

# SmartPower 48V20Ah

## SCIFP4820 lithium-ion battery system

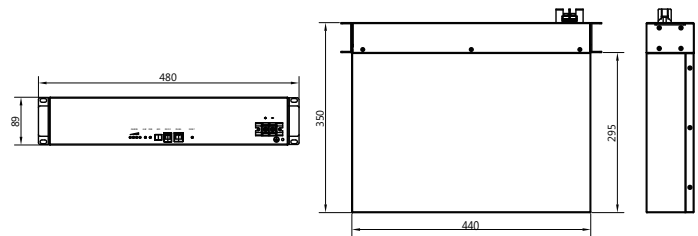
SCIFP4820, a powerful 48V LiFePO<sub>4</sub> battery product, has been especially designed to provide power backup for remote or outdoor telecom sites, off-grid, on-grid and household usage energy storage systems. Its modular design enables parallel installation meeting also the needs for larger power 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



### Drawing



### 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

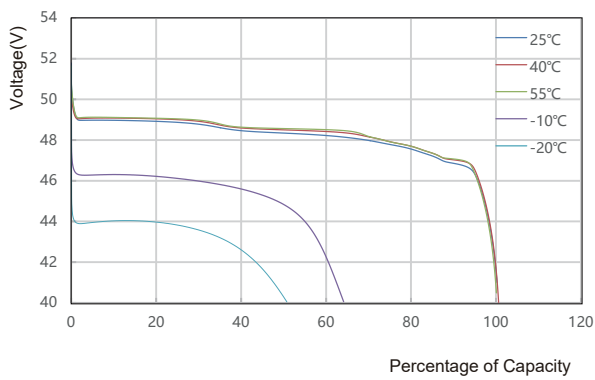
### Specifications

Nominal Characteristics		
Battery Model	SCIFP4820	
Nominal Voltage	48V	
Typical Capacity	20Ah(25 °C,0.2C)	
Typical Energy	960 Wh	
Volumetric Energy Density	70.0 Wh/dm <sup>3</sup>	
Gravimetric Energy Density	61.9 Wh/kg	
Dimensions	Width	440mm
	Height	89mm(2U)
	Depth	350mm
Reference Weight	15.5Kg	
Electrical Characteristics		
Voltage Window	40.5~54.0V	
Charge Voltage Range	52.5~54.0V	
Max. Permanent Discharge Current	20A	
Max. Permanent Charge Current	20A	
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	
Discharge Temperature	-20°C to +60°C	
Storage Temperature	-20°C to +60°C	
Protection Class	IP20	

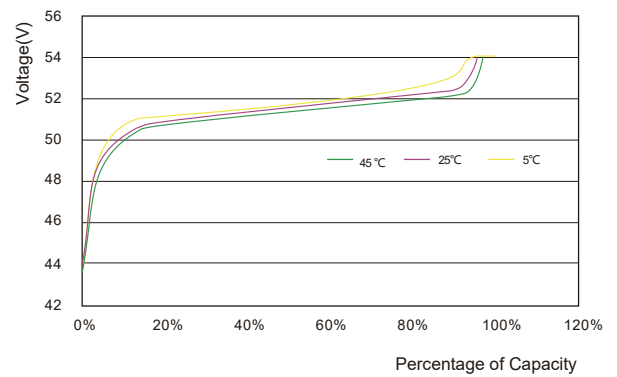
## Discharge Data

Constant Current Discharge Data(25°C)												
Voltage/V	Current/A		0.1C	0.2C	0.3C	0.4C	0.5C	0.6C	0.7C	0.8C	0.9C	1.0C
	Time/h											
45.0			9.560	4.902	3.283	2.442	1.943	1.601	1.369	1.191	1.050	0.950
43.5			10.017	4.993	3.339	2.475	1.978	1.634	1.399	1.210	1.080	0.970
42.0			10.094	5.041	3.374	2.517	2.008	1.654	1.409	1.232	1.090	0.980
40.5			10.201	5.090	3.390	2.533	2.021	1.674	1.420	1.240	1.099	0.989

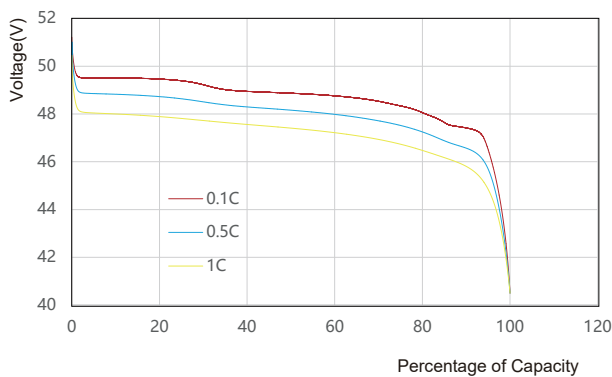
## Performance Curve



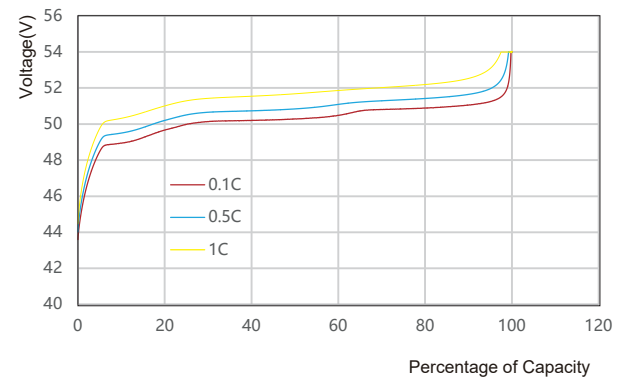
Discharge Curve at Different Temperature



Charge Curve at Different Temperature



Discharge Curve at Different Rate (25°C)



Charge Curve at Different Rate (25°C)

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