1p INT 174565 isr FL
Rechargeable Li-ion battery

3.65 V high energy Li-ion battery, high performance and **intrinsic safety**

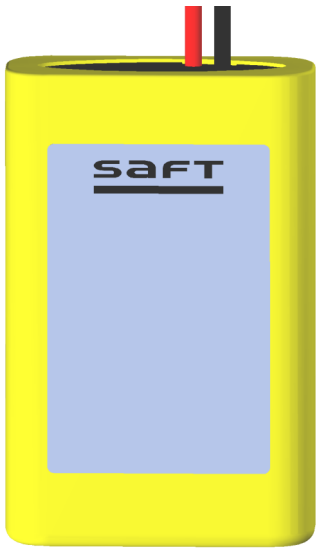
Saft's 1p INT 174565 isr FL battery is compatible with applications requiring intrinsic safety, a long operating life under harsh conditions and an excellent performance in temperature environments from –30°C to +60°C.

Benefits
- Excellent operating lifetime in calendar and cycling with a very stable internal resistance
- High level of safety, compatible with potentially explosive atmospheres
- Long shelf life with extremely low capacity loss in storage
- Smaller environmental footprint than other technologies

Key features
- High energy density
- Cycle life more than 2250 cycles at 100% DoD at C/2 discharge, C charge
- The battery connection area is resin encapsulated with flying leads
- Aluminium casing
- Hermetically sealed
- Operates in any orientation
- Maintenance free
- No memory effect
- **Manufactured in the EU**

Designed to meet all major quality, safety and environmental standards
- Safety at cell level is qualified to UL 1642 and IEC 62133-2:2017
- Transport: UN 3480, UN 38.3
- IEC 60079-11 compatible component (see over for details) [v]
- Quality: ISO 9001, Saft World Class program
- Environment: ISO 14001, RoHS and REACH compliant

Typical applications
- Backup for industrial equipment
- Medical devices
- Tracking
- Oil & Gas applications
- Internet of Things
- Wireless Sensor Networks
- Emergency lighting



Electrical characteristics		
Typical capacity (at C/5 rate, +25°C, 2.5V cut-off) [i]		4.0 Ah
Nominal voltage		3.65 V
Nominal energy		14.6 Wh
Recommended maximum discharge current [ii]	Continuous	8 A (~2C rate)
	Pulse	16 A (~4C rate)

Physical characteristics	
Thickness [iii]	20.65 mm
Width	48.5 mm
Height (not including 200mm cable)	74.0 mm
Typical weight	97 g
Volume	0.069 l
IEC battery designation	1INP21/47/72
Saft internal cell type	MP 174565 ise
Saft battery part number	70462J
Saft model / type reference	1p INT 174565 isr FL

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 [iv]		4 A (~1C rate)
Operating temperatures	Charge	-30°C to +60°C
	Discharge	-30°C to +60°C
Storage & transportation temperatures	Recommended	+10°C to +30°C
	Allowable	-30°C to +60°C

[i] Can vary depending on temperature and discharge rate
[ii] Can vary depending on temperatures. Consult Saft
[iii] At beginning of life, 100% State-of-Charge. May increase with temperature and the cells' calendar life. Refer to drawing GP 31461.
[iv] For optimised charging below 0°C and +60°C, consult Saft
[v] Compatible with a temperature classification T4 for an ambient temperature of +60°C. The temperature classification shall be verified during the assessment of the intrinsically safe apparatus in which the cell will be used.

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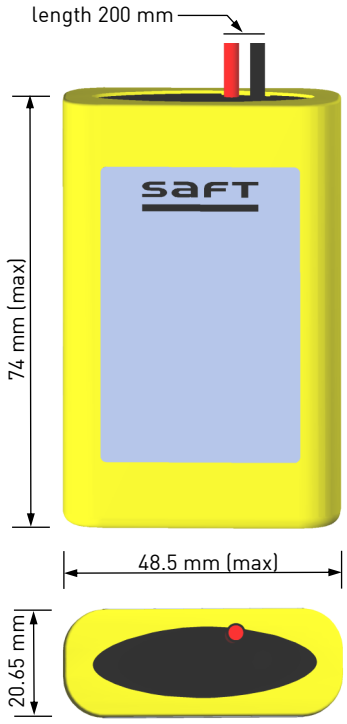
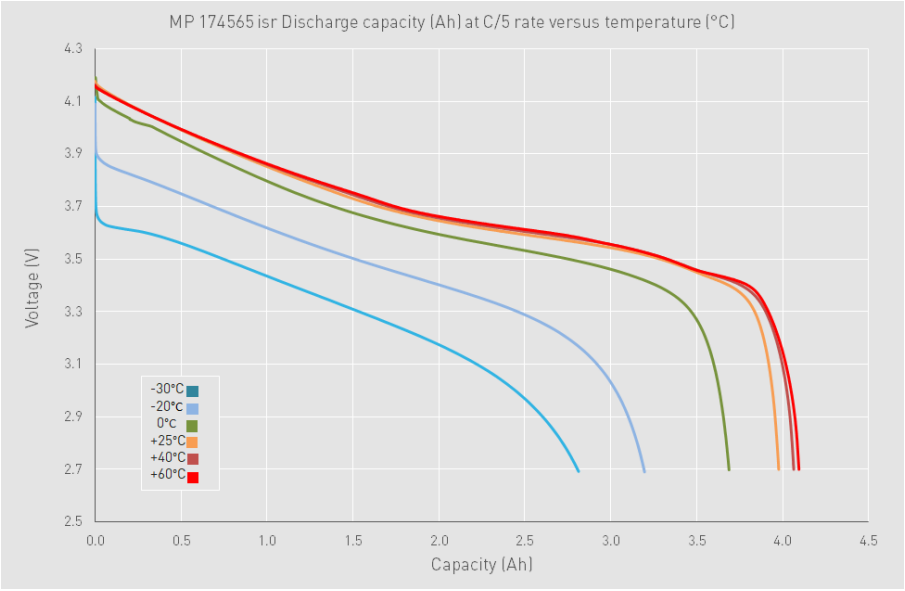




Battery assembly

The battery must be mechanically and electrically integrated into a complete system. The battery must include electronic devices for performance, thermal and safety management, specific to each application.

IEC 60079-11 Ed. 6.0:

- The battery is verified as compliant with the following parts of the standard; 6.3.2.1, 6.3.3, 6.3.5, 6.3.6, 6.3.12, 6.6.1, 6.6.2, 10.5.1, 10.5.2 and 10.5.3

Battery surface temperature

- The battery is compatible with a temperature classification of T4 at an ambient temperature of +60°C.
- The temperature classification shall be verified during the assessment of the intrinsic safety apparatus in which the battery is to be used.

Spark ignition

- The spark ignition risk shall be verified during the assessment of the intrinsically safe apparatus in which the battery will be used.

Storage

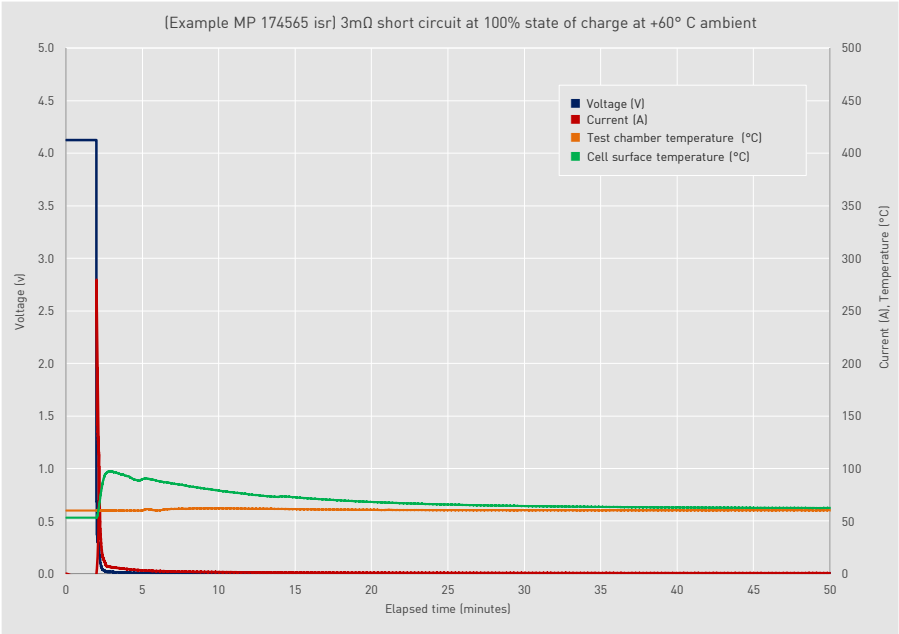
- The storage area should be clean, cool (preferably not exceeding +30°C), dry and ventilated. For long term storage keep the battery within 30±15% State of Charge.

Warning

- Do not crush, short-circuit, incinerate, dismantle, immerse in any liquid or heat above +60°C
- Observe charging conditions at all times

Pretest conditions	Value
Test chamber temperature	60 °C
Cell state of charge	100 %
Short circuit resistance	≤ 3.0 mΩ

Test data recorded	Value (max)
Maximum current	263.5 A
Cell maximum temperature	111.1 °C
Temperature rise	80.2 °K
Test results	**Result**
Temperature >100 °C and ≤135 °C	Temperature class T4
Externally visible electrolyte ≥24 h	No visible electrolyte
Discharge current interruption	No partial discharge
IECEx ExTR Reference No.	FR/INE/ExTR18.0025/00



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