

**Best Solution of Battery** 

# SPF12V100-ST Standard Type Battery

## Group: 31

# LITHIUM IRON PHOSPHATE BATTERY

ELECTRICAL PERFORMANCE		
Nominal Voltage	12.8 V	
Nominal Capacity	100Ah	
Capacity @ 25A	300 min	
Energy	1280 Wh	
Resistance	≤10 mΩ @ 50% SOC	
Self Discharge	<3% / Month	
Cells	Cylindrical	

#### **CHARGE PERFORMANCE**

Recommended Charge Current	20 A	
Maximum Charge Current	100 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	100 A	
Peak Discharge Current	200 A (3s)	
BMS Discharge Cut-Off Current	300 A ±10 A (31ms)	
Recommended Low Voltage Disconnect	11 V (2.75V/Cell)	
BMS Discharge Cut-Off Voltage	>8.0 V (2s) (2.0V/Cell)	
Reconnect Voltage	>10 V (2.5V/Cell)	
Short Circuit Protection	250 ~ 500 μs	



#### **MECHANICAL PERFORMANCE**

Dimension (L x W x H)	329 x 172 x 225 mm 13.0 x 6.8 x 8.8"	
Approx. Weight	27.8 lbs (12.6 kg)	
Terminal Type	T11	
Terminal Torque	80 ~ 100 in-lbs (9 ~ 11 N-m)	
Case Material	ABS	
Enclosure Protection	IP65	

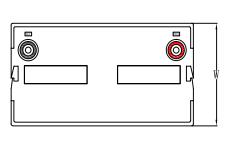
#### **TEMPERATURE PERFORMANCE**

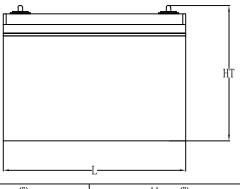
Discharge Temperature -4 ~ 131 °F (-20 ~ 55 °C)	
Charge Temperature	32 ~ 113 °F (0 ~ 45 °C)
Storage Temperature	23 ~ 95 °F (-5 ~ 35 °C)
BMS High Temperature Cut-Off	149 °F (65 °C)
Reconnect Temperature	131 °F (55 °C)

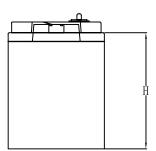
## COMPLIANCE

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(")
	329 (13.0 )	172 (6.8)	213 (8.4)	225 (8.8)

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.



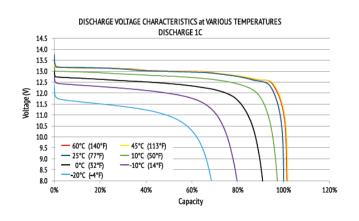




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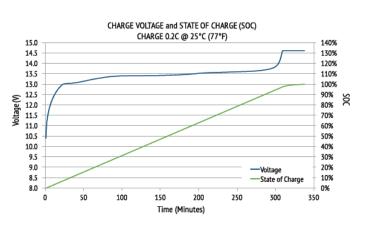
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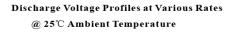
## **PERFORMANCE CHARACTERISTICS**

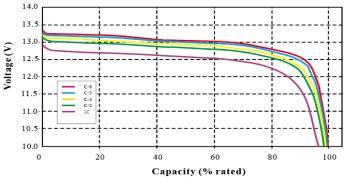


CYCLE LIFE VS DEPTH OF DISCHARGE (DOD)

DISCHARGE 0.5C/CHARGE 0.5C @ 25°C (77°F)







## **FEATURES & BENEFITS**

-50% DOD

-100% DOD

1000



100%

95%

90%

85%

80%

75%

70%

60%

55%

50%

0

Remaining Capacity

## High cycle life

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

4000

5000

6000

7000

#### Longer service life

Low maintenance batteries with stable chemistry.

# BMS

## Built in circuit protection

2000

3000

Cycles

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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