

## Datasheet

### **HGM1375SG** Googol Diesel Power Generator

**1000kW-1250kVA  
1100kW-1375kVA  
50Hz**

Googol diesel generators are powered by Googol engines which are being manufactured by latest US based technology. Googol engines are known for cost effective reliable power solution.

#### Features

Googol power generators are designed to operate under extreme conditions with low operational and maintenance cost.

Honny power manufacture and test it's products under strict QC rules to insure international manufacturing standard.



#### Equipment

- Engine and alternator mounted on same frame steel skid.
- Build in damper for anti-vibration.
- Compact design, easy to operate and maintain.
- Sino-US Googol brand engine
- Top brand AC alternator
- Full range protections, alarms with auto shutdown features.
- Comply with ISO8628 national standard and ISO9001 quality standard. Specially designed horizontal/vertical, engine driven/electrical radiator. Industrial, Residential silencers
- Catalytic converters
- Heat exchangers
- Special spark arrester silencers
- Standard set for "CE" certification
- Sound & Weatherproof canopy optional
- Spring, seismic anti-vibration mounts
- Advanced facility for FAT.

## Diesel Generator Specification

<b>Genset Model</b>		<b>HGM1375SG</b>
Genset Prime Output	kW/kVA	1000/1250
Genset Standby Output	kW/kVA	1100/1375
Rating Power Factor		0.8
Rating Speed	rpm	1000
Rating Frequency	Hz	50
Rating Voltage	V	400
Engine Model		QTA3240-SG1
Displacement	l	53.1
Configuration		12V
Genset Size-Open Type	mm	5700x2220x2800
Genset Weight	kg	11500

## Engine Data in General

Aspiration Type		Turbocharger, air-water aftercooler
Injection Type		Direct Injection
Configuration		Vee
No. of Cylinders		12
Displacement	l	53.1
Bore	mm	170
Stroke	mm	195
Compression Ratio		13.5:1
Piston Speed	m/s	7.8
Rotation Direction (from flywheel)		Counter Clockwise
Number of Flywheel Teeth		218
Flywheel House Size		SAE00-21

## Engine Specification

<b>Engine Model</b>		<b>QTA3240-SG1</b>
Speed	rpm	1000
Standby Output ( LTP)	kW	1194
Prime Output (PRP)	kW	1088
Engine Continuous Power (COP)	kW	982
Fan Quantity		1
Fan Reduction	kW	30
Engine Net Standby Output ( LTP)	kW	1164
Engine Net Prime Output (PRP)	kW	1058
Engine Net Continuous Output (COP)	kW	952
BMEP for Standby Output	bar	-
BMEP for Prime Output	bar	21.72
BMEP for Continuous Output	bar	19.80
Typical Generation Standby Output	kW	1100
Typical Generation Prime Output	kW	1000
Typical Generation Continuous Output	kW	900
Typical Alternator Efficiency		94.5%
Speed droop (static) elect. Gov.		0-5%
Governing standards to ISO 8528		G3
Max. step load acceptance, 1st step ( % PRP )		40%

## Lubrication System

Lube Oil Specification		API-CF4
Oil Capacity	l	180
Max. Permissible Oil Temperature	°C	110
Oil Pressure Warning	kPa	300
Oil Pressure Shutdown	kPa	200

## Electrical System

Charging Alternator Voltage	V	28
Charging Alternator Capacity	A	55
Starting Voltage	V	24
Starting Motor Capacity	kW	13
Minimum Battery Capacity (Ref. Varta brand)	Ah	4*120

## Fuel System

Governor Type		Electrical
Fuel Consumption at 25% of PRP	l/h	77
Fuel Consumption at 50% of PRP	l/h	133
Fuel Consumption at 75% of PRP	l/h	183
Fuel Consumption at 100% of PRP	l/h	242
Lowest Fuel Consumption Ratio	g/kW.hr	186

## Intake & Exhaust System

Combustion Air Consumption	m <sup>3</sup> /min	125
Max. Intake Restriction	KPa	2
Exhaust Temperature (Before Turbo)	°C	520
Exhaust Temperature (After Turbo)	°C	425
Max. Exhaust Back Pressure	KPa	2
Exhaust Gas Flow	m <sup>3</sup> /min	310
Turbo Bellows Diameter	mm	2*DN250
Exhaust Flange Diameter	mm	2*DN250

## Cooling System

Coolant Capacity for Engine	l	100
Max. Permissible Temperature	°C	90
Max. Coolant Warning Temperature	°C	95
Max. Coolant Shutdown Temperature	°C	98
Thermostat Open Temperature	°C	71
Radiator Cooling Flow	m <sup>3</sup> /min	1500
Flow of Cylinder liner Coolant pump	m <sup>3</sup> /h	38.4
Flow of aftercooler Coolant pump	m <sup>3</sup> /h	36
Heat dissipation (engine radiator)	kW	403
Heat dissipation (CAC)	kW	193
Heat dissipation (convection)	kW	75

## Alternator Specification

<b>Generator Model</b>		<b>GP1250-6P</b>
Voltage of Genset	V	400
Rating Speed	rpm	1000
Frequency	Hz	50
Capacity @ 0.8PF, H Rise Class	kW	1000
Efficiency @ 0.8PF	%	95.2
Duty		S1
Bearing		Double
Insulation		H
Rise Temperature		H
Enclosure		IP23
Over speed	rpm	1650
Excitation System		AVR
Poles		6

**Performance Parameter**

**Frequency**

Frequency Droop	%	≤5
Steady-state Frequency Band	%	≤0.5
Related Downward Range of Frequency Setting	%	≥2.5
Related Upward Range of Frequency Setting	%	≥+2.5
Change Rate of Frequency Setting	%	0.2 ~ 1

**Transient Frequency Deviation**

100% sudden power decrease	%	≤10
Sudden Power Increase	%	≤7
100% sudden power decrease	%	≤+10
Sudden Power Increase	%	≤-7
Frequency Recovery Time	sec	≤3
Related Frequency Tolerance Band	%	2

**Voltage**

Steady-state Voltage Deviation	%	≤±1
Voltage Unbalance	%	1
Range of Voltage Setting	%	±5
Change Rate of Voltage Setting	%	0.2 ~1

**Transient Voltage Deviation**

100% Sudden Power Decrease	%	≤+20
Sudden Power Increase	%	≤-15
Voltage Recovery Time	s	≤2

**Voltage Waveform & EMC Compatibility**

Sin. Distortion	%	4
Coefficient Variation	%	5
Individual Harmonic Content	%	2
Radio Interference THF	%	≤2

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