



# 4ZT3.2-G11

## ◎ Power

Engine Speed rpm	Type of Operation	Engine Power	Generator Power	
		kW	kW	kVA
1500	Prime Power	39	32	40
	Standby Power	43	35	44
1800	Prime Power	42	35	44
	Standby Power	46	38.5	48

- The engine performance is as per GB/T2820

- Ratings are based on GB/T1147.1.

→ **Prime Power:** Power output available with varying load for unlimited time. The permissible average power output over 24 hours of operation shall not exceed 80% of the prime power rating.

→ **Standby Power:** Power output available in the duration of an emergency outage or under test conditions, Maximum operation time is 200 hours per year. The permissible average power output over 24 hours of operation shall not exceed 80% of the standby power rating.

**Overload operation is not allowed**

## ◎ SPECIFICATIONS

○ Engine Model	4ZT3.2-G11
○ Engine Type	In-line,4strokes, water-cooled Turbo charged
○ Combustion type	Direct injection
○ Cylinder Type	Wet liner
○ Number of cylinders	4
○ Bore × stroke	98× 105 mm
○ Displacement	3.2L
○ Compression ratio	18 : 1
○ Firing order	1-3-4-2
○ Injection timing	14-17°
○ Dry weight	280 kg
○ Dry weight	848×608×909mm

(L×W×H)

## ◎ FUEL CONSUMPTION

○ Power	L/h (1500r/min)
25%	2.73
50%	4.46
75%	6.29
100%	8.34
110%	8.94

## ◎ FUEL SYSTEM

○ Injection pump	KangDa
○ Governor	Electric type
○ Feed pump	Mechanical type
○ Injection nozzle	Multi hole type

- Rotation Counter clockwise viewed from Flywheel
- Fly wheel housing SAE 4#
- Fly wheel SAE 7.5# (tooth number 120)

◎ **MECHANISM**

- Type Overhead valve
- Number of valve Intake 1, exhaust 1 per cylinder
- Valve lashes at cold Intake 0.40mm  
Exhaust 0.65mm

◎ **VALVE TIMING**

- |                 | <b>Opening</b> | <b>Close</b> |
|-----------------|----------------|--------------|
| ○ Intake valve  | 15° BTDC       | 30° ABDC     |
| ○ Exhaust valve | 45° BBDC       | 13° ATDC     |

◎ **COOLING SYSTEM**

- Water capacity 3.2L  
(engine only)
- Lid Min. pressure 70kPa
- Water pump Centrifugal type driven by belt
- Water pump Capacity 25L/min (1500r/min)
- Thermostat Wax-pellet type  
Opening temp. 72°C  
Full open temp. 82°C
- Cooling fan Blower type, plastic  
490 mm diameter, 7 blades  
Power consumption 3.5 kW
- The maximum temp. 104/100°C

- Opening pressure 24MPa
- 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 camshaft
- Oil filter Full flow, cartridge type
- Oil pan capacity High level 10 L  
Low level 8 L
- Angularity limit Front down 25°  
Front up 35°  
Side to side 35°
- Lub. Oil Refer to Operation Manual

◎ **ENGINEERING DATA**

- Heat rejection to coolant 19.1 kcal/sec (1500r/min)
- Heat rejection to intercooler
- Air flow 4.1m<sup>3</sup>/min (1500r/min)
- Exhaust gas flow 10.6m<sup>3</sup>/min (1500r/min)
- Exhaust gas temp. 550 °C
- Max. permissible restrictions 3 kPa initial  
Intake system 4 kPa final  
Exhaust system 10 kPa max
- intercooler permissible

of coolant in prime/  
Standby power

restrictions

### ◎ ELECTRICAL SYSTEM

- Charging generator      12V×70A
- Voltage regulator      Built-in type    IC regulator
- Starting motor          12V×3.8kW
- Battery Voltage        12V
- Battery Capacity       110~120 AH

