kirloskar
powergen

OPTIPRIME

ADVANCED MANUFACTURED GENSETS

125 kVA - 6600 kVA

Better power for a

limitless

Tomorrow

Cleaner . Reliable . Flexible

A RICH HERITAGE

OF OVER A CENTURY OF

ENGINEERING EXCELLENCE.

Kirloskar powering 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.

INDEX

OPTIPRIME

Advanced Manufactured Gensets

125 kVA - 6600 kVA

Multi-Core Power Systems

The OPTIPRIME Multi-Core (Dual-Core, Quad-Core, Octa-Core) power systems are custom-engineered solutions tailored to meet the specific needs of each customer's site. These turnkey solutions provide a compact design with exceptional noise reduction. Powered by patented OPTIPRIME technology, they deliver remarkable improvements in total cost of ownership and industry-leading fuel efficiency. The multicore solution offers breakthrough redundancy, further enhancing reliability and ensuring continuous power. Supported by Kirloskar's warranty, customers benefit from reduced operational costs, greater savings, and a minimized footprint. Its versatile design allows for single-unit deployment or combined prime and standby functionality within a single enclosure, providing optimal performance and adaptability for varying power needs.

The Versatile Power Solution

- Infrastructure
- Industry
- IT/TES
- Hospitality
- Health
- Realty
- Government & Defense
- Logistics

OPTIPRIME

Advanced Manufactured Gensets

BENEFITS

Kirloskar's **OPTIPRIME** delivers a customized and efficient power solution for applications with fluctuating loads. By intelligently managing multi-core operations through a centralized control panel and integrated Power Management System, OPTIPRIME dynamically adjusts to real-time load demands, significantly reducing fuel consumption.

- Patented Hybrid Technology
- Multi-core operations with In-built Synchronisation
- Reduced Carbon Dioxide Emissions by 40%
- Optimised Fuel Consumption
- Reduced Ownership Cost
- Optimum Power
- Optimal Efficiency
- Better Flexibility
- Reduced Nitrous OxideEmissions by 50%
- Lower Product Footprint -20% Reduction in Space

OPTIPRIME FEATURES

Prime Rating

Unlimited hours

Emission Compliant

Performance, clean power and reduced costs

Control Your Power, Anytime, Anywhere

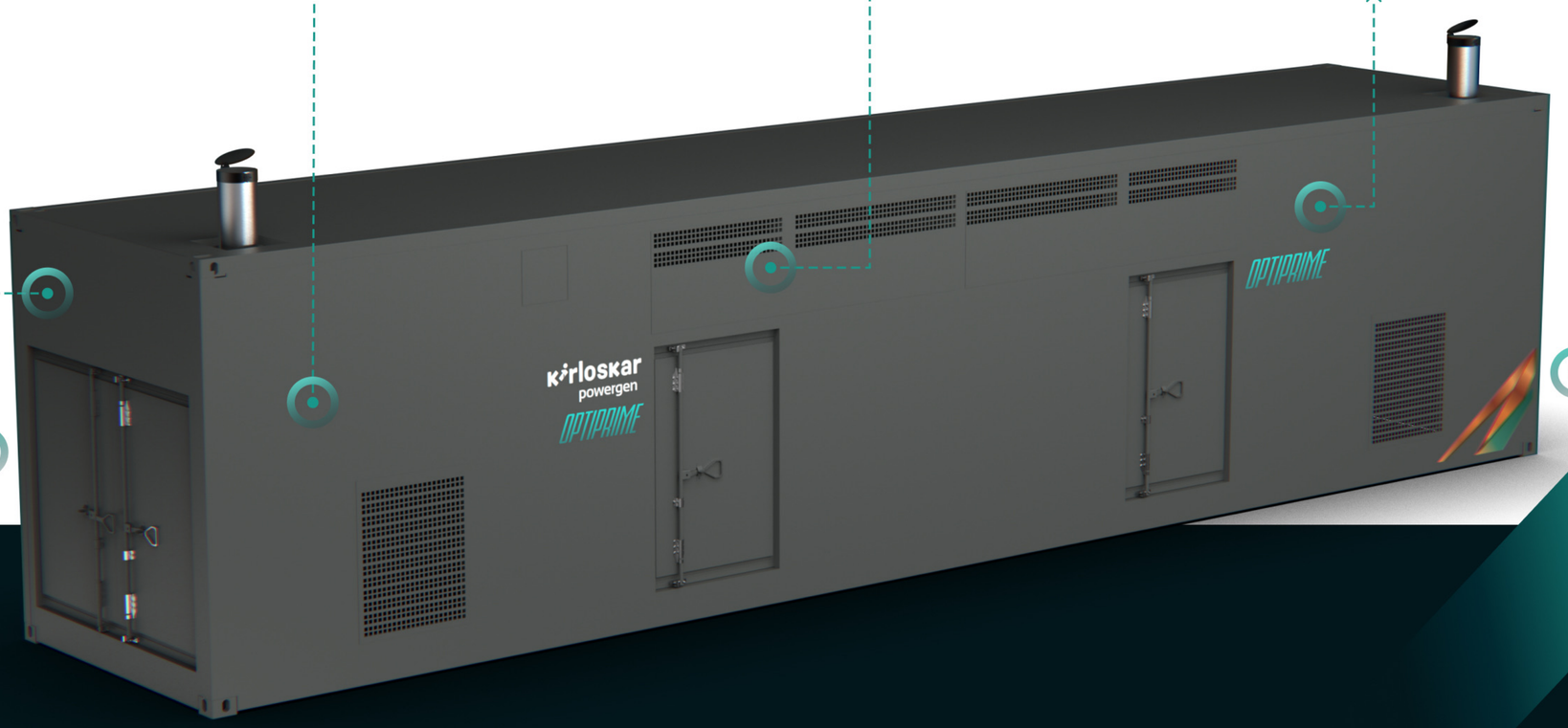
Monitor your Kirloskar genset remotely, receive alerts, and access service with a tap with our Remote Monitoring System

O2E Series

Optimal Operating Efficiency even at partial loads, further reducing costs.

Unmatched Footprint

Better Genset performance and optimal footprint



Common Rail Direct Injection (CRDi)

Advanced fuel injection for better performance, lower emissions, and smoother operation.

OPTIPRIME

125 kVA to 6600 kVA Largest Portfolio in the World !

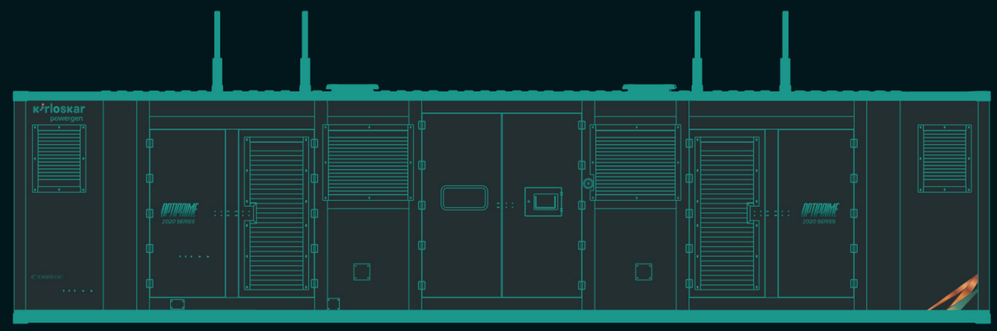
kVA	Configuration Options*	Fuel	Emission Norms	Engine Configurations
125 kVA	3	Diesel	CPCBIV+	Dual Core 4R810
250 kVA	3	Diesel	CPCBIV+	Dual Core 4K1080
320 kVA	4	Diesel	CPCBIV+	Dual Core 6K1080
400 kVA	3	Diesel	CPCBIV+	Dual Core 6K1080
500 kVA	2	Diesel	CPCBIV+	Dual Core 6K1080
500 kVA HD	2	Diesel	CPCBIV+	Dual Core SL90
500 kVA HD	2	Diesel	CPCBIV+	Quad Core 4K1080
640 kVA	3	Diesel	CPCBIV+	Dual Core SL90
700 kVA	2	Diesel	CPCBIV+	Dual Core SL90
1000/1010 kVA	1	Diesel	CPCBIV+/Stack	Dual Core PV6
1000/1010 kVA	2	Diesel	CPCBIV+/Stack	Quad Core 6K
1000/1010 kVA	3	PNG	CPCBIV+/Stack	Dual Core DV12
1000/1010 kVA	3	PNG	CPCBIV+/Stack	Quad Core DV8
2000 kVA	3	PNG	CPCBIV+/Stack	Quad Core DV12
1250 kVA	3	Diesel	CPCBIV+/Stack	Dual Core DV10
1250 kVA	2	Diesel	CPCBIV+/Stack	Quad Core SL90

Powergen HHP & Integrated Project Solutions

2 MW / 2500 kVA	Diesel	Stack	Industrial Power Systems
4 MW / 5000 kVA	Diesel	Stack	Industrial Power Systems
6 MW / 7500 kVA	Diesel	Stack	Industrial Power Systems
8 MW / 10000 kVA	Diesel	Stack	Industrial Power Systems
10 MW / 12500 kVA	Diesel	Stack	Industrial Power Systems

kVA	Configuration Options*	Fuel	Emission Norms	Engine Configurations
1400 kVA	2	Diesel	CPCBIV+/Stack	Quad Core SL90
1500 kVA	4	Diesel	CPCBIV+/Stack	Dual Core DV12
2000 kVA	4	Diesel	CPCBIV+/Stack	Dual Core DV16
2000 kVA	1	Diesel	CPCBIV+/Stack	Quad Core PV6
2250 kVA	3	Diesel	Stack	Dual Core DV16
2500 kVA	4	Diesel	Stack	Dual Core DV16
2500 kVA	4	Diesel	Stack	Dual Core K12
2500 kVA	4	Diesel	CPCBIV+/Stack	Quad Core DV10
3000/3300 kVA	4	Diesel	Stack	Dual Core K12
3000 kVA	4	Diesel	CPCBIV+/Stack	Quad Core DV12
4000 kVA	3	Diesel	CPCBIV+/Stack	Octacore PV6
4000 kVA	4	Diesel	Stack	Quad Core DV16
5000 kVA	4	Diesel	Stack	Quad Core DV16
5000 kVA	4	Diesel	Stack	Quad Core K12
6000/6600 kVA	3	Diesel	Stack	Quad Core K12
8000 kVA	3	Diesel	Stack	Quad Core K12 (2026)
10000 kVA	3	Diesel	Stack	Quad Core K16 (2027)

*Configuration options available: Series/ Parallel/ Stacking etc.



GENSET SPECIFICATIONS

125 - 700 kVA

			OPTIPRIME 125 DUAL CORE 4R810	OPTIPRIME 250 DUAL CORE 4K1080	OPTIPRIME 320 DUAL CORE 6K1080	OPTIPRIME 400 DUAL CORE 6K1080	OPTIPRIME 500 DUAL CORE 6K1080	OPTIPRIME 500 HD DUAL CORE SL90	OPTIPRIME 500 HD Quad Core 4K1080	OPTIPRIME 640 DUAL CORE SL90	OPTIPRIME 700 DUAL CORE SL90
Rating at Rated RPM		kVA	125	250	320	400	500	500	500	640	700
		kW	100	200	256	320	400	400	400	512	560
Voltage / Frequency / Power Factor			415V / 50HZ / 0.8 lagging								
Noise Level		dBA	≤ 75 dBA @ 1Mtr (Genset with canopy)								
Configuration Options			3	3	4	3	2	2	3	3	2
Fuel			Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel
Fuel Consumption*	At 100% Load	Ltrs. / Hr	21.6	48	74	91.4	106	89	97	133	89
	At 75% Load		16.6	37	58	71.1	80	69	76	102	69
	At 50% Load		12.6	26	41	50.2	58	49	54	69	49
	At 25% Load		8.9	11	16	25.1	30	27	32	35	27
Fuel Tank Capacity		Ltrs.	165 Dual Core	230 Dual Core	400 Dual Core	400 Dual Core	400 Dual Core	500 Dual Core	230 Quad Core	500 Dual Core	500 Dual Core
Tentative dimensions *Customized solution, actual may vary as per customer requirement and layout	Length	mm	2900	2520	2993	7500	3050	8500	5030	8500	8500
	Width	mm	2100	2770	2130	1450	2130	1700	2770	1700	1700
	Height (With Silencer)	mm	1701	1570	1622	1900	1422	2042	1572	2042	2042
	Genset Alignment / Configuration		Parallel	Parallel	Parallel	Series	Parallel	Series	Parallel	Series	Series
Dry weight of Genset with Canopy (Approx.)		Kg	2511	5022	5960	6000	6160	8000	7900	8100	8500

^ Tolerences Apply: # With 0.845 Specific Gravity of diesel (5% Tolerance) || $ These weight are for handling & transportation only, ±5% tolerance apply || * Efficiency of Alternator as per standards IEC 60034-1 || ** For operation of outgoing breaker higher version of Synchronization controller is required || For Site Conditions other than standard operating conditions consult Kirloskar Oil Engines Ltd. || For Site specific layout consult Kirloskar Oil Engines Ltd to ammend the Genset alignment/configuration

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ENGINE SPECIFICATIONS

ENGINE MODEL		OPTIPRIME 125 4R810ETA 4G1	OPTIPRIME 250 4K1080ETA 4G1	OPTIPRIME 320 6K1080ETA 4G1	OPTIPRIME 400 6K1080ETA 4G2	OPTIPRIME 500 6K1080ETA 4G2	OPTIPRIME 500 DUAL CORE SL90	OPTIPRIME 500HD 4K1080ETA 4G1	OPTIPRIME 640 DUAL CORE SL90	OPTIPRIME 700 DUAL CORE SL90
Rated output (Prime continuous ratings as per ISO 8528-1)	kW	54.4 Dual Core	114.7 Dual Core	147.1 Dual Core	183.8 Dual Core	183 Dual Core	228 Dual Core	114.7 Quad Core	279.5 Dual Core	279.5 Dual Core
	HP	74 Dual Core	156 Dual Core	200 Dual Core	250 Dual Core	250 Dual Core	310 Dual Core	156 Quad Core	380 Dual Core	380 Dual Core
Number of Cylinders	No.	4 Dual Core	4 Dual Core	6 Dual Core	6 Dual Core	6 Dual Core	6 Dual Core	4 Quad Core	6 Dual Core	6 Dual Core
Cubic Capacity	Ltrs.	3.24 Dual Core	4.32 Dual Core	6.48 Dual Core	6.48 Dual Core	6.64 Dual Core	8.86 Dual Core	4.32 Quad Core	8.86 Dual Core	8.86 Dual Core
Lube Oil Change Period	Hrs.	500	500	500	500	500	500	500	500	500
Lube Oil Sump Capacity	Ltrs.	10 Dual Core	14 Dual Core	25 Dual Core	25 Dual Core	25 Dual Core	27 Dual Core	14 Quad Core	27 Dual Core	27 Dual Core
Coolant Capacity	Ltrs.	12.70 Dual Core	17.7 Dual Core	28.9 Dual Core	28.9 Dual Core	28.9 Dual Core	36.4 Dual Core	17.7 Quad Core	36.4 Dual Core	36.4 Dual Core
AdBlue / DEF Capacity	Ltrs.	NA	25 Dual Core	25 Dual Core	45 Dual Core	45 Dual Core	45 Dual Core	25 Quad Core	45 Dual Core	45 Dual Core

ALTERNATOR SPECIFICATIONS

Insulation Class		Class H	Class H	Class H	Class H	Class H	Class H	Class H	Class H	Class H
Max Voltage Dip at Full Load 0.8 pf Lag	%	<20%	<20%	<20%	<20%	<20%	<20%	<20%	<20%	<20%
Max Time to build up rated voltage at Rated RPM	Sec	< 2 sec provided engine reach the rated speed								

MULTI-CORE POWER SYSTEMS SUITABLE FOR HT ALTERNATOR

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** For operation of outgoing breaker higher version of Synchronization controller is required

GENSET SPECIFICATIONS

1000 - 6600 kVA

			OPTIPRIME 1000 World smallest footprint	OPTIPRIME 1000 QUAD CORE 6K1080	OPTIPRIME 1000 DUAL CORE DV12	OPTIPRIME 1000 QUAD CORE DV8	OPTIPRIME 1250 DUAL CORE DV10	OPTIPRIME 1250 QUAD CORE SL90	OPTIPRIME 1400 QUAD CORE SL90	OPTIPRIME 1500 DUAL CORE DV12
Rating at Rated RPM		kVA	1000	1000	1000	1000	1250	1250	1400	1500
		kW	800	800	800	800	1000	1000	1120	1200
Voltage / Frequency / Power Factor			415V/50Hz/0.8Pf	415V/50Hz/0.8Pf	415V/50Hz/0.8Pf	415V/50Hz/0.8Pf	415V/50Hz/0.8Pf	415V/50Hz/0.8Pf	415V/50Hz/0.8Pf	415V/50Hz/0.8Pf
Noise Level			75dBA at 1 m	75dBA at 1 m	75dBA at 1 m	75dBA at 1 m	75dBA at 1 m	75dBA at 1 m	75dBA at 1 m	75dBA at 1 m
Configuration Options			1	2	3	3	3	2	2	4
Fuel			Diesel	Diesel	PNG	PNG	Diesel	Diesel	Diesel	Diesel
Fuel Consumption*	At 100% Load		194	178	180 Kg/hr	177.8 Kg/hr	248	212	264	292
	At 75% Load		152	138	146 Kg/hr	143.5 Kg/hr	187	160	204	240
	At 50% Load		123	98	118 Kg/hr	108.5 Kg/hr	126	116	138	170
Fuel Tank Capacity			990	400 Quad Core	Not Applicable	Not Applicable	990 Dual Core	600 Quad Core	600 Quad Core	990 Quad Core
Tentative dimentions *Customized solution, actual may vary as per customer requirement and layout	Length		3400	4870	3362	3410	2960	5094	5094	3803
	Width		2400	2130	3170	4025	3170	5108	2554	3170
	Height (With Silencer)		2900	2220	1997	2610	1982	4476	1772	2125
	Genset Alignment / Configuration	Kg	Parallel	Stacking	Parallel	Parallel	Parallel	Stacking	Parallel	Parallel
Dry weight of Genset with Canopy (Approx.)			10800	13786	17846	22800	16200	15960	17500	18500

^ Tolerences Apply: # With 0.845 Specific Gravity of diesel (5% Tolerance) || $ These weight are for handling & transportation only, ±5% tolerance apply || * Efficiency of Alternator as per standards IEC 60034-1 || ** For operation of outgoing breaker higher version of Synchronization controller is required || For Site Conditions other than standard operating conditions consult Kirloskar Oil Engines Ltd. || For Site specific layout consult Kirloskar Oil Engines Ltd to ammend the Genset alignment/configuration

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ENGINE SPECIFICATIONS

		OPTIPRIME 1000 World smallest footprint	OPTIPRIME 1000	OPTIPRIME 1000	OPTIPRIME 1000	OPTIPRIME 1250	OPTIPRIME 1250	OPTIPRIME 1400	OPTIPRIME 1500
Engine Model		D15L6	6K1080ETA 4G2	DV12TA NG1	DV8TA NG1*	DV10ETA 4G2	6SL90ETA 4G3	6SL90ETA 4G3	DV12ETA 4G2
Rated output (Prime continuous ratings as per ISO 8528-1)	kW	447 Dual Core	183.8 Quad Core	447.2 Dual Core	228 Quad Core	561.1 Dual Core	279.5 Quad Core	279.5 Quad Core	662 Dual Core
	HP	608 Dual Core	250 Quad Core	608 Dual Core	310 Quad Core	763 Dual Core	380 Quad Core	380 Quad Core	900.6 Dual Core
Number of Cylinders	No.	6 Dual Core	6 Quad Core	12 Dual Core	8 Quad Core	10 Dual Core	6 Quad Core	6 Quad Core	12 Dual Core
Cubic Capacity	Ltrs	14.76 2	6.48 Quad Core	23.89 Dual Core	15.92 Quad Core	19.9 Dual Core	8.86 Quad Core	8.86 Quad Core	23.88 Dual Core
Lube Oil Change Period	hrs.	500	500	500	500	500	500	500	500
Lube Oil Sump Capacity	Ltrs	42 Dual Core	25 Quad Core	78 Dual Core	46 Quad Core	50 Dual Core	27 Quad Core	27 Quad Core	73 Dual Core
Coolant Capacity	Ltrs	250 Dual Core	28.9 Quad Core	145 Dual Core	30 Quad Core	81.7 Dual Core	36 Quad Core	36 Quad Core	173.9 Dual Core
AdBlue / DEF Capacity	Ltrs	45 Dual Core	45 Quad Core	NA	NA	45 Dual Core	45 Quad Core	45 Quad Core	45 Dual Core

ALTERNATOR SPECIFICATIONS

Insulation Class		Class H	Class H	Class H	Class H	Class H	Class H	Class H	Class H
Max Voltage Dip at Full Load 0.8 pf Lag	%	<20%	<20%	<20%	<20%	<20%	<20%	<20%	<20%
Max Time to build up rated voltage at Rated RPM	Sec	< 2 sec provided engine reach the rated speed							

MULTI-CORE POWER SYSTEMS SUITABLE FOR HT ALTERNATOR

** For operation of outgoing breaker higher version of Synchronization controller is required

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GENSET SPECIFICATIONS

1000 - 6600 kVA

			OPTIPRIME 2000 DUAL CORE DV16	OPTIPRIME 2000 QUAD CORE PV6	OPTIPRIME 2000 QUAD CORE DV12	OPTIPRIME 2250 DUAL CORE DV16	OPTIPRIME 2500 DUAL CORE DV16	OPTIPRIME 2500 DUAL CORE K12	OPTIPRIME 2500 QUAD CORE DV10
Rating at Rated RPM		kVA	2000	2000	2000	2250	2500	2500	2500
		kW	1600	1600	1600	1800	2000	2000	2000
Voltage / Frequency / Power Factor			415V/50Hz/0.8Pf	415V/50Hz/0.8Pf	415V/50Hz/0.8Pf	415V/50Hz/0.8Pf	415V/50Hz/0.8Pf	415V/50Hz/0.8Pf	415V/50Hz/0.8Pf
Noise Level			75dBA at 1 m	75dBA at 1 m	75dBA at 1 m	75dBA at 1 m	75dBA at 1 m	75dBA at 1 m	75dBA at 1 m
Configuration Options			1	1	3	3	4	4	4
Fuel			Diesel	Diesel	PNG	Diesel	Diesel	Diesel	Diesel
Fuel Consumption*	At 100% Load		380	388	360 Kg/hr	380	380	475	496
	At 75% Load		294	302	292 Kg/hr	294	294	359	374
	At 50% Load		213	246	236 Kg/hr	213	213	252	252
Fuel Tank Capacity			990 Quad Core	990 Quad Core	Not Applicable	990 Dual Core	990 Dual Core	External Tank	990 Quad Core
Tentative dimentions *Customized solution, actual may vary as per customer requirement and layout	Length		7800	6800	3362	4505	5305	4603	4130
	Width		5600	2400	3170	3390	2430	4244	3170
	Height (With Silencer)		2713	2900	2554	2410	5600	2819	2154
	Genset Alignment / Configuration		Parallel	Parallel	Parallel	Parallel	Stacking	Parallel	Parallel
Dry weight of Genset with Canopy (Approx.)		Kg	25170	21600	35690	26752	26400	36500	32400

^ Tolerences Apply: # With 0.845 Specific Gravity of diesel (5% Tolerance) || $ These weight are for handling & transportation only, ±5% tolerance apply || * Efficiency of Alternator as per standards IEC 60034-1 || ** For operation of outgoing breaker higher version of Synchronization controller is required || For Site Conditions other than standard operating conditions consult Kirloskar Oil Engines Ltd. || For Site specific layout consult Kirloskar Oil Engines Ltd to ammend the Genset alignment/configuration

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ENGINE SPECIFICATIONS

		OPTIPRIME 2000	OPTIPRIME 2000	OPTIPRIME 2000	OPTIPRIME 2250	OPTIPRIME 2500	OPTIPRIME 2500	OPTIPRIME 2500
Engine Model		DV16ETA G3	D15L6	DV12TA NG1	DV16ETA G3	DV16ETA G3	12K4300-E1	DV10ETA 4G2
Rated output (Prime continuous ratings as per ISO 8528-1)	kW	889 Dual Core	447 Quad Core	447 Quad Core	889 Dual Core	889 Dual Core	1097 Dual Core	561.1 Quad Core
	HP	1210 Dual Core	608 Quad Core	608 Quad Core	1210 Dual Core	1210 Dual Core	1492 Dual Core	561.1 Quad Core
Number of Cylinders	No.	16 Dual Core	6 Quad Core	6 Quad Core	16 Dual Core	16 Dual Core	12 Dual Core	10 Quad Core
Cubic Capacity	Ltrs	31.84 Dual Core	14.76 Quad Core	23.89 Quad Core	31.84 Dual Core	31.84 Dual Core	51.72 Dual Core	19.9 Quad Core
Lube Oil Change Period	hrs.	500	500	500	500	500	500	500
Lube Oil Sump Capacity	Ltrs	130 Dual Core	42 Quad Core	78 Quad Core	130 Dual Core	130 Dual Core	285 Dual Core	50 Quad Core
Coolant Capacity	Ltrs	180 Dual Core	250 Quad Core	145 Dual Core	180 Dual Core	180 Dual Core	355 Dual Core	81.7 Quad Core
AdBlue / DEF Capacity	Ltrs	NA	45 Quad Core	NA	NA	NA	NA	45 Quad Core

ALTERNATOR SPECIFICATIONS

Insulation Class		Class H	Class H	Class H	Class H	Class H	Class H	Class H
Max Voltage Dip at Full Load 0.8 pf Lag	%	<20%	<20%	<20%	<20%	<20%	<20%	<20%
Max Time to build up rated voltage at Rated RPM	Sec	< 2 sec provided engine reach the rated speed						

Multi-Core Power Systems available with HT alternator

** For operation of outgoing breaker higher version of Synchronization controller is required

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GENSET SPECIFICATIONS

1000 - 6600 kVA

			OPTIPRIME 3000 / 3300 DUAL CORE K12	OPTIPRIME 3000 QUAD CORE DV12	OPTIPRIME 4000 OCTA CORE PV6	OPTIPRIME 4000 QUAD CORE DV16	OPTIPRIME 5000 QUAD CORE DV16	OPTIPRIME 5000 QUAD CORE K12	OPTIPRIME 6000 / 6600 QUAD CORE K12
Rating at Rated RPM		kVA	3000 / 3300	3000	4000	4000	5000 kVA	5000 kVA	6000 / 6600 kVA
		kW	2400 / 2640	2400	3200	3200	4000	4000	4800 / 5280
Voltage / Frequency / Power Factor			415V/50Hz/0.8Pf	415V/50Hz/0.8Pf	415V/50Hz/0.8Pf	415V/50Hz/0.8Pf	415V/50Hz/0.8Pf	415V/50Hz/0.8Pf	415V/50Hz/0.8Pf
Noise Level			75dBA at 1 m	75dBA at 1 m	75dBA at 1 m	75dBA at 1 m	75dBA at 1 m	75dBA at 1 m	75dBA at 1 m
Configuration Options			4	4	3	4	4	4	3
Fuel			Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel
Fuel Consumption*	At 100% Load		589	584	776	760	760	950	1178
	At 75% Load		437	480	608	588	588	718	874
	At 50% Load		298	340	492	426	426	504	596
Fuel Tank Capacity			External Tank	990 Quad Core	990 Quad Core	990 Quad Core	990 Quad Core	External Tank	External Tank
Tentative dimentions *Customized solution, actual may vary as per customer requirement and layout	Length		4303	7606	6800	9810	4505	7606	7606
	Width		4244	6340	2400	4560	3390	4244	4244
	Height (With Silencer)		2819	2575	5800	2800	3000	3120	3120
	Genset Alignment / Configuration	Kg	Parallel	Parallel	Stacking+Parallel+Series	Parallel	Stacking	Parallel	Parallel
Dry weight of Genset with Canopy (Approx.)			37500	37000	37500	52000	26752	74000	74000

^ Tolerences Apply: # With 0.845 Specific Gravity of diesel (5% Tolerance) || $ These weight are for handling & transportation only, ±5% tolerance apply || * Efficiency of Alternator as per standards IEC 60034-1 || ** For operation of outgoing breaker higher version of Synchronization controller is required || For Site Conditions other than standard operating conditions consult Kirloskar Oil Engines Ltd. || For Site specific layout consult Kirloskar Oil Engines Ltd to ammend the Genset alignment/configuration

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ENGINE SPECIFICATIONS

		OPTIPRIME 3000 / 3300	OPTIPRIME 3000 / 3300	OPTIPRIME 4000	OPTIPRIME 4000	OPTIPRIME 5000	OPTIPRIME 5000	OPTIPRIME 6000 / 6600
Engine Model		12K4300-E2	DV12ETA 4G2	D15L6	DV16ETA 4G3	DV16ETA G3	12K4300-E1	12K4300-E2
Rated output (Prime continuous ratings as per ISO 8528-1)	kW	1295 Dual Core	662 Quad Core	447 Octa Core	889 Quad Core	889 Quad Core	1097 Quad Core	1295 Quad Core
	HP	1760 Dual Core	900.6 Quad Core	608 Octa Core	1210 Quad Core	1210 Quad Core	1492 Quad Core	1760 Quad Core
Number of Cylinders	No.	12 Dual Core	12 Quad Core	6 Octa Core	16 Quad Core	16 Quad Core	12 Quad Core	12 Quad Core
Cubic Capacity	Ltrs	51.72 Dual Core	23.88 Quad Core	14.76 Octa Core	31.84 Quad Core	31.84 Quad Core	51.72 Quad Core	51.72 Quad Core
Lube Oil Change Period	hrs.	500	500	500	500	500	500	500
Lube Oil Sump Capacity	Ltrs	285 Dual Core	73 Quad Core	42 Octa Core	130 Quad Core	130 Quad Core	285 Quad Core	285 Quad Core
Coolant Capacity	Ltrs		173.9 Quad Core	250 Octa Core	180 Quad Core	180 Quad Core	355 Quad Core	
AdBlue / DEF Capacity	Ltrs	NA	45 Quad Core	45 Octa Core	NA	NA	NA	NA

ALTERNATOR SPECIFICATIONS

Insulation Class		Class H	Class H	Class H	Class H	Class H	Class H	Class H
Max Voltage Dip at Full Load 0.8 pf Lag	%	<20%	<20%	<20%	<20%	<20%	<20%	<20%
Max Time to build up rated voltage at Rated RPM	Sec	< 2 sec provided engine reach the rated speed						

Multi-Core Power Systems available with HT alternator

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BEYOND EFFICIENCY

A Closer Look at Cutting-Edge Technology

Top Mounted Radiator

Low Emission

Efficient CRDi System

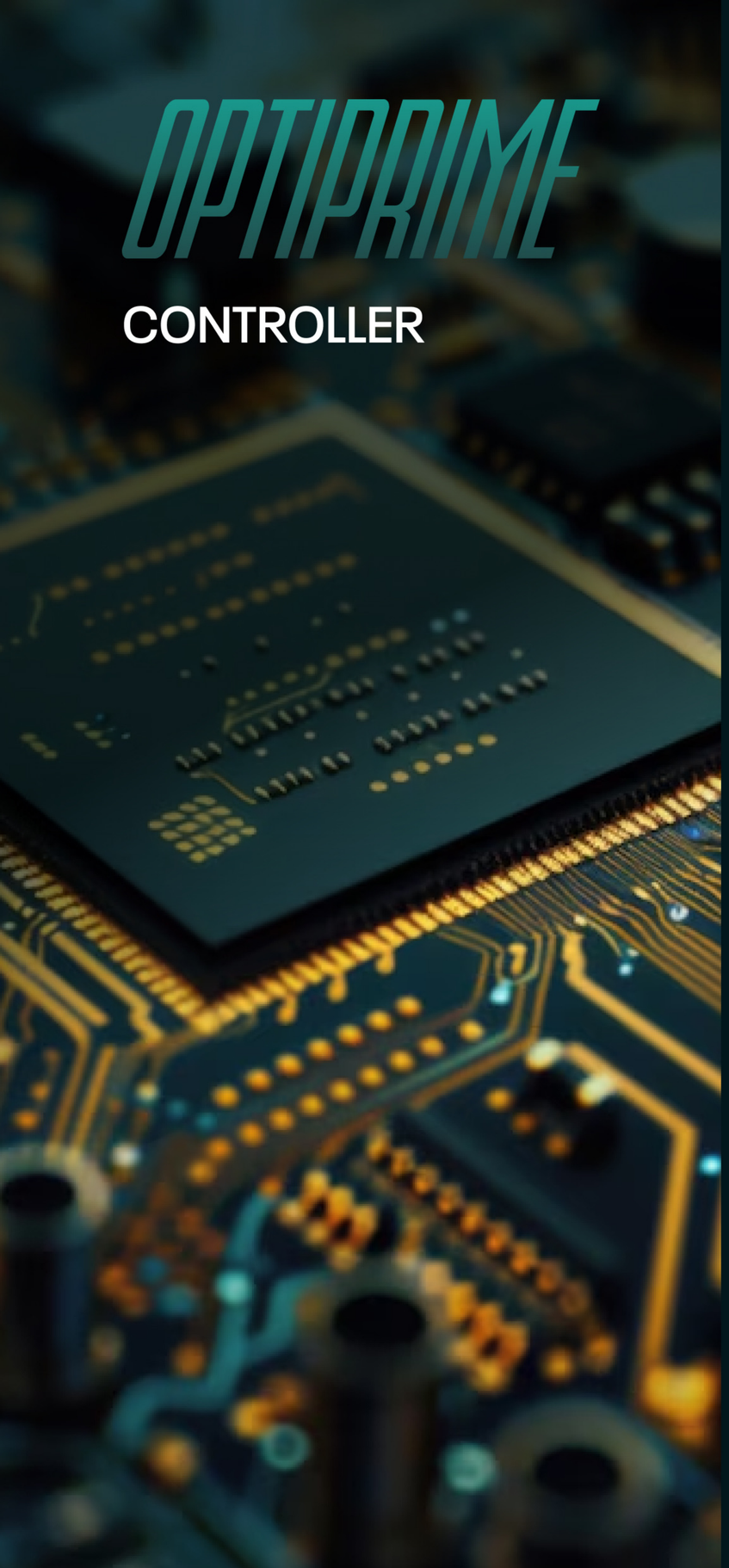
500 Hours Lube Oil Change Period

Compact, Robust and Efficient

Microprocessor Based Controller

Graphical LCD Display

Advanced Monitoring and Diagnostics



OPTIPRIME

CONTROLLER

THE BRAIN BEHIND OUR POWER SYSTEMS

Multi-Core operation for superior performance and maximizing efficiency

HMI and SCADA Integration

Provides a user - friendly interface for local and remote monitoring and control, as well as seamless integration with BMS and DMS systems

CAN-based

Communication Utilizes a robust CAN bus network for seamless communication between the controller and generator components

Fast Synchronization

Enables rapid synchronization of incoming gensets to the bus, minimizing downtime and disturbances

Adaptive Control

Utilizes AI-based optimization and predictive control to adapt to varying load conditions and optimize efficiency

Fault Tolerance

Incorporates redundancy measures and fail-safe mechanisms to ensure high availability and prevent single points of failure

Efficient Load Sharing

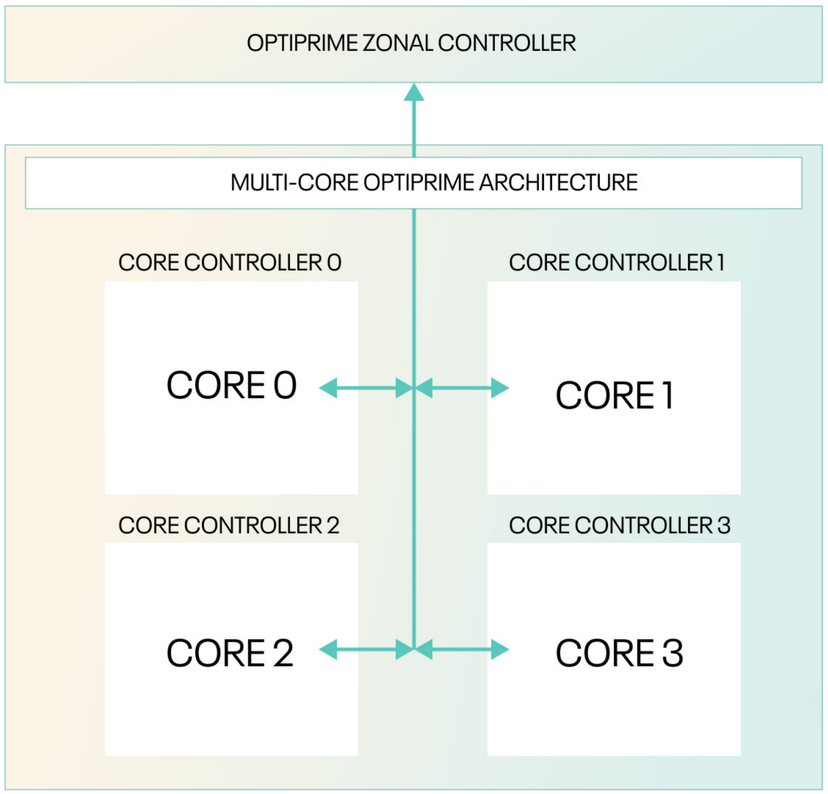
Employs advanced algorithms for precise load sharing between gensets, ensuring optimal fuel consumption and performance

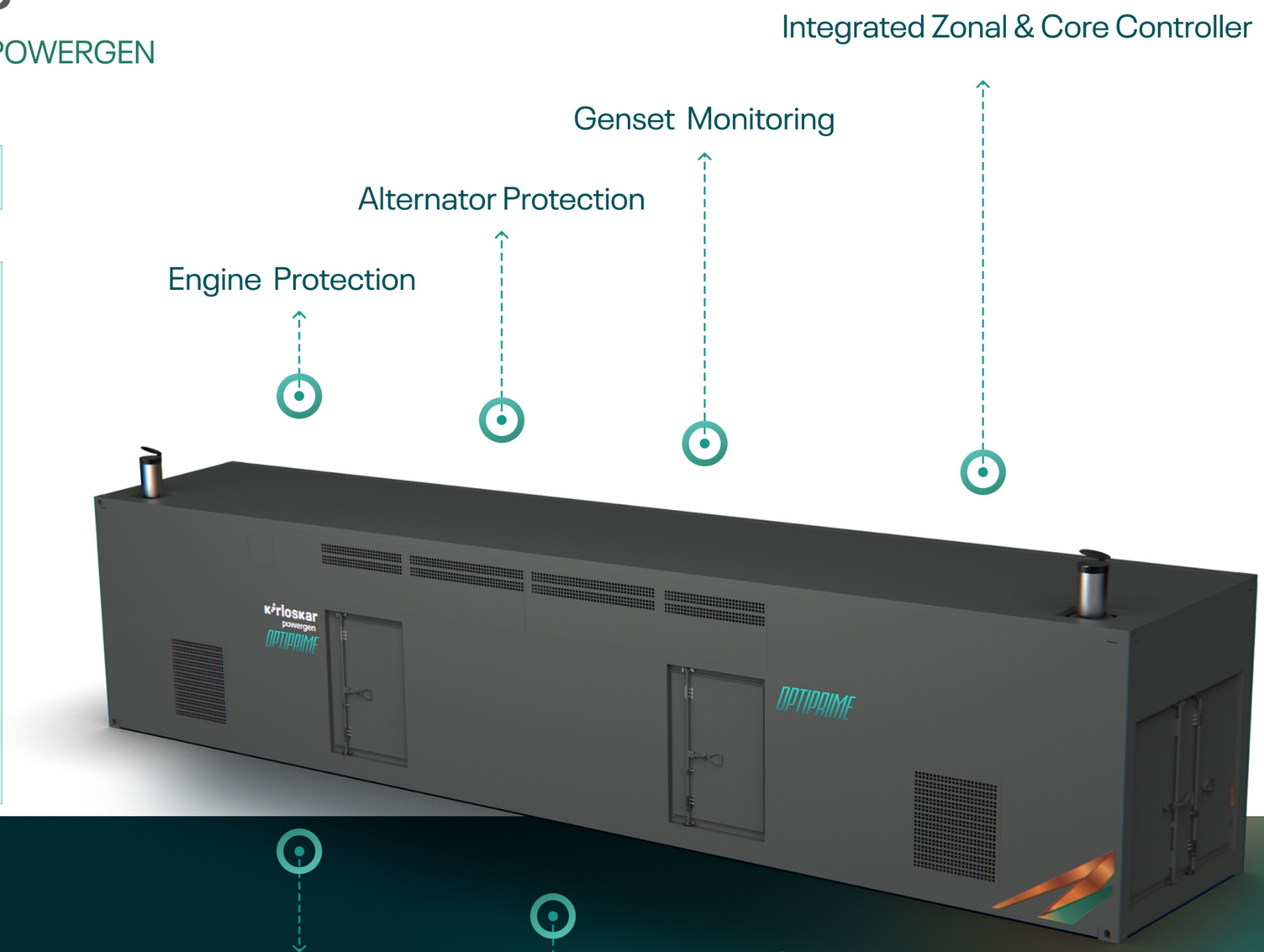
Zonal Centralized Control

Engineered design for domain centralized control to ensure seamless transition between zonal and Core control system ensuring inherent redundancy

MULTI-CORE OPERATIONS

TAILOR MADE SOLUTION DRIVEN BY KIRLOSKAR POWERGEN



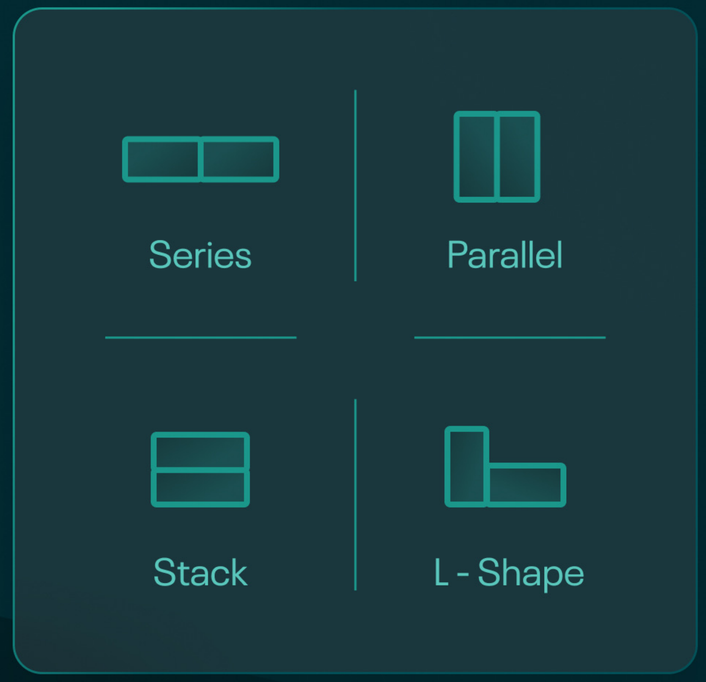


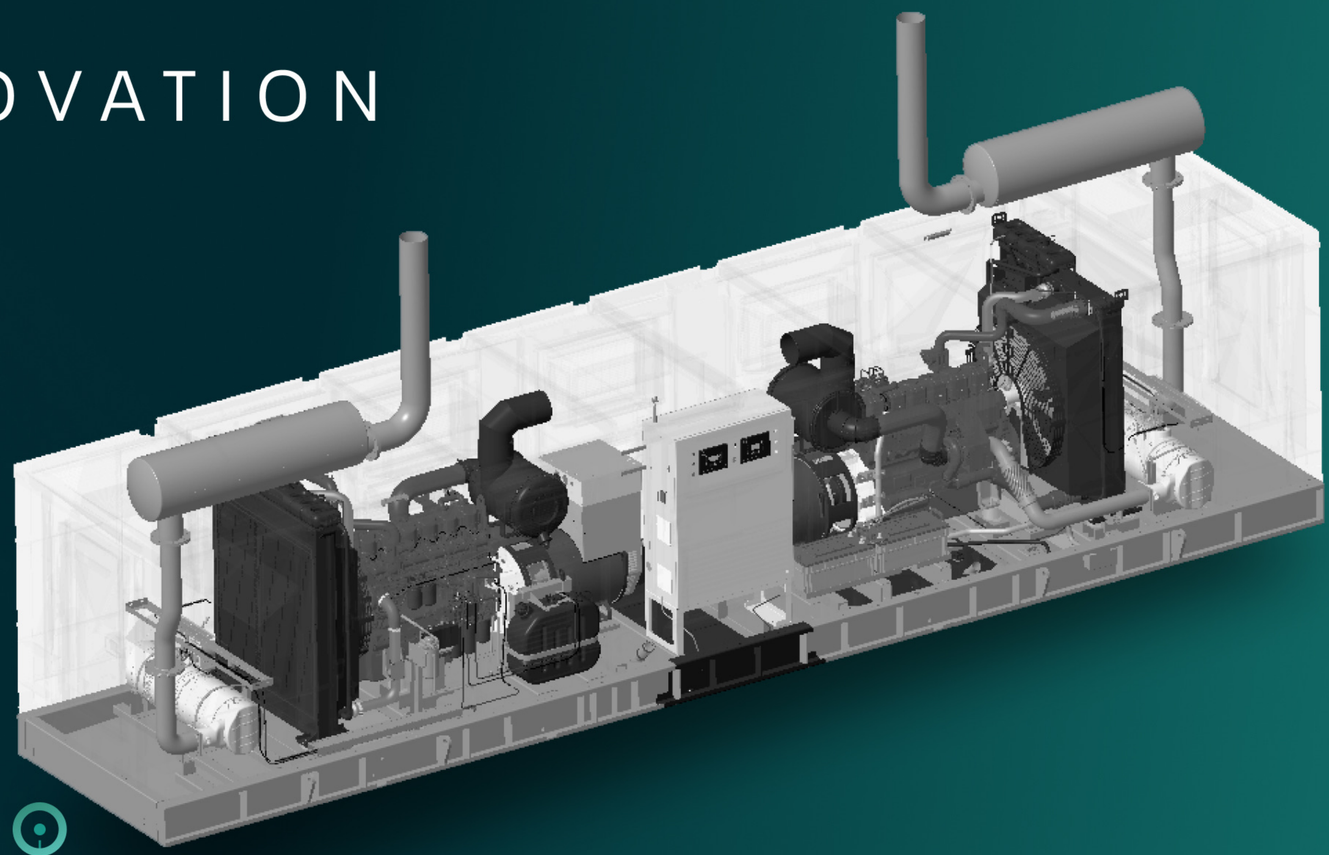
- Highly reliable OPTIPRIME Controller handles multi core operations driven by individual core controllers.
- Controller handles multiple control loops (Speed, Voltage, Phase Sync) driving superior performance.

MULTI-CORE : INNOVATION

COMBINED WITH OPTIMAL EFFICIENCY

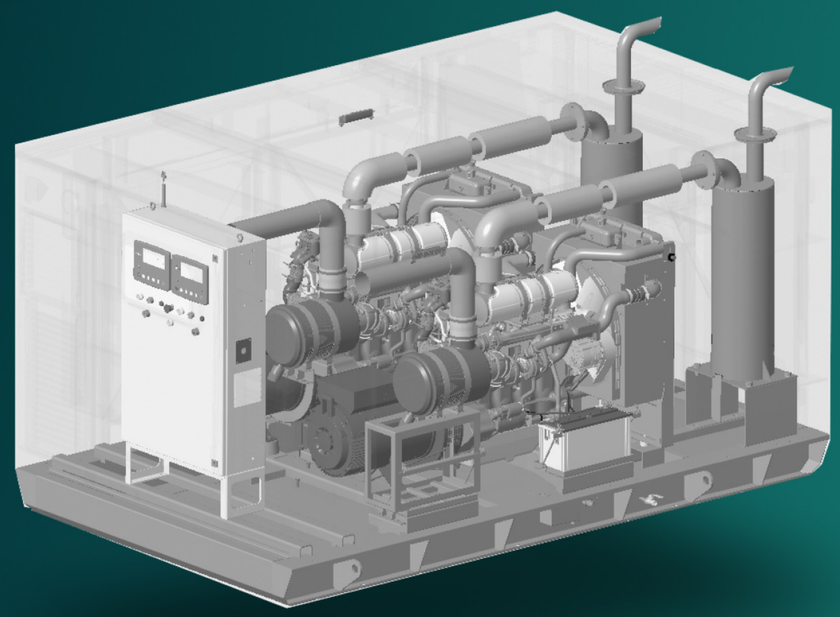
Multiple configuration options available based on customer and site requirements





SERIES

PARALLEL



OPTIPRIME

Advanced Manufactured Gensets

PROJECT SOLUTION

1000 kVA - 6600 kVA

Kirloskar Powergen's Project Solutions offers comprehensive suite of services, encompassing end-to-end engineering solutions tailored to meet diverse client requirements.

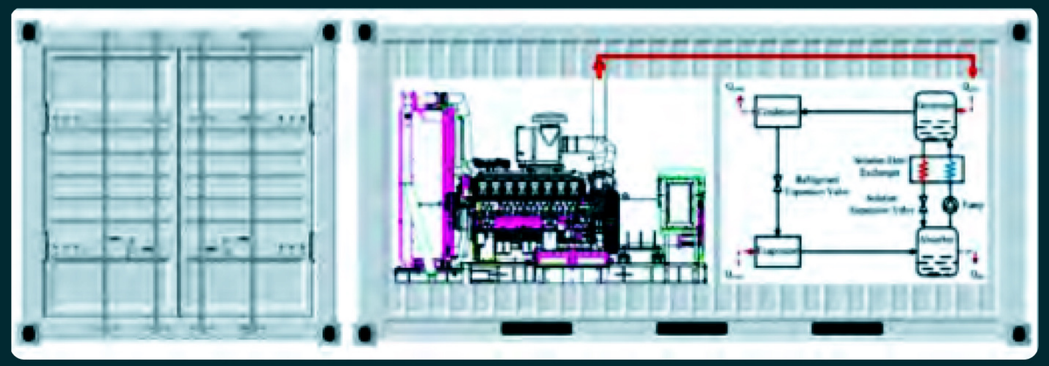
This includes product customization, site-specific adaptations, intricate design and modification capabilities, seamless system integration and robust MEP solutions. Driven by a commitment to delivering turnkey solutions, Kirloskar Powergen empowers customers to personalize their products, ensuring alignment with their unique operational needs and project specifications.

OPTIPRIME Trigeneration Series

Kirloskar's OPTIPRIME Trigeneration Series delivers a revolutionary solution for businesses with critical HVAC loads, offering uninterrupted power and cooling while significantly reducing diesel consumption. By integrating a trigeneration cycle within the genset, OPTIPRIME allows for downsizing your DG, providing rapid startup times and seamless Automatic Load Transfer / Auto Mains Failure (AMF) to ensure instant power and cooling during outages.

The innovative waste heat recovery system powers grid-independent absorption cooling, extending UPS runtime and optimizing chiller performance, all while maintaining stable and efficient HVAC support for sensitive systems like server rooms.

This prime-rated, standby-ready solution activates in seconds, providing both power and cooling, eliminating thermal build up and maximizing operational uptime, makingit the ideal choice for businesses demanding reliability and efficiency.



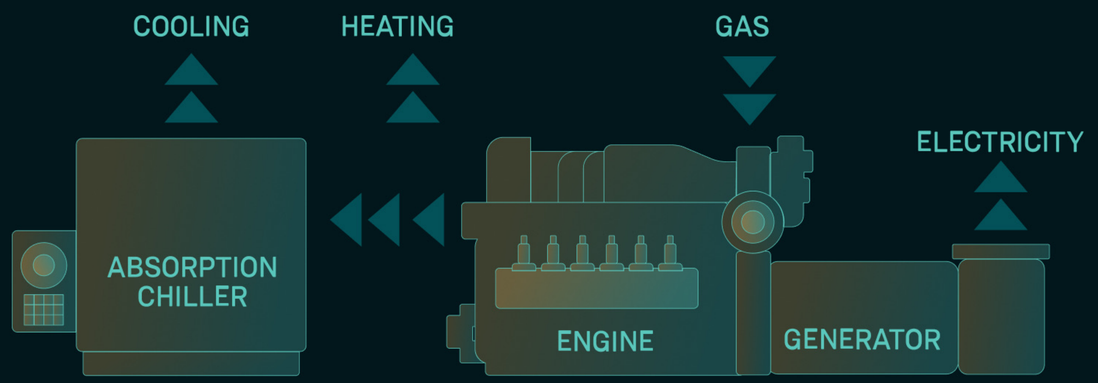
SUSTAINABILITY

ECONOMIC ADVANTAGES

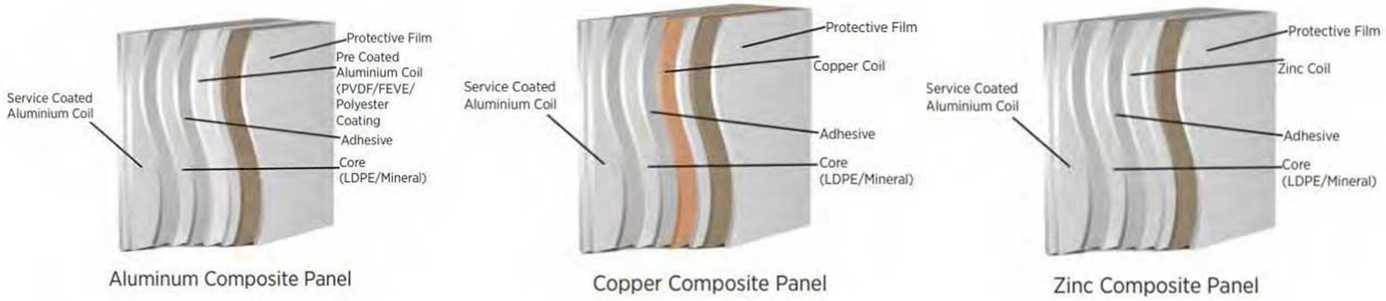
- 30-40% reduction in fuel costs
- Up to 50% savings on electricity costs for cooling

ENVIRONMENTAL BENEFITS

- 30-50% reduction in CO2 emissions
- Supports ESG & Green Building compliance
- A step towards Net Zero energy goals
- Payback within 1.5 to 4 years



THE MOST ADVANCED MATERIALS FOR ACOUSTICS & HAZARD MANAGEMENT



UNMATCHED NOISE ATTENUATION

Our composite material offers clear advantages over traditional metal sheets by reducing noise through the combination of materials with different densities and textures.

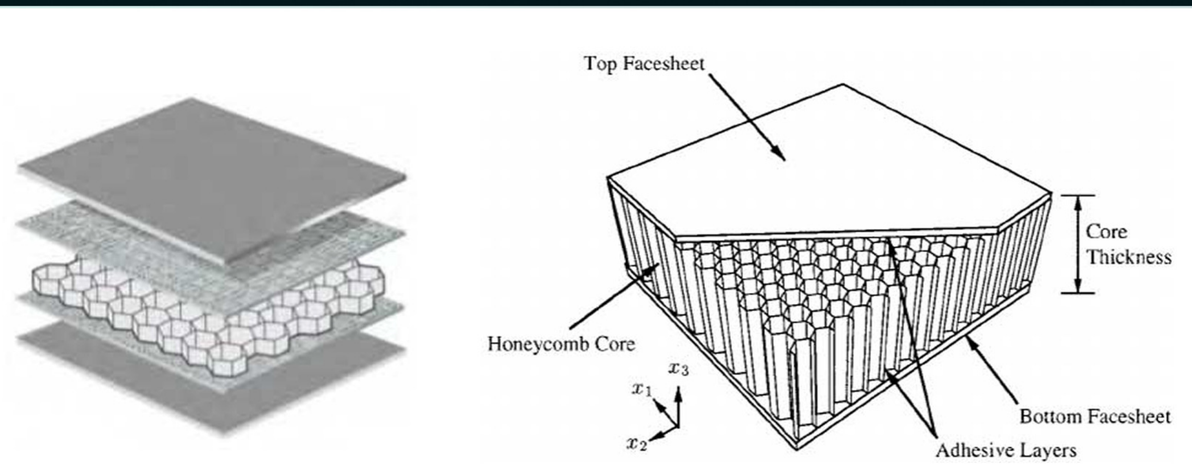
Our panels absorb and dissipate sound energy across a wide frequency range, effectively trapping sound waves and preventing them from travelling further.

This noise reduction is achieved through layered materials within the panels that act as both sound barriers and absorbers.

HONEYCOMB PANEL FOR UNMATCHED FIRE SAFETY

The unmatched strength of honeycomb panels, particularly aluminium honeycomb panels is a defining characteristic that sets them apart as a superior choice for a wide array of installations and applications. Their unique hexagonal core significantly delays fire spread, maximizing evacuation time, and they are inherently non-combustible. This combination of strength and fire resistance, coupled with their lightweight nature, is crucial in aerospace, metro coaches, and theaters.

We utilize this technology to provide our customers with custom fire-proof power solutions, ensuring their safety and minimizing risk.



NEXT-GEN POWER FOR DATA CENTRES

Data centres are the backbone of the digital world, demanding uninterrupted power, high efficiency, and seamless integration. Our Optiprime Series—an advanced multicore power generation system designed for superior performance, unmatched efficiency, and seamless integration with data centre infrastructure.

Scalability & Load Flexibility

Engines turn on/off based on demand, ensuring efficiency.

Lower Cost & Compact Footprint

Factory-fitted synchronization, lowest cost of ownership.

Fuel Efficient & Redundant

Optimized load sharing, fail-safe design.

Industry-Leading Compact Design

Maximized power density, smallest footprint.

Global Emission Compliance

Meets CPCB IV+, EURO V, and Tier IV Final standards.

Alternate Fuels Ready

Available in Natural Gas, Hydrogen, and other alternatives.

POWERING YOUR DATA CENTRE NEEDS

OPTIPRIME MODEL	KEY FEATURE
640 kVA Dual Core	Ideal for data centres with footprint constraints
1000 kVA Dual Core	A marvel of engineering for high reliability
2500 kVA Dual Core	Designed from the ground up for large-scale data centres
6600 kVA Quad Core	The ultimate solution for high-density power demands

FUTURE PROOFING YOUR DATA CENTRES

Waste Heat Recovery & Trigeneration – Convert waste heat into power & cooling.

AI-driven Remote Monitoring & Predictive Maintenance.

Seamless Integration with BMS, UPS & switchgear.

Up to 50% reduction in CO_2 & NOx emissions.

Supports ESG compliance & Net Zero targets.

Maximized efficiency up to 85% with Trigeneration.

PERFECT FOR LARGE-SCALE DATA CENTERS

DATA CENTRE LOAD	OPTIPRIME MODEL	COOLING CAPACITY (TR)
Data Centre Load	Optiprime 2500	600-600 TR
1-5 MW	Optiprime 5000	800-1000 TR
5-10 MW	Optiprime 6600	1000-2000 TR

6600 KVA - INDUSTRY FIRST QUAD CORE SYSTEM

BEST-IN-CLASS NOISE ATTENUATION & FIRE SAFETY

GLOBAL EMISSION COMPLIANCE - CPCB IV+, EURO V, TIER IV FINAL

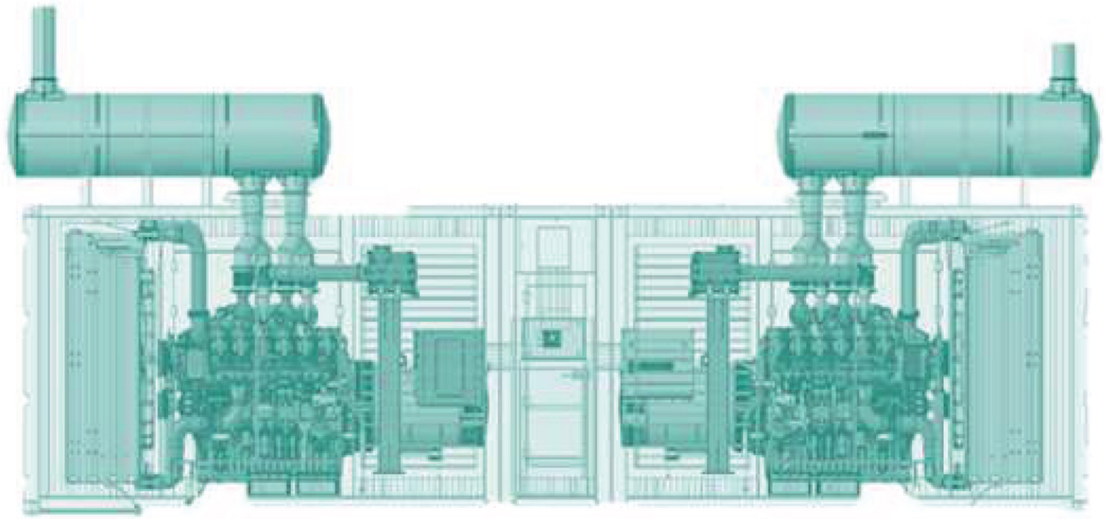
ENERGY MANAGEMENT SYSTEM

OPTIPRIME offers state of the art control system which is compatible with large Projects, Building Management Systems, SCADA and can be integrated seamlessly with Battery Storage Systems

Advanced OPTIPRIME Control System -> Integrates with your DCMS/BMS/EMS

Integrated Battery Energy Storage System -> Custom built to your requirement

Multi-Core patented hybrid technology



OPTIPRIME: The Complete turnkey solution

- Customized engineered solution
- Complete aftermarket service support with multiple service solution contract options available
- Installation & Commissioning
- Exhaust stack & Sync panel

Reduction in Total Cost of Ownership

- Backed by Kirloskar warranty
- Improved efficiency at partial loads
- Better fuel consumption
- Leverage indigenized parts

Increased Flexibility through Hybrid ESS + ICE

- Power redundancy: N+1, 2N & 2N+1
- Compact footprint
- Enhance Reliability
- Ease of handling and transportation
- Fast Paralleling

OPTIPRIME

Advanced Manufactured Gensets

WORLD'S SMALLEST
1000 kVA GENSET

LOWEST FOOTPRINT

Length : 3400 mm
Width : 2400 mm
Height : 2900 mm

BENEFITS

- World's most compact footprint
- Easy to handle
- Modular Scalability for Future Growth
- Robust Redundancy for Uninterrupted Performance
- Engineered for Better sound attenuation
- Seamless Integration with Building Management Systems
- Advanced Remote Monitoring
- Visually Compelling Enclosure

CUSTOMER TESTIMONIALS

REAL ESTATE

Kirloskar Powergen's 1000 kVA OPTIPRIME system delivered exceptional reliability and fuel efficiency. Their seamless process, from expert guidance to robust after sales support, was impressive. OPTIPRIME technology has significantly improved our operations and cost savings. We highly recommend Kirloskar Powergen.

HOTEL BUSINESS

We needed a dependable 400 kVA backup, and Kirloskar Powergen was able to cater our needs. Honestly it just works. Fuel efficiency is good, and their team walked us through all the technicalities and provided sales & service support. When you have a power need, you want someone who gets it done right. Kirloskar Powergen did.

HEALTH CARE

In a hospital setting, power reliability isn't a luxury, it's a necessity. We chose Kirloskar Powergen's 500 kVA OPTIPRIME system because we needed a brand we could trust and rely on for dependable backup power. When the power goes out, it kicks in instantly. That's what matters in healthcare.

EFFICIENCY.INTEGRATED

A KIRLOSKAR PROMISE

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

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

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

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.

NETWORK

- 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

24x7

- 24x7 operational customer care center
- 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

KIRLOSKAR POWERGEN PRODUCT PORTFOLIO

3 kW - 10 MW / 12500 kVA

Kirloskar Powergen Advanced Manufactured Gensets

MOBILE & STATIONARY

kVA	Fuel	Emission Norms
3 kW	Petrol	CPCBIV+
4 kW	Petrol	CPCBIV+
5 kW	Petrol	CPCBIV+
3.5 kVA	Diesel	CPCBIV+
5 kVA	Diesel	CPCBIV+
7.5kVA	Diesel	CPCBIV+
10 kVA	Diesel	CPCBIV+
15 kVA	Diesel	CPCBIV+
15 kVA	Ethanol	CPCBIV+
12.5 kVA	PNG	CPCBIV+
15 kVA	PNG	CPCBIV+

NATURAL GAS

25/30 kVA	PNG	CPCBIV+
62.5 kVA	PNG	CPCBIV+
82.5 kVA	PNG	CPCBIV+
125 kVA	PNG	CPCBIV+
250 kVA	PNG	CPCBIV+
320 kVA	PNG	CPCBIV+
500 kVA	PNG	CPCBIV+

HHP, OPTIPRIME & CUSTOM SOLUTIONS

kVA	Fuel	Emission Norms	Model No.
125 kVA	Diesel	CPCBIV+	Dual Core 4R810
250 kVA	Diesel	CPCBIV+	Dual Core 4K1080
320 kVA	Diesel	CPCBIV+	Dual Core 6K1080
400 kVA	Diesel	CPCBIV+	Dual Core 6K1080
500 kVA	Diesel	CPCBIV+	Dual Core 6K1080
500 kVA HD	Diesel	CPCBIV+	Dual Core SL90
640 kVA	Diesel	CPCBIV+	Quad Core 4K1080
700 kVA	Diesel	CPCBIV+	Dual Core SL90
1000/1010 kVA	Diesel	CPCBIV+/Stack	Dual Core SL90
1000/1010 kVA	Diesel	CPCBIV+/Stack	Dual Core PV6
1000/1010 kVA	PNG	CPCBIV+/Stack	Quad Core 6K
1000/1010 kVA	PNG	CPCBIV+/Stack	Dual Core DV12
2000 kVA	PNG	CPCBIV+/Stack	Quad Core DV8
1250 kVA	Diesel	CPCBIV+/Stack	Quad Core DV12
1250 kVA	Diesel	CPCBIV+/Stack	Dual Core DV10
1400 kVA	Diesel	CPCBIV+/Stack	Quad Core SL90
1500 kVA	Diesel	CPCBIV+/Stack	Quad Core SL90
2000 kVA	Diesel	CPCBIV+/Stack	Dual Core DV12
2000 kVA	Diesel	CPCBIV+/Stack	Dual Core DV16
2000 kVA	Diesel	CPCBIV+/Stack	Quad Core PV6

UHHP, OPTIPRIME & CUSTOM SOLUTIONS

kVA	Fuel	Emission Norms	Model No.
2500 kVA	Diesel	Stack	Dual Core DV16
2500 kVA	Diesel	Stack	Dual Core K12
2500 kVA	Diesel	CPCBIV+/Stack	Quad Core DV10
3000/3300 kVA	Diesel	Stack	Dual Core K12
3000 kVA	Diesel	CPCBIV+/Stack	Quad Core DV12
4000 kVA	Diesel	CPCBIV+/Stack	Octacore PV6
4000 kVA	Diesel	Stack	Quad Core DV16
5000 kVA	Diesel	Stack	Quad Core DV16
5000 kVA	Diesel	Stack	Quad Core K12
6000 / 6600 kVA	Diesel	Stack	Quad Core K12
8000 kVA	Diesel	Stack	Quad Core K12 (2026)
10000 kVA	Diesel	Stack	Quad Core K16 (2027)

Powergen HHP & Integrated Project Solutions

2 MW / 2500 kVA	Diesel	Stack	Industrial Power Systems
4 MW / 5000 kVA	Diesel	Stack	Industrial Power Systems
6 MW / 7500 kVA	Diesel	Stack	Industrial Power Systems
8 MW / 10000 kVA	Diesel	Stack	Industrial Power Systems
10 MW / 12500 kVA	Diesel	Stack	Industrial Power Systems

KIRLOSKAR POWERGEN PRODUCT PORTFOLIO

3 kW - 10 MW / 12500 kVA

Kirloskar Powergen Advanced Manufactured Gensets

kVA	Fuel	Emission Norms
HYBRID GENSETS		
10 kVA + 4 kW	Diesel+Solar+Battery	CPCBIV+
20 kVA + 8 kW	Diesel+Solar+Battery	CPCBIV+
30 kVA + 12 kW	Diesel+Solar+Battery	CPCBIV+
40 kVA + 16 kW	Diesel+Solar+Battery	CPCBIV+
ALTERNATE FUEL		
62.5 kVA	H2: CNG	CPCBIV+
62.5 kVA	Ethanol	CPCBIV+
62.5 kVA	H2: Diesel	CPCBIV+
125 kVA	H2: CNG	CPCBIV+

Kirloskar Powergen Gensets

kVA	Fuel	Emission Norms
LHP		
7.5 kVA	Diesel	CPCBIV+
10 kVA	Diesel	CPCBIV+
15 kVA	Diesel	CPCBIV+
20 kVA	Diesel	CPCBIV+
25 kVA	Diesel	CPCBIV+
30 kVA	Diesel	CPCBIV+
40 kVA	Diesel	CPCBIV+
58.5 kVA	Diesel	CPCBIV+
82 kVA	Diesel	CPCBIV+
125 kVA	Diesel	CPCBIV+
160 kVA	Diesel	CPCBIV+
200 kVA	Diesel	CPCBIV+
200 kVA HD	Diesel	CPCBIV+
250 kVA	Diesel	CPCBIV+

kVA	Fuel	Emission Norms
MHP		
320 kVA	Diesel	CPCBIV+
320 kVA HD	Diesel	CPCBIV+
400 kVA	Diesel	CPCBIV+
500 kVA	Diesel	CPCBIV+
500 kVA HD	Diesel	CPCBIV+
625 kVA	Diesel	CPCBIV+
625 kVA HD	Diesel	CPCBIV+
750 kVA	Diesel	CPCBIV+
HHP		
1010 kVA	Diesel	Stack
1250 kVA	Diesel	Stack
1250 kVA	Diesel	Stack
1500/1650 kVA	Diesel	Stack
2000 kVA	Diesel	Stack
2500 kVA	Diesel	Stack

^ Tolerences Apply: # With 0.845 Specific Gravity of diesel (5% Tolerance) || $ These weight are for handling & transportation only, ±5% tolerance apply || * Efficiency of Alternator as per standards IEC 60034-1 || ** For operation of outgoing breaker higher version of Synchronization controller is required || For Site Conditions other than standard operating conditions consult Kirloskar Oil Engines Ltd. || For Site specific layout consult Kirloskar Oil Engines Ltd to ammend the Genset alignment/configuration

kirloskar powergen

SHAPING THE FUTURE.
DELIVERING POWER GLOBALLY.

INGENIOUS DESIGN.
UNMATCHED PERFORMANCE.

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koel.sales@kirloskar.com

BETTER POWER FOR A *limitless* TOMORROW

Stamp of Authorised Representative

20250401/ Kirloskar powergen_125 kVA-10 MW_Optiprime_1000+ nos