



SUNBATTERY
AUSTRALIA

SB-LFP51.2-100

51.2V

5120Wh

LiFePO4
100Ah

- Long Cycle Life > 2000 cycles @ 100% DOD.
- High Density, High Discharge Current, High Temperature Range.
- Low Weight, Free Maintenance.
- Fast Charging.
- Environment Friendly.
- Lithium Iron Phosphate (**LiFePO4**).
- Integrated Battery Management System (BMS).

BATTERY DATA SHEET

Electrical Parameters

Nominal Voltage	51.2V
Rated Capacity	100Ah
Energy	5120Wh
Resistance	≤ 30m Ω
Efficiency	99%
Cycle Life	> 2000 cycles @ 1C, 100% DOD > 4000 cycles @ 1C, 80% DOD > 6000 cycles @ 1C, 50% DOD
Self Discharge	2% per Month
Max. Battery connected in Series/Parallel 1 Series / 4 Parallel	

Discharge Parameters

Continuous Discharge Current	150A
Pulse Discharge Current	300A (5 seconds)
Recommended Volt. Disconnect	40V
BMS Discharge Cut-off Voltage	32V
Reconnect Voltage	36.8V
Short Circuit Protection	200~600 us

Compliance Certificate

Certifications	UL1642 (cell)
	CE
	IEC62133 & CB
	KC
	BIS
Shipping Classification	UN3480, Class 9, UN38.3

Mechanical Parameters

Dimension (L x W x H)	522x 268 x 224 mm
	20.55 x 10.55 x 8.82"
Weight	36.5kg (80.5lbs)
Terminal Type	M8
Battery Housing	ABS, UL-94 V-0
Housing Protection	IP65
Cell Type-Chemistry	LiFePO4 Cell
SOC Display (Optional)	None

Charge Parameters

Charge Method	CC-CV
Charge Voltage	57.6~59.2V
Recommended Float Voltage	55.2V
Recommended Charge Current	≤ 50A
Maximum Charge Current	100A
BMS Charge Cut-off Voltage	62.4V

Temperature Parameters

Discharge Temperature	-30 to 60°C (-22 to 140°F)
Charge Temperature	0 to 45°C (32 to 113°F)
Storage Temperature	-40 to 60°C (-40 to 140°F)
BMS Low Temperature Cut-off	-10°C (14°F)
BMS Low Temperature Turn-On	0°C (32°F)
BMS High Temperature Cut-off	80°C (176°F)
BMS High Temperature Turn-On	70°C (158°F)

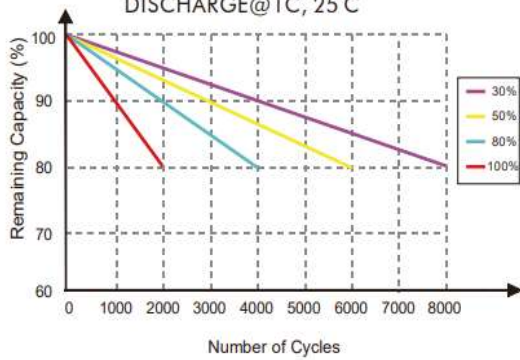


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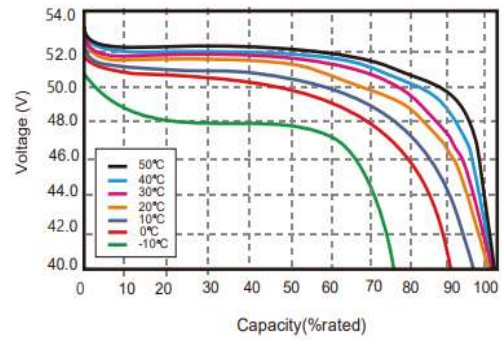


Performance Characteristics

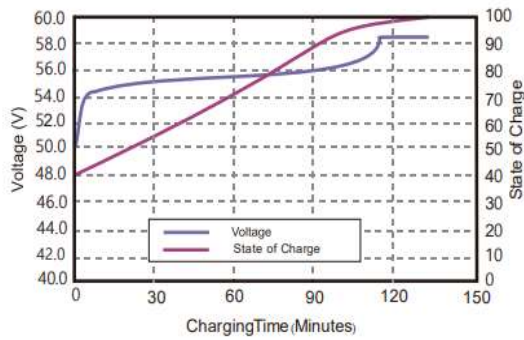
CYCLE LIFE vs. DEPTH OF DISCHARGE (DOD)
DISCHARGE @ 1C, 25°C



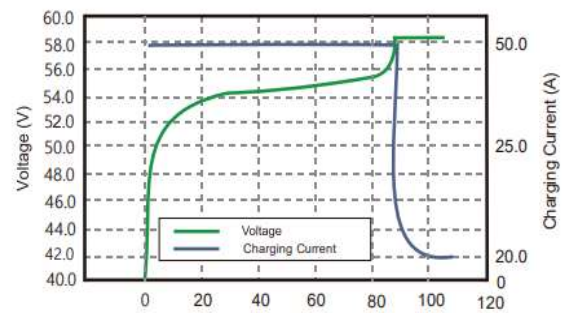
DISCHARGE CAPACITY at VARIOUS TEMPERATURES
DISCHARGE @ 1C



STATE OF CHARGE CURVE @ 1C, 25°C



CHARGING CHARACTERISTICS @ 1C, 25°C



Battery Dimension



M8 - 1.0x 8mm
Threaded Hole



Battery Applications

- + Data Center UPS
- + Telecom Backup Power
- + Military Power Supply
- + Solar Energy Storage System
- + Solar Street LED Lightings
- + Autonomously Guided Vehicles (AGVs)
- + Industrial Robotics & Handling Equipment
- + Aerial Work Platform
- + Floor Cleaning Machines
- + Power Tools, Lawn Mower
- + Electric Bike & Motorcycles
- + Electric Mobilities (E-scooters, Wheelchair)
- + Golf Trolley & Golf Carts
- + Medical Devices
- + Electric Ships
- + Passenger Vehicles