



# 6ETAA12.8-G32/G32.1

## ◎ Power

Engine Speed	Type of Operation	Gross Engine Output	Net Engine Output
r/min		kW	kW
1500	Prime Power	360	320
	Standby Power	400	350
1800	Prime Power	360	320
	Standby Power	400	350

- The engine performance is as per GB/T2820

- Ratings are based on GB/T1147.1.

→**Prime Power** :--- There is no time limit in the case of variable load operation. In any 250hours of continuous operation period, the variable load of average work load less than 70%of the prime power. The operation time in the situation of 100%prime power no more than 500 hours. Permit 10%overload running1hours in any 12 hours of continuous operation period. The overload 10% power running time of every year no more than 25 hours..

→**Standby Power:** The annual total standby power load should be less than 80%and the average running time shall be less than200 hours. Among them the standby power point should be no more than 25 hours a year. °

## ◎ SPECIFICATIONS

○ Engine Model	6ETAA12.8-G32/G32.1
○ 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	130 ×161mm
○ Displacement	12.8 L
○ Compression ratio	17 : 1
○ Firing order	1-5-3-6-2-4
○ Injection timing	Electronic control
○ Dry weight	Approx. 1164kg
○ Dimension (L×W×H)	1787 ×919 ×1287mm
○ Rotation	SAE NO.1
○ Fly wheel housing	SAE NO.14(tooth number of gear:133)

## ◎ MECHANISM

○ Type	Overhead 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

## ◎ FUEL CONSUMPTION

○ Power	L/h (1500r/min)	L/h (1800r/min)
25%	24.7	25.8
50%	45.0	50.2
75%	70.3	77.6
100%	96.1	100.3
110%	100.7	113.3

## ◎ FUEL SYSTEM

○ Injection pump	BOSH
○ Governor	Electric type
○ Feed pump	Mechanical type
○ Injection nozzle	Multi hole type
○ Opening pressure	250 kg/cm <sup>2</sup>
○ Fuel filter	Full flow, cartridge type
○ Used fuel	Diesel fuel oil

## ◎ 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 36liters Low level 31liters
○ Angularity limit	Front down 25 deg. Front up 35 deg. Side to side 35 deg.
○ Lub. Oil	Refer to Operation Manual

## ◎ COOLING SYSTEM

- Cooling method Fresh water forced circulation
- Water capacity 23 liters
- (engine only)
- Lid Min. pressure 70kPa
- Water pump Centrifugal type driven by belt
- Water pump Capacity 600L/min (1500r/min)
  
- 700L/min (1800r/min)
  
- The maximum temp. of coolant in prime/ Standby power 104/100
- Thermostat Wax-pellet type
  
- Opening temp. 85 °C
- Full open temp. 95 °C
  
- Cooling fan Blower type, plastic
- 1000 mm diameter, 8blades
- Power consumption 15kw

## ◎ ELECTRICAL SYSTEM

- Charging generator 28V×70A
- Voltage regulator Built-in type IC regulator
- Starting motor 24V×5.5kW
- Battery Voltage 24V
- Battery Capacity 180 AH

### ◆ 换算表

$$\text{in.} = \text{mm} \times 0.0394$$

$$\text{PS} = \text{kW} \times 1.3596$$

$$\text{psi} = \text{kg/cm}^2 \times 14.2233$$

$$\text{in}^3 = \text{L} \times 61.02$$

$$\text{hp} = \text{PS} \times 0.98635$$

$$\text{lb} = \text{kg} \times 2.20462$$

$$\text{lb/ft} = \text{N.m} \times 0.737$$

$$\text{U.S. gal} = \text{L} \times 0.264$$

$$\text{kW} = 0.2388 \text{ kcal/s}$$

$$\text{lb/PS.h} = \text{g/kW.h} \times 0.00162$$

$$\text{cfm} = \text{m}^3/\text{min} \times 35.336$$

## ◎ ENGINEERING DATA

- Heat rejection to coolant 34.2 kcal/sec (1500r/min)
- 32.5 kcal/sec (1800r/min)
- Heat rejection to intercooler 22.7 kcal/sec (1500r/min)
- 21.5 kcal/sec (1800r/min)
- Exhaust gas temp. 600 °C
- Max. permissible restrictions 3 kPa initial
- 6 kPa final (need charge filter element)
  
- Intake system
  
- Exhaust system 10 kPa max.
- Max. permissible altitude 2000 m
- intercooler permissible restrictions 9 kPa
  
- Cooling air flow 10.8m<sup>3</sup>/s

