



**HA Series** 

Single & Three Phase Air Cooled Silent Genset





#### ■ Customized product range:

- Ready to use gensets, available in wide range from 15 to 70kVA.
- Gensets powered with Air Cooled engines.
- DG Sets available in Multiple sets in synchronization for running parallel operations.
- Custom built tailored to meet your exact power needs.

## ■ Smart Aesthetics :

- State of the Art Design.
- Compact in size, smaller footprint saving money on space.
- Aesthetically superior, fully integrated weather proof acoustic enclosure.
- Light weight design.
- Environment Friendly: The power to save environment and the earth.:
  - Gensets conform to low noise emission norms as per CPCB.
  - Engine complies with latest stringent international emission norms.

### ■ Highest Reliability :

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- Utmost reliability ensuring continuous power for smooth operation.
- Electronic Governor for Isochronous governing & paralleling operations as optional.
- Extremely rugged, durable design.
- Low lifecycle costs.
- Safety for low lube oil, high water temperature, low fuel level etc.
- State-of-the-art technology for operations in low / high ambient temperature, high humidity and high altitude.

#### ■ Unmatched Performance :

- Low fuel & lube oil consumption ensuring excellent economy.
- Low noise & vibration levels.
- High fuel efficiency at part operating load.
- Lowest power to weight ratio in its class.
- No oil top up required between two service.
- K-cool super plus for longer life.

## Maintenance friendly design, ease of operation :

- Ready to use design.
- Easy serviceability for routine maintenance, replacement, overhaul.
- Modular design, ensuring lower maintenance cost.
- Ensures long maintenance intervals.
- Easy availability of spare parts.
- Minimum cost for maintenance, spares
  & services.
- Smart Genset Monitor Control (GMC) for closely monitoring the engine, genset & safety system.
- Annual maintenance contract through service dealers.
- PAN India single point AMC.





## **HA Series**

# "Kirloskar Green" Gensets

### **Standard Features**

## ■ Engine



- Air Cooled technology
  - Offering a wide comprehensive range with power output covering from 15 to 70 kVA
- Available in 2, 3, 4 and 6 cylinder configuration
- Most compact, extremely robust & rugged design
- 500 Hrs. oil change period
- Lowest fuel consumption in it's class
- Meets latest emission norms

#### Alternator



- Kirloskar Green Alternator
- Compact Design
- Best in Class Efficiency
- Positive Voltage built-up
- Special windings to reduce harmonics
- Electronic AVR
- High circuit current capacity upto 300% ensuring controlled regulation even at variable loads
- Epoxy gel coating to suit various environment conditions

### ■ Control Panel



- State-of-the-art engine & genset monitoring and safety system
- Safety controls for low coolant level in radiator and high canopy temperature
- Compact Microprocessor Controller
- All performance parameters of engine & DG set visible at one sight

## Canopy



- State-of-the-art Kirloskar Green Design
- Weather proof, sound proof enclosure, meets latest CPCB norms
- The powder-coated enclosure is manufactured on high-tech CNC machines to ensure smart quality finish & life long durability
- Specially designed to operate at full load, even at 50 deg C air inlet temperature
- Insulation material conforms to UL94HF1 class for flamability
- Use of zinc plating with green passivated hardware to withstand salt spray test as per ASTM B-117

## **Optional Features**

- Remote monitoring
- Additional electrical metering
- Auto Mains Failure panel
- Cold starting aid
- Electronic Governor
- Parallel operations for Genset
- 24V ES in lieu of 12V
- Special air filtration system for dusty atmosphere
- Facility for external agency inspection
- Single phase upto 30 kVA available
- Bio diesel operations & many more



## Technical Data

## Overall Specifications of HA Series Genset

## Range15 to 70 kVA

## **DG Set Specifications**

Parameters	Unit	Genset Model								
		KG15AS1-C	KG25AS-C	KG30AS	KG35AS	KG45AS	KG55AS	KG70AS		
kVA (kW) rating at 0.8pf	kVA (kW)	15 (12)	25 (20)	30 (24)	35 (28)	45 (36)	55 (44)	70 (56)		
Voltage	V	415	415	415	415	415	415	415		
Frequency	Hz	50	50	50	50	50	50	50		
Overall dimensions with canopy	mm (LxBxH)	1770x1050x1550	2030x1050x1550	3130x1100x1680	3130x1100x1680	3220x1100x1680	3980x1240x1680	3980x1240x1680		
Dry weight of genset with canopy	kg	900	1030	1440	1440	1580	1870	1920		
Electrical starting system		12	12	12	12	12	12	12		
Battery capacity	Ah	88	88	100	100	100	120	120		
DG set noise level as per CPCB norms	dB(A)	<75	<75	<75	<75	<75	<75	<75		

## **Engine Specifications**

Parameters	Unit	Engine Model								
		HA 294 SR2	HA394	HA494	HA494	HA494T	HA694	HA694T		
Rated output (prime continuous rating) as per ISO 3046	kW (hp)	15.09 (20.5)	23.52 (32)	31.6 (43)	31.6 (43)	41.16 (56)	47.77 (65)	61 (83)		
No of Cylinders	No's	2	3	4	4	4	6	6		
Bore x Stroke	mm	100 x 120	100 x 120	100 x 120	100 x 120	100 x 120	100 x 120	100 x 120		
Aspiration	NA/T/TA	NA	NA	NA	NA	Т	NA	Т		
Governing		Class A2	Class A2	Class A2	Class A2	Class A2	Class A2	Class A2		
Break mean effective pressure	kg/cm²	6.5	6.8	6.8	6.8 8.9		6.9	8.8		
* SFC at 75 % load	gms/hp-hr	168	170	159	159	166	161	169		
*SFC at 100 % load	gms/hp-hr	172	174	163 163 166 161		161	165.5			
Lube oil consumption	Ltrs/hr	< 0.3 % of SFC	< 0.3 % of SFC	< 0.3 % of SFC	< 0.3 % of SFC	< 0.3 % of SFC	< 0.3 % of SFC	< 0.3 % of SFC		
Lube oil change period	Hrs	500	500	500	500	500	500	500		
Lube oil sump capacity	Ltrs	4.5	8	11	11	11	13.5	13.5		

## **Alternator Specifications**

Davamatav	Unit	Alternator Model							
Parameter	Unit	KG 164J	KG 184B	KG 184C	KG 184D	KG 204C	KG 204E	KG 224B	
Specifications		15 kVA	25 kVA	30 kVA	35 kVA	45 kVA	55 kVA	70 kVA	
Insulation Class		Н	Н	Н	Н	Н	Н	Н	
Time permitted to build up rated voltage at rated RPM	Sec	<5	<5	<5	<5	<5	<5	<5	
Permissible voltage dip @Full load 0.8pf lag	%	<18	<18	<18	<18	<18	<18	<18	
Alternator efficiency at 100% load	%	83.5	88.8	89.0	89.1	89.0	89.9	91.2	
Alternator efficiency at 75% load	%	84.9	89.8	90.5	90.7	90.4	91.1	92.5	

In view of continuous product updation and design changes, all above specifications and dimensions are subject to change without prior notice.

## Notes:

- Genset ratings are as per ISO 8528 performance class G2.
  Prime Power Rating is the maximum power available continuously for a variable electrical load for unlimited number of hours per year under standard operating conditions.
- Single phase genset option available up to 30 kVA.
- For the site conditions other than standard operating conditions, consult KOEL for available prime power.
  Specific gravity of diesel to be considered as 0.845 (+5 % tolerance as per ISO 3046).
  All canopy dimensions have tolerance of + 50 mm.

- \* Under standard test conditions (+5% tolerance).



## **After Sales Service Support**

#### **Customer Care:**

Round the clock, at your service, whenever & wherever you need.

After sales service is the key to the long-term viability of any business. We are committed to provide adequate after sales service support & believe in creating enduring relationship with every individual customer we serve. Kirloskar believes in the wise saying "think global & act local" with full dedication, which have helped us, successfully achieve "100 years of great service".

#### Service Offerings

- Free service checks.
- Authorized Kirloskar Service Dealers in your neighborhood to promptly respond to your service calls, provide extensive after sales support including operational, maintenance & repair contract.
- Single window service for Genset & Customised AMC.
- 24/7 help line service for all our customers, offering timely customer support to deal with inquiries.
- Fully implemented CRM module to provide proactive & quick service response.
- Trained & experienced service team to provide value-added support to the highest standards ensuring customer satisfaction at all times.
- Support systems like Mean Time to Restore, Engine Down Order, First Pick Availability for maximum uptime of Gensets.
- K-oil/K-cool super plus for product life extension.
- Excellent product support through easy availability of spare parts, product training, Re-conditioning and warranty administration.
- Easy and Quick delivery... anywhere anytime.



#### Help Desk:

Call 1800 233 3344 (Toll-free from BSNL / MTNL) 020-6608 4608 (Other than BSNL / MTNL)

Customer assistance is also available from our help desk (24 hrs. x 7 days a week) for all after sales assistance.

#### Service Network across the Nation

Where your business operations are far reaching across the country & moreover when they are located in absolute remote places, your business counts on reliability & availability ensuring minimum downtime. Key to the quality of our after sales service is our strong service force, which are always ready to attend your calls anywhere anytime.



#### **KOEL Sales Offices**

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Stamp of Authorised Representative