



LiFePO4 Deep Cycle Battery ALS-12100



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-12100 (1280Wh)
ELECTRICAL SPECIFICATIONS	
Nominal Voltage	12.8V
Nominal Capacity	100 Ah
Capacity @ 20A	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	20 A
Maximum Charge Current	100 A
Recommended Charge Voltage	14.2 V – 14.6 V
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	100 A
Peak Discharge Current	300 A (1-3 s)
BMS Discharge Current Cut-Off	300 A (1-3 s)
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 ±0.1 v)
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)	12.95 x 6.77 x 8.42 inch 329 x 172 x 214 mm
Weight	24.2 lbs (11.0 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.	