

Package Features

- Offshore Marine Duty or Onshore Duty in High-Spec Applications
- NEC Class 1, Division 2 or CENELEC/ATEX Zone 2 Area Classification
- Axial or Space Saving Radial Exhaust Configuration
- Standard Onshore Configuration Available (Axial Exhaust Only)

General Specifications

Taurus™ 70 Gas Turbine

- Industrial, Single Shaft, Simple Cycle
- Axial Compressor
 - 14 Stage
 - Variable Inlet Guide Vanes and Stators
 - Pressure Ratio: 17.6:1
 - Inlet Airflow: 26.2 kg/sec (57.7 lb/sec)
 - Vertically Split Case
- Combustion Chamber
 - Single, Annular-Type
 - Conventional or Lean-Premixed, Dry, Low Emission (SoLoNOx™)
 - 12 Fuel Injectors
 - Torch Ignitor System
- Turbine
 - 3-Stage, Axial-Flow
 - Max. Speed: 15,200 rpm
- Bearings
 - Journal and Thrust: Tilt Pad
- Coatings
 - Compressor: Inorganic Aluminum
 - Turbine Blades and Nozzles: Precious Metal Diffusion Aluminide
- Vibration Transducer Type
 - Proximity Probes
 - Accelerometer

Reduction Drive

- Epicyclic Type
- 1500 rpm, 50 Hz
- 1800 rpm, 60 Hz
- Accessory Power Take-Off
- Clockwise Rotation

Generator

- Type: Salient Pole, 3 Phase, 6 Wire, Wye Connected, Synchronous, with Brushless Exciter

- Available Construction Types
 - Open Drip Proof
 - Totally Enclosed Air-to-Air Cooled*
 - Totally Enclosed Water-to-Air Cooled*
- Sleeve Bearings
- Voltage Regulation
 - Solid-State Regulation with Permanent Magnet Generator
- Insulation/Rise Options
 - NEMA Class F with F Rise
 - NEMA Class F with B Rise
- Voltages: 3300 to 13,800 Volts
- Frequency: 50 or 60 Hz

Package

- Mechanical Construction
 - Steel Base Frame with Drip Pans
 - 316L Stainless Steel Piping
 - 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
 - 120VDC Battery/Charger System
- Direct-Drive AC Start System
- Fuel Systems
 - Conventional Combustion or Dry Low Emission (SoLoNOx)
- Fuel Types
 - Natural Gas or Dual (Gas/Distillate)
- Integrated Lube Oil System
 - Turbine-Driven Main Pump
 - AC Motor-Driven Pre/Post Pump
 - DC (120V) Motor-Driven Backup Pump
 - Oil Cooler and Oil Heater (Options)
 - Tank Vent Separator and Flame Trap
 - Lube Oil Filter
- On-Crank or 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 (Onskid Controls Only)
- Analog Display Panel (Offskid Controls Only)

Turbotronic™ Control System

- Onskid Control System (Optional Offskid System)
 - 24 VDC Control Power (120VDC Input)
 - Serial Link Supervisory Interface
 - Field Programmable
- Vibration Monitoring
 - Turbine Bearings and Shaft
 - Gearbox
 - Generator Bearings
- Temperature Monitoring
 - Turbine Combustion Process
 - Turbine Bearings and Lube Oil
 - Generator Bearings and Windings
- 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)
 - Predictive Emissions Monitoring (Option)

Performance

Output Power	7965 kW _e
Heat Rate	10 505 kJ/kWe-hr (9955 Btu/kWe-hr)
Exhaust Flow	96 775 kg/hr (213,350 lb/hr)
Exhaust Temp.	510°C (945°F)

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

No inlet/exhaust losses

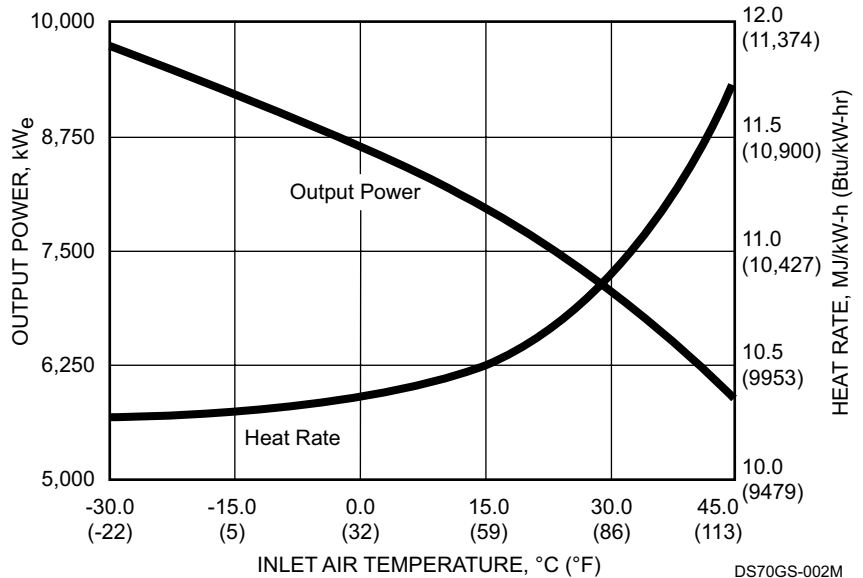
Relative humidity 60%

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

No accessory losses

Engine efficiency: 34%
(Measured at generator terminals)

Available Power*

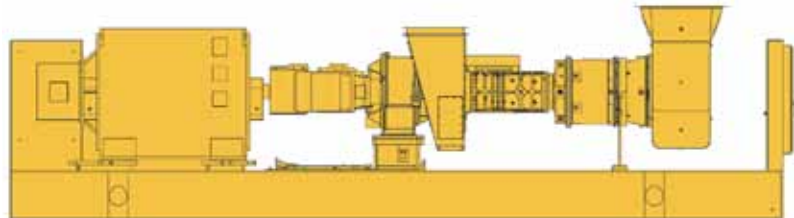


* SoLoNOx

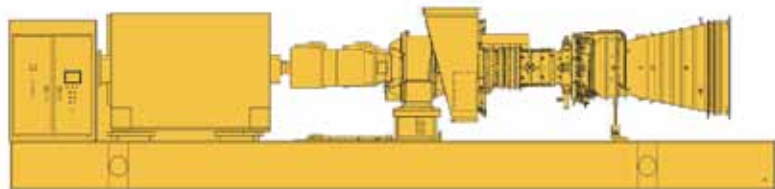
Package Dimensions

Length:	11.9 m (39' 0")
Width:	2.9 m (9' 7")
Height:	3.7 m (12' 1")
Typical Weight:	62 935 kg (138,775 lb)

Radial Exhaust



Axial Exhaust



DS70GS-003MS