

DIAGNOSTICS OF ELECTRIC MACHINES

Electrical diagnostics of hydroelectric generators represent a cornerstone of any maintenance programs for rotating machines.



They make it possible to determine the condition of the winding and its insulation. The results make it possible to adapt the maintenance program and give valuable indications to the asset manager regarding the current condition of the machine and whether it requires an overhaul or replacement in the future.

Methodology

The complete diagnostic service is comprised of the following :

stator

- visual inspection
- insulation resistance
- leakage current
- loss factor or delta tangent
- offline partial discharge
- final AC or DC voltage testing

rotor

- visual inspection
- insulation resistance
- pole drop test

If necessary, HYDRO Exploitation can also perform one of the specific services listed above. Tests are carried out in compliance with the IEC and IEEE international standards.

PRESTATIONS COMPLÉMENTAIRES

Electrical simulations

Modelling a power plant's main electrical components makes the simulation of electrical transients possible in order to identify the cause of an incident.

Commissioning coordination

Our specialised engineers' experience guarantees a well-planned commissioning process, thus ensuring the safety of the facility owner's personnel and property at all times.

diamhex

CONTACT

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Specific skills

HYDRO Exploitation specialists :

- can carry out a full diagnostic of the machine in direct collaboration with the owner or operator
- have over ten years of experience in the operation and overhaul of hydroelectric generators
- provide the full benefit of their expertise in operating hydroelectric facilities.
- can perform independent evaluations
- can offer various solutions in particular cases or when the results indicate weaknesses

Client benefits

The owner of the hydroelectric facility benefits :

- from a multidisciplinary and skilled partnership in all fields relating to hydroelectric machinery
- from synergies and feedback from an operational perspective
- from a customised service for both routine checks and testing of new or rehabilitated installations
- from a company that is independent with regards to the generator supplier