

TO THOSE WHO Power Life, we say

# CPCB IV+ COMPLIANT

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INDIA'S LARGEST FLEET OF GENSETS

320-750 kVA

BETTER POWER FOR A limitless TOMORROW

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# 320-750 kVA

Prime Rating at rated rpm (as per IS08528)		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 (30)				
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	6950	7200	8300	9700
	Wet	Kg	4200	7150	7400	8450	9950
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	1500	1500	1500	1500
Aspiration		NA/TC/TA	TA	TA	TA	TA	TA
Lube Oil change period		hrs.	500				
Lube oil Sump Capacity		Ltrs	27	40	40	50	73
Coolant Capacity		Ltrs	36	63	63	80	175
Adblue/ DEF capacity		Ltrs	45 45 x 2				
ALTERNATOR							
Insulation Class			н				
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				

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

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Notes

AdBlue used should follow ISO 22241. Above specifications are subject to change without prior notice due to continuous

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



#### Beest-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):

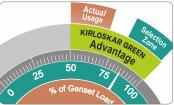
Genset ratings are selected based on the present load and future expansion. Fuel efficiency of most Gensets is optimized at the full rating of the Genset.

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.







#### **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



#### 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 withExhaust 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 NOx & HC
- Reduction in PM

02E - Optimal operating efficiency

DEF - Diesel exhaust fluid

DCU - Dosing control unit

DOC - Diesel oxidation catalyst

SCR - Selective catalytic reduction



# **EFFICIENCY**• INTEGRATED

# A KIRLOSKAR PROMISE



**Oil Engines** 

Email ID: expeng@generatorbazar.com Website: www.generatorbazar.in Registered Office: 83, Rajdhani Nikunj, 94, I. P. Extension, Patpar Ganj, Delhi -110092, India Corporate Office: A-18 Rampuri, Surya Nagar Market, Ghaziabad, Uttar Pradesh - 201011 Tel: +91 0120 4100100, 4377077, 9212757575, 9810885060