



ALPHA HOUSE powered by  **SACRED SUN**

Li-ion Series

SCIFP2450 (24V50Ah)

SCIFP2450, a powerful 24V LiFePO₄ battery product, has been designed to provide reliable power for energy storage system like off-grid, on-grid, household usage, by its excellent long life and high security.



Benefits

- Increased energy in given space
- Easy installation and upscaling
- High operational reliability
- Optimized supervision strategy through remote control/diagnostic
- Excellent long life
- 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
- ISO 9001
- ISO 14001
- OHSAS 18001

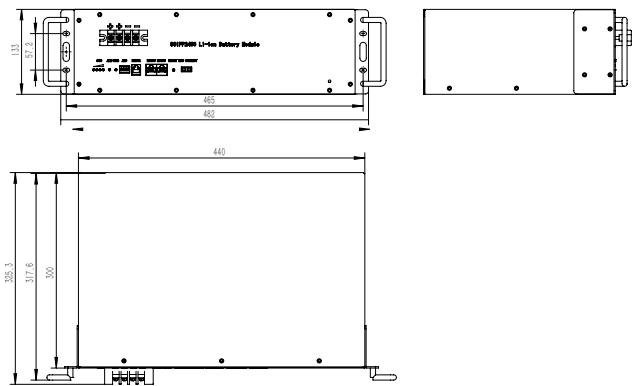
b. MS certification

Applications

- Telecommunications
- UPS
- Off grid storage
- BES systems

Specifications

Drawing



Nominal Characteristics

Nominal Voltage	24V
Typical Capacity	50Ah(25°C,0.2C)
Typical Energy	1280 Wh
Volumetric Energy Density	95.1Wh/dm ³
Gravimetric Energy Density	80.0Wh/kg

Dimensions	Width	440mm
	Height	133mm
	Depth	230mm

Typical Weight	16Kg
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Electrical Characteristics

Voltage Window	21.6~28.8V
Charge Voltage Range	28.0~28.8V
Max. Permanent Discharge Current	50A
Max. Permanent 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)	GPS

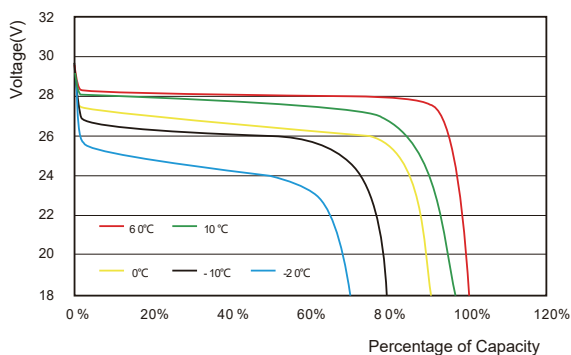
Operation Environment

Charge Temperature	0°C to +55°C
Discharge Temperature	-20°C to +60°C
Storage Temperature	-20°C to +60°C
Protection Class	IP20

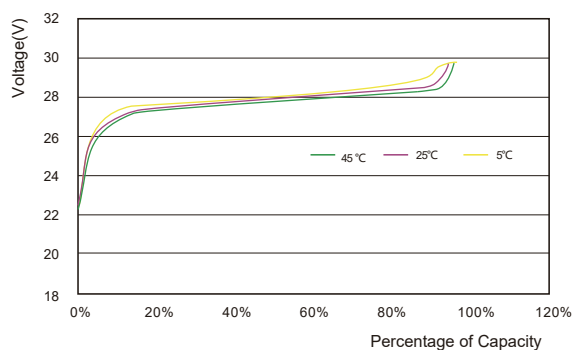
Discharge Data

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										
24.0		9.560	4.902	3.283	2.442	1.943	1.601	1.369	1.191	1.050	0.950
23.2		10.017	4.993	3.339	2.475	1.978	1.634	1.399	1.210	1.080	0.970
22.4		10.094	5.041	3.374	2.517	2.008	1.654	1.409	1.232	1.090	0.980
21.6		10.201	5.090	3.390	2.533	2.021	1.674	1.420	1.240	1.099	0.989

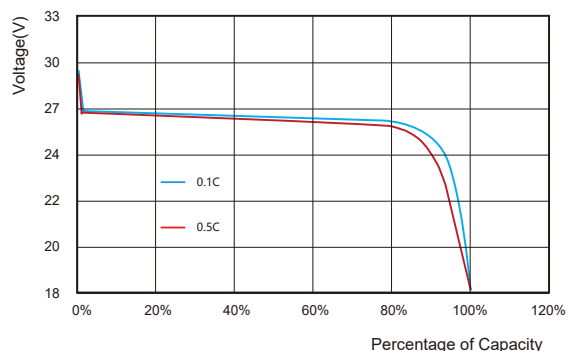
Performance Curve



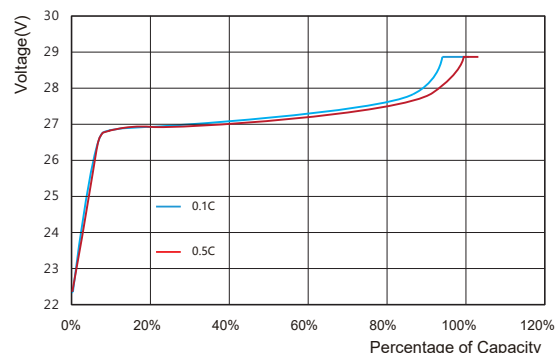
Discharge Curve at Different Temperature



Charge Curve at Different Temperature



Discharge Curve at Different Rate (25°C)



Charge Curve at Different Rate (25°C)

Disclaimer: The manufacturer reserves the right to amend and/or vary the specifications and parameters of the product and apply updates accordingly at any time. It is the sole responsibility of the buyer and user of the product to ensure all applicable product specifications referred to are valid, applicable and up to date at all times. All product specifications are available upon written request to Alpha House Ltd. All batteries must be installed, used and maintained at all times in accordance with standard BS EN IEC 62485-5:2021, and specifically installed, used and maintained at all times in accordance with manufacturer's guidelines and product specification documentation. (All top terminal, front terminal and top vented batteries must be positioned horizontally, plumb and level at all times unless specified otherwise by the manufacturer. Further details are available upon written request to Alpha House Ltd.)