

# DIESEL ENGINE

## KDG SERIES FOR GENERATOR

<b>Model: 6KDG-112</b>	<b>Prime power</b>	<b>105.0KW(143.0HP)/1500 rpm</b>	<b>108.0KW(147.0HP)/1800 rpm</b>
	<b>Standby Power</b>	<b>112.0KW(152.0HP)/1500 rpm</b>	<b>115.0KW(156.0HP)/1800 rpm</b>

- The engine performance is as per ISO 3046. Type of operation is based on ISO 8528.
- Prime power is available for an unlimited number of hours per year in a variable load application.
- The permissible average power output over 24 hours of operation shall not exceed 80% of the prime power rating.

### Engine Specifications

In-Line, 4 stroke, water-cooled, Turbocharged	
Combustion type	Direct injection
Cylinders - Bore × stroke	6 - 105 × 125 mm
Displacement	6494 cc
Firing order	1-5-3-6-2-4
Compression ratio	16 : 1
Dry weight	Approx. 670 kg
Dimension(LxWxH)	1,380 × 740 × 1,275 mm
Rotation	Anti-clockwise
Flywheel / Housing	SAE # 11.5 / # 3

### Fuel System

Injection pump	Direct Injection type
Governor	Electronic type
Feed pump	Mechanical type
Injection nozzle	Multi-hole type/ 0.255 mm
Opening pressure	25+0.5MPa
Fuel filter	Single Stage, Paper

### Fuel Consumption

Prime power at 1500rpm	28.8 liters/h
Standby power at 1500rpm	31.7 liters/h
Prime power at 1800rpm	30.4 liters/h
Standby power at 1800rpm	33.4 liters/h

### Cooling System

Cooling method	Fresh water forced type
Water pump	Centrifugal, Belt driven
Water Capacity	13.8 liters (engine only)
Max. water Temp	95 degree C.
Cooling Fan	Blade 7EA - Ø 530 mm

### Lubrication System

Lub. Oil Pan Capacity	16.0 liters
Max. allowable Oil Temp	110 degree C.
Oil pressure	Min. 294 kPa Max. 490 kPa

### Intake & Exhaust System

Max air restriction	Clean 2 kPa / Dirty 5 kPa
Exhaust back	Max 6 kPa

### Engineering Data

Combustion Air at 1500rpm	8.6 m3/min
Exhaust Gas at 1500rpm	21.6 m3/min
Combustion Air at 1800rpm	9.6 m3/min
Exhaust Gas at 1800rpm	22.6 m3/min

### Electric System

Charging generator	27.5 V × 36 A
Starting motor	24 V × 7.5 kW
Battery	12 V x 2 x 120 Ah

### Conversion Table

PS = kW × 1.3596	in. = mm × 0.0394
psi = kg/cm <sup>2</sup> × 14.2233	
HP= PS x 0.98635	