

# SmartPower 48V150Ah

## SSIFP48150 LFP Battery Module

SSIFP48150, a powerful 48V LiFePO<sub>4</sub> battery product, has been especially designed to provide backup power energy storage solutions. Its modular design enables parallel installation meeting also the needs for larger power back up.



### Benefits

- Increased energy in given space
- Easy installation and upscaling
- High operational reliability
- Optimized supervision strategy through remote control/diagnostic
- Excellent long life time
- Built-in intelligent BMS to protect the battery pack at any time and prolong its service life

### Standards

#### a. Product

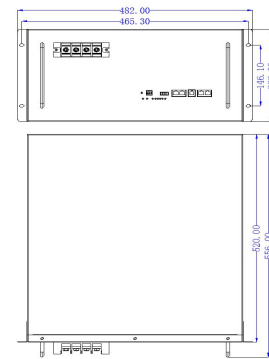
- IEC 60950
- IEC 62321
- IEC 62133
- UN 38.3
- UL 1642
- UL 1973

#### b. MS certification

- ISO 9001
- ISO 14001
- OHSAS 18001

### Specifications

### Drawing

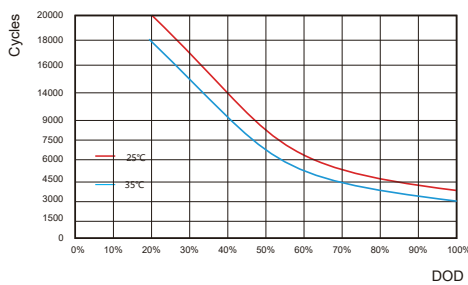


Nominal Characteristics		
Battery Model	SSIFP48150	
Nominal Voltage	48V	
Typical Capacity	150Ah(25°C,0.2C)	
Typical Energy	7200 Wh	
Volumetric Energy Density	134.58 Wh/dm <sup>3</sup>	
Gravimetric Energy Density	120 Wh/kg	
Dimensions	Width	482mm
	Height	222mm(5U)
	Depth	520mm
Reference Weight	60 Kg	
Electrical Characteristics		
Voltage Window	40.5~54.0V	
Charge Voltage Range	52.5~54.0V	
Max. Permanent Discharge Current	100A	
Max. Permanent Charge Current	100A	
Faradic Charge Efficiency	99% (+20°C)	
Energy Charge Efficiency	94% (+20°C)	
Communication Interface (optional feature)	Modbus/SNMP/TACP	
Additional Features (optional feature)	LCD Display	
Operation Environment		
Charge Temperature	0°C to +55°C (Recommend: +20°C to 30°C)	
Discharge Temperature	-20°C to +60°C	
Storage Temperature	-20°C to +60°C	
Protection Class	IP20	

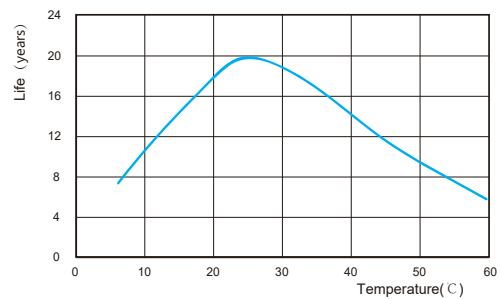
## Discharge Data

Constant Current Discharge Data(25°C)							
Voltage/V	Current/A	0.1C	0.2C	0.3C	0.4C	0.5C	0.6C
	Time/h						
45.0		9.560	4.902	3.283	2.442	1.943	1.601
43.5		10.017	4.993	3.339	2.475	1.978	1.634
42.0		10.094	5.041	3.374	2.517	2.008	1.654
40.5		10.201	5.090	3.390	2.533	2.021	1.674

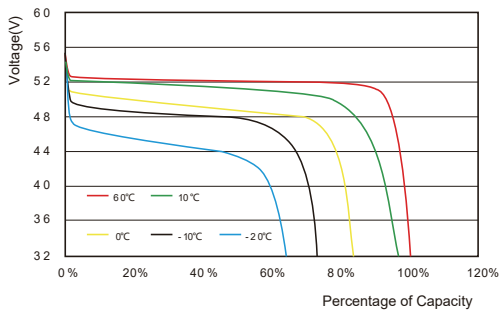
## Performance Curve



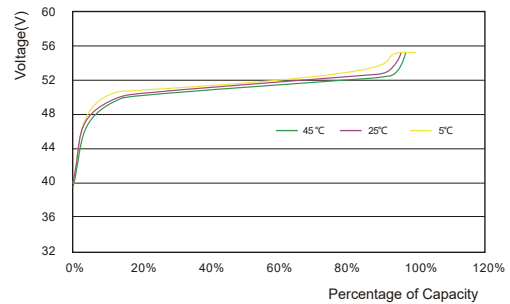
Cycle Life vs. Depth of Discharge (DOD)



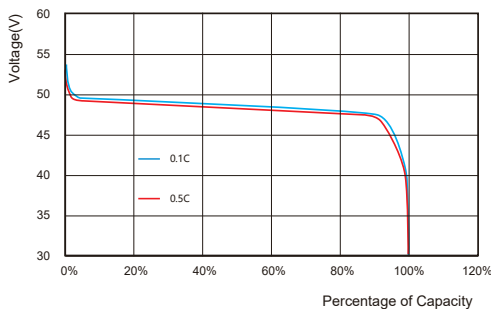
Calendar Life at Different Temperature



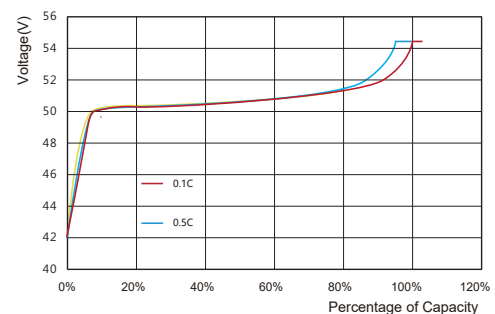
Discharge Curve at Different Temperature



Charge Curve at Different Temperature



Discharge Curve at Different Rate (25°C)



Charge Curve at Different Rate (25°C)

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