

# SPF12V2O-ST STANDARD TYPE BATTERY

ELECTRICAL PERFORMANCE		
Nominal Voltage	12.8 V	
Nominal Capacity	20Ah	
Capacity @ 4A	300 min	
Energy	256 Wh	
Resistance	≤40 mΩ @ 50% SOC	
Self Discharge	<3% / Month	
Cells	Cylindrical	



CHARGE PERFORMANCE		
Recommended Charge Current	4A	
Maximum Charge Current	20A	
Recommended Charge Voltage	14.6V	
BMS Charge Cut-Off Voltage	<15.6V (3.9V/Cell)	
Reconnect Voltage	>14.4V (3.6V/Cell)	
Balancing Voltage	<14.4V (3.6V/Cell)	
Maximum Batteries in Series	4	

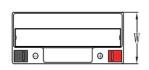
MECHANICAL PERFORMANCE		
Dimension (L x W x H)	181 x 76x 168 mm 7.1 x 3.0 x 6.6"	
Approx. Weight	5.6 lbs (2.6 kg)	
Terminal Type	NB1	
Terminal Torque	35 - 44 in-lbs (4 - 5 N-m)	
Case Material	ABS	
Enclosure Protection	IP65	

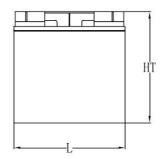
DISCHARGE PERFORMANCE		
Maximum Continuous Discharge Current	20A	
Peak Discharge Current	40A (3s)	
BMS Discharge Cut-Off Current	60A ±5 A (31 ms)	
Recommended Low Voltage Disconnect	11.0V(2.75V/Cell)	
BMS Discharge Cut-Off Voltage	>10.0V (2s) (2.5V/Cell)	
Reconnect Voltage (by charging)	>11.2V(2.8V/Cell)	
Short Circuit Protection	250 ~ 500 μs	

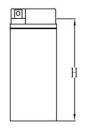
TEMPERATURE PERFORMANCE		
Discharge Temperature	-4 ~ 140 °F (-20 ~ 60 °C)	
Charge Temperature	32 ~ 113 °F (0 ~ 45 °C)	
Storage Temperature	23 ~ 95 °F (-5 ~ 35 °C)	
BMS High Temperature Cut-Off	149 °F (65 °C)	
Reconnect Temperature	131 °F (55 °C)	

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

# **OUTLINE DIMENSION**

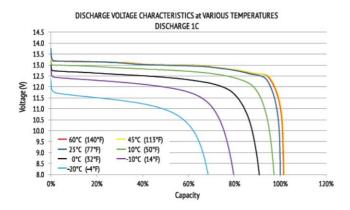


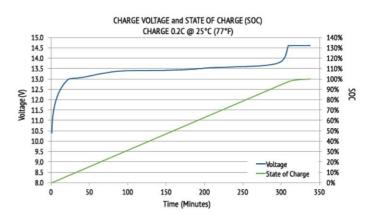


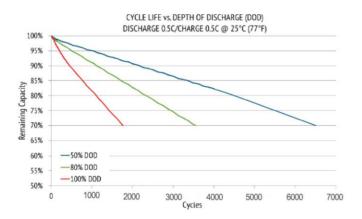


L mm(")	W mm(")	H mm(")	HT mm(")
181 (7.1)	76 (3.0)	155 (6.1)	168 (6.6)

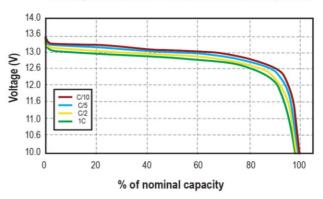
### PERFORMANCE CHARACTERISTICS







#### Discharge characteristic at different rate at room temperature



#### **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.



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:

- Marine
- Caravan
- · 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

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.



