ARICELL Primary Lithium Cell

3.6V lithium thionyl chloride / Li-$SOCl_2$

Moderate rate series TCM-CC21-HT165

Size CC21mm, Dual Anode structure

Scope

3.6 V Primary lithium-thionyl chloride (Li-$SOCl_2$) CC21mm-sized cell for operation up to 165 ℃ in demanding environments. The wide range of operating temperatures is used for drilling for oil.

Electrical Characteristics

**Typical values at room temperature(+20°C ~ +30°C) for cell stored for one year or less.*

Nominal voltage(at +20°C)	3.67 V
Nominal capacity(at 60mA, +20°C, 2.0V cut off) **The capacity restored by the cell varies according to current drain, temperature and cut-off.*	7~8 Ah
Maximum continuous discharge current **The maximum continuous discharge current will provide more than 50% of its nominal capacity.*	120 mA 200 mA(reduced capacity)
Pulse capability **The readings may vary according to the pulse characteristics, the temperature, and the cell's previous history. Fitting the cell with a capacitor may be recommended in severe conditions or for high pulse currents. Consult ARICELL.*	400 mA
Storage(recommended)	+25°C ±5°C in dry condition
Operational temperature range	-40°C ~ +165°C

Physical Characteristics

Diameter(max)	21.0 mm
Height(max)	104.0 mm
Positive(+) plate length(max)	50.0 mm
Cell weight	82.0 g
Lithium metal content	Approx. 2.9 g

Benefits

- High and stable operating voltage
- Superior shelf life
  : Up to 10 years
- Wide operational temperature range
  : -40°C ~ +165°C
- Low self-discharge rate
  : Less than 2% per year at 20°C

Key features

- Non-bulge Design
- Stainless Steel 304L container
- Glass to metal Sealing for Leak Free Operation
- 1A Parallel Diode
- Non-flammable electrolyte
- Compliant with IEC60086-4
- UN DOT 38.3
- Made in South Korea

Typical applications

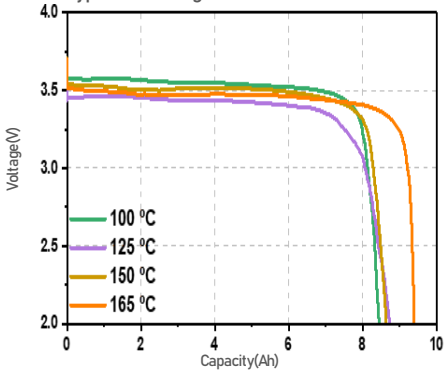
- Oil & Gas Exploration
- MWD(Measurement While Drilling)
- LWD(Logging While Drilling)
- Cased-Hole Logging
- Geophysical Surveying

Warning

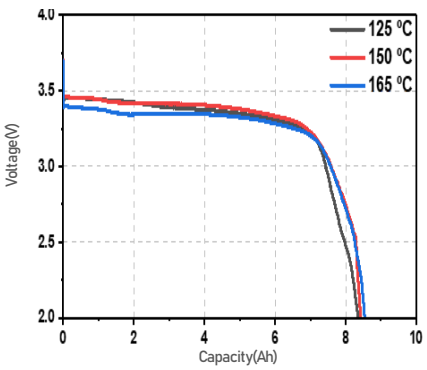
- Fire, explosion and burn hazard. Do not recharge, short circuit, crush, disassemble, heat above 100°C(212°F), incinerate. Do not solder directly to the cell (use tabbed cell versions instead).

Performance

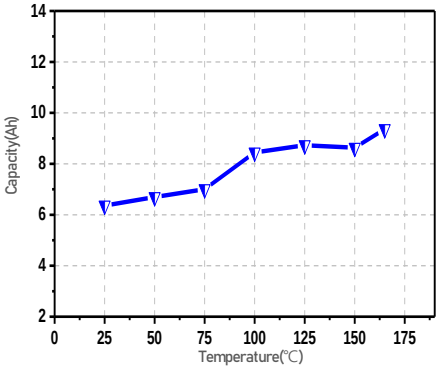
Typical discharge characteristics at 120mA



Typical discharge characteristics at 16Ω



Temp. vs. Capacity @ Discharge 120 mA



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※ Any values given here are for reference only. They also depend on actual conditions of use and does not guarantee future performance. Subject to change.