Thionyl chloride lithium battery

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Due to their high durability and unique characteristics, they are mainly used in industrial battery-powered products - aerospace industry, vehicle industry, different type of meters and IIoT devices, even for different medical equipment such as defibrillators.

The first advantage we want to point out is a high voltage, higher than with other lithium batteries. Unlike those going from 1.5 to 3 volts, a lithium thionyl chloride battery nominal voltage is 3.6V. This voltage level is maintained throughout its life span, which is a terrific achievement as a result of the batteries" unique chemistry.

Besides, this battery can beat all others when it comes to energy density as well. You can reach up to 730 watt-hours per kilogram. We"ve mentioned it before, but the battery"s sustainability is worth mentioning again. It can handle very low and extremely high temperatures, making its usage broad and diversified.

Besides the aforementioned, this battery type is often used in metric devices such as timers and toll systems. Another perk that comes out of a special chemical process this battery goes through is its durability. The usual self-dischargee rate is 1% per year, which we would say is an amazing result.

Since the usage is so wide, it"s important to mention that lithium thionyl batteries come in various sizes and shapes. Regardless of which one you choose, all the qualities, such as high voltage and durability, stay the same.

Some small things to add would be fast recovery after a long time being stored and containing non-flammable electrolytes, which can be beneficial depending on the usage and environment. Due to the presumably long life span, many of these batteries are used as backup batteries for low consumption devices.

With the already mentioned debate over green energy and usage of lithium over coal, it"s crucial to say that lithium thionyl chloride batteries are recyclable and environment-friendly. They"re not prone to combustion, making them less toxic when disposed of.

Lithium thionyl batteries come with some disadvantages, such as high internal resistance and a possible delay in producing high voltage. However, Tadiran Batteries can include a capacitor in the package, that would provide the peak current. With all the advantages ahead, we"re sure you"ll be satisfied.

With low self-discharging of 1-2% per year, these batteries are expected to last at least 10 to 20 years, depending on the specific load profile of the application. Tadiran manufactures ultra-long-life batteries boasting a minimal self-discharge rate of 0.7%, capable of achieving a remarkable 40-year lifespan.

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Lithiumthionyl chloride batteries (Li/SOCl?) belong to the lithium primary cellfamily. Unlike lithium ion or lithium polymer batteries, these cells cannot berecharged once they have been discharged. However, due to their long lifetime,this characteristic is of little importance in everyday use. In fact, lithiumthionyl chloride batteries supply power to applications for several months oreven years before they need to be replaced.

Li/SOCl?batteries have been an integral part of Jauch’s battery portfolio for manyyears. This year, the portfolio expanded to include batteries from Jauch’s ownbrand. The most important properties of this cell chemistry are brieflypresented below.

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