

## **SPF12V10-ST STANDARD TYPE BATTERY**

ELECTRICAL PERFORMANCE		
Nominal Voltage	12.8 V	
Nominal Capacity	10Ah	
Capacity @ 2.0A	300 min	
Energy	128 Wh	
Resistance	≤50 mΩ @ 50% SOC	
Self Discharge	<3% / Month	
Cells	Cylindrical	

SPF12V10-ST	12.5V 10Ah 128Wh  A condens  A co
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CHARGE PERFORMANCE		
Recommended Charge Current	2.0A	
Maximum Charge Current	10A	
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)	151 x 98 x 105 mm 5.9 x 3.9 x 4.1"	
Approx. Weight	2.9 lbs (1.3 kg)	
Terminal Type	F2	
Case Material	ABS	
Enclosure Protection	IP65	

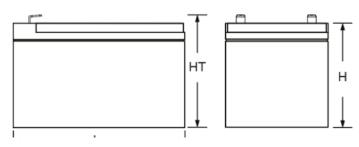
DISCHARGE PERFORMANCE		
Maximum Continuous Discharge Current	15A	
Peak Discharge Current	30A (3s)	
BMS Discharge Cut-Off Current	45A ±5 A (31 ms)	
Recommended Low Voltage Disconnect	11.0V (2.75V/Cell)	
BMS Discharge Cut-Off Voltage	>10.0V (2s) (2.5V/Cell)	
Reconnect Voltage (by charging)	>11.2V (2.8V/Cell)	
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

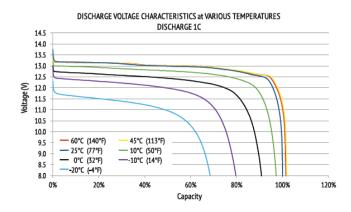
# **OUTLINE DIMENSION**

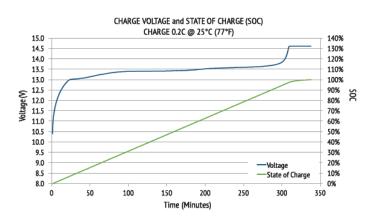




L mm(")	W mm(")	H mm(")	HT mm(")
151 (5.9)	98 (3.9)	99 (3.9)	105 (4.1)

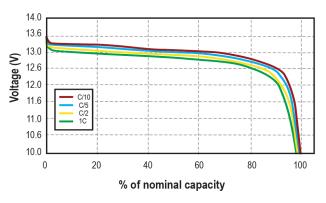
### PERFORMANCE CHARACTERISTICS





#### CYCLE LIFE vs. DEPTH OF DISCHARGE (DOD) DISCHARGE 0.5C/CHARGE 0.5C @ 25°C (77°F) 100% 95% 90% 85% 80% 75% 70% 65% -50% DOD 60% -80% DOD 55% -100% DOD 50% 3000 Cycles 1000 0 2000 4000 5000 6000 7000

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.



#### Light weight

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:

- · Fishing sonar
- · Electrical devices
- Toys
- · Emergency light
- · Digital camera
- · 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.



