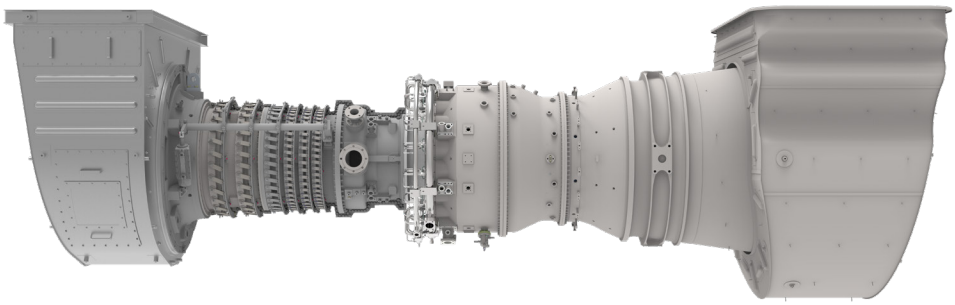
Solar® Turbines

A Caterpillar Company

TITAN™ 350

38 MW Gas Turbine Generator Set for Power Generation

Powering the Future Through Sustainable, Innovative Energy Solutions



As the global energy sector transitions towards a less carbon intensive future, Solar Turbines introduces the Titan™ 350 – a world class, highly efficient gas turbine designed for the power generation market in the 38 MW size range. This product has robust design features based on the proven experience of the Titan product line and is well suited for flexible power or continuous duty.

TITAN 350 GAS TURBINE

- Industrial, Two-Shaft
- 14 Stage Axial Compressor
  - Variable Inlet Guide Vanes
  - Split Case Design
- Annular Combustion Chamber
  - SoLoNOx™ and Conventional
  - Torch Igniter System
- Generator Turbine
- Power Turbine
- Radial Journal Bearings

MAIN REDUCTION DRIVE

- Parallel Shaft Type
  - 1800 rpm or 1500 rpm

GENERATOR

- Salient Pole, 3 Phase, 6 Wire, Wye Connected
  - Synchronous
  - Permanent Magnet Generator Exciter
- Sleeve Bearings
- Oil Jacking System
- NEMA Class F Insulation
- Class B Temperature Rise
- Voltages: 11,000 to 13,800 VAC
- Frequency: 50 or 60 Hz

PACKAGE

- Mechanical Construction
  - Steel Base Frame
  - 316L Stainless Steel Piping
- Electrical Certification
  - NEC, CSA Class 1, Group D, Div 2
  - CENELEX/ATEX Zone 2
  - 120 VDC Battery/Charger System
- Direct-Drive AC Start System
- Fuel Systems
  - Natural Gas or Diesel
  - Dual (Natural Gas and Diesel)
  - 20% Hydrogen in DLE
- Integrated Lube Oil and Cooling Systems
- Turbine Compressor Cleaning System
- Air Inlet and Exhaust Systems
- Enclosure
  - Stainless or Carbon Steel
- Turbotronic™ Control System
  - Onskid Control System
  - Field Programmable
  - Generator Control
  - InSight Platform™ Equipment Health Management
- Documentation
  - O&M Manuals
  - Electrical and Mechanical Drawings

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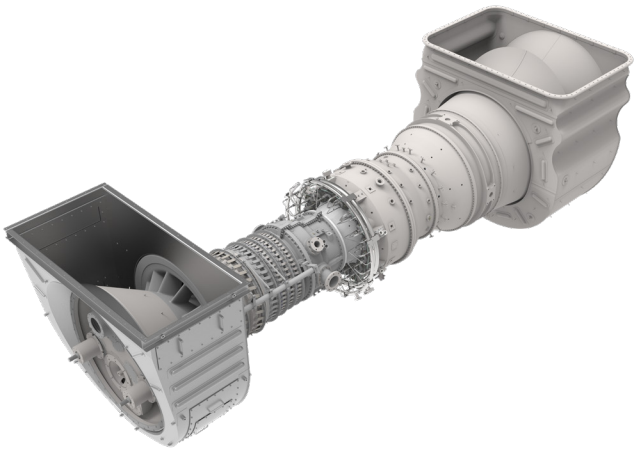
Typical Performance

Output Power	38 000 kWe
Heat Rate	8965 kJ/kWe-hr (8495 Btu/kWe-hr)
Exhaust Flow	386 510 kg/hr (852,100 lb/hr)
Exhaust Temp.	490°C (915°F)
Steam (Unfired)	61.1 tonnes/hr (134,645 lbs/hr)
Steam (Fired) 870°C (1600°F)	141.3 tonnes/hr (311,445 lbs/hr)

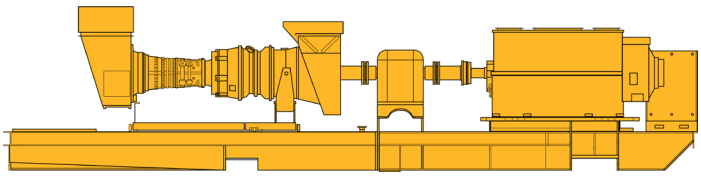


Nominal rating per ISO at 15°C (59°F), sea level
No inlet/exhaust losses
Relative humidity 60%
Natural gas fuel with LHV = 31.5 to 43.3 MJ/Nm³ (800 to 1100 Btu/scf)
Optimum power turbine speed
No accessory losses
Engine efficiency: 40.2% (measured at generator terminals)
Ratings above are typical new equipment ratings. Please contact Solar Turbines sales to obtain project specific data.

Typical Package Dimensions

Length: 21.9 m (72')
Width: 4 m (13')
Package Weight, Approx: 184,160 kg (406,000 lb)

Dry weight, unenclosed, typical CACA generator, does not include ancillary equipment



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