

## General Specifications

### Titan™ 130 Gas Turbine

- Industrial, Single-Shaft
- Axial Compressor
  - 14 Stages
  - Variable Geometry
  - Vertically Split Case
  - Pressure Ratio: 17.1:1
- Annular Combustion Chamber
  - Conventional or Lean-Premixed, Dry, Low Emission (SoLoNOx™)
  - 21 Fuel Injectors (Conventional)
  - 14 Fuel Injectors (SoLoNOx)
- Proximity Probe Vibration Transducers
- Turbine
  - 3 Stage, Axial Flow
  - Speed: 11,220

### Main Reduction Drive

- Epicyclic
  - 1500 or 1800 rpm (50 or 60 Hz)
  - Acceleration Vibration Transducer

### Generator

- Continuous Duty Rating
- Salient Pole, 3 Phase, 6 Wire, Wye Connected, Synchronous with Brushless Exciter
- Open Drip-Proof Construction
- Sleeve Bearings
- Velocity Vibration Transducers
- Permanent Magnet Generator
- NEMA Class F Insulation with F Rise

### Package

- Steel Base Frame with Drip Pans
- Direct-Drive AC Start System
- Natural Gas Fuel System
- *Turbotronic™* 4 Control System
  - ControlLogix Controller
  - Standard Display with Discrete Event Log, Strip Chart, Historical Trend, Maintenance Screen
  - Gas Turbine and Generator Control
  - Vibration and Temperature Monitoring
  - CGCM (Combination Generator Control Module) with Load Share, Auto Synchronization, Voltage Control, Reactive Power Control, kW Control
- Integrated Lube Oil System
  - Turbine-Driven Lube Pump
  - Pre/Post Lube Pump
  - Backup Lube Pump
  - Air/Oil Cooler
  - Integral Lube Oil Tank
  - Lube Oil Tank Heater
  - Oil Mist Eliminator
  - Simplex Lube Oil Filter
- Documentation
  - Drawings
  - Quality Control Data Book
  - Inspection and Test Plan
  - Test Reports
  - Operation and Maintenance Manuals
- Factory Testing of Turbine and Package

## Optional Equipment

- Generator Options:
  - Standard Voltages: 11,000 V (50 Hz); 12,470, 13,200 or 13,800 V (60 Hz)
- Fuel Systems
  - Liquid
  - Dual (Gas/Liquid)
  - Alternate Fuels (such as naphtha, propane, low Btu gas)
- Lube Oil System
  - Water/Oil Lube Oil Cooler
  - Duplex Lube Oil Filters
  - Vent Flame Trap
- Control System
  - Auxiliary and Remote Display/Control Terminal
  - Heat Recovery Application Interface
  - Serial Link Supervisory Interface
  - Turbine Performance Map
  - Printer/Logger
  - Field Programming Terminal
  - Unfired Waste Heat Recovery System Control (Stand-Alone Panel)
  - Multi-Unit Applications: Load Shed Control (Stand-Alone Panel), Import/Export, kW/KVAR Control (Stand-Alone Panel)
- Accessory Equipment
  - 120-VDC Battery/Charger System
  - Turbine Cleaning System: On-Crank and On-Line
- Weatherproof Acoustic Enclosure
- Ancillary Equipment
  - Inlet and Exhaust Silencers
  - Self-Cleaning or Prefilter/Barrier Air Inlet Filter
  - Inlet Evaporative Cooler
  - Inlet Chiller Coils

### Performance

Output Power	15 000 kW <sub>e</sub>
Heat Rate	10 230 kJ/kWe-hr (9695 Btu/kWe-hr)
Exhaust Flow	179 250 kg/hr (395,180 lb/hr)
Exhaust Temp.	495°C (925°F)

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

No inlet/exhaust losses

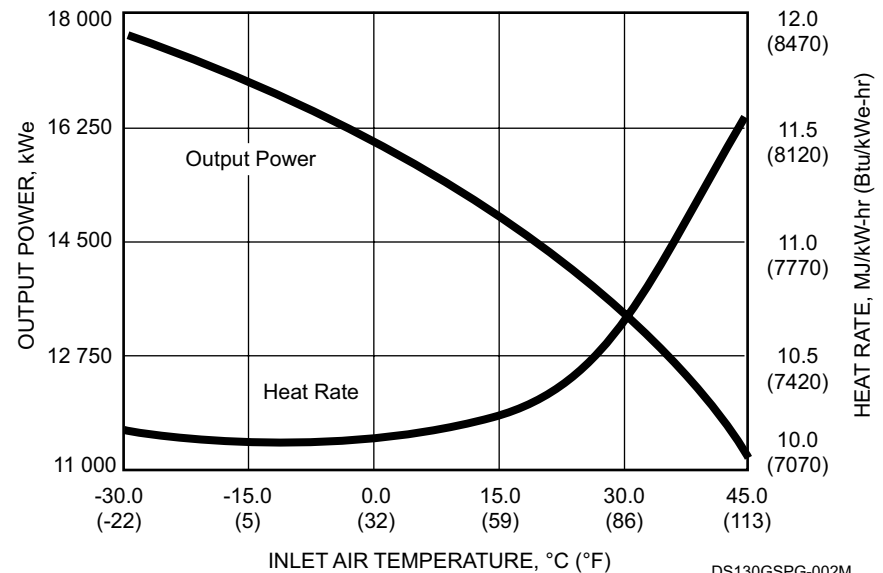
Relative humidity 60%

Natural gas fuel with  
LHV = 35 MJ/nm<sup>3</sup> (940 Btu/scf)

No accessory losses

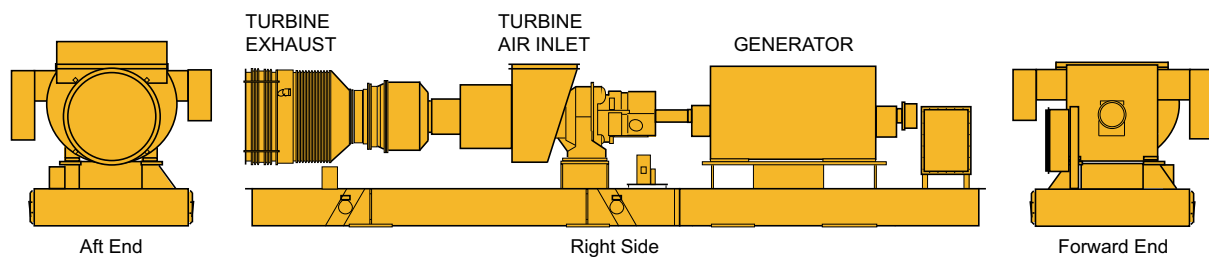
Engine efficiency: 35.2% (measured at  
generator terminals)

### Available Power



DS130GSPG-002M

### Typical Service Connections



### Package Dimensions

Length: 14.0 m (46' 0")  
Width: 3.2 m (10' 7")  
Height: 3.3 m (10' 9")  
Typical Weight: 86 850 kg  
(191,465 lb)

#### Left Side

- Lube Oil: Vent, Drain, Cooler
- Generator Control Box, Power
- Drip Pan Drain
- Package Ground
- DC Power - Electronic Actuator
- Generator Monitor Box
- AC Power - Starter Motor
- Generator Terminal Box (line)
- Turbine Control Box

#### Right Side

- Combustor and Exhaust Diffuser Drain
- Fuel: Inlet, Filter Drain, Vent
- Package Air Supply
  - Liquid Fuel Atomizing
  - Self-Cleaning Filter
  - Solenoid Actuation
- Turbine Cleaning Fluid Inlet

- AC Power
  - Liquid Fuel Primary Pump
  - Lube Oil Tank Heater
  - Pre/Post Lube Oil Pump
- Air Inlet Duct Drain
- Package Ground

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