



TO THOSE WHO POWER LIFE, WE SAY

# MAY THE



AIWAYS BE With You

CPCB IV+
COMPLIANT

INDIA'S LARGEST FLEET OF GENSETS

7.5-20 kVA



Prime Rating at rated rpm (as per IS08528)		kVA	7.5	7.5	10	15	20		
		kW	6	6	8	12	16		
Genset Model			KG4-7.5SAS1	KG4-7.5WS1	KG4-10WS1	KG4-15WS1	KG4-20WS1		
Frequency		Hz	50						
Power Factor		lagging			0.8				
Voltage		٧	230 (10) & 415 (30)						
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	50		32	32	40		
OWeight of genset with canopy (approx)^	Dry	Kg	620	545	585	605	680		
Oweight or genset with canopy (approx)**	Wet (w/o fuel)	Kg	670	550	590	610	690		
	Length	mm	1310	1600	1800	1850	2180		
Overall dimensions of genset ^	Width	mm	810	760	760	760	905		
	Height	mm	1600	1050	1050	1050	1150		
Electrical Battery Starting Voltage		Volts-DC	12						
ENGINE									
Engine Model			EA10NA 4G1	2R550NA 4G1	3R550NA 4G1	3R550TC 4G1	3R550TA 4G		
Rated output (Prime Continuous rating as per ISO 8528-1)		kW	7.3	7.9	11	15.4	18.8		
		HP	10	10.74	15	20.9	25.5		
Cooling system			Air	Liquid					
No. of cylinder		Number	1	2	3	3	3		
Cubic capacity <sup>2</sup>		Ltrs	0.95	1.09	1.65	1.65	1.65		
Bore x Stroke		mm	102 x 116	86 x 94	86 x 94	86 x 94	86 x 94		
Rated Speed		RPM	1500						
Aspiration		NA/TC/TA	NA	NA	NA	TC	TA		
Lube Oil change period		hrs.	500						
Lube oil Sump Capacity (max)		Ltrs	5	3.8	5.95	5.95	5.95		
Coolant Capacity (Engine + radiator)		Ltrs	NA	3.4	3.78	4.2	5		
ALTERNATOR									
Insulation Class				C	lass H				
Alternator Efficiency (at 100% load) 0.8 pf**		%	78.1	82.5	82.6	85.2	88.6		
Max Voltage Dip at Full Load 0.8 pf lag		sec	< 20%						
Max Time to build up rated voltage at Rated F	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

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



#### 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 7.5 to 20 kVA Features

#### SAINI INDIA LTD A SALES CHANNEL PARTNER FOR KIRLOSKAR PRODUCT.



#### 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 Efffciency (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.

O2ESeries (Optimal Operating Efficiency):

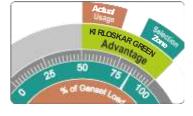
Genset ratings are selected based on the present load and future expansion. Fuel efficiency of most Gensets is optimized at the full rating of the Genset.

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.



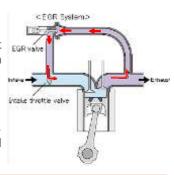


#### Exhaust gas recirculation (EGR)

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.

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









#### 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



#### Peace-of-mind Ownership

Kirloskar Gensets have always been preferred for their robust design and reliability overlong 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 promptsupport. 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.

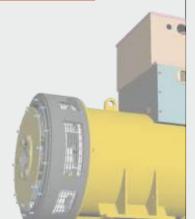


#### Compact footprint:

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.

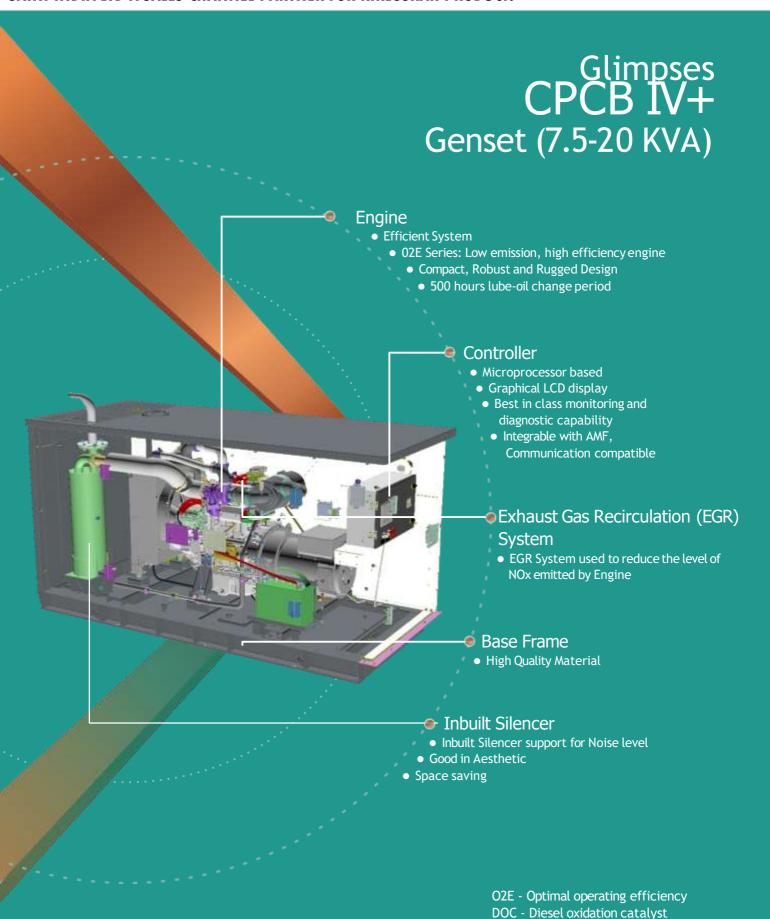


**KG645CR Controller** 













## **EFFICIENCY. INTEGRATED**

#### A KIRLOSKAR PROMISE

#### SAINI INDIA LTD A SALES CHANNEL PARTNER FOR KIRLOSKAR PRODUCT.

#### **Efffcient 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**



#### **Efffcient 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.

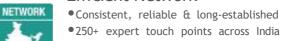
#### **Efffcient Service**

- •India's widest service dealer network
- Kirloskar 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**



#### Efffcient Network **EFFICIENT**



- •500+ solution oriented professionals Uniform customer experience across
- Central system for enquiry to PRF
- Fair trade practices & Price transparency

#### **Efffcient 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



## 24X7 CARE



#### Efffcient 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

#### We offer products for every segment & take part in the India's growth story.



Infrastructure



Industry



IT/ITES



Hospitality



Health



Reality



Government



Logistics



## www.kirloskaroilengines.com

#### Kirloskar Oil Engines Limited

A Kirloskar Group Company

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CPCB IV+
COMPLIANT

INDIA'S LARGEST FLEET OF GENSETS

25-58.5 kVA



Prime Rating at rated rpm (as per 150&528)		kVA	26	30	40	58.5	
Prime Rating at rated rpm (as per 150x52	0)	kW	20	24	32	46.8	
Genset Model		KG4-25WS1	KG4-30WS1	KG4-40WS1	KG4-58.5WS		
Frequency		Hz		5	60		
Power Factor		lagging		0	.8		
Voltage		٧	230 (10)	230 (10) & 415 (30) 415 (30)			
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	50	72	100	165	
•Weight of genset with canopy (approx.)^	Dry	Kg	770	1025	1165	1460	
Weight of genset with carropy (approx.)**	Wet	Kg	780	1040	1180	1485	
	Length	mm	2330	2500	2750	2900	
Overall dimensions of genset ^	Width	mm	950	950	1050	1100	
Height		mm	1260	1385	1495	1580	
Electrical Battery Start in R Voltage	Volts-DC	12					
ENGINE							
Engine Model				3R1190ENA 4G1	3R1190ETA 4G1	4R810ETA 4G1	
Rated output		kW	26.5	31	41.1	54.4	
(Prime Continuous rating as per ISO8528-1)		HP	36	42	56	74	
No. of cylinder		Number	3	3	3	4	
Cubic capacity <sup>2</sup>		Ltrs	1.65	3.57	3.57	3.24	
Bore x Stroke		mm	86 x 94	110 x 125	110 x 125	96 x 112	
Rated Speed		RPM	1500	1500	1500	1500	
Aspiration		NA/TC/TA	TA	NA	TA	TA	
Lube Oil change period		hrs.	500				
Lube oil Sump Capacity	Ltrs	5.95	7	7	10		
Coolant Capacity	Ltrs	5	10	8.3	12.70		
ALTERNATOR							
Insulation Class					+		
Alternator Efficiency (at 100¼ load) 0.8 pf**		%	88.9	88.4	87.9	90.8	
Max Voltage Dip at Full Load 0.8 pf lag		sec	< 20%				
Max Time to build up rated voltage at Rated	RPM		< 2 sec, provided engine reach the rated speed				

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  ❖ These Weight are for handling & transportation only

  \*\* Efficiency of Alternator as per standards IEC60034-1

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For Site Conditions other than standard operating conditions consult

Kirloskar Oil Engines for available prime power.



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#### Genset kVA 25 to 58.5 kVA Features

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O2ESeries (Optimal Operating Efffciency):

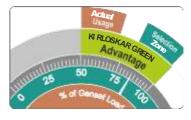
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In line with fuel efficiency Kirloskar Genset ensures the better DEF efficiency and accordingly optimized the DEF tank size.

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**

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#### **KRM Desktop Display**









#### On Board Diagnostics:

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#### State of the art Genset Controller

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#### **Monitoring Features:**

- Phase Voltages & Currents, Frequency, Genset kVA, kW, kWh, kVAr,
- 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



#### 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.



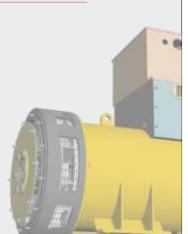
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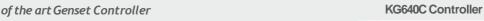
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#### Compact footprint:

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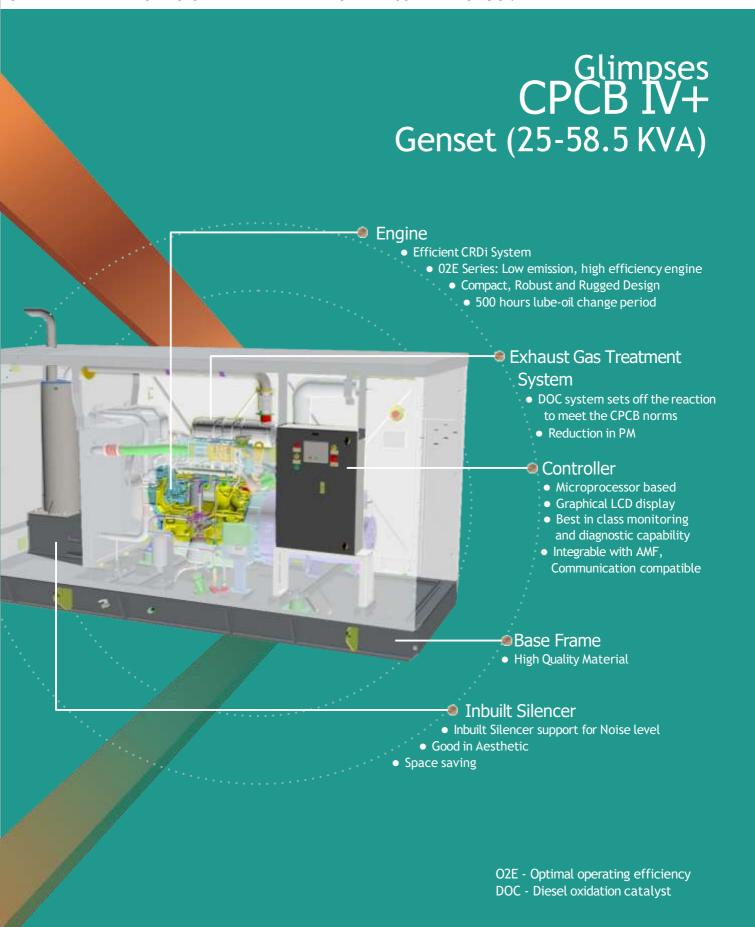
















## **EFFICIENCY. INTEGRATED**

#### A KIRLOSKAR PROMISE

#### SAINI INDIA LTD A SALES CHANNEL PARTNER FOR KIRLOSKAR PRODUCT.

#### **Efffcient 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 Efffcient Solutions**



**EFFICIENT** 

NETWORK

- 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.

#### **Efffcient Service**

- India's widest service dealer network
- Kirloskar 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**



#### Efffcient Network



- •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

#### **Efffcient 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**



# 24X7 CARE

# EFFICIENT

#### Efffcient 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

#### We offer products for every segment & take part in the India's growth story.



Infrastructure



Industry



IT/ITES



Hospitality

www.kirloskaroilengines.com



Health



Reality



Government



Logistics





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A Kirloskar Group Company

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## SAINI INDIA LIMITED

(A RAKESH SAINI ENTERPRISE)

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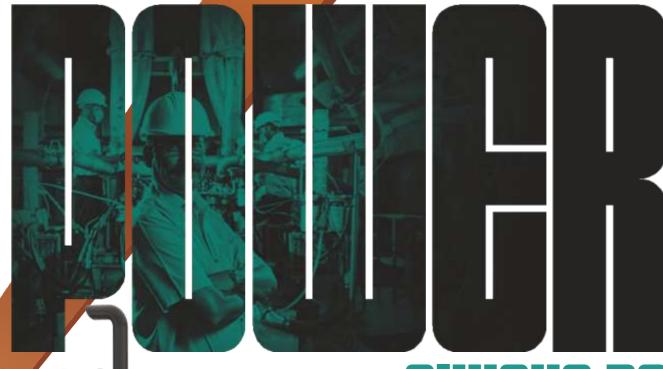






TO THOSE WHO POWER LIFE, WE SAY

# MAY THE





CPCB IV+
COMPLIANT

INDIA'S LARGEST FLEET OF GENSETS



#### 82.5-160 kVA

Delena Pating at sated and (an analysis)		kVA	82.5	100	125	160			
Prime Rating at rated rpm (as per ISO8528	U.	kW	66	80	100	128			
Genset Model			KG4-82.5WS1	KG4-100WS1	KG4-125WS1	KG4-160WS11			
Frequency		Hz	50						
Power Factor		lagging		0.8	3				
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	200	230	230	400			
<b>○</b> Weight of genset with canopy approx) <sup>∧</sup>	Dry	Kg	1800	2170	2200	2980			
CTT SET OF ESTAGE MET SUITOPY OPPOSITION.	Wet	Kg	1860	2230	2260	3050			
	Length		3200	3200	3200	4200			
Overall dimensions of genset ^	Width	mm	1350	1350	1350	1450			
	Height	mm	1595	1800	1800	1900			
Electrical Battery Starting Voltage		Volts-DC	12						
ENGINE									
Engine Model			4R1190ETA 4G1	4K1080ETA 4G1	4K1080ETA 4G1	6K1080ETA 4G1			
Rated output		kW	77.2	114.7	114.7	147.1			
(Prime Continuous rating as per ISO 8528-1)		HP	105	156	156	200			
No. of cylinder		Number	4	4	4	6			
Cubic capacity <sup>2</sup>		Ltrs	4.76	4.32	4.32	6.48			
Bore x Stroke		mm	110 x 125	105 x 125	105 x 125	105 x 125			
Rated Speed		RPM	1500						
Aspiration		NA/TC/TA	TA						
Lube Oil change period		hrs.	500						
Lube oil Sump Capacity		Ltrs	10	14	14	25			
Coolant Capacity		Ltrs	15	18	18	28			
Adblue/ DEF capacity		Ltrs	25	25	25	45			
ALTERNATOR									
Insulation Class				Н					
Alternator Efficiency (at 100% load) 0.8 pf**		%	91	91.9	92.4	92.8			
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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Notes
AdBlue used should follow ISO 22241.
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#### Genset kVA 82.5-160 kVA Features

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#### Prime rating and Stand-by rating

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#### Beest-in-class Fluid Efffciency (Fuel & DEF)

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O2ESeries (Optimal Operating Efffciency):

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.

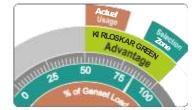
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& weekends, summer & winter lead to an average 50-70% loading on Gensets.

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**

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#### KRM Desktop Display









#### On Board Diagnostics:

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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.

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- Phase Voltages & Currents, Frequency, Genset kVA, kW, kWh, kVAr, PowerFactor
- ullet 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



#### Peace-of-mind Ownership

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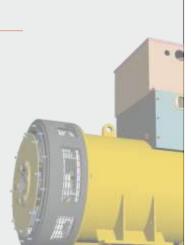
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Kirloskar Alternator is compact in design, rugged and best in class efficiency. Advanced Digital AVR improves the Voltage regulation and Response time.



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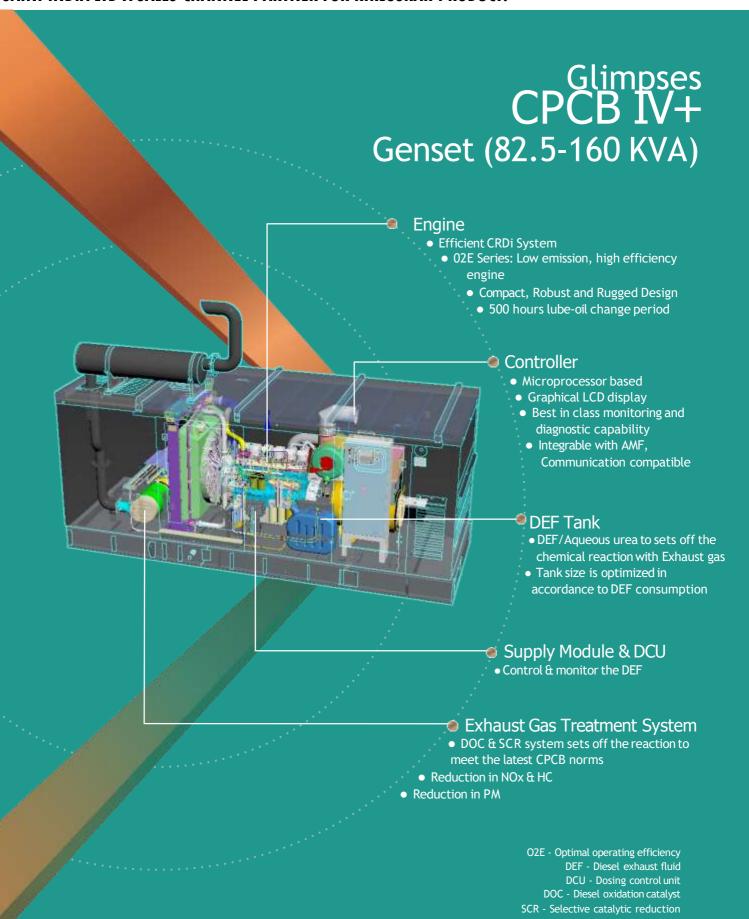
















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#### A KIRLOSKAR PROMISE

#### SAINI INDIA LTD A SALES CHANNEL PARTNER FOR KIRLOSKAR PRODUCT.

#### **Efffcient Products**

- India's first IoT enabled digital genset
- Designed for convenient user experience
- Best-in-class fuel efficiency delivered
- Compact design & long life product
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#### **EFFICIENT**



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#### **Efffcient Solutions**

- Load sizing for every single genset order •One stop power back-up solutions
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# ĸ**≯**rloskar Oil Engines



Laxmanrao Kirloskar Road, Khadki, Pune 411 003 INDIA.

> 95123-55591 hp@sainiindia.co.in

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#### SAINI CORPORATE COMPLEX

Corporate Office:Plot No.87, Sachin G.I.D.C.,

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TO THOSE WHO POWER LIFE, WE SAY

# MRY THE

AIWAYS BE With you

CPCB IV+
COMPLIANT

Kirloskar

INDIA'S LARGEST FLEET OF GENSETS

200-250 kVA



#### 200-250 kVA

Prime Rating at rated rpm (as per ISO8528)		kVA	200	250	
		kW	160	200	
Genset Model			KG4-200WS1	KG4-250WS1	
Frequency		Hz	5	0	
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	400	600	
O'Mainha of annual with annual (annual )	Dry	Kg	3080	3990	
OWeight of genset with canopy (approx)^	Wet	Kg	3150	4100	
	Length	mm	4200	4750	
Overall dimensions of genset ^	Width	mm	1450	1700	
	Height	mm	1900	2005	
Electrical Battery Starting Voltage	Volts-DC	12	24		
ENGINE					
Engine Model			6K1080ETA 4G2	6SL90ETA 4G2	
Rated output (Prime Continuous rating as per ISO 8528-1)		kW	183.8	228	
		HP	250	310	
No. of cylinder		Number	6	6	
Cubic capacity <sup>2</sup>		Ltrs	6.48	8.86	
Bore x Stroke		mm	105 x 125	118 x 135	
Rated Speed		RPM	1500		
Aspiration		NA/TC/TA	TA		
Lube Oil change period		hrs.	500		
Lube oil Sump Capacity		Ltrs	25	27	
Coolant Capacity		Ltrs	28	36	
Adblue/ DEF capacity		Ltrs	45		
ALTERNATOR					
Insulation Class			ŀ	1	
Alternator Efficiency (at 100% load) 0.8 pf**		%	94.2	94.3	
Max Voltage Dip at Full Load 0.8 pf lag			< 20 %		
Max Time to build up rated voltage at Rated R	PM		< 2 sec, provided engine reach the rated sp		

- ^ 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 Green guidelines
- Ensure adequate size and proper connection of cables
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### Genset kVA 200 to 250 kVA Features

#### SAINI INDIA LTD A SALES CHANNEL PARTNER FOR KIRLOSKAR PRODUCT.



#### Prime rating and Stand-by rating

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#### 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 Efffciency (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.

O2ESeries (Optimal Operating Efffciency):

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.

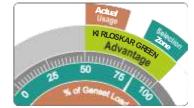
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#### **KRM Desktop Display**









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#### State of the art Genset Controller\*

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#### **Monitoring Features:**

- Phase Voltages & Currents, Frequency, Genset kVA, kW, kWh, kVAr, Power Factor, Canopy Temperature (optional)
- 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
- \* Controller KG640C is only for 6K Engine



#### Peace-of-mind Ownership

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#### **Alternator Features:**

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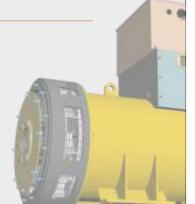


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NETWORK



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Kirloskar Oil Engines Limited



Health



Reality



Government



Logistics

## ĸ**≯**rloskar Oil Engines



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TO THOSE WHO POWER LIFE, WE SAY

# MAY THE



CPCB IV+
COMPLIANT

INDIA'S LARGEST FLEET OF GENSETS

200-625 kVA



Prime Pating at rated rom (as per ISOSE79)		kVA	200 HD	320 HD	500 HD	625 HD		
Prime Rating at rated rpm (as per ISO8528)		kW	180	256	400	500		
Genset Model					KG4-500WS (HD)	KG4-625WS11 (HD)		
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		850	990	990		
	Dry	Kg	3850	6750	8140	9350		
♦ Weight of genset with canopy (approx)	Wet	Kg		6950	8360	9600		
	Length	mm	4550	5100	6500	6800		
Overall dimensions of genset ^	Width	mm	1700	2125	2125	2300		
	Height	mm		2610	2710	2715		
Electrical Battery Starting Voltage		Volts-DC	24					
ENGINE								
Engine Model			6SL90ETA 4G1	DVBETA 4G1	DV10ETA 4G1	DV12ETA 4G1		
Rated output (Prime Continuous rating as per ISO 8528-1)		kW	183.8	294.2	447.2	561.1		
		HP	250	400	608	763		
No. of cylinder		Number	6	8	10	12		
Cubic capacity <sup>2</sup>		Ltrs	8.86	15.92	19.9	23.88		
Bore x Stroke		mm	118 x 135	130 x 150	130 x 150	130 x 150		
Rated Speed		RPM	1500	1500	1500	1500		
Aspiration		NA/TC/TA	TA	TA	TA	TA		
Lube Oil change period		hrs.	500					
Lube oil Sump Capacity		Ltrs	27	40	50	73		
Coolant Capacity		Ltrs	35	55	80	175		
Adblus/ DEF capacity		Ltrs	45 x 2					
ALTERNATOR								
Insulation Class					H			
Alternator Efficiency (at 100% load) 0.8 pf**		%	94.2 94.6 94.8 95.			95.7		
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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  ★★ Efficiency of Alternator as per standards IEC60034-1

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### Genset kVA 200 to 625 kVA Features

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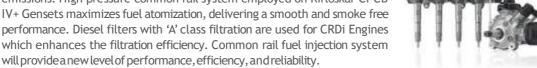
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- Synchronization



#### Peace-of-mind Ownership

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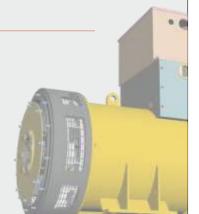


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Logistics

# ĸ**≯**rloskar Oil Engines



## www.kirloskaroilengines.com

### Kirloskar Oil Engines Limited

A Kirloskar Group Company

Laxmanrao Kirloskar Road, Khadki, Pune 411 003 INDIA.



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### SAINI INDIA LIMITED

(A RAKESH SAINI ENTERPRISE)

#### SAINI CORPORATE COMPLEX

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TO THOSE WHO POWER LIFE, WE SAY

# MAY THE



CPCB IV+
COMPLIANT

INDIA'S LARGEST FLEET OF GENSETS

320-750 kVA



Prime Rating at rated rpm (as per IS08528)		kVA	320	400	500	625	750		
		kW	258	320	400	500	600		
Genset Model				KG4-400WS11					
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		
	Dry	Kg	4090	6950	7200	8300	9700		
OWeight of genset with canopy (approx)^	Wet	Кд	4200	7150		8450	9950		
	Length	mm	4750	5575	5575	6500	6800		
Overall dimensions of genset ^	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	DVBETA 4G3	DV10ETA 4G2	DV12ETA 40		
B (B		kW	279.5	360	447.2	561.1	662		
Rated output (Prime Continuous rating as per I	90 9359-11	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		
Coclant Capacity		Ltrs	36	63	63	80	175		
Adblus/ DEF capacity		Ltrs	45 x 2						
ALTERNATOR									
			95.3 93.4 94.8 95.7 94						
Insulation Class		%	95.3	93.4	94.8	95.7	94.7		
Insulation Class Alternator Efficiency (at 100% load) 0.8 pf** Max Voltage Dip at Full Load 0.8 pf lag		%	95.3	93.4	94.8 < 20 %	95.7	94.7		

- ^ 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 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

#### SAINI INDIA LTD A SALES CHANNEL PARTNER FOR KIRLOSKAR PRODUCT.



#### 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.

O2ESeries (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

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









#### 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.

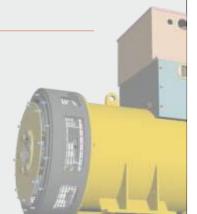


#### Compact footprint:

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.

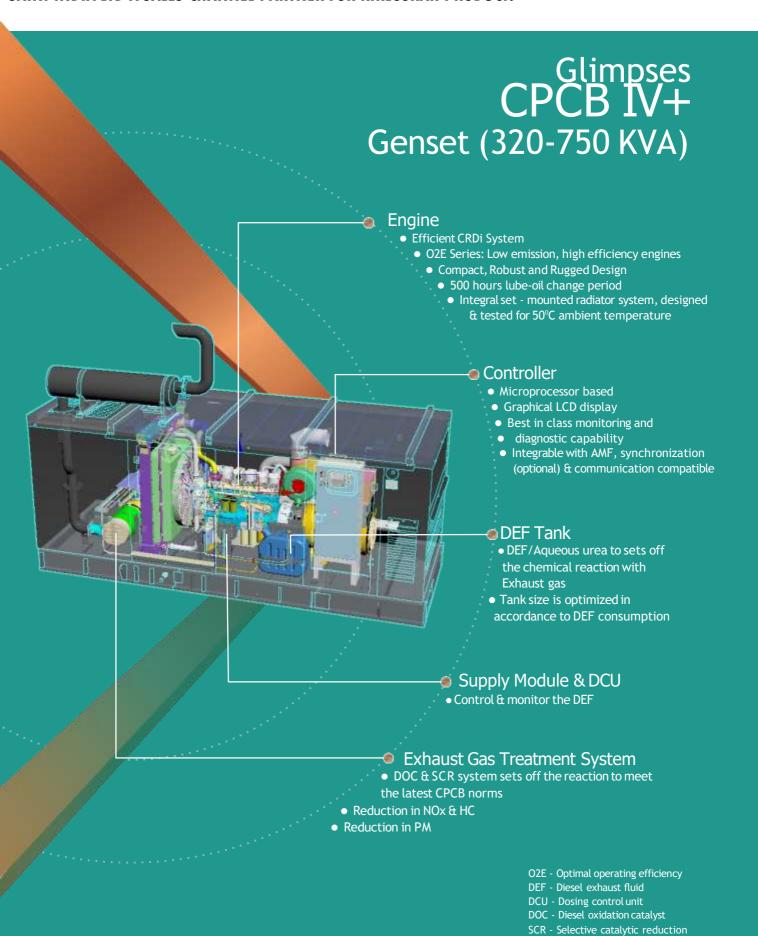
















## **EFFICIENCY. INTEGRATED**

#### A KIRLOSKAR PROMISE

#### SAINI INDIA LTD A SALES CHANNEL PARTNER FOR KIRLOSKAR PRODUCT.

#### **Efffcient 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 Efffcient 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.

#### **Efffcient Service**

- •India's widest service dealer network
- Kirloskar 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**



#### Efffcient Network **EFFICIENT**



- 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

#### **Efffcient 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**



## 24X7 CARE



#### Efffcient 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

#### We offer products for every segment & take part in the India's growth story.



Infrastructure



Industry



IT/ITES



Hospitality

www.kirloskaroilengines.com

Kirloskar Oil Engines Limited



Health



Reality



Government



Logistics

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