

High Quality with A Grade Cells Lithium Battery



Su-mak lithium series batteries provide superior performance, capacities and reliability. Using state of high power cell technology, the lithium series is designed for environmentally sensitive areas that require enhanced cycle life capabilities in commercial.

Su-mak lithium batteries are widely used in industrial, residential, commercial and private applications. The maintenance free construction and advanced design features makes the lithium series the definitive choice for a wide variety of markets. Like solar and renewable energy storage, electric vehicle, golf cart and industrial equipment, floor machines, forklifts, aerial lifts, and robotics; marine, RV, and no-idle solution; Mobility and Medical Equipment; Telecom, Broadband and Cable TV; UPS systems.

Applications



BATTERY SPECIFICATIONS

Battery type-Chemistry	LiFePO4	Voltage Window	43.2V-58.4V
Nominal Voltage	51.2V	Recommend Charge Voltage	57.6V
Nominal Capacity	630Ah	Max Charge Voltage	58.4V
Energy Density	32256Wh	Recommend Charge Current	120A
Dimensions(LxWxH)	850*870*255mm	Max Continuous Current	200A
Weight	254KGS	Recommend Discharge Voltage	44.8V
Terminal Type	Plug-in	Max Discharging Voltage	43.2V
Terminal Torque	8.5NM	Max Continuous Discharge Current	200A
Case Material	SPCC	Peak Discharge Current	250A
BMS build-in	Yes	Cycle life(0.2C, 25°C@80% DOD)	6000 Cycles
AH Efficiency – round trip	>98%	Discharge Temperature	(- 20 to 50)°C
Self Discharge per Month	<3%	Charge Temperature	(0 to 50)°C
Max in Parallel	16PCS	Storage Temperature	(- 20 to 50)°C
Max in Series	Not Allowed	Bluetooth(App)	Optional
LCD Screen	Optional	Heating Function	Optional
IP Class	IP65		

BMS CHARACTERISTICS

Primary Charging Protection	Current : 205A	Delay Time: 2s
Second Charging Protection	Current : 210A	Delay Time: 1ms
Primary Discharging Protection	Current : 205A	Delay Time: 2s
Second Discharging Protection	Current : 250A	Delay Time: 100ms
Over Charge Voltage Protection	Voltage : 58. 4V	Delay Time: 1~2s
Over Discharge Voltage Protection	Voltage : 43. 2V	Delay Time: 1~2s
Temperature Protection	PCB Temperature≥95 Recover≤85	°C °C

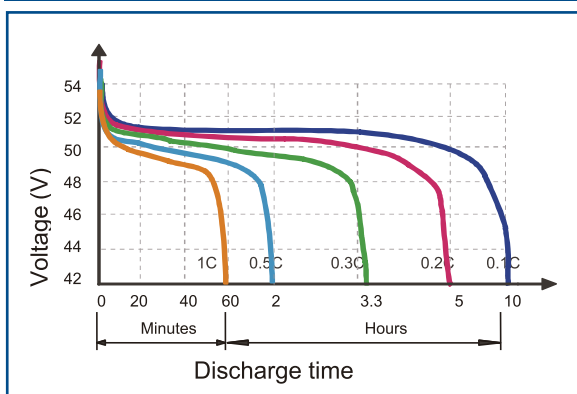
Constant Current Discharge Data (Amperes @ 25°)

Discharge Time	1h	2h	3h	4h	5h	10h	20h
Cut off voltage (43.2V)	630A	315A	210A	157.5A	126A	63A	31.5A

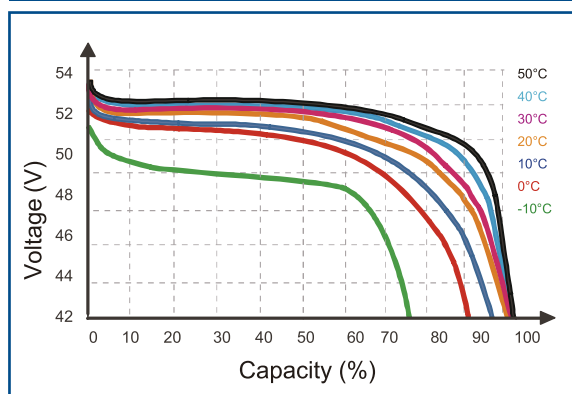
Constant Power Discharge Data (Watts @ 25°C)

Discharge Time	1h	2h	3h	4h	5h	10h	20h
Cut off voltage (43.2V)	32256W	16128W	10752W	8064W	6451.2W	3225.6W	1612.8W

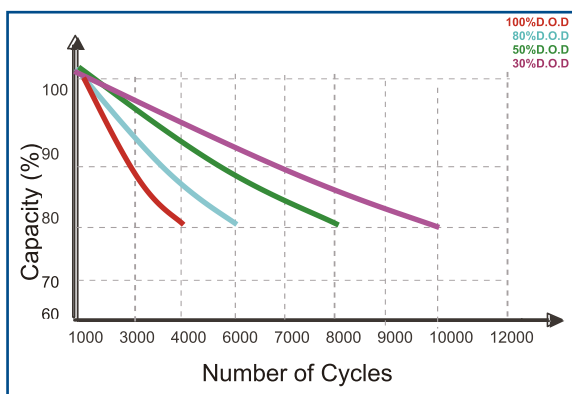
Discharge characteristics (25°C)



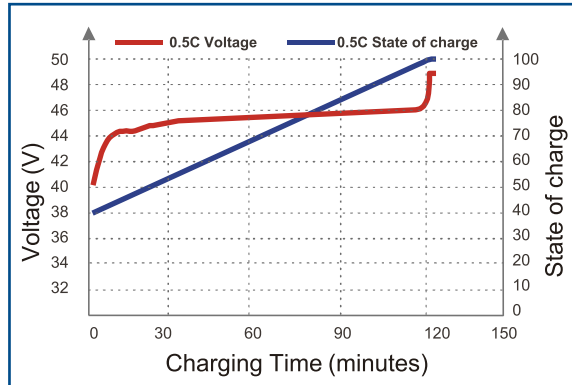
Different Temperature Discharge Curve (0.5C)



Different DOD Discharge cycle life Curve 0.2C 25°C



State of Charge Curve (0.5C, 25°C)



Note 1: Please always refer to the latest edition of our technical manual that published on our website to ensure safe and efficient operation.

Note 2: When make parallel connection, please full discharge batteries, then recharge after parallel connected; when series connect, please keep batteries with same remain capacity/

Note 3: Parallel connection is only for longer backup time, not for larger output power.