KIRLOSKAR

KIRLOSKAR

DIESEL GENERATING SETS

Enriching Lives

KG82W / KG82WS

Diesel Generating Set Output Ratings			
Model	**Prime Rating at 0.8 pf (lag)**	**Standby Rating at 0.8 pf (lag)**	**Phase / Volts / Hz**
KG82W (OPEN)	**82.5 kVA 66 kW**	**91 kVA 72.8 kW**	**3 Phase / 380 V / 50 Hz**
KG82WS (SAE)			

- **SAE – Sound Attenuated Enclosure**
- **Ratings are according to ISO 8528; refer to ratings definition on page 2.**

KG82W

KG82WS

Note: Above picture shown for illustration purpose only, actual product may be different.

Features

- Extremely reliable.
- Lower operating cost.
- Easy maintenance – higher uptime.
- Sound attenuating enclosure (canopy) is fully integrated and designed for all weather conditions (weather proof).
- Best in class Sound attenuation – 70 dB(A) at 7 meters as per ISO 8528
- State of the art generating set control system with high degree of accuracy and reliability.
- Ideally suitable for critical industries like Construction, Manufacturing, Textile, Telecom, Services etc.
- Superior design standards that minimize power deration even at high ambient temperatures.
- Efficient and prompt after sales service available.
- Winner of the frost & Sullivan Voice of Customer Award in the "Best Bang for Buck" category in the Indian Generating sets Market.

Power, Performance, Peace of Mind.

KIRLOSKAR GREEN POWER IDEAS

Enriching Lives

Ratings Definition:

Standby Ratings:

These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The alternator on this model is peak continuous rated (as defined in ISO 8528-3)

Prime Rating:

These ratings are applicable for supplying continuous electrical power (at variable load) in lieu of commercial purchased power. There is no limitation to the annual hours of operation and this model can supply 10% overload power for 1 hour in 12 hours.

Continuous Rating:

These ratings are applicable for supplying power continuously to a constant load upto the full output rating for unlimited hours. No sustained overload capability is available for this rating.

GENERATING SET SPECIFICATIONS	
Model - Open Type	KG82W
Model - SAE Type	KG82WS
Frequency (Hz)	50
Power Factor	0.8
Phase	Three phase
Line Voltage (Volts)	380
Phase Voltage (Volts)	220
Fuel Tank Capacity (Liters)	Open – 155
	SAE – 150
Fuel consumption at 100% load (lit/hr) +5% tolerance	18.33
Fuel consumption at 75% load (lit/hr) +5% tolerance	13.84
Sound level at 7 m for Silent Generating set dB(A)	70
Overall dimensions (cms)	Open – 210x107x143
	SAE – 297x110x182
Weight (kgs)	Open Type – 1200
	SAE Type – 1950

CONTROL SYSTEM	
	
Controller Make	Deepsea
Controller Model	DSE 6120 MKII
Digital display instrumentation	Generator Voltage Generator Amps Generator Frequency Mains Voltage Battery Voltage Engine hours Run Oil Pressure Gauge Engine Temperature Gauge Fuel Level
Shutdowns/Safeties	Fail to Stop Low Oil pressure High Engine Temperature Under/Over-speed Under/Over voltage Emergency Stop Failed to reach loading voltage Failed to reach loading frequency Charge Fail Over Current Low DC Voltage Low coolant level
Automatic Starting & AMF facility	Available

Power, Performance, Peace of Mind.

KIRLOSKAR GREEN POWER IDEAS

Engine Technical Data

Enriching Lives

Physical Data	
Engine Make	Kirloskar
Engine Model	4R1040TA
Number of cylinders	4
Configuration	Inline
Type	Four stroke
Bore x Stroke (mm)	105 x 120
Displacement (Ltr)	4.160
Cooling	Water cooled
Aspiration	Turbocharged aftercooled
Compression Ratio	18 : 1
Starting Arrangement	12V Electric

Fuel System	
Type of fuel filter	Two stage spin on type
Governor Type	Mechanical
Class of Governing	ISO 8528-5, Class G2
Fuel pump type	Inline
Fuel pump make	Mico Bosch
Recommended Fuel	Class A2, High speed diesel
Fuel consumption at 100% load (lit/hr) +5% tolerance	18.33
Fuel consumption at 75% load (lit/hr) +5% tolerance	13.84
Fuel consumption readings are based on diesel fuel with a specific gravity of 0.85 and confirming to BS 2869, Class A2)	

Air System	
Air Filter Type	Dry type replaceable element
Air Volume required for Ventilation (m^3/hr)	7720
Combustion air flow (m^3/hr)	187
Total Air Flow required for ventilation (m^3/hr)	8433
Total Fresh air required (m^3/hr)	7860

Lubrication System	
Type of lube oil filter	Full flow spin on type
Oil to be used	SAE 15W40 API : CI4
Oil pump type	Through G-rotor gear pump
Lub oil sump capacity (lit)	11
Lube oil consumption	0.3% of fuel consumption

Cooling System	
Cooling system capacity (lit)	24
Water pump type	Centrifugal
Radiator fan load (hp)	4.5

Electrical System	
Starting Arrangement	12V Electric
Starter	12V Electric
Starter Battery Rating	100
Battery charging alternator	Engine mounted 12V battery charger
Battery charger amps	35

Power, Performance, Peace of Mind.

KIRLOSKAR GREEN POWER IDEAS

Alternator Technical Data

Enriching Lives

Physical Data	
Manufacturer	Stamford
Model	UCI224G1
Number of bearings	1
Insulation class	H
Winding pitch	2/3
Wires	12
Ingress Protection Rating	IP 23
AVR Model	SX 460

Operating Data	
Over speed (RPM)	2250
Excitation	Self excited
Efficiency (%)	89.8
THD at full linear balanced load AC waveform	≤ 5%
Voltage Regulation (%)	± 1.0
Reactance per unit (Xd)	2.43
Reactance per unit (X'd)	0.19
Reactance per unit (X''d)	0.13

Sound Attenuating Enclosure (Canopy)

Sound Level	70 dB(A) at 7 meter as per ISO 8528
Construction	• Fully Integrated, metal construction for ALL WEATHER USE (weather proof). • Black zinc die cast, Aluminium hinges or Stainless steel hinges tested to withstand corrosive environment conditions. • Fuel filling spout with lock. • Emergency stop button on canopy exterior. • Provision of glass window for viewing control panel • Provision for lifting canopy
Maintenance	Easy access through lockable doors for operation/maintenance and repair works (including access for radiator service)
Protection Standard	IP 23 Standard

General Data

Documents	• A full set of Illustrated spare parts catalogue • Operation & Maintenance manual • Circuit Diagrams
Quality Standards	ISO 8528, ISO 3046, IS 100002, BS5514, DIN 6271, ISO 9001, ISO 14001

Enriching Lives

KIRLOSKAR OIL ENGINES LIMITED
Head Office: Laxmanrao Kirloskar Road, Khadki, Pune 411 003, India.
Tel.: +91 20 2581 0341 / 534 Fax: +91 20 2581 3208 Website : www.koel.co.in

International business offices

KIRLOSKAR DMCC
JBC-5, Cluster W, Jumeirah Lake Towers, P.O.Box 37745, Dubai. U.A.E
Tel.: +971 4 443 8591 Fax: +971 4 441 4532
Email: enquiry@kirloskar.ae Website : www.kirloskar.ae

JOBURG INDUSTRIAL TRADING S.A.(Pty) LTD.
Unit B1, The Stables Business Park, Cnr of Third Avenue & Second Road,
Limbro Park, Modderfontein, Johannesburg.
Tel.: +27(0) 11 553 6900/6903 Email: kirsons@kirloskar.co.za

KIRLOSKAR KENYA LTD.
P.O. Box 60061, Off Dunga Road, Nairobi, Kenya. Tel.: +254 20 653 6632
Fax: +254 20 653 3390 Email: rspatil@kirloskar.co.ke

KOEL AMERICAS CORPORATION
Suite 4, Tamina Business Park, 32407 Tamina Road, Magnolia 77354,
Texas USA Tel.: +1 832 675 1595 Email: Vinay.Kulkarni@koelamerica.com

Power, Performance, Peace of Mind.

KIRLOSKAR GREEN POWER IDEAS