

1200 Kw, 50 Hz Gas Genset Technical Specification



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Section1. Genset

1.1 Genset brief introduction

1200GF-T natural gas generating set are powered by model H16V190ZLT2-2 gas engine produced by our company. It is one of our best-selling gas generators and has been exported to more than 60 countries exceed 1000 units, which has proved its good quality and high reliability.

1.2 Genset technical parameters

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|----------------------------|---|
| Model of genset | 1200GF-T |
| Model of engine | H16V190ZLT2-2 |
| Model of alternator | 1FC6 Series |
| Connecting method | Flexible connecting |
| Rated speed | 1000 r/min |
| Rated power | 1200/1500 (kw/kva) |
| Continuous power | > 1000 kw |
| Rated voltage | 6300/11000 V or customized |
| Rated frequency | 50 Hz |
| Rated power factor | 0.8 (lagging) |
| Voltage regulation | AVR |
| Supply mode | 3-phase, 4-wire |
| Governor | EGS-02 electrical controller (WOODWARD) |
| Control model | Remote electric control, Hand control |
| Starting method | 24V DC motor |
| Cooling method | Water cooling |
| Overall dimension L×B×H | 7452×2180×2540 mm |
| Net weight | 19000 kg |

Section2. Gas engine

2.1 Engine brief introduction

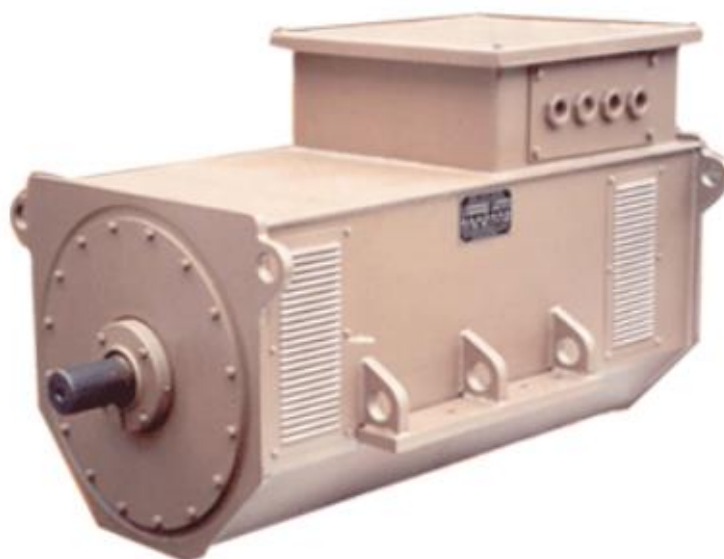
H16V190ZLT-1 natural gas engine is adopted advanced governor of American WOODWARD Company. It is the engine that mixes air and fuel before turbocharger. The power performance, fuel economy and reliability of the gas engine reach world advanced level by adopting world advanced outer mixing mode, electronic control technology and lean-burnt strategy.

2.2 Technical parameters of gas engine

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|----------------------------|---|
| Model of engine | H16V190ZLT2-2 |
| Rated power | 1300 kw |
| Rated speed | 1000 r/min |
| No. of cylinder and layout | 16-cylinder, 60 °V type |
| Type | Four stroke, water cooled, turbocharged and after-cooled, pre-combustion chamber type spark plug, mix before compressor |
| Type of combustion | Lean burn |
| Gas pressure | 1 ~ 4 bar |
| Special fuel consumption | ≤9500 kj/kwh, about 0.26 Nm ³ /kwh |
| Specific oil consumption | ≤0.6 g/kwh |
| Oil capacity | 460 L |
| Type of lube oil | KCN 7805 (sulfur content ≤200mg/m ³) KCN 7810 (sulfur content ≤460mg/m ³) |
| Idle speed | 700 r/min |
| Bore | 190 mm |
| Stroke | 215 mm |
| Compression ratio | 10:1 |
| Total displacement | 97.53 L |
| Direction of rotation | Counter-clockwise(facing to flywheel) |
| Lubrication method | Pressure and splash lubrication |
| Overhauling | 36000 h |

According to the standard of GB/T 6072 (idt ISO 3046), The standard environment conditions are: atmospheric pressure: 100kPa, relative humidity: 30%, ambient temperature: 25 degrees Celsius, low heat value of gas: 36MJ/Nm³, max. load,. Otherwise, the engine power shall be corrected through conversion.

Section3. Alternator



3.1 Alternator brief introduction

1FC6 series alternator is China made and adopts Siemens technology.

This series of generators uses a phase compound excitation system with automatic voltage regulator (AVR) to ensure that the alternator has excellent constant characteristics and good dynamic performance.

The alternators conform to applicable IEC requirement, DIN standards and VDE codes and GB board standard, specification for rotating electrical machines and classification society's rules, your special requirements are welcome.

3.2 Technical parameters of alternator

| Type | 1FC6 Series (SIEMENS Technology) |
|-------------------|-------------------------------------|
| Rated power | 1200/1500 (kw/kva) |
| Rated voltage | 6300/11000 V, or customized |
| Rated frequency | 50 Hz |
| Power factor | 0.8 (lagging) |
| Excitation model | Brushless |
| Wiring method | 3-wire, 4-phase |
| Number of pole | 6 |
| Rated speed | 1000 r/min |
| Insulation class | Class F |
| Protection class | IP23 |
| Cooling | Fan cooling |
| Bearing type, No. | Rolling bearing, 2 Pcs |

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|---|---|
| Main performance index | |
| Stable voltage regulating rate | Single running: $\pm 1\%$ Parallel running: $\pm 2.5\%$ |
| Instantaneous voltage regulating rate | -15%~+20% UN |
| Over load | 1 hour operation time at 110% rated power (6 hours as a cycle) |
| Over current multiple | 1.5IN, 2 minutes |
| Ability of maintain short-circuit current | The excitation system can provide continuous current of three times of rated current, duration 5s, the alternator must be unloaded. |