

SALLY

Rechargeable Li-ion military battery

Robust high performance Li-ion military battery with a long cycle life

Saft's SALLY 3s1p MP 174865 xlr battery is ideally suited for applications requiring high energy, long operating life under cycling conditions and offers excellent performance in temperature environments from -35°C to $+60^{\circ}\text{C}$.

Benefits

- Excellent operating lifetime in calendar and cycling with a very stable internal resistance
- Long shelf life with extremely low capacity loss under storage
- Smaller environmental footprint than other technologies

Key features

- High energy density (371 Wh/l and 159 Wh/kg)
- Cycle life of 950 cycles at 100% DoD at C/2 discharge, C/ charge rate
- Maintenance free
- No memory effect
- Built to the OEM specification
- Manufactured in EU

Designed to meet all major quality, safety and environmental standards

- Safety at cell level UL 1642, IEC62133-2
- Transport: UN 3480, UN 3481
- Environmental: MIL-STD 810E
- Quality: ISO 9001, Saft World Class
- Environment: ISO 14001, RoHS and REACH compliant

Typical applications

- Handheld thermal imagers SOPHIE⁵⁾ and Mirabelle⁵⁾
- Compatible with the AA86A battery
- Target acquisition systems



Electrical characteristics

Typical capacity (at C/5 rate, $+25^{\circ}\text{C}$, 2.5V cut-off) ⁽¹⁾	5.3 Ah
Nominal voltage	10.95 V
Nominal energy	58.04 Wh
Recommended maximum discharge current ⁽²⁾	Continuous 10 A ($\sim 2\text{C}$ rate) Pulse 21 A ($\sim 4\text{C}$ rate)

Physical characteristics (sleeved cell)

Length (max)	145.0 mm
Width (max)	62.6 mm
Height (max including terminals)	55.5 mm
Typical weight	~ 530 g
Nominal volume (including terminals)	0.49 l
IEC battery designation	3INP56/62/145
Saft internal designation	3s1p MP174865 xlr XLSO
Saft part number / type reference	08670G GP 31468

Operating conditions

Typical cut-off voltage	2.5 V
Charging method	Constant current/Constant voltage
Charging voltage	4.2 ± 0.05 V
Maximum continuous charge current ⁽⁴⁾	5.0 A ($\sim 1\text{C}$ rate)
Operating temperatures ⁽⁴⁾	Charge -30°C to $+60^{\circ}\text{C}$ Discharge -35°C to $+60^{\circ}\text{C}$
Storage & transportation temperatures ⁽⁴⁾	Recommended $+10^{\circ}\text{C}$ to $+30^{\circ}\text{C}$ Allowable -40°C to $+60^{\circ}\text{C}$

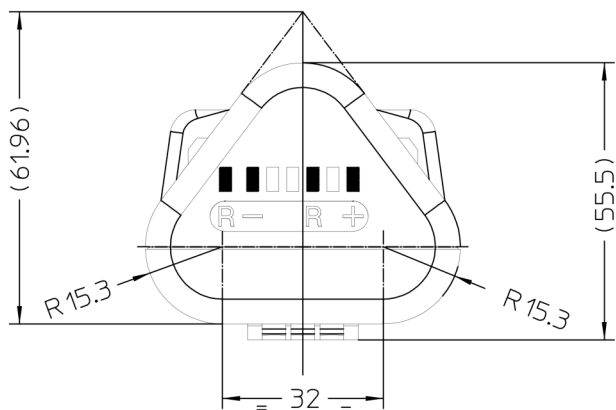
⁽¹⁾ Can vary depending on temperature and discharge rate

⁽²⁾ Can vary depending on temperatures. Consult Saft

⁽³⁾ At beginning of life, 100% State-of-Charge. Can increase with temperature and during battery life.

⁽⁴⁾ For optimised operation below 0°C and consult Saft

⁽⁵⁾ Trade name of the Thales Group—mentioned only for the purpose of reference and application description.



Dimensions and placement of battery charging contacts to OEM specification (all dimensions are in millimetres)



Five segment fuel gauge

- Assess the battery state of charge while in storage or prior to transport
- Check your spare battery during or prior to use
- Make full use of available energy
- Operable with gloves



Battery-level features

- Saft provides complete battery system designs
- Integrating several levels of redundant safety features to prevent abuse conditions such as over-charge, over-discharge, and short circuits
- Incorporating electronics for performance and efficiency in charging, floating, discharging as well as cell balancing and temperature monitoring
- Battery protection controller at system level for larger batteries
- Communication for State-of-Charge and State-of-Health

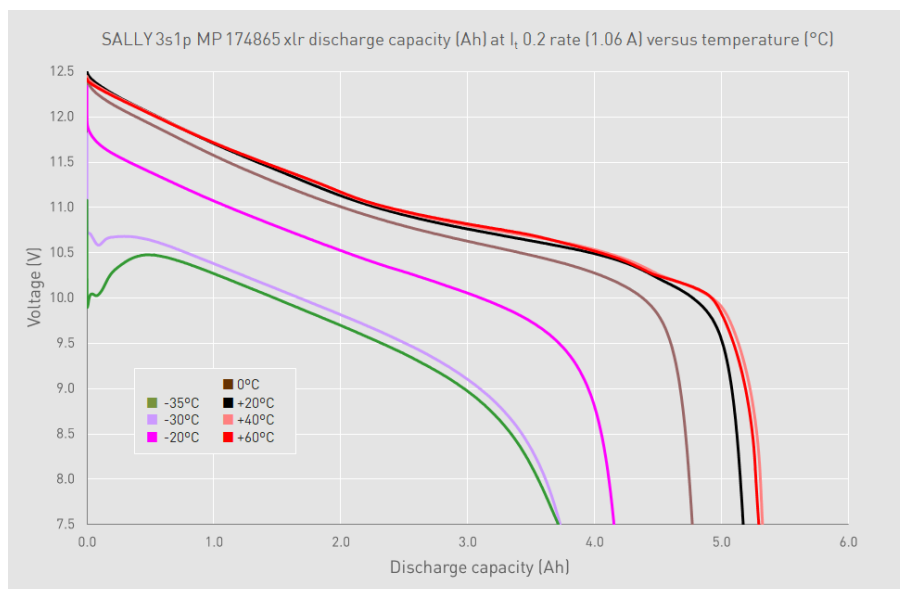
Storage

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

Warning

- Do not crush, short-circuit, incinerate, dismantle, immerse in any liquid, or heat above +60°C
- Observe charging conditions
- Refer to our Li-ion Battery User manual for further information on the use and handling of Saft products.

Environmental requirement	MIL-STD reference
High Temperature	MIL-STD 810E, 501.3 (+60°C)
Low Temperature	MIL-STD 810E, 502.3 (-20°C)
Vibration	MIL-STD 810C, 514.2 H
Shock	MIL-STD 810E, 516.4
Salt Fog	MIL-STD 810E, 509.3 I
Immersion	MIL-STD 810E, 512.3
NATO Stock Number (NSN)	6140-14-557-9691
Saft's Part Number	08670G



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