

T400

Turbiwatt 
Energy from the source



Leopard

Hydro generator from 3 to 12 kW

Kaplan type turbine with integrated generator
Ultra compact (synchronous permanent magnet generator)

Watertight stator and rotor, set in resin

Nominal power: 3 to 12 kW depending on flow and head

Single phase 230 V / 50 Hz
or three phase 400 V / 50 Hz (60 Hz in option)

High efficiency hydro generators

Operating on constant flow: blades set when stopped

Turbine in stainless steel,
blades in loaded polymer or stainless steel for heads > 5 m

DIMENSIONS

Turbine

Outside diameter: 400 mm

Height (top of bulb to bottom of blades): 545 mm to 645 mm according to power
Weight (standard): 47 kg to 60 kg depending on power

Draft pipe

Top outside diameter: 400 mm

Bottom outside diameter: 540 mm

Height: 845 mm

Weight: 75 kg

RANGE OF APPLICATION

Net head: 1.20 m up to 7.00 m maximum

Flow: 70 to 320 litres/second

A range of application is provided with the turbine according to its pre-adjustments for each site.

INSTALLATION

The T400 turbine can be installed either horizontally, vertically or inclined. It is always associated with its concrete draft pipe (delivered with turbine). The turbine must be installed in a reservoir / water chamber that holds a sufficient volume of water and must have a minimum height of water above it to avoid a vortex phenomenon. The draft pipe (or extension of the draft pipe) must be submerged downstream under at least 10 cm of water to prevent any air entering the turbine. An adapted screen cleaner must be installed upstream of the turbine in order to protect it from any jams. Several Leopard turbines of different nominal powers can be installed in parallel to optimise electricity generation according to the seasonal flow variations.

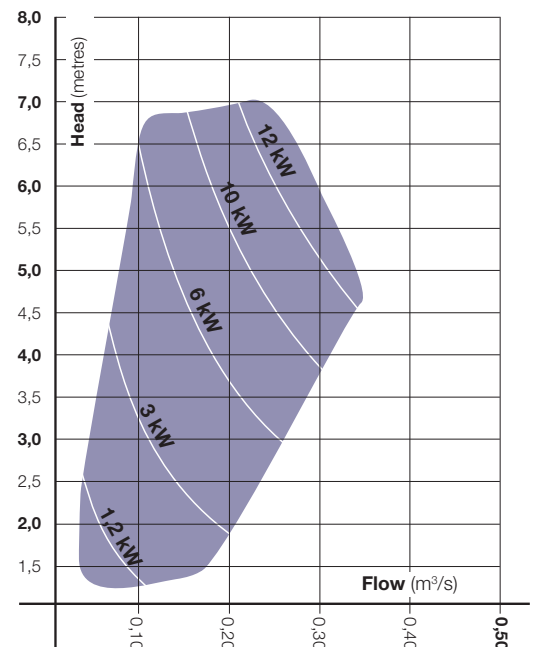
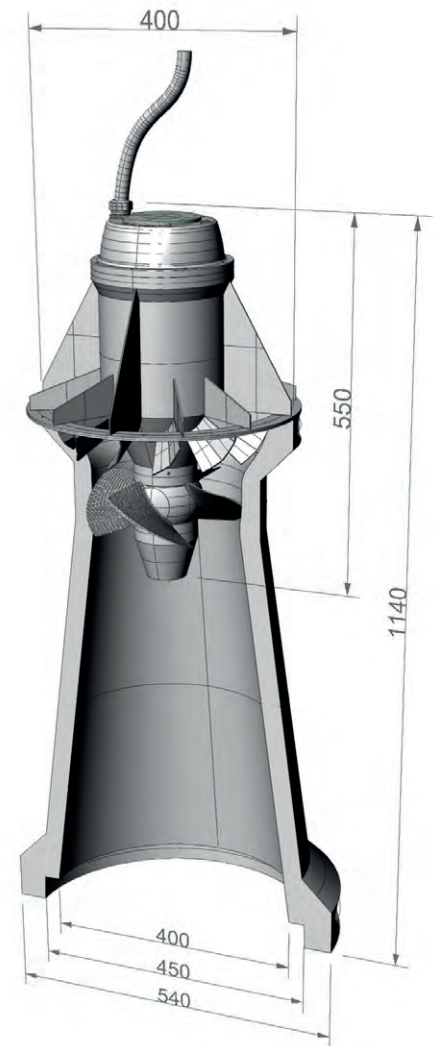
GRID CONNECTION

The turbine directly produces alternating current 230 V single phase or 400 V three phase / 50 Hz (60 Hz in option) to grid standards. The energy can be used directly to power an electrical appliance that is isolated from the grid. To connect to the grid (home consumption or sell to the grid) a regulation and grid connection board is proposed as an optional extra. The board automatically ensures all the security tests, synchronisation with the grid and regulation in case of a default with the main grid or turbine (see technical specification sheet)

The three-phase version is exclusively reserved for three phase installations. The power used must be identical on each three phases. In every other case we recommend the single-phase turbine. Grid connection requires the obtaining of authorisations and/or a contract with your network distributor according to local applicable regulations and standards.

MAINTENANCE

Annual control including the greasing of the bearing. Removal and preventive change of the bearings and complete overhaul of the turbine every five to eight years according to head and flow. Two-year guarantee on parts and labour (returned to factory).



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