

4870

4U rack-mount lithium-ion battery system

SP 4870, a powerful 48V LiFePO₄ battery product, has been designed to provide power backup for remote or outside telecom plants like Access Terminals, Base Transceiver Stations, Base Station Controllers. According to customer needs, products can be expanded in parallel to meet the needs of the data center.



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

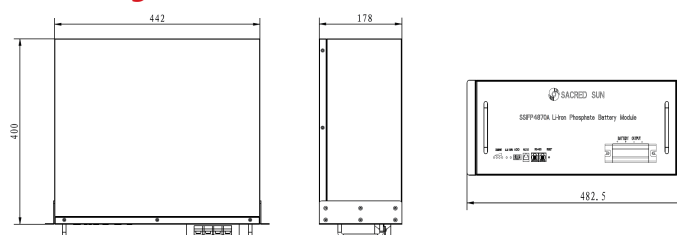
a. Product

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

b. MS certification

- ISO 9001
- ISO 14001
- OHSAS 18001

Drawing



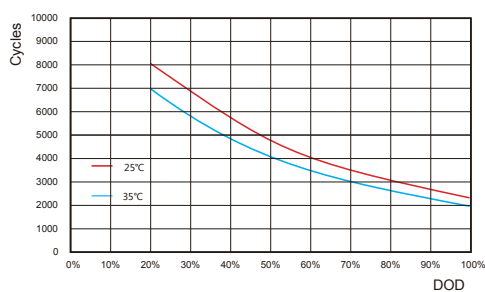
Specifications

Nominal Characteristics		
Nominal Voltage		48V
Typical Capacity		70Ah(25°C)
Typical Energy		3360 Wh
Volumetric Energy Density		142.9 Wh/dm ³
Gravimetric Energy Density		100.3 Wh/kg
Dimensions	Width	442mm
	Height	178mm(4U)
	Depth	400mm
Typical Weight		33.5Kg
Electrical Characteristics		
Voltage Window		40.5~54.0V
Charge Voltage Range		52.5~54.0V
Max. Permanent Discharge Current		70A
Max. Permanent Charge Current		70A
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

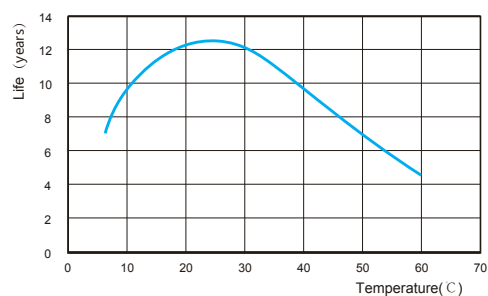
Discharge Data

Constant Current Discharge Data(25°C)										
Current/A Time/h Voltage/V	0.1C	0.2C	0.3C	0.4C	0.5C	0.6C	0.7C	0.8C	0.9C	1.0C
45.0	8.333	4.033	2.600	1.908	1.417	1.033	0.233	0.142	0.225	0.058
43.5	9.450	4.658	3.083	2.333	1.842	1.542	1.258	0.967	0.883	0.750
42.0	10.137	5.078	3.377	2.605	2.092	1.700	1.492	1.292	1.150	1.033
40.5	10.183	5.092	3.400	2.625	2.100	1.717	1.500	1.300	1.175	1.042

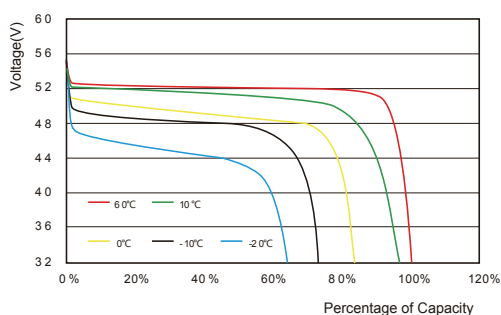
Performance Curve



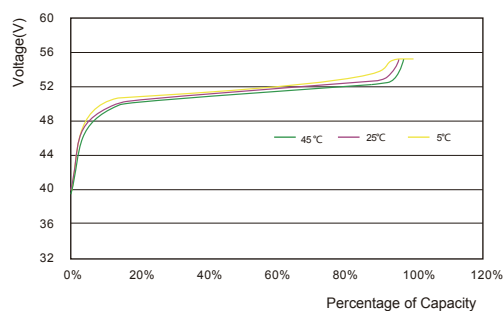
Cycle Life vs. Depth of Discharge (DOD)



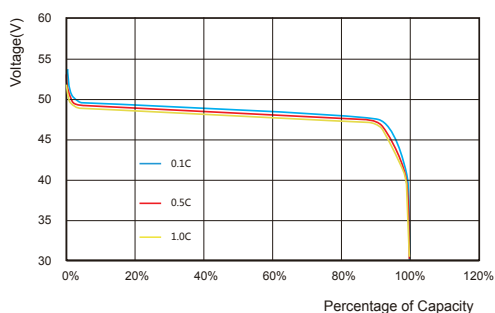
Calendar Life at Different Temperature



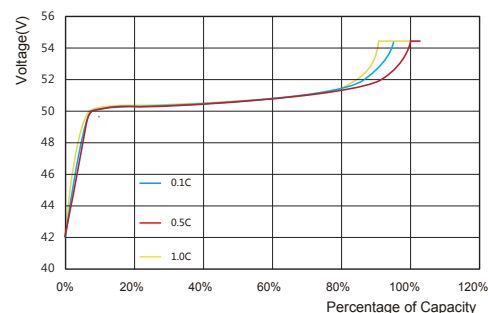
Discharge Curve at Different Temperature



Charge Curve at Different Temperature



Discharge Curve at Different Rate (25°C)



Charge Curve at Different Rate (25°C)