SYSTEM SPECIFICATIONS

Taurus™ 70 Gas Turbine
- Industrial, Single-Shaft
- Three-Stage, Reaction

12-Stage Axial Compressor
- Variable Inlet Guide Vanes
- 12:1 Compression Ratio
- Inlet Airflow: 21.7 kg/sec (47.9 lb/sec)
- Max. Speed: 14,944 rpm (50 Hz); 14,951 rpm (60 Hz)
- Vertically Split Case

Combustion System
- Permanent
- Annular-Type Combustion Chamber
- Twelve Fuel Injectors
- Lean-Premix, Dry, Low Emission (SoLoNOx™)

Bearings
- Journal: Titling-Pad
- Thrust, Active: Tilting-Pad
- Thrust, Inactive: Fixed Tapered Land

Lube Oil System

Direct Drive AC Electric Motor Start System

Microprocessor-based Turbine Control Panel

Generator
- Salient Pole
- Three-Phase, Six-Wire, Wye Connected
- Synchronous with Brushless Exciter

Design Options
- Open Drip Proof
- Weather Protected II
- Totally Enclosed Water/Air Cooled

Sleeve Bearings

Solid-State Voltage Regulation with
- Magnet Generator

Insulation: Class F

NEMA Class F with F Temperature Rise

Voltages: 3,300 to 13,800 Volts

PLC-based Control System with125Volt DC
- Battery Supply

Main Reduction-Drive Gearbox
- Epicyclic Type
- 1,500 or 1,800 rpm

OPERATING SPECIFICATIONS

Nominal Performance (ISO Conditions*):
- Inlet Losses: 3.0 in. H_2O at 600' above msl
- Exhaust Losses: 2.0 in H_2O at 600' above msl
- Engine Inlet Temperature: 90°F
- Relative Humidity: 60%
- Heat Rate: 10,788 BTU/kW-hr
- Net Output Power: 7,150 kW at 12,470 volts ISO
- Exhaust Flow: 190,830 lbm/hr
- Exhaust Temperature: 938°F

Acoustic Enclosure

Air Inlet Ducting

Gas Turbine Inlet and Exhaust Silencers

Gas Turbine Building Walls—85dBA at 3 feet

Fuel
- Type: SD Natural Gas
- Flow: 60 mmBTU/hr
- Supply Pressure: 225 psig

Ancillary Systems
- Gas Monitoring, Detection, & Alarm System
- Turbine Handling Equipment
- Ultraviolet Fire Detection System
- High Temperature Alarms
- 480-Volt Motor Control Center
- 24-Volt DC Battery/Charger Pack for Control Panels

* ISO: International Standards Organization

Figure 3-7
Data Sheet for Transportable Solar Taurus 70 CT