





Engine Speed (r/min)	Type of Operation	Engine Power (kW)	Generator Power (kW)
1800	Prime Power	450	400
1800	Standby Power	495	440

- · The engine per formance 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 80% of the prime power.

The operation time in the situation of 100%prime power no more than 500 hours. Permit 10%overload running 1hours 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	AS12800-E6490
Engine Type	In-line, 4strokes, 4valves,water-cooled, Turbo charged, air-to-air intercooled
Combustion type	Direct injection
CylinderType	Dry liner
Number of cylinders	6
Bore × stroke	130 × 161mm
Displacement	12.8 L
Compression ratio	16: 1
Firing order	1-5-3-6-2-4
Injection timing	Electric type
Dry weight	Approx. 1164kg
Dimension (L×W×H)	1856×1052×1287mm
Rotation	CCW viewed from flywheel
Fly wheel housing	SAE NO.1#
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

Fuel System	
Injection pump	BOSCH
Governor	Electric type
Feed pump	Electric type
Injection nozzle	Multi hole type
Opening pressure	Electric type
Fuel filter	Full flow, cartridge type
Used fuel	Diesel fuel oil

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%	N/A	31.7	
50%	N/A	55.3	
75%	N/A	79.7	
100%	N/A	108.5	
110%	N/A	121.5	



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 36 liters Low level 31 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)	23.2 liters
Lid Min. pressure	Max. 0.5 kg/cm2
Water pump	Centrifugal type driven by belt
Water pump Capacity	600L/min (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
Cooling fan power consumption	N/A
The maximum temp. of coolant in prime / Standby power	104/100°C

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Electrical System	
Charging generator	28V×55A
Voltage regulator	Built-in type IC regulator
Starting motor	24V×7.5kW
Battery Voltage	24V
Battery Capacity	180 AH

Engineering Data	
Heat rejection to coolant	51.5 kcal/sec (1800r/min)
Heat rejection to CAC	30.3 kcal/sec (1800r/min)
Engine air flow	33.6 m <sup>3</sup> /min (1800r/min)
Exhaust gas flow	75.3 m ³/min(1800r/min)
Exhaust gas temp	600 °C
Max. permissible restrictions	
Intake system	3 kPa initial/6 kPa final
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.



