

**KOEL**  
**iGREEN**



**Best Genset of India  
with 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 promise world class performance, robust design, digitally connected, ultimate convenient, 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.

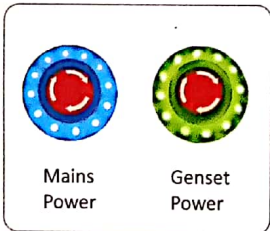
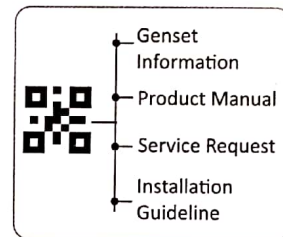


### Genset control at your finger tips

KOEL iGreen gensets are enabled with KOEL remote monitoring system, KOEL remote monitoring enables users to remotely monitor the important parameters of the genset, in case of any critical parameter alert is generated by ECU, KOEL remote monitoring system alerts the user immediately. KOEL remote monitoring system can be accessed via mobile device or desktop and this innovative system also alerts nearest service dealer in case of any emergency break-down.

### QR code enabled genset

KOEL iGreen gensets are QR code enabled and 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.



### Status Indicator

KOEL iGreen gensets comes with a multicolour genset status indicator which will help user understand the genset running status from a distance with just a glance.

### Aesthetically enhanced genset

KOEL iGreen gensets are aesthetically enhanced range of gensets with improved product life. First of its kind KOEL iGreen gensets comes with a bolt-less designed canopy which along with seamless appearance minimises the canopy deterioration. Building on seamless appearance KOEL iGreen gensets comes with silencer inside the canopy which in turn provides reduced height and symmetrical shape to genset. New attractive colour scheme makes KOEL iGreen gensets more vibrant and green decal reminds 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 customer. With India's largest service network KOEL iGreen provides a comprehensive warranty for all components of your power back-up ecosystem.

# 5 - 160 kVA

Prime Rating at rated rpm (as per ISO 8528)	kVA	5	7.5	10	12.5	15	20	
	kW	4	6	8	10	12	16	
Genset Model		KG1-5AS3	KG1-7.5AS4	KG1-10AS5	KG1-12.5AS2	KG1-15AS	KG1-20WS	
Frequency	Hz	50	50	50	50	50	50	
Power factor	lagging	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	
Noise level	dBA	<75	<75	<75	<75	<75	<75	
Fuel Consumption*	At 100% Load	1.6	2.21	3	3.45	4	5.1	
	At 75% Load	1.3	1.62	2.4	2.65	3	3.8	
	At 50% Load	1	1.21	1.8	1.94	2.2	2.7	
Fuel tank capacity	Ltrs	50	50	50	50	65	65	
Weight of genset with canopy (approx.) <sup>o</sup>	Dry	Kg	670	680	750	840	880	900
	Wet	Kg	720	730	800	890	930	950
Overall dimensions of genset <sup>^</sup>	Length	mm	1417	1767	1767	1767	1740	2205
	Width	mm	820	820	820	820	1050	950
	Height	mm	1321	1328	1328	1321	1474	1294
Electrical Battery starting voltage	Volts-DC	12	12	12	12	12	12	

ENGINE							
Engine Model		EA10 G1	EA10G1	EA16G1	EA16G1	HA294 G1	2R1040 G1
Rated output (Prime Continuous rating as per ISO 8528-1)	kW	7.3	7.3	11.8	11.8	15.1	18.8
	HP	10	10	16	16	20.5	25.5
No. of cylinder	Number	1	1	2	2	2	2
Cubic capacity	Ltrs	0.95	0.95	1.56	1.56	1.88	2.08
Bore x Stroke	mm	102X116	102X116	95x110	95x110	100 x 120	105 x 120
Rated Speed	RPM	1500	1500	1500	1500	1500	1500
Aspiration	NA/TC/TA	NA	NA	NA	NA	NA	NA
Lube Oil change period	hrs.	500 hrs				500	500
Lube oil Sump Capacity	Ltrs	3.5	3.5	6.5	6.5	5	5.5
Coolant Capacity	Ltrs	NA	NA	NA	NA	NA	9

ALTERNATOR							
Insulation Class		Class H	Class H	Class H	Class H	Class H	Class H
Alternator Efficiency (at 100% load) 0.8 pf**	%	78.1	82.5	82.6	84.9	86	88.9
Max Voltage Dip at Full Load 0.8 pf Lag	sec	<20%	<20%	<20%	<20%	≤ 20 %	≤ 16 %
Max Time to build up rated voltage at Rated RPM		< 5 sec provided engine reach the rated speed					

Notes  
<sup>^</sup> Tolerances Apply, \*With 0.845 Specific Gravity of diesel ( 5 % Tolerance )  
<sup>o</sup> 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.

## 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 confirms 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

25	30	40	45	62.5	82.5	100	125	160
20	24	32	36	50	66	80	100	128
KG1-25WS	KG1-30WS	KG1-40WS	KG1-45WS	KG1-62.5WS	KG1-82.5WS	KG1-100WS	KG1-125WS	KG1-160WS
50	50	50	50	50	50	50	50	50
0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
					415 3Ø			
G2	G2	G2	G2	G2	G2	G3	G3	G3
<75	<75	<75	<75	<75	<75	<75	<75	<75
5.8	7.6	9.2	10.3	14.1	18.8	21.9	27.4	36.6
4.4	5.8	7.4	8.7	11.3	13.8	16.9	20.2	27.7
2.9	4.4	5.5	5.9	7.5	9.9	12.2	15.3	19.1
65	65	100	100	150	150	230	230	300
1135	1135	1215	1215	1420	1710	2040	2090	2730
1185	1185	1300	1300	1550	1840	2240	2290	3110
2500	2500	2750	2750	2900	3200	3200	3200	4000
950	950	1050	1050	1100	1100	1300	1300	1500
1294	1294	1493	1493	1581	1595	1795	1795	1915
12	12	12	12	12	12	12	12	12

3R1040T G1	3R1040T G1	3R1040TA G1	3R1040TA G1	4R810TA G1	4K1080TA G2	4K1080TA G2	6K1080TA G2
24	30.9	41.2	41.2	61	74.8	114.7	147
42	42	56	56	83	102	156	200
3	3	3	3	4	4	4	6
3.12	3.12	3.12	3.12	3.24	4.16	4.32	6.48
105 x 120	105 x 120	105 x 120	105 x 120	96 x 112	105 x 120	105 x 125	105 x 125
1500	1500	1500	1500	1500	1500	1500	1500
TC	TC	TA	TA	TA	TA	TA	TA
500	500	500	500	500	500	500	500
8	8	8	8	10	10	14	18
14.5	14.5	11.5	11.5	17.5	24	21	28

Class H	Class H	Class H	Class H	Class H	Class H	Class H	Class H	Class H
89	89	89.2	89.2	91	91.4	92	92.5	93
≤ 16 %	≤ 16 %	< 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.



### 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.



### 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.

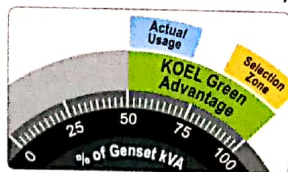
### O2E Series (Optimal Operating Efficiency):

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.



### 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.

### 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 *i*Green 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

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