

Technical Catalog

51.2V 314Ah (16kWh)
LiFePO₄ Battery



..Happiness

51.2V 314AH (16KWH) LIFEP04 BATTERY



Performance Specifications

General Information

Nominal Voltage	51.2 Vdc
Nominal Capacity	314 Ah
Nominal Energy	16077 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	8000 Cycles
	<i>0.2C, 25°C @ 80% DoD</i>
Origin	Shenzhen, China
BMS Build-in	Yes
Design Life	20 Years



BMS Protection Characteristics

Primary Charging	Current :155A	Delay Time: 20s
Second Charging	Current :160A	Delay Time: 2~3s
Primary Discharging	Current :155A	Delay Time: 10s
Second Discharging	Current :200A	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°C Recover ≤ 85°C	
Communication Port	RS485,Optional For CAN/Dry Contact	

Operating Parameters

Operating Voltage Range	44.8V-57.6V
Discharge Cut-Off Voltage	40V
Max. Discharge Current	150A
Peak Discharge Current	200A (3s)
Max. Charge Voltage	58.4V
Standard Charge	60A (0.2C)

Environmental Specifications

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

Mechanical Specifications

Dimensions (L*W*H)	825*413*233 mm
Weight	121 Kg
Mounting Options	Wall/Mobile
Indicator State	ALM/RUN/SoC

Others

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

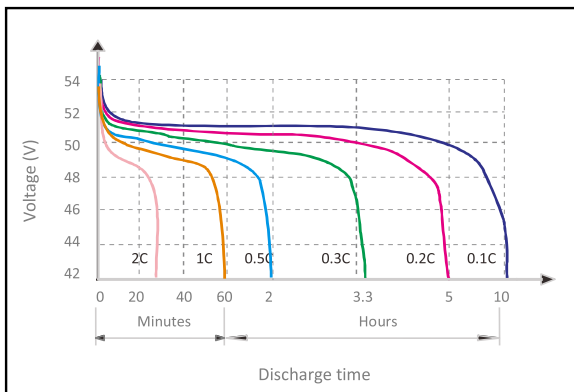
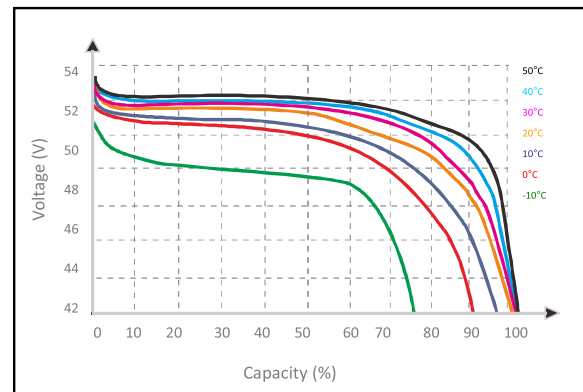
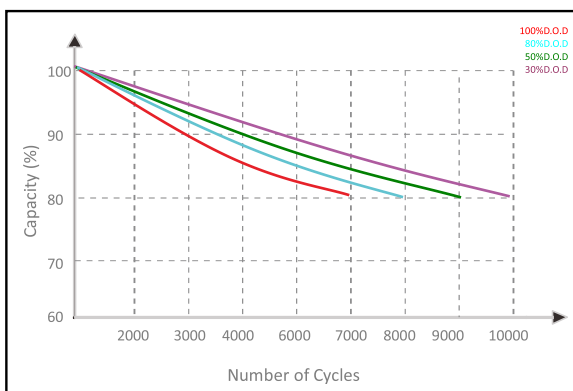
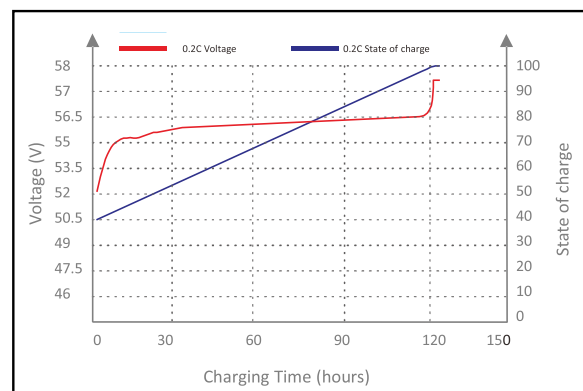


Constant Current Discharge Data (Amperes @ 25°C)

Discharge Time	1h	2h	3h	4h	5h	10h	20h
Cut-Off Voltage (40V)	---	157.0A	104.7A	78.5A	62.8A	31.4A	15.7A

Constant Power Discharge Data (Watts @ 25°C)

Discharge Time	1h	2h	3h	4h	5h	10h	20h
Cut-Off Voltage (40V)	---	8038.4W	5358.9W	4019.2W	3215.4W	1607.7W	803.8W

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 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%.

