

# **KIRLOSKAR** DIESEL GENERATING SETS



# KG625W / KG625WS

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)
KG625W (OPEN)	625 kVA	655 kVA	3 Phase /	2001/	2201/
KG625WS (SAE)	500 kW	524 kW	60 Hz	380V	220V

AE – 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).
- 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.



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	KG625W			
Model - SAE Type	KG62	KG625WS		
Line Voltage (Volts)	220V	380V		
Phase Voltage (Volts)	127V	220V		
Frequency (Hz)	6	0	Controller Make	
Power Factor	0.	.8	Controller Model	DSE 7320 MKII Generator Voltage
Phase	Three	phase		Generator Amps
	Open	- 930	Generator Frequency Generator kWh	Generator Frequency Generator kWh
Fuel Tank Capacity (Liters)	SAE - 930 127.2 97.7 78		Digital display	Power factor Mains Voltage Battery Voltage Engine hours Run Oil Pressure Gauge Engine Temperature Gauge
Fuel consumption at 100% load (lit/hr) +5% tolerance			instrumentation	
Fuel consumption at 75% load (lit/hr) +5% tolerance				
Sound level at 7 m for Silent Generating set dB(A)				Fuel Level Fail to Stop
	Open -380x	200x236		Low Oil pressure High Engine Temperature Under/Over-speed Under/Over voltage Emergency Stop
Overall dimensions (cms)	SAE – 567x	211x284		
	Open Typ	be – 5300		
Weight (kgs)	ht (kgs) SAE Type – 7250		Shutdowns/Safeties	Failed to reach loading voltage
	1			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**



### **Enriching Lives**

Physical Data		
Engine Make	Kirloskar	
Engine Model	DV12 SR1	
Cylinders / Configuration	12 / 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	
hp Prime @ 1800rpm	750	
hp Standby @ 1800rpm	788	

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

Fuel System		
Type of fuel filter	Spin on type	
Governor Type	Electronic	
Class of Governing	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	127.2	
Fuel consumption at 75% load (lit/hr) +5% tolerance	97.7	
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	0.12% of fuel consumption	

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

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	



# **Alternator Technical Data**



#### **Enriching Lives**

PI	hysical Data	
Line Voltage (Volts)	220V	380V
Manufacturer	Stam	nford
Model	HCI544E1	HCI544E1
Number of bearings	1	
Insulation class H		ł
Winding pitch & Wires	2/3 & 12	
Winding connections	Series Delta	Series Star
Ingress Protection Rating	IP 23	
AVR Model	AS4	140

Operating Data		
Line Voltage (Volts)	220V	380V
Over speed (RPM)	22	50
Excitation	Self excited	
Efficiency (%)	94.8	94.8
THD at full linear balanced load AC waveform	<u>&lt;</u> 5%	
Voltage Regulation (%)	± 1.0	
Reactance per unit (Xd)	3.53	3.53
Reactance per unit (X'd)	0.17	0.17
Reactance per unit (X"d)	0.12	0.12

# Sound Attenuating Enclosure (Canopy)

Sound Level	78 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	

# **General Data**

Documents in (soft copies)	<ul> <li>Generator user manual</li> <li>A full set of Illustrated spare parts catalogue</li> <li>Operation &amp; Maintenance manual</li> <li>Circuit Diagrams pasted</li> </ul>	
	inside control panel	
Quality Standards	ISO 8528, ISO 3046, IS 100002, BS5514, DIN 6271, ISO 9001, ISO 14001	

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# Kirloskar

**Enriching Lives** 

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