



LiFePO₄

LITHIUM IRON PHOSPHATE BATTERY



Advantages of the FLYBAT lithium iron phosphate (LiFePO₄) batteries:

- 5 year manufacturer's warranty
- The safest technology, without the risk of fire or explosion
- Integrated BMS
- Long service life
- Steadily improving storage capacity
- 99 % efficient
- High stability even under extreme loads
- No memory effect - no need for full charge and discharge cycles
- High performance even under extreme conditions
- Deep and steady discharge and charging efficiency
- Small size and light weight

ELECTRICAL SPECIFICATIONS

Nominal Voltage	12.8 V	Resistance	50 mΩ
Nominal Capacity	50Ah	Efficiency	99%
Capacity @ 20A	120 min	Self Discharge	<3% per Month
Energy	640 Wh	Maximum Modules in Series/parallel	4/4

MECHANICAL SPECIFICATIONS

Dimensions	Length	197 mm
	Width	166 mm
	Height	173 mm
Weight	6.7 kg	
Terminal Type	M8	
Terminal Torque	9 - 11 N-m	
Case Material	ABS	
Enclosure Protection	IP56	
Chemistry	LiFePO ₄	

TEMPERATURE SPECIFICATIONS

Discharge Temperature	-20 to 60 °C
Charge Temperature	0 to 55 °C
Storage Temperature	-20 to 60 °C
PCM High Temperature Cut-Off	80 °C

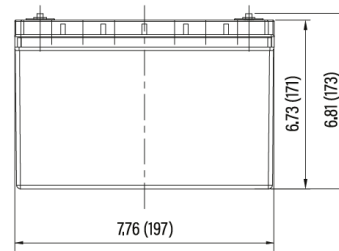
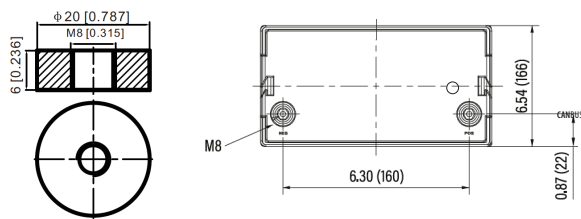
CHARGE SPECIFICATIONS

Recommended Charge Current	25 A
Maximum Charge Current	50 A
Recommended Charge Voltage	14.2 V - 14.6 V
PCM Charge Voltage Cut-Off	15.6 V
Reconnect Voltage	15.2 V
Balancing Voltage	14.4 V

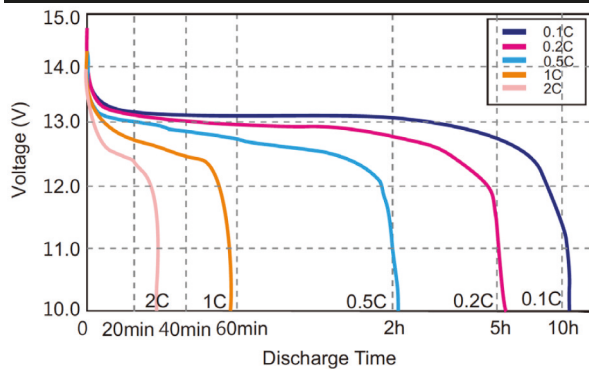
DISCHARGE SPECIFICATIONS

Maximum Continuous Discharge Current	50 A
Peak Discharge Current	100 A
PCM Discharge Current Cut-Off	170 A
Recommended Low Voltage Disconnect	11 V
PCM Discharge Voltage Cut-Off	8 V
Reconnect Voltage	9.2 V
Short Circuit Protection	Yes

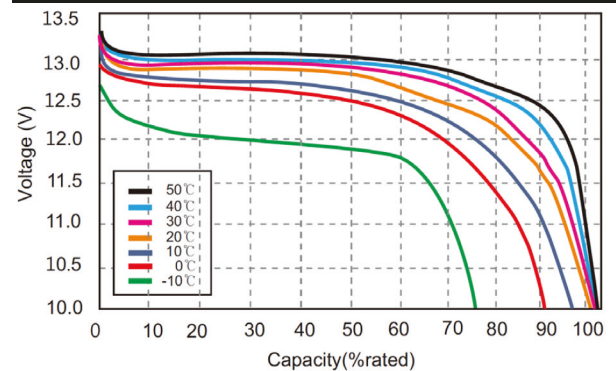
DIMENSIONAL SPECIFICATIONG



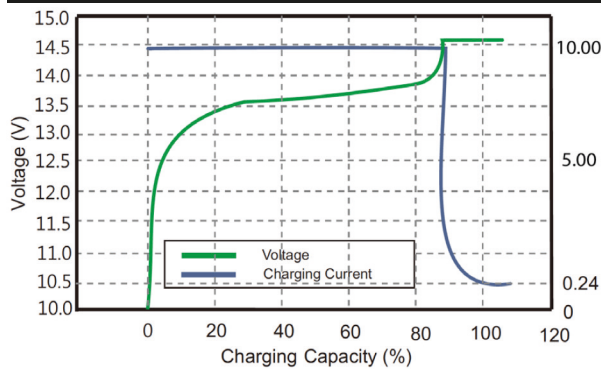
DIFFERENT RATE DISCHARGE CURVE @25°C



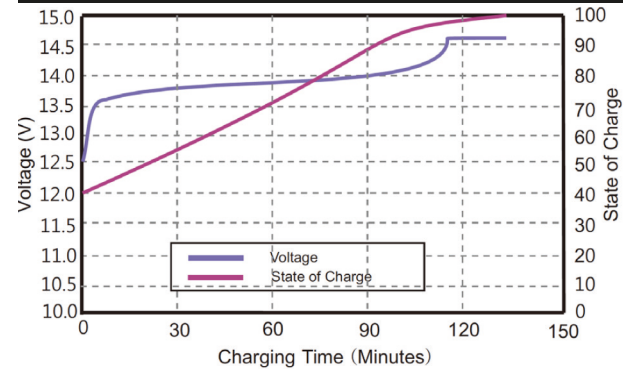
DIFFERENT TEMPERATURE DISCHARGE CURVE @0.5C



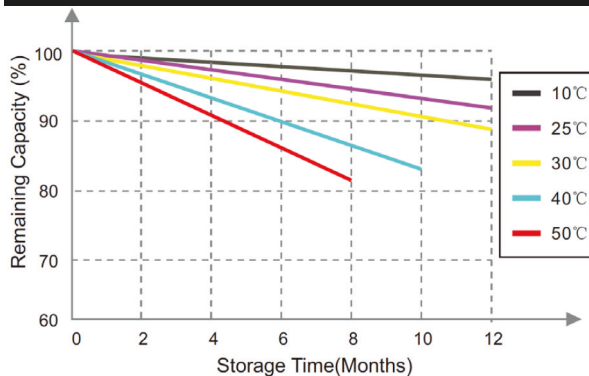
CHARGING CHARACTERISTICS @0.5C 25°C



STATE OF CHARGE CURVE @0.5C 25°C



DIFFERENT TEMPERATURE SELF DISCHARGE CURVE



DIFFERENT DOD DISCHARGE CYCLE LIFE @1C

