KOHLER®

Diesel Generator

40 kVA, 50 kVA and 62.5 kVA

Prime Ratings Range			
Genset Model	KDG0040P1	KDG0050P1	KDG0063P1
Frequency	50Hz	50Hz	50Hz
kVA	40	50	62.5

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
- 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 economy
- Integral vibration isolation eliminates the need for under-unit vibration spring isolators
- Advanced Digital Controller (ADC) with 3 auto crank cycles and inbuilt AMF logic
- 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
- 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 as standard scope of supply
- Weather proof enclosure to withstand harsh climate
- Ease of accessibility for all routine service points
- Four point bottom lifting

Conformance Standards

- ISO 3046
- BS 5514
- ISO 8528
- BS EN 60034
- BS5000
- VDE 0530
- NEMA MG1-32
- IEC34
- AS1359
- CSA C22.2-100

Generator Set Ratings

Genset	Engine	Voltage	Phase	Hz	Prime Rating		Amps
					kWe	kVA	
KDG0040P1	497 TC 76	415	3	50	32	40	55.6
KDG0050P1	497 TC 75	415	3	50	40	50	70
KDG0063P1	497 TC 74	415	3	50	50	62.5	86.2

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	40 kVA	50 kVA	62.5 kVA
Engine : model, type	497 TC 76, TCIC	497 TC 75, TCIC	497 TC 74, TCIC
No. of cylinders & arrangement	4, Inline	4, Inline	4, Inline
Displacement, L (cu. in.)	3.8 (231.89)	3.8 (231.89)	3.8 (231.89)
Bore and stroke, mm (in.)	97 x 128 (3.82 x 5.04)	97 x 128 (3.82 x 5.04)	97 x 128 (3.82 x 5.04)
Compression ratio	17.5:1	17.5:1	17.5:1
Governor: type, Class	Mechanical, Class A2	Mechanical, Class A2	Mechanical, Class A2
Frequency regulation, steady state	ISO 8528 G2	ISO 8528 G2	ISO 8528 G2
Air cleaner type, Qty	Dry, 1	Dry, 1	Dry, 1
Unit-mounted radiator ambient temperature °C (°F)	50 (122)	50 (122)	50 (122)
Max. power kWm (BHP) @ rated speed (rpm)	47 (63) @ 1500	56.5 (75.7) @ 1500	67 (89.8) @ 1500
Diesel Fuel Consumption			
100% Load (Lph)	9.9	12	16
75% Load (Lph)	7.9	9.6	11.6
Lube Oil Consumption			
100% load	0.3 % of SFC	0.3 % of SFC	0.3 % of SFC
Fuel System			
Fuel priming	Manual	Manual	Manual
Fuel filter : Type, Qty	Spin-on, 1	Spin-on, 1	Spin-on, 1
Recommended fuel	HSD-ASTM D2	HSD-ASTM D2	HSD-ASTM D2
Fuel tank capacity, L	110	110	110
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
Lubrication System			
System type	Forced Lubrication	Forced Lubrication	Forced Lubrication
Lube oil type	Kohler Oil	Kohler Oil	Kohler Oil
Oil pan capacity with filter, L	12	12	12
Oil filter: Quantity, Type	1, spin on	1, spin on	1, spin on
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
Exhaust System			
Maximum allowable back pressure, KPa (in. Hg)	6.9 (2)	9 (2.7)	12.8 (3.8)
Exhaust outlet size at engine hookup, mm (in)	75 (2.95)	75 (2.95)	75 (2.95)
Silencer Type, Quantity	Residential, 1	Residential, 1	Residential, 1
Exhaust temperature at rated kW, °C (°F)	600 (1112)	600 (1112)	600 (1112)
Cooling System			
Ambient temperature, °C (°F)	50 (122)	50 (122)	50 (122)
Coolant capacity including engine, L (gal)	18.5 (4.89)	18.5 (4.89)	18.5 (4.89)
Water pump type	Impeller	Impeller	Impeller
Fan diameter, including blades, mm (in.)	457 (18)	457 (18)	515 (20.28)
Engine Electrical System			
Starter Motor rated voltage VDC	12 V	12 V	12 V
Battery charging alternator	12 V, 35 Amp	12 V, 35 Amp	12 V, 35 Amp
Ground (negative/positive)	Negative	Negative	Negative
Battery type- Battery rating (Amp-hour) Quantity	Flooded type, Maintenance free 90 1	Flooded type, Maintenance free 90 1	Flooded type, Maintenance free 90 1
Battery voltage, VDC	12	12	12

Alternator Specifications

Specifications	40 kVA	50 kVA	62.5 kVA
Type	4 Pole	4 Pole	4 Pole
Exciter type	Brushless	Brushless	Brushless
Voltage regulator	AVR	AVR	AVR
Insulation - Material - Temperature rise, Prime	 Class H 125°C	 Class H 125°C	 Class H 125°C
Bearing: Quantity, Type	1, Sealed	1, Sealed	1, Sealed
Coupling	Close coupled	Close coupled	Close coupled
Voltage regulation	+/-1%	+/-1%	+/-1%
Excitation	Self excitation	Self excitation	Self excitation
Frequency, Fixed, Hz	50	50	50
Full load current - 3 Phase	55.6	70	86.2
Prime at 125° C, kVA	40	50	62.5

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 : with short circuit and overload protection
  - Inbuilt AMF controller

Up to 200 meter cable length	40 kVA	50 kVA	62.5 kVA
Output copper cable size: 3Ph (Sq. mm)	16	25	35

Optional Features

- Microprocessor based AMF change over panel
- Remote monitoring system

Controller Information

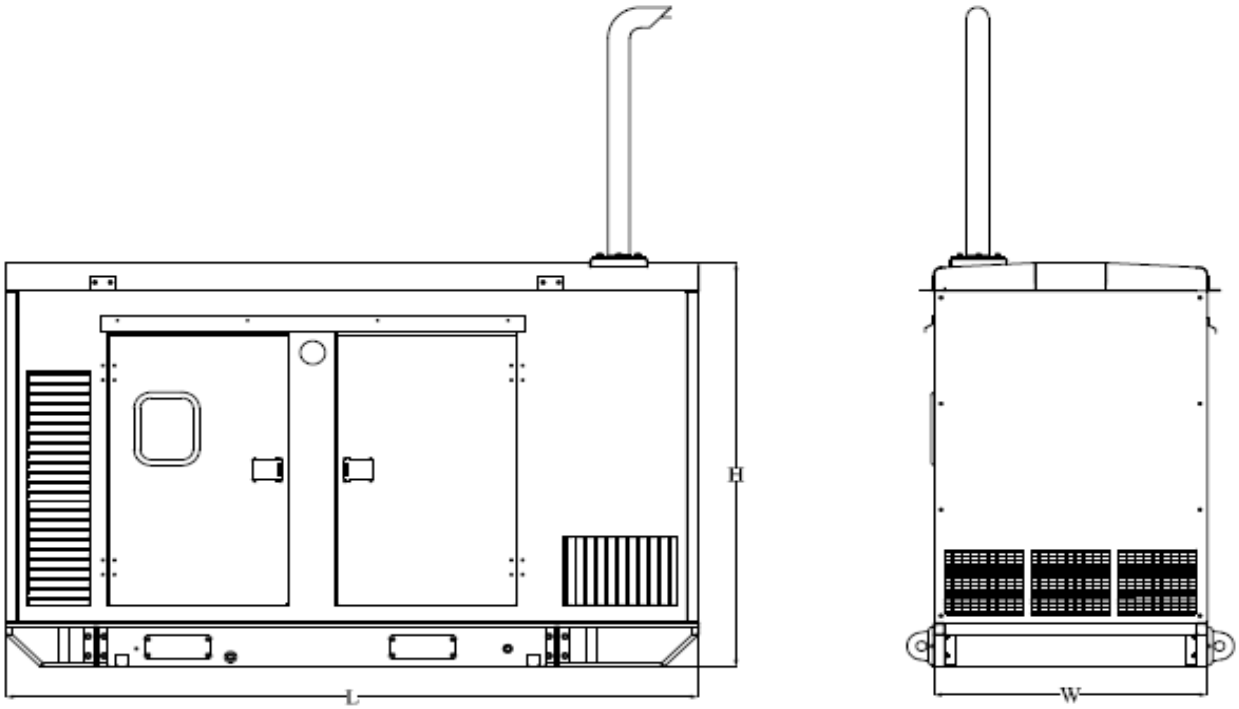
LCD Display	LCD Display Faults	Display Warnings	Optional Accessories	Power Requirements
Runtime hours	High engine temperature	Low battery voltage	Battery charger	8 to 35 V DC with fuse protection
Engine speed	Low oil pressure	High battery voltage	Earth leakage protection	85 mA @ 12 VDC
Power factor KVAr	Overspeed / underspeed	Low fuel level	VAF meter (multifunction)	96 mA @ 24 VDC
Current	Over and under voltage	Maintenance alarm	kWh meter	
Voltage	Over and under frequency	High engine temperature	Remote monitoring system	
Frequency	E-stop			
Engine temperature	Auxiliary fault			
Engine oil pressure	Low fuel level			
Battery voltage	Over load current			
Kilowatt & kVA	Phase reversal - for 3 phase			
Fuel level (in %age)				

Regulatory Compliance

Specifications	40 kVA	50 kVA	62.5 kVA
As per ISO 8178-5 mode cycle (Engine emission)	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)

Dimensions and weight

Specifications	40 kVA	50 kVA	62.5 kVA
Overall Size, L x W x H (mm)	2660 x 1050 x 1662	2660 x 1050 x 1662	2660 x 1050 x 1662
Dry weight, max (kg)	1160	1200	1230



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

* Disclaimer: Product images shown are for illustration purpose and may not be an exact representation of product.
* All the data is as per respective manufacturers' specification. Please refer O & M manual for maintenance and preservation guidelines.
* Fuel consumption data is based on HS Diesel having specific gravity of 0.85 and conforming to IS:1460 Standard. Fuel consumption tolerance is +5%.

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

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IN POWER. SINCE 1920.

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