



| | High Pressure Turbine | | | Low Pressure Turbine | | |
|-------|-----------------------|------------------|-----------------|----------------------|------------------|-----------------|
| | Wheel Power, MWs | Stage Group Eff. | Dry Eff. BF=0.5 | Wheel Power, MWs | Stage Group Eff. | Dry Eff. BF=1.0 |
| CS | 96.75 | 88.95% | 90.11% | — | — | — |
| 1st | 125.00 | 88.15% | 91.01% | 371.44 | 93.58% | 93.58% |
| 2nd | 127.68 | 84.61% | 89.00% | 329.96 | 91.37% | 95.40% |
| 3rd | 105.58 | 77.65% | 83.19% | 145.81 | 87.17% | 95.55% |
| 4th | — | — | — | 125.16 | 85.54% | 95.27% |
| L-O A | — | — | — | 60.15 | 63.15% | 73.89% |
| L-O B | — | — | — | 60.15 | 63.15% | 73.89% |
| L-O C | — | — | — | 60.15 | 63.15% | 73.89% |

GROSS GENERATOR OUTPUT
1586.4 MW
AT 0.95 POWER FACTOR AND
RATED H₂ PRESSURE
75.00 PSIA H₂ PRESSURE
7451 kW MECH. LOSSES
13970 kW ELEC. LOSSES
1669.9MVA RATING

- NOTE:
- ASME 1967 Steam Tables.
 - Turbine performance is estimate, not guaranteed.
 - EFTR is estimated not guaranteed.
 - S/G, T/G, condenser, and feedwater heater performance assume clean conditions with 0% tube plugging.
 - Turbine and extraction arrangement is schematic only.
 - Feedwater heater vents are not modeled.
 - Scavenging steam modeled at 4.7% and 2.9% for 1st and 2nd stage reheater sections, respectively.
 - Cycle isolation is assumed. No fugitive, diversionary, bypass, or leakage flows are modeled (unless otherwise indicated).
 - S/G blowdown not modeled.
 - Generator power factor is used for computing variable losses. It should not be used in power flow calculations.
 - S/G leaving steam conditions are estimated based on Tcold=555°F.
 - Licensed thermal power is taken 3983 MWt with corresponding NSSS power taken as 4011.1 MWt.
 - The indicated HP turbine bowl pressure is for information. Control stage performance of the HP turbine is estimated based on partial are admission.
 - Feedwater heaters TTD and DCA are scaled with heater tube-side mass flow rates.
 - The pressure drops in Main Steam and Extraction Steam lines are modeled based on volumetric fow rate.

Gross Power: 1586.4 MW
NSSS Power: 4011.1 MWt

Doosan T/G TC6F-52" LSB 1800 rpm
PEPSE Version 82

HEAT RECOVERY OPERATION - CASE 3

P - pressure, psia
F - temperature, °F
H - enthalpy, Btu/lbm
- flow Rate, lbm/hr
x - quality

MW - Megawatts
MWs - Megawatts Shaft
MWt - Megawatts Thermal
B - British Thermal Units
kWh - Kilowatt Hours

| | | | |
|--------------|-----------------|-------|------------|
| Prepared by: | Anna M. Kluba | Date: | 2019/07/16 |
| Reviewed by: | Robert M. Field | Date: | 2019/07/16 |