

# DIESEL ENGINE

# MODEL 6DSG-315

## Performances

Ratings		1500 rpm	
		PRIME	STAND-BY
Rated Output	kWm	286	315

Note:

**PRIME POWER:** The prime power is the maximum power available with varying loads for an unlimited number of hours. The average power output during a 24h period of operation must not exceed 80% of the declared prime power between the prescribed maintenance intervals and at standard environmental conditions. A 10% overload is permissible for 1 hour every 12 hours of operation.

**STAND-BY POWER:** The stand-by power is the maximum power available for a period of 500 hours/year with a mean load factor of 90% of the declared stand-by power. No kind of overloads is permissible for this use.

## Specifications

### Mechanical system

Engine model	6DSG-315 (50Hz)
Engine type	In-line, 4 stroke, water cooled
Combustion type	direct injection
Cylinder type	Dry liner
Air intake type	Turbocharger and intercooler
Cylinder No.	6
Bore*Stroke(mm)	126*130
Total displacement(L)	9.726
Compression ratio	16:1
Firing order	1-5-3-6-2-4
Injection timing	14°±1°
Speed governor	Electronic governor, ≤1%
Exhaust temperature (°C)	≤600
Mean Effective Pressure (KPa)	2353
Noise Level(dBA)	≤105
Exhaust gas back pressure(KPa)	5
Exhaust flow (kg/h)	1386
Cooling air flow (m <sup>3</sup> /s)	6.5
Air for combustion flow (m <sup>3</sup> /h)	1108
Piston Speed(m/s)	6.5
Dry weight (kg)	950
Dimension(L*W*H)(mm)	2230*780*1539(with radiator)
Rotation	Counter clockwise viewed from flywheel
Flywheel housing/flywheel	SAE1/ 14"

**Mechanism**

Type	Over head valve
Valves per cylinder	2
Valve lash(cold state)	Air intake valve 0.30mm Exhaust valve 0.40mm

**Valve timing** (crankshaft rotating angel)

Air intake valve open	34°-39° before top dead center
Air intake valve close	61°-67° after bottom dead center
Exhaust valve open	76°-81° before bottom dead center
Exhaust valve close	26°-34° after top dead center

**Specific fuel consumption**

rpm	1500
Fuel consumption (g/kWh)	≤210

**Oil consumption**

Oil consumption(g/kWh)	≤0.816
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**Fuel system**

Fuel injector pump	In-line "PW" type
Governor model	RSV full range type
Feed pump	Mechanical type
Injection nozzle	DELPHI brand, multi hole type
Fuel filter	Fleetguard brand Double and spin-on type/water separator
Fuel	Diesel

**Lubrication system**

Type	Fully forced pressure feed type
Oil pump Displacement/speed (L/min/r/min)	Single grade gear type 144/2241
Oil filter	Spin-on type
Lube oil total system capacity	26L including pipes, filters etc.

**Cooling system**

Cooling method	Water cooled, forced circulation
Coolant capacity: engine only	14L
engine+radiator	45L
Water pump type	Centrifugal type driven by belt
Water pump capacity(L/min)	2500r/min, ≥383
Thermostat	Opening temp.71±2℃ full open temp.82℃
Cooling fan	Φ760m, 9 blades, PA

**Electronic system**

Charging alternator	28v/1000w
AVR	Built-in type brushless
Starting motor	24v/8.1kW brushless
Battery capacity	2pcs 12v/185Ah