

LSP 33600-3F

Hybrid Primary Li-SOCl₂ battery

3.6 V D-size bobbin cell fitted with a 3F EDLC

Saft's LSP 33600 battery is ideally suited for long life applications (typically from 5 to 10 years), featuring low base currents and periodic high current pulses.

Benefits

- High pulse current capability
- High voltage response, stable even after long dormant periods
- No voltage delay
- High capacity and high energy density (658 Wh/kg)
- Low self-discharge compatible with long operating life (less than 1.5% after 1 year of storage at +20 °C)
- Wide operating temperature range (-30°C to +60°C)
- Superior resistance to corrosion
- Low magnetic signature

Key features

- Battery made of Saft's LS 33600 D-size bobbin Li-SOCl₂ cell fitted with a 3F EDLC (Electrochemical Double Layer Capacitor) in parallel connection for pulse support
- Safe, hermetic and non-pressurized cell construction with glass-to-metal seal, safety vent and stainless steel container
- Restricted for transport (class 9)
- Made in EU

Designed to meet all major quality, safety and environment standards

- Safety: UL 1642 (File MH12609) IEC 60086-4 (cell)
- Transport: UN 3090, 3091 & 3499 for components (assembly under testing)
- Compliant to ATEX: IEC 60079-11 part 10.5 (cell)
- Quality: ISO 9001, Saft World Class continuous program
- Environment: ISO 14001, RoHS and REACH compliant

Typical applications

- Smart Metering
- Internet of Things
- Tracking systems



Electrical characteristics

(Typical values related to batteries stored up to one year at +30 °C max)

Typical capacity (at 5 mA, +20 °C, 2.0 V cut-off) ⁽¹⁾	17 Ah
Open circuit voltage	3.67 V
Nominal voltage (at 0.7 mA, +20 °C)	3.6 V
Nominal energy	61.2 Wh
Typical pulse capability ⁽²⁾	At 20°C 2A 1s pulses

Operating conditions

Operating temperature range ⁽³⁾	-30 °C / +60 °C
Storage temperatures	Recommended ⁽⁴⁾ +30 °C max.

Physical characteristics

Length (max)	Design example. For other configurations, please consult Saft	42.5 mm
Width (max)		33.5 mm
Height (max)		62.5 mm
Terminals	Flying leads with optional connectors	
Typical battery weight	93 g	
Li metal content	approx. 4.5 g	

References

Saft part No.	60031H
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⁽¹⁾ Dependent upon current drain, temperature, cut-off and battery orientation.

⁽²⁾ Typical pulse capability to 2.8V at +20 °C from fresh battery. The voltage readings may vary according to:

- the pulse characteristics such as intensity, duration and frequency
- the environment's temperature
- the battery's previous history.

Consult Saft for any other pulse conditions.

⁽³⁾ Operation above or under ambient temperature may lead to reduced capacity and lower voltage readings. Consult Saft.

⁽⁴⁾ For more severe conditions, consult Saft.



SAFT

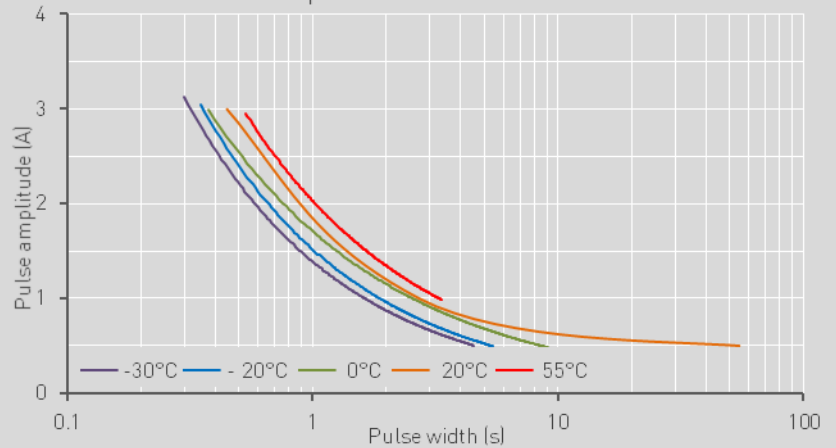
Storage

- The storage area should be clean, cool (preferably not exceeding +30 °C), dry and ventilated

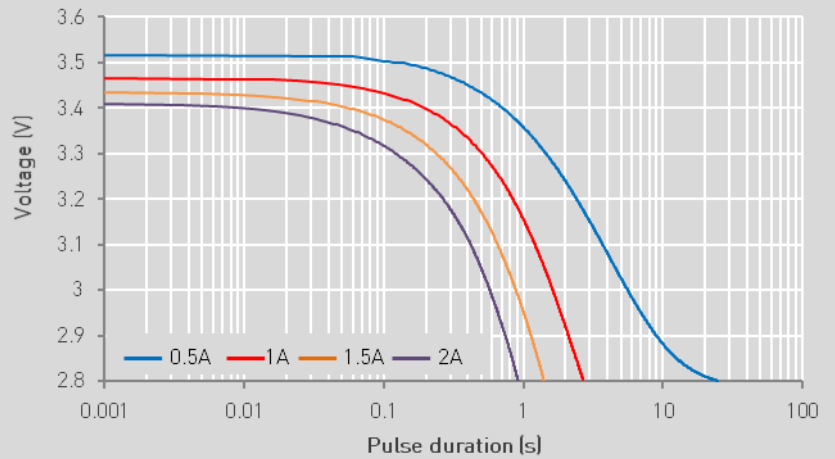
Warning

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

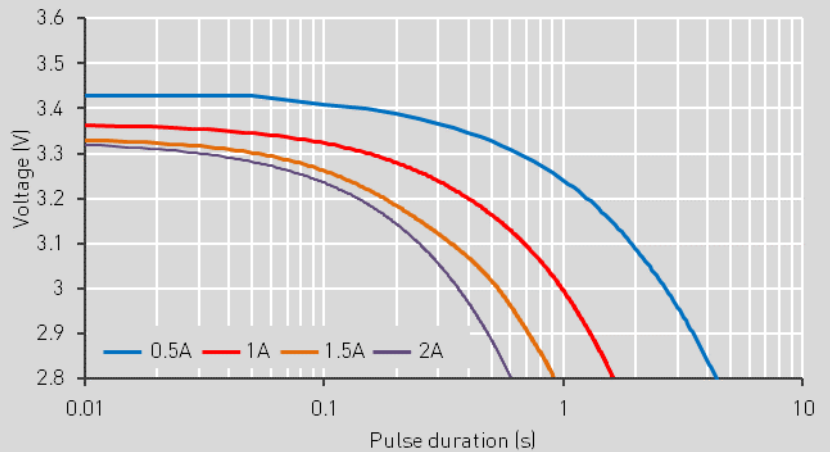
Maximum pulse width from 3,6 V to 2,8 V at various temperatures



Voltage during a pulse at 20°C



Voltage during a pulse at -30°C



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