

Industrial/Utility Grade



## Standard Package Configurations

### Gas Turbine

- *Taurus*<sup>™</sup> 70 Industrial, Single-Shaft
- Axial Compressor
  - 14-Stage
  - Variable Inlet Guide Vanes and Stators
  - Compression Ratio 16:1
  - Inlet Airflow: 26.2 kg/sec (57.7 lb/sec)
  - Speed: 15,200 rpm
  - Vertically Split Case
- Annular Combustion Chamber
  - Conventional or Lean-Premixed, Dry, Low Emission (*SoLoNO<sub>x</sub>*)
  - 12 Fuel Injectors
  - Torch Ignitor System
- Proximity Probe Vibration Transducers
- Turbine
  - 3-Stage, Axial Flow
  - Speed: 15,200 rpm

### 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
- Permanent Magnet Generator
- Open Drip-Proof Construction
- Sleeve Bearings
- Velocity Vibration Transducers
- NEMA Class F Insulation with F Rise

### Package

- Steel Base Frame with Drip Pans
- Direct-Drive AC Start System
- Natural Gas Fuel System
- *Turbotronic*<sup>™</sup> 4 Control System
  - ControlLogix Processor
  - Standard Display with Discrete Event Log, Strip Chart, Historical Trend, Maintenance Screen
  - Gas Turbine and Generator Control
  - Vibration and Temperature Monitoring
  - Auto Synchronizing
  - KW Control
  - CGCM Module
  - KVAR/Power Factor Control (Optional)
  - Combination Generator Control Module with Load Share, Synchronization, Voltage Control, Reactive Power Control, Generator Protection
- 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
  - Simplex Lube Oil Filter
  - Oil Mist Eliminator
- Documentation
  - Drawings
  - Quality Control Data Book
  - Inspection and Test Plan
  - Test Reports
  - Operation and Maintenance Manuals
- Turbine Cleaning System: On-Crank and On-Line
- Factory Testing of Turbine and Package

## Optional Equipment

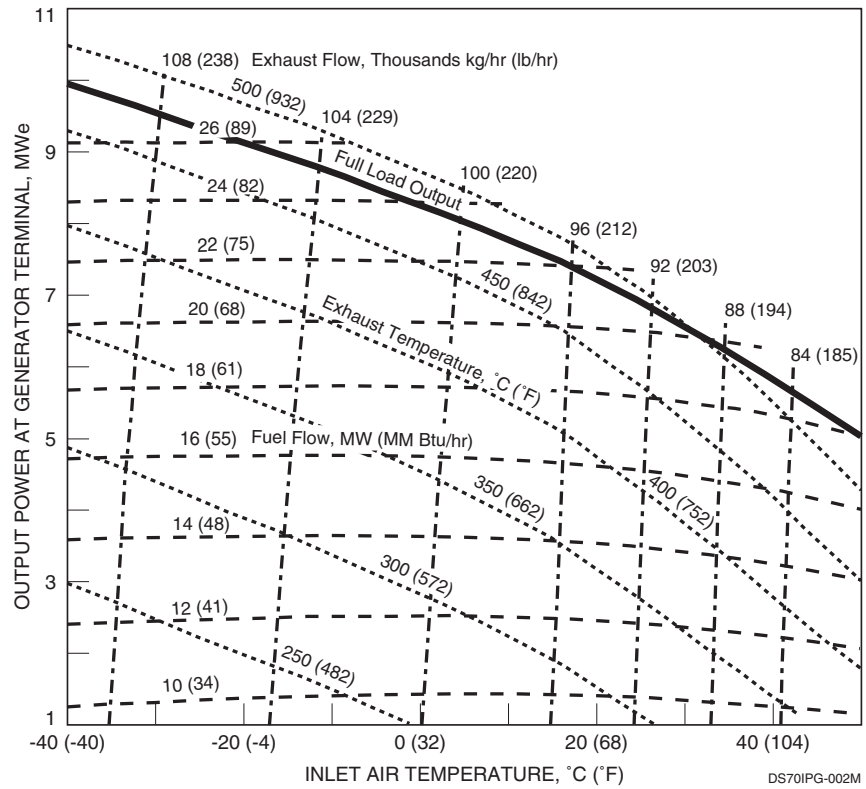
- Generator Options:
  - Totally Enclosed Water/Air Cooled
  - Standard Voltages: 6600, 11,000 V (50 Hz); 4160, 12,470, 13,800 V (60 Hz)
- Fuel Systems
  - Liquid
  - Dual (Gas/Liquid)
  - Alternate Fuels (such as naphtha, propane, low Btu gas)
  - ElectricFuel Control
- Lube Oil System
  - Water/Oil Lube Oil Cooler
  - Duplex Lube Oil Filters
  - Vent Flame Trap
- Control System
  - Auxillary and Remote Display/Control Terminal
  - Heat Recovery Application Interface
  - Serial Link Supervisory Interface
  - Turbine Performance Map
  - Historical Displays
  - Printer/Logger
  - Field Programming Terminal
- Accessory Equipment
  - 120-VDC Battery/Charger System
  - Package Lifting Kit
- Weatherproof Acoustic Enclosure
- Ancillary Equipment:
  - Inlet and Exhaust Silencers
  - Self-Cleaning or Prefilter/Barrier Air Inlet Filter
  - Inlet Evaporative Cooler
  - Inlet Chiller Coils
  - Ancillary Support Frame

## Nominal Performance\*

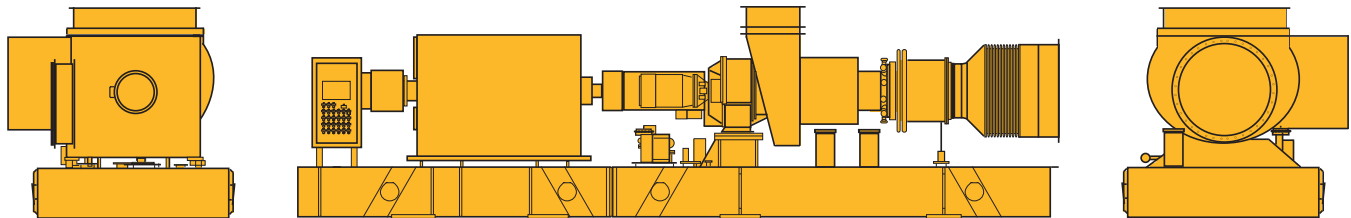
Output Power, kW ISO: 15°C (59°F), sea level	7520
Heat Rate, kJ/kWe-hr (Btu/kWe-hr)	10 650 (10,100)
Exhaust Flow, kg/hr (lb/hr)	97 000 (213,840)
Exhaust Temperature, °C (°F)	490 (910)

\* No inlet or exhaust losses  
Relative humidity 60%  
Natural gas fuel with  
LHV = 31.5 to 43.3 MJ/nm<sup>3</sup>  
(800 to 1100 Btu/scf)

## Available Performance



## Typical Service Connections



Forward End

Left Side

Aft End

DS70IPG-003M

### Right Side

- Lube Oil Tank Vent

### Package Dimensions

Length:	11 278 mm (37' 0")
Width:	2932 mm (9' 7-7/16")
Height:	2743 mm (9' 0")
Approximate Weight (dry):	50 314 kg (110,923 lb)

### Left Side

- Lube Oil: Cooler, Drain, Vent
- AC Power
  - Starter Motor
  - Liquid Fuel Pump
  - Pre/Post Lube Pump
  - Oil Tank Heater
- Package Ground
- DC Power, Backup Lube Pump
- Lube Oil Tank Drain

### Forward End

- Turbine Control Box
- Generator Drip Pan Drain
- Package Ground
- Generator Control Box
- Generator Terminal Box

### Aft End

- Combustor and Exhaust Diffuser Drains
- Fuel: Inlet, Filter, Drain, Vent
- Auxiliary Air (optional) for:
  - Liquid Fuel Atomizing
  - Self-Cleaning Filter
- Turbine Cleaning
- Turbine Drip Pan Drain

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### FOR MORE INFORMATION

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