

	Googol Power-Tech Co., Ltd.	Engine Model: PTAA1780-G4	Engine Application: Generator
	Phoenix Lake Industrial Park, Yongchuan, Chongqing City, China		
	Tel: 86-23-49682222, Fax: 86-23-49683222	Engine Prime Power: 1000 KW	RPM: 1800
	5820 Central Ave, Unit 230, Riverside CA92504, U.S.A		
	Tel: 1-909-7436092 Fax: 1-909-9392093	Engine Standby Power: 1110 KW	Publication Date: 03-01-2015

Specifications:

Engine Model		PTAA1780-G4
Speed	rpm	1800
Rating Output		
Engine Standby Output (LTP)	kW	1110
Engine Prime Output (PRP)	kW	1000
Engine Continuous Power (COP)	kW	810
Fan Quantity		1
Fan Reduction	kW	41
Single Fan Reduction	kW	41
All Fans Reduction	kW	41
Engine Net Standby Output (LTP)	kW	1069
Engine Net Prime Output (PRP)	kW	959
Engine Net Continuous Output (COP)	kW	769
BMEP for Standby Output	bar	25.03
BMEP for Prime Output	bar	22.63
BMEP for Continuous Output	bar	18.30
Typical Generation Standby Output	kW	1000
Typical Generation Prime Output	kW	900
Typical Generation Continuous Output	kW	720
Max. step load acceptance, 1st step (% Prime Output)		48%
Basic Performance Datasheet		
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	8.52

Rotation Direction (from flywheel)		Counter Clockwise
Number of Flywheel Teeth		204
Flywheel House Size		SAE0-18
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
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	m ³ /min	1800
Flow of Coolant pump	m ³ /h	62.35
Heat dissipation (engine radiator)	kW	530
Heat dissipation (convection)	kW	78
Mode of Radiator(Aluminium core, 40°C environment's temp)		6400404
Mode of Radiator(Aluminium core, 50°C environment's temp)		6500404
Fuel System		
Governor Type		Electrical
Engine Output at genset prime output	kW	1000
Fuel Consumption at 25% of genset prime output	l/h	58.92
Fuel Consumption at 50% of genset prime output	l/h	98.21
Fuel Consumption at 75% of genset prime output	l/h	185.29
Fuel Consumption at 100% of genset prime output	l/h	244.61
Lowest Fuel Consumption Ratio	g/kW.hr	204.25
Intake & Exhaust System (On Standby Output)		
Combustion Air Consumption	m ³ /min	92.50
Max. Intake Restriction	KPa	5
Exhaust Temperature (Before Turbo)	°C	700
Exhaust Temperature (After Turbo)	°C	550
Max. Exhaust Back Pressure	Kpa	5
Exhaust Gas Flow	m ³ /min	120.25
Turbo Bellows Diameter	mm	DN200
Exhaust Flange Diameter	mm	DN200
Electrical System		
Charging Alternator Voltage	V	28
Charging Alternator Capacity	A	35
Starting Voltage	V	24
Starting Motor Capacity	kW	9
Minimum Battery Capacity	Ah	2*200
Engine Dimension		
Length	mm	1950
Width	mm	1389
Height	mm	1162
Engine Dry Weight w/o Cooling System	kg	2250

- 1: All engine parameters are in accordance with ISO3046, ISO8528.
- 2: All engine parameters are based on 25°C / 100kPa environment condition.
- 3: No power decrease with below 40°C environment temperature and 1500 meter altitude.
- 4: More than 40°C and 1500m above sea level , decrease 2% per 10°C , and 4% per 300m.
- 5: At calorific value 42700 kJ/kg + 5%, density 0,835 kg/dm³ , temperature 280 K.
- 6: Above data is only the testing data in our laboratory, it can't used to be the data on all contract.

Picture of Googol PTAA1780-G4 Diesel Engine.

