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: 16.5:1
  – Inlet Airflow: 26.4 kg/sec (59.2 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: 15,160 rpm (60 Hz)
  – 15,140 rpm (50 Hz)
• 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
• Epiycic Type
• 1500 rpm, 50 Hz
• 1800 rpm, 60 Hz
• 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*
• 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)

* Not available on standard onshore configuration
**Performance**

Output Power: 7965 kWe

Heat Rate: 10,505 kJ/kWe-hr
(9955 Btu/kWe-hr)

Exhaust Flow: 96775 kg/hr
(213,350 lb/hr)

Exhaust Temp.: 510°C
(945°F)

**Available Power***

**Output Power, kW**

**Heat Rate, MJ/kW-h (Btu/kW-hr)**

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**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)

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**Package Dimensions***

Length: 11.1 m (36' 3")
Width: 2.9 m (9' 2")
Height: 3.7 m (12' 1")
Typical Weight: 61,775 kg (136,215 lb)

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*Dry weight, enclosed height

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FOR MORE INFORMATION
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