EPIRB 3.M20

Primary Li-MnO_2 battery

9 V lithium manganese dioxide battery for EPIRBs

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The EPIRB 3.M20 battery is based on Saft M20 D-size spiral cells with high current and pulse capability. It is ideally suited for the demands of EPIRBs (Emergency Position Indicating Radio Beacons).

Benefits

- High drain / high pulse capability
- High voltage response, stable even after long dormant periods
- No voltage delay
- Low self-discharge compatible with long operating life (less than 1 % per year after 1 year of storage at 20 °C)
- High energy density
- Light weight
- Wide operating temperature range
- Superior resistance to corrosion
- Easy integration into EPIRBs

Key features

- 3 M20 cells in 3S1P configuration
- Safe, hermetic cell construction with glass-to-metal seal, safety vent and stainless steel container
- Non-pressurized cells
- Protection against abusive conditions with integrated polyswitch and diode
- Centered tube for secure mounting in EPIRBS
- Versions without centered tube and different cable configurations available on request
- Restricted for transport (class 9)
- Manufactured in Germany

Designed to meet all major quality, safety and environmental standards

- Safety: UL 1642 (File MH 12609)
- Transport: UN 3090 and UN 3091
- Quality: ISO 9001, Saft World Class Continuous program
- Environment: ISO 14001, RoHS and REACH compliant

Typical applications

- EPIRB (Emergency Position Indicating Radio Beacon) COSPAS-SARSAT, 406 MHz

Electrical characteristics	
Typical capacity (at +20°C / +68°F, 150 mA discharge rate, 6.0 V cut-off voltage) [1]	12.6 Ah
Open-circuit voltage	9.9 V
Nominal voltage (under 1 mA at +20°C)	9.0 V
Nominal energy (at 150 mA, +20°C, 6.0 V cut-off voltage)	108 Wh
Maximum discharge current (continuous and pulse) [2]	2 A

Physical characteristics	
Length	69.0 mm / 2.72 in
Width	64.3 mm / 2.53 in
Height	65.0 mm / 2.56 in
Typical weight	380 g
Terminals	Optional
Battery casing	Shrink sleeve

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 / + 90°C (- 67°F / + 194°F)

References	
Saft Part Number [4]	443 2080 136

[1] Can vary depending on current drain,temperature and cut-off voltage.
[2] Packs for higher currents are optionally available. Consult Saft.
[3] Long-time storage at high temperature may affect performance. Consult Saft.
[4] The part numbers of modified versions (e.g. with terminals / without centered tube) may be different

saft

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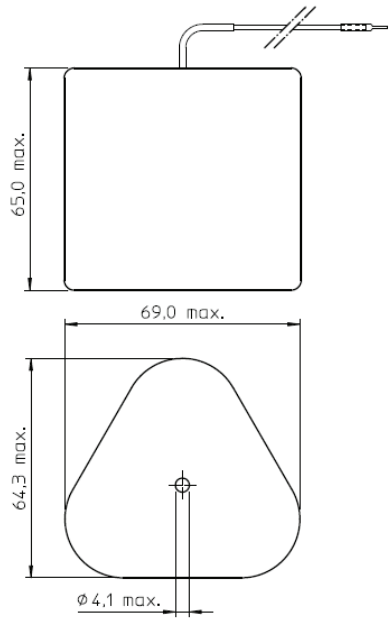
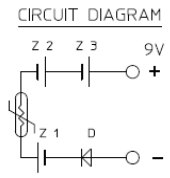




Built-in circuit protection elements

- Polyswitch preventing short-circuit / over-current and over-heating
- Charge protection diode

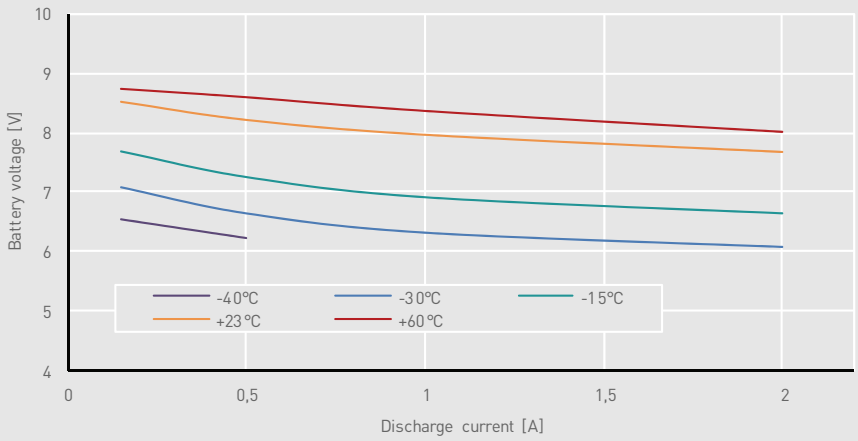
Storage

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

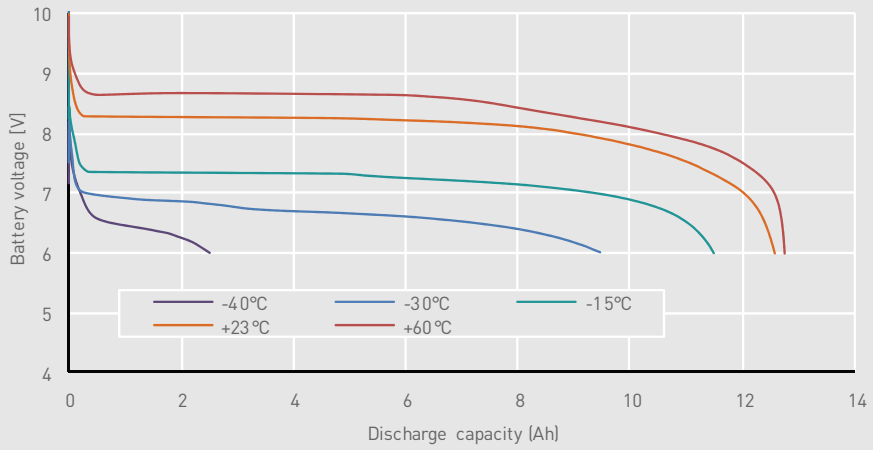
Warning

- Fire, explosion and burn hazard
- Do not charge, short-circuit, crush, disassemble, heat above +100°C (+212°F), incinerate, or expose cell contents to water

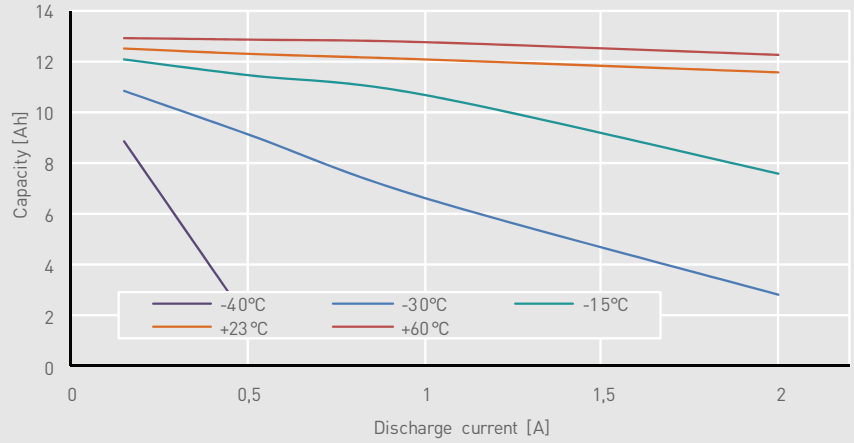
Voltage plateau vs. current and temperature (at mid-discharge)



Typical discharge profile vs. temperature under 0.5A



Capacity vs. current at various temperatures



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