

SM SOLAR

12.8V100Ah

LITHIUM IRON PHOSPHATE BATTERY

ELECTRICAL PERFORMANCE

Nominal Voltage	12.8 V
Nominal Capacity	100 Ah
Capacity @ 20 A	300 min
Energy	1280 Wh
Resistance	≤10 mΩ
Self Discharge	<3% / Month
Cells	Square Cell 3.2V100Ah

CHARGE PERFORMANCE

Recommended Charge Current	20 A
Maximum Charge Current	50 A
Recommended Charge Voltage	14.6 V
BMS Charge Cut-Off Voltage	<15.2 V (0.5 ~ 1.5 s)
Reconnect Voltage	>14.4 V
Balancing Voltage	<14 V
Maximum Batteries in Series	6

DISCHARGE PERFORMANCE

Continuous Discharge Current	50 A
Max Discharge Current	50 A
BMS Discharge Cut-Off Current	300 A(5 ~ 15 ms)
Recommended Low Voltage Disconnect	10 V
BMS Discharge Cut-Off Voltage	>8.4 V (50 ~ 150 ms)
Reconnect Voltage	>10 V
Short Circuit Protection	200 ~ 600 μs



MECHANICAL PERFORMANCE

Dimension (L x W x H)	260*168*211mm
Approx. Weight	10.1 kg
Terminal Type	M8
Terminal Torque	80 ~ 100 in-lbs (9 ~ 11 N-m)
Case Material	ABS
Enclosure Protection	IP65

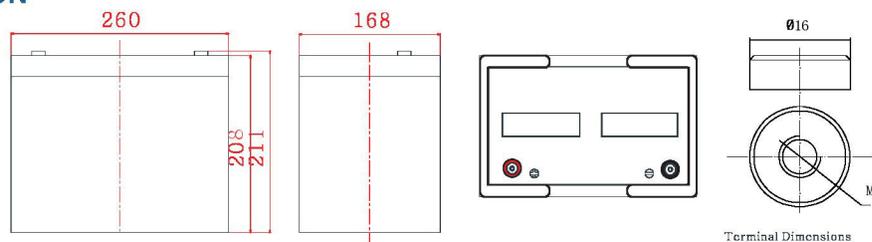
TEMPERATURE PERFORMANCE

Discharge Temperature	-4 ~ 140 °F (-20 ~ 60 °C)
Charge Temperature	32 ~ 113 °F (0 ~ 45 °C)
Storage Temperature	23 ~ 95 °F (-5 ~ 35 °C)
BMS High Temperature Cut-Off	149 °F (65 °C)
Reconnect Temperature	118 °F (48 °C)

COMPLIANCE

Certifications	CE UN38.3 UL1642 & IEC62133
Shipping Classification	UN 3480, CLASS 9

OUTLINE DIMENSION



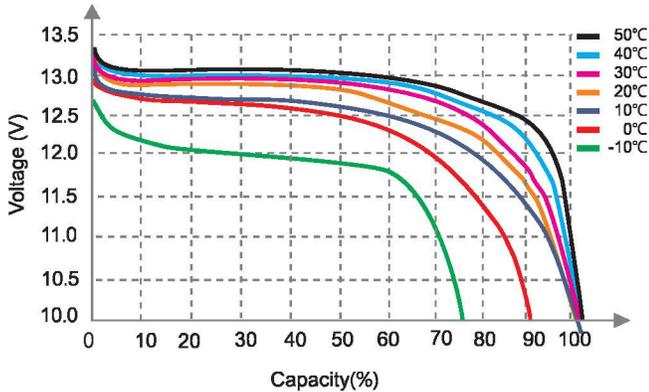
L mm(°)	W mm(°)	H mm(°)	HT mm(°)
260	168	208	211

Performance may vary depending on application. All specifications are subject to change without prior notice to the user. This data is for evaluation purposes only. No guarantee is intended or implied by this data. For clarification and updated information, please contact us.

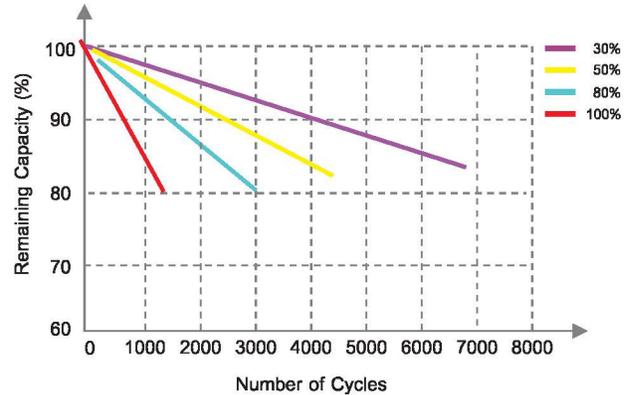
12.8V100Ah

PERFORMANCE CHARACTERISTICS

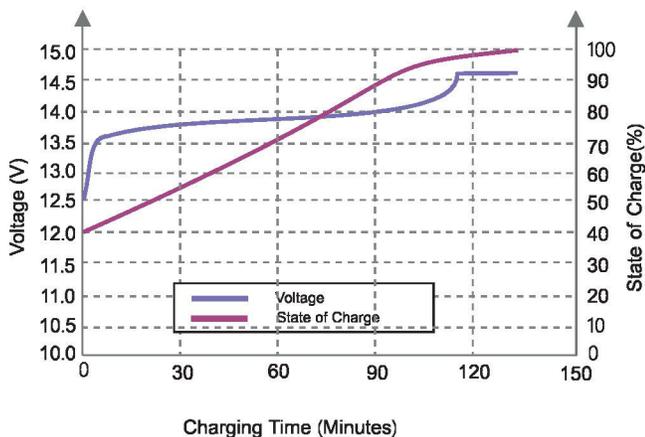
Different Temperature Discharge Curve(0.5C)



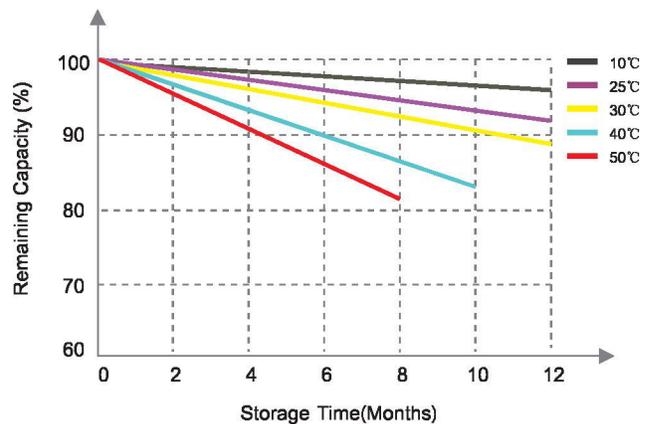
Different DOD Discharge Cycle Life Curve(1C)



State of Charge Curve(0.5C, 25°C)



Different Temperature Self Discharge Curve



FEATURES



High cycle life

>2000 cycles @80% DoD for effectively lower total cost of ownership.



Longer service life

Low maintenance batteries with stable chemistry. Easily monitor state of charge (SoC) of smart models.



Built in circuit protection

Battery Management Systems (BMS) are incorporated against abuse.



Better storage

Up to 6 months thanks to its extremely low self discharge (LSD) rate and no risk of sulphation.



Quickly recharge.

Save time and increase productivity with less down time thanks to superior charge/discharge efficiency.



Extreme heat tolerance

Suitable for use in a wider range of applications where ambient temperature is unusually high: up to +60°C.



Lightweight

Lithium batteries provide more Wh/Kg while also being up to 1/3 the weight of its SLA equivalent.

APPLICATIONS

Lithium Iron Phosphate can be used in most applications that use Lead Acid, GEL or AGM type batteries. Suitable applications include:

- Caravan
- Marine
- Golf Car
- Buggies
- Solar Storage
- Remote Monitoring
- Switching applications and more

CAUTIONS

- Do NOT short circuit, crush or disassemble.
- Do NOT heat or incinerate.
- Do NOT immerse in any liquid.
- Store at 50% capacity. Recharge every 3 months. The storage area should be clean, cool, dry and ventilated.