

Googol P780 diesel engine, output range is from 300kW to 448kW,1500rpm

Engine Model	PTA780-G1	PTA780-G3	PTA780-G5	PTAA780-G1	PTAA780-G3
Speed (rpm)	1500	1500	1500	1500	1500
Frequency (Hz)	50	50	50	50	50
Engine Standby Output (kW)	330	355	378	403	448
Engine Prime Output (kW)	300	320	343	363	403
Fan Reduction (kW)	14	14	14	14	14
Net Standby Output (kW)	316	341	364	389	434
Net Prime Output (kW)	286	306	329	349	389
Standby Electrical Generation Output (kVA)	367.5	396.25	423.75	452.5	505
Standby Electrical Generation Output (kW)	294	317	339	362	404
Prime Electrical Generation Output (kVA)	332.5	356.25	382.5	406.25	452.5
Prime Electrical Generation Output (kW)	266	285	306	325	362
Typical Alternator Efficiency	93%	93%	93%	93%	93%
Typical Power Factor	0.8	0.8	0.8	0.8	0.8
Basic Performance Datasheet					
Aspiration Type	Turbocharged, air-water aftercooled	Turbocharged, air-water aftercooled	Turbocharged, air-water aftercooled	Turbocharged, air-air aftercooled	Turbocharged, air-air aftercooled
Injection Type	Direct Injection	Direct Injection	Direct	Direct	Direct Injection
Configuration	In line	In line	In line	In line	In line
No. of Cylinders	6	6	6	6	6
Displacement (l)	12.8	12.8	12.8	12.8	12.8
Bore (mm)	128	128	128	128	128
Stroke (mm)	166	166	166	166	166
Compression Ratio	1:15.5	1:15.5	1:15.5	1:15.5	1:15.5
Piston Speed (m/s)	8.3	8.3	8.3	8.3	8.3
Rotation Direction (from flywheel)	Counter Clockwise	Counter Clockwise	Counter Clockwise	Counter Clockwise	Counter Clockwise
Static Speed Droop	≤ 5%	≤ 5%	≤ 5%	≤ 5%	≤ 5%
Flywheel House Size	SAE1-14	SAE1-14	SAE1-14	SAE1-14	SAE1-14
Lubrication System					
Lube Oil Specification	API-CF4	API-CF4	API-CF4	API-CF4	API-CF4
Oil Capacity (l)	40	40	40	40	40
Max. Permissible Oil Temperature (°C)	110	110	110	110	110
Oil Pressure Warning (bar)	20	20	20	20	20
Oil Pressure Shutdown (bar)	16	16	16	16	16
Cooling System					
Coolant Capacity for Engine (l)	18	18	18	18	18
Max. Permissible Temperature (°C)	90	90	90	90	90
Max. Coolant Warning Temperature (°C)	95	95	95	95	95
Max. Coolant Shutdown Temperature (°C)	105	105	105	105	105
Thermostat Open Temperature (°C)	82	82	82	82	82
Flow of Coolant pump (m ³ /h)	24	24	24	24	24
Fuel System					
Governor Type	Electrical	Electrical	Electrical	Electrical	Electrical
Fuel Consumption at 25% of Full Load (l/h)	19.2	20.5	21.9	23.2	25.8
Fuel Consumption at 50% of Full Load (l/h)	35.9	38.3	41.1	43.5	48.3
Fuel Consumption at 75% of Full Load (l/h)	54.2	57.8	61.9	65.6	72.8
Fuel Consumption at 100% of Full Load (l/h)	74.6	79.5	85.2	90.2	100.2
Intake & Exhaust System					
Combustion Air Consumption (m ³ /h)	1744	1861	1994	2111	2343

Max. Intake Restriction (mbar)	20.5	20.5	20.5	20.5	20.5
Max. Exhaust Temperature (°C)	475	495	520	515	535
Max. Exhaust Back Pressure (mmHg)	76	76	76	76	76
Exhaust Gas Flow (m³/h)	4119	4431	4719	5031	5592
Exhaust Flange Diameter (mm)	125	125	125	125	125
Electrical System					
Charging Alternator Voltage (V)	28	28	28	28	28
Charging Alternator Capacity (A)	35	35	35	35	35
Starting Voltage (V)	24	24	24	24	24
Starting Motor Capacity (kW)	6.6	6.6	6.6	6.6	6.6
Minimum Battery Capacity (Ah)	2*150	2*150	2*150	2*150	2*150
Engine Dimension					
Length (mm)	1745	1745	1745	1745	1745
Width (mm)	900	900	900	970	970
Height (mm)	1196	1196	1196	1250	1250
Engine Dry Weight w/o Cooling System	925	925	925	950	950

Note:

1. All engine parameters are in accordance with ISO3046, ISO8528.
2. All engine parameters are based on 25°C / 100kPa environment condition.