

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
 - Inlet Airflow: 73.2 kg/sec (155.2 lb/sec)
 - Vertically Split Case
- Combustion Chamber
 - 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
- **Reduction Drive**
 - Epicyclic Type
 - 1500 rpm (50 Hz) or 1800 rpm (60 Hz)
 - Accessory Power Take-Off

Generator

- Salient Pole, 3 Phase, 6 Wire, Wye Connected, Synchronous, with Permanent Magnet Generator Exciter
- Available Construction Types:
 - Open Drip Proof
 - Totally Enclosed Air-to-Air Cooled
 - Totally Enclosed Water-to-Air Cooled
- Sleeve Bearings
- Oil Jacking System
- NEMA Class F Insulation
- Class B Temperature Rise
- Voltages: 6600 to 13,800 VAC
- Frequency: 50 or 60 Hz

Package

- Mechanical Construction
 - Steel Base Frame with Drip Pans
 - 316L Stainless Steel Piping ≤4" dia.
 - Compression-Type Tube Fittings
 - Suitable for 3-Point Mounting
 - FPSO Modifications (Option)
- Electrical System
 - NEC, Class 1, Group D, Div 2
 - CENELEC/ATEX Zone 2
 - Cable Tray Wiring
 - 120 VDC Battery/Charger System
- Direct-Drive AC Start System
- Fuel Types
 - Natural Gas or Dual (Gas/Distillate)
- 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

- On-Crank/On-Line Turbine Compressor Cleaning System (Options)
 - Portable Cleaning Tank (Option)
- Air Inlet and Exhaust System
 - Carbon Steel
 - Stainless Steel
 - Marine-Type Filters
- Enclosure (Driver Only or Complete)
 - Fire Detection and Suppression
- Factory Testing of Turbine and Package
- Documentation
 - Electrical Drawings
 - Mechanical Drawings
 - Quality Control Data Book
 - Inspection and Test Plan
 - Test Reports
 - Operation and Maintenance Manuals
- Digital Onskid Display Panel

Turbotronic™ Control System

- Onskid Control System (Optional Offskid System)
 - 24 VDC Control Power (120 VDC Input)
 - Serial Link Supervisory Interface
 - Field Programmable
- Vibration Monitoring
- Temperature Monitoring
- Generator Control
 - Selectable Control Modes
 - Solid-State Voltage Regulation
 - Automatic Synchronization
 - Metering Panel with Manual Synchronization (Option)
 - KW Control (Option)
- TT4000 Display and Monitoring System
 - Multiple Operator Display Screens
 - Data Collection and Playback
 - Turbine Performance Map (Option)
 - Printer/Logger (Option)

Performance

Output Power	23 100 kW _e
Heat Rate	9150 kJ/kWe-hr (8670 Btu/kWe-hr)
Exhaust Flow	253 440 kg/hr (558,740 lb/hr)
Exhaust Temp.	460°C (865°F)

Nominal rating – per ISO
At 15°C (59°F), at sea level

No inlet/exhaust losses

Relative humidity 60%

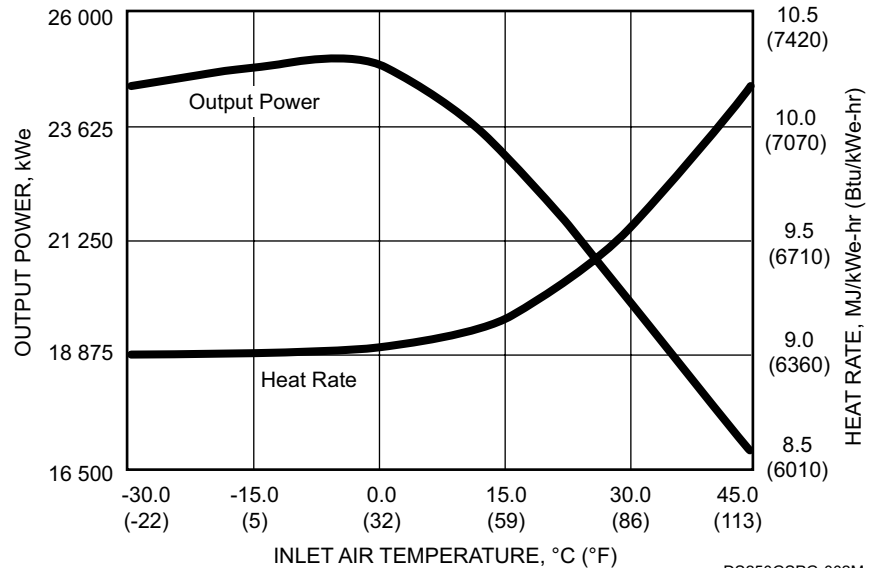
Natural gas fuel with
LHV = 31.5 to 43.3 MJ/nm³
(800 to 1100 Btu/scf)

Optimum power turbine speed

No accessory losses

Engine efficiency: 38.6% (measured at
generator terminals)

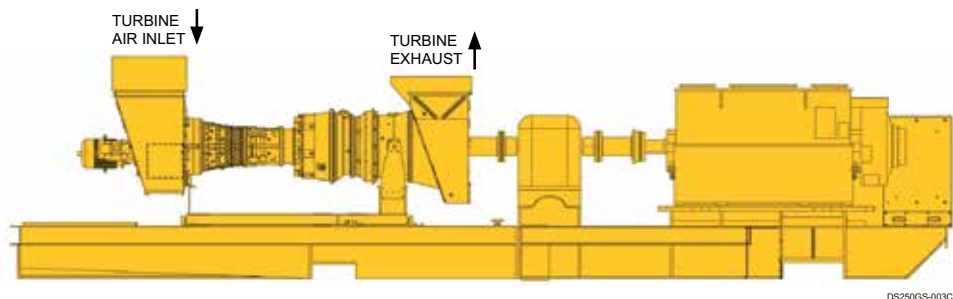
Available Power



DS250GSPG-002M

Package Dimensions*

- Length: 18.2 m (59' 6")
- Width: 3.4 m (11' 1")
- Height: 3.9 m (12' 9")
- Typical Weight: 141 150 kg
(311,100 lb)



DS250GS-003C

*Dry weight, unenclosed height