

General Specifications

Taurus™ 65 Gas Turbine

- Industrial, Single-Shaft
 - 13 Stage Axial Compressor
 - Variable Inlet Guide Vanes and Stators
 - Pressure Ratio: 15:1
 - Inlet Airflow: 21 kg/sec (46.4 lb/sec)
 - Vertically Split Case
 - Combustion Chamber, Annular-Type
 - 10 Lean-Premixed, Dry Low Emissions SoLoNOx™ Injectors
 - Single Torch Ignitor System
 - Power Turbine
 - 3-Stage Reaction
 - Clockwise Rotation
 - Bearings
 - 3 Radial Journal: Tilt-Pad
 - 1 Thrust, Active: Tilt-Pad
 - 1 Thrust, Inactive: Fixed Tapered Land
 - Coatings
 - Compressor: Inorganic Aluminum
 - Turbine and Nozzle Blades: Platinum Aluminide (Stages 1 and 2)
 - Vibration Transducer Type
 - Proximity Probes, 2 per Radial Bearing/ 2 per Thrust Bearing (1 Active, 1 Inactive)
 - Velocity Pick-up*
- Main Reduction Drive**
- Epicyclic Type
 - 1500 or 1800 rpm (50 or 60 Hz)
 - Vibration monitoring: Acceleration Transducer
- Generator**
- 4 Pole, 3 Phase, 6 Wire, Wye Connected, Synchronous with Permanent Magnet Generator Exciter
 - Available Construction Types:
 - Open Drip-Proof Construction
 - CACA/TEAAC (Closed Air, Cooling Air/ Totally Enclosed, Air to Air Cooling)*
 - CACW/TEWAC (Closed Air, Cooling Water/Totally Enclosed, Water to Air Cooling)*
 - Sleeve Bearings
 - Vibration Monitoring; Velocity Transducers
 - Vibration Monitoring; Displacement Transducers*
- NEMA Class F Insulation
 - Class F Temperature Rise
 - Class B Temperature Rise*
 - Continuous Duty Rating Voltages:
 - 3300, 6600, 11 000 (50Hz)
 - 4160, 6900, 12 470, 13 200, 13 800 (60Hz)
- Package**
- Mechanical Construction
 - Steel Base Frame with Drip Pans
 - 316L Stainless Steel Piping
 - Compression Type Tube Fittings
 - Start System
 - Direct Drive AC Motor with VFD Control
 - Package Electrical Certification
 - NEC, CSA Class 1, Group D, Div.2
 - Fuel System
 - Natural Gas
 - Integrated Lube Oil System
 - Turbine-Driven Lube Pump
 - AC Motor Driven Pre/Post Lube Pump
 - DC Motor Driven Backup Lube Pump
 - Air to Oil Cooler
 - Water to Oil Cooler*
 - Integral Lube Oil Tank
 - Lube Oil Tank Heater
 - Lube Oil Filter
 - Duplex Lube Oil Filter*
 - Oil Tank Vent Separator with Flame Arrestor
 - Air Inlet and Exhaust Systems
 - Carbon Steel
 - Stainless Steel*
 - Barrier Type Filters*
 - Self-Cleaning Filters*
 - Inlet and Exhaust Silencers
 - Inlet Evaporative Cooler*
 - Inlet Chiller Coils*
 - Enclosure
 - Complete Package
 - Fire Detection and CO2 Suppression System
 - Turbine Compressor Cleaning Systems
 - On-Crank/On-Line
 - Portable Cleaning Tank*
- Package Power
 - 120VDC Battery/Charger System*
 - Turbotronic™ On-Skid Gas Turbine and Generator Control System Features
 - Combination Generator Control Module with Load Share, Auto Synchronization, Voltage Control
 - Standard Display with Discrete Event Log, Strip Chart, Historical Trend, Maintenance Screen
 - Vibration and Temperature Monitoring
 - English Display Text and Labels
 - Spanish, Portuguese, German, French or Simplified Chinese Display Text and Labels*
 - Auxiliary and Remote Display/Control Terminals*
 - Turbine Performance Map*
 - KW Import Control*
 - KVAR/Power Factor Control
 - ControlNet Redundant Media, Ethernet, Modbus RS232C/422/485 Supervisory Interface*
 - Heat Recovery Application Interface*
 - Multi-Unit Applications: Load Shed Control, Import/Export or kW/KVAR Control Panels*
 - InSight Platform™ Equipment Health Management*
 - Printer/Logger*
 - Electrical System Options
 - Neutral Grounding Resistor or Transformer*
 - Switchgear and Generator Protective Relay*
 - Motor Control Center with Automatic Transfer Switch*
 - Documentation
 - Drawings
 - Quality Control Data Book
 - Inspection and Test Plan
 - Test Reports
 - O&M Manuals
 - Factory Testing of Turbine and Package Systems

Performance

Output Power	6500 kW _e
Heat Rate	10 860 kJ/kWe-hr (10,295 Btu/kWe-hr)
Exhaust Flow	76 880 kg/hr (169,495 lbs/hr)
Exhaust Temperature	540°C (1000°F)

Application Performance

Steam (Unfired)	14.7 tonnes/hr (32,430 lb/hr)
Steam (Fired)	57.1 tonnes/hr (125,850 lb/hr)
1536°C (2800°F)	
Chilling (Absorp.)	12 670 kW (3600 refrigeration tons)

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

No inlet/exhaust losses

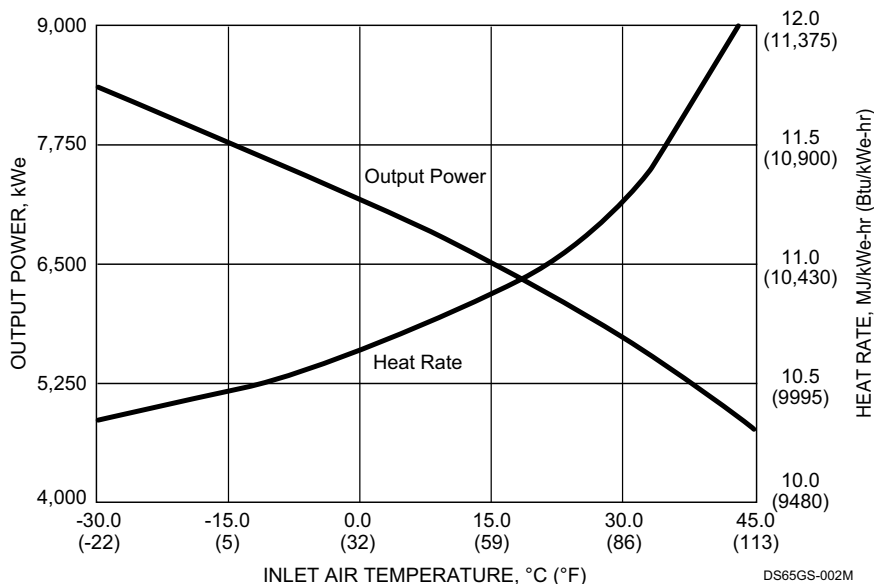
Relative humidity 60%

Natural gas fuel with
LHV = 35 MJ/Nm³ (940 Btu/scf)

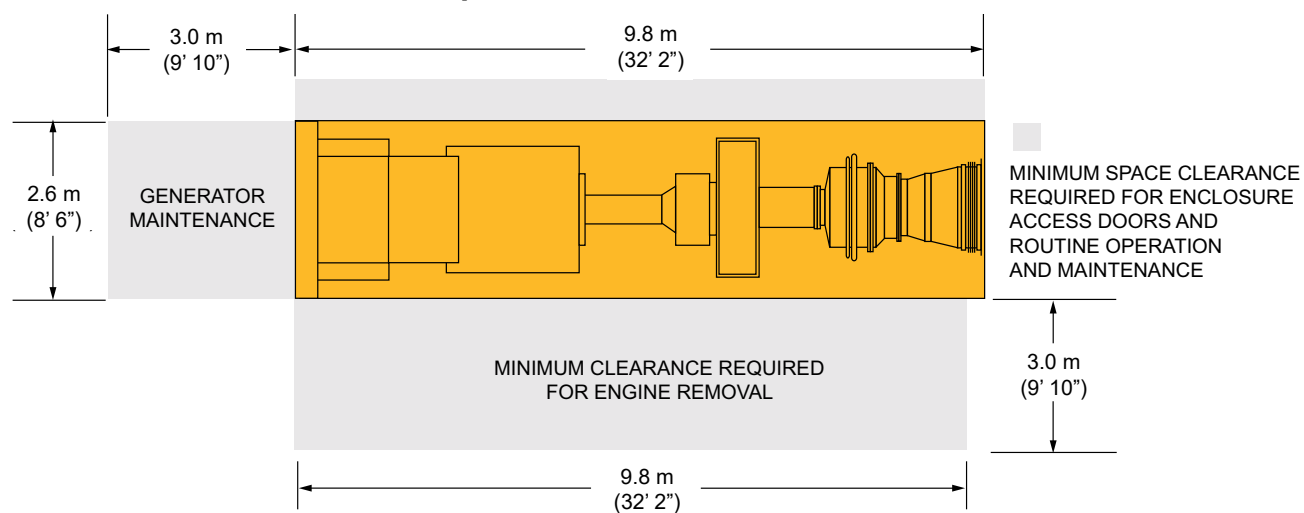
No accessory losses

Engine efficiency: 33%
(measured at generator terminals)

Available Power



Enclosure Access and Maintenance Space



Package Height: 3.3 m (10' 9")

Package Weight: 39 600 kg (87,300 lb)

DS65PG-003C