# HONNY POWER

# Datasheet

# HGM33 Googol Diesel Power Generator

# 24kW-30kVA 26.4kW-33kVA 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

Genset Model		HGM33
Genset Prime Output	kW/kVA	24/30
Genset Standby Output	kW/kVA	26.4/3 <mark>3</mark>
Rating Power Factor		0.8
Rating Speed	rpm	1500
Rating Frequency	Hz	50
Rating Voltage	V	400
Engine <mark>M</mark> odel		BT170G1
Displac <mark>ement</mark>		2.77
Configur <mark>ation</mark>		4 in line
Genset Size-Open Type (LxWxH)	mm	1600*700*1200
Genset Weight	kg	700

## Engine Data in General

Aspiration Type		Turbocharger	
Injection Type	-VAI	Direct Injection	
Configuration		In Line	
No. of Cylinders		4	
Displac <mark>ement</mark>	I	2.77	
Bore	mm	93	
Stroke	mm	102	
Compression Ratio		17.5:1	
Rotation Direction (from Flywheel)		Counter Clockwise	
Flywheel House Size		SAE4/7.5"	

## Engine Specification

Engine Model		BT170G1
Speed	rpm	1500
Engine Standby Output (LTP)	kW	32
<mark>Engine Prime Out</mark> put (PRP)	kW	28
<mark>Spee</mark> d <mark>Droop (sta</mark> tic) Elect. Gov.		0-5%
Governing Standards to ISO 8528		G3
Max. Step Load Acceptance, 1st Step( % PRP)		60%

Lubrication System		
Lube Oil Specification		API-CF4
Oil Capacity	1	5.8
Max. Permissible Oil Temperature	°C	110
Oil Pressure Warning	kPa	200
Oil Pressure Shutdown	kPa	100

## Cooling System

Coolant Capacity for Engine		10
Max. Coolant Warning Temperature	°C	98
Max. Coolant Shutdown Temperature	°C	103

## Fuel System

Governor Type		Electrical
Fuel Consumption at 75% of Genset Prime Output	g/kW.hr	226
Fuel Consumption at 100% of Genset Prime Output	g/kW.hr	216

### Intake & Exhaust System

Max. Intake Restriction	KPa	2
Exhaust Temperature	°C	630
Max. Exhaust Back Pressure	KPa	2
Exhaust Flange Diameter	mm	45

# Electrical System

Charging Alternator Capacity	А	50
Starting Voltage	V	12
Starting Motor Capacity	kW	2.8
Minimum Battery Capacity (Ref. Varta Brand)	Ah	1*60

### Alternator Specification

G <mark>ener</mark> ator <mark>Model</mark>		GP32-4P
V <mark>oltage of Genset</mark>	V	400
Rating Speed	rpm	1500
Capacity @ 0.8PF, H Rise Class	kW	25
Efficiency @ 0.8PF	%	85.5
Duty		S1
Bearing		Single
Insulation		Н
Rise Temperature	2)	н
Enclosure		IP23
Over Speed	rpm	2250
Excitation System		AVR
AVR Model		SX440
Poles		4

#### **Performance Parameter**

### Frequency

Frequenc <mark>y Droop</mark>	%	≤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**

%	≤10
%	≤7
%	≤+10
%	≤-7
sec	≤3
%	2
	% % % sec

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#### 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



