



PEG

Power Energy Group

Titan 130 Turbine Generator Sets

General Description, each Unit. Support equipment and tools, one set per site

BASIC PACKAGE

- Titan 130 PG Generator Set
- 3-Phase AC Power Rating: 380 Volts / 50 Hz
- 1-Phase AC Power Rating: 220 Volts / 50-60 Hz

GAS TURBINE ENGINE

- Titan 130S Gas Turbine
- SoLoNOx, Solar's Dry, Low NOx Combustion System
- Inlet Orientation, Positioned Upward

GEARBOX

- Speed-Reducing Gearbox
- 1500 RPM / 50 Hz
- Alignment Tooling for Gearbox to Generator

GENERATOR

- Continuous Duty
- Open Drip Proof (ODP)
- 10500 Volt, 50 Hz, F Insulation, F Rise

START SYSTEM

- Direct Drive AC Motor

FUEL SYSTEM

- Fuel - Diesel Fuel Liquid

LUBE OIL SYSTEM

- Main Lube Oil Pump, Engine-Driven
- Pre/Post Lube Oil Pump, AC
- Backup Lube Oil Pump, 120 VDC Motor-Driven
- Lube Oil Tank Heater, AC
- Lube Oil Mechanical Coalescer
- Air / Oil Cooler, AC (Off-Skid)
- Configured for Petroleum Base Oil, Viscosity Grade C46
- Lube Oil Filters, Duplex

GAS TURBINE CONTROL AND MONITORING SYSTEM

- On-Skid Control System with Video Display Unit
- Turbine and Main Reduction Drive Vibration Monitoring
- Turbine Thrust Bearing Temperature Monitoring
- Historical Trend Display Screen
- Auxiliary Video Display Unit (Off-Skid)

- Ethernet Network Interface
- Engineering Units, Metric (bars)

- Language, Screen Displays, and Package Labels in English
- Engine Performance Map Display
- Printer / Logger

GENERATOR CONTROL AND MONITORING SYSTEM

- Individual Auto Synchronizer
- Motorized Voltage Adjust
- Vibration Monitoring System
- Generator Bearing and Stator Winding Temperature Monitoring
- Auto Start and Synchronizing
- Kilowatt Import / Export Control Panel
- kVAR / Power Factor Control

Plug and Play PCR control room with main and tie breaker HVAC

ACCESSORY EQUIPMENT

- Nickel Cadmium (Ni-Cd) Batteries and Charger, 120 VDC
- Portable Engine Cleaning Cart
- On-Crank / On-Line Turbine Compressor Cleaning System

MISCELLANEOUS

- Long Term Preservation for Shipment
- Operation and Maintenance Instruction CD-ROM Manual Set, English
- Drawings and Documentation

TEST AND QUALITY ASSURANCE

- Standard Factory Testing per Solar Specifications
- Customer Observe on Noninterference Basis, Level 1
- Quality Control Documentation, Level 1
- Canadian Standards Association Certification

AIR INLET SYSTEM

- Self-Cleaning Air Inlet Filter, Barrier / Updraft Type with Back Outlet
- Air Inlet Silencer
- Air Inlet Ducting:
 - Duct, 7.5 x 7.5 ft, 10 ft in Length
 - Flex Duct, 7.5 x 7.5 ft, 3 ft in Length
 - Elbow, 90 degrees, 7.5 x 7.5 ft

EXHAUST SYSTEM

- Exhaust Silencer, Floor-Standing
- Exhaust Ducting:
 - Bellows, 6 ft Inside Diameter, 2 ft in Length
 - Rain Stack Protection, 6 ft Inside Diameter

ENCLOSURE

- Complete Enclosure for Skid-mounted Package
- Internal Trolley Beam
- Combustible Gas Monitoring System
- Dust Protection, Barrier Type Filters
- Fire Detection and Suppression System
- Enclosure Inlet Ventilation Silencer, Elbow Type
- Enclosure Exhaust Ventilation Silencer, Elbow Type
- Interior Lighting
- Fire Cylinder Cabinet with CO2 Cylinders
- CO2 Isolation Valves, Switches, and Software - Off-skid
- Fire and Gas System Calibration and Test Kit
- Turbine / Component Handling Kit

CUSTOMER SERVICES

- Field Verification Testing
 - Site Training
- Operation & Maintenance, 5-Day Course; Customized

SERVICE PARTS

Start-up/Commissioning Consumable Parts w/Hand Tool kit
Operation Consumable Parts - 1 Year

Performance

Titan 130 Expected Power is 15,000 kW, and heat rate is 9695 Btu/kW-hr at ISO conditions.

Warranty

12 months after start-up, 24 months from the date of shipment (whichever occurs first), provided equipment is installed and operated in accordance with Solar guidelines.

Installation, fuel handling/storage equipment, operation and maintenance, freight, GOST certification and site commissioning and startup assistance are not included. These services and/or equipment can be quoted separately as needed to meet your requirements. In addition, no additional ductwork or liquid fuel treatment is provided. Solar Turbines Incorporated reserves the right to package the units at Turbomach, an affiliate of Solar Turbines Incorporated, in Europe.