

AL-12.8-80 - ESCAPE SERIES LITHIUM DEEP CYCLE (LiFePO₄) BATTERY (12.8V, 80Ah)

Features of LiFePO₄ Battery

WHY ADVANCE ESCAPE?

- **Proven Quality** - Advance Escape is manufactured in a fully integrated facility, to international standards of excellence in quality, environment and safety: ISO9001, ISO14001 and ISO45001.
- **Certified Safety** - Advance Escape has been certified and tested to the highest international safety standards at both cellular and battery level: UL1642, UN38.3

WHY LITHIUM ION FERROUS PHOSPHATE (LiFePO₄)

- The safest of all the known lithium ion technologies globally
- Smaller than any other commercial size battery type
- Less than half the weight of a lead-acid battery
- Wider temperature range and higher temperature
- Higher cycle life than any other commercial sized battery
- Ultra low self discharge makes it ideal for intermittent use
- LiFePO₄ is the most robust chemistry under extreme conditions
- Environmentally friendly: LiFePO₄ batteries have no poisonous or harmful substances, whether in production or in use.
- Best direct replacement for deep cycle duty.



Advance



Applications

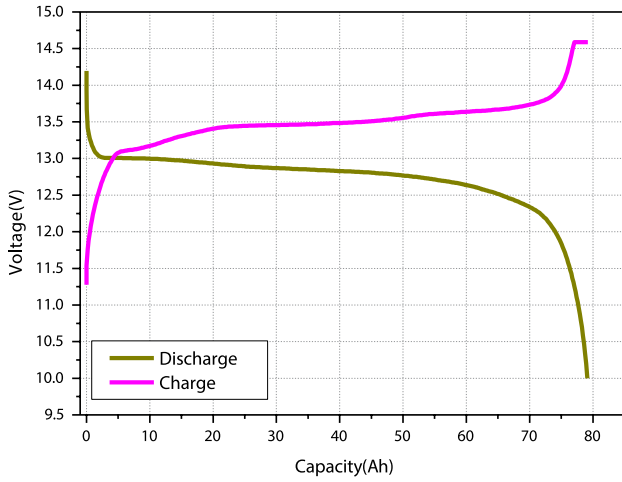
- Caravans, Camping, 4WD • Marine • Solar/Wind Energy Storage • UPS, Back-up Power • Electric Vehicles, Mobility

Specifications

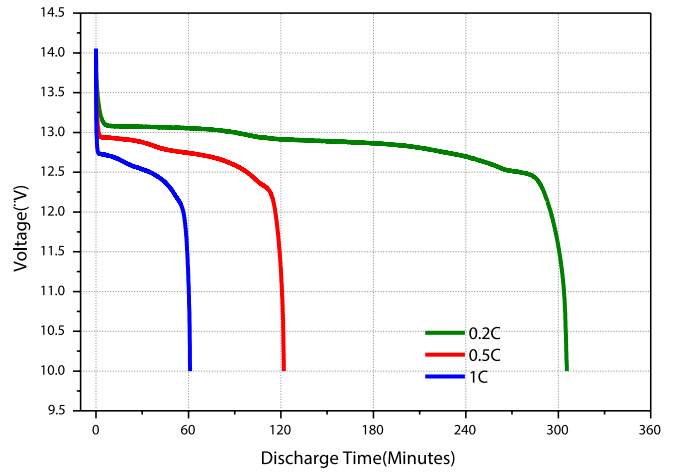
Electrical Characteristics	Nominal Voltage	12.8V	
	Nominal Capacity	80 ± 3Ah (0.2C)	
	Nominal Energy	1013Wh	
	Internal Resistance	≤ 40mΩ	
	Cycle Life		≥ 2,000 @ 0.2C (100% DOD)
			≥ 3,200 @ 0.2C (80% DOD)
		≥ 5,600 @ 0.2C (50% DOD)	
BMS	Over charge, over discharge, and over & under temperature protection, and cell balancing		
Standard Charge	Charge Voltage	14.4 ± 0.15V	
	Charge Profile	CC @ 0.2C to 14.4V, then CV @ 14.4V. Current ≤ 0.01C (CC/CV)	
	Charge Current	16A	
	Maximum Charge Current	40A	
Standard Discharge	Continuous Current	40A	
	Max Continuous Current	≤ 56A	
	Max Pulse Current	56-200A (≤ 20ms)	
	Cut-Off Voltage	About 10.0V	
Environmental	Charge Temperature	0°C to 45°C	
	Discharge Temperature	-20°C to 60°C	
	Storage Temperature	0°C - 40°C	
Mechanical	Material System	LiFePO ₄	
	Case Material	Plastic	
	L (mm) × W (mm) × H (mm)	(228 ± 2) × (138 ± 2) × (208 ± 2)	
	Weight	9.5 ± 0.5kg	
	Terminal	M6	
Warranty	3years * private use * Do not use under bonnet		

AL-12.8-80 - ESCAPE SERIES LITHIUM DEEP CYCLE (LiFePO₄) BATTERY (12.8V, 80Ah)

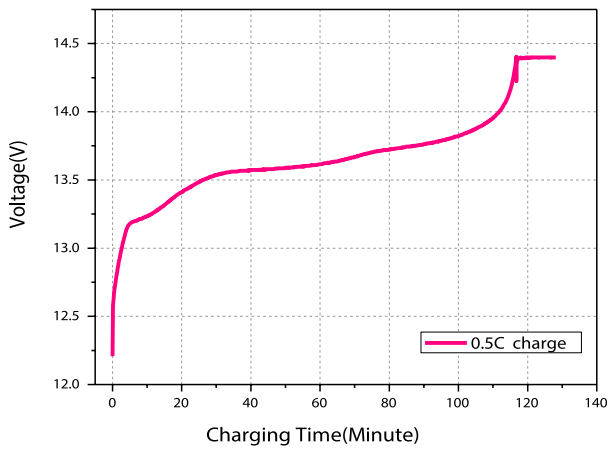
12.8V 80Ah Charge-Discharge Curve



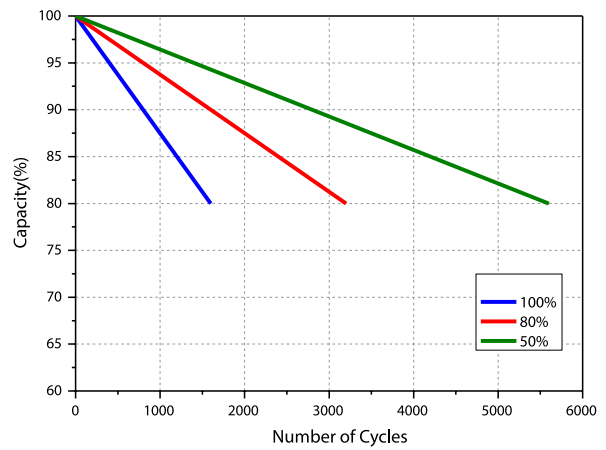
Different Rate Discharge Time & Voltage



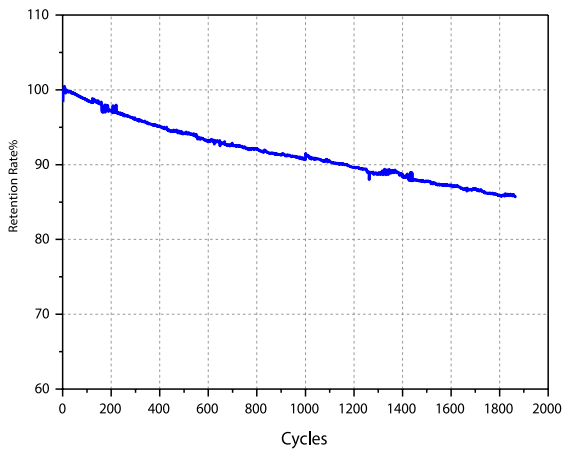
Voltage & Charging Time Curve, 0.5C, 25 °C



Different DOD Discharge Cycle Life Curve



Cycles & Capacity Retention @ 0.2C



Discharge Curves at Different Temperature

