DIESEL ENGINE

KDG SERIES FOR GENERATOR

Model: 4KDG-17

Prime power	**16.0KW (22.0HP)/1500 rpm**	**18.0KW (24.5HP)/1800 rpm**
Standby Power	**17.0KW(23.0HP)/1500 rpm**	**20.0KW(27.0HP)/1800 rpm**

- 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, Natural Aspiration

Combustion type	Direct injection
Cylinders - Bore × stroke	4 - 85 × 95 mm
Displacement	2156 cc
Firing order	1 – 3 – 4 – 2
Compression ratio	18 : 1
Dry weight	Approx. 200 kg
Dimension(LxWxH)	770 × 575 × 725 mm
Rotation	Anti-clockwise
Flywheel / Housing	SAE # 7.5 / # 4

Fuel System

Injection pump	Direct Injection type
Governor	Mechanical type
Feed pump	Mechanical type
Injection nozzle	Multi-hole type/ 0.23 mm
Opening pressure	20+0.5MPa
Fuel filter	Single Stage, Paper

Fuel Consumption

Prime power at 1500rpm	4.9 liters/h
Standby power at 1500rpm	5.4 liters/h
Prime power at 1800rpm	5.6 liters/h
Standby power at 1800rpm	6.2 liters/h

Cooling System

Cooling method	Fresh water forced type
Water pump	Centrifugal, Belt driven
Water Capacity	4 liters (engine only)
Max. water Temp	95 degree C.
Cooling Fan	Blade 7EA - Ø 410 mm

Lubrication System

Lub. Oil Pan Capacity	6.5 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	1.1 m3/min
Exhaust Gas at 1500rpm	2.7 m3/min
Combustion Air at 1800rpm	1.2 m3/min
Exhaust Gas at 1800rpm	3.0 m3/min

Electric System

Charging generator	13.5 V × 36 A
Starting motor	12 V × 3.0 kW
Battery	12 Vx 80 Ah

Conversion Table

PS = kW × 1.3596
psi = kg/cm2 × 14.2233
HP= PS x 0.98635
in. = mm × 0.0394