

All In One ESS Energy Storage System

LPSSONE Series Slim Brick
LiFePO4 Battery + Smart Inverter
Tiny or Big Home Solar Solutions



LPSSONE Series Brief Introduce

LPSSONE Series slim stackable brick battery + inverter all in one ess is experience seamless power management with our innovative all-in-one stackable portable lithium battery and inverter. Designed for versatility and efficiency, it offers robust energy storage with the flexibility of easy expansion. Ideal for both residential and commercial applications, this compact unit ensures reliable power supply and quick installation. Whether for backup power or off-grid use, enjoy uninterrupted energy flow and optimal performance with our cutting-edge solution. Easily stackable for customizable power capacity, allowing users to scale up as needed without additional infrastructure. Integrates advanced lithium battery technology with a built-in inverter for optimal energy conversion and minimal loss.

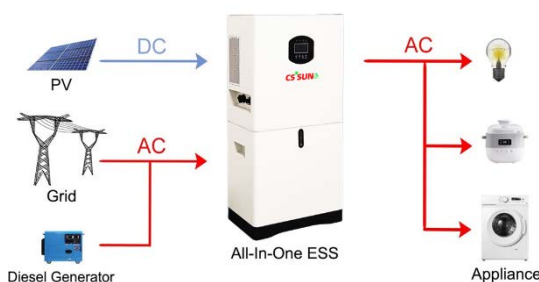
Safety

Long Life

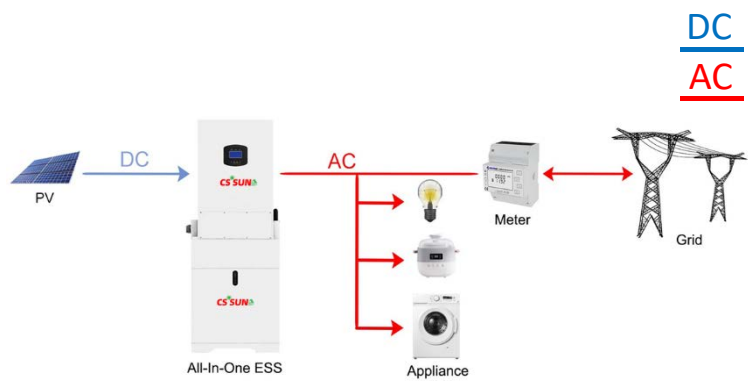
Simple



Application Block Diagram



Off-Grid Inverter



Hybrid Inverter

Technical Specifications

Model Parametric Description		LPSSONE 5.12KWh+5KW Off-Grid	LPSSONE 10.24KWh+5KW Off-Grid	LPSSONE 15.36KWh+5KW Off-Grid	LPSSONE 5.12KWh+5KW Hybrid	LPSSONE 10.24KWh+5KW Hybrid	LPSSONE 15.36KWh+5KW Hybrid
Battery	Battery Type	LiFePO4 Battery					
	Battery Energy	5.12KWh	10.24KWh	15.36KWh	5.12KWh	10.24KWh	15.36KWh
	Nominal Voltage	51.2V					
	Rated Capacity	100Ah	200Ah	300Ah	100Ah	200Ah	300Ah
	Voltage Range	42.0~57.0V	42.0~57.0V	42.0~57.0V	42.0~57.0V	42.0~57.0V	42.0~57.0V
	Cycle Life	Prismatic Cell, > 6000cycles @ 80%DOD					
	Months Self Discharge	<3%					
	Communicate Protoco	CAN/RS485					
	Charge Temperature	0 °C to 45 °C (32F to 113F) @60 ± 25% Relative Humidity					
	Discharge Temperature	-20 °C to 60 °C (-4F to 140F) @60 ± 25% Relative Humidity					
	Storage Temperature	0 °C to 40 °C (32F to 104F) @60 ± 25% Relative Humidity					
PV	Max. Power	5KW	5KW	5KW	5.5KW	5.5KW	5.5KW
	Max. PV Voltage	500Vdc	500Vdc	500Vdc	500Vdc	500Vdc	500Vdc
	MPPT Voltage Range	120~430Vdc	120~430Vdc	120~430Vdc	150~500Vdc	150~500Vdc	150~500Vdc
	Max.PV charge Current	80A	80A	80A	80A	80A	80A
AC Output	Rated Power	5.0KW	5.0KW	5.0KW	5.0KW	5.0KW	5.0KW
	AC Voltage	230Vac ± 5%					
	AC Frequency	50Hz/60Hz					
	Efficiency	≤94%					
	Transfer time	10ms (for PC) 20ms (for Appliance)					
	Waveform	Pure sine wave					
AC Input	Rated AC Voltage	230Vac					
	AC Voltage Range	170~280Vac(for PC) 90~180Vac(for Applies)					
	Frequency Range	50Hz/60Hz(Auto sensing)					
General Parameters	Altitude	≤2000m					
	Protection Degree	Battery IP65/ Inverter IP21					
	Communicate Protoco Inverter	CAN/RS485/WIFI					
	Humidity	5%~95%					
	Work Telemeter	-10 °C ~50 °C					
	Size(mm)	430*230*850mm 16.93*9.06*33.47Ins	430*230*1210mm 16.93*9.06*47.65Ins	430*230*1570mm 16.93*9.06*61.83Ins	430*230*1130mm 16.93*9.06*44.5Ins	430*230*1491mm 16.93*9.06*58.72Ins	430*230*1850mm 16.93*9.06*72.85Ins
	Weight(kg)	55kgs/121.24lbs	97kgs/213.82lbs	139kgs/306.4lbs	68kgs/149.9lbs	110kgs/242.48lbs	152kgs/335.06lbs



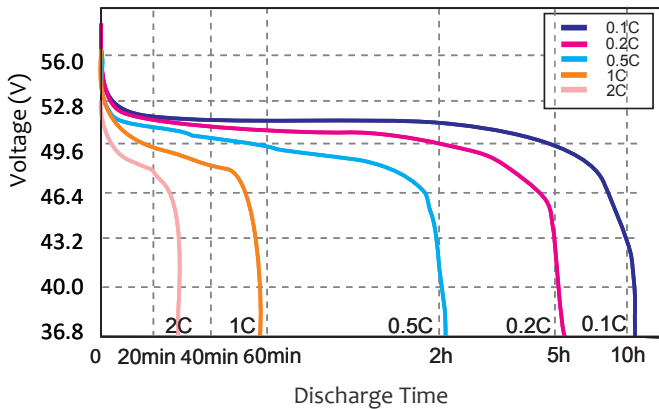
Note: All above information shall be changed without prior notice, CSSUN reserves the right to explain and update the latest information. Welcome inquiry us !

Battery BMS Specifications

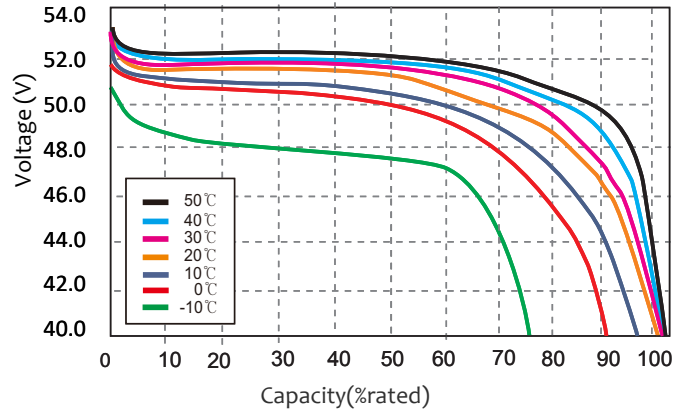
- Overcharge detection function
- Over discharge detection function
- Over current detection function
- Temperature protection
- Cell Voltage balance function
- Short detection function

Battery Performance Characteristics (Data test from 16 Series Cell)

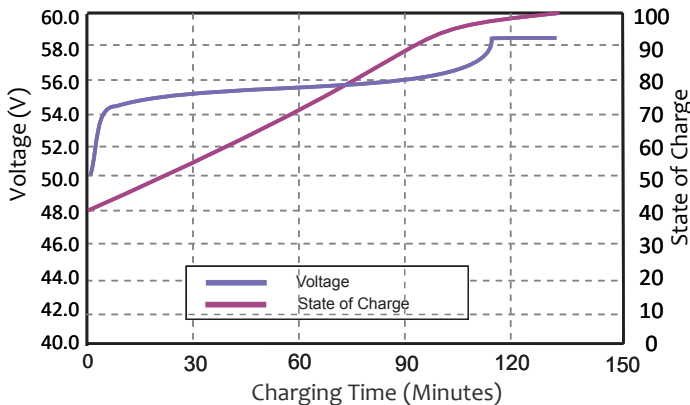
Different Rate Discharge Curve (25°C)



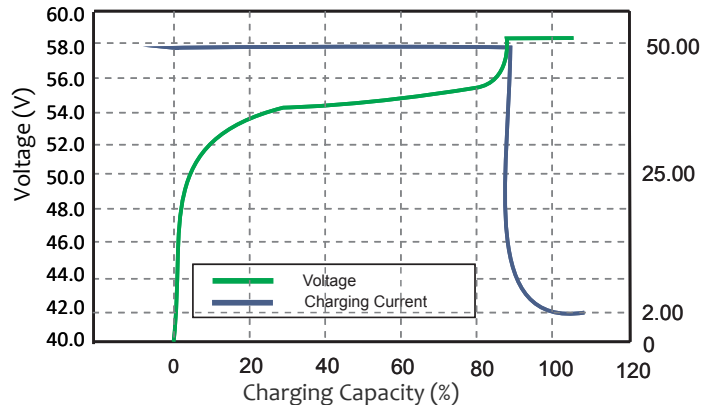
Different Temperature Discharge Curve At 0.5c



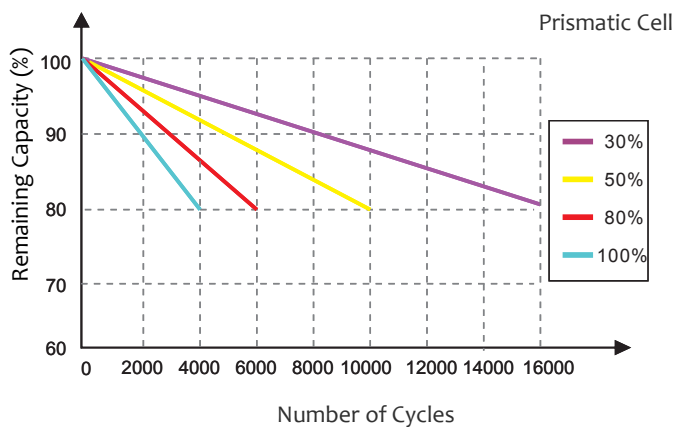
State Of Charge Curve At 0.5c (25°C)



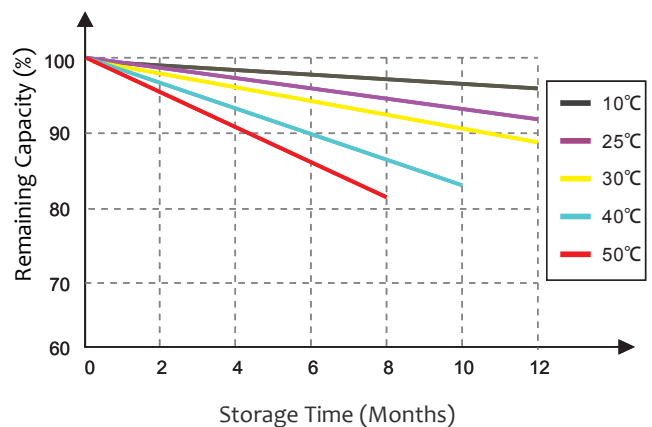
Charging Characteristics At 0.5c (25°C)



Cycle Life Curve At 1c According DoD



Self Discharge Characteristics Curve



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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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