General Specifications

**Titan™ 250 Gas Turbine**
- **Industrial, Two-Shaft**
- **Axial Compressor**
  - 16-Stage
  - Variable Inlet Guide Vane and 5 Variable Guide Vanes
  - Pressure Ratio: 24:1
- **Combustion System**
  - Annular-Type, Lean-Premixed, Dry, Low Emission (SoLoNOx™)
  - 14 Fuel Injectors (SoLoNOx)
  - Torch Ignitor System
- **Gas Generator Turbine**
  - 2-Stage, Axial
  - Max. Speed: 10,690 rpm
  - Thrust Bearing, Active: Tilting-Pad
  - Thrust Bearing, Inactive: Fixed Tapered Land
- **Power Turbine**
  - 3-Stage, Axial
  - Max. Speed: 6500 rpm
  - Full Tilting-Pad Thrust Bearing
- **Journal Bearings**
  - Tilting-Pad
- **Turning Gear**
- **Coatings**
  - Compressor: Inorganic Aluminum
  - Turbine and Nozzle Blades: Precious Metal Diffusion Aluminide
- **Vibration Transducer Type**
  - Proximity Probes

**Key Package Features**
- **Driver Skid with Drip Pans**
- **316L Stainless Steel Piping ≤4" dia.**
- **Compression-Type Tube Fittings**
- **Digital Display Panel**
- **Electrical System Options**
  - NEC, Class I, Group D, Div 1, or Div 2
  - ATEX, Zone 2
  - CENELEC, Zone 1
- **Turbotronic™ Microprocessor Control System**
  - Onskid Control System (Div 2 or ATEX, Zone 2)
  - Freestanding Control Console
  - Color Video Display
  - Vibration Monitoring
- **Control Options**
  - 120 VDC Battery/Charger System
  - Gas Turbine and Package Temperature Monitoring
  - Serial Link Supervisory Interface
  - Turbine Performance Map
  - Compressor Performance Map
  - Historical Displays
  - Printer/Logger
  - Remote Monitoring and Diagnostics Option
  - Process Controls
  - Compressor Anti-Surge Control
  - Field Programming
- **Start Systems**
  - Direct-Drive AC
- **Natural Gas Fuel System**
- **Integrated Lube Oil System**
  - Turbine-Driven Main Pump
  - AC Motor-Driven Pre/Post Pump
  - DC (120 V) Motor-Driven Backup Pump
  - Oil Cooler and Oil Heater (Options)
  - Tank Vent Separator and Flame Trap
  - Lube Oil Filter
  - DC (120 V) Turning Gear System
- **Package Skid Design**
  - Optional Modifications for Floating Production Applications
  - Modularized System Design
- **Axial Compressor Cleaning Systems**
  - On-Crank/On-Line
  - Portable Cleaning Tank
- **Gearbox (if applicable)**
  - Speed Increaser
  - Speed Decreasers
- **Air Inlet and Exhaust System Options (Carbon or Stainless Steel)**
- **Enclosure and Associated Options**
- **Documentation**
  - Drawings
  - Quality Control Data Book
  - Inspection and Test Plan
  - Test Reports
  - Operation and Maintenance Manuals
Performance

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output Power</td>
<td>23 790 kW (31,900 hp)</td>
</tr>
<tr>
<td>Heat Rate</td>
<td>8880 kJ/kW-hr (6725 Btu/hp-hr)</td>
</tr>
<tr>
<td>Exhaust Flow</td>
<td>253 440 kg/hr (558,740 lb/hr)</td>
</tr>
<tr>
<td>Exhaust Temp.</td>
<td>460°C (865°F)</td>
</tr>
</tbody>
</table>

Nominal rating – per ISO
At 15°C (59°F), at sea level
No inlet/exhaust losses
Relative humidity 60%
Natural gas fuel with
LHV = 31.5 to 43.3 MJ/nm³
(800 to 1100 Btu/scf)
Optimum power turbine speed
AC-driven accessories
Engine efficiency: 39.9%

Available Power

<table>
<thead>
<tr>
<th>INLET AIR TEMPERATURE, °C (°F)</th>
<th>Output Power</th>
<th>Heat Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>-30.0 (-22)</td>
<td>26 000 kW</td>
<td>10.0 (7070)</td>
</tr>
<tr>
<td>-15.0 (5)</td>
<td>23 750 kW</td>
<td>9.6 (6790)</td>
</tr>
<tr>
<td>0.0 (32)</td>
<td>21 500 kW</td>
<td>9.3 (6570)</td>
</tr>
<tr>
<td>15.0 (59)</td>
<td>19 250 kW</td>
<td>8.9 (6290)</td>
</tr>
<tr>
<td>30.0 (86)</td>
<td>17 000 kW</td>
<td>8.5 (6010)</td>
</tr>
<tr>
<td>45.0 (113)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Package Dimensions*

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>10.3 m (33' 9&quot;)</td>
</tr>
<tr>
<td>Width</td>
<td>3.4 m (11' 1&quot;)</td>
</tr>
<tr>
<td>Height</td>
<td>3.9 m (12' 9&quot;)</td>
</tr>
<tr>
<td>Typical Weight</td>
<td>49 900 kg (110,000 lb)</td>
</tr>
</tbody>
</table>

*Driver package only, dry weight, unenclosed height