

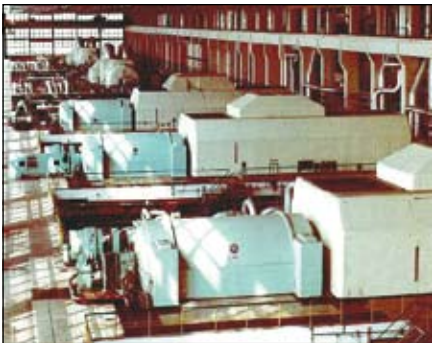


HYDROGEN COOLED, 2 POLE TURBOGENERATORS

PRODUCT SPECIFICATION



The machine hall of Melnik II Power Station in the Czech Republic.



The machine hall of Nováky Power Station in the Slovak Republic.



Installing the generator stator at Mejillones Power Station in Chile.



Inserting the rotor of a turbogenerator at Sevo Power Station in Finland.

Introduction

Hydrogen cooled generators, designed to be driven by both gas turbines and steam turbines, are used extensively in thermal and nuclear power plants. The characteristics of these machines are the result of an in-depth knowledge, gained from BRUSH's extensive experience, and the latest design techniques, backed by modern manufacturing methods and plant. To date, a total of 106 hydrogen cooled generators have been installed, providing a total of 11,250MW and establishing an enviable reputation for reliability and availability.

Features

Hydrogen cooled generators provide the following features:

- Reduced weight of active components.
- More economical operation, particularly under part load conditions.
- Improved efficiency as a result of significantly reduced ventilation losses.
- Extended insulation life.

Specifications

Voltage range:	up to 18kV
Speed:	3000 rev/min for 50Hz operation 3600 rev/min for 60Hz operation
Excitation:	Brushless or static
Output range:	200 – 375MVA

Hydrogen cooled generators comply fully with the provisions of the relevant international standards.

The most common standards are:

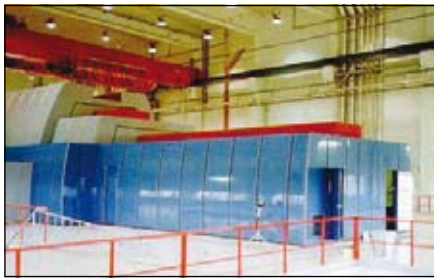
- CSN EN 60034-1+A1+A2
- IEEE C50.13 at 60Hz
- IEC 60034-1 at 50Hz
- IEC 60034-3 at 50Hz

Gas supply system

The gas supply system, which can be "tailored" to suit the individual requirements of a power station layout, incorporates the equipment for scavenging air from the generator with carbon dioxide and for the first fill and subsequent continuous maintenance of the hydrogen coolant. A "freezing out" process achieves hydrogen drying.



The machine hall at Vojan Power Station in the Slovak Republic.



The machine hall at Sevo Power Station in Finland.



Shen Tou Power Station, Peoples' Republic of China.



The machine hall of Soma Power Station in Turkey.



Certificate No 21024



Certificate No 21025



Certificate No 936683



Certificate No 00282



Certificate No 00066

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