KOHLER®

Diesel Generator

82.5 kVA, 100 kVA, 125 kVA and 160 kVA

Prime Ratings Range				
	50Hz	50Hz	50Hz	50Hz
	82.5	100	125	160

CPCB II Emission Compliant

The Kohler Advantage

- One-stop solution for the generating system and accessories
- Manufactured in India with global expertise
- Compact design with ease of maintenance
- Maux winding provides excellent motor starting capability
- Best in class block loading capacity
- Flexible & creative customized solutions to meet customer needs
- Fast response time
- Two-years or 5000 hours as per standard warranty terms from date of initial startup

Special Features

- Turbo-charged & after-cooled industrial diesel engine with superior efficiency and fuel economy
- Integral vibration isolation eliminates the need for under-unit vibration spring isolators
- Advanced Digital Controller (ADC) with 3 auto crank cycles
- Alternator features:
  - Alternator meets Indian and international standards
  - Self-ventilated and dripproof of IP23 construction
  - Superior voltage waveform by 2/3 pitch wound stator
  - Sustained short circuit current of up to 300% of the rated current for up to 20 seconds
- Silencer located inside canopy

Standard Features

- Engine coupled, skid mounted alternator
- Single - bearing alternator with insulation Class H
- Unit mounted radiator with 50°C ambient temperature
- Base frame mounted fuel tank with minimum 8 hrs running capacity
- Dry type air filter with restriction indicator
- DG circuit breaker
- Electric start with battery
- Fuel water separator
- Conveniently located fuel level indicator
- Exhaust tail pipe & rain guard as standard scope of supply
- Weather proof enclosure to withstand harsh climate
- All routine service points on one side of canopy
- Four point bottom lifting

Conformance Standards

• ISO 3046	• BS 5514	• ISO 8528
• VDE 0530	• IEC 60034-1	• BS EN 60034-1
• EN 60034-1	• AS 1359	• IS 13364-PT. 1 & 2
• BS 5000	• VDE 0530	• NEMA MG1-32
• IEC 34	• CE marking	• CDS C22.2-100

Generator Set Ratings

Genset	Engine	Alternator	Voltage	Phase	Hz	Prime Rating		Amps
						kWe	kVA	
KDG0083P1	4.12 TCA	ECP 34-1S/4	415	3	50	66	82.5	115
KDG0100P1	4.12 TCA	ECP 34-2S/4	415	3	50	80	100	139
KDG0125P1	6.12 TCA	ECP 34-1L/4	415	3	50	100	125	174
KDG0160P1	6.12 TCA	ECP 34-3L/4	415	3	50	128	160	222.6

PRIME POWER RATINGS: Prime power ratings apply to installations where utility power is unavailable or unreliable. At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO-8528/1, overload power in accordance with ISO-3046/1 and BS 5514. For limited running time and base load ratings, consult the factory. Obtain the technical information bulletin (TIB-101) on ratings guidelines for the complete ratings definitions.

Engine Specifications

Specifications	82.5 kVA	100 kVA	125 kVA	160 kVA
Engine : model, type	4.12 TCA, TCIC	4.12 TCA, TCIC	6.12 TCA, TCIC	6.12 TCA, TCIC
No. of cylinders & arrangement	4, Inline	4, Inline	6, Inline	6, Inline
Displacement, L (cu. in.)	4.8 (292.91)	4.8 (292.91)	7.2 (439.37)	7.2 (439.37)
Bore and stroke, mm (in.)	105 x 137 (4.13 x 5.39)	105 x 137 (4.13 x 5.39)	105 x 137 (4.13 x 5.39)	105 x 137 (4.13 x 5.39)
Compression ratio	16.9:1	16.9:1	16.9:1	16.9:1
Governor type & Class	Mechanical, Class A2	Mechanical, Class A2	Mechanical, Class A2	Mechanical, Class A2
Frequency regulation, steady state	ISO 8528 G2	ISO 8528 G2	ISO 8528 G2	ISO 8528 G2
Air cleaner type, Qty	Dry, 1	Dry, 1	Dry, 1	Dry, 1
Unit-mounted radiator ambient temperature °C (°F)	50 (122)	50 (122)	50 (122)	50 (122)
Max. power kWm (BHP) @ rated speed (rpm)	77 (105) @ 1500	94 (128) @ 1500	114.8 (156) @ 1500	146.5 (199) @ 1500
Diesel fuel consumption - 100% Load (Lph)	18.1	23.1	28	36.7
Diesel fuel consumption - 75% Load (Lph)	13.9	17.3	21.4	27.8
Lube Oil Consumption				
100% load	0.1 % of FC	0.1 % of FC	0.1 % of FC	0.1 % of FC
Fuel System				
Fuel prime pump	Mechanical	Mechanical	Mechanical	Mechanical
Fuel filter : Type, Qty	Spin-on (twin), 1	Spin-on (twin), 1	Spin-on (twin), 1	Spin-on, 2
Recommended fuel	HSD-ASTM D2	HSD-ASTM D2	HSD-ASTM D2	HSD-ASTM D2
Fuel tank capacity, L	180	180	260	260
Fuel filter change period	Initial - 100 hrs / 3 months, Subsequent 500 hrs / 6 months whichever is earlier	Initial - 100 hrs / 3 months, Subsequent 500 hrs / 6 months whichever is earlier	Initial - 100 hrs / 3 months, Subsequent 500 hrs / 6 months whichever is earlier	Initial - 100 hrs / 3 months, Subsequent 500 hrs / 6 months whichever is earlier
Lubrication System				
System type	Forced Lubrication	Forced Lubrication	Forced Lubrication	Forced Lubrication
Lube oil type	Kohler Oil	Kohler Oil	Kohler Oil	Kohler Oil
Oil pan capacity with filter, L	13.5	13.5	20.2	20.2
Oil filter: Quantity, Type	1, spin on cartridge	1, spin on cartridge	1, spin on cartridge	1, spin on cartridge
Oil and oil filter change period	Initial - 100 hrs / 3 months, Subsequent 500 hrs / 6 months whichever is earlier	Initial - 100 hrs / 3 months, Subsequent 500 hrs / 6 months whichever is earlier	Initial - 100 hrs / 3 months, Subsequent 500 hrs / 6 months whichever is earlier	Initial - 100 hrs / 3 months, Subsequent 500 hrs / 6 months whichever is earlier
Exhaust System				
Max. allowable back pressure, KPa (in.Hg)	10 (2.95)	10 (2.95)	10 (2.95)	11 (3.25)
Exhaust outlet size at engine hookup, mm (in)	63.5 (2.5)	63.5 (2.5)	88.9 (3.5)	88.9 (3.5)
Silencer Type, Quantity	Residential, 1	Residential, 1	Residential, 1	Residential, 1
Exh. temperature at rated kW, dry exhaust, °C (°F)	430 (806)	553 (1027.4)	570 (1058)	580 (1076)
Cooling System				
Ambient temperature, °C (°F)	50 (122)	50 (122)	50 (122)	50 (122)
Coolant capacity including engine, L (gal)	18 (4.76)	18 (4.76)	25 (6.60)	25 (6.60)
Water pump type	Impeller	Impeller	Impeller	Impeller
Fan diameter, including blades, mm (in.)	711 (28)	711 (28)	762 (30)	762 (30)
Engine Electrical System				
Starter Motor rated voltage VDC	12 V	12 V	24 V	24 V
Battery charging alternator	12 V, 45 Amp	12 V, 45 Amp	24 V, 55 Amp	24 V, 55 Amp
Ground (negative/positive)	Negative	Negative	Negative	Negative
Battery type- Amp/hour Quantity	Flooded type, Maintenance free 105 1	Flooded type, Maintenance free 105 1	Flooded type, Maintenance free 105 2	Flooded type, Maintenance free 105 2
Battery voltage, VDC	12	12	24	24

Alternator Specifications

Specifications	82.5 kVA	100 kVA	125 kVA	160 kVA
Type	4 Pole	4 Pole	4 Pole	4 Pole
Exciter type	Brushless	Brushless	Brushless	Brushless
Voltage regulator	DSR	DSR	DSR	DSR
Insulation - Material - Temperature rise, Prime	 Class H 125°C	 Class H 125°C	 Class H 125°C	 Class H 125°C
Bearing: Quantity, Type	1, Sealed	1, Sealed	1, Sealed	1, Sealed
Coupling	Flexible disk	Flexible disk	Flexible disk	Flexible disk
Voltage regulation	+/-1%	+/-1%	+/-1%	+/-1%
Excitation	Self excitation	Self excitation	Self excitation	Self excitation
Frequency, Fixed, Hz	50	50	50	50
Short circuit ratio	0.62	0.61	0.60	0.51
Full load current - 3 Phase	115	139	174	222.6
Prime at 125° C, kVA	82.5	100	125	160

Advanced Digital Controller (ADC3003)

Standard Features

- Master switch: Control On/Off
- Event Log
- Remote two-wire start/stop capability
- One-source responsibility for generating system & accessories
- Automatic start with programmed cranking cycle
- Field software upgrade possibility
- Operating temperature: -20°C to 70°C (4°F to 158°F)
- Storage temperature: -60°C to 70°C (-76°F to 158°F)
- Humidity: 0-95% condensing
- Control Panel
  - Alternator to control panel connection with copper cable only
  - MCCB/MCB details : 3 Ph - with short circuit and overload protection
  - Output cable size (Sq. mm) : 1 run/ph

	82.5 kVA	100 kVA	125 kVA	160 kVA
Copper	50	70	70	95
Aluminium	70	95	120	240

Optional Features

- Microprocessor based AMF control panel
- GPRS based generator monitoring system

Controller Information

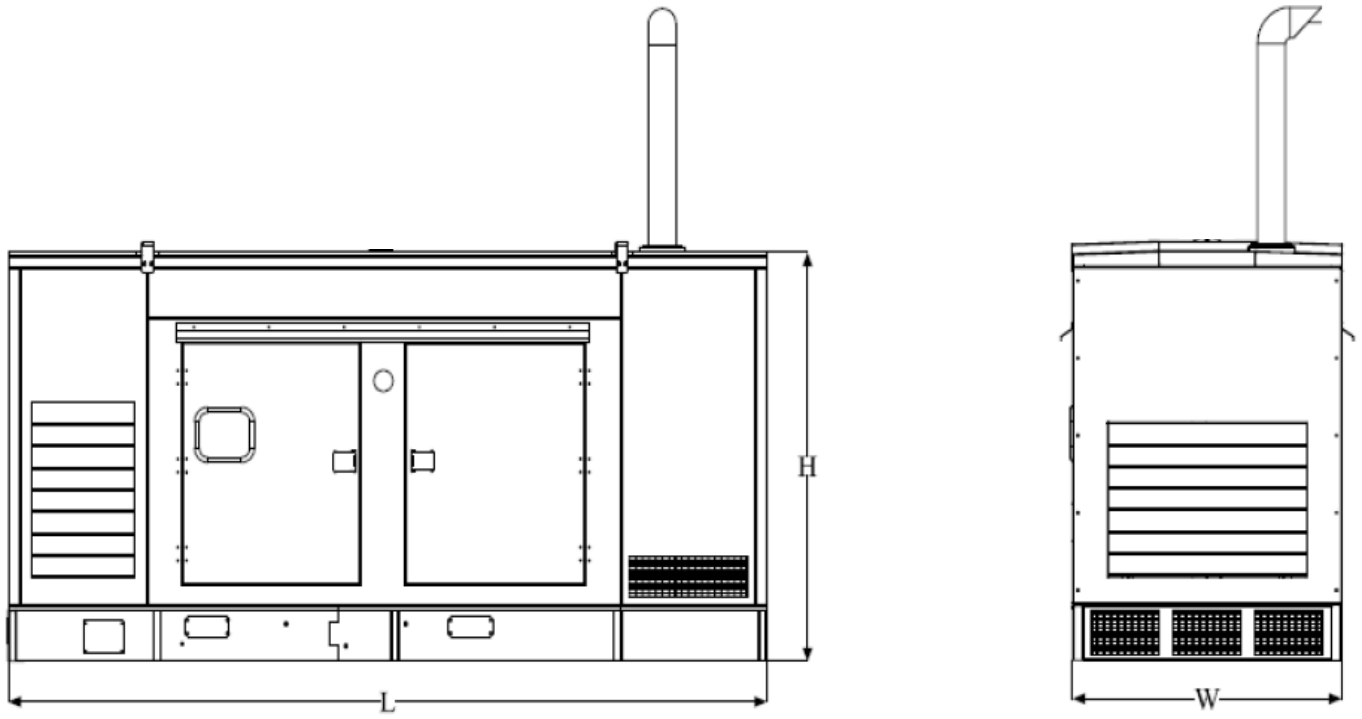
LCD Display	LCD Display Faults	Display Warnings	Optional Accessories	Power Requirements
Runtime hours	High engine temperature	Low battery voltage	Battery charger 24 V	8 V to 35 V continuous
Engine speed	Low oil pressure	High battery voltage	Mains sensing relay inbuilt	85 mA @ 12 VDC
Power factor KVAr	Overspeed / Underspeed	Low fuel level	Earth leakage protection	96 mA @ 24 VDC
Current	Over and under voltage	Maintenance Alarm (water in fuel)	VAF meter (Multifunction)	
Voltage	Over and under frequency		kW-hr display	
Frequency	E-stop			
Engine temperature	Auxiliary fault			
Engine oil pressure	Low fuel level			
Battery voltage	Over load current			
Kilowatt & kVA	Phase reversal			
Fuel level (digital I/P)				

Regulatory Compliance

Specifications	82.5 kVA	100 kVA	125 kVA	160 kVA
As per ISO 8178-5 mode cycle (Engine emission)	CPCB-II compliant	CPCB-II compliant	CPCB-II compliant	CPCB-II compliant
Noise level measured at 1 meter distance	< 75 dB (A)	< 75 dB (A)	< 75 dB (A)	< 75 dB (A)

Dimensions and weight

Specifications	82.5 kVA	100 kVA	125 kVA	160 kVA
Overall Size, L x W x H (mm)	3200 x 1300 x 1755	3200 x 1300 x 1755	3400 x 1350 x 1758	3800 x 1350 x 1896
Weight, dry, max (kg)	1608	1701	2034	2234



NOTE : Drawing provided is for reference only and should not be used for planning installation. Please contact the Company for latest updated details.

All the data is as per respective manufacturers' specification.
Please refer O & M manual for maintenance and preservation guidelines.

KOHLER reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

KOHLER
IN POWER. SINCE 1920.

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