

KIRLOSKAR DIESEL GENERATING SETS



KG225W / KG225WS

Diesel Generating Set Output Ratings					
Model	Prime Rating at 0.8 pf (lag)	Standby Rating at 0.8 pf (lag)	Phase / Hz	Standard Voltage (L-L)	Optional Voltage (L-L)
KG225W (OPEN)	225 kVA	247.5 kVA	3 Phase /	220V	380V to
KG225WS (SAE)	180 kW	198 kW	60 Hz	220 V	480V*

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SAE – Sound Attenuated Enclosure

* kVA rating may change please consult KOEL

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, Services etc.
- Superior design standards that minimize power deration even at high ambient temperatures.
- Efficient and prompt after sales service available.



Ratings Definition:

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Emergency Standby Power (ESP):

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Emergency standby power is defined as the maximum power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of utility power outage. The permissible average power output over 24hours of operation shall not exceed 70% of the ESP. No overload is permitted above ESP rating.

Prime Rated Power (PRP):

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 Rated Power:

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	KG225W	
Model - SAE Type	KG225WS	
Line Voltage (Volts)	220V 380V	
Phase Voltage (Volts)	127V 220V	
Frequency (Hz) 60		0
Power Factor	0.8	
Phase	Three phase	
Fuel Tank Consoity (Litera)	Open – 310	
Fuel Tank Capacity (Liters)	SAE – 310	
Fuel consumption at 100% load (lit/hr) +5% tolerance	55.0	
Fuel consumption at 75% load (lit/hr) +5% tolerance	4311	
Sound level at 7 m for Silent Generating set dB	70	
Overall dimensions (ame)	Open – 309x147x179	
Overall dimensions (cms)	SAE – 457 x 177 x 197	
Weight (kgs)	Open Type – TBA	
Weight (kgs)	SAE Type – 4600	

CONTROL SYSTEM		
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Controller Make	Deepsea	
Controller Model	DSE 6120 MKII	
Digital display instrumentation	Generator Voltage Generator Amps Generator Frequency Generator kW, kVA, kVAr Generator kWh Generator power factor 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



Physical Data		
Engine Make	Kirloskar	
Engine Model	6SL1500TA	
Cylinders / Configuration	6 / Inline	
Туре	Four stroke	
Bore x Stroke (mm)	118 x 135	
Displacement (Ltr)	8.86	
Cooling	Water cooled	
Aspiration	Turbo charged after cooled	
Compression Ratio	17.5 : 1	
hp Prime @ 1800rpm	279	
hp Standby @ 1800rpm	307	

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	Motorpal	
Recommended Fuel	Class A2, High speed diesel	
Fuel consumption at 100% load (lit/hr) +5% tolerance	55.0	
Fuel consumption at 75% load (lit/hr) +5% tolerance	43.0	
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 (m³/hr)	16605	
Combustion air flow (m³/hr)	900	
Total Air Flow required for ventilation (m³/hr)	17541	
Total Fresh air required (m³/hr)	ТВА	

Lubrication System		
Type of lube oil filter	Full flow spin on type	
Oil to be used	SAE 15W-40 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 System		
Cooling system capacity (lit)	43	
Water pump type	Centrifugal	
Radiator fan load (hp)	12	

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



Alternator Technical Data



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Physical Data		
Line Voltage (Volts)	220V 380V	
Manufacturer	Stamford	
Model	UCI274H1 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		
Line Voltage (Volts) 220V 380V		380V
Over speed (RPM)	22	50
Excitation	Self e	xcited
Efficiency (%) 93.2 93.0		93.0
THD at full linear balanced load AC waveform	<u><</u> ₹	5%
Voltage Regulation (%) ± 1.0		1.0
Reactance per unit (Xd)	2.31 2.50	
Reactance per unit (X'd)	0.19 0.21	
Reactance per unit (X"d)	0.13	0.14

General Data

Standards

Sound Attenuating Enclosure (Canopy)

Sound Level	70 dB 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

Documents	A full set of Illustrated
	spare parts catalogue
	 Operation &
	Maintenance manual
	Circuit Diagrams
Quality	ISO 8528, ISO 3046, IS
	400000 DOFEAA DIN

100002, BS5514, DIN

6271, ISO 9001, ISO 14001



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