

NHE Module

High energy

Nickel-metal hydride module

Saft's NHE Ni-MH batteries are specifically designed for applications requiring enhanced energy density and maintenance-free operation.

NHE modules are available in two configurations:

- NHE 10-100: 12 V, 100 Ah
- NHE 5-200: 6 V, 200 Ah

Applications

Energy applications for all-electric vehicles, rail and mass-transit equipments, telecom central offices, offshore installations,...

Main advantages

- Maintenance-free operation
- High power/energy ratio
- Excellent safety and resistance to abuse
- Fully recyclable
- Liquid cooling system available as an option depending on the application

Technology

- Sealed - 100% recombination
- Foam positive electrode
- Nickel metal hydride negative electrode (AB₅ alloy)
- Alkaline electrolyte
- Chemically treated polypropylene separator



Module characteristics

High energy modules	NHE 10-100	NHE 5-200
Electrical characteristics		
Nominal voltage (V)	12	6
Rated capacity at C/3, after charge at constant current (Ah)	100	200
Specific energy (Wh/kg)	66	66
Energy density (Wh/l)	137	137
Specific power (W/kg)	150	150
Power density (W/l)	310	310
Dimensions		
Height (mm)	195	195
Length (mm)	390	390
Width (mm)	120	120
Weight (kg)	18.6	18.6



Operating temperature

-20°C to +40°C (-4°F to +104°F)

Storage temperature

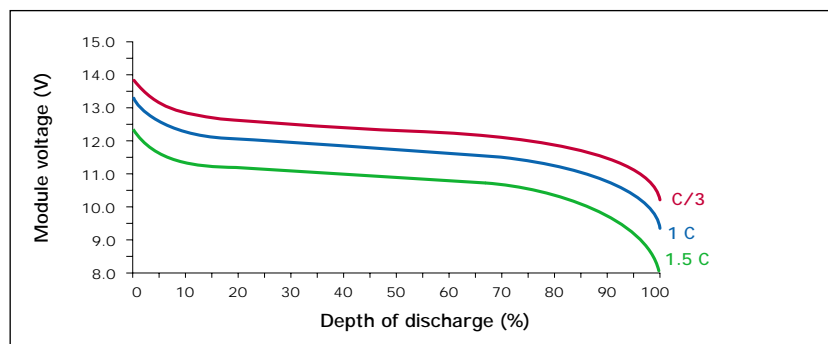
0°C to +30°C (+32°F to +86°F)

Charge conditions

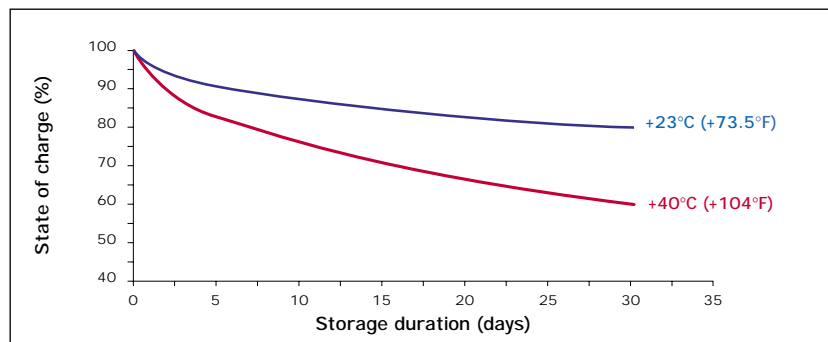
Single level charge: 1.41 V/cell is recommended at +20°C (+68°F) with a voltage compensation of -3 mV/°C/cell (-1.7 mV/°F/cell).

For other request, contact Saft.

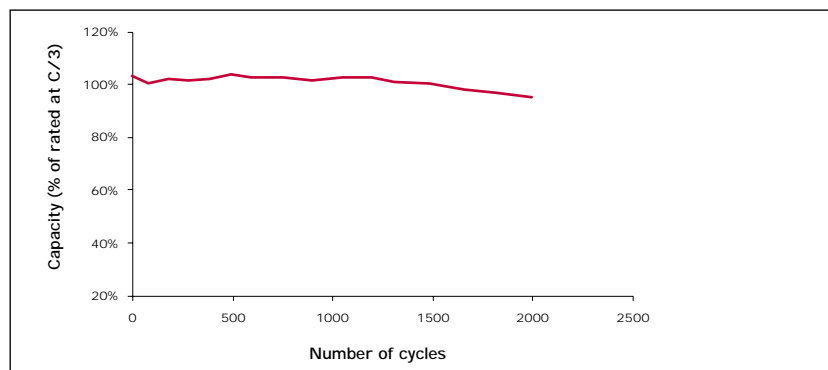
NHE module - Discharge at various rates at +23°C (+73.5°F)



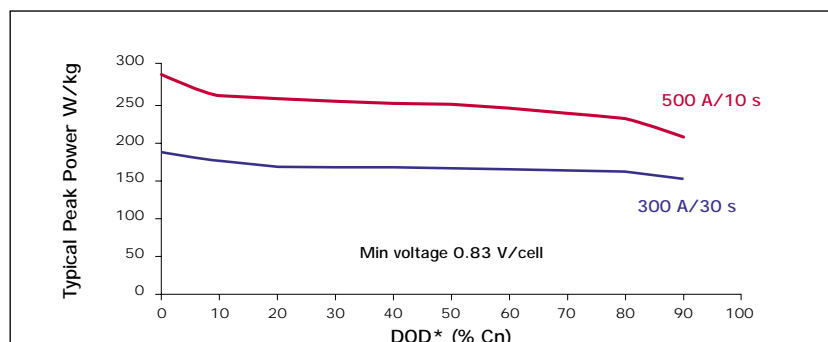
NHE module - Charge retention at different temperatures



NHE module - Cycling at 80% DOD* - Capacity at C/3 rate after full charge



NHE module - Typical peak power at +23°C (+73.5°F)



* Depth Of Discharge

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