

MRX Ni-Cd battery

The compact high-energy railway backup battery

Saft's MRX battery offers fail-safe security for vital onboard electrical systems in a highly compact, fully integrated energy backup package for up to 20 years.

Saft's MRX battery combines the proven reliability of Ni-Cd technology with the efficiency achieved through Sintered/PBE construction while in an ultra-light and compact format.

The battery offers a reduction in size and weight of 30% over other Ni-Cd batteries, enabling a significant increase in passenger carrying capacity and enhanced passenger comfort with optimized safety and operating profitability.

Applications

All types of trains

- Urban transport: metros, tramways, tram-trains, airport shuttles
- Regional transport: EMU, DMU (Electric and Diesel Multiple Units)
- Intercity transport: high-speed trains, electric locomotives, passenger coaches

All types of function

- Passenger safety: onboard signaling, security lighting, door control and communication networks
- Passenger comfort: ventilation, air-conditioning, lighting, Wi-Fi
- Fail-safe train start-up: pantograph lift-up, computing, electronics

Benefits

- Reduced LCC (Life Cycle Cost) and improved LCA (Life Cycle Assessment)
- Reduced installation footprint and lower weight
- Reduced maintenance and replacement costs
- Assured energy reliability for safety, in a broad range of tough conditions
- Adaptable modular concept enables exact fit with customer specifications



Temperature

Operating temperature	From -30°C to +50°C
Resistance to extreme temperatures	From -50°C to +70°C

Maintenance

Low maintenance thanks to long time between topping-up operation	6 years or more (less than 35°C average, with charging temperature compensation)
Built-in water filling vents allow for quick and accurate topping-up to minimize maintenance costs	Less than 10 minutes for active topping-up operation

Light and compact design

Gain in container and battery compartment size vs conventionally sized batteries	60% depending upon requested mission profile
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Wide capacity range

Capacity range to optimize sizing to specific performances request	From 70 to 520 Ah
Available blocs for optimized integration	For 1 to 10 cells per bloc

* The data provided are nominal values and actual results may vary depending upon application conditions.

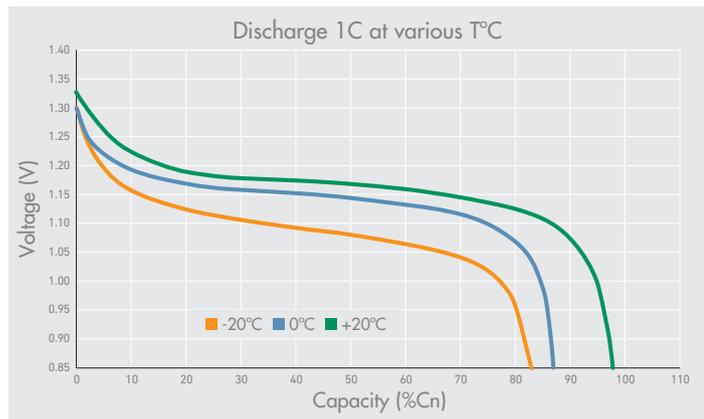
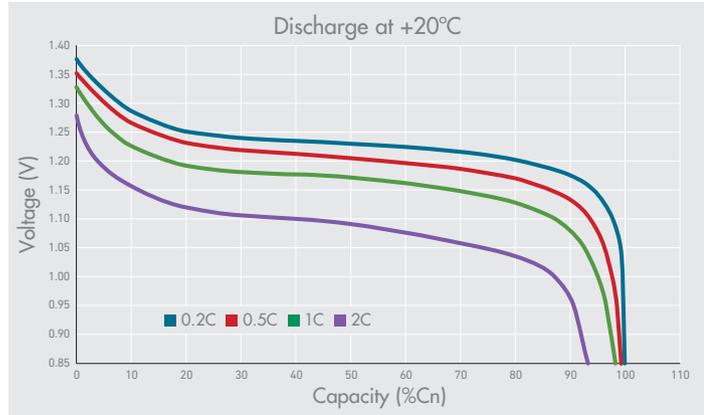
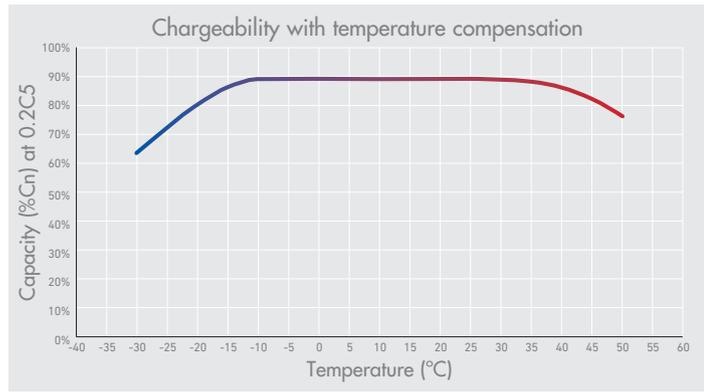
Features

- Saft's Sintered/PBE Ni-Cd technology ensures reliable and predictable service life (20 years)*, without risk of sudden death
- Compact design and lightweight block battery concept, with ultra-thin separator, offers overall 30% reduction in volume and weight compared with a standard Ni-Cd battery
- Robust, flame retardant plastic container is highly resistant to shocks and vibrations
- Wide operating temperature range from -30°C to +50°C and resistance to extreme temperatures from -50°C to +70°C
- 18 steps in a wide range of capacities from 70 Ah to 520 Ah enables the closest fit to specific needs
- Integrated water filling system makes the topping-up procedure rapid, safe, easy and cost-efficient



Full conformity with quality, safety and environmental standards

- Electrical: exceeds the medium "M" type requirements of IEC 60 623, also significantly exceeds UIC 854 requirements
- Integration: EN 50547 railway auxiliary onboard battery
- Fire & smoke: NFF 16101-16102, DIN 5510, UNI IEC 11170-3, UL 94-V0
- Shocks & vibrations: IEC 61 373
- Quality: ISO 9001, ISO/TS 22163 (IRIS), Saft world class continuous improvement program
- Environment: fully recyclable, ISO 14001, RoHS, REACH



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