



Technologies, Inc.

MWD Lithium Battery PN: 32126H150



3.6 V DD-Size Lithium Thionyl Chloride Cell (Li-SOCl₂)
High Rate Capability
High Capacity
Extreme Shock and Vibration Resistance
150 °C Operational Temperature

Benefits

- Industry leading capacity
- High rate capability for high constant current and pulse applications
- Gallium based electrolyte providing excellent start up and minimal passivation
- Automated assembly for uniform performance
- Extreme shock and vibration testing to ensure trouble free operation under severe drilling conditions
- Very competitive price

Key Features

- 304 L stainless steel structure
- Non-bulge design
- Hermetic glass-to-metal seal engineered for leak free operation
- Integral safety fuse and parallel diode to protect from short circuits and guarantee continued pack operation
- Keyed top spacer and bottom cell cover to prevent cells from rotating in packs

Technical Support

- We pledge our full support to provide you with the service you deserve
- Application Analysis
- Testing and Test Reports
- Analysis of field problems and reports
- Engineering support for custom applications

Abuse and Transport Certifications

- UN / DOT Certified for Transport as Class 9
- Shock Testing: 750 G 0.5 ms 10 shocks each axis at 150 °C
- Vibration Testing: 20G vibration at 150 °C, (Full report available)

Cell Characteristics

Nominal Capacity:	26 Ah – 28 Ah
Based on 500 mA discharge at temperatures of 25, 50, 75, 100, 125, and 150 °C to a 2.0 V cutoff. Discharge at higher currents or lower temperatures will affect capacity obtained.	

Open Circuit Voltage	3.66 V
At 20°C	

Nominal Closed Circuit Voltage	3.3V
Based on stable CCV produced at 25 °C under a 500 mA load. The CCV of a cell will decay slightly over discharge due to the normal increase in internal impedance.	

Pulse Discharge Capability	4 A
4 Amp pulse discharge of 0.1 sec. duration once every 2 minutes at ≥75 °C will maintain > 3.0 V. Contact Exium to determine the effect of higher currents, longer duration pulses, or lower temperatures. In some cases a capacitor may be required to maintain the desired voltage.	

Constant Current Discharge	650 mA (max capacity) 1300 mA (reduced capacity)
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Storage Conditions	30 °C (86 °F) Max
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Operational Temperature Range	-40 °C to 150 °C
Note full capacity is obtained at temperatures of 25 °C and above. Below 25 °C both the rate capability and the capacity of the cell are reduced.	

Physical Characteristics

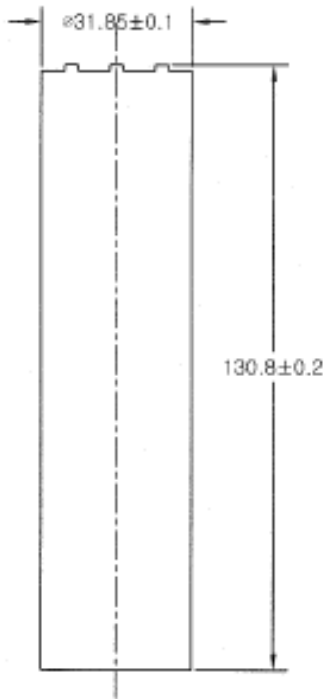
Diameter	31.85 mm (1.25 in)
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Height	130.8 mm (5.15 in)
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Weight	230 g
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Lithium Metal Content	8.02 g
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- Dimensions shown in mm
- Protrusions on the top of the top of the cell are anti-rotational keys integral with the cell spacer

Storage

Store cells in a cool (<30 °C) and dry location

Warning

- Fire, explosion, and burn hazard
- Contents of this hermetically sealed cell are water reactive and will produce flammable and toxic gases if exposed to water
- Do not recharge, expose to flame, short circuit, crush, disassemble, or incinerate
- Do not expose cell to temperatures in excess of the maximum operating temperature, 150 °C

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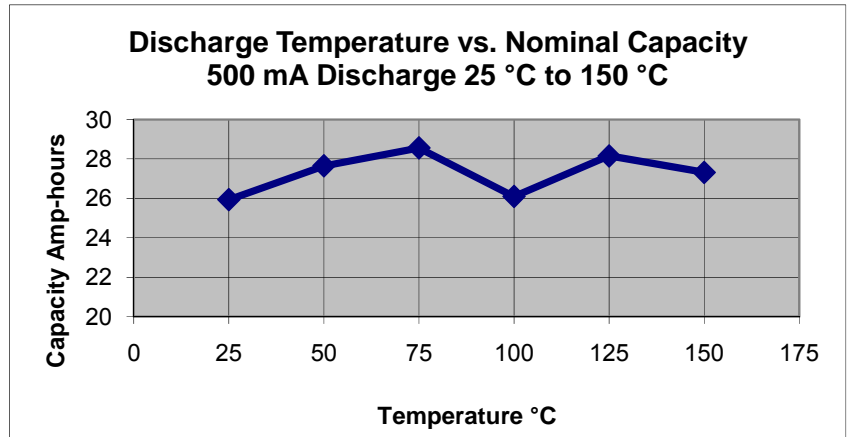
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Temperature versus Capacity



Performance Discharge Comparison

