

# **KIRLOSKAR** DIESEL GENERATING SETS



# KG625W / KG625WS

Diesel Generating Set Output Ratings

Model	Prime Rating at 0.8 pf (lag)	Standby Rating at 0.8 pf (lag)	Phase / Volts / Hz	
KG625W (OPEN)	625 kVA	687 kVA	2 Phase / 415 V / 50 Hz	
KG625WS (SAE)	500 kW	550 kW	3 Phase / 415 V / 50 Hz	

- 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.
- V type engine design for lower footprint.
- Extended service interval to 500hrs
- 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 S	PECIFICATIONS	CO	NTROL SYSTEM
Model - Open Type	KG625W		
Model - SAE Type	KG625WS		
Frequency (Hz)	50		
Power Factor	0.8	Controllor Moke	
Phase	Three phase	Controller Make	
Line Voltage (Volts)	415	Controller Model	DSE 7320 MKII Generator Voltage
Phase Voltage (Volts)	240		Generator Amps
	Open – 900		Generator Frequency Generator kWh Power factor Mains Voltage Battery Voltage Engine hours Run
Fuel Tank Capacity (Liters)	SAE – 930	Digital display	
Fuel consumption at 100% load (lit/hr) +5% tolerance	128.8	instrumentation	
Fuel consumption at 75% load (lit/hr) +5% tolerance	96.6		Oil Pressure Gauge Engine Temperature Gauge
Sound level at 7 m for Silent Generating set dB(A)	70		Fuel Level Fail to Stop
	Open – 379x178x236		Low Oil pressure High Engine Temperature Under/Over-speed Under/Over voltage Emergency Stop
Overall dimensions (cms)	SAE – 567x211x284		
Weight (kgs)	Open Type – 5200		
	SAE Type – 7000(Approx.)	Shutdowns/Safeties	Failed to reach loading voltage Failed to reach loading frequency
			Charge Fail Over Current & over kW Low DC Voltage Low coolant level



Available

Automatic Starting &

AMF facility

# **Engine Technical Data**

Physical Data		
Engine Make	Kirloskar	
Engine Model	DV12 SR1	
Number of cylinders	12	
Configuration	V type	
Туре	Four stroke	
Bore x Stroke (mm)	130 x 150	
Displacement (Ltr)	23.88	
Cooling	Water cooled	
Aspiration	Turbocharged Aftercooled	
Compression Ratio	16.5 : 1	
Starting Arrangement	24V Electric	

Air Syst	em
Air Filter Type	Dry type replaceable element
Air Volume required for Ventilation (m <sup>3</sup> /min)	600.6
Combustion air flow (m <sup>3</sup> /min)	53
Total Air Flow required for ventilation (m <sup>3</sup> /min)	653.6
Total Fresh air required (m³/min)	653.6

Cooling Sy	/stem
Cooling system capacity (lit)	144
Water pump type	Centrifugal
Radiator fan load (hp)	24

Fuel System		
Type of fuel filter	Spin on type	
Governor Type	Electronic	
Class of Governing	ISO 3046 Class A1 & ISO 8528-5, Class G2	
Fuel pump type	Inline	
Fuel pump make	Kirloskar	
Recommended Fuel	Class A2, High speed diesel	
Fuel consumption at 100% load (lit/hr) +5% tolerance	128.8	
Fuel consumption at 75% load (lit/hr) +5% tolerance	96.6	
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 15W-40 API : CI4	
Oil pump type	Through G-rotor gear pump	
Lub oil sump capacity (lit)	45	
Lube oil consumption	0.3% of fuel consumption	

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	





**Enriching Lives** 



# **Alternator Technical Data**

Physical Data		
Manufacturer	Stamford	
Model	HCI544F1	
Number of bearings	1	
Insulation class	Н	
Winding pitch	2/3	
Wires	12	
Ingress Protection Rating	IP 23	
AVR Model	AS440	

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Operating Data		
Over speed (RPM)	2250	
Excitation	Self excited	
Efficiency (%)	94.8	
THD at full linear balanced load AC waveform	<u>&lt;</u> 5%	
Voltage Regulation (%)	± 1.0	
Reactance per unit (Xd)	2.62	
Reactance per unit (X'd)	0.14	
Reactance per unit (X"d)	0.10	

# Sound Attenuating Enclosure (Canopy)

70 dB(A) at 7 meter as per ISO 8528

#### Generator user manual • A full set of Illustrated • Fully Integrated, metal construction spare parts catalogue Documents in **Operation &** • oft copies) Maintenance manual Circuit Diagrams pasted . inside control nanel

**General Data** 

Quality ISO 8528, ISO 3046, IS		inside control panel
Standards         100002, BS5514, DIN 62           ISO 9001, ISO 14001	ly Hards	100002, BS5514, DIN 6271,

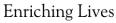
Construction	<ul> <li>for ALL WEATHER USE (weather proof).</li> <li>Black zinc die cast, Aluminium hinges or Stainless steel hinges tested to withstand corrosive environment conditions.</li> <li>Fuel filling spout with lock.</li> <li>Emergency stop button on canopy exterior.</li> <li>Provision of glass window for viewing control panel</li> <li>Provision for lifting canopy</li> </ul>	Dod (so Qua Sta
Maintenance	Easy access through lockable doors for operation/maintenance and repair works (including access for radiator service)	
Protection Standard	IP 23 Standard	



Sound Level

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