HONNY POWER

Datasheet

HGM2750/6 Googol Diesel Power Generator

2000kW-2500kVA
2200kW-2750kVA
60Hz

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		HGM2750/6
Genset Prime Output	kW/kVA	2000/2500
Genset Standby Output	kW/kVA	2200/2750
Rating Power Factor		0.8
Rating Speed	rpm	1800
Rating Frequency	Hz	60
Rating Voltage	V	480
Engine Model		QTA4320-G4
Displacement	l	70.8
Configuration		16V
Genset Size-Open Type (LxWxH)	mm	6200x2220x3300
Genset Weight	kg	138000

Engine Data in General

Aspiration Type		Turbocharger, air-water aftercooler
Injection Type		Direct Injection
Configuration		Vee
No. of Cylinders		16
Displacement	l	70.8
Bore	mm	170
Stroke	mm	195
Compression Ratio		13.5:1
Piston Speed	m/s	11.7
Rotation Direction (from Flywheel)		Counter Clockwise
Number of Flywheel Teeth		218
Flywheel House Size		SAE00-21

Engine Specification

Engine Model		QTA4320-G4
Speed	rpm	1800
Standby Output （LTP)	kW	2442
Prime Output (PRP)	kW	2220
Engine Continuous Power (COP)	kW	2008
Fan Quantity		1
All Fans Reduction	kW	110
Engine Net Standby Output （LTP)	kW	2332
Engine Net Prime Output (PRP)	kW	2110
Engine Net Continuous Output (COP)	kW	1898
BMEP for Standby Output	bar	22.70
BMEP for Prime Output	bar	20.73
BMEP for Continuous Output	bar	18.76
Typical Generation Standby Output	kW	2200
Typical Generation Prime Output	kW	2000
Typical Generation Continuous Output	kW	1800
Typical Alternator Efficiency		95.6%
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	240
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	2*13
Minimum Battery Capacity (Ref. Varta brand)	Ah	4*120

Fuel System

Governor Type		Electrical
Engine Output at genset prime output	KW	168
Fuel Consumption at 25% of PRP	l/h	279
Fuel Consumption at 50% of PRP	l/h	399
Fuel Consumption at 75% of PRP	l/h	527
Fuel Consumption at 100% of PRP	l/h	198

Intake & Exhaust System

Combustion Air Consumption	m³/min	244
Max. Intake Restriction	KPa	2
Exhaust Temperature (Before Turbo)	°C	670
Exhaust Temperature (After Turbo)	°C	545
Max. Exhaust Back Pressure	Kpa	2
Exhaust Gas Flow	m³/min	611
Turbo Bellows Diameter	mm	2*DN250
Exhaust Flange Diameter	mm	2*DN250

Cooling System

Coolant Capacity for Engine	l	140
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	3840
Flow of Cylinder liner Coolant pump	m³/h	96
Flow of aftercooler Coolant pump	m³/h	90
Heat dissipation (engine radiator)	kW	757
Heat dissipation (CAC)	kW	431
Heat dissipation (convection)	kW	129

Alternator Specification

Generator Model		GP2250-4P
Voltage of Genset	V	480
Rating Speed	rpm	1800
Frequency	Hz	60
Capacity @ 0.8PF, H Rise Class	kW	2050
Efficiency @ 0.8PF	%	95.6
Duty		S1
Bearing		Single
Insulation		H
Rise Temperature		H
Enclosure		IP23
Over Speed	rpm	2250
Excitation System		AVR
AVR Model		MX321
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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