

XALT[™] **31 Ah** HIGH POWER (**HP**) SUPERIOR LITHIUM POLYMER CELL

Technical Data Sheet

MODEL F900-0003





Patented manufacturing process produces battery cells for applications that require:

- · Excellent energy density
- · Excellent power-to-energy balance
- · High cycle life
- · Longer battery calendar life
- · Low impedance and heat generation provide improved safety
- Lightweight

Advantages

Lower Cost/Consistent Quality/ Greater Reliability

- Proven chemistry with 10+ years in the field
- · Nickel Manganese Cobalt (NMC) Li-Ion
- · Prismatic (Flat Plate) Design
- · Large Capacity Single Element Cell Design
- · Scalable to mass produce cells
- · Highly automated manufacturing
- · Extended run time between charges

Applications

Ideal for High Current (Amp) Power applications where space and weight are restricted or limited.

- Transportation
 - · Fully electric vehicles
 - · Plug-in electric vehicles
- Military
- Aviation
- UPS (uninterrupted power supply)
- · Motive Power
- · Industrial Machinery
- Marine
- Grid Storage

Telecom

Electrical Characteristics [at 25°C (77°F)]

Capacity (Nominal @ C/2)	31Ah	
Voltage (Nominal)	3.7V	
Lower Limit Voltage	2.7V	
Upper Limit Voltage	4.2V	
Charge Current (Max. Continuous)	93A (3C)	
Discharge Current (Max. Continuous)	248A (8C)	
Pulse Current (Max., 10 sec.Duration)	372A (12C)	
# Cycles @ 1C/1C (31A),	100% DOD or 2.7-4.2V	80% DOD or 3.3-4.1V
to 80% of Capacity	Greater than 2,700	Greater than 5,000
Internal Impedance (1kHz AC)	0.70 mΩ	
Weight	0.77 Kg (1.70 lb)	
Peak Power Density (10 Sec., 50% SOC)		
Gravimetric	1811 W/Kg (823.2 W/lb)	
Volumetric*	3457 W/L (56.7 W/cu. inches)	
Energy Density		
Gravimetric	146 Wh/Kg (66.4 Wh/lb)	
Volumetric*	310 Wh/L (5.1 Wh/cu. inches)	

Operational Specifications

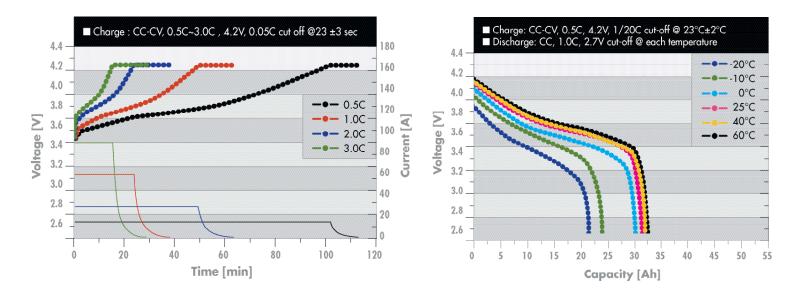
Charge Temperature Range	0°C ~ 45°C (32°F ~113°F)	
Discharge Temperature Range	-20°C ~ 60°C (- 4°F ~140°F)	

^{*}Volume calculated using core cell dimensions, excluding tabs and seals

SUPERIOR LITHIUM POLY-

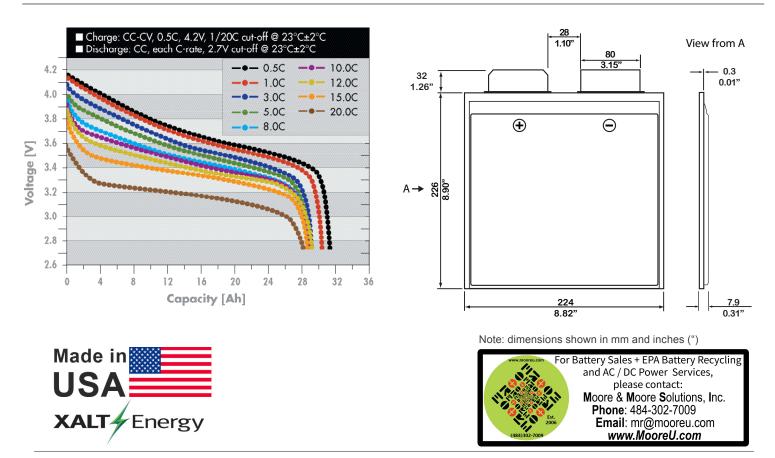
Charge Profiles at Room Temperature

Temperature Characteristics



Discharge Profiles at Room Temperature

Mechanical Characteristics



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