

# HIGH ENERGY

## Nickel-cadmium module for automotive industry Ni-Cd

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 to lead acid batteries. 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...)

### Main advantages

- Low-maintenance
- Life time of over 65,000 miles (100 000 km)
- Adapted to extreme temperatures: -20°C to +40°C
- Rapid recharge
- Fully recyclable

### Technology

- Sintered positive electrodes
- Plastic-bonded negative electrodes



### Electrical characteristics

	STM 5-100	STM 5-100	STM 5-140
	MR*	MRE**	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	54	54
Typical energy density at C/3 (Wh/dm <sup>3</sup> )	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

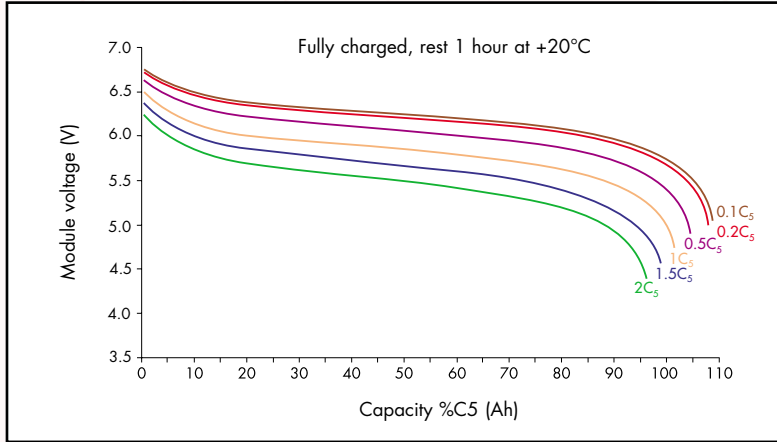
Typical weight (kg)	12.9	13.2	17.0
Dimensions (mm)	248x120x260	246x123x260	244x153x260
Volume (dm <sup>3</sup> )	7.74	7.87	9.7

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

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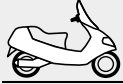
Nickel-cadmium batteries for automotive industry  
**Ni-Cd**

## Typical discharge at +20°C




**Range**  
45 km to 90 km (27 to 54 miles)

**Max.speed**  
45 km/h (54 mph)



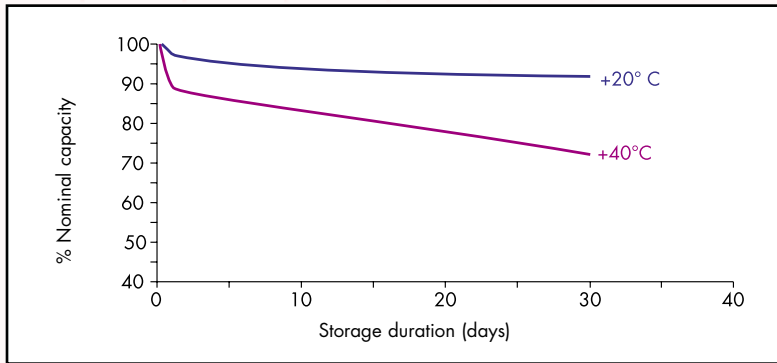
**Range**  
80 km to 110 km (48 to 66 miles)

**Max.speed**  
95 to 110 km/h (57 to 66 mph)

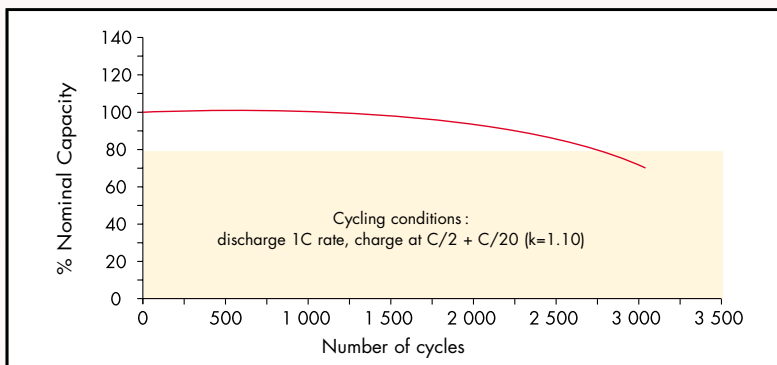


according to the use conditions and battery specifications

## Charge retention at various temperatures



## Capacity at 1 C rate during cycling at 80% DOD



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