

SOLAR TURBINE FACT SHEET

General Specifications

Centaur® 40 Gas Turbine

Industrial, Two-Shaft

Axial Compressor

- 11-Stage
- Variable Inlet Guide Vanes
- Compression Ratio: 10.3:1
- Inlet Airflow: 18.7 kg/sec (41.3 lb/sec)
- Max. Speed: 15,000 rpm

Combustion Chamber

- Annular-Type
- Conventional or Lean-Premixed Dry, Low Emission (SoLoNOx™)
- 10 Fuel Injectors (Conventional)
- 12 Fuel Injectors (SoLoNOx™)
- Torch Ignitor System

Gas Producer Turbine

- 2-Stage, Reaction
- Max. Speed: 14,965 rpm

Power Turbine

- 1-Stage, Reaction
- Max. Speed: 15,500 rpm

Bearings

- Journal: Tilting-Pad
- Thrust: Fixed Tapered Land

Coatings

- Compressor: Inorganic Aluminum
- Turbine and Nozzle Blades: Precious Metal Diffusion Aluminide

Velocity Vibration Transducer

Key Package Features

Driver Skid with Drip Pans

Driven Equipment Skid

- Compressor
- Compressor Auxiliary Systems

316L Stainless Steel Piping ≤4" dia

Compression-Type Tube Fittings

Electrical System Options

- NEC, Class I, Group D, Div 1
- CENELEC, Zone 1

Turbotronic™ Microprocessor Control System

- Freestanding Control Console
- Color Video Display
- Vibration Monitoring

Control Options

- 24-VDC Control Battery/Charger System
- Package Temperature Monitoring
- Serial Link Supervisory Interface
- Turbine Performance Map
- Compressor Performance Map
- Historical Displays

- Printer/Logger
- Predictive Emissions Monitoring
- Process Controls
- Compressor Anti-Surge Control
- Field Programming

Start Systems

- Pneumatic
- Direct-Drive AC

Fuel Systems

- Natural Gas
- Alternate Fuels

Integrated Lube Oil System

- Turbine-Driven Accessories

Oil System Options

- Oil Cooler
- Oil Heater
- Tank Vent Separator
- Flame Trap

Axial Compressor Cleaning Systems

- On-Crank
- On-Crank/On-Line
- Stationary Cleaning Tank

- Portable Cleaning Tank Gearbox (if applicable)
- Speed Increasers
- Speed Decreasers

Air Inlet and Exhaust System

Options

Enclosure and Associated

Options

Factory Testing of Turbine and Package

Documentation

- Drawings
- Quality Control Data Book
- Inspection and Test Plan
- Test Reports
- Operation and Maintenance Manuals

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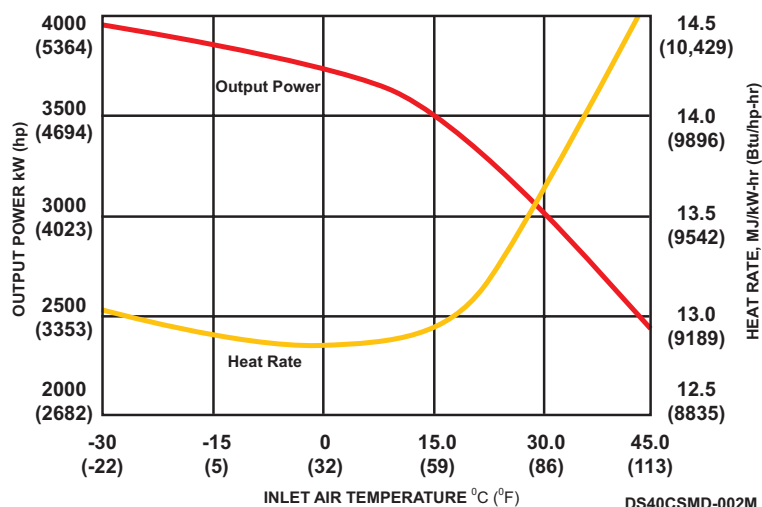
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Available Power



Performance

Output Power	3500 kW (4700hp)
Heat Rate	12 905 kJ/KW-hr (9,125 Btu/hp-hr)
Exhaust Flow	68 185 kg/hr (150,320 lb/hr)
Exhaust Temp.	445°C (835°F)

Package Dimensions

Length:	8.9 m (23' 3")
Width:	2.4 m (8' 0")
Height:	2.7 m (8' 11")
Typical Weight:	24 950 kg (55,000 lb)

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

No inlet/exhaust losses

Relative humidity 60%

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

Optimum power turbine speed

AC-driven accessories

Engine efficiency: 27.9%

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