain and update the latest information. Welcome inquiry us !
SAFETY WARNING : Use only within the allowed parameters. Do not short circuit or over-load the battery. Charge only using an approved charger designed specifically to charge this battery. Do not heat above maximum temperatures indicated. Never crush, mutilate, puncture or abuse the battery. Do not dismantle the pack or disable any of the protective devices or circuits. Do not use the battery if you suspect it may be faulty or damaged.

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Specifications | 006–011

Group	Parameter	SESS 5.2+3	SESS 5.2+5	SESS 8+5	SESS 10.5+10	SESS 16+6	SESS 16+12
Battery	Battery Type	LiFePO4 Battery	LiFePO4 Battery	LiFePO4 Battery	LiFePO4 Battery	LiFePO4 Battery	LiFePO4 Battery
	Battery Energy	5.2kWh	5.2kWh	8kWh	10.5kWh	16kWh	16kWh
	Nominal Voltage	25.6V	25.6V	25.6V	51.2V	51.2V	51.2V
	Rated Capacity	206Ah	206Ah	314Ah	206Ah	314Ah	314Ah
	Voltage Range	20.0–28.8 V	20.0–28.8 V	20.0–28.8 V	40.0–57.6 V	40.0–57.6 V	40.0–57.6 V
	Cycle Life	> 6000 cycles	> 6000 cycles	> 8000 cycles	> 6000 cycles	> 8000 cycles	> 8000 cycles
PV	Max. Power	5 kW	9 kW	9 kW	9×2 kW	9 kW	9×2 kW
	Max. PV Voltage	500 Vdc	500 Vdc	500 Vdc	500 Vdc	500 Vdc	500 Vdc
	MPPT Voltage Range	40~450Vdc	60~450Vdc	60~450Vdc	60~450Vdc	60~450Vdc	60~450Vdc
	Max. Input / Charge Current	18 A / MPPT	27 A / MPPT	27 A / MPPT	27 A / MPPT	27 A / MPPT	27 A / MPPT
AC Output	Rated Power	3kW	5kW	5kW	10kW	6kW	12kW
	AC Voltage	230Vac	230Vac	230Vac	230Vac	230Vac	230Vac
	AC Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
	Efficiency	Peak ≈93%	Peak ≈93%	Peak ≈93%	Peak ≈93%	Peak ≈93%	Peak ≈93%
	Transfer Time	≤20 ms	≤20 ms	≤20 ms	≤20 ms	≤20 ms	≤20 ms
	Waveform	Pure sine wave	Pure sine wave	Pure sine wave	Pure sine wave	Pure sine wave	Pure sine wave
AC Input	Rated AC Voltage	230 Vac	230 Vac	230 Vac	230 Vac	230 Vac	230 Vac
	Voltage Range	170–264 Vac (UPS) 90–280 Vac (APL)	170–264 Vac (UPS) 90–280 Vac (APL)	170–264 Vac (UPS) 90–280 Vac (APL)	170–264 Vac (UPS) 90–280 Vac (APL)	170–264 Vac (UPS) 90–280 Vac (APL)	170–264 Vac (UPS) 90–280 Vac (APL)
	Frequency Range	45–65 Hz	45–65 Hz	45–65 Hz	45–65 Hz	45–65 Hz	45–65 Hz
DC Output	USB-A1 Output	Optional / TBC	Optional / TBC	Optional / TBC	Optional / TBC	Optional / TBC	Optional / TBC
General	Communication	RS485/WiFi	RS485/WiFi	RS485/WiFi	RS485/WiFi	RS485/WiFi	RS485/WiFi
	IP Grade	IP20 / IP54	IP20 / IP54	IP20 / IP54	IP20 / IP54	IP20 / IP54	IP20 / IP54
	Work Temperature	–10 to 50 °C	–10 to 50 °C	–10 to 50 °C	–10 to 50 °C	–10 to 50 °C	–10 to 50 °C
	Altitude	≤2000 m	≤2000 m	≤2000 m	≤2000 m	≤2000 m	≤2000 m
	Humidity	5–95% RH	5–95% RH	5–95% RH	5–95% RH	5–95% RH	5–95% RH
	Size (L × W × H, mm)	450×256×590 mm	450×270×610 mm	480×235×785 mm	515×305×815 mm	510×376×771 mm	510×377×801 mm
	Approx. Weight (kg)	48.5kg	50kg	60kg	96kg	124kg	130kg

Red = provisional estimate or disputed source value; confirm before quotation or system sizing.








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