



6DTAA8.9-G21

◎ POWER RATING

Engine Speed r/min	Type of Operation	Engine	Genset	
		kW	kW	kVA
1500	Prime Power	185	160	200
	Standby Power	204	180	220
1800	Prime Power	205	180	220
	Standby Power	226	200	250

-. The engine performance is as per GB/T2820.

-. Ratings are based on GB/T1147.1.

---Prime power is available for an unlimited number of hours per year in a variable load application. The permissible average power output over 24 hours of operation shall not exceed 80% of the prime power rating.

---Standby power is available in the event of a utility power outage or under test conditions for up to 200 hours of operation per year. The permissible average power output over 24 hours of operation shall not exceed 80% of the standby power rating.

◎ SPECIFICATIONS

○ Engine Model	6DTAA8.9-G21
○ Engine Type	In-line, 4 strokes, 4 valves, water-cooled, Turbo charged with aftercooler
○ Combustion type	Direct injection
○ Cylinder Type	Wet liner
○ Number of cylinders	6
○ Bore × stroke	114 × 144 mm
○ Displacement	8.82 L
○ Compression ratio	18 : 1
○ Firing order	1-5-3-6-2-4
○ Injection timing	7.5° BTDC
○ Dry weight	740 kg
○ Dimension (L × W × H)	1422 × 762 × 1186 mm
○ Rotation	CCW viewed from flywheel
○ Fly wheel housing	SAE NO.2

◎ FUEL CONSUMPTION

○ Power	L/h (1500r/min)	L/h (1800r/min)
25%	13.4	15.7
50%	22.8	26.2
75%	32.8	37.4
100%	44.1	50.9
110%	49.6	57.2

◎ FUEL SYSTEM

○ Injection pump	Longkou in-line "P" type
○ Governor	Electric type
○ Feed pump	Mechanical type
○ Injection nozzle	Multi hole type
○ Opening pressure	250 kg/cm ²
○ Fuel filter	Full flow, cartridge type
○ Used fuel	Diesel fuel oil

- Fly wheel SAE NO.11.5 (tooth number of gear:125)

◎ MECHANISM

- Type Over head valve
- Number of valve Intake 1, exhaust 1 per cylinder
- Valve lashes at cold Intake 0.30mm
Exhaust 0.50mm

◎ VALVE TIMING

- | | Opening | Close |
|-----------------|------------|------------|
| ○ Intake valve | 22.5° BTDC | 34.5° ABDC |
| ○ Exhaust valve | 67.5° BBDC | 25.5° ATDC |

◎ COOLING SYSTEM

- Cooling method Fresh water forced circulation
- Water capacity 12 liters (engine only)
- Lid Min. pressure 70kPa
- Water pump Centrifugal type driven by belt
- Water pump Capacity 200L/min (1500r/min)
240L/min (1800r/min)
- Thermostat Wax-pellet type
Opening temp. 82°C
Full open temp. 93°C
- Cooling fan Blower type, plastic
762 mm diameter, 10 blades
Power consumption 6kw

◎ LUBRICATION SYSTEM

- Lub. Method Fully forced pressure feed type
- Oil pump Gear type driven by crankshaft
- Oil filter Full flow, cartridge type
- Oil pan capacity High level 19liters
Low level 15liters
- Angularity limit Front down 25 deg.
Front up 35 deg.
Side to side 35 deg.
- Lub. Oil Refer to Operation Manual

◎ ENGINEERING DATA

- Heat rejection to coolant 18.6 kcal/sec (1500 r/min)
20.6 kcal/sec (1800r/min)
- Heat rejection to CAC 11.6 kcal/sec (1500r/min)
12.9 kcal/sec (1800r/min)
- Intake gas flow 16.4m³/min (1500r/min)
19.8m³/min (1800r/min)
- Exhaust gas flow 28.3m³/min (1500r/min)
39.5m³/min (1800r/min)
- Exhaust gas temp. 600 °C
- Max. permissible restrictions 3 kPa initial
Intake system 6 kPa final (need charge filter element)
Exhaust system 6 kPa max.
- Intercooler resistance limit 8 kPa

◎ ELECTRICAL SYSTEM

- Charging generator 28V×55A
- Voltage regulator Built-in type IC regulator
- Starting motor 24V×7.5 kW
- Battery Voltage 24V
- Battery Capacity 180 AH

