

**kirloskar**  
powergen

320-750 kVA  
**CPCBIV+**  
**COMPLIANT**

INDIA'S LARGEST  
FLEET OF GENSETS



**BETTER POWER**  
FOR A

*limitless*

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

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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.



# 320-750 kVA TECHNICAL SPECIFICATIONS

Prime Rating at rated rpm (as per ISO8528)	kVA	320	400	500	625	750	
	kW	256	320	400	500	600	
Genset Model		KG4-320WS1	KG4-400WS11	KG4-500WS	KG4-625WS	KG4-750WS	
Frequency	Hz			50			
Power Factor	lagging			0.8			
Voltage	V	415 (3Ø)					
Governing class (As per ISO 8528 Part-V)		G3					
DG set Noise level at 1 meter	dBA	<75 (Genset with canopy)					
Fuel tank capacity (Standard DG set)	Ltrs	600	850	850	990	990	
⊕ Weight of genset with canopy (approx..) ^	Dry	Kg	4090	6220	6240	8150	8760
	Wet (w/o fuel)	Kg	4200	6415	6435	8370	9100
Overall dimensions of genset ^	Length	mm	4750	5575	5575	6500	6800
	Width	mm	1700	2125	2125	2125	2300
	Height	mm	2005	2610	2610	2710	2715
Electrical Battery Starting Voltage	Volts-DC	24					

## ENGINE

Engine Model		6SL90ETA 4G3	DV8ETA 4G2	DV8ETA 4G3	DV10ETA 4G2	DV12ETA 4G2
Rated output (Prime Continuous rating as per ISO 8528-1)	kW	279.5	360	447.2	561.1	662
	HP	380	490	608	763	900.6
No. of cylinder	Number	6	8	8	10	12
Cubic capacity <sup>2</sup>	Ltrs	8.86	15.92	15.92	19.9	23.88
Bore x Stroke	mm	118 x 135	130 x 150	130 x 150	130 x 150	130 x 150
Rated Speed	RPM	1500				
Aspiration	NA/TC/TA	TA				
Lube Oil change period	hrs.	500				
Lube oil Sump Capacity	Ltrs	27	40	40	50	73
Coolant Capacity (Engine + Radiator)	Ltrs	36	63.2	63.2	81.7	173.9
Adblue/DEF capacity	Ltrs	45	45 x 2			

## ALTERNATOR

Insulation Class		Class H				
Alternator Efficiency (at 100% load) 0.8 pf**	%	95.3	93.4	94.8	95.7	94.7
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

AdBlue used should follow ISO 22241.

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 320 to 750 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-in-class Fluid Efficiency (Fuel & DEF)

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.

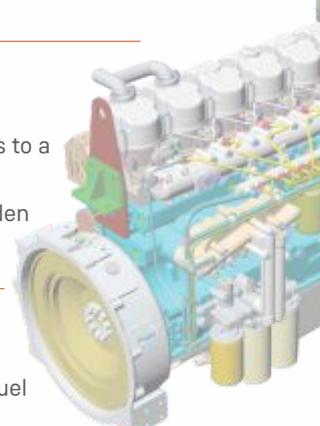
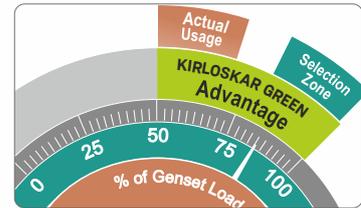
### O2E Series (Optimal Operating Efficiency):

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.

In line with fuel efficiency Kirloskar Genset ensures the better DEF efficiency and accordingly optimized the DEF tank size. Combination of best-in-class fuel efficiency & O2E provides a double advantage.



## Common Rail Direct Injection System (CRDi):

Common rail diesel injection technology, popularly known as CRDi, provides a significant upgrade over traditional mechanical fuel injection systems. CRDi provides precise fuel control, multiple injections, enhanced performance, lower noise and reduced emissions. High pressure common rail system employed on Kirloskar CPCB IV+ Gensets maximizes fuel atomization, delivering a smooth and smoke free performance. Diesel filters with 'A' class filtration are used for CRDi Engines which enhances the filtration efficiency. Common rail fuel injection system will provide a new level of performance, efficiency, and reliability.



## 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 services 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, Earth Fault trip, 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
- Synchronization

### KG745 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.



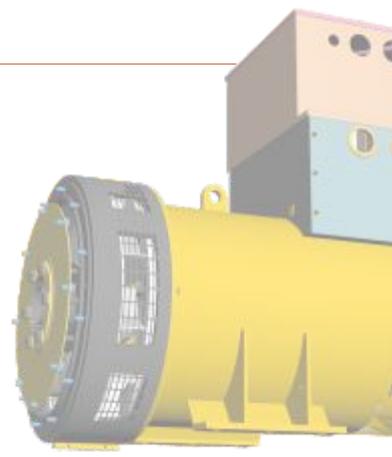
### Alternator Features:

Kirloskar Alternator is compact in design & comes with AREP winding and Digital AVR. Auxillary Regulation Excitation Principle (AREP) winding improves the Non-linear load handling capability, Motor starting capacity. 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 (320-750 kVA)

## Engine

- Efficient CRDi System
- O2E Series: Low emission, high efficiency engines
- Compact, Robust and Rugged Design
- 500 hours lube-oil change period
- Integral set - mounted radiator system, designed & tested for 50°C ambient temperature

## Controller

- Microprocessor based
- Graphical LCD display
- Best in class monitoring and diagnostic capability
- Integrable with AMF, synchronization (optional) & communication compatible

## DEF Tank

- DEF/Aqueous urea to sets off the chemical reaction with Exhaust gas
- Tank size is optimized in accordance to DEF consumption

## Supply Module & DCU

- Control & monitor the DEF

## Exhaust Gas Treatment System

- DOC & SCR system sets off the reaction to meet the latest CPCB norms
- Reduction in NO<sub>x</sub> & HC
- Reduction in PM

O2E - Optimal operating efficiency  
DEF - Diesel exhaust fluid  
DCU - Dosing control unit  
DOC - Diesel oxidation catalyst  
SCR - Selective catalytic reduction



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

INGENIOUS DESIGN.  
UNMATCHED PERFORMANCE.

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