

SPF12V50-ST Standard Type Battery

LITHIUM IRON PHOSPHATE BATTERY

ELECTRICAL PERFORMANCE

Nominal Voltage	12.8 V
Nominal Capacity	50 Ah
Capacity @ 10A	300 min
Energy	640 Wh
Resistance	≤20 mΩ @ 50% SOC
Self Discharge	<3% / Month
Cells	Cylindrical

CHARGE PERFORMANCE

Recommended Charge Current	10 A
Maximum Charge Current	50 A
Recommended Charge Voltage	14.6 V
BMS Charge Cut-Off Voltage	<15.6 V (3.9V/Cell)
Reconnect Voltage	>14.4 V (3.6V/Cell)
Balancing Voltage	<14.4 V (3.6V/Cell)
Maximum Batteries in Series	4

DISCHARGE PERFORMANCE

Maximum Continuous Discharge Current	50 A
Peak Discharge Current	100 A (3s)
BMS Discharge Cut-Off Current	150 A ± 5 A (31ms)
Recommended Low Voltage Disconnect	11.0 V (2.75V/Cell)
BMS Discharge Cut-Off Voltage	>8.0 V (2s) (2.0V/Cell)
Reconnect Voltage	>10.0 V (2.5V/Cell)
Short Circuit Protection	250 ~ 500 μs



MECHANICAL PERFORMANCE

Dimension (L x W x H)	198 x 166 x 176 mm 7.8 x 6.5 x 6.9"
Approx. Weight	13.9 lbs (6.3 kg)
Terminal Type	T11
Terminal Torque	80 ~ 100 in-lbs (9 ~ 11 N-m)
Case Material	ABS
Enclosure Protection	IP65

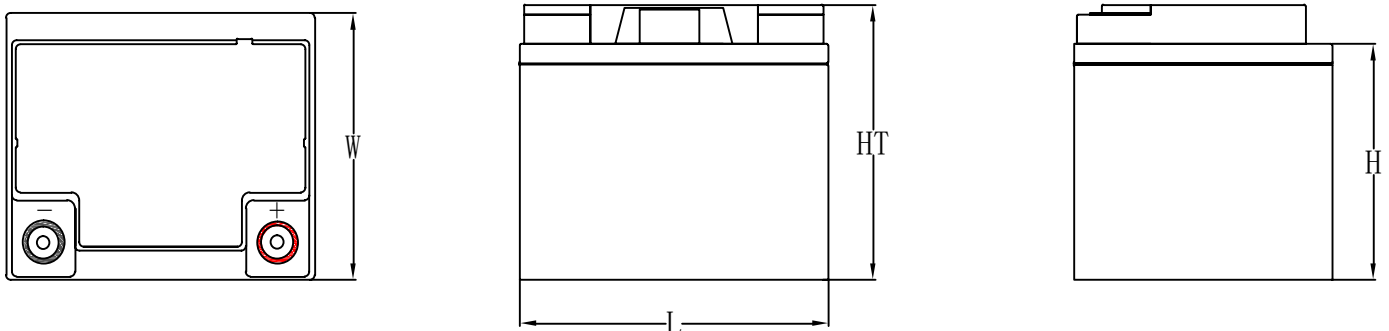
TEMPERATURE PERFORMANCE

Discharge Temperature	-4 ~ 131 °F (-20 ~ 55 °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	131 °F (55 °C)

COMPLIANCE

Certifications	CE (battery) UN38.3 (battery) UL1642 & IEC62133 (cells)
Shipping Classification	UN 3480, CLASS 9

OUTLINE DIMENSION

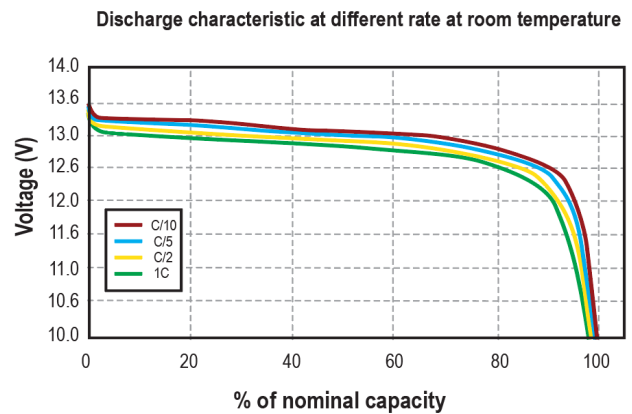
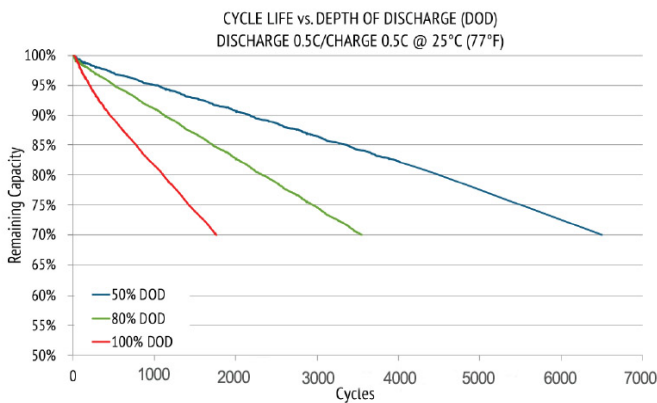
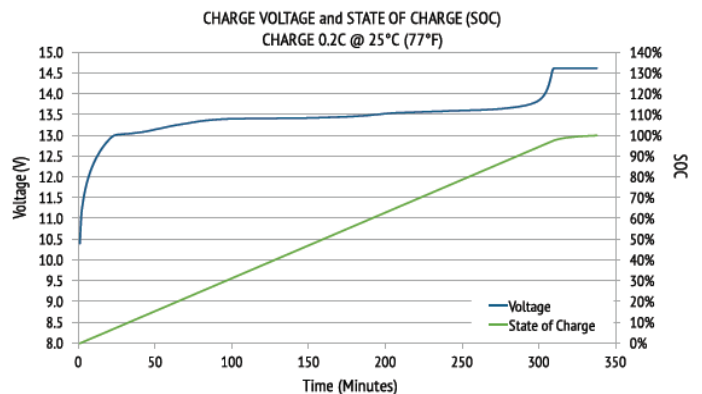
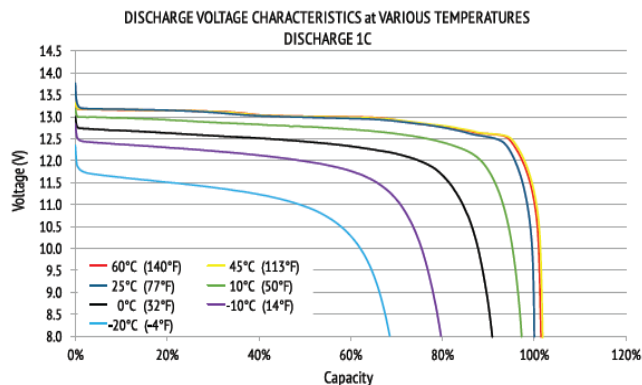


L mm(")	W mm(")	H mm(")	HT mm(")
198 (7.8)	166 (6.5)	146 (5.7)	176 (6.9)

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.

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PERFORMANCE CHARACTERISTICS



FEATURES & BENEFITS



High Cycle Life

>4000 cycles @80% DoD for effectively lower total cost of ownership



Longer Service Life

Maintenance free batteries with safe and stable chemistry.



BMS Technology

BMS protects battery from short circuit, high temperature, undervoltage, overloads & more.



Better Storage

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



High Efficiency

Charge & Discharge Efficiency @100%



Extreme Heat Tolerance

Suitable for use in a wider range of applications and working temperature is from -25 C to 60 C



Lightweight

Light Weight 50% - 60% less weight than lead-acid batteries

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, reverse polarity, crush or disassemble.
- Do NOT heat or incinerate.
- Do NOT immerse in any liquid.
- Store at 30~50% SOC. Recharging every 3 months is recommended. The storage area should be clean, cool, dry and ventilated.

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