

Primary Li-MnO₂ battery

MIRA battery

30 V lithium manganese dioxide (Li-MnO₂) battery

Saft's MIRA battery is used as power source for the MIRA night vision system, which is a part of the missile system MILAN. It is also suitable for other military and civil applications with high power needs in -40°C/+72°C environment.

Benefits

- High drain and pulse capability
- High voltage response, stable even after long dormant periods
- No voltage delay
- Low self-discharge compatible with long shelf-life of 10+ years (less than 1% after 1 year of storage at + 20 °C)
- High energy density
- Superior resistance to corrosion

Key features

- Twenty M 19 HR cells with spiral design in 10S2P configuration
- Safe, hermetic and non-pressurized stainless steel cell construction with glass-to-metal seal and safety vent
- Integrated state-of-charge indicator with LED display and push button
- Short-circuit proof due to integrated polyswitch
- Charge protection diode
- Restricted for transport (class 9)
- Manufactured in Germany

Designed to meet all major quality, safety and environment standards

- Safety: UL 1642 (File MH 61234), IEC 60086-4
- Military: VG 96915-173 (German military standard)
- Transport: UN 3090 and UN 3091
- Quality: ISO 9001, Saft World Class continuous program
- Environment: ISO 14001, RoHS and REACH compliant

Typical applications

- Night vision system MIRA
- Emergency supply in submarines
- Data logger in stratospheric balloons
- "Power pack" for various needs



Electrical characteristics

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

Typical capacity (at 500 mA, +20°C/+70°F, 18.0 V cut-off) ⁽¹⁾	21.0 Ah
Open circuit voltage	33.0 V
Nominal voltage (under 1 mA at +20 °C)	30.0 V
Nominal energy (at 500 mA, +20 °C, 18.0 V cut-off) ⁽¹⁾	590 Wh
Maximum continuous discharge current ⁽²⁾	4.6 A

Operating conditions

Operating temperature range	-40°C/+72 °C (-40°F/+161°F)	
Storage temperatures	Recommended	+35°C (+95°F) max.
	Allowable ⁽³⁾	-55°C/+72°C (-67°F/+161°F)

Physical characteristics

Length	184 mm / 7.24 in	
Width	72 mm / 2.83 in	
Height (max)	133 mm / 5.24 in	
Battery case	Plastic hard case	
Terminals ⁽⁴⁾	Resilient sockets (corrosion resistant)	
Battery weight	2700 g	
Li metal content	66 g	

References

Saft Part No. ⁽⁴⁾	4409250141
NSN (NATO Stock No.)	6135-12-329-3740

⁽¹⁾ Can vary depending on current drain, temperature and cut-off voltage.

⁽²⁾ Current limit of the polyswitch at +72 °C. Higher currents are possible at lower temperatures and for pulses. Consult Saft.

⁽³⁾ Long-time storage at high temperature may affect performance. Consult Saft.

⁽⁴⁾ For versions with different terminals and their part numbers, consult Saft.

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