

## SPF12V20-ST Standard Type Battery

### LITHIUM IRON PHOSPHATE BATTERY

#### ELECTRICAL PERFORMANCE

Nominal Voltage	12.8 V
Nominal Capacity	20 Ah
Capacity @ 4A	300 min
Energy	256 Wh
Resistance	≤30 mΩ @ 50% SOC
Self Discharge	<3% / Month
Cells	Cylindrical

#### CHARGE PERFORMANCE

Recommended Charge Current	4 A
Maximum Charge Current	20 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	6

#### DISCHARGE PERFORMANCE

Maximum Continuous Discharge Current	20 A
Peak Discharge Current	40 A (3 s)
BMS Discharge Cut-Off Current	60 A ± 5 A ( 31 ms)
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)	181 x 76 x 167 mm 7.1 x 3.0 x 6.6"
Approx. Weight	5.6 lbs (2.6 kg)
Terminal Type	NB1
Terminal Torque	35 - 44 in-lbs (4 - 5 N-m)
Case Material	ABS
Enclosure Protection	IP65

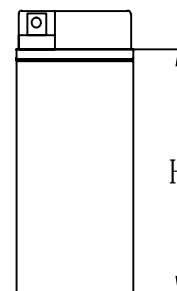
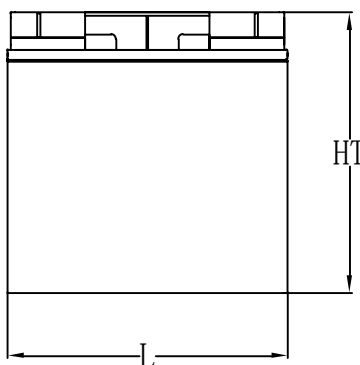
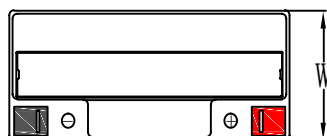
#### TEMPERATURE PERFORMANCE

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

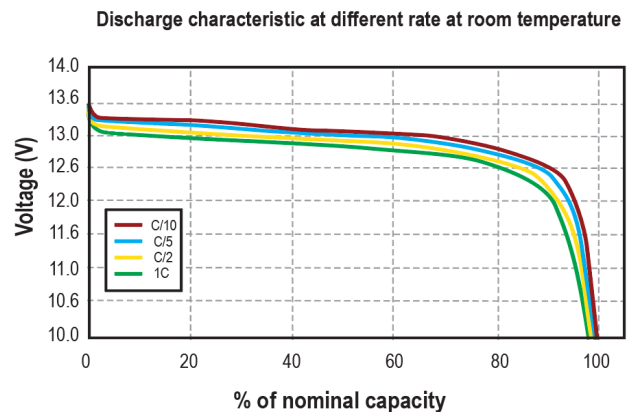
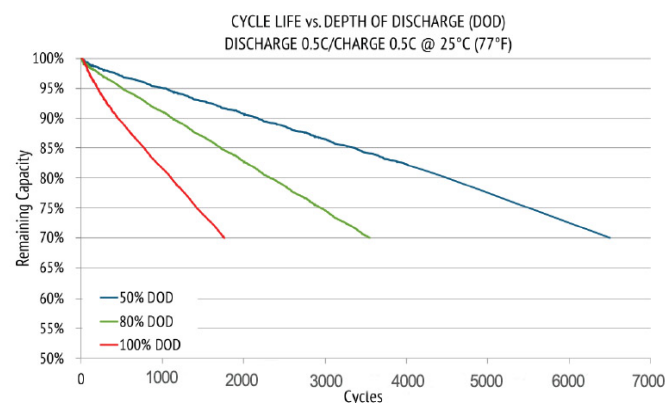
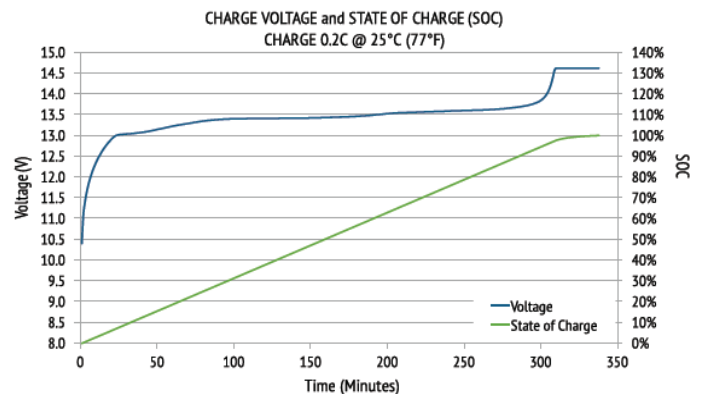
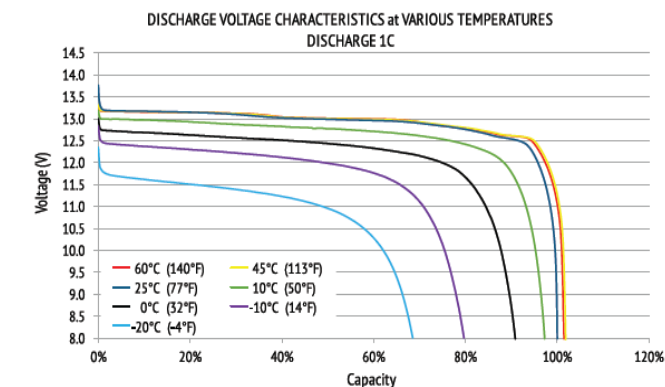


L mm(")	W mm(")	H mm(")	HT mm(")
181 (7.1)	76 (3.0)	142 (5.6)	167 (6.5)

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

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



#### Longer service life

Low maintenance batteries with stable chemistry.



#### Built in circuit protection

Battery Management System (BMS) is 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, 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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