



Lithium Coin Cells or ULTRALIFE® Thin Cells?



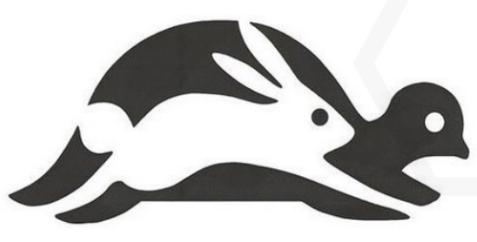
This handy guide will help product designers decide whether to power their latest low power portable device or IoT gizmo with traditional Lithium coin cells or instead embrace the latest in primary lithium battery technology – Ultralife Thin Cells.



VOLTAGE

Although both Coin cells and Ultralife Thin Cells share the same Lithium Manganese Technology, Ultralife Thin Cells have a higher running voltage during discharge, meaning less current consumption in today's constant power driven applications.

- Stable voltage - Thin Cell
- High internal resistance - Coin Cell



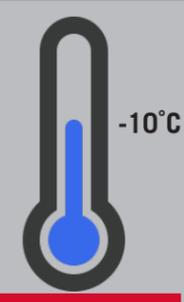
DISCHARGE CAPABILITY

Coin cells are ideal for applications where the discharge current is low and continuous. When applications impose higher or pulsed loads, Ultralife Thin Cells offer significantly better performance with continuous discharge currents 10 times that of coin cells of the same capacity.

- Device requires high/pulsed loads - Thin Cell
- Discharge current is low/continuous - Coin Cell

LOW TEMPERATURE

When ambient temperatures drop the internal resistance of a battery increases causing a reduction in voltage and capacity. Coin cells suffer from a falloff in performance at low temperatures whereas the low internal resistance construction of the Ultralife Thin Cells mean they can provide twice the capacity of the best performing coin cells at -10°C.



- Device needs to perform at low temperatures - Thin Cell
- Low temperature operation not required - Coin Cell



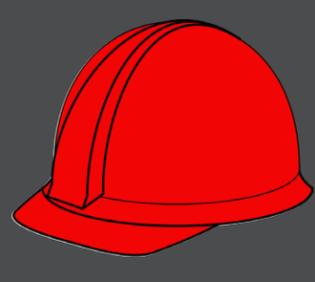
EMBEDDED OR REPLACEABLE

Coin cells are ideal when users must be able to swap-out their batteries, but in fit and forget applications Ultralife Thin Cells can be permanently integrated and live out the life of the product with no need for user intervention.

- Device batteries are 'fit and forget' - Thin Cell
- User-replaceable batteries are required - Coin Cell

SAFETY

Device safety is paramount and both coin cells and Ultralife Thin cells are ideal products to safely and efficiently power a wide range of low power electronic devices. Ultralife Thin cells meet the requirements of UL 1642 (safety) and UN 38.3 (transportation).



- Battery must meet safety & transportation regulations: Thin Cell
- Coin Cell



CUSTOM SIZES

While coin cells are manufactured in a small number of standard sizes, Ultralife Thin Cells can be custom designed to meet customer requirements which means no compromises when it comes to the development of tomorrow's high tech portable and IoT devices.

- Device dictates a custom size battery - Thin Cell
- Standard size battery is suitable - Coin Cell

CHECKLIST



DEVICE BATTERY REQUIREMENTS	THIN CELL	COIN CELL
USER REPLACEABLE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CHEAP/INEXPENSIVE (<\$0.50)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
LIGHTWEIGHT (HIGH GRAVIMETRIC ENERGY DENSITY)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
THICKNESS < 1.3MM	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DRAIN CURRENT C/10 OR MORE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
FLEXIBLE DESIGN (NOT RIGID)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
STANDARD SIZE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MINIMUM ORDER QUANTITY <1 MILLION	<input checked="" type="checkbox"/>	<input type="checkbox"/>



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Contact us for more information or to discuss how to integrate Thin Cell into your next device development

THIN CELL
NON-RECHARGEABLE LITHIUM MANGANESE OXIDE CELLS FROM ULTRALIFE

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