

DIESEL ENGINE

MODEL 4DSG-73

Performances

Ratings		1500 rpm	
		PRIME	STAND-BY
Rated Output	kWm	66	72.6

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	4DSG-73 (50Hz)
Engine type	In-line, 4 stroke, water cooled
Combustion type	direct injection
Cylinder type	Wet liner
Air intake type	Turbocharger
Cylinder No.	4
Bore*Stroke(mm)	105*135
Total displacement(L)	4.67
Compression ratio	16:1
Firing order	1-3-4-2
Injection timing	17°±1°
Speed governor	Mechanical ≤5%, (If choose Electronic governor, ≤1%)
Exhaust temperature (°C)	≤600
Mean Effective Pressure (KPa)	1131
Noise Level(dBA)	≤95
Exhaust gas back pressure(KPa)	7
Exhaust flow (m ³ /h)	898
Cooling air flow (m ³ /h)	6010
Air for combustion flow (m ³ /h)	337
Piston Speed(m/s)	6.75
Dry weight (kg)	445
Dimension(L*W*H)(mm)	830*696*1200(without radiator)
Rotation	Counter clockwise viewed from flywheel
Flywheel housing/flywheel	SAE3/ 11.5"

Mechanism

Type	Over head valve
Valves per cylinder	2
Valve lash(cold state)	Air intake valve 0.30-0.40mm Exhaust valve 0.40-0.50mm

Valve timing (crankshaft rotating angel)

Air intake valve open	12° before top dead center
Air intake valve close	38° after bottom dead center
Exhaust valve open	55° before bottom dead center
Exhaust valve close	12° after top dead center

Specific fuel consumption

rpm	1500
Fuel consumption (g/kWh)	≤239

Oil consumption

Oil consumption(g/kWh)	≤1.63
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Fuel system

Fuel injector pump	A in-line plunger type
Governor model	RSV full range type
Feed pump	Mechanical type
Injection nozzle	S type, long holey type
Fuel filter	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 62/2800
Oil filter	Spin-on type
Lube oil total system capacity	17L including pipes, filters etc.

Cooling system

Cooling method	Water cooled, forced circulation
Coolant capacity: engine only	8.5L
engine+radiator	19.5L
Water pump type	Centrifugal type driven by belt
Water pump capacity(L/min)	≥200
Thermostat	Opening temp.60°C
Cooling fan	Φ490m, 6blades, iron

Electronic system

Charging alternator	28v/1000w
AVR	No AVR for meter panel or monitor controller / Built-in type
Starting motor	24v/5.5kW
Battery capacity	24v/120Ah