

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 ²	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.

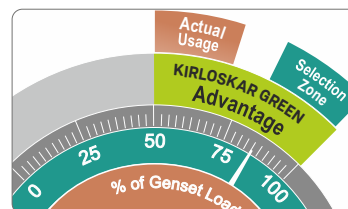
O2E Series (Optimal Operating Efficiency):

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.

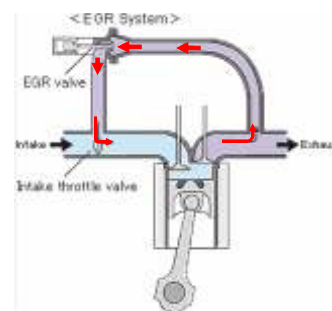


Exhaust gas recirculation (EGR)

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 CO₂.

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.



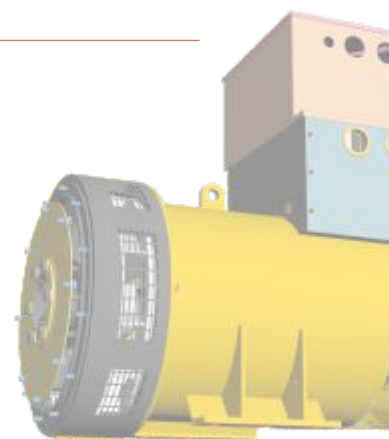
Alternator Features:

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

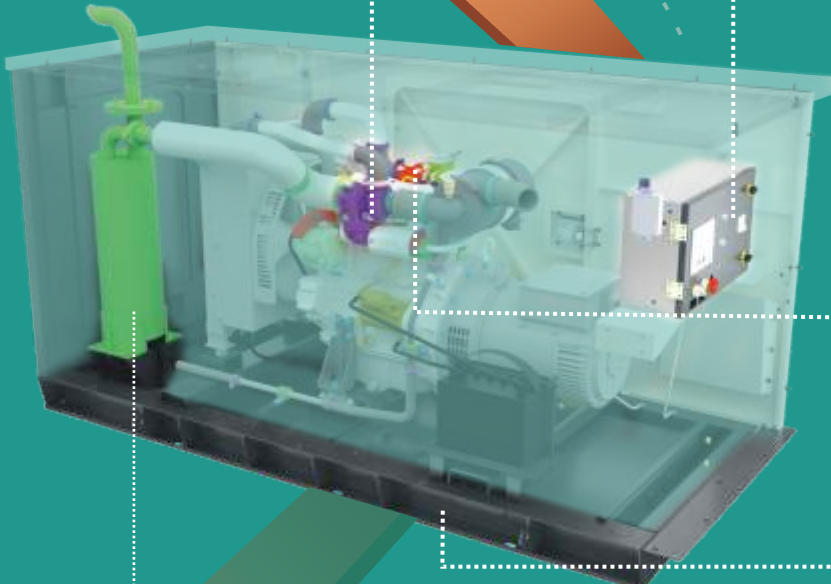


Compact footprint

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