

SmartPower 48V100Ah(3U)

SCIFP48100 lithium-ion battery system

SCIFP48100, a powerful 48V LiFePO₄ 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

- 15 years design life at 25°C ambient temperature
- 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

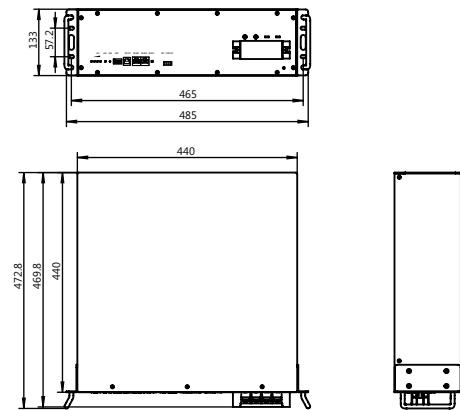
- IEC 60950
- IEC 62321
- IEC 62133
- UN 38.3
- UL 1642
- UL 1973

b. MS certification

- ISO 9001
- ISO 14001
- OHSAS 18001

Specifications

Drawing

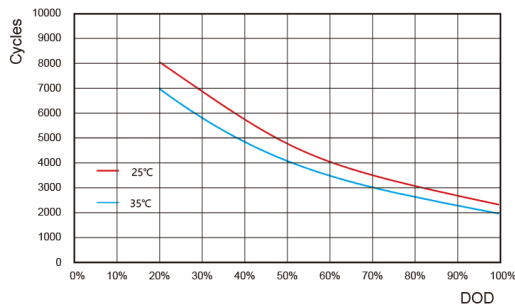


Nominal Characteristics		
Battery Model		SCIFP48100
Nominal Voltage		48V
Typical Capacity		100Ah(25°C,0.2C)
Typical Energy		4800 Wh
Volumetric Energy Density		186.4 Wh/dm ³
Gravimetric Energy Density		118.2 Wh/kg
Dimensions	Width	440mm
	Height	133mm(3U)
	Depth	440mm
Reference Weight		40.6Kg
Electrical Characteristics		
Voltage Window		40.5~54.0V
Charge Voltage Range		52.5~54.0V
Max. Continuous Discharge Current		50A
Max. Continuous Charge Current		50A
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

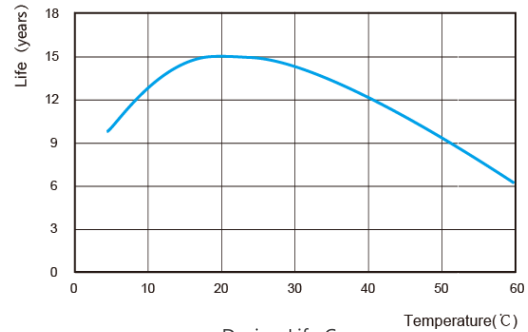
Discharge Data

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

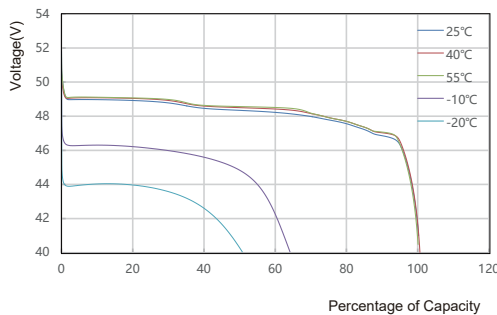
Performance Curve



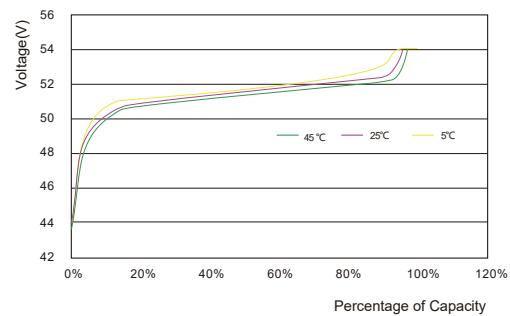
DOD vs. Cycles



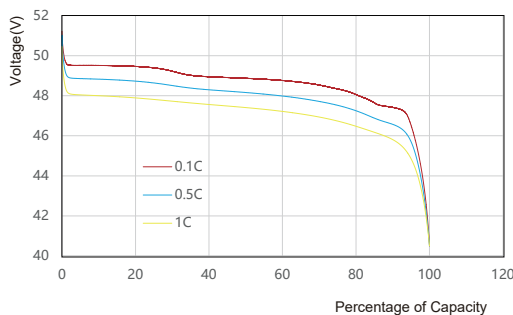
Design Life Curve



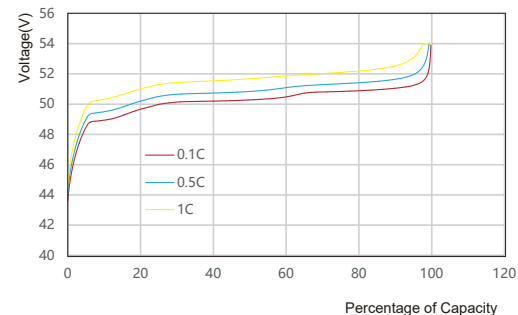
Discharge Curve at Different Temperature



Charge Curve at Different Temperature



Discharge Curve at Different Rate (25°C)



Charge Curve at Different Rate (25°C)

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