



LiFePO4 Deep Cycle Battery ALS-12400



ENERGY STORAGE SOLUTIONS

LiFePO4 chemistry battery with safe performance and longer cycle life, offers you various capacities options to meet different requirements. Lighter weight than lead acid batteries but with higher power. It delivers twice the power of lead acid battery, even at high discharge rates, while maintaining higher energy capacity.

Wide Temperature Range • High Safety • IP65 Protection • Flexible Expansion

Features and Advantages



Wide Temperature Range
Range of -20 to 60 °C



IP65
High protection level



Expandable
Higher capacity available



High Safety
LFP & smart BMS



Longer Cycle Life
≥6000 cycles ⁽¹⁾



Easy to Install
Save time and effort

Technical Parameters

| Model | LiFePO4 Deep Cycle Battery ALS-12400 (5120Wh) |
|---|--|
| ELECTRICAL SPECIFICATIONS | |
| Nominal Voltage | 12.8V |
| Nominal Capacity | 400 Ah |
| Capacity @ 80A | 300 min |
| Resistance | ≤10 mΩ @ 50% SOC |
| Efficiency | 99% |
| Self Discharge | <3% per Month |
| Maximum Modules in Series¶llel | 4S4P |
| Warranty | 3years |
| Cycle Life ⁽¹⁾ | ≥6000 Cycles |
| CHARGE SPECIFICATIONS | |
| Recommended Charge Current | 80 A |
| Maximum Charge Current | 200 A |
| Recommended Charge Voltage | 14.2 V – 14.6V |
| BMS Charge Voltage Cut-Off | 15.0 V (3.75 ±0.025 v) (2s) |
| Reconnect Voltage | 14.0 V (3.5 ±0.05 v) |
| Balancing Voltage | 13.6 V (3.4 ±0.025 v) |
| DISCHARGE SPECIFICATIONS | |
| Maximum Continuous Discharge Current | 200 A |
| Peak Discharge Current | 600 A (1-3s) |
| BMS Discharge Current Cut-Off | 600 A (1-3s) |
| Recommended Low Voltage Disconnect | 11 V |
| BMS Discharge Voltage Cut-Off | 9.6 V (2.4 ±0.08 vpc) (2s) |
| Reconnect Voltage | 10.4 V (2.6 ±0.1v) |
| Short Circuit Protection | 200-600 μs |
| TEMPERATURE SPECIFICATIONS | |
| Discharge Temperature | -4 to 140°F (-20 to 60°C) |
| Charge Temperature | 32 to 131°F (0 to 55°C) |
| Storage Temperature | 14 to 113 °F (-10 to 45°C) |
| BMS High Temperature Cut-Off | 167 °F (75°C) |
| Reconnect Temperature | 122°F (50°C) |
| MECHANICAL SPECIFICATIONS | |
| Dimensions (L x W x H) | 20.47 x 10.59 x 8.66 inch 520 x 269 x 220 mm |
| Weight | 83.7lbs (38.0 kg) |
| Terminal Type | M8 x 1.25 |
| Terminal Torque | 80 - 100 in-lbs (9 - 11 N-m) |
| Case Material | ABS |
| Enclosure Protection | IP65 |
| Cell Type - Chemistry | LiFePO4 |
| COMPLIANCE SPECIFICATIONS | |
| Certifications | UN38.3 (battery) CE (battery) UL1973 & IEC62133 (cells) |
| Shipping Classification | UN 3480, CLASS 9 |
| (1) Cycle Test Conditions:0.2C Charging/Discharging, @25°C,80% DOD. | |