

## GE10 Gas Turbine

### Technology

The GE10 is an industrial heavy duty gas turbine designed and developed by GE Oil & Gas for both power generation and oil & gas markets.

- Fuel Flexibility with Standard Combustor
- Modular Package Design for Ease of Maintenance
- Low Dual Fuel DLE Emissions

### Experience

The GE10 is derived from the field proven PGT10A and provides excellent performance, reliability, and availability to customers worldwide.

- Over 200 Packages Installed Worldwide
- Applications: Municipalities, Compression Stations, and Industrials
- Configurations: Simple-cycle, Cogeneration and Combined-Cycle.

### Innovation

At GE Aero Energy, we continue to drive innovation throughout the whole gas turbine generator package with the latest in innovation.

- Steam Power Enhancement for Standard Combustor
- Redundant Sensors and Control Logic for Improved Reliability
- Fuel Flexibility

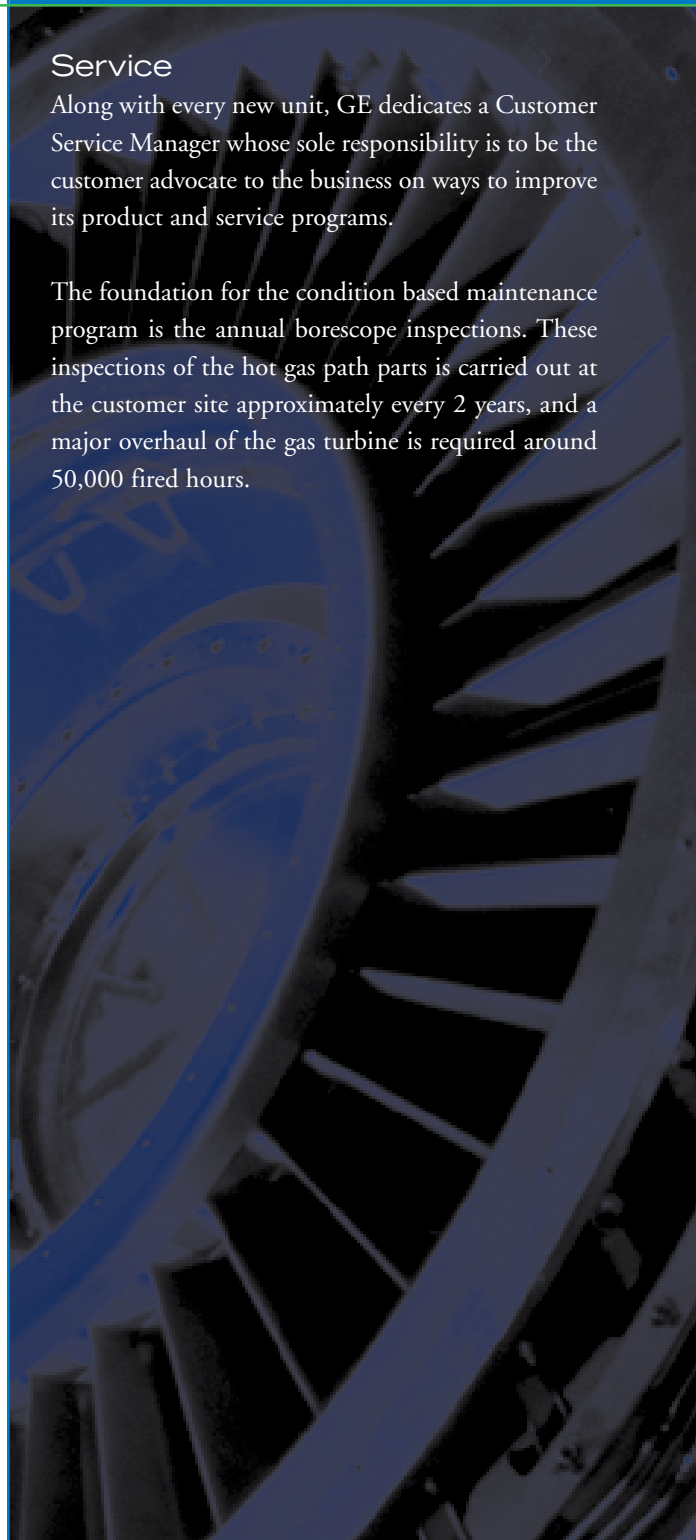
ISO Performance based on natural gas DLE

<b>Power Output (kWe)</b>	<b>11,250</b>
<b>Heat Rate LHV (Btu/kWe-Hr)</b>	<b>10,860</b>
<b>Exhaust Flow (lbs/sec)</b>	<b>103.4</b>
<b>Exhaust Temperature (°F)</b>	<b>922</b>
<b>Emissions (ppmvd)</b>	<b>NOx/CO</b>
Gas or Liquid-DLE	25/25, 85/25
Gas-Water, Steam	140/30, 85/30
Liquid-Steam	110/30
<b>Power Turbine Speed (rpm)</b>	<b>11,000</b>
<b>No. of Compressor Stages</b>	<b>11</b>
<b>No. of Turbine Stages</b>	<b>3</b>

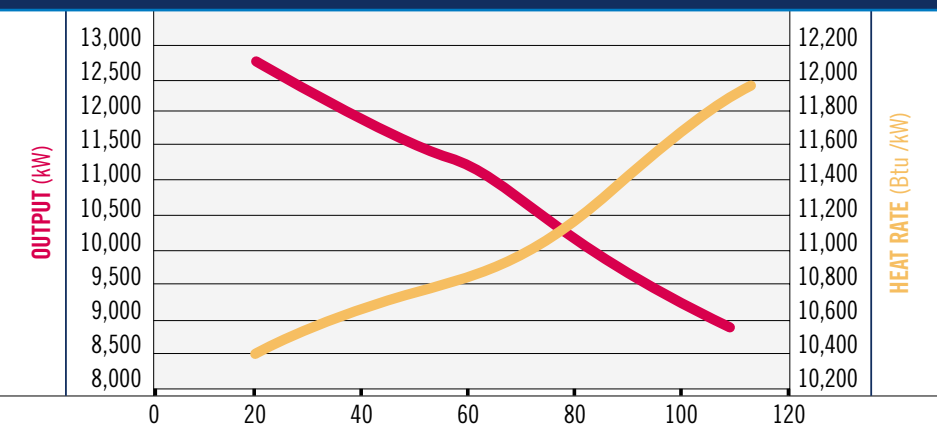
### Service

Along with every new unit, GE dedicates a Customer Service Manager whose sole responsibility is to be the customer advocate to the business on ways to improve its product and service programs.

The foundation for the condition based maintenance program is the annual borescope inspections. These inspections of the hot gas path parts is carried out at the customer site approximately every 2 years, and a major overhaul of the gas turbine is required around 50,000 fired hours.

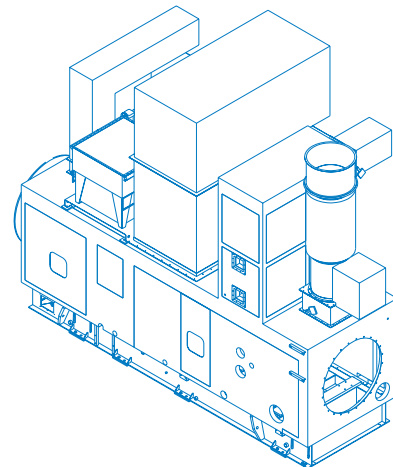


## GE10 60Hz Output and Heat Rate



0 ft, 60%RH, 0/0 in H<sub>2</sub>O inlet/exhaust loss on natural gas, DLE

AMBIENT (°F)



LENGTH 42' x WIDTH 8' x HEIGHT 9'9"

## STANDARD 60HZ GE10 GENERATOR PACKAGE

### Gas Turbine

- 11 Stage Axial Compressor
  - > Horizontal Split Casing
  - > 15.5:1 Compression Ratio
  - > 103 lb/s Nominal Inlet Mass Flow
- Vertical Can Combustor
- Turbine
  - > 3 Stage, Axial Flow

### Gear Box

- 1800 rpm Epicyclic Type

### Generator

- Continuous Duty 13.8kV, 0.8PF
- 4 pole, 3 Phase Brushless Exciter
- WPII Weather Protected
- NEMA Class F Insulation & B Temperature Rise

### Package

- 24V and 125V DC Batteries
- 85dBA Near Field Design
- Barrier Inlet Air Filters
- Electro-hydraulic Start/Shutdown System
- Class I Div 2 Group D Class Electrical System
- PLC Control System with a Human Machine Interface (HMI)
- Mineral Lube Oil System
- Turbine Factory Tested
- Off-line Water Wash
- Package Familiarization Training
- Electronically Transmitted Drawings
- Startup Technical Assistance

## OPTIONAL EQUIPMENT AND SERVICES

- Generator Options
  - > TEWAC
  - > Voltages: 6.6kV, 4.16kV
  - > Enclosure
  - > Fault Protection
- Fuel System
  - > Liquid Steam or DLE
  - > Dual Water or DLE
  - > Gas Water or Steam
  - > Low BTU
  - > Filters
- Control System
  - > Black start
  - > Emission Monitoring System
  - > Remote Display
- Lube Oil System
  - > Oil/Water Coolers
  - > First Fill Lubricants
- Winterization
- Remote Monitoring and Diagnostics
- Jacking/Anchor Bolt Kit
- Inlet Conditioning
  - > Evaporative Cooling
  - > Chilling
  - > Heating