

# Magnesium-silver chloride seawater-activated battery

## Type V616 for A244 torpedoes

The V616 battery is specifically dedicated to the power supply for the propulsion and electronics of A244 torpedoes (mod 0, mod 1, mod S) produced by Whitehead Alenia Sistemi Subacquei.

The battery is a bipolar stack of 146 cells. Each cell is made of one silver chloride electrode, and one magnesium (alloy) electrode separated by plastic plots spacers.

The battery is stored without electrolyte, and activated by sea water after the torpedo has been launched through a scoop located in the hull of the torpedo. During the run of the torpedo, a continuous flow of electrolyte will remove the heat, the gas, and the mineral mud produced by the discharge and corrosion reactions.

A244 torpedoes using V616 batteries have been successfully used by 14 different navies worldwide, in particular in South America, Asia, Southern and Northern Europe.

Saft is the sole qualified supplier of the V616 battery for A244 torpedoes.

### Storage conditions

The specified storage life is 5 years.

### Electrical characteristics

The performances of the V616 battery will vary with the sea water temperature and salt concentration.

The V616 battery delivers a nominal power of 32 kW under a nominal voltage of 160 Volts and for a duration of 6 minutes.

During the discharge the voltage of the battery will decrease from a maximum



#### Mechanical characteristics

Diameter (mm)	311
Length (mm)	226
Weight (dry) (kg)	34 ± 1

#### References

Saft part number	40074 K
Compliance	NSN 6135 15 116 9327
Technical specification	ST 244009

of 190 V (peak voltage), to a minimum of 140 V (cut-off voltage).

These performances are corresponding to a battery discharged in sea water at 16°C with a salinity of 38g/l.

The specified limits of utilisation are:

- sea temperature:  
0°C < T°C < 30°C
- salt concentration:  
15g/l < Cg/l < 38g/l

## Saft

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