SWA-WM-16S100

Renewable Energy Storage

Performance Specifications

General Information

Nominal Voltage	51.2 Vdc
Nominal Capacity	100 Ah
Nominal Energy	5120 Wh
Battery Chemistry	3.2V $LiFePO_4$
Cell Connectivity	16S1P
Efficiency (Round Trip)	⩾98%
Self-Discharge Rate	＜3% Monthly
Max. In Parallel	16 Pcs
Max. In Series	Not Allowed
Cycle Life *0.2C,25℃@80% DoD*	6500 Cycles
Origin	Shenzhen, China
BMS Build-in	Yes

Operating Parameters

Operating Voltage Range	44.8V-57.6V
Discharge Cut-Off Voltage	40V
Max. Discharge Current	100A
Peak Discharge Current	150A (3s)
Max. Charge Voltage	58.4V
Standard Charge	20A (0.2C)

Environmental Specifications

Discharge Temperature	-20℃ ~ 55℃
Charge Temperature	0℃ ~ 55℃
Storage Temperature	-10℃ ~ 30℃
Ingress Rating	IP52

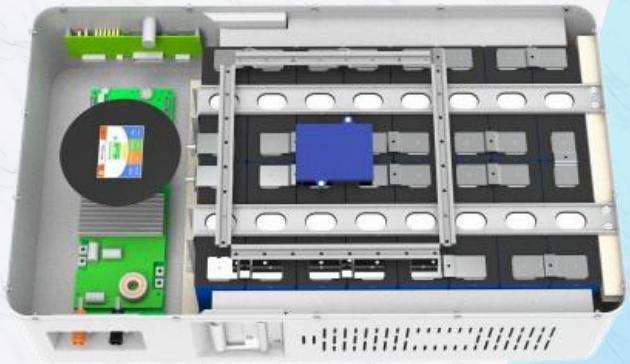
Mechanical Specifications

Dimensions (L*W*H)	650*384*142 mm
Weight	45 Kg
Mounting Options	Wall
Indicator State	ALM/RUN/SoC

Others

Screen	Touchable LED
Terminals	Magnetic Plug-In
Case Material	SPCC Steel
Bracket	Yes
Heating	Optional
Bluetooth(App)	Optional





BMS Protection Characteristics

Primary Charging	Current :105A	Delay Time: 20s
Second Charging	Current :110A	Delay Time: 2~3s
Primary Discharging	Current :110A	Delay Time: 10s
Second Discharging	Current :150A	Delay Time:100ms
Over-Charge Voltage	Voltage :58.4V	Delay Time: 1~2s
Over-Discharge Voltage	Voltage :40V	Delay Time: 1~2s
Temperature	PCB Temperature ≥ 95℃ Recover ≤ 85℃	
Communication Port	RS485,Optional For CAN/Dry Contact	

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Constant Current Discharge Data (Amperes @ 25°C)

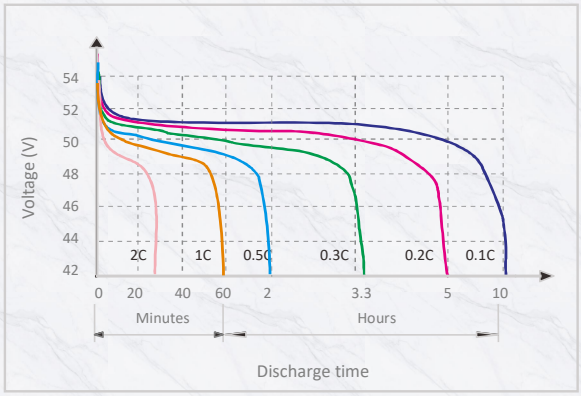
Discharge Time	1h	2h	3h	4h	5h	10h	20h
Cut-Off Voltage (40V)	---	50A	33.3A	25A	20A	10A	5A

Constant Power Discharge Data (Watts @ 25°C)

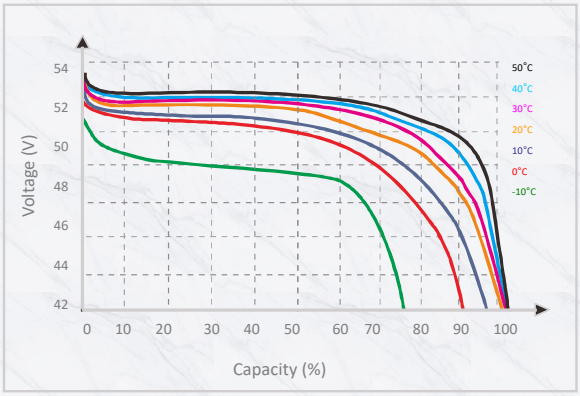
Discharge Time	1h	2h	3h	4h	5h	10h	20h
Cut-Off Voltage (40V)	---	2560W	1706.7W	1280W	1024W	512W	256W

Testing Report Curve

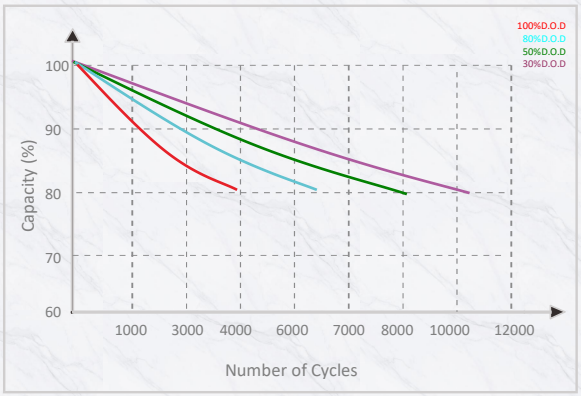
Discharge Characteristics (25°C)



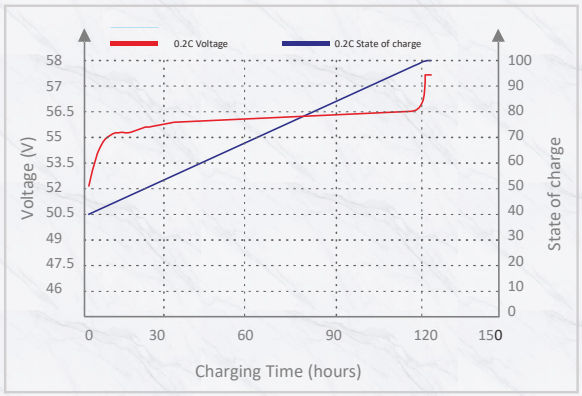
Temperature VS Discharge (0.2C)



DoD VS Cycle Life (0.2C 25°C)



State of Charge (0.2C, 25°C)



Note 1. The recommended storage temperature is 20ºC to 30ºC, battery life would be reduced if stored at high temperature (The recharging interval should be 12 months under the condition of storage temperature < 30ºC, and 8 months under the condition of 30ºC < storage temperature < 40ºC).
Note 2. Affected by the external environment factors, such as temperature and duration of transportation and storage, the rated capacity may fluctuate by ±5%.

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