

# **KIRLOSKAR** DIESEL GENERATING SETS

## **KG12A / KG12AS**

Diesel Generating	j Set Output Rati	ings			
Model	Prime Rating (PRP) at 0.8 pf (lag)	Standby Rating (ESP) at 0.8 pf (lag)	Phase / Hz	Standard Voltage (L-L)	Optional Voltage (L-L)
KG12A(OPEN) KG12AS (SAE)	12 kVA 9.6 kW	13.2 kVA 10.56 kW	1 Phase / 60 Hz	220V	NA

• SAE – Sound Attenuated Enclosure

KG12A

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



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### **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
Model - Open Type	KG12A	Controller type : Micro
Model - SAE Type	KG12AS	 Controller Make
Frequency (Hz)	60	
Power Factor	0.8	
Phase	singlr phase	Digital display
Phase Voltage (Volts)	220	
Fuel Tank Capacity (L)	Open – 50	]
standard	SAE – 65	
Fuel consumption at 100% load (lit/hr) +5% tolerance	3.7	
Fuel consumption at 75% load (lit/hr) +5% tolerance	2.8	Shutdowns/Safeties
Sound level at 7 m for Silent Generating set dB(A)	70	
Overall dimensions (LxWxH	Open – 120x100x125	Automatic Starting & AMF facility
cms) standard	SAE – 172x105x143	
Maight (kga) standard	Open Type – 610	
Weight (kgs) standard	SAE Type – 780	



## **Engine Technical Data**

Physical Data		
Engine Make	Kirloskar	
Engine Model	HA294	
Cylinders / Configuration	2 / Inline	
Туре	Four stroke	
Bore x Stroke (mm)	100 x 120	
Displacement (L)	1.88	
Cooling	Air cooled	
Aspiration	Naturally Aspirated	
Compression Ratio	18 : 1	
hp Prime @ 1800rpm	23	
hp Standby @ 1800rpm	25.3	

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)	5.5	
Lube oil consumption	Less then 0.7% of fuel consumption	

Electrical System		
Starting Arrangement	12V Electric	
Starter	12V Electric	
Starter Battery Rating <sup>\$</sup>	73Ah	
Battery charging alternator	Engine mounted 12V battery charger	
Battery charger amps	35	

<sup>\$</sup> Optional scope of supply

Fuel Sys	tem
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	3.7
Fuel consumption at 75% load (lit/hr) +5% tolerance	2.8
Fuel consumption readings are based on diesel fuel with a specific gravity of 0.85 and confirming to BS 2869, Class A2)	



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### **Alternator Technical Data**

Physical Data		
Manufacturer	Kirloskar	
Model	Single phase 0.8 PF	
Number of bearings	1	
Insulation class	Н	
Winding pitch	2/3	
Winding leads	2	
Ingress Protection Rating	IP 23	

	0
Operating	Data
Over speed (RPM)	2250
Excitation	Self excited
Efficiency (%)	78
Total harmonic distortion at full load AC waveform	<u>&lt;</u> 5%
Voltage Regulation (%)	± 1.0

### Sound Attenuated 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>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**

	<ul> <li>A full set of Illustrated spare parts catalogue</li> </ul>	
Documents	<ul> <li>Operation &amp;</li> </ul>	
	Maintenance manual	
	<ul> <li>Circuit Diagrams</li> </ul>	
Quality	ISO 8528, ISO 3046, IS	
Quality Standards	100002, BS5514, DIN 6271,	
	ISO 9001, ISO 14001	

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