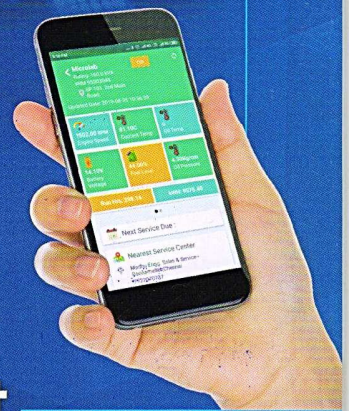


# KOEL iGREEN

15 - 160 kVA



India's first IOT enabled Genset

Complete Power Back-up Solution

#iForTomorrow



# #i for Tomorrow



## KOEL iGreen Power Back-Up Solution

KOEL iGreen presents India's only digital power back-up solution, designed for the users of tomorrow. KOEL iGreen promises world class performance with world class features such as robust design, digital connectivity, ultimate convenience of use, smart user interface, superior looks and one-stop solution for its esteemed customers.

### Ultimate Convenience with AMF

KOEL iGreen gensets comes with an Auto Main Failure panel which are specifically designed to deliver ultimate convenience to user. With mains power failure, this panel automatically starts the genset and once the mains power is restored this panel switch off the genset, providing hassle free experience with running cost optimization. This ensures uninterrupted power supply all the time.

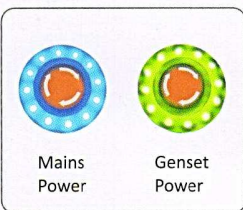
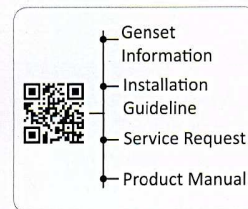


### Genset Control at Your Finger Tips

KOEL iGreen gensets are enabled with KOEL remote monitoring system which shares Real Time Genset Information and location Services. It can be accessed via mobile device or desktop. KOEL remote monitoring system also highlights any parameter which needs special attention. These critical indication alerts are sent to user mobile via text message. It also alerts nearest service dealer in case of any emergency break-down.

### QR Code Enabled Genset

KOEL iGreen gensets are first in the industry to introduce QR code enabled Genset. It provides genset relevant information to user on a single scan. This QR code can also be used for accessing product catalogue or raising product service requests. So now all the information of your genset is a scan away.



### Status Indicator

KOEL iGreen gensets comes with a genset status indicator which will help user understand the genset running status from a distance with just a glance. The genset status indicator is multicolour with each colour indicating a separate status of your genset. Green light indicates load is on Genset and Blue light indicates that load is on mains power.

### Aesthetically Enhanced Genset

KOEL iGreen gensets are aesthetically enhanced range of gensets with improved product life. It comes with a bolt-less designed canopy which along with seamless appearance minimises the canopy deterioration. Placing the silencer inside the canopy ensure saving on space and make it more aesthetic. The new attractive colour scheme makes KOEL iGreen gensets more vibrant and green decals reminds of KOEL commitment to efficiency in conservation & going green in everything we do.



### Single Point Of Ownership

KOEL iGreen provides a single point ownership of your complete power back-up ecosystem. These systems are designed to work in coherence with each other and hence are capable of providing a seamless experience to customers. With India's largest service network KOEL iGreen provides a comprehensive warranty for all components of your power back-up ecosystem.

### Refuel and Relax, We will take care of your Genset

In addition to warranty, customers can choose a Comprehensive maintenance contract, ANUBANDH, in which KOEL promises to maintain your genset for 5years (or 6000hrs whichever is earlier). This specially designed package provides you hasslefree 24X7 services through well trained professionals, genuine spares and consumables directly through an agreement with KOEL. All you need to do is Refuel and Relax.





# 15 - 160 kVA\*

Prime Rating at rated rpm (as per ISO 8528) <sup>1</sup>		kVA	15	20	25	30
		kW	12	16	20	24
Genset Model			KG1-15ASE1	KG1-20WSE1	KG1-25WSE	KG1-30WSE
Frequency		Hz	50	50	50	50
Power factor		lagging	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
Noise level		dB(A)	<75	<75	<75	<75
Fuel Consumption #	At 100% Load	Ltrs/Hr	4	5.1	5.8	7.6
	At 75% Load		3	3.8	4.4	5.8
	At 50% Load		2.2	2.7	3.2	4.4
Fuel tank capacity		Ltrs	45	65	65	65
Weight of genset with canopy (approx.) <sup>o</sup>	Dry	Kg	810	880	1040	1040
	Wet	Kg	860	930	1090	1090
Overall dimensions of genset <sup>^</sup>	Length	mm	1740	2205	2500	2500
	Width	mm	1050	950	950	950
	Height	mm	1474	1294	1294	1294
Electrical Battery starting voltage		Volts-DC	12	12	12	12
<b>ENGINE</b>						
Engine Model			HA294 G1	2R1040 G1	3R1040T G1	3R1040T G1
Rated output (Prime Continuous rating as per ISO 8528-1)	kW		15.1	18.8	24	30.9
	HP		20.5	25.5	42	42
No. of cylinder		Number	2	2	3	3
Cubic capacity <sup>2</sup>		Ltrs	1.88	2.08	3.12	3.12
Bore x Stroke		mm	100 x 120	105 x 120	105 x 120	105 x 120
Rated Speed		RPM	1500	1500	1500	1500
Aspiration		NA/TC/TA	NA	NA	TC	TC
Lube Oil change period		hrs.	500	500	500	500
Lube oil Sump Capacity		Ltrs	5	5.5	8	8
Coolant Capacity		Ltrs	NA	9	14.5	14.5
<b>ALTERNATOR</b>						
Insulation Class			Class H	Class H	Class H	Class H
Alternator Efficiency (at 100% load) 0.8 pf**		%	85.2	88.6	89	87.9
Max Voltage Dip at Full Load 0.8 pf Lag		sec	≤ 20 %	≤ 16 %	≤ 16 %	≤ 16 %
Max Time to build up rated voltage at Rated RPM			< 5 sec provided engine reach the rated speed			

## Notes

<sup>^</sup> Tolerances Apply, <sup>#</sup> With 0.845 Specific Gravity of diesel ( 5 % Tolerance )

<sup>o</sup> These weight are for handling & transportation only

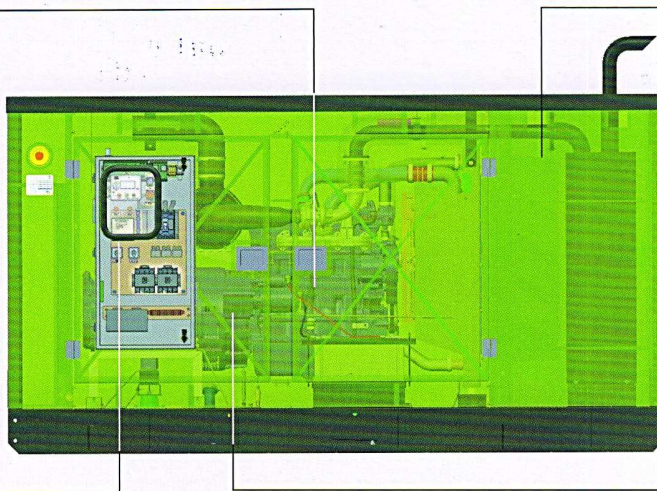
\* Silencer inside canopy and bolt-less canopy is available only up-to 62.5kVA

\*\* 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.

## Engine

- Industries most reliable engines, proven over decades
- Low emission, high efficiency engines
- Compact, robust and rugged design
- +500 hours lube-oil change period



## Canopy

- Silencer inside canopy\*
- Aesthetically designed bolt-less canopy for enhanced product life
- Weather and sound resistant enclosure
- Ease of access and serviceability
- Insulation conforms to UL94-HF1 class for flammability

## Controller

- Microprocessor based with graphical LCD display
- Best in class monitoring and diagnostic capability
- Communication configuration enabled

## Alternator

- Best in class efficiency
- Minimum harmonics interference
- Vacuum pressure impregnation
- Epoxy gel coating on the winding



40	45	62.5	82.5	100	125	160
32	36	50	66	80	100	128
KG1-40WSE	KG1-45WSE	KG1-62.5WSE	KG1-82.5WS	KG1-100WS	KG1-125WS	KG1-160WS
50	50	50	50	50	50	50
0.8	0.8	0.8	0.8	0.8	0.8	0.8
415 3Ø						
G2	G2	G2	G2	G3	G3	G3
<75	<75	<75	<75	<75	<75	<75
9.2	10.3	14.1	18.8	21.9	27.4	36.6
7.4	8.7	11.3	13.8	16.9	20.2	27.7
5.5	5.9	7.5	10.3	12.2	15.3	19.1
100	100	150	150	230	230	300
1180	1180	1470	1710	2040	2090	2730
1215	1215	1600	1840	2240	2290	3110
2750	2750	2900	3200	3200	3200	4000
1050	1050	1100	1100	1300	1300	1500
1493	1493	1581	1595	1795	1795	1915
12	12	12	12	12	12	12
3R1040TA G1	3R1040TA G1	4R810TA G1	4R1040TA G1	4K1080TA G2	4K1080TA G2	6K1080TA G2
41.2	41.2	61	74.8	114.7	114.7	147
56	56	83	102	156	156	200
3	3	4	4	4	4	6
3.12	3.12	3.24	4.16	4.32	4.32	6.48
105 x 120	105 x 120	96 x 112	105 x 120	105 x 125	105 x 125	105 x 125
1500	1500	1500	1500	1500	1500	1500
TA	TA	TA	TA	TA	TA	TA
500	500	500	500	500	500	500
8	8	10	10	14	14	18
11.5	11.5	17.5	24	21	21	28
Class H	Class H	Class H	Class H	Class H	Class H	Class H
88.4	88.2	91	89.9	92	92.4	92.8
< 16 %	< 16 %	< 20 %	≤ 20 %	≤ 20 %	≤ 20 %	≤ 20 %
Voltage recovery time 6 sec					< 1 sec provided engine reach the rated speed	



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



### Best-in-class Fuel Efficiency

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

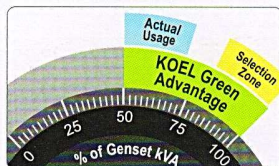
### O2E Series (Optimal Operating Efficiency):

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 efficiency & O2E provides a double advantage.



### 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 the Genset to respond quickly & positively to sudden load additions.



### State of the art Genset Controller

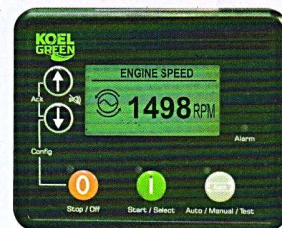
KOEL iGreen Gensets put the command in your hands. Micro-processor based Genset controllers display a host of Genset parameters and put all controls at your fingertips.

**Monitoring Features:** Phase Voltage, Phase Current, kVA, kW, kWh, kVAr, Power Factor, Lube Oil Pressure, Engine Temp, RPM, Run Hours, Battery condition etc.

**Diagnostic Features:** Battery charging failure, Over speed and Under speed, Over Current, Over voltage and Under Voltage, Over kilo Watt, Phase Seq., Phase missing, Earth Fault trip.

Low lube oil Pressure, High Engine Temperature, Low and High battery voltage, Low Fuel Level, Over Crank protection, Routine Maintenance indicator, Genset Test Facility, Mains Frequency.

**Optional Features:** Modbus communication, Synchronization, Canopy Temperature



Controller



# KOEL **i**GREEN

ASSURES A SAFE AND RELIABLE POWER BACKUP ECOSYSTEM



## #**i**forTomorrow

### What KOEL iGreen brings to you

**Unmatched Convenience**

AMF as standard offering

**Ease Of Information**

QR code enable genset

**Genset At Your Fingertips**

Remote monitoring as standard

**Superior Looks**

New attractive colour scheme

**Improved Product Life**

Bolt-less designed canopy

**Single Point Of Ownership**

Comprehensive warranty from KOEL

**Remote Status Indicator**

Multicolour genset status indicator

**Space Saver**

Silencer inside canopy with compact design



# EFFICIENCY. INTEGRATED

## A KOEL PROMISE

### Efficient Products

- India's first IoT enabled digital genset
- Designed for convenient user experience
- Best-in-class fuel efficiency delivered
- Compact design & long life product
- Optimized consumption of lubricant oil
- Optimized total cost of ownership (TCO)
- All products tested before delivery



### Efficient Solutions

- Load sizing for every single genset order
- One stop power back-up solutions
- Serves complete application gamut
- Highly trained & experienced team
- Non-conventional solutions (bio-diesel)
- Specific solution for harsh environments
- Exhaust mgmt., foundation, cabling etc.

### Efficient Service

- India's widest service dealer network
- KOEL connect-self-service application
- eFSR-Electronic field service report
- Over 6000 trained service engineers
- Over 600,000 machines under care
- 98%+ parts available at each outlet
- Flexible & economical AMC-Bandhan



### Efficient Network

- Consistent, reliable & long-established
- 250+ expert touch points across India
- 500+ solution oriented professionals
- Uniform customer experience across
- Central system for enquiry to PRF
- Fair trade practices & Price transparency

### Efficient Deliveries

- Cost-effective deliveries guaranteed
- Assured 7-day delivery of gensets
- Supports project management system
- Reduced working capital for customer
- Award-winning replenishment model
- Assurance of FRESH products always



### Efficient 24X7 Care

- 24 X 7 operational customer care centre
- Team of over 70 trained & focused exec.
- Tracking every service request till closure
- Centrally maintained CRM for all requests
- Satisfaction call after every SR closure
- Central sales lead tracking system
- Continuous NPS and CDI measurement

**CPCB II  
COMPLIANT**

## KIRLOSKAR OIL ENGINES LIMITED

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