6DTAA8.9-G23

◎ POWER RATING

Engine Speed	Type of Operation	Engine	Genset	
r/min		kW	kW	kVA
1500	Prime Power	230	200	250
	Standby Power	253	220	275
1800	Prime Power	255	220	275
	Standby Power	282	240	303

-. 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-G23
○ Engine Type	In-line,4strokes,4valves,water-cooled, Turbo charged with aftercooler
○ Combustion type	Direct injection
○ Cylinder Type	Wet liner
○ Number of cylinders	6
○ Bore × stroke	114× 144mm
○ Displacement	8.82 L
○ Compression ratio	16.5 : 1
○ Firing order	1-5-3-6-2-4
○ Injection timing	8.5°BTDC
○ Dry weight	900kg
○ Dimension(L×W×H)	1493×792×1309 mm
○ Rotation	CCW viewed from flywheel
○ Fly wheel housing	SAE NO.2

◎ FUEL CONSUMPTION

○ Power	L/h （1500r/min）	L/h（1800r/min）
25%	15.9	18.9
50%	27.7	32.3
75%	40.7	46.1
100%	55.1	63.0
110%	61.3	70.3

◎ 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/cm2
○ 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 2, exhaust 2 per cylinder
○ Valve lashes at cold	Intake 0.30mm
	Exhaust 0.55mm

◎ VALVE TIMING

	Opening	Close
○ Intake valve	29.5° BTDC	42.5° ABDC
○ Exhaust valve	69.5° BBDC	34.5° 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 25liters Low level 22liters
○ 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	23.1 kcal/sec (1500 r/min)
	25.6 kcal/sec （1800r/min）
○ Heat rejection to CAC	14.5 kcal/sec （1500r/min）
	16.0 kcal/sec （1800r/min）
○ Intake gas flow	17.7 m3/min （1500r/min）
	21.1 m3/min （1800r/min）
○ Exhaust gas flow	31.6 m3/min （1500r/min）
	40.3 m3/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	10 kPa max.
○ Intercooler resistance limit	8 kPa

○ Max. coolant temperature at standby / prime power

104/100℃

◎ 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