

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	400Ah	Max Charge Voltage	58.4V
Energy Density	20480Wh	Recommend Charge Current	50A
Dimensions(LxWxH)	540*240*880mm	Max Continuous Current	200A
Weight	157KGS	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 55)°C
Self Discharge per Month	<3%	Charge Temperature	( 0 to 55)°C
Max in Parallel	16PCS	Storage Temperature	(- 20 to 45)°C
Max in Series	Not Allowed	Bluetooth(App)	Yes
LCD Screen	Optional	Heating Function	Optional

## BMS CHARACTERISTICS

Primary Charging Protection	Current :205A	Delay Time: 2s
Second Charging Protection	Current :210A	Delay Time: 1s
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 Recovers≤85	°C °C
Communication port	RS485, optional for CAN/Dryport, customized acceptable	

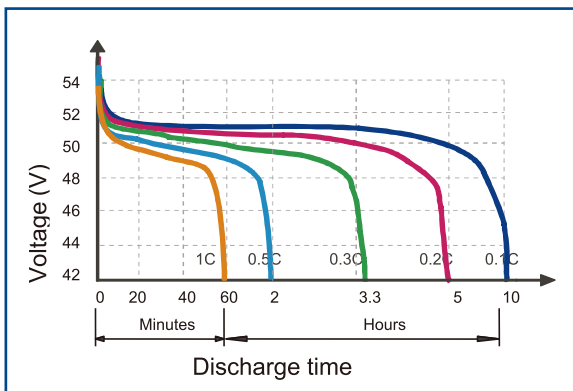
## Constant Current Discharge Data (Amperes @ 25°C)

Discharge Time	1h	2h	3h	4h	5h	10h	20h
Cut off voltage (43.2V)	400A	200A	133.3A	100A	80A	40A	20A

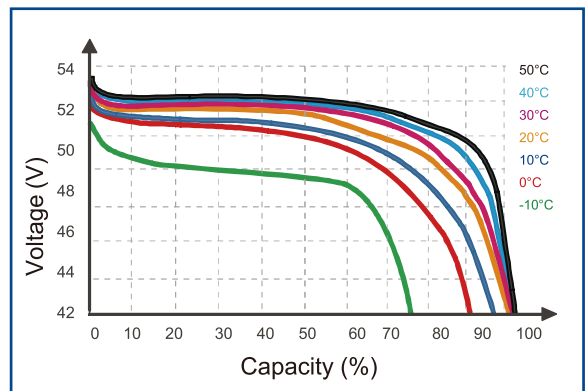
## Constant Power Discharge Data (Watts @ 25°C)

Discharge Time	1h	2h	3h	4h	5h	10h	20h
Cut off voltage (43.2V)	20480W	10240W	6826.6W	5120W	2560W	2048W	1024W

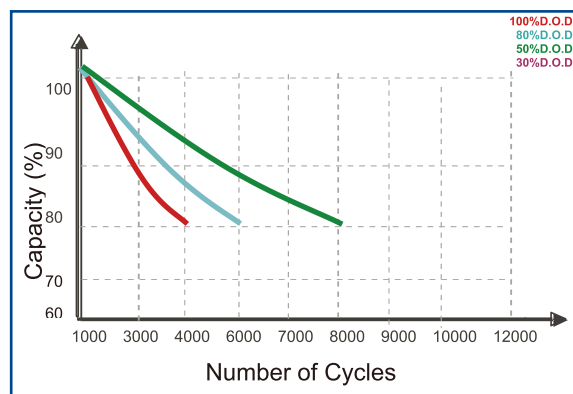
Discharge characteristics (25°C)



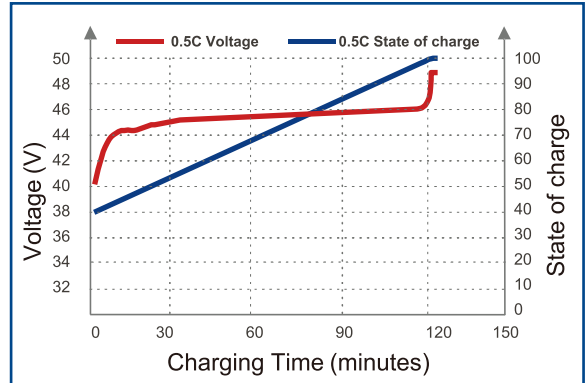
Different Temperature Discharge Curve (0.5C)



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.