HONNY POWER

Datasheet

HGM1650/6 Googol Diesel Power Generator

1200kW-1500kVA
1320kW-1650kVA
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		HGM1650/6
Genset Prime Output	kW/kVA	1200/1500
Genset Standby Output	kW/kVA	1320/1650
Rating Power Factor		0.8
Rating Speed	rpm	1800
Rating Frequency	Hz	60
Rating Voltage	V	480
Engine Model		QTA3240-G2
Displacement	l	53.1
Configuration		12V
Genset Size-Open Type (LxWxH)	mm	5200x2220x2800
Genset Weight	kg	10500

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	11.7
Rotation Direction (from Flywheel)		Counter Clockwise
Number of Flywheel Teeth		218
Flywheel House Size		SAE00-21

Engine Specification

Engine Model		QTA3240-G2
Speed	rpm	1800
Standby Output （LTP)	kW	1466
Prime Output (PRP)	kW	1338
Engine Continuous Power (COP)	kW	1210
Fan Quantity		1
All Fans Reduction	kW	64
Engine Net Standby Output （LTP)	kW	1402
Engine Net Prime Output (PRP)	kW	1274
Engine Net Continuous Output (COP)	kW	1146
BMEP for Standby Output	bar	18.24
BMEP for Prime Output	bar	16.65
BMEP for Continuous Output	bar	15.07
Typical Generation Standby Output	kW	1320
Typical Generation Prime Output	kW	1200
Typical Generation Continuous Output	kW	1080
Typical Alternator Efficiency		95.0%
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	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
Engine Output at genset prime output	KW	100
Fuel Consumption at 25% of PRP	l/h	167
Fuel Consumption at 50% of PRP	l/h	239
Fuel Consumption at 75% of PRP	l/h	315
Fuel Consumption at 100% of PRP	l/h	197

Intake & Exhaust System

Combustion Air Consumption	m³/min	134
Max. Intake Restriction	KPa	2
Exhaust Temperature (Before Turbo)	°C	650
Exhaust Temperature (After Turbo)	°C	530
Max. Exhaust Back Pressure	Kpa	2
Exhaust Gas Flow	m³/min	335
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	m³/min	2544
Flow of Cylinder liner Coolant pump	m³/h	57.6
Flow of aftercooler Coolant pump	m³/h	54.0
Heat dissipation (engine radiator)	kW	534
Heat dissipation (CAC)	kW	253
Heat dissipation (convection)	kW	79

Alternator Specification

Generator Model		GP1400-4P
Voltage of Genset	V	480
Rating Speed	rpm	1800
Frequency	Hz	60
Capacity @ 0.8PF, H Rise Class	kW	1230
Efficiency @ 0.8PF	%	95
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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