

# 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/dm³]	88	87	95
Typical specific power at 3/4 U <sub>o</sub> at 80% DOD [W/kg]	122	120	108
Typical power density [W/l]	203	200	190

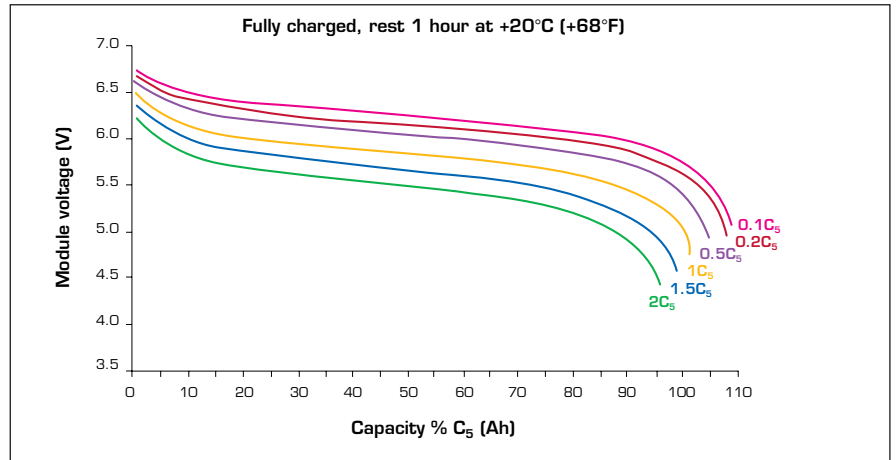
### Mechanical characteristics

Typical weight [kg]	12.9	13.2	17.0
Dimensions [mm]	248x120x260	246x123x260	244x153x260
Volume [dm³]	7.74	7.87	9.7

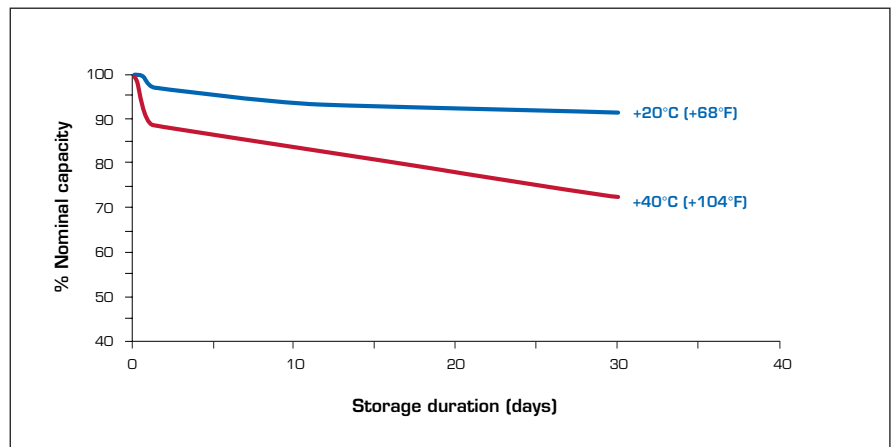
\*MR: air-cooled - \*\*MRE: integrated liquid cooling



### 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

