

SolarFam®



SX 55Ah/100Ah/150Ah/200Ah
Rechargeable Lithium Iron Phosphate (LiFePO₄) Battery

MORE
EFFICIENT
SAFTY
ECO FRIENDLY

LET'S **SAVE**
THE WORLD
TOGETHER



Product Advantages

Longer cycle life

Cycle life at 80% discharge depth (DoD) \geq 3000

Cycle life at 50% depth of discharge (DoD) LiFePO4 battery \geq 4500

Super secure Lithium technology (LiFePO4)

Stable chemical composition—LiFePO4, no gases, no danger of explosion or fire.

An integrated battery management system(BMS) keep any early failure due to environmental influences or misuse is prevented in advance.

Standard size design

Perfect replacement of AGM / GEL battery without changing the original loading / unloading structure.

Light weight

Reducing more than half weight comparing with AGM/GEL battery

Higher usable capacity

Depth of discharge is up to 90%DOD, about 40% higher than AGM/GEL battery

Wider operating temp. Range

-20°C .. +60°C

Low self-discharge

Only about 3% per month for storage / non-use



Upper cover can be removed for future maintenance



Inside copper connectors reduce the internal heating problem



Bluetooth monitoring:

- >Battery charge status in% (SoC)
- >Battery status (charge, discharge, standby)
- >Battery voltage
- >Charge / discharge current
- >Remaining capacity
- >Battery temperature
- >Rated capacity

55Ah

SX Standard model

SX-P Large instantaneous discharge current



CE ROHS UN38.3 MSDS

		SX12V55Ah	SX12V55Ah-P
Electrical Characteristics	Nominal Voltage	12.8V	
	Nominal Capacity	55Ah	
	Energy	704Wh	
	Cycle Life	>3000 cycles @ 0.2C 80% DOD	
	Months Self Discharge	<3%	
	Efficiency of Charge	>99% @0.2C	
	Efficiency of Discharge	96~99% @0.5C	
Standard Charge	Charge Voltage	14.6±0.2V	
	Charge Mode	CC/CV	
	Charge Current	11A	11A
	Max. Charge Current	60A	60A
	Charge Cut-off Voltage	14.6±0.2V	
Standard Discharge	Continuous Current	60A	100A
	Max. Pulse Current	65A(<3s)	105A(<3s)
	Discharge Cut-off Voltage	11V	
	Depth of discharge	90%DOD	
Environmental	Charge Temperature	0°C to 55°C (32F to 131F) @60±25% Relative Humidity	
	Discharge Temperature	-20°C to 60°C (-4F to 140F) @60±25% Relative Humidity	
	Storage Temperature	-20°C to 45°C (-4F to 113F) @60±25% Relative Humidity	
	IP Class	IP65	
Mechanical	Plastic Case	ABS+PC(the upper cover can be removed for maintenance)	
	Weight	9.8KG	
	Dimensions	350mm x 171mm x 158mm	
Applications	Installation	Parallel connection <input checked="" type="checkbox"/> Series connection <input checked="" type="checkbox"/>	Parallel connection <input checked="" type="checkbox"/> Series connection <input checked="" type="checkbox"/>
	Control	Battery management system (BMS) integrated	
	Monitoring	Bluetooth monitoring ,Smartphone APP	

100Ah

SX Standard model

SX-S Available for series connection

SX-P Large instantaneous discharge current



CE ROHS UN38.3 MSDS

		SX12V100Ah	SX12V100Ah-S	SX12V100Ah-P
Electrical Characteristics	Nominal Voltage	12.8V		
	Nominal Capacity	100Ah		
	Energy	1280Wh		
	Cycle Life	>3000 cycles @ 0.2C 80% DOD		
	Months Self Discharge	<3%		
	Efficiency of Charge	>99% @0.2C		
	Efficiency of Discharge	96~99% @0.5C		
Standard Charge	Charge Voltage	14.6±0.2V		
	Charge Mode	CC/CV		
	Charge Current	20A	20A	20A
	Max. Charge Current	100A	80A	150A
	Charge Cut-off Voltage	14.6±0.2V		
Standard Discharge	Continuous Current	100A	80A	150A
	Max. Pulse Current	105A(<3s)	85A(<3s)	160A(<3s)
	Discharge Cut-off Voltage	11V		
	Depth of discharge	90%DOD		
Environmental	Charge Temperature	0℃ to 55℃ (32F to 131F) @60±25% Relative Humidity		
	Discharge Temperature	-20℃ to 60℃ (-4F to 140F) @60±25% Relative Humidity		
	Storage Temperature	-20℃ to 45℃ (-4F to 113F) @60±25% Relative Humidity		
	IP Class	IP65		
Mechanical	Plastic Case	ABS+PC(the upper cover can be removed for maintenance)		
	Weight	13.8KG		
	Dimensions	350mm x 171mm x 206mm		
Application	Installation	Parallel connection <input checked="" type="checkbox"/> Series connection <input type="checkbox"/>	Parallel connection <input checked="" type="checkbox"/> Series connection on 24V/36V/48V <input checked="" type="checkbox"/>	Parallel connection <input checked="" type="checkbox"/> Series connection <input type="checkbox"/>
	Control	Battery management system (BMS) integrated		
	Monitoring	Bluetooth monitoring ,Smartphone APP		

150Ah

SX Standard model

SX-S Available for series connection

SX-P Large instantaneous discharge current



CE ROHS UN38.3 MSDS

		SX12V150Ah	SX12V150Ah-S	SX12V150Ah-P
Electrical Characteristics	Nominal Voltage	12.8V		
	Nominal Capacity	150Ah		
	Energy	1920Wh		
	Cycle Life	>3000 cycles @ 0.2C 80% DOD		
	Months Self Discharge	<3%		
	Efficiency of Charge	>99% @0.2C		
	Efficiency of Discharge	96~99% @0.5C		
Standard Charge	Charge Voltage	14.6±0.2V		
	Charge Mode	CC/CV		
	Charge Current	30A	30A	30A
	Max. Charge Current	100A	80A	150A
	Charge Cut-off Voltage	14.6±0.2V		
Standard Discharge	Continuous Current	100A	80A	150A
	Max. Pulse Current	105A(<3s)	85A(<3s)	160A(<3s)
	Discharge Cut-off Voltage	11V		
	Depth of discharge	90%DOD		
Environmental	Charge Temperature	0℃ to 55℃ (32F to 131F) @60±25% Relative Humidity		
	Discharge Temperature	-20℃ to 60℃ (-4F to 140F) @60±25% Relative Humidity		
	Storage Temperature	-20℃ to 45℃ (-4F to 113F) @60±25% Relative Humidity		
	IP Class	IP65		
Mechanical	Plastic Case	ABS+PC(the upper cover can be removed for maintenance)		
	Weight	19.8KG		
	Dimensions	350mm x 171mm x 258mm		
Application	Installation	Parallel connection <input checked="" type="checkbox"/> Series connection <input checked="" type="checkbox"/>	Parallel connection <input checked="" type="checkbox"/> Series connection on 24V/36V/48V <input checked="" type="checkbox"/>	Parallel connection <input checked="" type="checkbox"/> Series connection <input checked="" type="checkbox"/>
	Control	Battery management system (BMS) integrated		
	Monitoring	Bluetooth monitoring ,Smartphone APP		

200Ah

SX Standard model

SX-S Available for series connection

SX-P Large instantaneous discharge current



CE ROHS UN38.3 MSDS

		SX12V200Ah	SX12V200Ah-S	SX12V200Ah-P
Electrical Characteristics	Nominal Voltage	12.8V		
	Nominal Capacity	200Ah	200Ah	200Ah
	Energy	2560Wh	2560Wh	2560Wh
	Cycle Life	>3000 cycles @ 0.2C 80% DOD		
	Months Self Discharge	<3%		
	Efficiency of Charge	>99% @0.2C		
	Efficiency of Discharge	96~99% @0.5C		
Standard Charge	Charge Voltage	14.6±0.2V		
	Charge Mode	CC/CV		
	Charge Current	40A	40A	40A
	Max. Charge Current	100A	80A	150A
	Charge Cut-off Voltage	14.6±0.2V		
Standard Discharge	Continuous Current	100A	80A	150A
	Max. Pulse Current	105A(<3s)	85A(<3s)	160A(<3s)
	Discharge Cut-off Voltage	11V		
	Depth of discharge	90%DOD		
Environmental	Charge Temperature	0℃ to 55℃ (32F to 131F) @60±25% Relative Humidity		
	Discharge Temperature	-20℃ to 60℃ (-4F to 140F) @60±25% Relative Humidity		
	Storage Temperature	-20℃ to 45℃ (-4F to 113F) @60±25% Relative Humidity		
	IP Class	IP65		
Mechanical	Plastic Case	ABS+PC(the upper cover can be removed for maintenance)		
	Weight	28.8KG		
	Dimensions	390mm x 232mm x 260mm		
Application	Installation	Parallel connection <input checked="" type="checkbox"/> Series connection <input type="checkbox"/>	Parallel connection <input checked="" type="checkbox"/> Series connection on 24V/36V/48V <input checked="" type="checkbox"/>	Parallel connection <input checked="" type="checkbox"/> Series connection <input type="checkbox"/>
	Control	Battery management system (BMS) integrated		
	Monitoring	Bluetooth monitoring ,Smartphone APP		

24V100Ah

One-stop solution



CE ROHS UN38.3 MSDS

		SX24V100AH
Electrical Characteristics	Nominal Voltage	25.6V
	Nominal Capacity	100Ah
	Energy	2560Wh
	Cycle Life	>3000 cycles @ 0.2C 80% DOD
	Months Self Discharge	<3%
	Efficiency of Charge	>99% @0.2C
	Efficiency of Discharge	96~99% @0.5C
Standard Charge	Charge Voltage	29.2±0.2V
	Charge Mode	CC/CV
	Charge Current	20A
	Max. Charge Current	100A
	Charge Cut-off Voltage	29.2±0.2V
Standard Discharge	Continuous Current	80A
	Max. Pulse Current	85A(<3s)
	Discharge Cut-off Voltage	22.0V
	Depth of discharge	90%DOD
Environmental	Charge Temperature	0℃ to 55℃ (32F to 131F) @60±25% Relative Humidity
	Discharge Temperature	-20℃ to 60℃ (-4F to 140F) @60±25% Relative Humidity
	Storage Temperature	-20℃ to 45℃ (-4F to 113F) @60±25% Relative Humidity
	IP Class	IP65
Mechanical	Plastic Case	ABS+PC(the upper cover can be removed for maintenance)
	Weight	29.0KG
	Dimensions	390mm x 232mm x 250mm
Applications	Installation	Parallel connection <input checked="" type="checkbox"/> Series connection <input checked="" type="checkbox"/>
	Control	Battery management system (BMS) integrated
	Monitoring	Bluetooth monitoring ,Smartphone APP

48V50Ah

One-stop solution

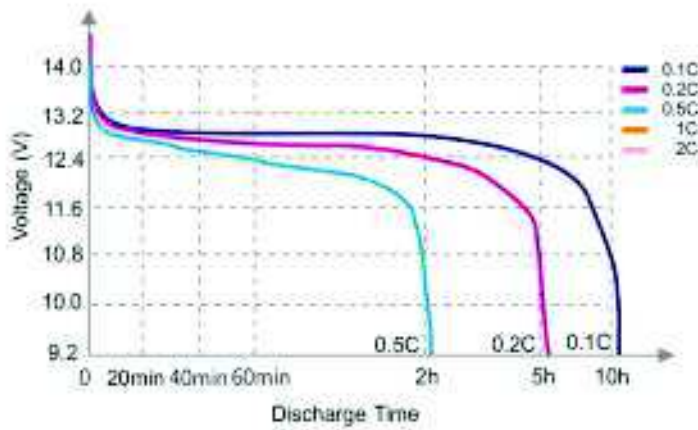


CE ROHS UN38.3 MSDS

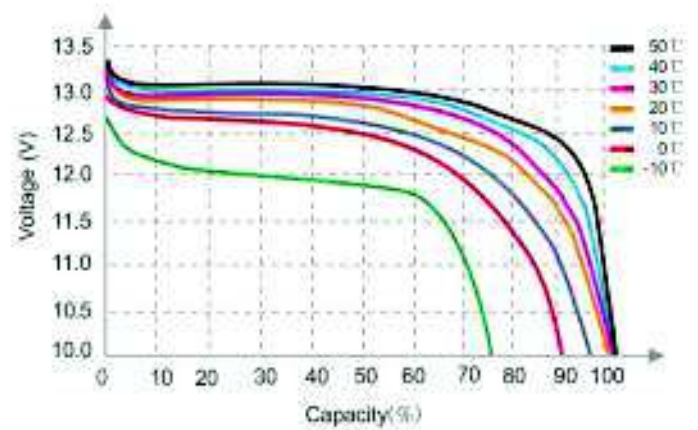
		SX48V50AH
Electrical Characteristics	Nominal Voltage	51.2V
	Nominal Capacity	50Ah
	Energy	2560Wh
	Cycle Life	>3000 cycles @ 0.2C 80% DOD
	Months Self Discharge	<3%
	Efficiency of Charge	>99% @0.2C
	Efficiency of Discharge	96~99% @0.5C
Standard Charge	Charge Voltage	58.4±0.2V
	Charge Mode	CC/CV
	Charge Current	10A
	Max. Charge Current	50A
	Charge Cut-off Voltage	58.4±0.2V
Standard Discharge	Continuous Current	80A
	Max. Pulse Current	85A(<3s)
	Discharge Cut-off Voltage	44V
	Depth of discharge	90%DOD
Environmental	Charge Temperature	0℃ to 55℃ (32F to 131F) @60±25% Relative Humidity
	Discharge Temperature	-20℃ to 60℃ (-4F to 140F) @60±25% Relative Humidity
	Storage Temperature	-20℃ to 45℃ (-4F to 113F) @60±25% Relative Humidity
	IP Class	IP65
Mechanical	Plastic Case	ABS+PC(the upper cover can be removed for maintenance)
	Weight	29KG
	Dimensions	390mm x 232mm x 260mm
Applications	Installation	Parallel connection <input checked="" type="checkbox"/> Series connection <input checked="" type="checkbox"/>
	Control	Battery management system (BMS) integrated
	Monitoring	Bluetooth monitoring ,Smartphone APP

Rechargeable Lithium Iron Phosphate (LiFePO4) Battery

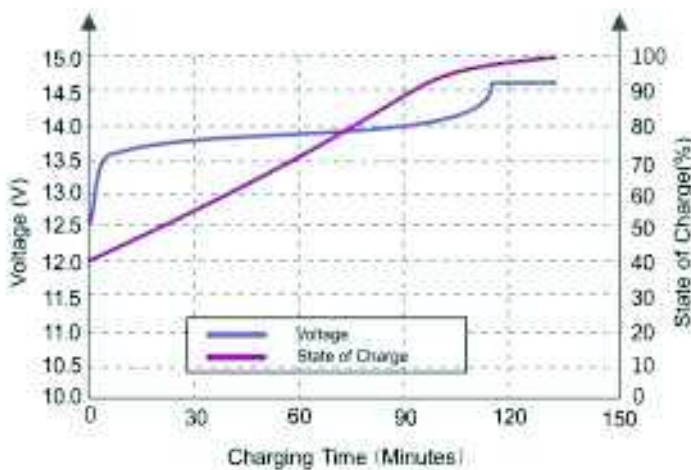
Different Rate Discharge Curve(25°C)



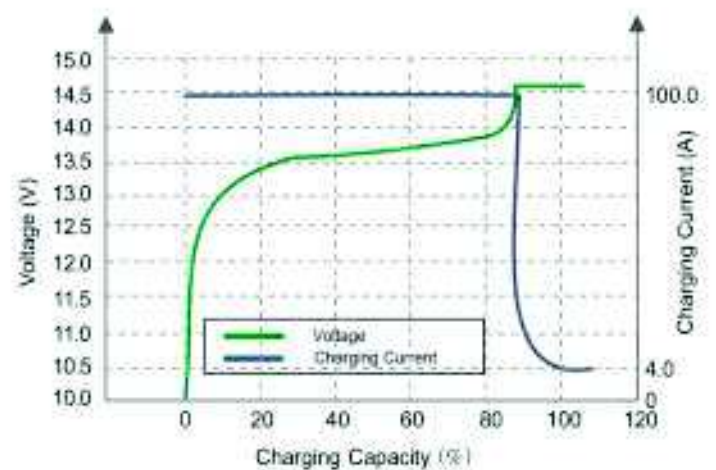
Different Temperature Discharge Curve(0.5C)



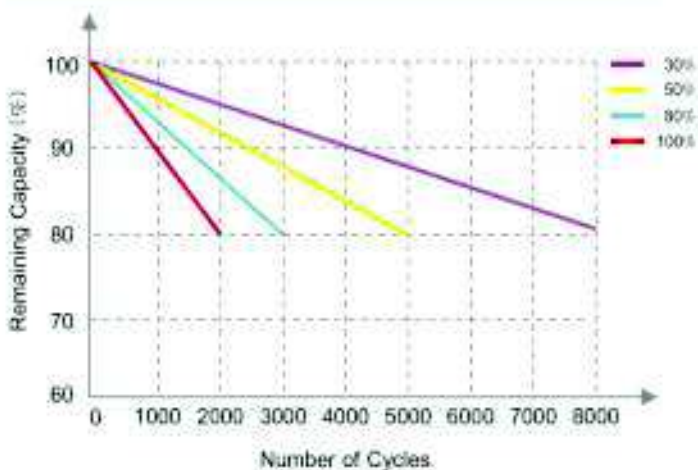
State of Charge Curve(0.5C, 25°C)



Charging Characteristics(0.5C, 25°C)



Different DOD Discharge Cycle Life Curve(0.5C)



Different Temperature Self Discharge Curve

