

160 kVA - 250 kVA



Features

Low OPEX:	Best in class fuel efficiency with O2E technology
Robust and Reliable Product:	Lowest maintenance and trouble-free product with Kirloskar Liquid Cooled Engines
Start Type:	Controller Based Easy Push Start Type
Customer Service:	Quick and affordable door step service coverage (420+ service touch points and 6000+ KOEL trained service professionals on field)
Warranty:	2 years warranty & labour free onsite service under warranty period
KRM:	Critical genset parameters can be views on laptop or mobile

Description

India's #1 Genset brand

KOEL GREEN is the market leader and India's #1 Genset Brand. KOEL's customised power solutions suit a wide range of applications, meeting prime power requirements. KOEL GREEN Gensets are available in sound resistant and environment friendly canopies. KOEL GREEN high horse power (HHP) range is spearheaded by SL90 and DV series. Upgraded with carefully selected technologies to meet latest CPCB emission norms, both SL90 and DV series Gensets are the most efficient machines delivering clean power to large requirements. Having best-in-class fuel economy, the performance capabilities are further enhanced with best-in- class block loading.

KOEL Green HHP Gensets are extensively used in a variety of applications ranging from standard stand-alone Gensets to auto synchronized Gensets, special applications like Stone Crusher to Heat Exchanger cooled solutions for basement installations. KOEL Green is celebrating 30,000 HHP Genset sales, a testimony of superlative product performance in most demanding applications and customer's trust in the range.



Best-in-class Fuel Efficiency

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

O2E Series (Optimal Operating Efficiency):

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



Controls at your finger- tips

There is no comfort like being in command. KOEL 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, kWh, kVAr, 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



Peace-of-mind Ownership

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

KOEL 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, KOEL 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.



Assured Delivery

KOEL Gensets come with a promise of assured delivery of confirm order placement. Genset being a high value capital purchase may lead to needless block of capital and hence need not be purchased in advance. It is prudent to order the genset at the right time and plan the deliveries in line with your readiness to use. This will also avoid damages to genset due to lying unattended at site and engine re-validation cost.



160 - 250 kVA

Celebrating
30000
HHP GENSETS



EFFICIENCY HAS A NEW NAME

KOEL GREEN

**EFFICIENT
PRODUCTS**



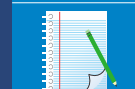
**EFFICIENT
SERVICE**



**EFFICIENT
DELIVERIES**



**EFFICIENT
SOLUTIONS**



**EFFICIENT
NETWORK**



**EFFICIENT
24X7 CARE**



- INDIA'S **#1** GENSET BRAND
- 15 - 5200 kVA



EFFICIENCY. INTEGRATED

160 - 250 kVA

Prime Rating at rated rpm (as per ISO8528) ¹		kVA	160	180	200	250
		kW	128	144	160	200
Genset Model			KG1-160WS	KG1-180WS	KG1-200WS	KG1-250WS
Frequency		Hz	50	50	50	50
Power factor		lagging	0.8	0.8	0.8	0.8
Voltage		V	415 3Ø	415 3Ø	415 3Ø	415 3Ø
Governing class (As per ISO 8528 Part-V)			G3	G3	G3	G3
Noise level		dBA	< 75	< 75	< 75	< 75
Fuel Consumption*	At 100 % Load	Ltrs/hr	36.6	41.3	45.9	56.9
	At 75 % Load		27.7	30.9	34.4	42.6
	At 50 % Load		19.1	22.7	25.2	29.9
Fuel tank capacity		Ltrs	300	460	460	460
Weight of genset with canopy (approx.) [^]	Dry	Kg	2730	3900	3900	4010
	Wet	Kg	3010	4300	4300	4320
Overall dimensions of genset [^]	Length	mm	4000	4300	4340	4340
	Width	mm	1500	1740	1740	1740
	Height	mm	1915	1970	1970	1975
Electrical Battery starting voltage		Volts-DC	12	24	24	24

ENGINE

Engine Model		6K1080TA G2	6SL1500TA G2	6SL1500TA G2	6SL1500TA G3
Rated output (Prime Continuous rating as per ISO 8528-1)	kW	147	183	183	228
	HP	200	248	248	310
No. of cylinder	Number	6	6	6	6
Cubic capacity ²	Ltrs	6.48	8.86	8.86	8.86
Bore x Stroke	mm	105 x 125	118 x 135	118 x 135	118 x 135
Rated Speed	RPM	1500	1500	1500	1500
Aspiration	NA/TC/TA	TA	TA	TA	TA
Lube Oil change period	hrs.	500	500	500	500
Lube Oil Sump Capacity	Ltrs	18	27	27	27
Coolant Capacity	Ltrs	28	32	29.2	31.8

ALTERNATOR

Insulation Class		Class H			
Ingression Protection		IP 23			
Alternator Efficiency (at 100% load) 0.8 pf**		93	93	93.5	93.6
Alternator Efficiency (at 75% load) 0.8 pf**		93.3	93.6	93.8	93.9
Permissible Voltage Dip at Full Load 0.8 pf Lag		≤ 20 %	≤ 20 %	≤ 20 %	≤ 19 %
Time Permitted to build up rated voltage at Rated RPM		< 1 sec provided engine reach the rated speed			
Short Circuit Ratio		0.518	0.53	0.545	0.45
Short Circuit Withstand Time	sec	3 times rated current for < 3 sec			
Overload Withstand Capacity	%	10% overload for one hour once in 12 hours & for 150% for 30 sec			

For intermediate ratings, kindly contact nearest KOEL office

Notes

[^] Tolerances Apply

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

[°] These weight are for handling & transportation only

** 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 ¹



'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 a standard offer. Contact KOEL for stand-by ratings.



Engine capacity does matter ²

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

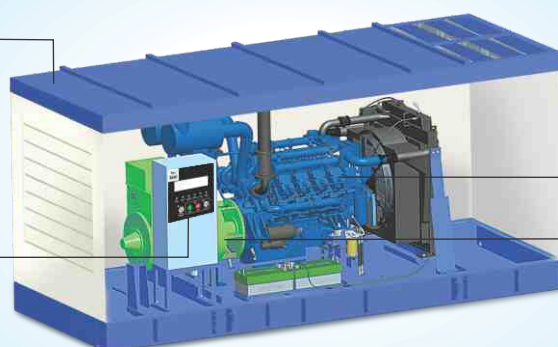
Higher engine capacity also enables the Genset to respond quickly & positively to sudden load additions.

Canopy

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

Controller

- Microprocessor based
- Graphical LCD display
- Best in class monitoring and diagnostic Capability
- Integrable with AMF, synchronization & communication configurations



Engine

- O2E Series: Low emission, high efficiency engines
- Compact, Robust and Rugged Design
- 500 hours lube-oil change period
- Integral set - mounted radiator system, designed & tested for 50°C ambient temperature

Alternator

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

KOEL's approach to meet revised CPCB norms

Revised CPCB norms are aimed at protecting the environment by reducing Genset emissions and improving emission quality. These are some 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, that have been running successfully for several years.
- Low running costs: An effort to reduce emissions tends to increase the running costs. KOEL has succeeded in achieving both in the same design, after persistent efforts.

- Optimized fuel efficiency as per actual usage: KOEL Green Gensets 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 ensures 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 the reach of a smart Genset buyer.

Integrated

Efficiency



Best-in-class Fuel Efficiency

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O2E Series (Optimal Operating Efficiency):

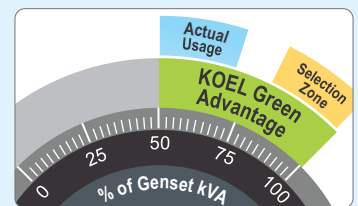
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Monitoring Features –

- Phase Voltages & Currents, Frequency, Reverse power, Genset kVA , KW, kWh, KVAR, Power Factor, Canopy Temperature
- Lube oil Pressure, Engine Temperature, RPM, Run Hours, Number of starts, Fuel Level, Auto / Manual Stop
- Battery charge condition
- AMF feature

Diagnostic Features –

- Battery charging failure, Over/Under speed, Over Current, Over/Under Voltage, Over kW, Phase Seq., Phase missing, Mains Under voltage, Earth Fault trip, Fuel usage Alarm
- Low lube oil Pressure, High Engine Temperature, Low/High battery voltage, Low Fuel Level, Over Crank protection, Routine Maintenance indicator, Genset Test Facility, Mains Frequency

Optional Features-

- Modbus communication, Synchronization, Remote Monitoring

KG545 Controller



Integrated

Efficiency



Peace-of-mind Ownership

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The Promise Behind The Product



KOEL Green Brand

KOEL Green is the Genset brand of Kirloskar Oil Engines Ltd (KOEL), the flagship company of the century-old Kirloskar Group. KOEL Green is India's largest selling and most trusted Genset brand for over a decade. Providing back-up power solutions from 2.1 to 5200 kVA for diverse market sectors, "KOEL Green" has over 1 million Gensets in service across the globe.

Research and Engineering

KOEL 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

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

● Ahmedabad: 079 - 2692 9687/89 ● Bengaluru: 080 - 490 31130 ● Bhubaneshwar: 0674 - 258 8047 ● Chennai: 044 - 237 44624 ● Delhi: 011 - 2871 5826
 ● Guwahati: 0361 - 245 7616 ● Indore: 0731 - 3913100 ● Jaipur: 0141 - 2370007 ● Kochi: 0484 - 238 5757 ● Kolkata: 033 - 217 0858 ● Lucknow: 0522 - 274 1442
 ● Ludhiana: 0161 - 254 6668/69 ● Meerut: 0121 - 240 1199 ● Mumbai: 022 - 6151 1234 ● Patna: 0612 - 222 0412 ● Pune: 020 - 2581 0341
 ● Secunderabad: 040 - 275 34176/97

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Stamp of
Authorised
Representative