Enriching Lives

KIRLOSKAR GREEN POWER IDEAS

LIFE ENRICHING PACKAGE 600 KVA SILENT GENSET

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WHAT'S IN

INTRODUCTION

Kirloskar Engines - The driving force behind the Nation

- 'Kirloskar'- The brand with rich engineering heritage for over 100 years.
- Active population of over two million engines worldwide.
- Annual manufacturing volumes exceeding 180,000 engines for range between 3hp to 8000hp.
- Dominant market presence in power generation, construction, earthmoving, material handling and tractor engine segment.
- Prestigious ISO 9001 certification for Quality Management System since 1992 & ISO 14001 certification for Environment Management System since 1999.

Kirloskar Green Power Facts

- Kirloskar Gen-Sets are market leaders in the Indian Market with full range from 2.5 kVA to 600 kVA and 1.6 MW to 5.1 MW.
- More than 30,000 Gen-sets all over the country help run the Indian Cellular Telecom Network.
- More than 15,000 Gen-sets deployed along the Indian Borders, helping the Defence Organizations.
- Large number of Satisfied Customers from Manufacturing, Software, Construction, Infrastructure sector in 320 kVA to 600 kVA range.

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2. PRODUCT SPECIFICATIONS

GENSET		
Genset Model		KG 600 WS
KVA Rating at 0.8 P.F	kVA	600*
Voltage	V	415
Frequency	Hz	50
Phase		3
Power Factor		0.8
Overall Dimensions (with canopy)	mm	5700 L X 2150 W X 3690
Approximate Dry Weight (with canopy)	Kg	7000
Genset Static load	Kg	7150
Dynamic load	Kg	4370
Rated speed	RPM	1500
Method of Starting		24V, Electric
Governing class (ISO 8528)		G3
Overload capability (for 1 hr in 12 hrs operation)	%	10
Fuel consumption at 75% load	Ltrs/hr	93.38**
Lube Oil Consumption at 75% load	Ltrs/hr	0.12***
Lube oil change period	hr	250
Alternator efficiency at 75% load	%	94.1
DG set Noise level at 1m (with canopy)	dB(A)	73.5

* Prime rating available with varying loads for unlimited number of hours.

**Considering Specific gravity of diesel as 0.845 (+5% tolerance applicable as per ISO 3046)

***Average value, subject to use of recommended K-oil as lubricating oil.

KIRLOSKAR™ GREEN POWER IDEAS

In view of continuous product up-gradation, above specifications are subject to change without prior notice

3. PRODUCT FEATURES

Engine Features:

- Rugged design to meet toughest operating conditions.
- High grade cast iron cylinder block and cylinder heads.
- Centrifugally cast Liners with controlled plateau honing for quick ring bedding and excellent oil control.
- Forged steel crank shaft with induction hardening & cam shaft with carburised heat treatment.
- Aluminum alloy pistons with 3 ring pack, controlled profile and open dish type combustion chamber.
- Forged and shot-peened steel Connecting rods, with split cap design and 2 bolt fixing.
- Valves with wear resistant material and stellite armoured face.
- Valve stem seals for excellent oil control.
- Heavy duty Turbo charger fully matched for varying load conditions.
- Spray lubrication for valve tappet, cam profile and pistons by nozzles to provide efficient cooling and lubrication.
- Modular construction with individual cylinder heads, no external piping and easy serviceability.

Genset Features:

- Excellent transient response for sudden loading. Most ideal for AMF application.
- State-of-art Engine and Genset monitoring system includes safety control for low coolant level in radiator and high canopy temperature.
- Compact and aesthetically superior canopy design.

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4. THE CUTTING EDGE

- Lowest Fuel and Lub oil Consumption in its class, over the normal operating range.
- Flat SFC curve from 50 to 100% load, gives unmatched fuel economy and lowest operating costs.
- Eco-Friendly product complying with CPCB noise and emission norms (noise and emission values lower than CPCB limits).

Parameter	CPCB Limits	KOEL: 6K12TA SR1
Nox (g/kW-h)	9.2	6.96
CO (g/kW-h)	3.5	0.73
HC (g/kW-h)	1.3	0.17
PM (g/kW-h)	0.3	0.182
Smoke (Light Absorption coefficient) m^{-1}	0.7	0.32
Average Sound level at 1m with canopy dB(A)	75	73.7

- No Deration up to 45^{0}C ambient temperature and 1400 m altitude.
- Electronic governor integral with fuel system, providing capability for isochronous governing and paralleling operations (critical for IT & other industries).
- Lowest Weight to power ratio of 2.18 for Engine.
- Warranty of two years/5000 normal operating hrs, whichever is earlier*
- Round the clock 24x7 service through an extensive nation wide network of :
  - 13 KOEL field service offices.
  - 190+ authorized service dealership locations, service centers.
  - Factory trained service professionals.
- Nine Free service checks during warranty period.*

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5. TECHNICAL DATA SHEET

ENGINE DATA		
Engine model		12K22TA
Rated output (prime power rating as per ISO 3046)	kW (hp)	532 (723)
No. of cylinder	No.	12
Engine configuration (Inline / V type)		V
Operating cycle		4 stroke DI
Displacement	Ltrs	21.93
Bore X Stroke	mm	128 x 142
Aspiration		Turbocharged & After Cooled
Compression Ratio		15:1
Piston speed	m/s	7.1
Brake Mean Effective Pressure (BMEP)	kg/cm^2	19.79
Firing order		1-12-5-8-3-10-6-7-2-11-4-9
Overall dimension (Length x Width x Height)	mm	1717x 1389 x 1288
Block loading capacity (as per ISO 8528)	%	42
Engine weight (Dry weight of bare engine)	kg	1575
Starting system		24V, Electric
FUEL SYSTEM		
Type		Inline Bosch FIP and Bosch DLLA injectors
Static Injection timing	Deg BTDC	13 +/-1.5
Injectors hole Nos. X Size	mm	4 X 0.4
Fuel oil		HSD IS 1460
Fuel Filter type		Spin-on type
Filtration capacity	µ m	5
Fuel transfer line restriction (maximum allowable)	kPa	30
Fuel return line restriction (maximum allowable)	kPa	27
Fuel transfer pump pressure	kpa	172
Max lift of fuel transfer pump	m	2.13
Nozzle injection pressure	kg/cm^2	285
Specific Fuel Consumption at		
50% load	(g/hp-h)	148*
75% load		147*
100% load		147*

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* +5% tolerance applicable as per ISO 3046

(Contd…)

5. TECHNICAL DATA SHEET

LUBE OIL SYSTEM		
Recommended lube oil		K-Oil
Lube oil pump		Gear type pump
Lub oil sump capacity	Ltrs	40
Lub oil system capacity	Ltrs	44
Angularity Limit of oil sump	Deg	Front end down – 20^0 Front end up – 20^0 Side to side tilt – 15^0
Lub oil Pressure range at rated load	kg/cm^2	3.5 - 6
Lub oil filter type		Full flow: cartridge type
Filtration capacity	µ m	15
Lub oil pump flow rate	Ltrs/min	187
Lube Oil Consumption at 100% load	Ltrs/hr	0.12
Lube oil change period	hr	250
COOLING SYSTEM		
Type of cooling		Fresh water forced circulation
Engine coolant flow rate	Ltrs/min	342
Coolant pressure	kg/cm^2	2.14
Radiator Cooled:		
Qty of coolant (Engine)	Ltrs	23
Qty of coolant (Radiator)	Ltrs	80
Total qty of coolant (including pipings)	Ltrs	113
Qty of K-Cool super plus required	Ltrs	28.5
Cooling/Ventilation Air flow through canopy	m^3/min	730
Combustion Air inlet flow	m^3/min	38
Total Fresh Air required	m^3/min	768
Heat Exchanger cooled:		
Qty of coolant (HE + CAC + pipings)	Ltrs	65
Raw water Flow rate across Heat exchanger	Ltrs/min	370
Raw water Flow rate across CAC	Ltrs/min	210
Raw water pressure	kg/cm^2	2.0
Ventilation Air Flow required to carry out radiated heat in case of Acoustic enclosure installations	m^3/min	730
Operating Temperature range of the Thermostat	Deg C	79 - 94
Maximum Coolant temp allowed	Deg C	103

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5. TECHNICAL DATA SHEET

HEAT REJECTION DETAILS		
Heat Rejection to coolant	kW	227
Heat Rejection to CAC	kW	105
Heat Rejection to exhaust	kW	441
Heat Rejection from engine surface	kW	62.4
AIR INTAKE SYSTEM		
Intake filter type		Dry
Max permissible air intake restriction (element discard limit)	mm of H_2O (kPa)	500 (4.9)
Intake manifold pressure	kPa	173
Maximum Intake manifold temperature	Deg C	88
EXHAUST SYSTEM		
Exhaust silencer type		Residential/ Hospital grade
Exhaust noise level (with Silencer) @ 1m	dB(A)	< 75
Max. Permissible exhaust back pressure	mm of H_2O (mm of Hg)	680 (50)
Exhaust gas flow	m^3/min	117.5
Exhaust gas temperature (Max)	Deg C	600
Exhaust Smoke level at 100% load	Bosch units	1.0
Min exhaust gas pipe size (per bank)	mm	100 *
GOVERNER DATA		
Type		Electronic: Integral with FIP & Isochronous capability
Whether adjustable droop provided		Yes
Transient speed increase for sudden 100% decrease of load	%	< 10
Transient speed decrease for permissible sudden increase of load	%	< 10
Recovery time	s e c	< 8
Speed raise / lower from panel provided		Yes
VALVE MECHANISM		
Type		Over-head valves
Valve clearance at cold: Inlet / Exhaust	mm	0.25 / 0.35
Valve Timing: Inlet open / Inlet close	Deg	24° BTDC / 36° ABDC
Exhaust open / exhaust close	Deg	63° BBDC / 27° ATDC
OTHER INFORMATION		
Maximum time to start from cold & attain rated Speed & ready to take load	Sec	5
Overload capacity	%	10% for 1 hr in 12 hrs of Operation

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* Dia of pipe will vary with total length of exhaust piping and number of exhaust bends reqd for installation. Refer KOEL for details.

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5. TECHNICAL DATA SHEET

ALTERNATOR DATA		
Model No		KG 600 S 62S
Specification		600 kVA, 3 ph, 415 V, 0.8 PF
Insulation class		H
Time permitted to build up rated voltage	Sec	⩽ 5
Permissible voltage dip	%	21.1
Rating of biggest 4 pole motor to be started DOL with permissible voltage dip, when the generator is :		
Unloaded	kW	75
50% loaded	kW	75
80% loaded	kW	25
Short circuit withstand time	Sec	10
Short circuit ratio		0.4
Overload withstand capacity	%	Min 150% for 15 sec
TYPE OF COOLING		
Cooling system of alternator		Air
Temp. rise of armature winding	Deg C	125
Temp. rise of field winding	Deg C	125
Heating time constant	min	60
Cooling time constant	min	150
Heat Rejection from alternator	kW	28.8
Alternator Air Flow	m^3/min	54
ALTERNATOR EFFICIENCY		
at 100% MCR & rated P.F	%	94.0
at 75% MCR & rated P.F	%	94.1
at 50% MCR & rated P.F	%	93.6
EXCITER		
Type of excitation		Brush Less
Capacity in kW	kW	0.168
Operating voltage & current	V & I	40 / 4.2
AVR		
Type of AVR		R-448
Mounting of AVR		Inside Terminal Box
Voltage regulation	%	+/- 1
Response time	mili sec	300
Voltage of operation	V	100
Range of voltage adjustment	%	+/-5

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6. ALTITUDE/ TEMPERATURE CAPABILITY

Ambient Temp Deg C	20	30	38	45
Altitude in meters	2400	2100	1500	1400

- Above table gives various altitudes at which full rated output is available at corresponding ambient temperatures.
- For site conditions other than stated above, contact KOEL for available power output.

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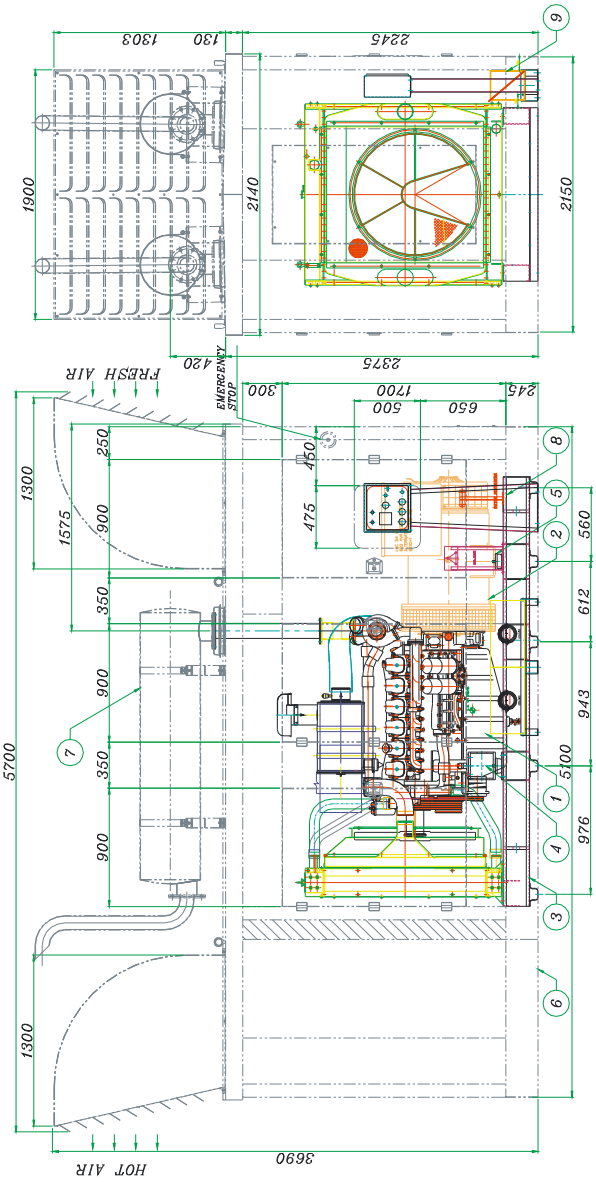
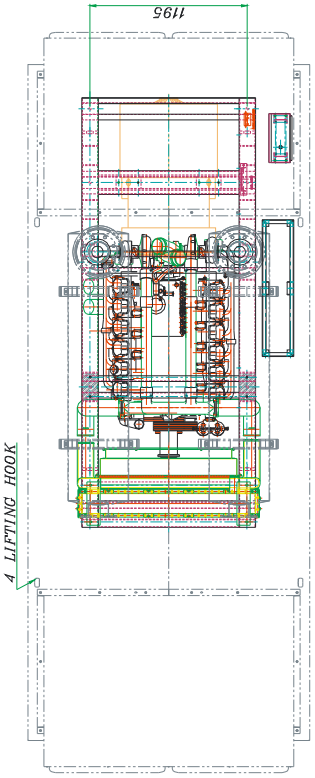
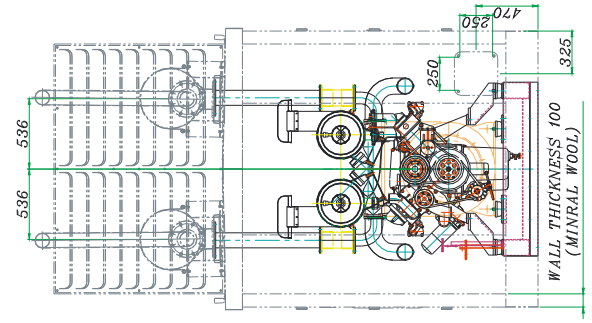
7. INSTALLATION LAYOUTS

a) General Assembly Layout of Generating Set with Acoustic Enclosure:







Drawing No.: KV2.3001.00.00

NOTES :-
1. OUTER DIMENSION -5700(L)x2150(W)x3690(H).
2. DOOR HINGES - OUTSIDE.
3. PAINT - POWDER COATING FOR ALL CANOPY PANELS KOEL GREEN (IVORY)
4. KOEL APPROVED MINERAL WOOL.
5. CANOPY TOP, BASE PEPSI BLUE - POWDER COATED.

SR.NO.	DESCRIPTION
9	BATTERY & BRACKET
8	CONTROL PANEL & STAND
7	SILENCER
6	CANOPY
5	AVM FOR ALTERNATOR - KV0.500.04.0.00
4	AVM FOR ENGINE - KV8.500.03.0.00
3	BASE PLATE
2	ALTERNATOR - KG 600 S 62S
1	ENGINE - 12K22TA

(Contd...)

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7. INSTALLATION LAYOUTS

b) Foundation drawing

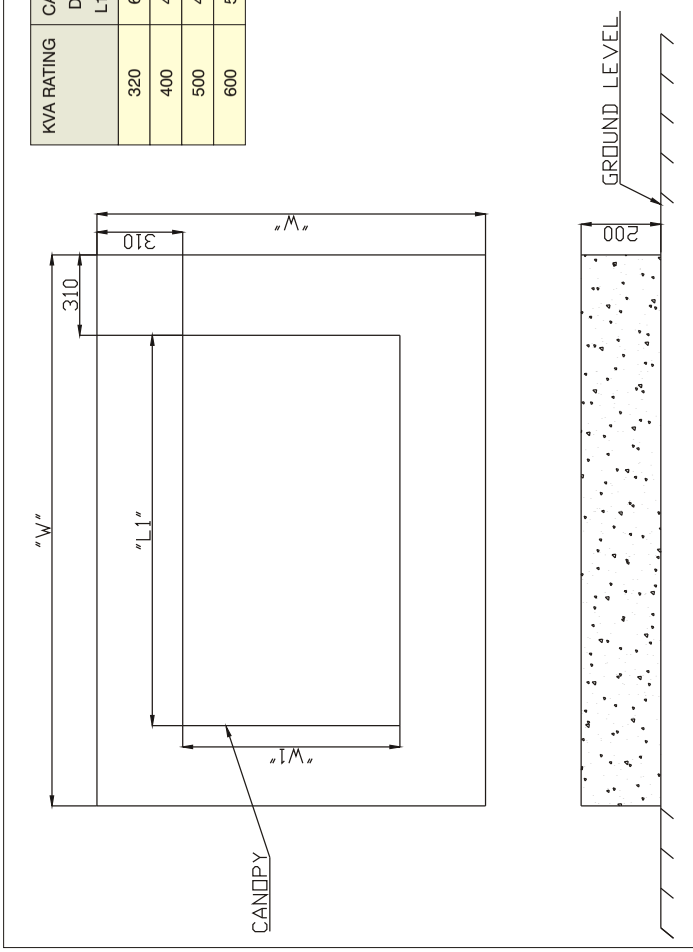
KVA RATING	CANOPY BASE DIMENSIONS L1 X W 1 (mm)	AREA OF FOUNDATION L X W (mm)	FOUNDATION DEPTH (MM)	CANOPY AND GENSET WEIGHT
320	6000 X 2000	6620 X 2620	200	6100 KG
400	4900 X 2100	5520 X 2720	200	6400 KG
500	4900 X 2100	5520 X 2720	200	6750 KG
600	5100 X 2150	5720 X 2770	200	7000 KG

NOTES:
1) FOUNDATION TO BE MADE ON A GOOD PREPARED SURFACE WITH SOIL STRATA BEARING CAPACITY ADEQUATE TO SUPPORT THE WEIGHT OF GENSET AND FOUNDATION. REFER CHART FOR SOIL STRENGTH.

NATURE OF LOAD BEARING MATERIAL	SAFE BEARING CAPACITY KG/SQ. M.
HARD ROCK GRANITE	2,44,100 - 9,76,400
MEDIUM ROCK SHELL	97,600 - 1,46,400
HARD PAN	78,100 - 97,600
SOFT ROCK	48,800 - 58,600
HARD CLAY	39,000 - 48,800
GRAVEL AND COARSE SAND	39,000 - 48,800
LOOSE, MEDIUM, COARSE AND COMPACTED FINE SAND	29,300 - 39,000
MEDIUM CLAY	19,500 - 39,000
LOOSE FINE SAND	9,750 - 39,500
SOFT CLAY	9,750

2) USE CONCRETE OF M25 OR M30 GRADE (COMPRESSIVE STRENGTH 250 TO 300 KG/CM).
3) DEPTH OF CONCRETE 200 MM.
4) CONCRETE TO BE REINFORCED WITH STEEL BARS OF 6 TO 8 mm DIAMETER.

Drawing No.: KV2.3001.50.00



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8. SERVICE NETWORK

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Name	*Designation*	*Mobile*
Mr. Ravichandrakumar. R	*– Director*	*– 9841018485*
Mr. Bhaskaran. S	*– Manager – Projects*	*– 9841819845*
Mr. Keerthivasan. N	*– Manager – Admin*	*– 9841819844*
Mr. Saravanan. K	*– Manager – Service*	*– 9841018495*

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LIFE ENRICHING PACKAGE 320 KVA SILENT GENSET

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2. PRODUCT SPECIFICATIONS

GENSET		
Genset Model		KG 320 WS
KVA Rating at 0.8 P.F	kVA	320*
Voltage	V	415
Frequency	Hz	50
Phase		3
Power Factor		0.8
Overall Dimensions (with canopy)	mm	6000 L X 2070 W X 3340
Approximate Dry Weight (with canopy)	Kg	6100
Genset Static load	Kg	6200
Dynamic load	Kg	2765
Rated speed	RPM	1500
Method of Starting		24V, Electric
Governing class (ISO 8528)		G3
Overload capability (for 1 hr in 12 hrs operation)	%	10
Fuel consumption at 75% load	Ltrs/hr	51.49**
Lube Oil Consumption at 75% load	Ltrs/hr	0.12***
Lube oil change period	hr	250
Alternator efficiency at 75% load	%	93.5
DG set Noise level at 1m (with canopy)	dB(A)	73.7

* Prime rating available with varying loads for unlimited number of hours.

**Considering Specific gravity of diesel as 0.845 (+5% tolerance applicable as per ISO 3046)

***Average value, subject to use of recommended K-oil as lubricating oil.

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KIRLOSKAR™ GREEN POWER IDEAS

4. THE CUTTING EDGE

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- Eco-Friendly product complying with CPCB noise and emission norms (noise and emission values lower than CPCB limits).

Parameter	CPCB Limits	KOEL: 6K12TA SR1
Nox (g/kW-h)	9.2	8.04
CO (g/kW-h)	3.5	0.55
HC (g/kW-h)	1.3	0.22
PM (g/kW-h)	0.3	0.163
Smoke (Light Absorption coefficient) m^{-1}	0.7	0.31
Average Sound level at 1m with canopy dB(A)	75	73.7

- No Deration up to 45^0C ambient temperature and 1400 m altitude.
- Electronic governor integral with fuel system, providing capability for isochronous governing and paralleling operations (critical for IT & other industries).
- Lowest Weight to power ratio of 2.35 for Engine.
- Warranty of two years/5000 normal operating hrs, whichever is earlier*
- Round the clock 24x7 service through an extensive nation wide network of :
  - 13 KOEL field service offices.
  - 190+ authorized service dealership locations, service centers.
  - Factory trained service professionals.
- Nine Free service checks during warranty period.*

*Refer warranty document for Terms and conditions

KIRLOSKAR™ GREEN POWER IDEAS

5. TECHNICAL DATA SHEET

ENGINE DATA		
Engine model		6KL12TASR1
Rated output (prime power rating as per ISO 3046)	kW(hp)	284 (386)
No. of cylinder	No.	6
Engine configuration (Inline / V type)		Inline
Operating cycle		4 stroke DI
Displacement	Ltrs	11.05
Bore X Stroke	mm	123 x 155
Aspiration		Turbocharged & After Cooled
Compression Ratio		17:1
Piston speed	m/s	7.75
Brake Mean Effective Pressure (BMEP)	kg/cm^2	20.97
Firing order		1-5-3-6-2-4
Overall dimension (Length x Width x Height)	mm	1383 X 870 X 1207
Block loading capacity (as per ISO 8528)	%	40
Engine weight (Dry weight of bare engine)	kg	910
Starting system		24V, Electric
FUEL SYSTEM		
Type		Inline Zexel FIP and Bosch DLLA injectors
Static Injection timing	Deg BTDC	14 +/- 1.5
Injectors hole Nos. X Size	mm	5 X 0.37
Fuel oil		HSD IS 1460
Fuel Filter type		Spin-on type
Filtration capacity	µ m	5
Fuel transfer line restriction (maximum allowable)	kPa	30
Fuel return line restriction (maximum allowable)	kPa	27
Fuel transfer pump pressure	kpa	172
Max lift of fuel transfer pump	m	2.13
Nozzle injection pressure	kg/cm^2	220
Specific Fuel Consumption at		
50% load	(g/hp-h)	148*
75% load		147*
100% load		147*

* +5% tolerance applicable as per ISO 3046

(Contd…)

KIRLOSKAR™ GREEN POWER IDEAS

5. TECHNICAL DATA SHEET

LUBE OIL SYSTEM		
Recommended lube oil		K-Oil
Lube oil pump		Gear type pump
Lub oil sump capacity	Ltrs	23
Lub oil system capacity	Ltrs	25.5
Angularity Limit of oil sump	Deg	Front end down – 25^0 Front end up – 25^0 Side to side tilt – 15^0
Lub oil Pressure range at rated load	kg/cm^2	3.5 - 6
Lub oil filter type		Full flow: cartridge type
Filtration capacity	µ m	15
Lub oil pump flow rate	Ltrs/min	79
Lube Oil Consumption at 100% load	Ltrs/hr	0.12
Lube oil change period	hr	250
COOLING SYSTEM		
Type of cooling		Fresh water forced circulation
Engine coolant flow rate	Ltrs/min	265
Coolant pressure	kg/cm^2	0.713
Radiator Cooled:		
Qty of coolant (Engine)	Ltrs	19
Qty of coolant (Radiator)	Ltrs	47
Total qty of coolant (including pipings)	Ltrs	71
Qty of K-Cool super plus required	Ltrs	18
Cooling/Ventilation Air flow through canopy	m^3/min	509
Combustion Air inlet flow	m^3/min	19.3
Total Fresh Air required	m^3/min	528.3
Heat Exchanger cooled:		
Qty of coolant (HE + CAC + pipings)	Ltrs	60
Raw water Flow rate across Heat exchanger	Ltrs/min	230
Raw water Flow rate across CAC	Ltrs/min	230
Raw water pressure	kg/cm^2	2.0
Ventilation Air Flow required to carry out radiated heat in case of Acoustic enclosure installations	m^3/min	500
Operating Temperature range of the Thermostat	Deg C	83 - 95
Maximum Coolant temp allowed	Deg C	103

KIRLOSKAR GREEN POWER IDEAS

(Contd…)

5. TECHNICAL DATA SHEET

HEAT REJECTION DETAILS		
Heat Rejection to coolant	kW	124
Heat Rejection to CAC	kW	52
Heat Rejection to exhaust	kW	221
Heat Rejection from engine surface	kW	29
AIR INTAKE SYSTEM		
Intake filter type		Dry
Max permissible air intake restriction (element discard limit)	mm of H_2O (kPa)	500 (4.9)
Intake manifold pressure	kPa	160
Maximum Intake manifold temperature	Deg C	88
EXHAUST SYSTEM		
Exhaust silencer type		Residential/ Hospital grade
Exhaust noise level (with Silencer) @ 1m	dB(A)	< 75
Max. Permissible exhaust back pressure	mm of H_2O (mm of Hg)	680 (50)
Exhaust gas flow	m^3/min	50.5
Exhaust gas temperature (Max)	Deg C	550
Exhaust Smoke level at 100% load	Bosch units	1.5
Min exhaust gas pipe size (per bank)	mm	100 *
GOVERNER DATA		
Type		Electronic: Integral with FIP & Isochronous capability
Whether adjustable droop provided		Yes
Transient speed increase for sudden 100% decrease of load	%	< 10
Transient speed decrease for permissible sudden increase of load	%	< 10
Recovery time	sec	< 8
Speed raise / lower from panel provided		Yes
VALVE MECHANISM		
Type		Over-head valves
Valve clearance at cold: Inlet / Exhaust	mm	0.30 / 0.30
Valve Timing: Inlet open / Inlet close	Deg	18° BTDC / 34° ABDC
Exhaust open / exhaust close	Deg	46° BBDC / 14° ATDC
OTHER INFORMATION		
Maximum time to start from cold & attain rated Speed & ready to take load	Sec	5
Overload capacity	%	10% for 1 hr in 12 hrs of Operation

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* Dia of pipe will vary with total length of exhaust piping and number of exhaust bends reqd for installation. Refer KOEL for details.

(Contd…)

5. TECHNICAL DATA SHEET

ALTERNATOR DATA		
Model No		KG 320S 52S
Specification		320 kVA, 3 ph, 415 V, 0.8 PF
Insulation class		H
Time permitted to build up rated voltage	Sec	⩽ 5
Permissible voltage dip	%	20.80
Rating of biggest 4 pole motor to be started DOL with permissible voltage dip, when the generator is :		
Unloaded	kW	37
50% loaded	kW	37
80% loaded	kW	16
Short circuit withstand time	Sec	10
Short circuit ratio		0.44
Overload withstand capacity	%	Min 150% for 15 sec
TYPE OF COOLING		
Cooling system of alternator		Air
Temp. rise of armature winding	Deg C	125
Temp. rise of field winding	Deg C	125
Heating time constant	min	60
Cooling time constant	min	150
Heat Rejection from alternator	kW	17.9
Alternator Air Flow	m^3/min	25.8
ALTERNATOR EFFICIENCY		
at 100% MCR & rated P.F	%	93
at 75% MCR & rated P.F	%	93.5
at 50% MCR & rated P.F	%	93.1
EXCITER		
Type of excitation		Brush Less
Capacity in kW	kW	0.142
Operating voltage & current	V & I	38 / 3.75
AVR		
Type of AVR		R-448
Mounting of AVR		Inside Terminal Box
Voltage regulation	%	+/- 1
Response time	mili sec	300
Voltage of operation	V	100
Range of voltage adjustment	%	+/-5

KIRLOSKAR GREEN POWER IDEAS

In view of continuous product up-gradation, specifications given in Technical data sheet are subject to change without prior notice.

6. ALTITUDE/ TEMPERATURE CAPABILITY

Ambient Temp Deg C	20	30	38	45
Altitude in meters	2400	2100	1500	1400

- Above table gives various altitudes at which full rated output is available at corresponding ambient temperatures.
- For site conditions other than stated above, contact KOEL for available power output.

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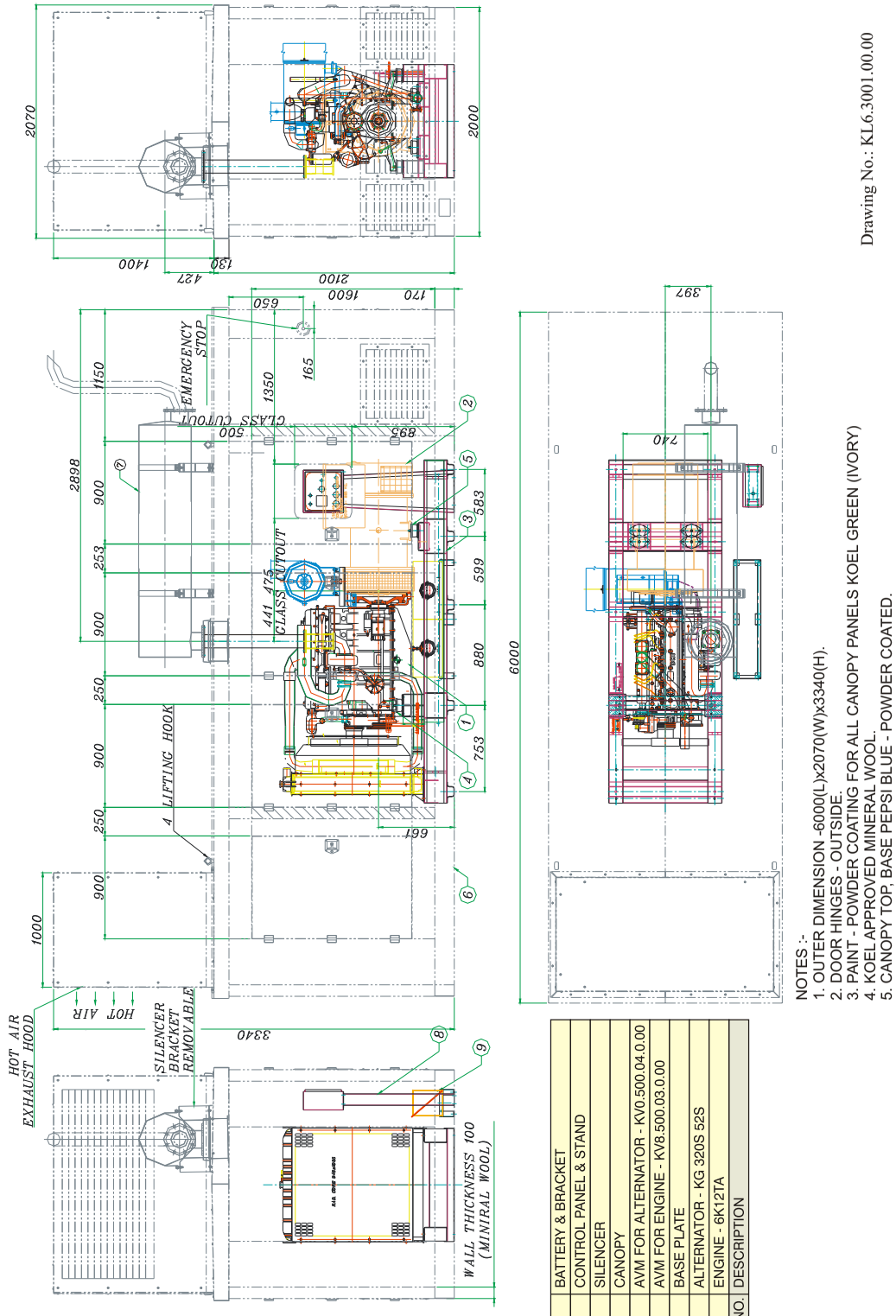
7. INSTALLATION LAYOUTS

a) General Assembly Layout of Generating Set with Acoustic Enclosure:



SR.NO.	DESCRIPTION
1	ENGINE - 6K12TA
2	ALTERNATOR - KG 320S 52S
3	BASE PLATE
4	AVM FOR ENGINE - KV8.500.03.0.00
5	AVM FOR ALTERNATOR - KV0.500.04.0.00
6	CANOPY
7	SILENCER
8	CONTROL PANEL & STAND
9	BATTERY & BRACKET

Drawing No.: KL6.3001.00.00

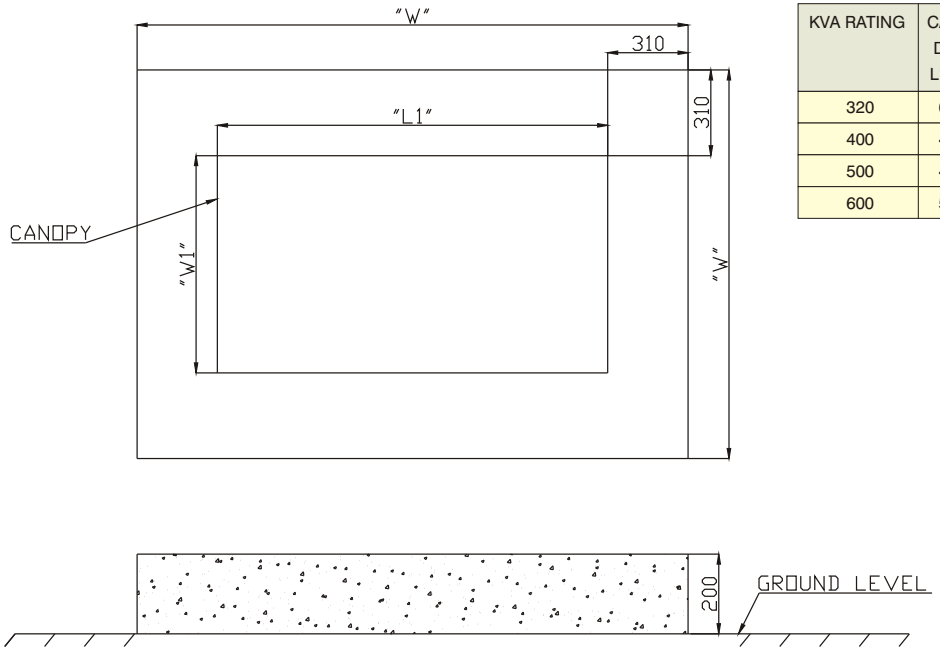
NOTES :-
1. OUTER DIMENSION -6000(L)x2070(W)x3340(H).
2. DOOR HINGES - OUTSIDE.
3. PAINT - POWDER COATING FOR ALL CANOPY PANELS KOEL GREEN (IVORY)
4. KOEL APPROVED MINERAL WOOL.
5. CANOPY TOP, BASE PEPSI BLUE - POWDER COATED.

(Contd...)

KIRLOSKAR GREEN POWER IDEAS

7. INSTALLATION LAYOUTS

b) Foundation drawing



KVA RATING	CANOPY BASE DIMENSIONS L1 X W 1 (mm)	AREA OF FOUNDATION L X W (mm)	FOUNDATION DEPTH (MM)	CANOPY AND GENSET WEIGHT
320	6000 X 2000	6620 X 2620	200	6100 KG
400	4900 X 2100	5520 X 2720	200	6400 KG
500	4900 X 2100	5520 X 2720	200	6750 KG
600	5100 X 2150	5720 X 2770	200	7000 KG

NOTES:

1) FOUNDATION TO BE MADE ON A GOOD PREPARED SURFACE WITH SOIL STRATA BEARING CAPACITY ADEQUATE TO SUPPORT THE WEIGHT OF GENSET AND FOUNDATION. REFER CHART FOR SOIL STRENGTH.

NATURE OF LOAD BEARING MATERIAL	SAFE BEARING CAPACITY KG/SQ. M.
HARD ROCK GRANITE	2,44,100 - 9,76,400
MEDIUM ROCK SHELL	97,600 - 1,46,400
HARD PAN	78,100 - 97,600
SOFT ROCK	48,800 - 58,600
HARD CLAY	39,000 - 48,800
GRAVEL AND COARSE SAND	39,000 - 48,800
LOOSE, MEDIUM, COARSE AND COMPACTED FINE SAND	29,300 - 39,000
MEDIUM CLAY	19,500 - 39,000
LOOSE FINE SAND	9,750 - 39,500
SOFT CLAY	9,750

2) USE CONCRETE OF M25 OR M30 GRADE (COMPRESSIVE STRENGTH 250 TO 300 KG/CM).
3) DEPTH OF CONCRETE 200 MM.
4) CONCRETE TO BE REINFORCED WITH STEEL BARS OF 6 TO 8 mm DIAMETER.

Drawing No.: KV2.3001.50.00

8. SERVICE NETWORK

KIRLOSKAR™ GREEN POWER IDEAS

Name	*Designation*	*Mobile*
Mr. Ravichandrakumar. R	*– Director*	*– 9841018485*
Mr. Bhaskaran. S	*– Manager – Projects*	*– 9841819845*
Mr. Keerthivasan. N	*– Manager – Admin*	*– 9841819844*
Mr. Saravanan. K	*– Manager – Service*	*– 9841018495*

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