

# 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

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

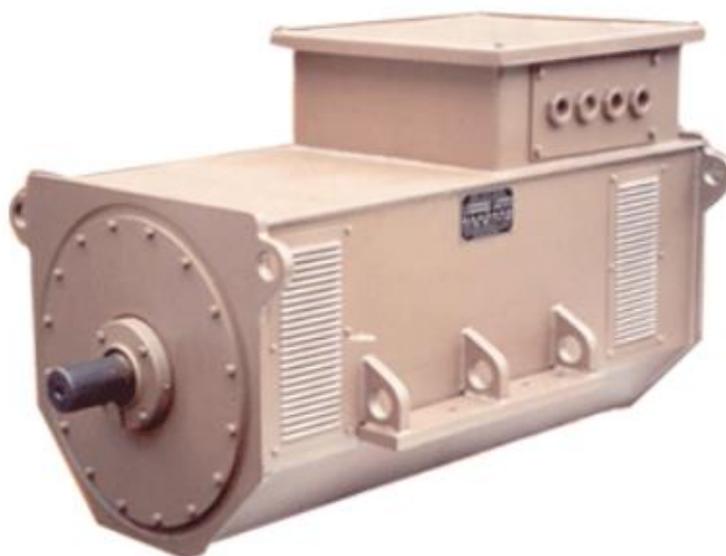
H16V190ZLT-1 natural gas engine is adopted advanced governor of American WOODWARD Company. It is the engine that mixes air and fuel before turbocharger. The power performance, fuel economy and reliability of the gas engine reach world advanced level by adopting world advanced outer mixing mode, electronic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

### 2.2 Technical parameters of gas engine

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 <sup>3</sup> /kwh
Specific oil consumption	≤0.6 g/kwh
Oil capacity	460 L
Type of lube oil	KCN 7805 (sulfur content ≤200mg/m <sup>3</sup> ) KCN 7810 (sulfur content ≤460mg/m <sup>3</sup> )
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/Nm<sup>3</sup>, 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

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.