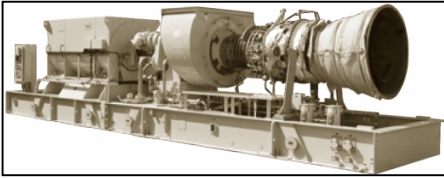


POWER FACTOR

Energy Solutions for a brighter future...

Titan 130 Turbine Generator Technical Data



General Specifications

Titan 130 Gas Turbines

- 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 (SoLoNOx1)
- 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

POWER FACTOR®
Worldwide Sales, Rentals & Service
(404) 915-7112

www.powerfactor-usa.com

Energy Solutions for a Brighter Future...

Titan 130 Turbine Generator Technical Data

Performance

Output Power	15 000 kW
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

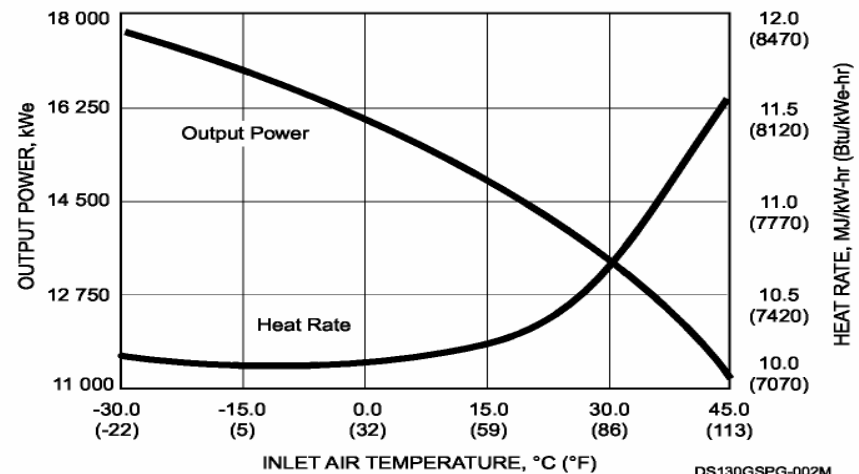
Relative humidity 60%

Natural gas fuel with
LHV = 35 MJ/nm³ (940 Btu/scf)

No accessory losses

Engine efficiency: 35.2% (measured at
generator terminals)

Available Power



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

