



Residential energy storage systems from SWA are high-safety, high-reliability solar energy storage systems based on lithium iron phosphate batteries and equipped with battery management systems (BMS), which store surplus energy generated by rooftop photovoltaic panel, electricity at a lower price, at day and deliver power to your household appliances at night, saving your electricity bill and reduce your dependence on the grid.

- LFP (lithium iron phosphate) cell to ensure the highest safety
- Extra long cycle lifetimes with 6500 cycles with 80% DoD
- Support max 16pcs parallel/stack power.
- Built-in BMS monitors the cell such as temperature, current, voltage, SoC, and SoH.
- Perfectly matches most brands of hybrid inverters in the world.

Applications



BATTERY SPECIFICATIONS

Battery type-Chemistry	LiFePO4	Voltage Window	43.2V-52.5V
Nominal Voltage	48V	Recommend Charge Voltage	52.5V
Nominal Capacity	100Ah	Max Charge Voltage	54.75V
Energy Density	4800Wh	Recommend Charge Current	20A
Dimensions(LxWxH)	600*400*155mm	Max Continuous Current	100A
Weight	48KGS	Recommend Discharge Voltage	43.2V
Terminal Type	Plug-in	Max Discharging Voltage	42V
Terminal Torque	8.5NM	Max Continuous Discharge Current	100A
Case Material	SPCC	Peak Discharge Current	150A/3S
BMS build-in	Yes	Cycle life(0.5C, 25°C@100% DOD)	6500 Cycles
AH Efficiency – round trip	>98%	Discharge Temperature	(- 20 to 55)°C
Self Discharge per Month	<3%	Charge Temperature	(0 to 55)°C
Max in Parallel	16 PCS	Storage Temperature	(- 20 to 45)°C
Max in Series	Not Allowed	Bluetooth(App)	Optional
LCD Screen	Yes	Heating Function	Optional

BMS CHARACTERISTICS

Primary Charging Protection	Current :105A	Delay Time: 20s
Second Charging Protection	Current :110A	Delay Time: 2~3s
Primary Discharging Protection	Current :110A	Delay Time: 30s
Second Discharging Protection	Current :150A	Delay Time: 2~3s
Over Charge Voltage Protection	Voltage :59.2V	Delay Time: 1~2s
Over Discharge Voltage Protection	Voltage :43.3V	Delay Time: 1~2s
Temperature Protection	PCB Temperature≥95 Recover≤85	°C °C
Communication Port	Major RS485, optional for CAN Dryport, customized acceptable	

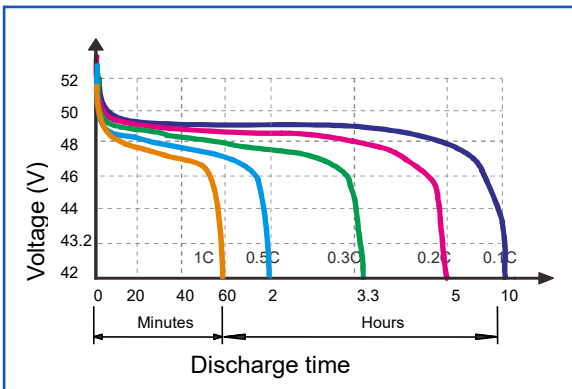
Constant Current Discharge Data (Amperes @ 25°)

Discharge Time	1h	2h	3h	4h	5h	10h	20h
Cut off voltage (44.8V)	100A	50A	33.3A	25A	20A	10A	5A

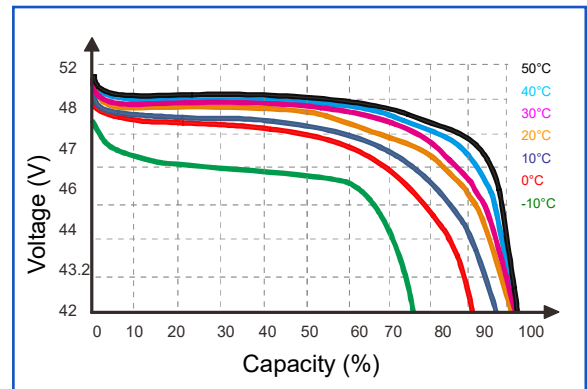
Constant Power Discharge Data (Watts @ 25°C)

Discharge Time	1h	2h	3h	4h	5h	10h	20h
Cut off voltage (44.8V)	4800W	2400W	1600W	1200W	960W	480W	240W

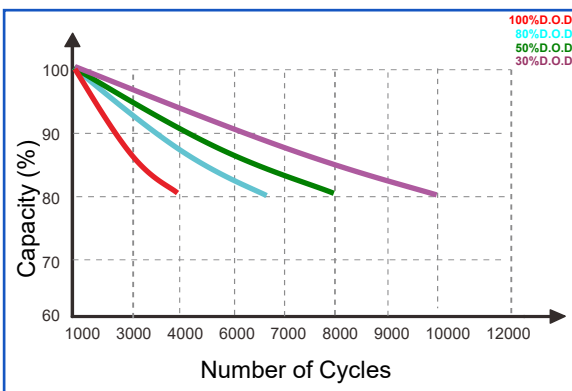
Discharge characteristics (25°C)



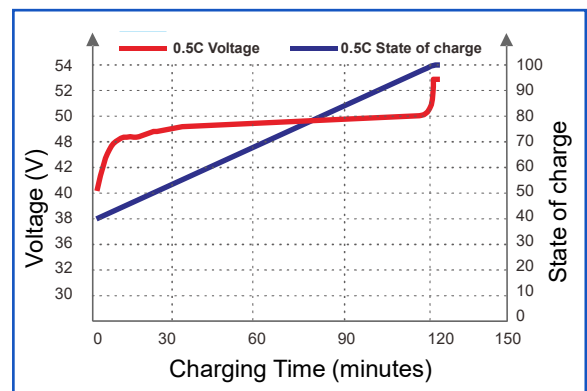
Different Temperature Discharge Curve (0.5C)



Different DOD Discharge cycle life Curve 0.5C 25°C



State of Charge Curve (0.5C, 25°C)



Note 1. The recommended storage temperature is 20°C to 30°C, battery life would be reduced if stored at high temperature (The recharging interval should be 12 months under the condition of storage temperature < 30°C, and 8 months under the condition of 30°C < storage temperature < 40°C).

Note 2. Affected by the external environment factors, such as temperature and duration of transportation and storage, the rated capacity may fluctuate by ±5%.