

**kirloskar**  
powergen

7.5-20 kVA  
**CPCBIV+  
COMPLIANT**



**BETTER POWER  
FOR A**

*limitless*

**T O M O R R O W**

An aerial photograph showing a dense green forest on the left and a dark blue river on the right, separated by a narrow path. The text is overlaid on this image.

BETTER POWER  
FOR A

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T O M O R R O W



## A RICH HERITAGE OF OVER A CENTURY OF ENGINEERING EXCELLENCE.

Kirloskar power generating sets prioritize user experience, delivering exceptional features and benefits. Streamlined installation and enhanced dependability to expedited service, reduced maintenance costs, and optimized performance.

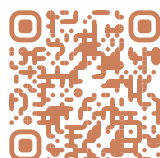
Kirloskar Powergen sets itself apart with groundbreaking engineering that establishes new industry benchmarks.

*limitless* **POTENTIAL, SUSTAINABLE PRACTICES**

Our state-of-the-art manufacturing facility embodies our commitment to sustainable practices. We partner with nature to power the facility itself, transforming waste into valuable resources. This focus on sustainability inspires both our workforce and surrounding communities.

It's here, where cutting-edge technology meets exceptional skills,  
that we engineer solutions to empower limitless possibilities.

Discover our Plant with a  
QR Code Scan.



## 7.5-20 kVA TECHNICAL SPECIFICATIONS

|                                            |                |          |                          |           |           |           |
|--------------------------------------------|----------------|----------|--------------------------|-----------|-----------|-----------|
| Prime Rating at rated rpm (as per ISO8528) |                | kVA      | 7.5                      | 10        | 15        | 20        |
|                                            |                | kW       | 6                        | 8         | 12        | 16        |
| Genset Model                               |                |          | KG4-7.5WS1               | KG4-10WS1 | KG4-15WS1 | KG4-20WS1 |
| Frequency                                  |                | Hz       | 50                       |           |           |           |
| Power Factor                               |                | lagging  | 0.8                      |           |           |           |
| Voltage                                    |                | V        | 230 (1Ø) & 415 (3Ø)      |           |           |           |
| Governing class (As per ISO 8528 Part-V)   |                |          | G2                       |           |           |           |
| DG set Noise level at 1 meter              |                | dBA      | <75 (Genset with canopy) |           |           |           |
| Fuel tank capacity (Standard DG set)       |                | Ltrs     | 28                       | 32        | 32        | 40        |
| ⚙️Weight of genset with canopy (approx..)^ | Dry            | Kg       | 545                      | 585       | 605       | 680       |
|                                            | Wet (w/o fuel) | Kg       | 550                      | 590       | 610       | 690       |
| Overall dimensions of genset ^             | Length         | mm       | 1600                     | 1800      | 1850      | 2180      |
|                                            | Width          | mm       | 760                      | 760       | 760       | 905       |
|                                            | Height         | mm       | 1050                     | 1050      | 1050      | 1150      |
| Electrical Battery Starting Voltage        |                | Volts-DC | 12                       |           |           |           |

### ENGINE

|                                                          |          |             |             |             |             |
|----------------------------------------------------------|----------|-------------|-------------|-------------|-------------|
| Engine Model                                             |          | 2R550NA 4G1 | 3R550NA 4G1 | 3R550TC 4G1 | 3R550TA 4G1 |
| Rated output (Prime Continuous rating as per ISO 8528-1) | kW       | 7.9         | 11          | 15.4        | 18.8        |
|                                                          | HP       | 10.74       | 15          | 20.9        | 25.5        |
| Cooling system                                           |          | Liquid      |             |             |             |
| No. of cylinder                                          | Number   | 2           | 3           | 3           | 3           |
| Cubic capacity <sup>2</sup>                              | Ltrs     | 1.09        | 1.65        | 1.65        | 1.65        |
| Bore x Stroke                                            | mm       | 86 x 94     | 86 x 94     | 86 x 94     | 86 x 94     |
| Rated Speed                                              | RPM      | 1500        |             |             |             |
| Aspiration                                               | NA/TC/TA | NA          | NA          | TC          | TA          |
| Lube Oil change period                                   | hrs.     | 500         |             |             |             |
| Lube oil Sump Capacity (max)                             | Ltrs     | 3.8         | 5.95        | 5.95        | 5.95        |
| Coolant Capacity (Engine + Radiator)                     | Ltrs     | 3.4         | 3.78        | 4.2         | 5           |

### ALTERNATOR

|                                                 |   |                                                |      |      |      |
|-------------------------------------------------|---|------------------------------------------------|------|------|------|
| Insulation Class                                |   | Class H                                        |      |      |      |
| Alternator Efficiency (at 100% load) 0.8 pf**   | % | 82.4                                           | 80.3 | 85.2 | 88.6 |
| Max Voltage Dip at Full Load 0.8 pf lag         |   | < 20 %                                         |      |      |      |
| Max Time to build up rated voltage at Rated RPM |   | < 2 sec, provided engine reach the rated speed |      |      |      |

^ Tolerances Apply

⊗ These Weight are for handling & transportation only  
 \*\* Efficiency of Alternator as per standards IEC60034-1

#### Notes

Above specifications are subject to change without prior notice due to continuous technical development.  
 For intermediate ratings, kindly contact nearest Kirloskar office.  
 For Site Conditions other than standard operating conditions consult Kirloskar Oil Engines for available prime power.



### 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 Kirloskar guidelines
- Ensure adequate size and proper connection of cables
- Understand the Genset operation & maintenance procedures during commissioning
- Follow routine maintenance protocols through authorised Kirloskar service dealers

# Genset kVA 7.5 to 20 kVA Features



## Prime rating and Stand-by rating

'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. Kirloskar offers Prime power as a standard offer. Contact Kirloskar for stand-by ratings.



## No replacement to displacement

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 Fluid Efficiency (Fuel)

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

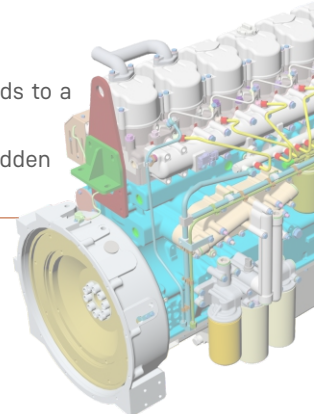
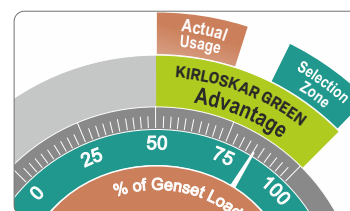
### O2E Series (Optimal Operating Efficiency):

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 Gensets.

Considering this practical situation, Kirloskar 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.

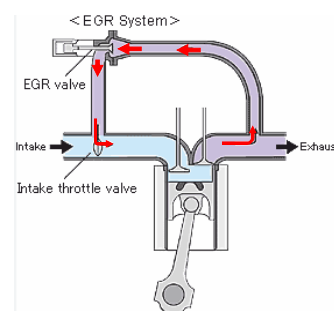


## Exhaust gas recirculation (EGR)

EGR is used to reduce NOx emitted by the engine. By recirculating exhaust gases into the engine's cylinder, a percentage of the air is replaced with CO<sub>2</sub>.

It is an effective strategy to control NOx (Nitrogen Oxides) Emissions from diesel engines.

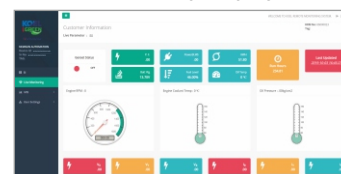
Some part of exhaust gas is recirculated in the combustion chamber. Once mixed, the concentration of the oxygen in the fresh air is reduced and the temperature of the fresh air is increased slightly.



## Genset Monitoring at Your Finger Tips

Kirloskar gensets are enabled with Kirloskar remote monitoring system which shares Real Time Genset information and location services. It can be accessed via mobile device or desktop. Kirloskar 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.

### KRM Desktop Display



**Ask your Dealer for KRM  
login details & password**



### On Board Diagnostics

Superior uptime. Genset comes with advanced diagnostic capabilities, this coupled with Kirloskar remote monitoring system provides real time monitoring of performance, emission and service critical parameters this helps for early diagnosis to fix the issues before system breakdown.



### State of the art Genset Controller

Kirloskar Genset 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 Voltages & Currents, Frequency, Genset kVA, kW, kWh, kVAR, Power Factor
- Lube oil Pressure, Engine Temperature, RPM, Run Hours, Number of starts, Fuel Level, Auto / Manual Stop, Battery charge condition, AMF feature

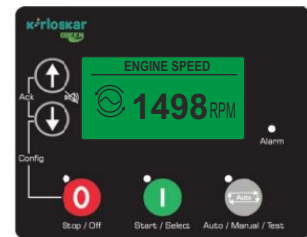
#### Diagnostic Features:

- Battery charging failure, Over/Under speed, Over Current, Over/Under Voltage, Over kW, Phase Seq., Phase missing, Mains Under voltage, Low fuel level
- 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

### KG645CR Controller



### Peace-of-mind Ownership

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

Kirloskar range carries the confidence of well-established and proven engine platforms. For compliance to revised CPCB norms, Kirloskar has carefully selected those technologies which not only retain, but enhance Gensets durability and on-site serviceability.

Thus, Kirloskar 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.



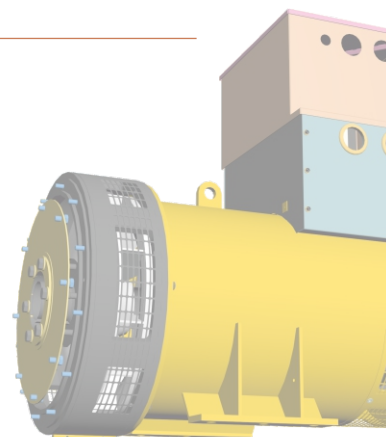
### Alternator Features:

Kirloskar Alternator is compact in design, rugged and best in class efficiency. Advanced Digital AVR improves the Voltage regulation and Response time.

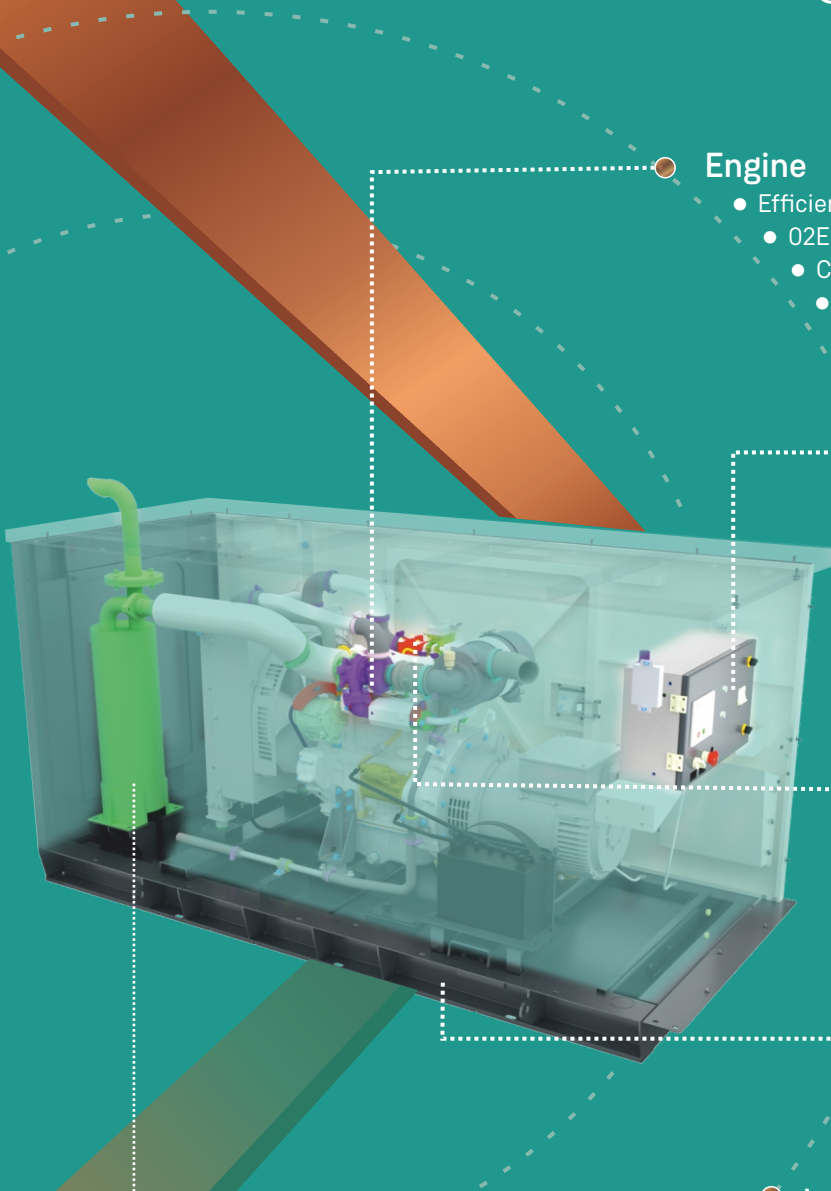


### Compact footprint

Kirloskar CPCB compliant Gensets are having compact footprint which results in space saving. CPCB compliant technology is upgraded by maintaining the compact footprint of Genset.



# Glimpses **CPCB IV+** Genset (7.5-20 kVA)



## Engine

- Efficient System
- O2E Series: Low emission, high efficiency engine
- Compact, Robust and Rugged Design
- 500 hours lube-oil change period

## Controller

- Microprocessor based
- Graphical LCD display
- Best in class monitoring and diagnostic capability
- Integrable with AMF, Communication compatible

## Exhaust Gas Recirculation (EGR) System

- EGR System used to reduce the level of NOx emitted by Engine

## Base Frame

- High Quality Material

## Inbuilt Silencer

- Inbuilt Silencer support for Noise level
- Good in Aesthetic
- Space saving



SHAPING THE FUTURE.  
DELIVERING POWER TO OVER 50+ COUNTRIES.

INGENIOUS DESIGN.  
UNMATCHED PERFORMANCE.

KIRLOSKAR OIL ENGINES LIMITED  
A Kirloskar Group Company

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