

Gas Turbine:

Manufacturer: Alstom/ABB, Model GT13E
Capacity: 150,000 kW (150MWE/18,5 MVA, cos phi 0,8)
Frequency: 50 Hz
Year: 1988
Speed: 3000 RPM
Fuel: Gas
Last C-inspection: 2004
Hours: OH 66.200 EOH 95.644 Starts 1.456
Trips 296
Emission: NOx 75 mg/Nm³
Efficiency: 34.56%

Additional equipment Kawasaki Ammonia De-Oxidation Method, DLN Combustor Technology, EV Type Burners. Misc. spare parts.

Note: New EV burner unit has been installed in 1996.

Turbo generator

Manufacturer: ABB,
Model: WTAL 534
Serial nr.: GM 204791
Capacity: 187.500 KVA
Speed: 3000 RPM
Volt: 15.000 V
Frequency: 50 Hz

Steam turbine:

Manufacturer: Alstom/ABB
Licensee: RDM
Manufacture year: 1978
Hours: 146.935 OH; Starts 1.125; Trips 99
Type: Axial Excess Pressure
Execution: Condensation Turbine
Construction Type: Multi-Part
Output, net: approx. 511 MW
Output, gross: approx. 527 MW
Speed (nominal): 3300 RPM (10%)
Speed: 3300 RPM (10%) / 3360 RPM (12%)
Number of taps: 7
Make: BBC (HP-MP-LP)
Type: D4 Y 456 A
Extractions: 0,23 / 0,72 / 1,51 / 4,9 / 11 / 22,5 bara at 62,9 / 90,2 / 130,2 / 242 / 437 °C.
Efficiency: 99,8%
Generator: 500MWE/625MVA/cos phi 0,8
Voltage: 21 KV
Maintenance: last retrofits: LP2005, MP2004, HP2002
Condenser: water cooled with vacuum 96,4 %

Transformers:

GT trafo: 21KV -> 163KV
EB trafo: 10KV/ 3KV/ 400V en 35 MVA
Operating hours: 148.886 for boiler & steam turbine
Fuel consumption:
- GT 46.000Nm³/hr,
- Boiler solo 86.000Nm³/hr /109 mt HFO (at 40,74 MJ/kg) Combi 132.000 Nm³/hr,
- HFO specification:
HFO sec.6500 RI/37 grdC / max S 2%.

Boiler at 100% load:

Make/type: Schelde / C-E steam boiler with forced circulation, single reheat, and overpressure furnace.
Live steam: 188 bar / 540 °C
Capacity: 1610 mt/hr
Fuel: Gas / HFO
Burnertype: Dual fuel: Tangential arrangement
Emission: NOx 90 mg/Nm³