

DATA SHEET | 12V 18Ah Lithium

LP12V018

LEADYO POWER

One-stop Lithium Battery Solution Manufacturer Since 2013

| Voltage: 12.8V | Capacity :18Ah | Energy: 230.4Wh

LITHIUM IRON PHOSPHATE BATTERY LIFE

Battery: Deep cycle lithium iron phosphate

BMS Solution: MosFets / IC.

Color: Black or customized.

Cycle Life: >3000 cycles @ 70%DOD

Very low self discharge: (<3 % per month)

Certification: CE, RoHS, UN 38.3

Flexible deployment : up to 16 packs in parallel.

Deep discharge: allowed up to 100 %

Excellent temperature range: (-20 °C up to +60 °C)

Bluetooth Monitoring: Optional

About 50 % lighter and 40% smaller than equivalent Lead-AGM battery with same usable energy.

Discharge/Charge Specifications

Max Continuous Discharge current	20A
Peak Current	25A (30s)
Discharge Pluse Current	60A±10A (31±10ms)
Discharge Cut-off Voltage	8.8V (2.2V±0.05v pc)
Max Charge Current	10A
Recommended Charge Current	4-5A
End of Charge voltage	14.4V±0.2V
BMS Over Charge Voltage Cut-off	15V(3.75V±0.05v pc)
Balancing Voltage	3.6V±0.05v pc
Cell Balancing current	36±5mA

Mechanical Specifications

Terminal Type	F2
Weight	2.4kg
Case Dimension (L*W*H)	L151*W87*H130mm
Case Material	ABS case
Enclosure Protection	IP66
Cell Type/Chemistry	Cylindrical-LiFePO4 battery
BMS Functions:Low voltage ,high voltae,over temp ,over current,short-circuit protection, passive balance function,etc.	

Electrical Specifications

Nominal Voltage	12.8V
Rated Capacity	18Ah
Energy	230.4Wh
Opetation Voltage	8.8V-14.4V
Self Discharge	3% / per month
Efficiency	99%
Max Module In Series	
Max Module In Parallel	20pcs
Short Circuit Protection	200-800µs Auto recover or charge release

Temperature Specifiactions

Discharge Temperature	-20 ~ +65°C
Charge Temperature	-20 ~ +45°C
Storage Temperature Range	-20 ~ +45°C
Battery High Temperature Protection	60-65°C

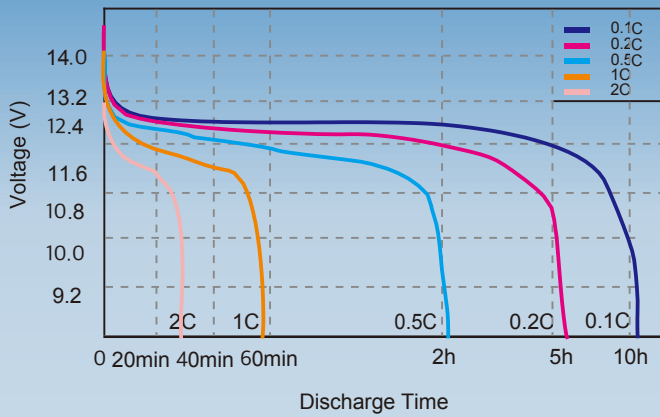
Picture Specification



PERFORMANCE CHARACTERISTICS

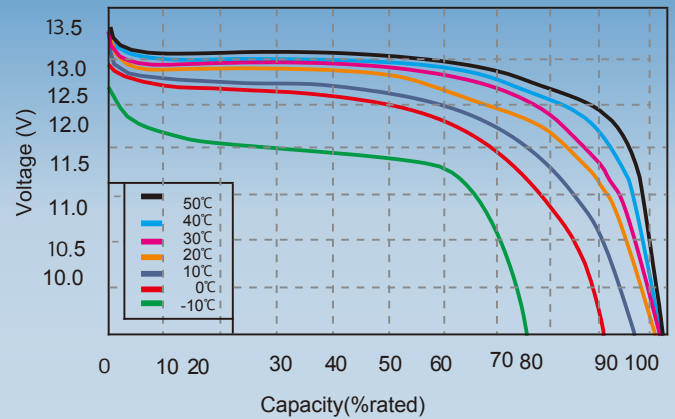
Different Rate Discharge Curve

Different Rate Discharge Curve @25°C



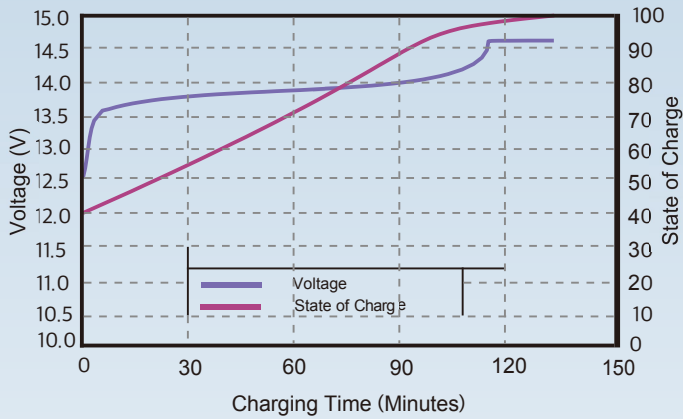
Different Temperature Discharge Curve

Different Temperature Discharge Curve @0.5C



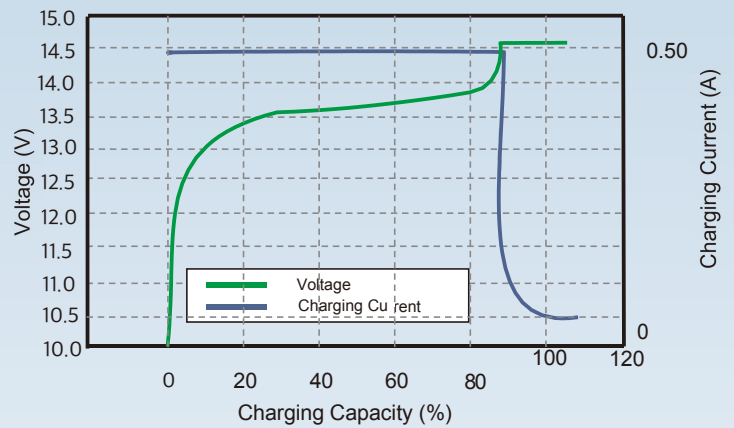
State of Charge Curve

State of Charge Curve @0.5C 25°C



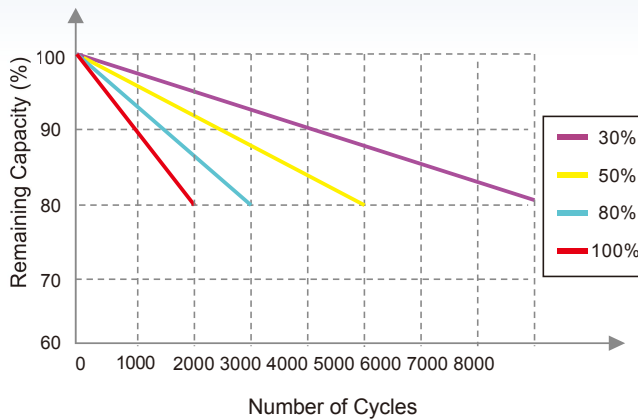
Charging Characteristics

Charging Characteristics @0.5C 25°C



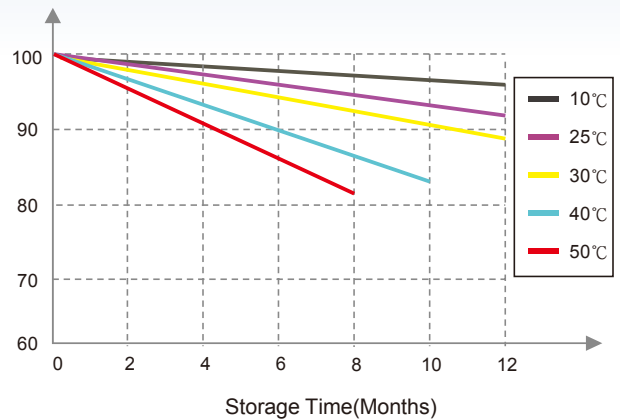
Cycle Life Curve

Different DOD Discharge Cycle Life Curve @1C



Self Discharge Characteristics Curve

Different Temperature Self Discharge Curve



MSDS UN38.3

