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**DEALERS & IMPORTERS OF POWER PLANTS & ALLIED MACHINERY**

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## 1 No. 30 MW GEC Parsons make TG set, Inlet Pressure = 60 Kg/cm<sup>2</sup>

### DESIGN OPERATING CONDITIONS :

|   |   |                   |
|---|---|-------------------|
| Make                                      | : | G.E.C. Parsons    |
| Year of Make                              | : | 1965 – 66         |
| Type                                      | : | Axial Flow        |
| Max Economical Rating                     | : | 24 MW             |
| Max Continuous Rating                     | : | 30 MW             |
| Capacity (in kVA)                         | : | 37,500 kVA        |
| Main Stream Pressure                      | : | 900 psig          |
| Temperature                               | : | 482° C (900° F)   |
| Vacuum @ M.E.R                            | : | 29.00 in.Hg.      |
| Vacuum @ M.C.R                            | : | 28.86 in.Hg.      |
| Barometer                                 | : | 30.00 in.Hg.      |
| Circulating Water Temp                    | : | 15.5° C (60° F)   |
| Speed                                     | : | 3000 RPM          |
| Rotation viewed from front (Governor) end | : | Counter-clockwise |

### ALTERNATOR DETAILS

|                      |   |                |
|----------------------|---|----------------|
| Make                 | : | G.E.C. Parsons |
| Yr of Mfg            | : | 1965 - 66      |
| Capacity             | : | 37,500 kVA     |
| Rated Stator Voltage | : | 11000 Volts    |
| Rated Stator Current | : | 1970A          |
| Speed                | : | 3000 RPM       |
| Power Factor         | : | 0.8 lag        |
| Phase                | : | 3              |
| Cycles / sec         | : | 50             |

## STEAM CONSUMPTION DATA

| MW Load | Steam/flow + lb/hr. | Heat Rate Btu/kW hr | Final Feed Temp °C | Vacuum in. Hg | Remarks                            |
|---------|---------------------|---------------------|--------------------|---------------|------------------------------------|
| 7       | 63,156              | 11,180              | 116 (241°F)        | 29.26         | With 1st. bleed                    |
| 12      | 102,352             | 10,261              | 130 (266°F)        | 29.21         | point of feed heating in operation |
| 12      | 99,688              | 10,413              | 108 (227°F)        | 29.21         |                                    |
| 18      | 144,225             | 9,890               | 119 (246°F)        | 29.12         |                                    |
| 24      | 189,205             | 9,613               | 127 (261°F)        | 29.00         | M.E.R.                             |
| 30      | 239,760             | 9,648               | 134 (273°F)        | 28.86         | M.C.R.                             |

**Steam Flow Includes 1000 lb/hr for Ejector Steam.**

### SCOPE OF SUPPLY

**1 No. 30 MW GEC Parsons make Complete STG Set comprises of the following major items :**

- 1 No. Parsons make Steam Turbine.
- 1 No. GEC make Synchronous Alternator.
- 1 No. Complete Governing system for the steam Turbine.
- 1 No. Complete Oil Cooling system comprising of Oil Coolers, Oil Filters, Oil Pipelines, etc.
- 1 No. HP Heater.
- 1 No. LP Heater.
- 1 No. Gland Heater.
- 1 No. Drain Cooler.
- 1 No. Deareator
- 2 Nos. Deareator Pumps.
- 2 Nos. Condensate Extraction Pumps.
- 2 Nos. Air Ejectors.
- 1 No. Quick Start Air Ejector.
- 1 No. 3 Pass Condensor.
- 1 No. Steam Manifold.
- 4 Nos. Condensor Isolation Valves.

- 2 Nos. Emergency Stop Valves (ESVs).
- All valves pertaining to the Turbine System including Turbine Stop Valve.
- 1 No. Field Switch.
- 1 No. LO Cooler.
- 1 No. Alternator Air Cooler.
- 1 No. Gauge Panel.
- 1 No. Auxiliary Oil Pump.
- 1 No. AC flushing pump.
- 1 No. DC Flushing pump.
- 1 No. Barring Gear & Motor.

ATTION

**PRODUCT IMAGES :**





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