



6ETAA12.8-G21

◎ POWER RATING

Engine Speed r/min	Type of Operation	Engine	Genset	
		kW	kW	kVA
1500	Prime Power	368	320	400
	Standby Power	405	350	440
1800	Prime Power	368	320	400
	Standby Power	405	350	440

-. 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	6ETAA12.8-G21
○ Engine Type	In-line,4 strokes, water-cooled 4 valves, Turbo charged air-to-air intercooled
○ Combustion type	Direct injection
○ Cylinder Type	Dry liner
○ Number of cylinders	6
○ Bore × stroke	130× 161 mm
○ Displacement	12.8 L
○ Compression ratio	17 : 1
○ Firing order	1-5-3-6-2-4
○ Injection timing	14°BTDC
○ Dry weight	1164kg
○ Dimension(L×W×H)	1856×1000×1354mm
○ Rotation	CCW viewed from flywheel
○ Fly wheel housing	SAE NO.1

◎ FUEL CONSUMPTION

○ Power	L/h	L/h (1800r/min)
	(1500r/min)	
25%	25.1	25.3
50%	44.4	44.6
75%	64.3	64.7
100%	81.0	88.4
110%	97.7	98.7

◎ FUEL SYSTEM

○ Injection pump	Longkou in-line “PZ” 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.14

◎ MECHANISM

○ Type Over head valve

○ Number of valve Intake 2, exhaust 2 per cylinder

○ Valve lashes at cold Intake 0.40mm
Exhaust 0.65mm

◎ VALVE TIMING

	Opening	Close
○ Intake valve	15° BTDC	30° ABDC
○ Exhaust valve	45° BBDC	13° ATDC

◎ COOLING SYSTEM

○ Cooling method Fresh water forced circulation

○ Water capacity 23.2 L(engine only)

○ Pressure system Max. 0.5 kg/cm²

○ Water pump Centrifugal type driven by belt

○ Water pump Capacity 600 L/min at 1500r/min
700 L/min at 1800r/min

○ Thermostat Wax-pellet type
Opening temp. 85°C
Full open temp. 95°C

○ Cooling fan Blower type, plastic
1000 mm diameter, 8 blades

○ Max. coolant temperature at standby / prime power

104/100°C

◎ 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/ Low level 36L/33L

○ Angularity limit Front down 25°
Front up 35°
Side to side 35°

○ Lub. Oil Refer to Operation Manual

◎ ENGINEERING DATA

○ Heat rejection to coolant 30.9 kcal/sec (1500r/min)
36.9 kcal/sec (1800r/min)

○ Heat rejection to CAC 19.3 kcal/sec (1500r/min)
23.3 kcal/sec (1800r/min)

○ Engine waste heat 27.9 m³/min (1500r/min)
28.6 m³/min (1800r/min)

○ Exhaust gas flow 75.3 m³/min (1500r/min)
77.6 m³/min (1800r/min)

○ Exhaust gas temp. 600 °C

○ Max. permissible restrictions
Intake system 3 kPa initial / 6 kPa final
Exhaust system 10 kPa max.

○ Intercooler resistance limit 10 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