HONNY POWER

Datasheet

HGM1250 Googol Diesel Power Generator

900kW-1125kVA
1000kW-1250kVA
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		HGM1250
Genset Prime Output	kW/kVA	900/1125
Genset Standby Output	kW/kVA	1000/1250
Rating Power Factor		0.8
Rating Speed	rpm	1500
Rating Frequency	Hz	50
Rating Voltage	V	400
Engine Model		QTA2160-G5
Displacement	l	35.4
Configuration		8V
Genset Size-Open Type (LxWxH)	mm	4500x1920x2600
Genset Weight	kg	7600

Engine Data in General

Aspiration Type		Turbocharger, air-water aftercooler
Injection Type		Direct Injection
Configuration		Vee
No. of Cylinders		8
Displacement	l	35.4
Bore	mm	170
Stroke	mm	195
Compression Ratio		13.5:1
Piston Speed	m/s	9.75
Rotation Direction (from Flywheel)		Counter Clockwise
Number of Flywheel Teeth		218
Flywheel House Size		SAE00-18

Engine Specification

Engine Model		QTA2160-G5
Speed	rpm	1500
Standby Output （LTP)	kW	1110
Prime Output (PRP)	kW	1000
Engine Continuous Power (COP)	kW	848
Fan Quantity		1
All Fans Reduction	kW	44.0
Engine Net Standby Output （LTP)	kW	1066
Engine Net Prime Output (PRP)	kW	956
Engine Net Continuous Output (COP)	kW	804
BMEP for Standby Output	bar	24.90
BMEP for Prime Output	bar	22.50
BMEP for Continuous Output	bar	18.92
Typical Generation Standby Output	kW	1000
Typical Generation Prime Output	kW	900
Typical Generation Continuous Output	kW	750
Typical Alternator Efficiency		94.5%
Speed droop (static) elect. Gov.		0-5%
Governing standards to ISO 8528		G3
Max. step load acceptance, 1st step		40%

Lubrication System

Lube Oil Specification		API-CF4
Oil Capacity	l	160
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	9
Minimum Battery Capacity (Ref. Varta brand)	Ah	2*120

Fuel System

Governor Type		Electrical
Engine Output at genset prime output	KW	72
Fuel Consumption at 25% of PRP	l/h	121
Fuel Consumption at 50% of PRP	l/h	172
Fuel Consumption at 75% of PRP	l/h	227
Fuel Consumption at 100% of PRP	l/h	190

Intake & Exhaust System

Combustion Air Consumption	m³/min	111
Max. Intake Restriction	KPa	2
Exhaust Temperature (Before Turbo)	°C	670
Exhaust Temperature (After Turbo)	°C	560
Max. Exhaust Back Pressure	Kpa	2
Exhaust Gas Flow	m³/min	278
Turbo Bellows Diameter	mm	DN250
Exhaust Flange Diameter	mm	DN250

Cooling System

Coolant Capacity for Engine	l	70
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	m³/min	1420
Flow of Cylinder liner Coolant pump	m³/h	48
Flow of aftercooler Coolant pump	m³/h	45
Heat dissipation (engine radiator)	kW	408
Heat dissipation (CAC)	kW	195
Heat dissipation (convection)	kW	69

Alternator Specification

Generator Model		GP1138-4P
Voltage of Genset	V	400
Rating Speed	rpm	1500
Frequency	Hz	50
Capacity @ 0.8PF, H Rise Class	kW	910
Efficiency @ 0.8PF	%	94.5
Duty		S1
Bearing		Single
Insulation		H
Rise Temperature		H
Enclosure		IP23
Over Speed	rpm	2250
Excitation System		AVR
AVR Model		MX341
Poles		4

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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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