



Best Genset of India with Complete Power Back-up Solution



# #iforTomorrow



## **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 is 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) <sup>1</sup> | kVA      |   | 7.5        | 10        | 12.5        | 15               | 20               | 25               | 30               | 40          | 45          | 62.5        | 82.5             | 100                         | 125              | 160              |
|--|----------|---|------------|-----------|-------------|------------------|------------------|------------------|------------------|-------------|-------------|-------------|------------------|-----------------------------|------------------|------------------|
|  | kW       | 4   | 6          | 8         | 10          | 12               | 16               | 20               | 24               | 32          | 36          | 50          | 66               | 80                          | 100              | 128              |
| Genset Model   |          | KG1-5AS3                                      | KG1-7.5AS4 | KG1-10AS5 | KG1-12.5AS2 | KG1-15AS         | KG1-20WS         | KG1-25WS         | KG1-30WS         | KG1- 40WS   | KG1 - 45WS  | KG1- 62.5WS | KG1- 82.5WS      | KG1-100WS                   | KG1-125WS        | KG1-160WS        |
| Frequency  | Hz       | 50  | 50         | 50        | 50          | 50               | 50               | 50               | 50               | 50          | 50          | 50          | 50               | 50                          | 50               | 50               |
| Power factor   | lagging  | 0.8   | 0.8        | 0.8       | 0.8         | 0.8              | 0.8              | 0.8              | 0.8              | 0.8         | 0.8         | 0.8         | 0.8              | 0.8                         | 0.8              | 0.8              |
| Voltage  | V        | 230 (1Ø ) & 415 (3Ø)                          |            |           |             |                  |                  |                  |                  | 415 3Ø      |             |             |                  |                             |                  |                  |
| Governing class (As per ISO 8528 Part-V)                 |          | G2  | G2         | G2        | G2          | G2               | G2               | G2               | G2               | G2          | G2          | G2          | G2               | G3                          | G3               | G3               |
| Noise level  | dBA      | <75   | <75        | <75       | <75         | <75              | <75              | <75              | <75              | <75         | <75         | <75         | < 75             | < 75                        | < 75             | < 75             |
| At 100% Load   | Ltrs/Hr  | 1.6   | 2.21       | 3         | 3.45        | 4                | 5.1              | 5.8              | 7.6              | 9.2         | 10.3        | 14.1        | 18.8             | 21.9                        | 27.4             | 36.6             |
| Fuel Consumption* At 75% Load                            |          | 1.3   | 1.62       | 2.4       | 2.65        | 3                | 3.8              | 4.4              | 5.8              | 7.4         | 8.7         | 11.3        | 13.8             | 16.9                        | 20.2             | 27.7             |
| At 50% Load  |          | 1   | 1.21       | 1.8       | 1.94        | 2.2              | 2.7              | 2.9              | 4.4              | 5.5         | 5.9         | 7.5         | 9.9              | 12.2                        | 15.3             | 19.1             |
| Fuel tank capacity                                       | Ltrs     | 50  | 50         | 50        | 50          | 45               | 65               | 65               | 65               | 100         | 100         | 150         | 150              | 230                         | 230              | 300              |
| Weight of genset with Dry                                | Kg       | 640   | 650        | 710       | 800         | 810              | 880              | 1040             | 1040             | 1180        | 1180        | 1470        | 1710             | 2040                        | 2090             | 2730             |
| canopy (approx) <sup>o</sup> Wet                         | Kg       | 890   | 700        | 760       | 850         | 860              | 930              | 1090             | 1090             | 1215        | 1215        | 1600        | 1840             | 2240                        | 2290             | 3110             |
| Length   | mm       | 1417  | 1417       | 1767      | 1767        | 1740             | 2205             | 2500             | 2500             | 2750        | 2750        | 2900        | 3200             | 3200                        | 3200             | 4000             |
| Overall dimensions of<br>genset <sup>A</sup> Width       | mm       | 820   | 820        | 820       | 820         | 1050             | 950              | 950              | 950              | 1050        | 1050        | 1100        | 1100             | 1300                        | 1300             | 1500             |
| Height   | mm       | 1321  | 1321       | 1328      | 1321        | 1474             | 1294             | 1294             | 1294             | 1493        | 1493        | 1581        | 1595             | 1795                        | 1795             | 1915             |
| Electrical Battery starting voltage                      | Volts-DC | 12  | 12         | 12        | 12          | 12               | 12               | 12               | 12               | 12          | 12          | 12          | 12               | 12                          | 12               | 12               |
| ENGINE   |          |   |            |           |             |                  |                  |                  |                  |             |             |             |                  |                             |                  |                  |
| Engine Model   |          | EA10 G1                                       | EA10G1     | EA16G1    | EA16G1      | HA294 G1         | 2R1040 G1        | 3R1040T G1       | 3R1040T G1       | 3R1040TA G1 | 3R1040TA G1 | 4R810TA G1  | 4R1040TA G1      | 4K1080TA G2                 | 4K1080TA G2      | 6K1080TA G2      |
| Rated output (Prime Continuous rating as per ISO 8528-1) | kW       | 7.3   | 7.3        | 11.8      | 11.8        | 15.1             | 18.8             | 24               | 30.9             | 41.2        | 41.2        | 61          | 74.8             | 114.7                       | 114.7            | 147              |
|  | HP       | 10  | 10         | 16        | 16          | 20.5             | 25.5             | 42               | 42               | 56          | 56          | 83          | 102              | 156                         | 156              | 200              |
| No. of cylinder  | Number   | 1   | 1          | 2         | 2           | 2                | 2                | 3                | 3                | 3           | 3           | 4           | 4                | 4                           | 4                | 6                |
| Cubic capacity <sup>2</sup>                              | Ltrs     | 0.95  | 0.95       | 1.56      | 1.56        | 1.88             | 2.08             | 3.12             | 3.12             | 3.12        | 3.12        | 3.24        | 4.16             | 4.32                        | 4.32             | 6.48             |
| Bore x Stroke  | mm       | 102X116                                       | 102X116    | 95x110    | 95x110      | 100 x 120        | 105 x 120        | 105 x 120        | 105 x 120        | 105 x 120   | 105 x 120   | 96 x 112    | 105 x 120        | 105 x 125                   | 105 x 125        | 105 x 125        |
| Rated Speed  | RPM      | 1500  | 1500       | 1500      | 1500        | 1500             | 1500             | 1500             | 1500             | 1500        | 1500        | 1500        | 1500             | 1500                        | 1500             | 1500             |
| Aspiration   | NA/TC/TA | NA  | NA         | NA        | NA          | NA               | NA               | TC               | TC               | TA          | TA          | TA          | TA               | TA                          | TA               | TA               |
| Lube Oil change period                                   | hrs.     | 500   | 500        | 500       | 500         | 500              | 500              | 500              | 500              | 500         | 500         | 500         | 500              | 500                         | 500              | 500              |
| Lube oil Sump Capacity                                   | Ltrs     | 3.5   | 3.5        | 6.5       | 6.5         | 5                | 5.5              | 8                | 8                | 8           | 8           | 10          | 10               | 14                          | 14               | 18               |
| Coolant Capacity   | Ltrs     | NA  | NA         | NA        | NA          | NA               | 9                | 14.5             | 14.5             | 11.5        | 11.5        | 17.5        | 24               | 21                          | 21               | 28               |
| ALTERNATOR   |          |   |            |           |             |                  |                  |                  |                  |             |             |             |                  |                             |                  |                  |
| Insulation Class   |          | Class H                                       | Class H    | Class H   | Class H     | Class H          | Class H          | Class H          | Class H          | Class H     | 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        | 85.2             | 88.6             | 89               | 87.9             | 88.4        | 88.2        | 91          | 89.9             | 92                          | 92.4             | 92.8             |
| Max Voltage Dip at Full Load 0.8 pf Lag                  | sec      | <20%  | <20%       | <20%      | <20%        | <u>&lt;</u> 20 % | <u>&lt;</u> 16 % | <u>&lt;</u> 16 % | <u>&lt;</u> 16 % | < 16 %      | < 16 %      | < 20 %      | <u>&lt;</u> 20 % | <u>&lt;</u> 20 %            | <u>&lt;</u> 20 % | <u>&lt;</u> 20 % |
| Max Time to build up rated voltage at Rated RPM          |          | < 5 sec provided engine reach the rated speed |            |           |             |                  |                  |                  |                  |             |             |             |                  | Voltage recovery time 6 sec |                  |                  |

#### Notes

^ Tolerances Apply, \*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

## Controller -

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

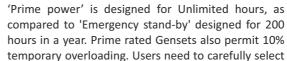
## Canopy

- 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

## Alternator

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

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



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**









savings in fuel cost.

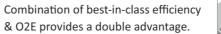
## O2E Series (Optimal Operating Efficiency):

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.





## 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



AMF as standard offering

Improved Product Life

Bolt-less designed canopy Remote monitoring as standard

QR code

enable genset

**Single Point Of** 

**Ownership** 

Comprehensive

warranty from KOEL

New attractive colour scheme

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 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 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**

**EFFICIENT** 

PRODUCTS





# SOLUTIONS

**EFFICIENT** 

## **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** NETWORK

#### 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 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

Ahmedabad: 9370900278 • Bengaluru: 9370900572 • Bhubaneshwar: 9370900374 • Chennai: 9370900474 • Delhi: 9370900178

- Guwahati: 9370900372 Indore: 9370900276 Jaipur: 9370900170 Kochi: 9370900574 Kolkata: 9370900375 Lucknow: 9370900290 Ludhiana: 9370900176 Meerut: 9370900178 Mumbai: 9370900275 Patna: 9370900370 Pune: 9370900273 Secunderabad: 9370900575

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KOEL

# **EFFICIENT** 24X7 CARE