

Engine Speed (r/min)	Type of Operation	Engine Power (kW)	Generator Power (kW)
1500	Prime Power	74	55
1500	Standby Power	81	60
1800	Prime Power	80	60
1800	Standby Power	88	66

· 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 250 hours of continuous operation period, the variable load of average work load less than 80% of the prime power.

The operation time in the situation of 100% prime power no more than 500 hours. Permit 10% overload running 1 hour 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 than 200 hours. Among them the standby power point should be no more than 25 hours a year.

Specifications	
Engine Model	AS4100-Z0203
Engine Type	In-line, 4 strokes, water-cooled, Turbo charged
Combustion type	Direct injection
Cylinder Type	Wet liner
Number of cylinders	4
Bore × stroke	105 × 118mm
Displacement	4.1 L
Compression ratio	18: 1
Firing order	1-3-4-2
Injection timing	14-17°
Dry weight	Approx. 365kg
Dimension (L×W×H)	927×627×959mm
Rotation	Counter clockwise viewed from Flywheel
Fly wheel housing	SAE NO.3#
Fly wheel	SAE NO.11.5#

## Mechanism

Type	Over head valve
Number of valve	Intake 1, exhaust 1 per cylinder
Valve lashes at cold	Intake 0.35mm Exhaust 0.45mm

## Fuel System

Injection pump	KangDa
Governor	Electric type
Feed pump	Mechanical type
Injection nozzle	Multi hole type
Opening pressure	24Mpa
Fuel filter	Full flow, cartridge type
Used fuel	Diesel fuel oil

## Valve Timing

	Opening	Close
Intake valve	18° BTDC	54° ABDC
Exhaust valve	62° BBDC	18° ATDC

## Fuel Consumption

Power	L/h (1500r/min)	L/h (1800r/min)
25%	5.5	6.1
50%	10	10.9
75%	14.6	16
100%	18.7	20.5
110%	20.4	22.4

## 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 7.5 liters Low level 6.5 liters
Angularity limit	Front down 25° Front up 35° Side to side 35°

## Cooling System

Cooling method	Fresh water forced circulation
Water capacity (engine only)	8.54 liters
Lid Min. pressure	70kPa
Water pump	Centrifugal type driven by belt
Water pump Capacity	TBA (1500r/min) TBA (1800r/min)
Thermostat	Wax-pellet type Opening temp. 72°C Full open temp. 82°C
Cooling fan	Blower type, plastic 490 mm diameter, 7 blades
Cooling fan power consumption	3 kw/1500r/min 3.5 kw/1800r/min
The maximum temp. of coolant in prime / Standby power	104/100°C

## Electrical System

Charging generator	14V×35A
Voltage regulator	Built-in type IC regulator
Starting motor	12V×3.8kW
Battery Voltage	12V
Battery Capacity	110~120 AH

## Engineering Data

Heat rejection to coolant	8.0 kcal/sec (1500r/min) 8.6 kcal/sec (1800r/min)
Heat rejection to intercooler	5 kcal/sec (1500r/min) 5.4 kcal/sec (1800r/min)
Engine air flow	7.7 m <sup>3</sup> /min (1500r/min) 9.1 m <sup>3</sup> /min (1800r/min)
Exhaust gas flow	20.8 m <sup>3</sup> /min (1500r/min) 24.6 m <sup>3</sup> /min (1800r/min)
Exhaust gas temp	550 °C
Max. permissible restrictions	3 kPa initial
Intake system	4 kPa initial
Exhaust system	10 kPa max
Max. permissible altitude	N/A
intercooler permissible restrictions	10 kPa

## Power Derate

All data is based on the engine operating without air compressor, fan, generator, fan, optional equipment and driven components.

All data is based on the engine operating with 3.7 kPa inlet air restriction, 10 kPa exhaust restriction and with 13 kPa Inter-cooled implement differential pressure.

Curves shown above represent gross engine performance capabilities obtained and corrected in accordance with GB/T18297 of 99kPa baiometric press, 298K inlet air temperature, and 1kPa water vapor pressure.



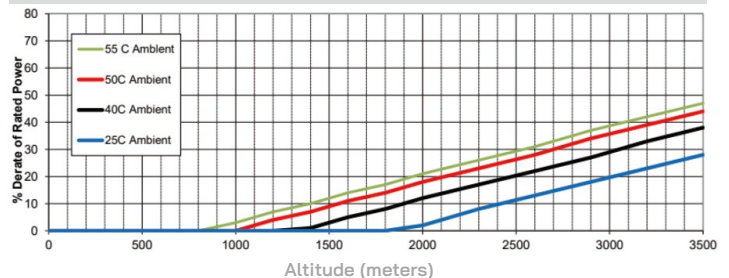
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