



24V 70Ah Battery Module

NANO LITHIUM-TITANATE BATTERY MODULE

- Symmetrical, high C-rate charge/discharge capabilities
- Wide operating temperature range
- High cycle life
- Maintenance free operation
- Chemistry characteristics increase operational safety and provides higher levels of operational abuse tolerance than existing batteries



Performance Characteristics

Voltage range ¹	17.0 V – 27.5 V
Capacity (Minimum/Typical) ²	65 Ah / 67.4 Ah
Typical discharge energy ²	1,450 Wh
Peak power (discharge/charge) ³	22.6 kW / 36.3 kW
Energy density ²	108 Wh/l
Power density (discharge/charge) ³	1,682 W/l / 2,704 W/l
Specific energy ²	51.8 Wh/kg
Specific power (discharge/charge) ³	806 W/kg / 1,296 W/kg
Internal impedance during discharge (Typical) ³	3.9 mΩ
Internal impedance during charge (Typical) ³	4.0 mΩ
Max continuous discharge or charge current	500 A
Max 10 sec Pulse discharge or charge current	900 A

Life Characteristics

Cycle life at 2C charge and 2C discharge, 100% DOD, 25°C	>25,000 to 80% initial capacity
Cycle life at 2C charge and 2C discharge, 100% DOD, 55°C	>6,000 to 80% initial capacity
Calendar life at 25°C	25 years

Temperature Limits

Operating and Storage temperature range ⁴	-50°C to +65°C cell temperature
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Module Dimensions

Length (L) x Width (W) x Height (H)	279.1 mm x 158.6 mm x 303.2 mm
Length (L) x Width (W) x Height (H) (Include Module Terminals)	279.1 mm x 158.6 mm x 333.2 mm
Weight	28.0 kg

Transportation

Transportation Specifications	UN 3480 compliant, Tested to UN 38.3
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¹ In lithium ion battery systems, the battery management system must enforce the voltage limits at the individual cell level. Listed module voltages are approximate.

² 70 A discharge, 25°C. Testing done using a rated capacity of 70Ah.

³ 10 sec pulse, 50% SOC, 25°C.

⁴ Optimal storage temperature is 25°C.

* Material Safety Data Sheet — Altairnano Document Number 3340473 — is available upon request.

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