



DIAMOND DIESEL Diesel Engine Generating Set

Group

Power (Standby kva / kw)	46 kva 37 kw
Power (Prime kva / kw)	41 kva 33 kw
Dimension without canopy	800 x 1800 x 1250
(Width / Length / Height) mm	
Dimension with canopy	1000 x 2300 x 1650
(Width / Length / Height) mm	
Weight without canopy	kg 800
Weight with canopy	kg 1000

Diesel Engine

Brand	DIAMOND DIESEL
Model	4105 D
Engine Power (Standby kw)	kw/hp 39 / 52
Engine Power (Prime kw)	kw/hp 35 / 47
Revolution per minute	rpm 1500
Cycle	4 stroke
Total displacement	lt 4.087
Number of cylinders	4 single line
Bore x Stroke	mm x mm 105 x 118
Governor Type	Mechanic
Induction of rotation	Natural
Injection	Direct injection
Direction of rotation	Anti- clockwise when faced flywheel
Cooling	Water cooled
Electrical System	VCD 12.24
Fuel consumption (Full load)	lt/h 10.3
Fuel consumption (%50 load)	lt/h 5
Fuel tank capacity	lt/h 90

Technical Specification

Engine

- Diamond Diesel water cooled heavy duty diesel engine.
- 4 stroke, water cooled 1500 rpm
- 24 Volt DC starter and charge alternator
- Dry type disposable air filter
- Tropical type radiator
- A capacity to cool up to 50 °C
- Natural aspiration or Turbo intercooler direct injection
- Flexible fuel pipes and oil discharging
- Engine jacket water heating

Chassis

- Mounted on the steel base chassis
- Fuel tank is located in the chassis
- Mechanical fuel indicator
- Rubber brackets that prevent vibration

Control Unit

- DKG 307 Automatic control panel
- Ammeter, Voltmeter, Frequency meter
- Generator active power measurement
- Operation hourmeter
- Engine oil pressure measurement
- Relays
- Emergency stop button
- Remote start operation available
- Ignition switch
- Mains / Generator selector switch

- For Automatic Version*
- 2 pcs. contactor in suitable amperage
 - Battery charger
 - Automatic / Manual selector switch

- For Manual Version*
- Thermic magnetic switch with 3 pole

Alternator

- Complies with VDE 0530, IEC34-1, IEC 60034-1, NEMA MG 1.22 standards
- 4-pole, synchron type, single bearing, brushless, star-connected
- Standard voltage 230/400 volt 50 Hz
- IP23 protection class
- Self-excitation
- Automatic voltage regulator (AVR)
- 300% Short circuit resistance with 10 seconds

Sound-proof canopy

- Special design for minimizing acoustic level
- Special type muffler and heat insulation
- Acoustic insulation with rot-proof, moisture-repellent and non-flammable material

Alternator

Alternator Type	Brushless, direct - coupled, star - connected self alerting, static voltage regulator
Power (Stanby kva / kw)	46 kva 37 kw
Power (Prime kva / kw)	41 kva 33 kw
Output Voltage	V 231 / 400 V
Regulation	± 0,5 %
Frequency	Hz 50
Revolution per minute	rpm 1500 d/d
Short circuit current	%300 (10 sec)
Insulation	H
Protection	IP 23
Efficiency	90 %
Overloading	1 for one %110, 2 sec. for %150
Power factor	cos Q = 0,8
Harmonic distortion rate (unloaded)	< % 3

