HONNY POWER

Datasheet

HGM880 Googol Diesel Power Generator

640kW-800kVA
704kW-880kVA
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		HGM880
Genset Prime Output	kW/kVA	640/800
Genset Standby Output	kW/kVA	704/880
Rating Power Factor		0.8
Rating Speed	rpm	1500
Rating Frequency	Hz	50
Rating Voltage	V	400
Engine Model		PTAA1780G3
Displacement	l	29.2
Configuration		16V
Genset Size-Open Type (LxWxH)	mm	4450x2140x2350
Genset Weight	kg	5700

Engine Data in General

Aspiration Type		Turbocharger, air-air aftercooler
Injection Type		Direct Injection
Configuration		Vee
No. Of Cylinders		16
Displacement	l	29.2
Bore	mm	128
Stroke	mm	142
Compression Ratio		15:1
Piston Speed	m/s	7.1
Rotation Direction (from Flywheel)		Counter Clockwise
Number of Flywheel Teeth		204
Flywheel House Size		SAE0-18

Engine Specification

Engine Model		PTAA1780G3
Speed	rpm	1500
Engine Standby Output （LTP)	kW	792
Engine Prime Output (PRP)	kW	725
Engine Continuous Power (COP)	kW	618
Fan Reduction	kW	39
Engine Net Standby Output （LTP)	kW	753
Engine Net Prime Output (PRP)	kW	686
Engine Net Continuous Output (COP)	kW	579
BMEP for Standby Output	bar	21.40
BMEP for Prime Output	bar	19.54
BMEP for Continuous Output	bar	16.66
Typical Generation Standby Output	kW	704
Typical Generation Prime Output	kW	640
Typical Generation Continuous Output	kW	540
Typical Alternator Efficiency		94.8%
Power Factor		0.8
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	48
Max. Permissible Oil Temperature	°C	110
Oil Pressure Warning	kPa	200
Oil Pressure Shutdown	kPa	160
Oil Consumption (as % of Fuel Consumption)	%	≤0.5

Electrical System

Charging Alternator Voltage	V	28
Charging Alternator Capacity	A	35
Starting Voltage	V	24
Starting Motor Capacity	kW	9
Minimum Battery Capacity (Ref. Varta Brand)	Ah	2*150

Fuel System

Governor Type		Electrical
Engine Output at PRP	kW	725
Fuel Consumption at 25% of PRP	l/h	54
Fuel Consumption at 50% of PRP	l/h	90
Fuel Consumption at 75% of PRP	l/h	129
Fuel Consumption at 100% of PRP	l/h	170
Lowest Fuel Consumption Ratio	g/kW.hr	196

Intake & Exhaust System

Combustion Air Consumption	m³/min	59
Max. Intake Restriction	KPa	5
Exhaust Temperature (Before Turbo)	°C	650
Exhaust Temperature (After Turbo)	°C	495
Max. Exhaust Back Pressure	Kpa	5
Exhaust Gas Flow	m³/min	73
Turbo Bellows Diameter	mm	DN200
Exhaust Flange Diameter	mm	DN200

Cooling System

Coolant Capacity for Engine	l	32
Max. Permissible Temperature	°C	90
Max. Coolant Warning Temperature	°C	95
Max. Coolant Shutdown Temperature	°C	105
Thermostat Open Temperature	°C	71
Radiator Cooling Flow	m³/min	1512
Flow of Coolant Pump	m³/h	52
Heat Dissipation (Engine Radiator)	kW	383
Heat Dissipation (Convection)	kW	57

Alternator Specification

Generator Model		GP800-4P
Voltage of Genset	V	400
Rating Speed	rpm	1500
Frequency	Hz	50
Capacity @ 0.8PF, H Rise Class	kW	640
Efficiency @ 0.8PF	%	94.8
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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