

SP52230-11K-M

LITHIUM BATTERY SERIES



Provides 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, industrial, residential, and private applications. The maintenance free construction and advanced design features makes the lithium Series the definitive choice for a wide variety of markets; Solar and Renewable Energy Storage; Electric Vehicle and Golf cart; Industrial equipment, Floor Machines. Forklifts, Aerial lifts, and Robotics; Marine, RV and no-idle solutions; Mobility and Medical Equipment; Telecom, Broadband and Cable TV; UPS systems.



BATTERY SPECIFICATIONS

Code	LFP52V-230-11K-M	Code	LFP52V-230-11K-M
Battery Type-Chemistry	LiFePO4	Recommended Discharge Voltage	45±0.20V
Nominal Voltage	51.2V	Max Discharge Voltage	40±0.20V
Amp Hour Capacity	230Ah	Max Discharge Current	200A
Energy Density	11776Wh	Pulse Discharge Current	200A±3S
Dimensions(LxWxH)	550*300*870mm	Internal Resistance-Milliohms	<80mQ
Net weight/Gross weight	100kg/124kg	Efficiency-Round Trip	<99.5%
Terminal Type	M8	Self Discharge per Month	<3%
Function options	Active balancing of battery cell module 5A	Max Parallel Connections	16 pcs
Case Material	Metal	Series Connections	Not Allowed
BMS Build-in	Yes	Case IP Rating	IP20
Recommended Charge Voltage	57.6±0.20V	Design Life	20 Years
Max Charge Voltage	58.4±0.20V	Cycle Life(1℃, 25℃@B0%DOD)	>4000 cycles
Recommended Charge Current	25A	Cycle Life(0.5C, 25℃@B0%DOD)	>6000 cycles
Max Charge Current	300A	Discharge Temperature	23 to 65℃
Charge Current (0to-10℃)	<0.1℃	Charge Temperature	-3 to 65℃
Charge Current (-20to-10℃)	<0.05℃	Storage Temperature	-20 to 45℃

BMS SPECIFICATIONS

Description- BMS Version: LL				
BMS Protection Range	Over (Voltage, Current, Temperature Management) and cell balance			
Over Charging Cell Protection	>3.80	±0.05V	Delay. 2±0.5S	
Over Charging Pack Warning	>59	±0.20V		
Over Charging Pack Protection	>30	±0.20V	Delay. 2±0.5S	
Over Charging Current Warning	>100	±2.0A		
Over Charging Current Protection 1	>102<112	±2.5A	Delay. 20±1.0S	
Over Charging Current Protection 2	≥112	±2.5A	Delay. 3±1.0S	Turning to 10A
Over Charging Temp Protection 1	<-5 or>70	±3℃	Release: 0 or<60±3℃	Delay. 2±0.5S
Over Discharging Cell Protection	<2.5	±0.05V	Delay. 2±0.5S	
Over Discharging Pack Protection	<45	±0.20V	Delay. 2±0.5S	
Over Discharging Current Warning	>102	±2.5A		
Over Discharging Current Protection 1	>102<122	±2.5A	Delay. 30±1.0S	
Over Discharging Current Protection 2	≥122	±2.5A	Delay. 3±1.0S	
Over Discharging Temp Protection 1	<-25 or>75	±3℃	Release:>-20 or<70±3℃	
PCB Temp Protection	>95	±3℃	Release:<80±3℃	Delay. 2±0.5S
Cell Balance Start	3.4	±0.05V	Cell voltage difference<20mV	Passive balance
Balance Current	150	±10mA	Delay. 2±0.5S	
Short Circuit				
Power Consumption	<300uA		Switch-off mode	Storage & transportation
	<500uA		Sleep mode	Protection & stand-by
	<15mA		Operating mode	Operating
	<28mA		Operating mode	Low voltage to start Pre-charge
Temperature Accuracy	±2℃		Measuring range	-40-100° ℃
Voltage Accuracy	±15mV		For cells and module	
Current Accuracy	FSC±5%		Measuring range	-200-+200A
SOC	±5%		Integral calculation	

