

STM Module

High energy

Nickel-cadmium module for traction industry

Saft Nickel-cadmium batteries equip the largest fleet of EVs (about 8,000) currently in circulation. Mature technology, the Saft Ni-Cd has proved to be an attractive alternative. The Saft Ni-Cd battery meet the electric vehicle requirements of energy density for range and power density for acceleration. A complete battery system using STM modules also incorporates thermal management for increased efficiency.



Applications

All-electric vehicles (compact cars, minivans, scooters, buses, boats...)

Main advantages

- Low-maintenance
- Life time of over 65,000 miles (100 000 km)
- Adapted to extreme temperatures: -20°C to +50°C (-4°F to +122°F)
- Rapid recharge
- Fully recyclable

Technology

- Sintered positive electrodes
- Plastic-bonded negative electrodes

Electrical characteristics

	STM 5-100 MR*	STM 5-100 MRE**	STM 5-140 MR*
Nominal voltage (V)	6	6	6
Rated capacity at C/3 (Ah)	100	100	136
Typical specific energy at C/3 (Wh/kg)	55	55	54
Typical energy density at C/3 (Wh/dm ³)	88	87	95
Typical specific power at 3/4 U ₀ at 80% DOD (W/kg)	122	120	108
Typical power density (W/l)	203	200	190

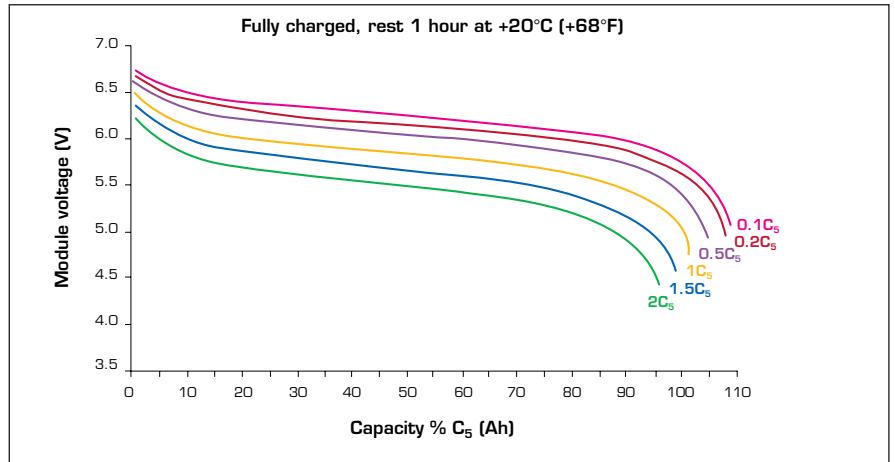
Mechanical characteristics

Typical weight (kg)	12.9	13.2	17.0
Dimensions (mm)	248x120x260	246x123x260	244x153x260
Volume (dm ³)	7.74	7.87	9.7

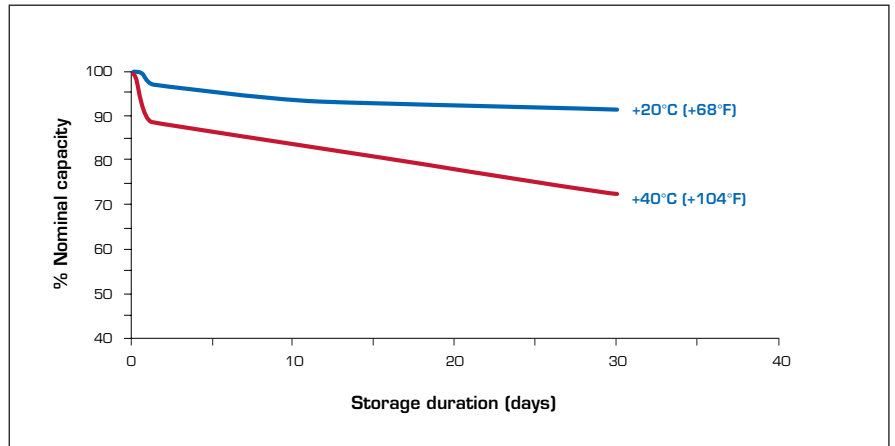
*MR: air-cooled - **MRE: integrated liquid cooling



STM module - Typical discharge at +20°C (+68°F)



STM module - Charge retention at various temperatures



STM module - Capacity at 1C rate during cycling at 80% DOD

