

All In One ESS Energy Storage System

LPWONE Series Wall Mounted
LiFePO4 Battery + Smart Inverter
Tiny or Big Home Solar Solutions



LPWONE Series Brief Introduce

Safety

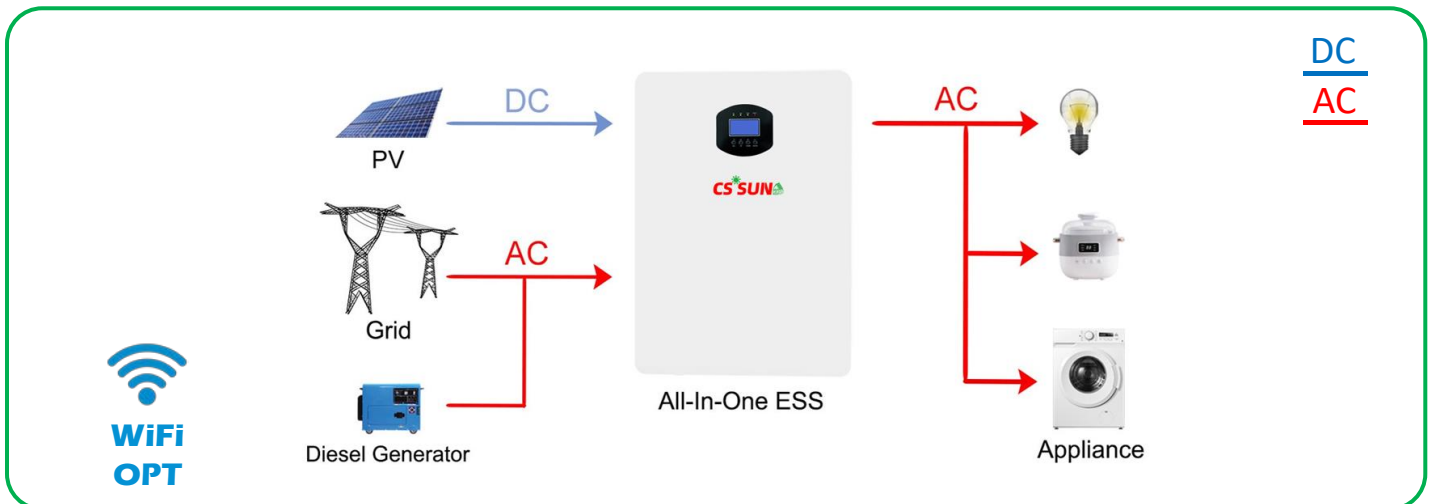
Long Life

Simple

LPWONE wall-mounted lithium battery + inverter integrates cutting-edge technology for efficient energy storage and management. Designed for seamless installation and space-saving efficiency, it offers a compact solution ideal for residential and small commercial applications. With a robust 1-10 kW inverter and 1-10 kWh lithium battery capacity, it ensures reliable power supply and energy optimization. Advanced features include smart monitoring, remote control capabilities, and built-in safety protocols for enhanced reliability. This All In One system delivers versatility, performance, and ease of use, making it a dependable choice for modern energy needs. Customize All In One system to power your facility-with or without solar and lower your energy bills.



Application Block Diagram



Technical Specifications

| Model Parametric Description | | LPWONE 1.28KWh+1KW | LPWONE 2.56KWh+3KW | LPWONE 5.12KWh+5KW | LPWONE 10.24KWh+10KW |
|------------------------------|---|---|--------------------------------------|--------------------------------------|---------------------------------------|
| Battery | Battery Type | LiFePO4 Battery | | | |
| | Battery Energy | 1.28KWh | 2.56KWh | 5.12KWh | 10.24KWh |
| | Nominal Voltage | 12.8V | 25.6V | 51.2V | 51.2V |
| | Rated Capacity | 100Ah | 100Ah | 100Ah | 200Ah |
| | Voltage Range | 11.0~14.0V | 22.0~28.0V | 42.0~57.0V | 42.0~57.0V |
| | Cycle Life | Prismatic Cell, > 6000cycles @ 80%DOD | | | |
| | Months Self Discharge | <3% | | | |
| | Communicate Protocol | 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 | 600W | 3000W | 3500W | 10.4KW(5200*2) |
| | Max. PV Voltage | 150Vdc | 450Vdc | 500Vdc | 500Vdc |
| | MPPT Voltage Range | 20~50Vdc | 30~400Vdc | 120~430Vdc | 90~450V |
| | Max.PV charge Current | 40A | 80A | 80A | 80A*2 |
| AC Output | Rated Power | 1.0KW | 3.0KW | 5.0KW | 10KW |
| | AC Voltage | 230Vac ± 5% | | | |
| | AC Frequency | 50Hz/60Hz | | | |
| | Efficiency | ≤93% | ≤94% | ≤94% | ≤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 | | | |
| | Humidity | 5%~95% | | | |
| | Work Telemeter | -10 °C ~50 °C | | | |
| | Size(mm) | 450*140*280mm 17.72*5.51*11.03Ins | 450*140*570mm 17.72*5.51*22.45Ins | 500*150*730mm 19.69*5.91*28.75Ins | 620*150*1300mm 24.42*5.91*51.19Ins |
| | Weight(kg) | 25kgs/55.11lbs | 32kgs/70.54lbs | 58kgs/127.85lbs | 95kgs/209.41lbs |



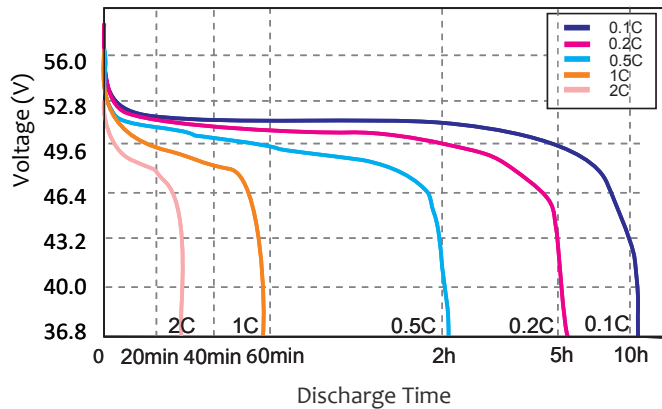
Note: All above information shall be changed without prior notice, CSSUN reserves the right to explain and update the latest information. Welcome inquiry us!

Battery BMS Specifications

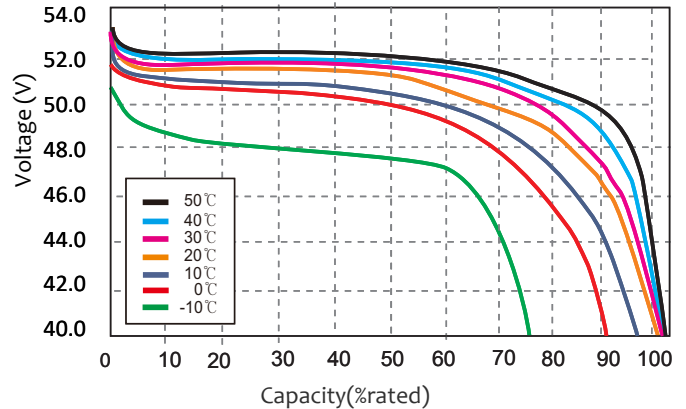
- Overcharge detection function
- Over discharge detection function
- Over current detection function
- Temperature protection
- Cell Voltage balance function
- Short detection function

Battery Performance Characteristics (Data test from 16 Series Cell)

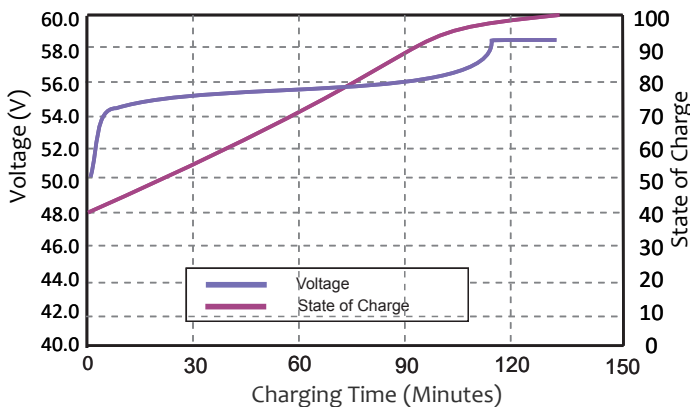
Different Rate Discharge Curve (25°C)



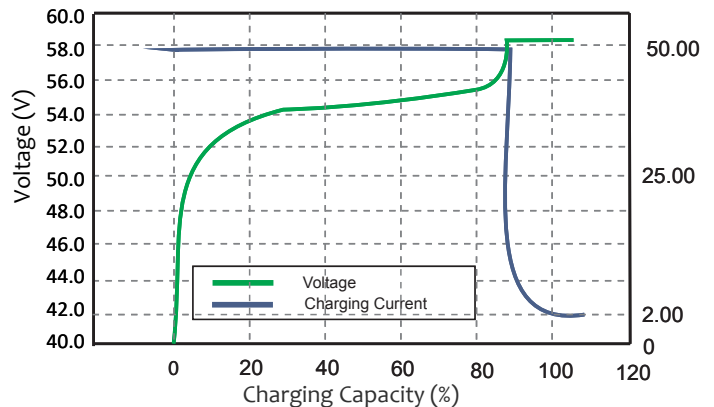
Different Temperature Discharge Curve At 0.5c



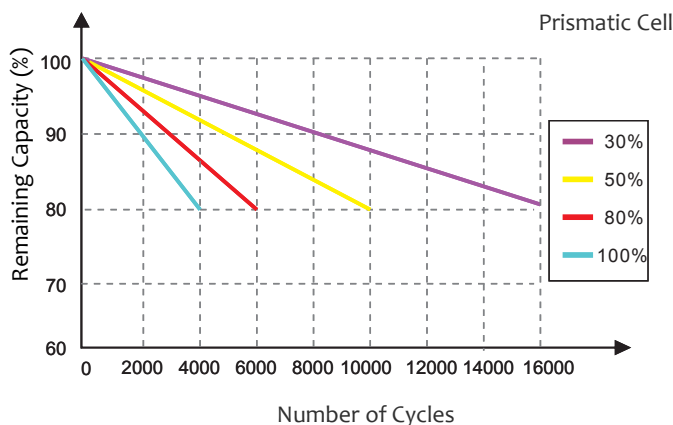
State Of Charge Curve At 0.5c (25°C)



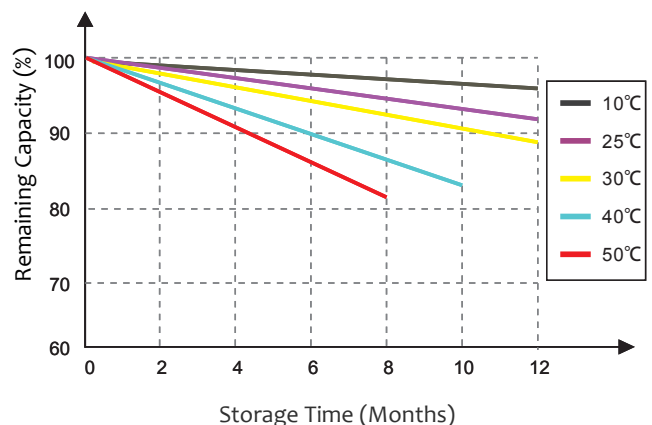
Charging Characteristics At 0.5c (25°C)



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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