

LSP 14500-20F

Hybrid Primary Li-SOCl₂ battery

3.6 V AA size bobbin cell fitted with a 20F LIC

Saft's LSP 14500-20F battery is ideally suited for long life applications featuring low base currents and periodic pulses and periodic high current pulses up to 1.5 A.

Benefits

- High pulse capability.
- High voltage response, stable even after long dormant periods.
- Low self-discharge compatible with long operating life (less than 1.5% after 1 year of storage at +20 °C).
- Wide operating temperature range (-20°C to +70°C).
- Easy integration into systems.

Key features

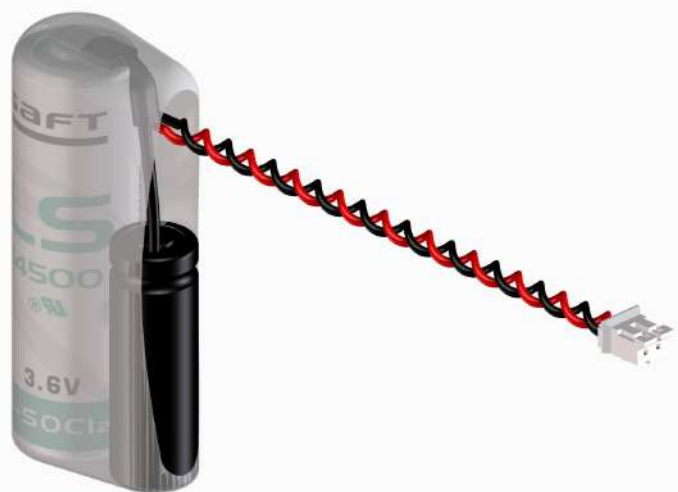
- Battery made of Saft's LS 14500 AA size bobbin Li-SOCl₂ cell fitted with a 20 F LIC (Lithium Ion Capacitor) in parallel connection for pulse support.
- Well controlled passivation.
- The cell contains a non-flammable electrolyte.
- Manufactured in the EU.

Designed to meet all major quality, safety and environmental standards

- Safety: UL 1642, IEC 60086-4 (at cell level)
- Transport: UN 3090, 3091 & 3499 for components and tested to UN 38.3.
- Quality: ISO 9001, Saft World Class program.
- Environment: ISO 14001, RoHS and REACH compliant.

Typical applications

- Smart metering.
- Internet of Things.
- Tracking systems.
- Environmental monitoring.



Electrical characteristics ^[i]

| | |
|--|---------------------------|
| Typical capacity (at 2 mA, +20°C, 2.0 V cut-off) ^[ii] | 2.6 Ah |
| Open circuit voltage (at +20°C) | 3.67 V |
| Nominal voltage (under 0.2mA, +20°C) | 3.6 V |
| Nominal energy | 9.36 Wh |
| Typical pulse capability ^[iii] | At 20°C 1.0 A / 3s pulses |
| Maximum recommended continuous current ^[iv] | 50 mA |

Operating conditions

| | |
|--|----------------|
| Operating temperature range | -20°C to +70°C |
| Storage temperature recommended ^[v] | max +30°C |

Physical characteristics (sleeved battery)

| | |
|------------------|-----------------|
| Length (max) | 25.7 mm |
| Width (max) | 15.2 mm |
| Height (max) | 52.7 mm |
| Typical weight | 22 g |
| Li metal content | (approx.) 0.7 g |

References

| | |
|-----------------------------------|-------------|
| Saft part number | 60125F |
| Battery connector ^[vi] | JST (PHR-2) |

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

[ii] Dependent upon current drain, temperature, cut-off and battery orientation.

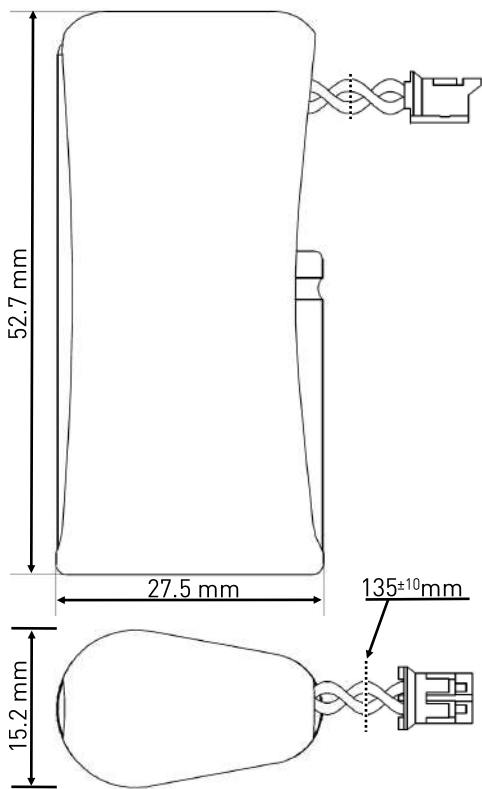
[iii] For further details consult Saft.

[iv] Higher currents are possible, consult Saft.

[v] For more severe conditions, consult Saft.

[vi] Other terminations are available, consult Saft.

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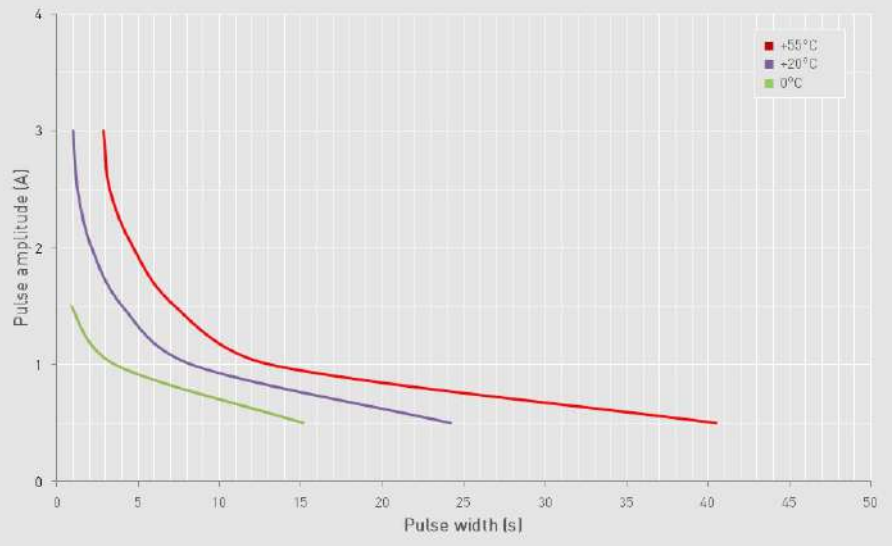
Storage

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

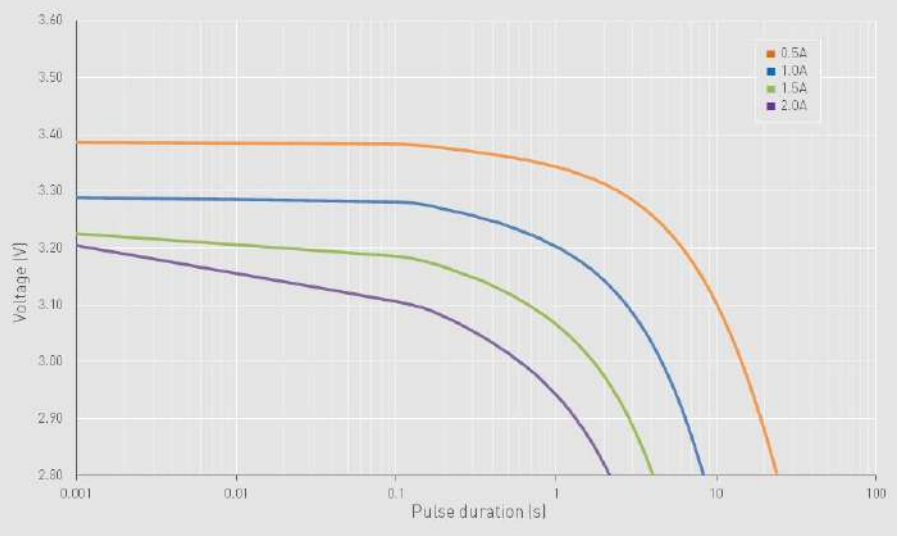
Warning

- 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 battery (use the connector).

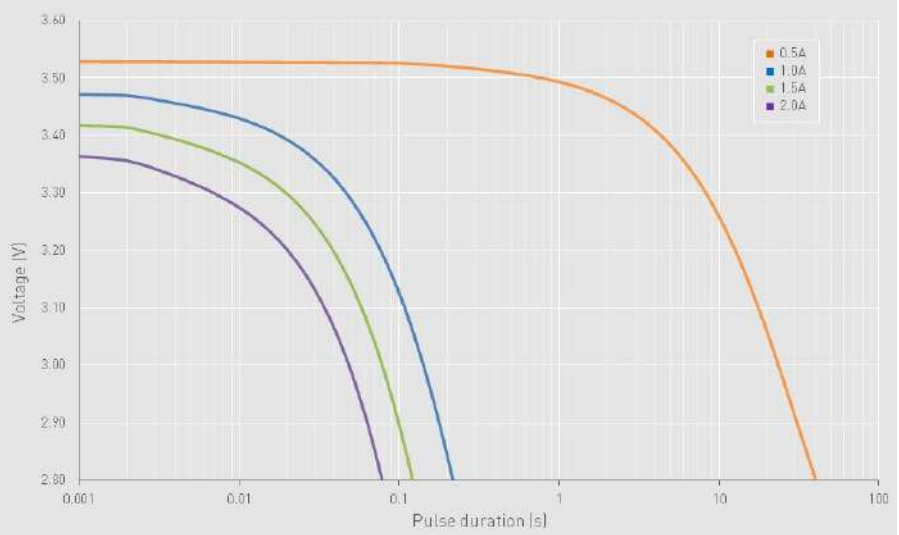
LSP 14500-20F Maximum pulse width at various temperatures (3.6V to 2.8V)



LSP 14500-20F voltage during a pulse at 20°C



LSP 14500-20F voltage during a pulse at +55°C



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Doc No: 31204-2-0621

Edition: June 2021

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Published by the Communication Department

Photo credit: Saft

Produced by CE Marketing Department

