

RELIABLE



KIRLOSKAR ELECTRIC

CONVERTING ENERGY  
TO SERVE

BILLIONS

EFFICIENT

CPCB-II COMPLIANT KIRLOSKAR ELECTRIC  
NEW GENERATION-MK V GENERATION NEXT BLISS SERIES  
ROBUST PRODUCT VALUE FOR MONEY  
EFFICIENT COMPACT STATE-OF-THE-ART TECHNOLOGY  
SINGLE WINDOW SERVICE COMPLETE SOLUTION  
CPCB-II COMPLIANT POWERFULLY RELIABLE  
ARAI & FCRI APPROVED ROBUST PRODUCT  
WEB ENABLED SERVICE EFFICIENT COMPACT  
POWERFULLY RELIABLE GENERATION NEXT BLISS SERIES  
GLOBAL CUSTOMER BASE CPCB-II COMPLIANT

GET YOUR OWN BLISS

COMPACT

KIRLOSKAR ELECTRIC

BLISS

POWER - fully RELIABLE

GENERATION NEXT DG Sets from KIRLOSKAR ELECTRIC



# About

## Kirloskar Electric company

A seven decade young company carved a niche for itself in the design & manufacturing of electrical equipments, with 10 manufacturing units, producing a wide range of electrical products viz. AC generators, Induction generators, AC motors, DC machines, DG sets, Power & Distribution transformers, Low & Medium Voltage Switchgear, Traction equipments and many more. Few years back Kirloskar Electric acquired a German Company M/S LDW (A company which was formerly in AEG Group) to enhance its product range in AC machines to 55MW.



*Manufacturing Plants*

**From 12.5 KVA up to 200 KVA of power potential, our Mark V Bliss series of DG sets are built to world class standards of efficiency, reliability, emissions & noise standards.**

## Features

- Foot print best in the industry-compact in size
- Fuel efficient sets on par or better with leading brands in the industry
- Detachable fuel tank - Ease for fuel filling
- Microprocessor based Bliss Ear Monitor with protection for both Engine and Alternator
- Efficient switching cum protection by devices like MCB/MCCB
- Hydraulic tappet adjustment ensuring long intervals between overhauls-Economy
- Longer Life of parts
- Ideally located lifting provision for ease of handling and safety to the DG sets
- Single window service



*Manufacturing Plant for DG Sets*

## Solutions

- Auto mains failure
- Load dependant start stop
- Auto synchronizing, Auto load sharing for parallel operation amongst sets and grid
- Parallel operation with Bliss existing sets of similar rating or dissimilar rating sets
- Parallel operation with other make of sets
- Remote monitoring and control
- DG sets with Automatic changeover cum current limiter

## Better ROI

The Kirloskar Electric Bliss range of Diesel Generator sets are powered by the most fuel efficient diesel engines thus delivering reliable and economical power solutions. The engines are coupled to rugged Kirloskar Electric alternators to suit all applications. With microprocessor based controller and high quality acoustics derived out of CNC machines, the Bliss DG sets deliver power solutions across all segments and applications.

## Compact Optimized set

The Kirloskar Electric Bliss range of Diesel Generator sets are optimally designed, compact and with less vibration. The Bliss sets have the smallest footprint as compared to the other makes, thus delivering an advantage in an application where space is a constraint.

## Operating Cost - Benefits

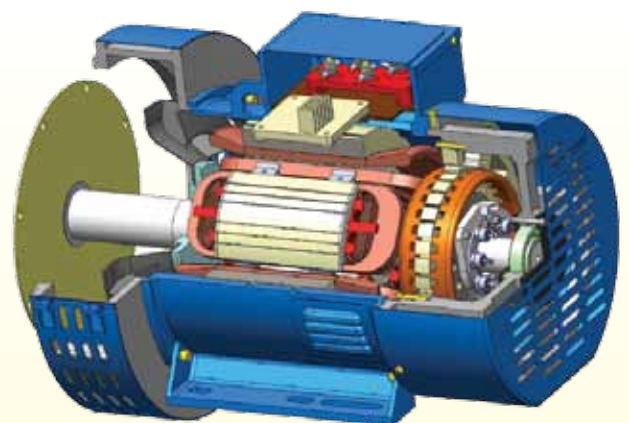
The Kirloskar Electric Bliss range of Diesel Generator sets are optimally designed and efficient, resulting in low operating costs.

## Customer Delight - Single window service

The Kirloskar Electric Bliss range of Diesel Generator sets are serviced through a wide network of PAN India authorized service centres which is further augmented by effective PAN India spares network. The entire service module right from issue logging to resolution and customer acceptance is supported through a web based monitoring system.

## Alternator

- Compact and aesthetically built
- Conforming to leading industrial and marine standards
- Winding configuration to have lower harmonics
- Flexibility for offering different voltages
- Sophisticated solid state Automatic voltage regulator to derive close regulation
- Optimized design for good motor starting capability and transient response
- Terminal box in appropriate location for ease of maintenance
- Provision of accessories for marine requirements



## Engine

- S-type rotary fuels pump for better efficiency
- Derived out of advanced technology
- Hydraulic latch adjustor facilitates maintaining of right gap automatically at all times of running thus even eliminating the need of specialists for tappet setting and also enabling long over haul intervals\*\*\*
- Usage of special material for cylinder liners and plateau honing not requiring top over haul at all for engine\*\*\*
- Provision of cold advanced switch in engine enables automatic correction of fuel timing, thus leading to better efficiency\*\*\*

\*\*\* For ratings above 82.5 kVA.



## Control Panel

- Powder coated for weather proof and long lasting finish
- Microprocessor based best configured with inbuilt AMF facility
- Suitably sized bus bar arrangement for incoming and outgoing terminals
- Wider graphical LCD screen
- Comprehensive metering for both DG Sets and mains
- MODBUS interface facility with RS485
- Controller conforming to IEC standards



## Canopy

- UV protected polyurethane powder coating for long life
- Specially designed acoustics to meet stringent CPCB/MOEF norms of 75 dBA @ 1 meter
- Two point lifting provision for easy handling & safety
- Use of special hardwares for longer life
- Insulation material conforms IS 8123



## Mobile Power Source

DG set mounted on a trailer facilitating power supply even at remote locations



# Technical Data - Freedom Series

DG SET	Model	KEC-K12.5-II	KEC-K15-II	KEC-E20-II	KEC-E25-II	KEC-E30-II	KEC-E32.5-II
	Rating (kVA)	12.5	15	20	25	30	32.5
	Rated kW	10	12	16	20	24	26
	Rated Current (Amps)	17.4	20.9	27.8	34.8	41.7	45.2
	Length x Width x Height (mm)	2000x1025x1425	2000x1025x1425	2275x1025x1425	2350x1100x1500	2350x1100x1500	2350x1100x1500
	Total Dry Weight (Kgs)	900	900	1100	1400	1450	1450
ENGINE	Model	SL2105ABD	SL2105ABD	G20-II	G25-II	G30-II	G30-II
	BHP	21.75	21.75	27.60	37	46	46
	No. of Cylinders	2	2	3	3	3	3
	RPM	1500	1500	1500	1500	1500	1500
	Bore (mm)	105	105	91	91	91	91
	Stroke (mm)	117	117	110	110	110	110
	Displacement (liters)	2.03	2.03	2.15	2.15	2.15	2.15
	Compression ratio	17:1 ± 0.5	17:1 ± 0.5	17.5:1	17.5:1	17.5:1	17.5:1
	SFC (gms/BHP-hr)	163	163	160	160	160	160
	Governor	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical
	Class of Governing	A	A	A	A	A	A
	Aspiration	NATURAL	NATURAL	NATURAL	TCI	TCI	TCI
	Air Filter	Dry type	Dry type	Dry type	Dry type	Dry Type	Dry Type
	Fuel	HSD	HSD	HSD	HSD	HSD	HSD
	Type of oil	15W 40 CF4	15W 40 CF4	15W 40 CF4	15W 40 CF4	15W 40 CF4	15W 40 CF4
Oil sump capacity (liters)	9	9	6	6	6	6	
Lube oil consumption (gms/BHP-hr)	< 0.1% of FC	< 0.1% of FC	< 0.1% of FC	< 0.1% of FC	< 0.1% of FC	< 0.1% of FC	
Cooling	Liquid cool						
Bare Radiator Coolant capacity (liters)	3	3	6.40	10	10	10	
Coolant Capacity with engine Jacket (liters)	6.50	6.50	10.90	14.50	14.50	14.50	
Engine Dry Weight (Kgs)	235	235	320	350	350	350	
Electric Starting System	12V	12V	12V	12V	12V	12V	
ALTERNATOR	Make	KEC	KEC	KEC	KEC	KEC	KEC
	Model	4AB 160M1	4AB 160M1	4AB 160L1	4AB 160L1	4AB 180S1	4AB 180M1
	Type	Brushless	Brushless	Brushless	Brushless	Brushless	Brushless
	kVA	12.5	15	20	25	30	32.5
	Voltage (V)	415	415	415	415	415	415
	No. of Phases	3	3	3	3	3	3
	Power Factor	0.8	0.8	0.8	0.8	0.8	0.8
	Speed (rpm) / Frequency (Hz)	1500 / 50	1500 / 50	1500 / 50	1500 / 50	1500 / 50	1500 / 50
	Voltage Regulation	+/- 1%	+/- 1%	+/- 1%	+/- 1%	+/- 1%	+/- 1%
	Enclosure	SPDP	SPDP	SPDP	SPDP	SPDP	SPDP
	Insulation class	H	H	H	H	H	H
	Weight of ACG (Kgs)	150	150	162	162	180	180

# Technical Data - Republic Series

DG SET	<b>Model</b>	KEC-T40-II	KEC-T50- II	KEC-T63-II	KEC-C75-II	KEC-C82.5-II	KEC-C100-II	KEC-C125-II	KEC-C140-II	KEC-C160-II	KEC-C180-II
	Rating (kVA)	40	50	63	75	82.5	100	125	140	160	180
	Rated kW	32	40	50	60	66	80	100	112	128	144
	Rated Current (Amps)	56	70	88	104	115	139	174	195	222	250
	Length x Width x Height (mm)	2800x1100x1650	2800x1100x1650	2800x1100x1650	3200x1200x1700	3200x1200x1700	3500x1200x1750	3500x1200x1750	4200x1400x1900	4200x1400x 1900	4200x1400x1900
	Total Dry Weight (Kgs)	1400	1500	1500	1800	1800	2000	2000	2500	2500	2700
ENGINE	<b>Model</b>	497 TC76	497 TC75	497TC74	3B5D1C85RW	3B5D1C85RW	4B5D1C100RW	4B5D1C113RW	6B5D1C150RW	6B5D1C170RW	6B5D1C170RW
	BHP	63	76	90	114	114	134	152	201	228	228
	No. of Cylinders	4	4	4	3	3	4	4	6	6	6
	RPM	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
	Bore (mm)	97	97	97	107	107	107	107	107	107	107
	Stroke (mm)	128	128	128	126	126	126	126	126	126	126
	Displacement (litrs)	3.80	3.80	3.80	3.4	3.4	4.5	4.5	6.8	6.8	6.8
	Compression ratio	17.5:1	17.5:1	17.5:1	17.5:1	17.5:1	17.5:1	17.5:1	17.5:1	17.5:1	17.5:1
	SFC (gms/BHP-hr)	164	164	164	161	161	156	156	156	156	156
	Governor	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical	Mechanical
	Class of Governing	A	A	A	A	A	A	A	A	A	A
	Aspiration	TCIC	TCIC	TCIC	TCIC	TCIC	TCIC	TCIC	TCIC	TCIC	TCIC
	Air Filter	Dry Type	Dry Type	Dry Type	Dry type	Dry type	Dry type	Dry type	Dry type	Dry type	Dry type
	Fuel	HSD-ASTM D2	HSD-ASTM D2	HSD-ASTM D2	HSD-ASTM D2	HSD-ASTM D2	HSD-ASTM D2	HSD-ASTM D2	HSD-ASTM D2	HSD-ASTM D2	HSD-ASTM D2
	Type of oil	15 W 40 CH4	15W 40 CH4	15W 40 CH4	15W 40 CH4	15W 40 CH4	15W 40 CH4	15W 40 CH4	15W 40 CH4	15W 40 CH4	15W 40 CH4
	Oil sump capacity (litrs)	9	9	9	6	6	8	8	11	11	11
	Lube Oil consumption (gms/BHP-hr)	< 0.3% of FC	< 0.3% of FC	< 0.3% of FC	< 0.1% of FC	< 0.1% of FC	< 0.1% of FC	< 0.1% of FC	< 0.1% of FC	< 0.1% of FC	< 0.1% of FC
	Cooling	Liquid Cooled	Liquid Cooled	Liquid Cooled	Liquid Cooled	Liquid Cooled	Liquid Cooled	Liquid Cooled	Liquid Cooled	Liquid Cooled	Liquid Cooled
	Bare Radiator Coolant capacity (litrs)	9	9	9	13	13	13	13	16	16	16
	Coolant Capacity with engine Jacket (litrs)	3	3	3	16	16	17	17	22	22	22
Engine Dry Weight (Kgs)	390	390	390	520	520	580	580	700	700	700	
Electric Starting System	12V	12V	12 V	24V	24V	24V	24V	24V	24V	24V	
ALTERNATOR	<b>Make</b>	KEC	KEC	KEC	KEC	KEC	KEC	KEC	KEC	KEC	KEC
	Model	4AB180L1	4AB200S1	4AB200M1	4AB225S1	4AB225S1	4AB225S1	4AB225M1	4AB280S1	4AB280S1	4AB280M1
	Type	Brushless	Brushless	Brushless	Brushless	Brushless	Brushless	Brushless	Brushless	Brushless	Brushless
	Rating (kVA)	40	50	63	75	82.5	100	125	140	160	180
	Voltage (V)	415	415	415	415	415	415	415	415	415	415
	No. of Phases	3	3	3	3	3	3	3	3	3	3
	Power Factor	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
	Speed (rpm) / Frequency (Hz)	1500 / 50	1500 / 50	1500 / 50	1500 / 50	1500 / 50	1500 / 50	1500 / 50	1500 / 50	1500 / 50	1500 / 50
	Voltage Regulation	+/- 1%	+/- 1%	+/- 1%	+/- 1%	+/- 1%	+/- 1%	+/- 1%	+/- 1%	+/- 1%	+/- 1%
	Enclosure	SPDP	SPDP	SPDP	SPDP	SPDP	SPDP	SPDP	SPDP	SPDP	SPDP
	Insulation class	H	H	H	H	H	H	H	H	H	H
	Weight of ACG (Kgs)	270	270	310	390	390	390	440	580	580	645

## Technical Data - Freedom Series

<b>BATTERY</b>	Make	Amron/Reputed	Amron/Reputed	Amron/Reputed	Amron/Reputed	Amron/Reputed	Amron/Reputed
	Type	MAINTENANCE FREE					
	Rating (AH)	80	80	80	80	80	80
	Quantity (Nos.)	1	1	1	1	1	1
	Charging Facility	Charging Alternator					
	Battery metering	Ammeter, Voltmeter built in BLISS EAR Monitor					
<b>EXHAUST SYSTEM</b>	Silencer type	Residential					
	Location	Hot Air Chamber					
	Exhaust pipe size in mm	75	75	75	75	75	75
<b>FUEL TANK</b>	Type	Drag type in base frame					
	Capacity (ltrs)	50	50	65	75	75	75
<b>CANOPY</b>	Type	BOLTED					
	Sheet metal	CRCA					
	Draft	Forced					
	Insulation	Fire retardant FOAM					
	Noise level at 1 m	75 dBA @ 1 Meter in line with CPCB norms					
<b>OTHER ITEMS</b>	Base frame	Pressed CRCA Channel					
	AVMs Qty (Nos.)	4	4	4	4	4	4
	Emergency stop	YES	YES	YES	YES	YES	YES
	Internal Lights	YES	YES	YES	YES	YES	YES
Engine Power Declared is at NTP.							
In view of the continuous product development the format furnished is subject to revision and since published data is widely circulated, responsibility of seeking update rests with the user.							

## Technical Data - Republic Series

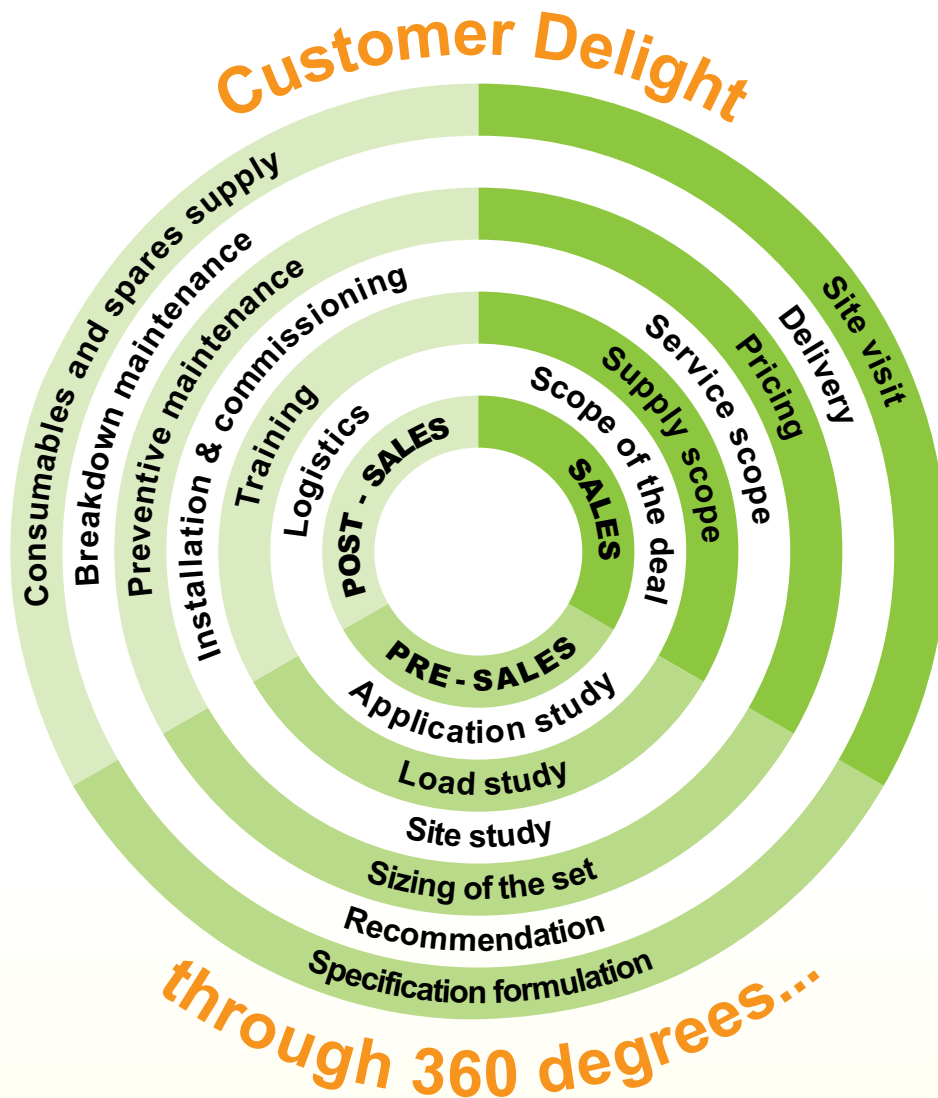
<b>BATTERY</b>	Make	Exide Genplus / Reputed	Exide Genplus / Reputed	Exide Genplus /Reputed	Exide Genplus / Reputed	Exide Genplus /Reputed	Exide Genplus / Reputed	Exide Genplus / Reputed	Exide Genplus / Reputed	Exide Genplus / Reputed	Exide Genplus / Reputed	
	Type	MAINTENANCE FREE										
	Rating (AH)	80	80	90	90	90	90	90	90	90	90	90
	Quantity (Nos.)	1	1	1	2	2	2	2	2	2	2	2
	Charging Facility	Charging Alternator										
	Battery metering	Ammeter, Voltmeter built in BLISS EAR Monitor										
<b>EXHAUST SYSTEM</b>	Silencer type	Residential										
	Location	Hot Air Chamber										
	Exhaust pipe size in mm	90	90	90	115	115	115	115	165	165	165	
<b>FUEL TANK</b>	Type	Drag type in base frame										
	Capacity (ltrs)	100	100	100	140	140	200	200	300	300	300	
<b>CANOPY</b>	Type	BOLTED										
	Sheet metal	CRCA										
	Draft	Forced										
	Insulation	Fire retardant FOAM										
	Noise level at 1 m	75 dBA @ 1 Meter in line with CPCB norms										
<b>OTHER ITEMS</b>	Base frame	Pressed CRCA Channel										
	AVMs Qty (Nos.)	4	4	4	4	4	4	4	4	4	4	
	Emergency stop	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
	Internal Lights	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
Engine Power Declared is at NTP.												
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## Technical Data - Other Key Components

<b>CONTROL PANEL</b>	Type	ASAS with microprocessor based BLISS EAR Monitor / Inbuilt
	DG parameter monitoring display	On BLISS EAR monitor - Volts line to line & line to neutral, Amps, Hz, Hour, KW, KWH, kVA, PF.
	Engine parameter monitoring display	On BLISS EAR monitor-Oil pressure, coolant temp. fuel level, battery voltage & charging status, engine speed
	Functions	Auto Start/Stop, Emergency Stop, Cooling time, LCD Display, acknowledgment & Fault Reset.
	Protection	Short Circuit, Over load MCB/MCCB, MCB's for control circuit.
	Safeties	Low Lube Oil Pressure, High Coolant Temperature, over load, under & over voltage, under & over frequency, Auto Shut Down, Visual & Audio Alarm against Fault.



KIRLOSKAR ELECTRIC



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