



# **KIRLOSKAR** DIESEL GENERATING SETS

## **KG200W / KG200WS**

Diesel Generating Set Output Ratings			
Model	Prime Rating at 0.8 pf (lag)	Standby Rating at 0.8 pf (lag)	Phase / Volts / Hz
KG200W (OPEN)	200 kVA	220 kVA 176 kW	3 Phase / 380 V / 50 Hz
KG200WS (SAE)	160 kW		

• SAE – Sound Attenuated Enclosure

• Ratings are according to ISO 8528; refer to ratings definition on page 2.



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.

#### **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			CO	NTROL SYSTEM
Model - Open Type	KG200W			BEE one inclusion
Model - SAE Type	KG200WS			DSE
Frequency (Hz)	50			- <del>14</del> 9
Power Factor	0.8			ି ଭି ଭି କି <b>ର ବ</b>
Phase	Three phase		Controller Make	Deep
Line Voltage (Volts)	380		Controller Model	DSE 61
Phase Voltage (Volts)	220		Digital display instrumentation E C E	Generator Voltag
	Open – 350			Generator Amps Generator Freque
Fuel Tank Capacity (Liters)	SAE – 310			Mains Voltage
Fuel consumption at 100% load (lit/hr) +5% tolerance	42.30			Battery Voltage Engine hours Ru Oil Pressure Gau
Fuel consumption at 75% load (lit/hr) +5% tolerance	31.94			Engine Temperat
Sound level at 7 m for Silent Generating set dB(A)	70			Fail to Stop Low Oil pressure
Overall dimensions (cms)	Open - 309x147x179			High Engine Terr Under/Over-spee
	SAE – 437x162x189			Under/Over volta
	Open Type – 2320		Shutdowns/Safeties	Emergency Stop Failed to reach lo
Weight (kgs)	SAE Type – 4500			Failed to reach lo Charge Fail
				Over Current

VEC rise instructions		
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 warning Low coolant level	
Automatic Starting & AMF facility	Available	



## **Engine Technical Data**



## **Enriching Lives**

Physical Data		
Engine Make	Kirloskar	
Engine Model	6SL1500TA	
Number of cylinders	6	
Configuration	Inline	
Туре	Four stroke	
Bore x Stroke (mm)	118 x 135	
Displacement (Ltr)	8.86	
Cooling	Water cooled	
Aspiration	Turbocharged Aftercooled	
Compression Ratio	17.5 : 1	
Starting Arrangement	24V Electric	

Air System		
Air Filter Type	Dry type replaceable element	
Air Volume required for Ventilation (m <sup>3</sup> /hr)	16605	
Combustion air flow (m³/hr)	900	
Total Air Flow required for ventilation (m <sup>3</sup> /hr)	17541	
Total Fresh air required (m³/hr)	ТВА	

Fuel System		
Type of fuel filter	Two stage spin on type	
Governor Type	Electronic	
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	42.30	
Fuel consumption at 75% load (lit/hr) +5% tolerance	31.94	
Fuel consumption readings are based on diesel fuel with a specific gravity of 0.85 and confirming to BS 2869, Class A2)		

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)	24	
Lube oil consumption	0.3% of fuel consumption	

Cooling Sy	vstem
Cooling system capacity (lit)	43
Water pump type	Centrifugal
Radiator fan load (hp)	7

Electrical System		
Starting Arrangement	24V Electric	
Starter	24V Electric	
Starter Battery Rating	2 x 180AH	
Battery charging alternator	Engine mounted 24V battery charger	
Battery charger amps	45	





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## **Alternator Technical Data**

Physical Data		
Manufacturer	Stamford	
Model	UCI274H1	
Number of bearings	1	
Insulation class	Н	
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 (%)	93.0
THD at full linear balanced load AC waveform	<u>&lt;</u> 5%
Voltage Regulation (%)	± 1.0
Reactance per unit (Xd)	2.11
Reactance per unit (X'd)	0.18
Reactance per unit (X"d)	0.12

## Sound Attenuating Enclosure (Canopy)

Sound Level	70 dB(A) at 7 meter as per ISO 8528	
Construction	<ul> <li>Fully Integrated, metal construction for ALL WEATHER USE (weather proof).</li> <li>Black zinc die cast, Aluminium hinges or Stainless steel hinges tested to withstand corrosive environment conditions.</li> <li>Fuel filling spout with lock.</li> <li>Emergency stop button on canopy exterior.</li> <li>Provision of glass window for viewing control panel</li> <li>Provision for lifting canopy</li> </ul>	
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
	<ul> <li>Operation &amp;</li> </ul>
	Maintenance manual
	<ul> <li>Circuit Diagrams</li> </ul>
Quality Standards	ISO 8528, ISO 3046, IS
	100002, BS5514, DIN 6271,
	ISO 9001, ISO 14001

# Kirloskar

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