



Enriching Lives

# Kirloskar Green Gensets

## HA Series

Air Cooled Silent Gensets



15 to 70 kVA



Salient Features of Genset

■ **Customized Product Range**

- Ready to use gensets in HA Series are available in the range from 15 to 70 kVA.
- HA Series gensets are powered by most efficient air cooled engines.
- Custom built to ensure your exact power needs.
- Synchronization option available with electronic governing for running the HA Series gensets in parallel operation to ensure optimum usage of generator sets capacity in varying load patterns.

■ **Smart Aesthetics**

- State - of - the - art competitive design.
- Compact in size with smaller footprint – saves money on installation / space.
- Aesthetically superior and fully integrated weather proof acoustic enclosure.
- Dynamic design with highest quality workmanship acoustics with PU based UV resistant powder coating for superior finish and durability.

■ **Highest Reliability**

- Superior reliability ensuring un-interrupted, continuous quality power for smooth operation.
- Exceedingly rugged and durable design.
- Lowest lifecycle cost of ownership.
- Safety against operation on low lub oil, high lub oil temperature, over speed, low fuel level, weak battery, low voltage, over load and high frequency.
- State- of - the - art technology for trouble free operations in low / high ambient temperature, high humidity and high altitudes.
- State - of - the - art – compact – Micro-processor based fully configurable genset controller with LCD display, events logging and optional AMF feature.

■ **Unmatched Performance**

- Low fuel and lub oil consumption ensuring excellent fuel economy and lowest operating cost.
- Low noise and vibration levels.
- High fuel efficiency at part operating loads.
- K-oil Super for best lubrication performance and engine life.

■ **Environment Friendly**

- The power to preserve, save environment and the earth – Kirloskar Green Power Ideas.
- Gensets conforms to lowest noise pollution norms as laid down by MOEF / CPCB.
- Genset Engine conforms with the latest stringent MOEF exhaust emission norms and international emission standards.
- 100% Bio-diesel compatibility with 100% power option.

■ **Maintenance friendly design and Ease of Operation**

- Ready to use – connect, distribute and use product.
- Dynamic, high performance and weather proof modular design ensuring lowest maintenance cost.
- Easy serviceability for routine, preventive, predictive maintenance, replacement and overhauls.
- Ensures longer maintenance intervals in its class.
- Easy availability of spare parts and wide spread service network across the Nation.
- Minimum cost for maintenance, spares & services, ensuring lowest operating cost.
- Smart genset control system for closely monitoring, metering and protection of the engine and genset performance.
- Competitive Annual Maintenance Contracts through Nationwide network of authorised service dealerships.
- Close looped Nationwide CRM network for before in time services.
- Single window services for complete genset.
- Pan India single point AMC options.



**KIRLOSKAR**  
**GREEN**  
POWER IDEAS

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## HA Series

### Standard Features

#### ■ Engine



- Only Indian manufacturer to offer widest range of air cooled engines from 10 hp to 83 hp.
- Offering a wide comprehensive range with power output covering from 15 to 70 kVA
- Kirloskar HA series is most preferred engine series in Telecom, Defense, Railways and other government departments.
- Available in 2, 3, 4 and 6 cylinder configuration
- Most compact, extremely robust & rugged design
- Least maintenance and lowest operating cost
- Meets latest emission norms

#### ■ Alternator



- Most efficient, CE certified Kirloskar Green Alternator
- Compact design with sealed bearings for longer life and lesser maintenance
- Best in class efficiency
- Positive voltage build-up
- Special windings to reduce harmonics
- Electronic AVR
- High short circuit current capacity up to 300%, ensuring controlled regulation even at variable loads
- Well balanced rotating components and lowest vibration levels
- Epoxy gel coating to suit various environment conditions
- CT fitted alternators as option for better performance and safety

#### ■ KG 934 Genset Controller



- State-of-the-art, compact Micro-processor based fully configurable genset operating, monitoring, metering and protection control system with LCD display
- Complete safety for gensets on operating faults
- Real time and event logging facility for performance monitoring
- AMF option in the controller with control for Mains and DG Set circuit breakers
- User friendly operating systems on manual, auto and test modes with soft touch buttons
- Provision for additional digital inputs and digital outputs
- Compatibility for remote monitoring, remote start-stop and BMS options

#### ■ Acoustic Enclosure



- Smart, standardized and dynamic Kirloskar Green Power Ideas modular design for optimum performance and ease of serviceability
- Aesthetically designed weather proof, sound proof acoustic enclosure meeting stringent and latest MOEF noise pollution norms
- PU Based powder-coated enclosure, manufactured on high-tech special purpose CNC machines to ensure highest quality on fit-form-finish-function and durability
- Specially designed with adequate air flow to operate at full load, even at 50 deg. C air inlet temperature
- Noise and thermal Insulation material conforms to UL94, HF1 class for flammability
- Green passivated / black ionized corrosion / rust resistant hardware for manufacturing to withstand salt Spray and corrosion test as per ASTM B-117
- Designed for low noise, high reliability, lowest vibrations and user friendly ready to use installations

#### ■ Optionals



- Remote start, remote monitoring and BMS
- Auto mains failure panel
- Cold starting aid
- Synchronization and parallel operations of multiple gensets
- Bio-diesel compatibility
- Special air filtration system for dusty atmosphere
- Facility for external agency inspection as per custom and IS standards
- PMG for non-linear load conditions
- Power house design support with load pattern study

# Overall Specifications of HA Series Genset

15 to 70 kVA

## DG Set Specifications

Parameters	Unit	Genset Model						
		KG15AS4	KG25AS-C	KG30AS	KG35AS	KG40AS	KG50AS	KG70AS*
Prime Rating at 0.8 pf	kVA (kW)	15 (12)	25 (20)	30 (24)	35 (28)	40 (32)	50 (40)	70 (56)
Voltage	V	415	415	415	415	415	415	415
Frequency	Hz	50	50	50	50	50	50	50
Overall Dimensions with canopy (L x W x H)	mm	1770×1050×1550	2030×1050×1550	3130×1100×1680	3130×1100×1680	3220×1100×1680	3980×1240×1680	3980×1240×1680
Dry Weight of genset with canopy	kg.	1220	1350	1440	1440	1580	1870	1920
Electrical starting system	Volt-DC	12 V	12 V	12 V	12 V	12 V	12 V	12 V
Battery Capacity	Ah	88	88	100	100	100	120	120
DG set Noise level as per CPCB Norms	dBA	< 75	< 75	< 75	< 75	< 75	< 75	< 75

## Engine Specifications

Parameters	Unit	Engine Model						
		HA294 SR3	HA394	HA494	HA494	HA494T	HA694	HA694T
Rated output (prime rating as per ISO 3046)	kW (hp)	15.08 (20.5)	23.5 (32)	31.6 (43)	31.6 (43)	41.2 (56)	47.8 (65)	61 (83)
No. of cylinder	Nos.	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	NA	NA	NA	T	NA	T
Governing Class as per ISO 3046		M3	M3	M3	M3	M3	M3	M3
SFC at 75% load*	(g/Hp-hr)	168	170	159	159	166	161	169
SFC at 100% load*	(g/Hp-hr)	172	174	163	163	166	161	165.5
Lub oil Consumption*	LPH	0.01	0.02	0.02	0.02	0.03	0.03	0.035
Lub oil change period**	hrs	500	500	500	500	500	500	500
Lub oil Sump capacity	Ltrs	4.5	8	11	11	11	13.5	13.5

## Alternator Specifications

Parameters	Unit	Alternator Model						
		KG164 J	KG 184B	KG 184D	KG184D	KG 184E	KG 204D	KG 224B
Rating	kVA	15	25	30	35	40	50	70
Insulation Class		H	H	H	H	H	H	H
Protection		IP23	IP23	IP23	IP23	IP23	IP23	IP23
Time to built up rated voltage at rated RPM	sec	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5
Alternator Efficiency at 75% load	%	84.9	89.8	90.5	90.7	90.8	90.8	92.5
Alternator Efficiency at 100% load	%	83.5	88.8	89	89.1	89.2	89.7	91.2
Voltage regulation	%	±1	±1	±1	±1	±1	±1	±1
Wave form Distortion at No load & at Non-distorting balanced linear Load	%	< 1.8 & < 4	< 1.8 & < 4	< 1.8 & < 4	< 1.8 & < 4	< 1.8 & < 4	< 1.8 & < 4	< 1.8 & < 4
Permissible transient voltage dip at full load 0.8 pf lag***	%	< 18	< 18	< 18	< 18	< 18	< 18	< 18

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

### Notes :

- Genset ratings as per ISO 8528 performance class is 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.
- For the site conditions other than standard operating conditions, consult KOEL for available prime power.
- \*+5 % tolerance as per ISO 3046. For LPH calculation specific gravity of diesel is considered as 0.845.
- All canopy dimensions have tolerance of ± 50 mm.
- \*\*First oil change at 50 hours.
- \*\*\*Permissible transient % voltage dip at full load 0.8 pf lag (alternator tested alone) as per IS 4722.
- \*With 5% overload capacity.

