





5 kVA - 160 kVA

#### Koel iGreen Offerings

- AMF as standard
- KOEL remote Monitoring
- Silencer inside canopy
- Aesthetically enhanced genset
- QR Code enabled genset
- Multi-colour Status indicator

#### **Features**

**Low OPEX:** Best in class fuel efficiency with O2E technology

Robust and Reliable Product: Lowest maintenance and trouble free product

with Kirloskar Engines

Option of Air Cooled and Water

**Cooled Engines** 

Compliance: Latest Government Emission Norms CPCB II

**Start Type:** Controller Based Easy Push Start Type

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

# **Description**

### India's #1 Genset 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 15 to 5200 kVA for diverse market sectors, "KOEL Green" has over 1 million Gensets in service across the globe.



# 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. Also, KOEL is the only manufacturer which provides you with the benefits of choice in terms of Air cooled and Water Cooled gensets.



# 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.



# Genset Controls at your finger-tips

There is no comfort like being in command. KOEL Green Gensets put the command in your hands. Microprocessor 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, BaMery 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**

- Ballery 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.



## 7-Days assured Delivery

KOEL Chhota Chilli Gensets comes with a promise of assured delivery within 7 days 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.



# Complete Solution with AMFi Panels

KOEL AMFi panels automatically switch on your genset when the mains supply fails and switch off the genset when the mains supply restores giving you un-matched convenience.

# Elementary Points to Ponder during selection of a Genset:



#### 1. 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.



#### 2. 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.

# 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 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





**Best Genset of India**with Complete Power Back-up Solution

#1forTomorrow

# #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) 1            |              | 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             |
| Fuel Consumption*  | 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             |
|  | 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)  | Wet          | Kg       | 890   | 700                  | 760       | 850         | 860              | 930              | 1090             | 1090          | 1215        | 1215        | 1600        | 1840             | 2240                        | 2290             | 3110             |
| Overall dimensions of genset <sup>A</sup>                | Length       | mm       | 1417  | 1417                 | 1767      | 1767        | 1740             | 2205             | 2500             | 2500          | 2750        | 2750        | 2900        | 3200             | 3200                        | 3200             | 4000             |
|  | 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>≤</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 )
- 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 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

# 2 42

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the Genset rating to meet their requirement. KOEL offers Prime power as a standard offer. Contact KOEL for stand-by ratings.

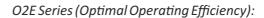


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Across the range, KOEL iGreen Gensets offer substantial

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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

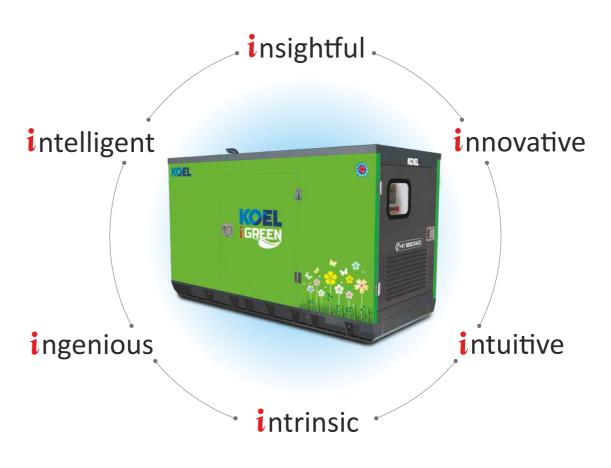


Controller



# KOELiGREEN

# ASSURES A SAFE AND RELIABLE POWER BACKUP ECOSYSTEM



# #iforTomorrow

# 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 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 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**

**PRODUCTS** 



#### **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 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 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

#### KIRLOSKAR OIL ENGINES LIMITED

Laxmanrao Kirloskar Road, Khadki, Pune 411 003 INDIA. www.koeligreen.com

