P.O. Box 176, Savona, BC, Canada V0K 2J0
Phone: (250) 373-2424 Fax: (250) 373-2323
Website: savonaequipment.com
Email: sales@savonaequipment.com
Located just 20 minutes west of Kamloops, BC

Unused Man Energy Solutions 12MW Gas Turbine Generators

[Inventory ID #604759]

- Condition: Never used
- Qty: 3
- Manufacturing Year: 2013
- Turbine make: MAN
- Generator make: ELIN MOTOREN
- Fuel: Dual Fuel System

Turbine

- Make: MAN
- Manufacturing year: 2013
- Model: THM1304-12
- Power at coupling: 12,000kW
- Dual fuel system
- Efficiency: 31.6%
- Heat rate: 11,790 kJ/kWh
- Turbine Speed: 9,000 rpm
- Exhaust gas flow: 49.1kg/s
- Exhaust gas temperature: 515 °C
- NOx emissions: 50 mg/Nm3
- CO emissions:<10 mg/Nm3
- Max.cont. speed: 12100/9030 r/min
- Trip: 12200/9482 r/min
- Heavy duty type
- Two shaft type
- Stages: 2+2
- Max.TIP speed: 423/378 m/s
- Rotor type: Salient poles/Cylindrical

Generator

- Make: ELIN MOTOREN

- Voltage: 6600 Volt
- Manufacturing year: 2013
- Model: HTM190E04
- Synchronous type
- Capacity: 12MW
- Frequency: 50Hz
- Excitation: Brushless type
- Power factor: 0.773
- According to Standard: DS/EN 60034
- Degree of Protection Outdoor IP: 56
- Winding Temp. Detection: PT100 in each phase
- Vibration Detectors Required
- Preformed for Portable Earthing Apparatus
- Space Heater
- Hazardous Area Classification: Ex II 3G Ex pz e ib IIB T3 Gc
- Rated current: 1312A
- Direction of Rotation Facing Shaft End : CCW
- Max. Allowable Cont. of Harmonics (THD) : 5%
- Vibration Detectors Type: Proximity type
- Cooling Method IC: IC8A1W7
- Degree of Protection IP: 56
- Max. Allowable Neg. Phase Seq. Current %: 9 %
- Max. Allowable Cont. of Harmonics (THD) : acc. IEC 5 %; acc. References 0,2 %
- Efficiency at 1/1 and 3/4 load %: 97,78; 97,79 - at cosphi 0,773
- Field Current No Load A: 99
- Field Current Rated Load A: 270
- Dimension: Approx. 5000mm Length x 3000mm Width x 3100mm Height

Combustion Chambers

- Number of Chambers: 2
- Type: V arrangement
- Fuel Nozzle per Combustor:1
- Adiabatic compression of air in an axial-centrifugal compressor
- Max. Allowable Temp.Variation:50 degree
- Low emission
- Dry Low Nox

Gearbox

- Low speed speeds
- Temperature monitoring equipment attached
- Velocity(m/s)
- Sun wheel sleeve: 57m/s
- Spindles sleeve 34m/s

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- L.S. Shaft sleeve: 19m/s , 11m/s
- (Lubrication oil cooling system)
- 1x100% heat exchanger with 2x50% fans

Air inlet system

- Table type filter with depth loading cartridges
- Filtration class: Pre-filter: F6,
- Fine-filter: F9 (Static filter including anti-icing)

Noise Emission

- All equipment is designed for Lp 85 dB(A) measured in 1 m distance and 1.5 m height
    - Lp = 80*, 75*, 70* dB(A)
- Meeting emission regulations in addition to the standard diffusion type
- combustor, a lean
- premix combustor is available for the THM Gas Turbine family to meet stringent emission regulations. The system limits and controls the maximum flame temperature by means of a patented air bypass system over a wide power range. The combustor thus reduces the formation of nitrogen oxides (NOx) and carbon monoxide (CO) significantly. The external combustors allow easy access, maintenance and can be modified for use of other gaseous or liquid fuels such as: Diesel, Kerosene or Methanol.
- Individual arrangement with more than 20 million operating hours in different environmental conditions, the THM gas turbine family offers various layouts to meet your individual requirements, either as mechanical or generator drive.

Complete package for outdoor installation

- Fire detection
- CO2 fire-fighting system
- Gas leakage detection

Air compressor

- Stages:10+1
- Type: Axial/Radial
- Max. TIP speed: 374m/s

Starting motor

- Type: AC Asynchronous motor
- Make: LEROY SOMER
- Model: FLSD 280
- Rating:180nom./350max.Kw

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Instrument air pressure

- Design pressure: 11Mpag
- Max. 10barg
- Nominal: 9 barg
- Min 7.5barg

Electrical & Control System

- For installation in control room SIMATIC based automation system for control,
- operation & monitoring
- Data recording system:
    - for recording and storage of engine parameters
    - online data access
- Control and protection for generator including Voltage regulator (AVR)
- Variable speed drive for gas turbine starter motor
- Low voltage switchgear for motor controls (MCC)
    - for emergency lube oil pump
    - for unit control system emergency power supply
- Lcation: Korea

View more Natural Gas Power Plants