

# Primary high temperature lithium battery

## ER301020S

3.6 V Primary lithium-thionyl chloride (Li-SOCl<sub>2</sub>)  
30MM-sized cell for operation up to 165°C

### Benefits

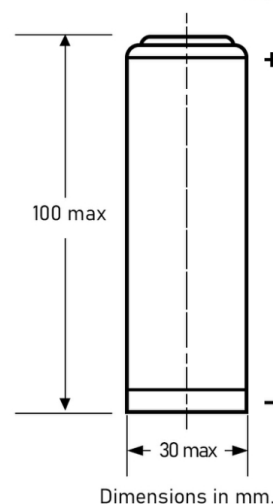
- High voltage response, stable during most of the lifetime of the application
- Ability to perform safely and reliably up to 165°C with severe vibration/shock constraints
- Long shelf life
- Low self-discharge, compatible with a long operating life (less than 1% per year of storage, at +25°C, after 1 year)
- Superior resistance to corrosion
- Easy integration into compact systems

### Key features

- Primary chemistry (non-rechargeable)
- Spiral Construction High rate
- Hermetic glass-to-metal sealing engineered for leak free operation
- Sturdy and pressure resistant 304 stainless steel envelope
- Ability to withstand at 165°C extreme shocks and vibration
- Custom terminations available
- ISO9001 ISO14000

### Main applications

- MWD, LWD, Oil Well Instrumentation
- Downhole Electronic Control System
- Wireless Drilling System
- Well logging, Inclination and other instruments
- Coalbed methane, Geothermal, Geophysical prospecting
- Military communications



### Cell size references

#### Electrical characteristics

[Typical values relative to cells stored up to one year at +30°C max]

Open circuit voltage(at+25°C)	3.65V
Nominal capacity (under 50mA, +25°C, 2.0 V cut-off) (The capacity restored by the cell varies according to current drain, temperature and cut-off)	17Ah
Nominal voltage (under 0.1 mA, +25°C)	3.6V
Rate Current	H: 500mA, M: 200mA
Max. Continuous Discharge Current	400~700mA
Storage temperature (recommended)	≤ 30°C
Operating temperature range	-40/+165°C (-40/329°F)

Self Discharge Rate (Low self-discharge, compatible with a long operating life less than 1% per year of storage, at +25°C, after 1 year)	1% per year
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#### Physical characteristics (unsleeved cells)

Diameter(nominal)	30mm
Length(nominal)	100mm
Weight	150g

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### Warning

- Fire, explosion and burn hazard
- Do not recharge, short circuit, crush, disassemble, heat above 180°C (356°F), incinerate, or expose contents to water
- Do not solder directly to the cell (use tabbed cell versions instead)



### Reference

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