HONNY POWER

Datasheet

HGM2500E Googol Diesel Power Generator

1800kW-2250kVA
2000kW-2500kVA
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		HGM2500E
Genset Prime Output	kW/kVA	1800/2250
Genset Standby Output	kW/kVA	2000/2500
Rating Power Factor		0.8
Rating Speed	rpm	1500
Rating Frequency	Hz	50
Rating Voltage	V	400
Engine Model		QTA471EG5
Displacement	l	70.8
Configuration		16V
Genset Size-Open Type (LxWxH)	mm	6000x2220x2900
Genset Weight	kg	13600

Engine Data in General

Aspiration Type		Turbocharger, air-water aftercooler
Injection Type		Common rail
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	9.75
Rotation Direction (from flywheel)		Counter Clockwise
Number of Flywheel Teeth		218
Flywheel House Size		SAE00-21

Engine Specification

Engine Model		QTA471EG5
Speed	rpm	1500
Standby Output (LTP)	kW	2220
Prime Output (PRP)	kW	2000
Engine Continuous Power (COP)	kW	1690
Fan Quantity		1
All Fans Reduction	kW	90
Engine Net Standby Output (LTP)	kW	2130
Engine Net Prime Output (PRP)	kW	1910
Engine Net Continuous Output (COP)	kW	1600
Typical Generation Standby Output	kW	2000
Typical Generation Prime Output	kW	1800
Typical Generation Continuous Output	kW	1520
Typical Alternator Efficiency	%	95.3%
Rating Power Factor		0.8
Speed droop (static) elect. Gov.		0-5%
Governing standards to ISO 8528		G3
Max. step load acceptance, 1st step (% PRP)		45%

Lubrication System

Lube Oil Specification		AFI-CG4
Oil Capacity	l	240
Max. Permissible Oil Temperature	°C	110
Oil Pressure Warning	kPa	300
Oil Pressure Shutdown	kPa	200
Oil Consumption (as % of fuel consumption)	%	≤0.5

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	Ah	4*200

Fuel System

Governor Type		Common rail
Fuel Consumption at 25% of PRP	l/h	143
Fuel Consumption at 50% of PRP	l/h	244
Fuel Consumption at 75% of PRP	l/h	350
Fuel Consumption at 100% of PRP	l/h	463
Lowest Fuel Consumption Ratio	g/kW.hr	193

Intake & Exhaust System

Combustion Air Consumption	m³/min	228
Max. Intake Restriction	KPa	5
Exhaust Temperature (Before Turbo)	°C	660
Exhaust Temperature (After Turbo)	°C	540
Max. Exhaust Back Pressure	KPa	5
Exhaust Gas Flow	m³/min	567
Turbo Bellows Diameter	mm	DN250
Exhaust Flange Diameter	mm	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	3200
Flow of Cylinder liner Coolant pump	m³/h	75
Heat dissipation (engine radiator)	kW	750
Heat dissipation (convection)	kW	114

Alternator Specification

Generator Model		**GP2250-4P**
Voltage of Genset	V	400
Rating Speed	rpm	1500
Frequency	Hz	50
Capacity @ 0.8PF, H Rise Class	kW	1800
Efficiency @ 0.8PF	%	95.3
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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CE SGS TÜV BUREAU VERITAS