KOHLER®

Diesel Generator

3.5 kVA and 5 kVA

Prime Ratings Range		
	KDG0004P2	KDG0005P2
	50Hz	50Hz
kVA	3.5	5

CPCB II Emission Compliant

The Kohler Advantage

- One-stop solution for the generating system and accessories
- Manufactured in India with global expertise
- Portable generator set
- Compact design with ease of maintenance
- Maux winding provides excellent motor starting capability
- Flexible & creative customized solutions to meet customer needs
- Fast response time
- One-year or 2000 hours as per standard warranty terms from date of initial startup

Special Features

- Natural aspirated, air cooled diesel engine with superior efficiency and operating 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 mounted alternator
- Single - bearing alternator with insulation Class H
- Base frame mounted fuel tank with minimum 8 hrs running capacity
- Dry type air filter
- DG isolator / circuit breaker
- Electric start with battery
- Industrial grade power terminals
- Conveniently located fuel level indicator
- Weather proof enclosures to withstand harsh climate
- All routine service points on one side of canopy
- Canopy with wheels and handle

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	Alternator	Voltage	Phase	Hz	Prime Rating		Amps
						kWe	kVA	
KDG0004P2	KD441-GSI2	S16W-105	230	1	50	3.5	3.5	15.2
KDG0005P2	KD441-GSI2	ET16F-160	415	3	50	4	5	6.9
KDG0005P2	KD441-GSI2	S16W-150	230	1	50	4	5*	21.7

* 5kVA Prime for resistive load and 5 kVA Standby for inductive load.

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.

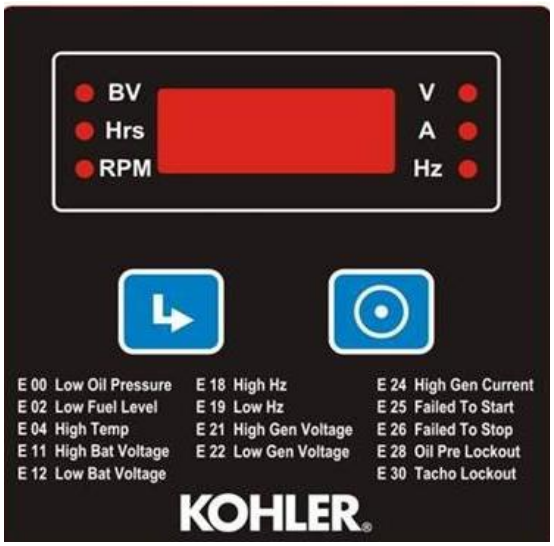
Engine Specifications

Specifications	3.5 kVA	5 kVA
Engine model	KD441-GSI2	KD441-GSI2
Engine aspiration	Natural aspiration	Natural aspiration
No. of cylinders & arrangement	1, Vertical	1, Vertical
Displacement, L (cu. in.)	0.44 (26.85)	0.44 (26.85)
Bore and stroke, mm (in.)	86 x 76 (3.38 x 2.99)	86 x 76 (3.38 x 2.99)
Compression ratio	20.3:1	20.3:1
Governor type	Mechanical	Mechanical
Governor class	Class A2	Class A2
Frequency regulation, steady state	ISO 8528 G1	ISO 8528 G1
Air cleaner type, Qty	Dry, 1	Dry, 1
Rated speed (rpm)	3000	3000
Max. power kWm (BHP)	6.1 (8.18)	6.1 (8.18)
Diesel Fuel Consumption		
100% Load (Lph)	0.8	1.4
75% Load (Lph)	0.7	1
Lube Oil Consumption		
100% load (Lph)	0.006	0.006
Fuel System		
Fuel prime pump	Mechanical	Mechanical
Fuel filter : Type, Qty	External , 1	External , 1
Recommended fuel	HSD-ASTM D2	HSD-ASTM D2
Fuel tank capacity, L	15	15
Fuel filter change period	Initial - 50 hrs / 3 months, Subsequent 250 hrs / 6 months whichever is earlier	Initial - 50 hrs / 3 months, Subsequent 250 hrs / 6 months whichever is earlier
Lubrication System		
System type	Forced Lubrication	Forced Lubrication
Lube oil type	Kohler Oil	Kohler Oil
Oil pan capacity with filter, L	1.5	1.5
Oil filter: Quantity, Type	1, Cartridge	1, Cartridge
Oil and oil filter change period	Initial - 50 hrs / 3 months, Subsequent 250 hrs / 6 months whichever is earlier	Initial - 50 hrs / 3 months, Subsequent 250 hrs / 6 months whichever is earlier
Exhaust System		
Maximum allowable back pressure, KPa (in.Hg)	5 (1.48)	5 (1.48)
Exhaust outlet size at engine hookup, mm (in)	40 (1.57)	40 (1.57)
Silencer Type, Quantity	Residential, 1	Residential, 1
Exhaust temperature at rated kW, °C (°F)	550 (1022)	550 (1022)
Air System		
Combustion air , LPM	530	530
Heat rejected to ambient air : Generator, kW (BTU/min)	2.85 (162)	2.85 (162)
Generator set air cooling system	Blower / Fan	Blower / Fan
Engine Electrical System		
Starter Motor rated voltage VDC	12 V	12 V
Battery charger	12 V, 5 Amp	12 V, 5 Amp
Ground (negative/positive)	Negative	Negative
Battery type- Amp/hour Quantity	Lead acid 32 1	Lead acid 32 1
Battery Voltage, VDC	12	12

Alternator Specifications

Specifications	3.5 kVA	5 kVA
Type	2 Pole	2 Pole
Exciter type	Brushless	Brushless / Brush type
Voltage regulator	Capacitor	Capacitor / DSR
Insulation - Material - Temperature rise, Prime	 Class H 125°C	 Class H 125°C
Bearing: Quantity, Type	1, Sealed	1, Sealed
Coupling	Direct	Direct
Voltage regulation	+/-10%	+/-10%
Excitation	Self excitation	Self Excitation
Frequency, Fixed, Hz	50	50
Full load current - 1 Phase (Amp)	15.2	21.7
Full load current - 3 Phase (Amp)	--	6.9
Prime at 125° C, kVA	3.5	5

Advanced Digital Controller (ADC2000)



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: -20°C to 70°C (-4°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
  - Output copper cable size : (Sq.mm x run) :

	3.5 kVA	5 kVA
1 Phase :	4	6
3 Phase :	--	2.5

Optional Features

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

Controller Information

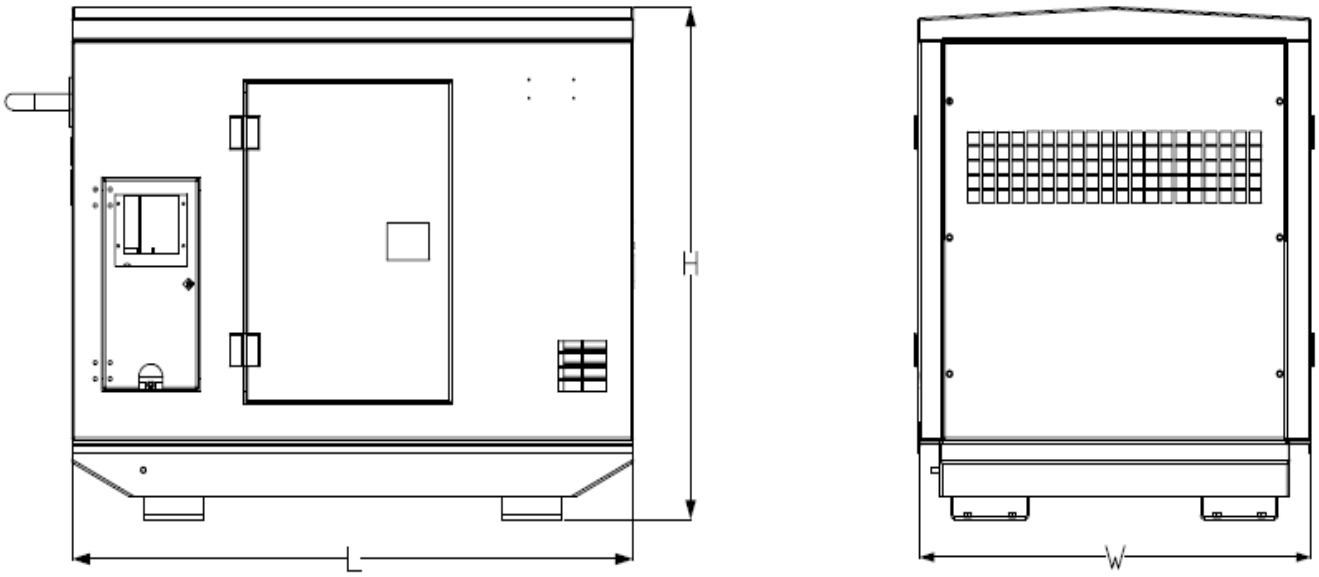
LED Display	LED Display Faults	Display Warnings	Optional Accessories	Power Requirements
Runtime hours	High engine temperature	Low battery voltage	Mains sensing relay	8 to 16 VDC with fuse protection
Engine speed	Low oil pressure	High battery voltage	Earth leakage protection	40 mA @ 12 VDC
Battery voltage	Overspeed / underspeed	Low fuel level		
Current	Over and under voltage	Maintenance alarm		
Voltage	Over and under frequency			
Frequency	Auxiliary fault			
	Low fuel level			
	Over load current			
	Phase reversal (3 Phase)			

Regulatory Compliance

Specifications	3.5 kVA	5 kVA
As per ISO 8178-5 mode cycle (Engine emission)	CPCB-II compliant	CPCB-II compliant
Noise level measured at 1 meter distance	< 75 dB (A)	< 75 dB (A)

Dimensions and weight

Specifications	3.5 kVA	5 kVA
Overall Size, L x W x H (mm)	960 x 660 x 789	960 x 660 x 789
Weight, dry, max (kg)	203	209



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®
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