

# SRX Ni-Cd battery

## The high-power railway starting battery

Saft's SRX nickel-based battery enables reliable starting of diesel locomotives and DMUs, even in some of the world's toughest conditions and extreme temperatures.

Saft's SRX nickel cadmium battery delivers the short duration, high peak discharge currents essential for instant engine starting, emergency braking, tilting, and for raising pantographs. It has a wide operating temperature range of -25°C to +50°C and can resist temperature extremes of -50°C to +70°C without affecting starting during capability.

SRX is a low maintenance battery capable of operating for two years or more without topping up and for a service life of more than 15 years. Saft's water-filling system can be supplied as an option for ease of maintenance.

### 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 and diesel locomotives, passenger coaches

#### All types of function

- Engine starting
- Emergency braking
- Fail-safe train start-up: pantograph lift-up, computing, electronics

### Benefits

- Reliable power for engine starting, even at extremely low temperatures
- Flexible single-cell design keeps down overall costs
- Low LCC (Life Cycle Cost)



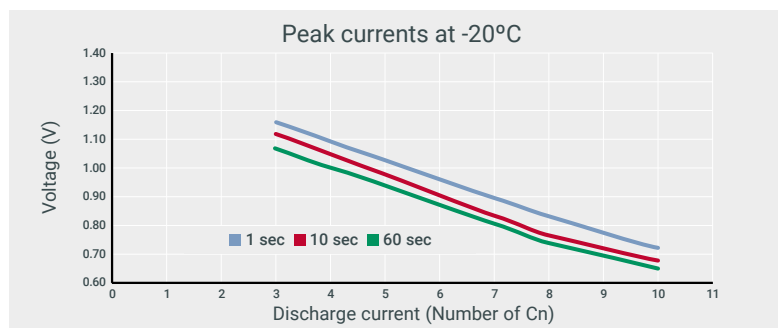
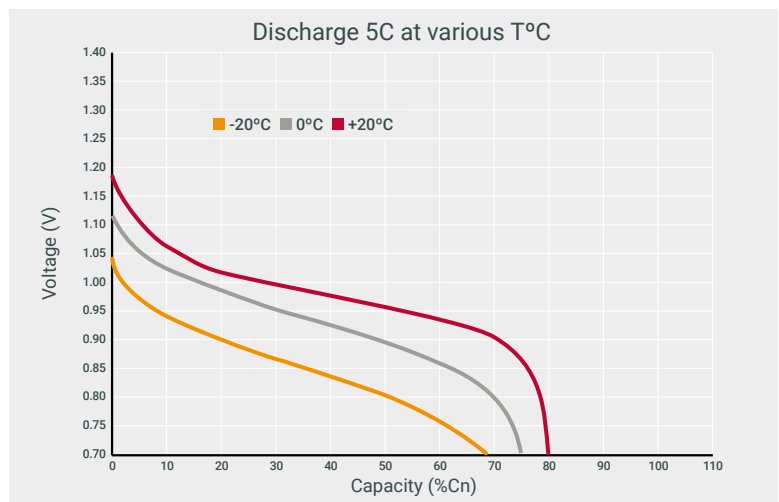
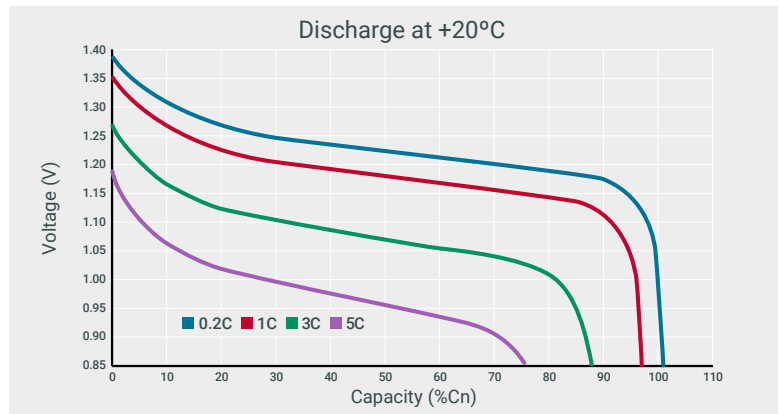
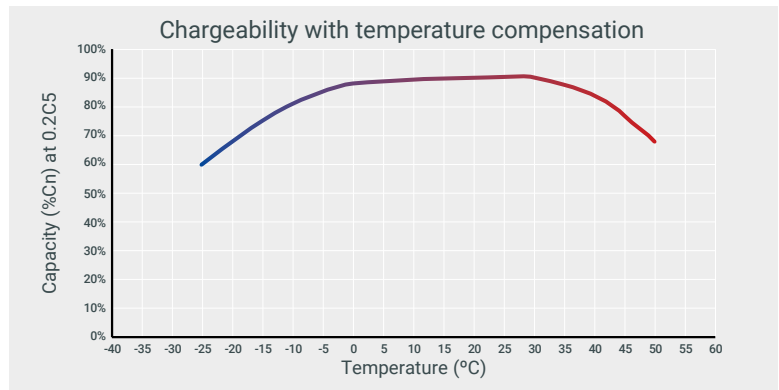
Temperature	
Operating temperature	From -25°C to +50°C
Resistance to extreme temperatures	From -50°C to +70°C
Maintenance	
Low maintenance thanks to long time between topping-up operation	2 years or more depending upon operation characteristics
Optional water filling vents allow for quick and accurate 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
Wide capacity range	
Capacity range to optimize sizing to specific performances request	From 22 to 220 Ah
Available crates for easy integration & handling	For 2 to 10 cells

## Features

- Saft's Sintered/PBE Ni-Cd technology ensures reliable and predictable service life (more than 15 years), without risk of sudden death
- Robust construction, large electrolyte reserves and advanced plate design
- Delivers short duration high current discharges of up to 1 minute and up to 5 times its capacity for instantaneous diesel engine starting
- Lighter than conventionally sized batteries, providing equivalent performance in containers and battery compartments at least 60% smaller
- Wide operating temperature range from -25°C to +50°C
- Resistance to extreme temperatures from -50°C to +70°C with starting operation capability over long service life
- Capacity range 22 Ah – 220 Ah (plastic) and 73 Ah – 375 Ah (steel)
- Low maintenance: 2 years or more water topping-up interval
- Optional water filling vents allow for quick and accurate topping-up to minimize maintenance costs
- Each battery option can be integrated into a customized tray, individually designed to meet specific application requirements

## Full conformity with quality, safety and environmental standards

- Electrical: exceeds the medium "H" type requirements of IEC 60 623, also significantly exceeds UIC 854 requirements
- Fire & smoke: NFF 16101-16102, DIN 5510-2, UNI IEC 11170-3, UL 94-V0, NFPA 130 for ASTM E 162 and E 662
- Shocks & vibrations: IEC 61 373
- Quality: ISO 9001, IRIS, Saft world class continuous improvement program
- Environment: fully recyclable, ISO 14001, RoHS, REACH



## Saft

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## Saft, a subsidiary of TotalEnergies

Saft Groupe S.A.S. au capital de 26 724 876 €  
R.C.S. Nanterre 481 480 465