



# WIN ENGINEERING

Power Solutions that give you the winning edge



5 kVA - 5200 kVA

**KIRLOSKAR GREEN**  
INDIA'S #1 GENSET BRAND



# 5 kVA - 30 kVA

Prime Rating at rated rpm (as per ISO8528) <sup>1</sup>	kVA	5	7.5	10	15	20	25	30
	kW	4	6	8	12	16	20	24
Genset Model		KG1-5AS	KG1-7.5AS	KG1-10AS1	KG1-15AS	KG1-20WS	KG1-25AS	KG1-30WS
Frequency	Hz	50	50	50	50	50	50	50
Power factor	lagging	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Voltage	V	230 (1Ø) & 415 (3Ø)						
Governing class (As per ISO 8528 Part-V)		G2	G2	G2	G2	G2	G2	G2
Noise level	dBA	< 75	< 75	< 75	< 75	< 75	< 75	< 75
Fuel Consumption*	At 100 % Load	1.6	2.3	3.0	4.0	5.1	6.4	7.8
	At 75 % Load	1.3	1.8	2.4	3.0	3.8	5.0	6.0
	At 50 % Load	1.0	1.4	1.8	2.2	2.7	4.0	4.5
Fuel tank capacity	Ltrs	70	30	30	65	65	65	65
Overall dimensions of genset (L x W x H) <sup>^</sup>	mm	1600x820x1530	1760x820x1330	1760x820x1330	1772x1050x1410	2100x950x1220	2130x1050x1520	2390x950x1230
Dry weight of genset with canopy (approx.) <sup>^</sup>	Kg	650	750	750	950	950	1050	1200
Wet weight of genset with canopy (approx.) <sup>^</sup>	Kg	700	800	800	1000	1000	1100	1250
Electrical Battery starting voltage	Volts-DC	12	12	12	12	12	12	12

## ENGINE

Engine Model		EA10 G1	EA16 G1	EA16 G1	HA294 G1	2R1040 G1	HA394 TCI G1	3R1040T G1
Rated output (Prime Continuous rating as per ISO 8528-1)	kW	7.3	11.8	11.8	15.1	18.8	23.5	30.9
	HP	10	16	16	20.5	25.5	32	42
No. of cylinder	Number	1	2	2	2	2	3	3
Cubic capacity <sup>2</sup>	Ltrs	0.95	1.56	1.56	1.88	2.08	2.89	3.12
Bore x Stroke	mm	102 x 116	95 x 110	95 x 110	100 x 120	105 x 120	100 x 120	105 x 120
Rated Speed	RPM	1500	1500	1500	1500	1500	1500	1500
Aspiration	NA/TC/TA	NA	NA	NA	NA	NA	TC	TC
Lube Oil change period	hrs.	500	500	500	500	500	500	500
Lube oil Sump Capacity	Ltrs	3.5	6.5	6.5	5.0	5.5	8.0	8.0
Coolant Capacity	Ltrs	NA	NA	NA	NA	9.0	NA	14.5

## ALTERNATOR

Insulation Class		Class H						
Alternator Efficiency (at 100% load) 0.8 pf**	%	78.1	78.1	78.6	86.0	88.9	88.8	89.0
Max Voltage Dip at Full Load 0.8 pf Lag	sec	≤ 20 %	≤ 20 %	≤ 20 %	≤ 20 %	≤ 16 %	≤ 16 %	≤ 16 %
Max Time to build up rated voltage at Rated RPM		< 5 sec provided engine reach the rated speed						

For intermediate ratings, kindly contact nearest KOEL office

### Notes

<sup>^</sup> Tolerances Apply

\*With 0.845 Specific Gravity of diesel ( 5 % Tolerance )

\*\* Efficiency of Alternator as per standards IS 4722 and IEC 34-1

For Site Conditions other than standard operating conditions consult KOEL for available prime power.

## Prime rating and Stand-by rating <sup>1</sup>



'Prime power' is designed for Unlimited hours, as compared to 'Emergency stand-by' designed for 200 hours in a year. Prime rated Gensets also permit 10% temporary overloading. Users need to carefully select the Genset rating to meet their requirement. KOEL offers Prime power as standard offer. Contact KOEL for stand-by ratings.

## Engine capacity does matter <sup>2</sup>



Engine capacity (cc) plays a vital role in Genset performance. Higher engine capacity leads to a robust and stable Genset performance.

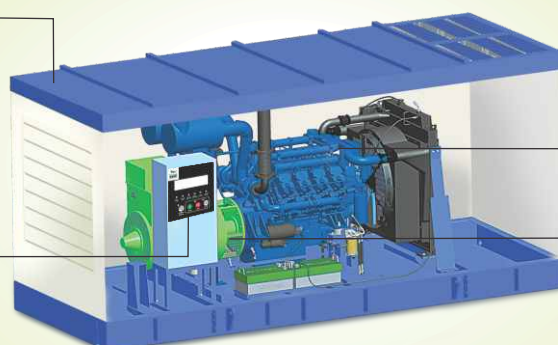
Higher engine capacity also enables Genset to respond quickly & positively to sudden load additions.

### Canopy

- Ease of Access and Serviceability
- Aesthetically designed, weather and sound resistant enclosure
- Insulation conforms to UL94-HF1 class for flammability

### Controller

- Microprocessor based fully configured
- Graphical bigger LCD display
- Best in class monitoring and diagnostic
- Integrable with AMF



### Engine

- O2E Series: Low emission, high efficiency engines
- Compact, Robust and Rugged Design
- 500 hours lube-oil change period

### Alternator

- Best In Class Efficiency
- Special Windings to Reduce Harmonics
- Vacuum Pressure Impregnation and epoxy gel coating on winding

## KOEL's approach to meet revised CPCB norms<sup>^</sup>

Revised CPCB norms are aimed at protecting environment by reducing Genset emissions and improving emission quality. These are one of the most stringent emission norms in the world.

To meet the new norms, KOEL R&D team had choice of multiple technologies. While selecting the technology, KOEL laid significant emphasis on long term needs of users viz:

- High reliability and durability of Gensets: Owing to extreme operating conditions in India, preference has been given to robust configurations, running successfully for several years.
- Low running costs: An effort to reduce emissions tends to increase the running costs. KOEL succeeded in achieving both in the same design, after persistent efforts.

- Optimized fuel efficiency as per actual usage: KOEL DG sets are tuned to provide maximum fuel efficiency in the most common operating band. At KOEL, we call it **O2E series** (Optimal Operating Efficiency).
- Affordable, On-site support: Proven technology will ensure that product support is available close-by, without waiting for a specialist. KOEL team has taken special efforts to keep complex technologies at bay, which may require high on-site maintenance costs.

All this, while keeping the initial costs within reach of the smart Genset buyers.

That's what we call **WINGeering!** We Engineer, You Win !!

### Edge



#### Best-in-class Fuel Efficiency

Kirloskar Green Gensets offer a unique combination of CPCB norm compliance and enhanced fuel efficiency. Across the range, KG Gensets offer substantial savings in fuel cost.

#### O2E Series (Optimal Operating Efficiency):

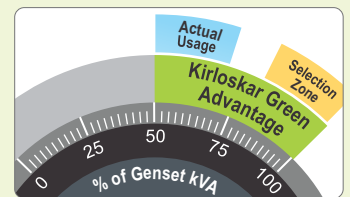
Genset ratings are selected based on present load and future expansion. Fuel efficiency of most Gensets is optimized at the full rating of Genset.

In practice, Gensets rarely get loaded to full capacity. Power demand variations across day & night, weekdays & weekends,

summer & winter lead to an average 50-70% loading on Gensets.

Considering this practical situation, KOEL has extended fuel efficiency optimization from 100%, right up to 50% of rated load.

Combination of best-in-class fuel efficiency & O2E provides double advantage- truly a **winning edge!**



### Edge



#### Genset Controls at your finger-tips

There is no comfort like being in command. Kirloskar Green Gensets put the command in your hands. Micro-processor based Genset controllers display a host of Genset parameters and put all controls at your fingertips.

#### Monitoring Features –

- Lube oil Pressure, Engine Temperature, RPM, lube oil Temperature\*
- Run Hours, No. of starts, Fuel Level, Auto / Manual Stop, Battery charge condition, AC Phase Voltage, Current, kVA, KW, KVAR, KWH, Power Factor

#### Optional Features-

- Modbus communication\*

\* Features are available from 15 kVA onwards

#### Diagnostic Features –

- Battery charging failure, Over speed, Under speed, Over Current, Under Voltage, Over Voltage, Over KW, Phase Sequence monitoring, Phase missing, Common Alarm, Hooter output
- Low lube oil Pressure, High Engine Temperature, Low/High battery voltage, Low Fuel Level alarm, Over Crank protection, Routine Maintenance indicator, Genset Test Facility, fail to start/stop

Being in control of your Genset is certainly a **winning edge!**



### Edge



#### Peace-of-mind Ownership

Kirloskar Green Gensets have always been preferred for their robust design and reliability over long usage life.

Kirloskar Green range carries the confidence of well-established and proven engine platforms. For compliance to revised CPCB

norms, KOEL has carefully selected those technologies which not only retain, but enhance Gensets durability and on-site serviceability.

Thus, KG Gensets offer you many years of trouble-free performance; backed by the assurance of prompt support. Peace-of-mind driven by product reliability and low cost of ownership – your **winning edge!**

<sup>^</sup>As per MOEF norms effective from 1<sup>st</sup> July 2014

# The Promise Behind The Product



## Kirloskar Green Brand

Kirloskar Green is the Genset brand of Kirloskar Oil Engines Ltd (KOEL), the flagship company of the century-old Kirloskar Group. Kirloskar Green is India's largest selling and most trusted Genset brand for over a decade. Providing back-up power solutions from 5 to 5200 kVA for diverse market sectors, "Kirloskar Green" has over 1 million Gensets in service across the globe.

## Research and Engineering

KG Gensets are designed and developed indigenously, using modern design & simulation technologies. KOEL's R&D team combines decades of application knowledge, global technology trends and emerging user expectations to develop best-in-class products for the target markets. The products are launched after extensive validation in world-class facilities.



## State-of-the-art Manufacturing

Kirloskar Green Gensets are manufactured at the state-of-the-art manufacturing facilities of KOEL and authorized GOEMs across India. Common design, modern infrastructure, trained manpower, stringent process controls and standardized material quality ensure that every Kirloskar Genset complies with the standards and meets KOEL's stringent quality norms.

## Sales Network

A well-trained network of authorized KG Dealers and GOEM Sales teams is spread across India to serve your requirements. KOEL offices at key locations provide further techno-commercial back-up. KG Sales teams are equipped to carry-out load study, Genset sizing and techno-commercial support. Installation and commissioning activities are also undertaken in line with KOEL's stringent guidelines.




## Service Network

As Genset cannot be driven to a Service Station, service has to come to your door-step. KG Gensets are supported by over 5000 trained Engineers and over 450 well-equipped service outlets throughout India. Standard and custom-made maintenance packages offer a total-peace-of-mind ownership experience. Service response time and quality is centrally monitored for cross-industry bench marking and continual improvement. Customers just need to dial our toll free number and service will be available at the door step.

## 7 Easy steps for a happy Genset Ownership

- Insist on load-study
- Select Genset rating as per load-study and with sufficient margin for future load expansion
- Apply site-selection guidelines carefully
- Insist on installation in line with KG guidelines
- Ensure adequate size and proper connection of cables
- Understand the Genset operation & maintenance procedures during commissioning
- Follow routine maintenance protocols through authorized KG service Dealers

 **1800 233 3344**  
**8806334433**  
[koel.helpdesk@kirloskar.com](mailto:koel.helpdesk@kirloskar.com)

Product improvement is a continuous process. Kindly contact KOEL for latest information

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**South:** ● Bengaluru: 080 - 2558 7562 ● Chennai: 044 - 23744624 ● Kochi: 0484 - 238 5757 ● Secunderabad: 040 - 2781 9563  
**East:** ● Bhubaneshwar: 0674 - 258 8047 ● Guwahati: 0361 - 245 7616 ● Kolkata: 033 - 217 0858 ● Patna: 0612 - 222 0412  
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Enriching Lives

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