

M 52 CV

Primary Li-MnO₂ cell

3 V lithium manganese dioxide C-size spiral cell with nickel-plated steel container

Saft's M 52 CV cell is ideally suited for applications requiring high energy with stable voltage under high discharge in -40°C / +72°C environment.

Benefits

- High drain / high pulse capability
- High voltage response, stable during most of the lifetime of the application even after long dormant periods
- High capacity at high current and low temperature
- Low self-discharge compatible with long operating life (less than 1% after 1 year of storage at +20°C)

Key features

- Spiral construction
- Hermetic construction with glass-to-metal seal
- Ni-plated steel container
- Integrated safety vent
- Non-corrosive electrolyte
- Non-pressurized at room temperature
- Restricted for transport (Class 9)
- Made in Germany

Designed to meet all major quality, safety and environment standards

- Safety: IEC 60086-4
- Transport: UN 3090 and UN 3091
- Quality: ISO 9001, Saft World Class continuous program
- Environment: ISO 14001

Typical applications

- Radio communications
- Utility Metering
- Alarms and security systems
- ELTs, EPIRBs
- Tracking systems
- GSM/GPRS communication



Electrical characteristics

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

Nominal capacity (under 60 mA, +20 °C, 2.0 V cut-off) ^[1]	5.3 Ah
Open circuit voltage (at +20 °C)	3.2 V
Nominal voltage (under 1 mA, +20 °C)	3.0 V
Nominal energy (at 60 mA, +20°C, 2.0 V cut-off)	15 Wh
Pulse capability ^[2]	Up to 4.0 A
Maximum recommended continuous current ^[3]	2.0 A

Operating conditions

Operating temperature range ^[4]	-40 °C / +72 °C (-104 °F / +161 °F)
Storage temperatures	Recommended +30 °C (+86 °F)
	Allowable ^[5] -55 °C / +90 °C (-67 °F / +194 °F)

Physical characteristics

Diameter (max)	25.7 mm (1.01 in)
Height for the tabbed version (max)	51.5 mm (2.03 in)
Typical weight	59 g
Li metal content	approx. 1.6 g

^[1] Dependent upon current drain, temperature and cut-off.

^[2] Dependent upon pulse characteristics, temperature, cell history and application. Higher rates are available under certain circumstances

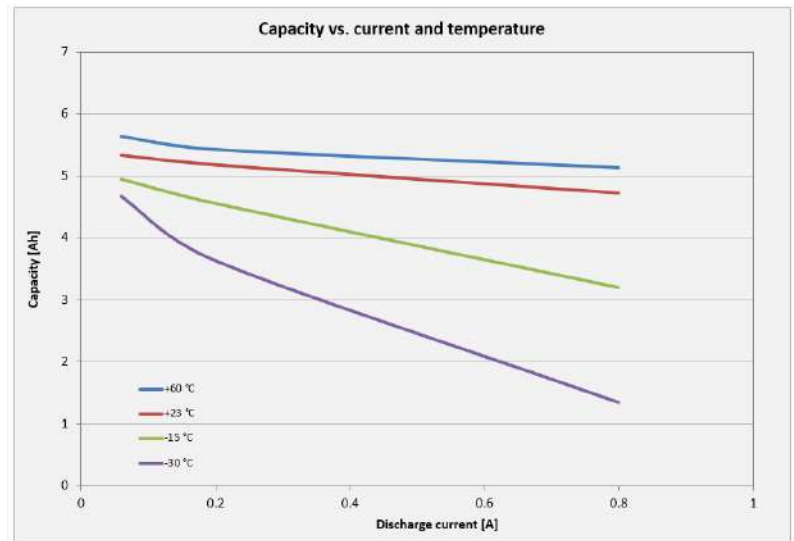
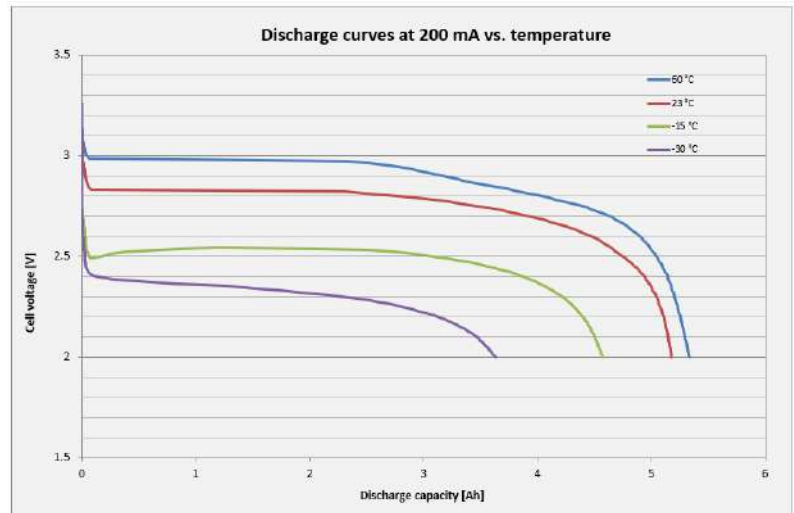
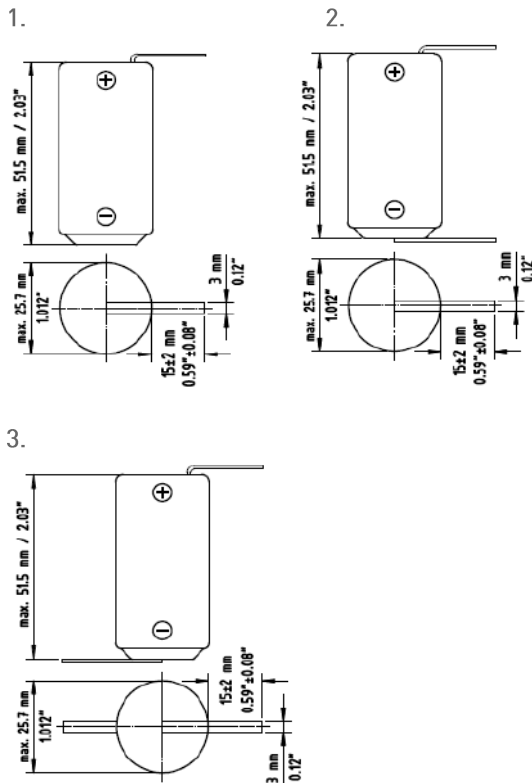
^[3] To maintain cell heating within safe limits. Battery packs may imply lower level of maximum current and may request specific thermal protection. Consult Saft.

^[4] Operating temperatures up to +85°C can be achieved. Consult Saft.

^[5] Long time storage at high temperature may affect performances. Consult Saft.

Terminations and part numbers

- 1. + tab (radial tab on positive terminal): 4122070403
- 2. C tab (radial tabs on positive & negative terminals): 4122070203
- 3. Z tab (radial tabs on positive & negative terminals): 4122070703
- Other configurations available on request



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 cell (use tabbed cell versions instead)
- Do not obstruct venting mechanism

