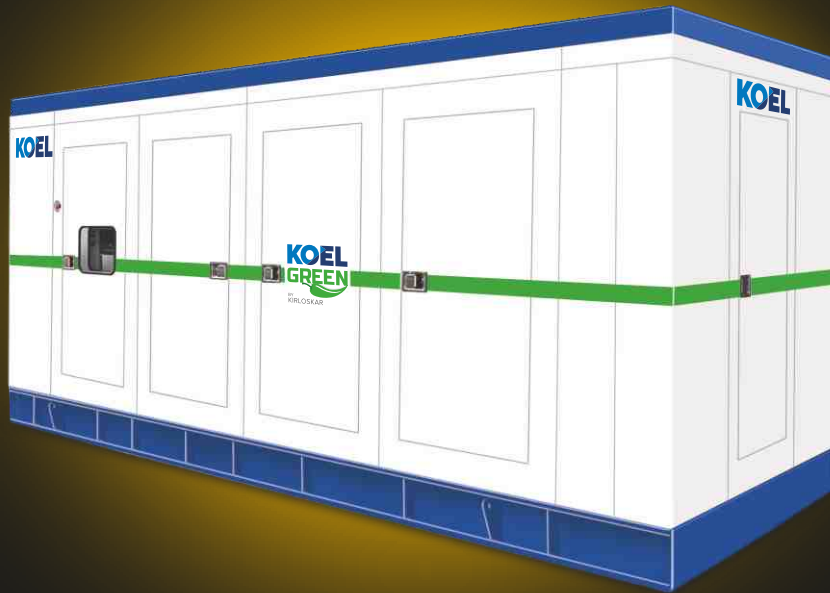


*Celebrating*  
**30000**  
HHP GENSETS



**750, 900 & 1010 kVA**  
DIESEL GENSETS

**KOEL  
GREEN**  
EFFICIENCY. INTEGRATED



Enriching Lives

## OVER 125 YEARS OF TRUST

Kirloskar is one of the earliest industrial groups in the engineering industry in India. Established in 1888 Kirloskar Group proved to be India's technological spear head launching India's first centrifugal pump, first diesel engine, first electric motor, first lathe, first engine export and many more. These additions to India not only became an instrument of wealth for the entire society but also kick started an industrial revolution in India. Today, building on its core engineering strength, the group's scope of operations spans across a gamut of industrial equipment ranging from pumps & valves, eco-friendly diesel engines & silent generating sets, air & gas compressors, air-conditioning and refrigeration equipment, a wide range of anti-corrosion coatings and castings for automotive sector.

## OVER 70 YEARS OF PERFORMANCE

Established in 1946, Kirloskar Oil Engines Limited (KOEL) is a flagship company of Kirloskar group and one of the world's largest power generating set manufacturers. Specialize in manufacturing diesel and petrol power generating sets across a wide range of power output from 2.1 kW to 5200 kVA.

KOEL has consistently delivered reliable and high quality products to meet the power requirements of different market segments. KOEL's fully-equipped research and engineering facility deploys the cutting edge technology, best in the class equipment and most advanced simulation testing platforms.

A strong customer-focused approach and the constant quest for highest quality have enabled KOEL to sustain the leadership position in the power generating set business. With a commitment of inventing engineering

marvels, KOEL Green HHP Gensets have proved their reign in difficult operating conditions, ranging from cold mountains at 15000 ft to hot dry desert to moist costal edges of peninsula to dusty environment of stone crusher. Holding excellence in powering big industries KOEL Green HHP range is omnipresent whether it's about proving a luxurious customer experience in hospitality industry or being always available for a very crucial and critical load in a hospital, from powering an entire stadium to powering national level games KOEL Green is the most trusted genset brand in India. Moving ahead of time KOEL Green HHP gensets became the first digital gensets in India with remote monitoring as standard feature.

KOEL Green is celebrating 30,000 HHP Genset sales, a testimony of superlative product performance in most demanding applications and customer's trust in the range.



# KOEL



**Industries have heavy operating loads and require uninterrupted production**

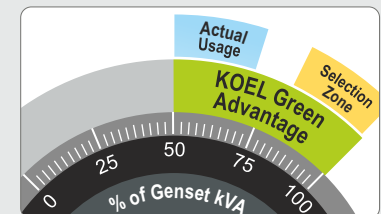




KOEL Green 750, 900 & 1010 kVA Genset is built on the DV platform of engines. Over the past decade, DV series engines have established a track record of robust & reliable performance in the demanding Powergen applications. Backed by KOEL Green installed base of 30,000 high-horse power engines, DV12-750 & DV16-1010 are designed for superlative performance in the most demanding operating conditions prevailing in India.



Resorts have to provide uninterrupted power for guests, even with unreliable grid supply





In today's times of focus on total cost of ownership, running cost of the Genset is of paramount importance. KOEL Green 750, 900 & 1010 kVA offer you the dual advantage of lower fuel consumption and lower lube-oil consumption. This combined effect results in substantial savings in running cost of the Genset. KOEL Green novel concept of O2E (Optimal Operating Efficiency) ensures that these Gensets offer class-leading fuel efficiency at commonly-found loading range of 50-75%.



Malls require large car parking space. Extra free space is always welcome



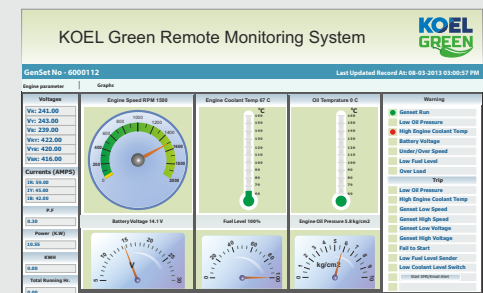


For businesses of selling or leasing space, every inch counts. Space can be blocked either by utilities or used for revenue generation. Reducing space for utilities certainly adds to business profits. Recognizing this, KOEL Green 750, 900 & 1010 kVA Gensets are intelligently designed with 25% smaller footprint, while meeting the performance and statutory requirements. For installations having multiple Gensets, the space saving will also multiply.

Integrating with existing cooling tower, HE-cooled version of KOEL Green 750, 900 & 1010 kVA Gensets further reduces foot print and saves premium space.



Given the thousands of hospitality parameters, monitoring GenSet performance can be difficult





KOEL Green Remote Monitoring unit effectively brings the Genset performance on your desktop and even mobile handset. All vital performance parameters including power generated, fuel & oil data, operating temperatures are available real-time for the discerning user. Moreover, it also generates reminders & event alerts and communicates with users as well as KOEL team. So, you can stop worrying about back-up power and focus on your business.



Large Townships are built in phases, thus have stage-wise increasing power requirement





In modern electrical system, Gensets are connected in various configurations viz. stand-alone, interlocked, synchronized or grid-connected. KOEL Green control system architecture is modular and can easily be adapted for any kind of Genset configuration. Modular building blocks permit addition of new features even post-commissioning. This architecture offers a higher degree of redundancy and reliability.



Applications like stone crusher are characterized by continuous operation and highly fluctuating loads





Supporting power requirements for starting of large motors can be a daunting task for a Genset. Similarly, Genset also needs to withstand sudden load shedding. These challenges are routinely faced in applications such as injection moulding, stone-crushers, large water pumps. KOEL Green 750, 900 & 1010 kVA Gensets are powered by 24L & 32L engines respectively. These rugged engines can easily withstand sudden jerks of load addition / load shedding, with minimal variation on voltage and frequency.



With stars playing on the ground, continuity of power is a basic expectation





KOEL Green efficient alternators are built on globally renowned design, with class-leading specifications and features. These alternators boast of high ability to withstand jerk loads, transient loads. Patented winding design helps withstand harsh operating conditions. Special design considerations impart higher tolerance to load harmonics. Liberal termination area ensures reliable power delivery. Thus, it is no surprise that these alternators provide unmatched performance in every demanding application.



## Genset Controls at your finger-tips

There is no comfort like being in command. KOEL Green Generators put the command in your hands. Micro-processor based Generator controllers display a host of Generator parameters and put all controls at your fingertips.

The KG745 is a powerful, new generation Auto Mains Failure genset controller with a highly sophisticated level of new features and functions. Featuring a new Dual Core main processor and extended memory, the module provides faster and more powerful processing power, returning faster operational responses on intensive applications and increased functionality, with data logging facility. IP 68 protected device specially designed for robust environment. Monitoring an extensive number of engine parameters, the module will display warnings, shutdown and engine status information on the back-lit LCD screen, illuminated LED's, featured with remote monitoring system to monitor the different parameters, warnings and shutdown at one click. KG controllers have the following features:

**Genset monitoring:** Monitor vital genset parameters and provide necessary protection to ensure that the KOEL green genset operates reliably

**Genset metering:** KG controllers have built in metering of key electrical and engine parameters

**AMF compatibility:** All KG controllers are compatible with AMF panels

**Communication capability:** All KG controllers have an in built communication port to connect to your BMS / SCADA system

## Technical Specifications

Controller Type	KG 745
<b>Key Characteristics</b>	
Type of Display	4-Line back-lit LCD text display
Overall Dimensions W X L X D (mm)	245 mm x 184 mm x 51 mm
Operating Temperature (Degree C)	-30°C to +70°C
Conforms to	BS EN 61000-6-2, BS EN 61000-6-4, BS EN 60068-2-1, BS EN 60068-2-2, BS EN 60068-2-6, BS EN 60068-2-30, BS EN 60068-2-78, BS EN 60068-2-27, BS EN 60529
Control Voltage range (VDC)	8-36
Max Operating Voltage (VRMS, L-N)	15 V to 415 V AC (Ph to N), 26 V to 719 V AC (Ph to Ph)
AC Frequency Range (Hz)	3.5 Hz to 75 Hz
IP rating	IP 65 Front, IP 20 Rear
Timer	Buit in, Multifunction and Settable
Type of Termination	Amp DUAC/ Molex Mini Fit JNR
<b>Inputs</b>	
No of Digital inputs	6
Digital Input Rating (mA at 12VDC)	10
No of Programmable Digital inputs	2
No of Analog inputs	3
Analog input rating (mA)	15
<b>Outputs</b>	
No of Digital outputs	8
Digital output rating (mA, Max 32VDC)	300
No of Programmable Digital outputs	6
<b>Communication</b>	
Port	RS 485, RS 232, CAN and USB
Protocol	Modbus ASCII RTU
<b>Operational Features</b>	
	Manual Start/Stop, Automatic Start Stop, Emergency Stop, Auto Mains Failure
<b>Measurement Parameters</b>	
Electrical	Genset Voltage (L-N, L-L), Phase Current, Frequency, Genset KW, KVAR, Genset Pf, Genset KWh, Switching Device Status, Battery Voltage & Charging Status
Engine	Fuel Status, Engine Running Hours, Engine and Canopy Temperature, Engine Speed, Oil Pressure, Radiator Water Level
<b>Alarms</b>	31 Alarms with LED indication and Display

KG745 Controller



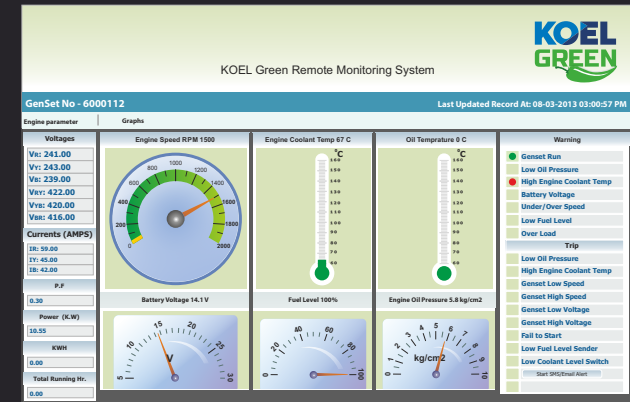
## KIRLOSKAR REMOTE MONITORING SYSTEM (KRM)

Your Genset now comes with complete remote monitoring control. Being in control of your own Genset is certainly a winning edge!

The KRM system links your Genset with a central monitoring data server through a SIM and internet. The complete monitoring panel with all critical indicators can be viewed on your laptop screen or mobile. You also get all alarms on your mobile phone.

**Critical Parameters:** Genset Run hrs, Fuel level, Engine oil pressure, Engine temperature, Engine speed (RPM), voltage/current/ kW, battery monitoring, PF & Frequency, routine maintenance indicator  
**Critical Alarms:** Low fuel level, low lub oil pressure, fuel theft, Engine speed, High Engine temperature, Mains On/ Off, Low/ High battery voltage.  
**Advantages of KRM system:** Your Genset will be used most efficiently as it's health meter will always be available at your finger-tips. Being a 'remote control' this health monitoring can be done from wherever you are from the actual location of the Genset. This close monitoring also helps in reducing your operating costs and enhancing reliability of the Genset you own. So in all, you have better return on your investment and enhanced productivity by maximum uptime.

## KRM Desktop Display



# CPCB Compliant Genset ( ≤ 800 kW )

Emission Control in Manufacturer Scope

**750 kVA**



**900 kVA**



		kVA	750 HD	900 HD
Prime Rating at rated rpm (as per ISO8528 ) <sup>1</sup>		kW	600	720
Genset Model			KG1-750WS	KG1-900WS
Frequency		Hz	50	50
Power factor		lagging	0.8	0.8
Voltage (with Three Phase Supply )		V	415 3Ø	415 3Ø
Governing class (As per ISO 8528 Part-V)			G3	G3
Noise level		dB(A)	< 75	< 75
Fuel Consumption*	At 100 % Load	Ltrs/hr	154.0	197
	At 75 % Load		126.4	163
	At 50 % Load		89.7	120
Fuel tank capacity		Ltrs	990	990
Weight of genset with canopy (approx.) <sup>^</sup>	Dry	Kg	8300	13600
	Length	mm	6800	8000
Overall dimensions of genset	Width	mm	2300	2300
	Height	mm	2713	2713
	Electrical Battery starting voltage	Volts-DC	24	24

## ENGINE

Engine Model			DV12ETA G1	DV16ETA G2
Rated output (Prime Continuous rating as per ISO 8528-1)	kW		662	799
	HP		900	1086
No. of cylinder	Number		12	16
Cubic capacity <sup>2</sup>	Ltrs		23.88	31.86
Bore x Stroke	mm		130 x 150	130 x 150
Rated Speed	RPM		1500	1500
Aspiration	NA/TC/TA		TA	TA
Lube Oil change period	hrs		500	500
Lube Oil Sump Capacity	Ltrs		53	130
Coolant Capacity	Ltrs		145	205

## ALTERNATOR

			Class H	Class H
Insulation Class			Class H	Class H
Ingression Protection			IP 23	IP 23
Alternator Efficiency (at 100% load) 0.8 pf**			94.6	94.3
Alternator Efficiency (at 75% load) 0.8 pf**			94.9	94.2
Permissible Voltage Dip at Full Load 0.8 pf Lag			< 19 %	< 19 %
Time Permitted to build up rated voltage at Rated RPM			< 1 sec provided engine reach the rated speed	< 1 sec provided engine reach the rated speed
Short Circuit Ratio			0.485	0.484

910 kVA rating genset is available on order

For intermediate ratings, kindly contact nearest KOEL office

### Notes

\*With 0.845 Specific Gravity of Diesel ( +5 % Tolerance ), ^ These weights are for handling & transportation only , Tolerances Apply

\*\* Efficiency of Alternator as per standards IS 4722 and IEC 34-1, For Site Conditions other than standard operating conditions consult KOEL for available prime power.

# INDIA'S #1 GENSET BRAND

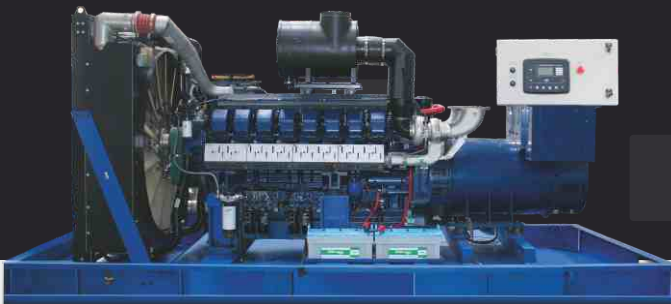
## Beyond CPCB Limit ( > 800 kW )

Emission Control in Customer Scope

**1010 kVA**



**1010 kVA Open Genset**



		kVA	1010 HD	1010 HD Open Genset
Prime Rating at rated rpm (as per ISO8528 ) <sup>1</sup>		kW	808	808
Genset Model			KG1-1010WS	KG1-1010WS
Frequency		Hz	50	50
Power factor		lagging	0.8	0.8
Voltage (with Three Phase Supply )		V	415 3Ø	415 3Ø
Governing class (As per ISO 8528 Part-V)			G3	G3
Noise level		dBA	NA	NA
Fuel Consumption*	At 100 % Load	Ltrs/hr	199	199
	At 75 % Load		155	155
	At 50 % Load		112	112
Fuel tank capacity		Ltrs	990	990
Weight of genset with canopy (approx.) <sup>^</sup>	Dry	Kg	13200	8390
	Length	mm	7800	4525
	Width	mm	2300	2095
Overall dimensions of genset	Height	mm	2713	2438
	Electrical Battery starting voltage	Volts-DC	24	24
<b>ENGINE</b>				
Engine Model			DV16ETA G1	DV16ETA G1
Rated output (Prime Continuous rating as per ISO 8528-1)	kW		889	889
	HP		1210	1210
No. of cylinder		Number	16	16
Cubic capacity <sup>2</sup>		Ltrs	31.86	31.86
Bore x Stroke		mm	130 x 150	130 x 150
Rated Speed		RPM	1500	1500
Aspiration		NA/TC/TA	TA	TA
Lube Oil change period		hrs	500	500
Lube Oil Sump Capacity		Ltrs	130	130
Coolant Capacity		Ltrs	205	205
<b>ALTERNATOR</b>				
Insulation Class			Class H	Class H
Ingression Protection			IP 23	IP 23
Alternator Efficiency (at 100% load) 0.8 pf**			95.1	95.1
Alternator Efficiency (at 75% load) 0.8 pf**			95.4	95.4
Permissible Voltage Dip at Full Load 0.8 pf Lag			≤ 15 %	≤ 15 %
Time Permitted to build up rated voltage at Rated RPM			< 1 sec provided engine reach the rated speed	< 1 sec provided engine reach the rated speed
Short Circuit Ratio			0.431	0.43

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For intermediate ratings, kindly contact nearest KOEL office

### Notes

\*With 0.845 Specific Gravity of Diesel ( +5 % Tolerance ), ^ These weights are for handling & transportation only , Tolerances Apply

\*\* Efficiency of Alternator as per standards IS 4722 and IEC 34-1, For Site Conditions other than standard operating conditions consult KOEL for available prime power.

- ★ Compact Design
- ★ Fuel Efficient
- ★ Lowest Running Cost
- ★ System Integration Ready
- ★ Digitally Enabled Gensets

# KOEL GREEN

## WIDEST RANGE OF GENSETS

# KOEL Green Back-up Power at Your Fingertips

## LOW RUNNING COSTS



KOEL Genset's Fuel efficiency is optimized for the most common usage band of 50-75% loading. Best-in-class fuel economy helps you reduce running costs.

## QUICK RESPONSE TO STEP-LOAD

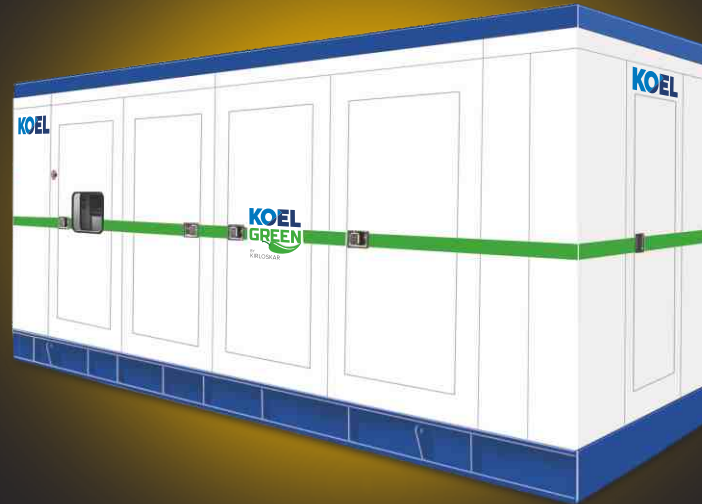


KOEL Gensets offer class-leading response to jerk loads/step-loads. This become especially important for starting large motors and operating special purpose machines.

## GENSET CONTROL AT YOUR FINGERTIPS



Remote monitoring system in KOEL Green Gensets brings performance data, service reminders and alerts right on your desktop. Live information & historical data at your fingertips.



## ONE-STOP SOLUTION



KOEL Green team assists you - from Genset selection to synchronisation, from exhaust piping to commissioning. Leverage decades of industry experience for your requirement.

## 7-DAYS ASSURED DELIVERY



7 days delivery assurance is backed by KOEL's globally-awarded supply chain. This means availability of Genset just when you need it & without blocking your money for long.

## PRODUCT CARE AT YOUR FINGERTIPS



KOEL's trained and experienced product support team is just a call away. Log in your requirement at KOEL Care Centre and we will track it till you are satisfied.



EFFICIENCY. INTEGRATED

### KOEL Gensets are available in

- Standard Radiator-cooled version
- Heat-exchanger integrable version

# Environmental Sustainability: Our Corporate Social Responsibility

KOEL accords highest priority to environment and sustainability, which is strongly embedded in the corporate governance practices of the company.

KOEL takes pride in diligently practising its century old ethos and hard work of adopting environmental friendly approach in everything we do. We at KOEL always pledge to achieve unparalleled excellence and add values to our nature and society.

Going green is a reflection of our “Go Beyond” approach and acts as a great encouragement to motivate us to attain even better performance.

## Adopt Green

Bio fuel based gensets, 100% green power from 100% Bio-Fuels, Sustainability reports, Carbon footprint report.

## Design Green

With a dedicated in-house design centre all KOEL products are not only compliant to latest pollution board norms they are also most fuel efficient with lowest exhaust emission and specifically design under KOEL environment program guidelines.

## Make Green

Material conservation recycling, Green Supply chain, Product Stewardship & power contribution to national grid.

## Promote Green

Vasundhara flagship CSR program drives Save Tigers, Save Bio Diversity, Sustainable Lifestyle, Save rivers initiatives.

## Conserve Green




Water Conservation, Rain water harvesting, Afforestation, Tree Plantation, Greenhouse gas reduction, Waste Management & Green buildings



EFFICIENCY IN CONSERVATION

# KOEL GREEN

## EFFICIENCY. INTEGRATED

<b>EFFICIENT</b>	<b>EFFICIENT</b>	<b>EFFICIENT</b>	<b>EFFICIENT</b>	<b>EFFICIENT</b>	<b>EFFICIENT</b>
<b>PRODUCTS</b>	<b>SERVICE</b>	<b>DELIVERIES</b>	<b>SOLUTIONS</b>	<b>NETWORK</b>	<b>24X7 CARE</b>
					

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Product improvement is a continuous process. Kindly contact KOEL for latest information

India's #1 Genset Brand



**KIRLOSKAR  
GREEN**  
POWER IDEAS

Is Now 

**KOEL  
GREEN**

EFFICIENCY. INTEGRATED