Technical Data Sheet

12 V 40 Ah LiFePO4 Lithium Battery



Reference | B12040

Technical Specifications

Product Reference: B12040
Technology: Lithium Iron Phosphate
Nominal Voltage: 12.8 V
Minimum Capacity: 40 Ah
Energy: 512 Wh
Charging Voltage: 14.6 V
Standard Charge Current: 15 A
Fast Charge Current: 20 A
Continuous Discharge Current: 70 A
Pulse Discharge Current: 80 A (3 s)
Self-Discharge: < 3% / month
Operating Temperature: -20°C to +60°C
Charging Temperature: 0°C to +45°C
Cycle Life: 2,000 at 1C, 100% DOD

Battery Management System (BMS)

- ✓ Short-circuit protection
- ✓ Overcharge protection (120 A ± 10 A)
- ✓ Deep-discharge protection
  Cut-off voltage < 8 V
- ✓ High-temperature protection
  Cut-off temperature > 65°C
- ✓ Battery disconnect protection;
  automatic reconnection
- ✓ Cell balancing

Connection

M6 screw terminals

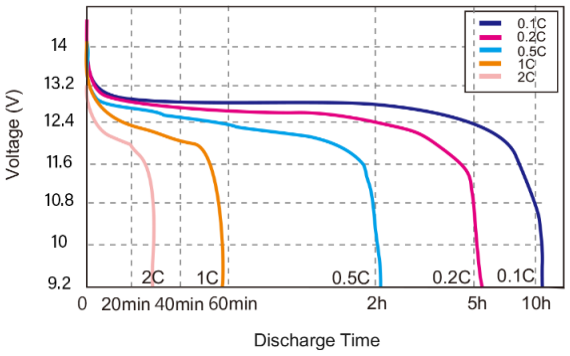
Weight: 5.2 kg
Dimensions:191 (L) x 134 (W) x 170 (H) mm

IP50 (no protection against water ingress)

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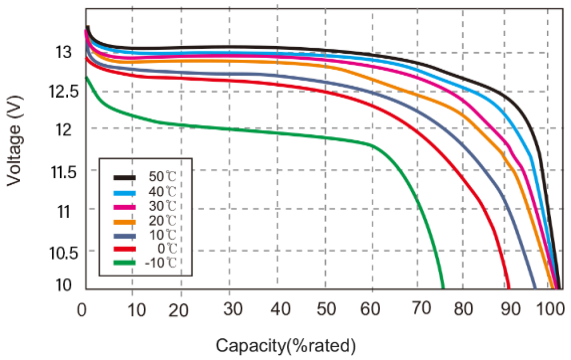
Different Rate Discharge Curve

Different Rate Discharge Curve @25℃



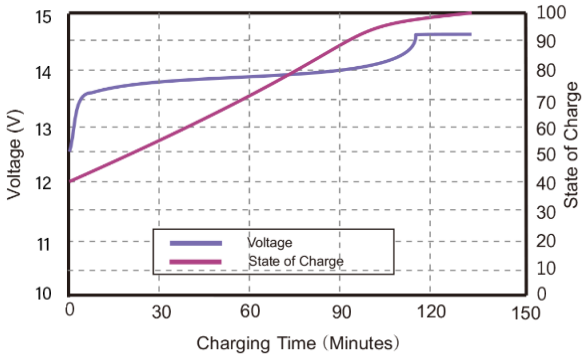
Different Temperature Discharge Curve

Different Temperature Discharge Curve @0.5C



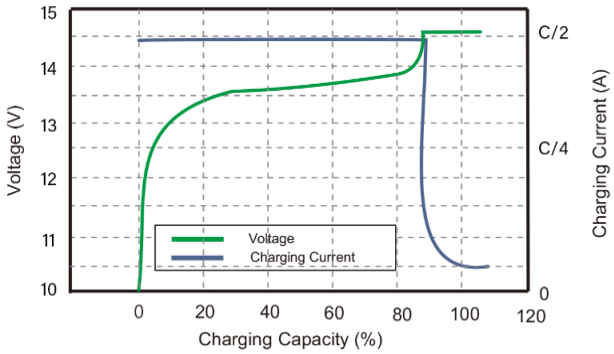
State of Charge Curve

State of Charge Curve @0.5C 25℃



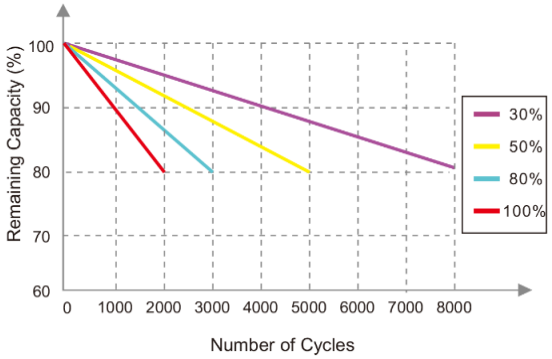
Charging Characteristics

Charging Characteristics @0.5C 25℃



Cycle Life Curve

Different DOD Discharge Cycle Life Curve @1C



Self Discharge Characteristics Curve

Different Temperature Self Discharge Curve

