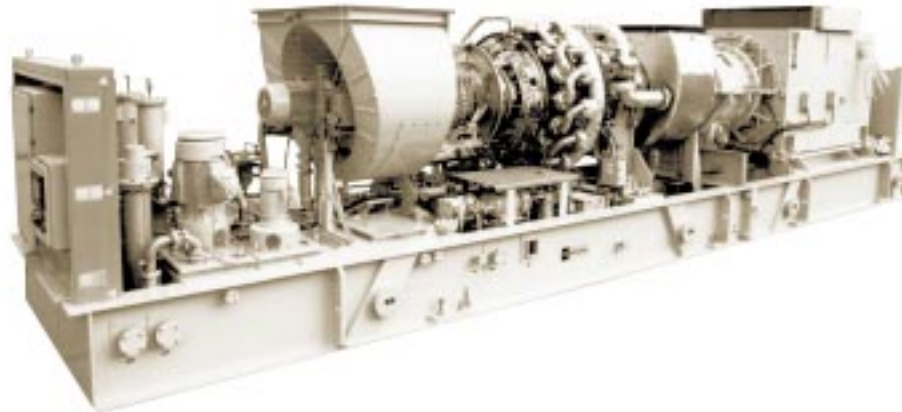


### Industrial/Utility Grade



## Features

- Industrial Gas Turbine Package
- Compact, Integrated Package Providing Ease of Installation
- Factory Tested
- Dry, Low Emission (*SoLoNO<sub>x</sub>*<sup>™</sup>) Combustion Available
- Onskid Microprocessor-Based Controls with Auto Sync Capability
- Multiple Fuel Capability

## Standard Package Configuration

### Gas Turbine

- *Mars*<sup>®</sup> 100 Industrial, Two-Shaft
- Axial Compressor, 15 Stages
  - Variable Geometry Inlet Guide Vanes
  - Vertically Split Case
  - Compression Ratio: 17.4:1
  - Max. Speed: 11,168 rpm
- Annular Combustion Chamber
  - Conventional or Lean-Premixed, Dry, Low Emission (*SoLoNO<sub>x</sub>*)
  - 21 Fuel Injectors (Conventional)
  - 14 Fuel Injectors (*SoLoNO<sub>x</sub>*)
- Proximity Probe Vibration Transducers
- Gas Producer Turbine
  - 2 Stage, Axial Flow
  - Max. Speed: 11,168 rpm
- Power Turbine
  - 2 Stage, Axial Flow
  - Speed: 8625 or 8568 rpm (50 or 60 Hz)

### Main Reduction Drive

- Epicyclic Star Gear
  - 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
- Solid-State Voltage Regulation with Permanent Magnet Generator

- 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
- Control System
  - Microprocessor-Based PLC
  - Gas Turbine and Generator Control
  - Vibration and Temperature Monitoring
  - Auto Synchronizing
- Integrated Lube Oil System
  - AC Motor-Driven, VFD-Controlled Lube Pump
  - Pre/Post and Backup Lube Pumps
  - Air/Oil Cooler
  - Integral Lube Oil Tank
  - Lube Oil Tank Heater
  - 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/Services

- NEC Electrical System
- Generator Options:
  - Standby Duty Rating
  - TEWAC; Weather Protected II

- Standard Voltages: 3300, 6600, 11,000 V (50 Hz); 4160, 6900, 12,470, 13,800 V (60 Hz)

### Fuel Systems

- Liquid or Dual (Gas/Liquid)
- Alternate Fuels (such as naphtha, propane, low Btu gas)

### Lube Oil System

- Water/Oil Lube Oil Cooler
- Electrostatic Demister
- Duplex Lube Oil Filters

### Control System

- Remote Display/Control Terminal
- Heat Recovery Application Interface
- Serial Link Supervisory Interface
- KW Control
- KVAR/Power Factor Control
- Turbine Performance Map
- Historical Displays
- Printer/Logger
- Predictive Emissions Monitoring
- Field Programming Terminal

### Accessory Equipment

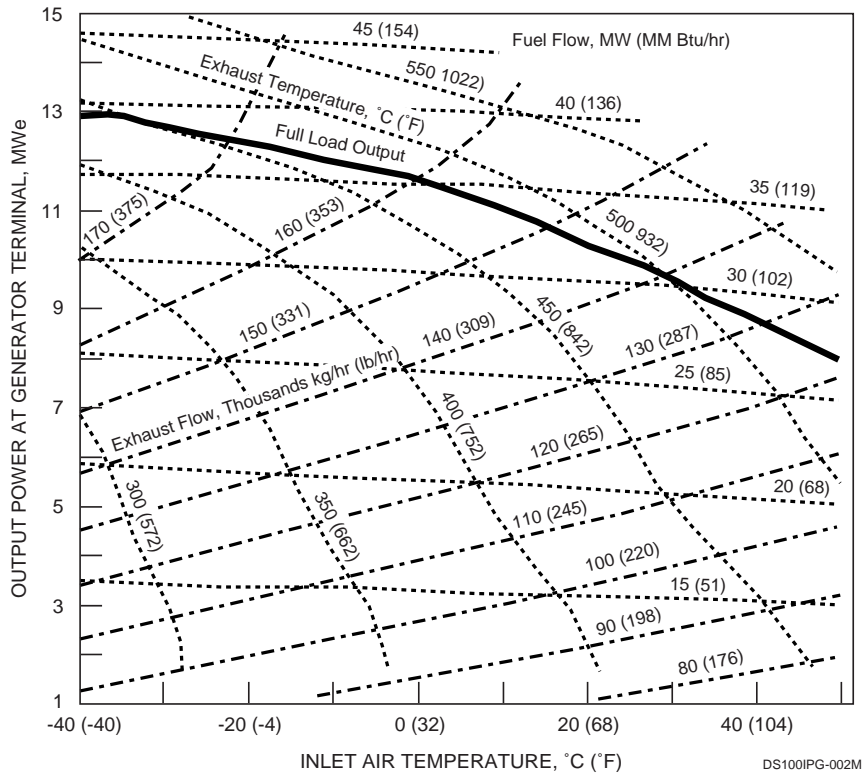
- 120-VDC Battery/Charger System
- Turbine Cleaning System: On-Crank and On-Line
- Package Lifting Kit
- Weatherproof Acoustic Enclosure
- Various Air Inlet and Exhaust Systems
  - Inlet and Exhaust Silencers
  - Self-Cleaning or Prefilter/Barrier Air Inlet Filter
  - Inlet Evaporative Cooler and Chiller Coils
  - Ancillary Support Frame

### Nominal Performance\*

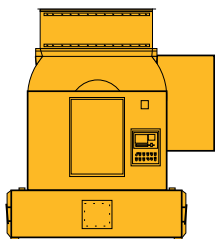
Output Power, kW ISO: 15°C (59°F), sea level	10 695
Heat Rate, kJ/kWe-hr (Btu/kWe-hr)	11 092 (10,515)
Exhaust Flow, kg/hr (lb/hr)	150 386 (331,545)
Exhaust Temperature, °C (°F)	487 (908)

\* 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)

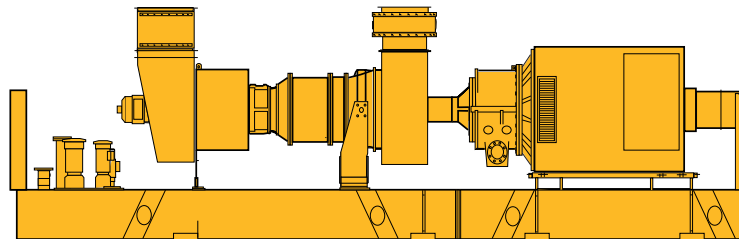
### Available Performance



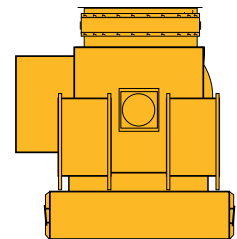
### Typical Service Connections



Forward End



Left Side



Aft End

DS100IPG-003M

#### Forward End

- Turbine Control Box

#### Left Side

- Gas/Liquid Fuel Inlets
- Generator Drip Pan Drain
- Auxiliary Air (optional):
  - Self-Cleaning Compressor Filter
  - Liquid Fuel Atomization
- AC Power Start Motor

#### Aft End

- Package Frame Ground
- Lube Oil Tank and Drip Pan Drains
- Turbine Air Inlet Duct Drain
- On-Line Cleaning Fluid Inlet
- On-Crank Water-Wash Inlet
- Generator Monitor Box
- Generator Control Box

### Package Dimensions

Length:	13 868 mm (45' 6")
Width:	2896 mm (9' 6")
Height:	4001 mm (13' 1-1/2")
Approx. Weight:	80 613 kg (177,720 lb)

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### FOR MORE INFORMATION

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