

3.5 kVA and 5 kVA

| Prime Ratings Range | | | | |
|----------------------------------|------|---|--|--|
| Genset Model KDG0004P2 KDG0005P2 | | | | |
| Frequency | 50Hz | | | |
| kVA | 3.5 | 5 | | |





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
- 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
- · Silencer located inside canopy
- On field convertability from manual to AMF

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 termination
- · Conveniently located fuel level indicator
- Weather proof enclosures to withstand harsh climate
- Ease of accessibility for all routine service points
- 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 • IS10001

Generator Set Ratings

| Canaat | Caract Facina Altamatan Valtana Dhaa | Dhasa | 11- | Prime Rating | | | |
|-----------|--------------------------------------|-------------|---------|--------------|----|-----|-----|
| Genset | Engine | Alternator | Voltage | Phase Hz | ΠZ | kWe | kVA |
| KDG0004P2 | KD441-GSI2 | S16W-105 | 230 | 1 | 50 | 3.5 | 3.5 |
| KDG0005P2 | KD441-GSI2 | ET16F-130 | 415 | 3 | 50 | 4 | 5 |
| KDG0005P2 | KD441-GSI2 | S16W-150 | 230 | 1 | 50 | 4 | 5* |
| KDG0005P2 | KD441-GSI2 | ES16F-160/A | 230 | 1 | 50 | 4 | 5 |

^{*} Operating up to 0.9 - 1.0 PF

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 |
| · | 0.000 | 0.000 |
| 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- | Lead acid | Lead acid |
| Battery rating (Amp-hour) | 35 | 35 |
| Quantity | 1 | 1 |
| Battery Voltage, VDC | 12 | 12 |

Alternator Specifications

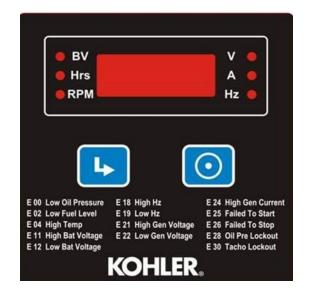
| Specifications | 3.5 kVA | 5 kVA |
|-----------------------------------|-----------------|------------------------|
| Туре | 2 Pole | 2 Pole |
| Exciter type | Brushless | Brushless / Brush type |
| Voltage regulator | Capacitor | Capacitor / AVR |
| Insulation | | |
| - Material | Class H | Class H |
| - Temperature rise, Prime | 125°C | 125°C |
| Bearing: Quantity, Type | 1, Sealed | 1, Sealed |
| Coupling | Direct | Direct |
| Voltage regulation | +/-10% | +/-10% / +/-5% |
| Excitation | Self excitation | Self Excitation |
| Frequency, Fixed, Hz | 50 | 50 |
| Full load current - 1 Phase (Amp) | 15.2 | 17.4 / 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
- Remote two-wire start/stop capability
- One-source responsibility for generating system & accessories
- Automatic start with programmed cranking cycle
- 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

Controller Information

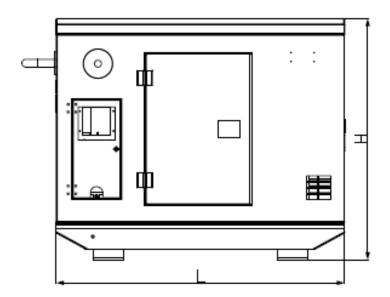
| LED Display | LED Display Faults | Display Warnings | Optional Accessories | Power Requirements |
|-----------------|--------------------------|----------------------|----------------------|----------------------------------|
| Runtime hours | High engine temperature | Low battery voltage | Mains sensing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

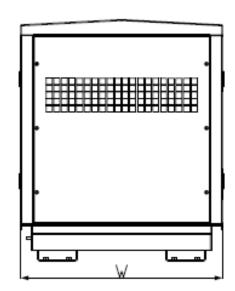
Regulatory Compliance

| 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 |
| Dry weight, 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.

- * 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.



Corporate Office: Kohler Power India Pvt. Ltd., 701 & 702, 7th Floor, Pentagon Tower P5, Magarpatta City, Hadapsar, Pune - 411013, Maharashtra, India.

Regional Offices:

Pune: +91 20 6649 7101 | New Delhi: +91 11 4102 2919 Kolkata: +91 33 4063 3512 | Bangalore: +91 80 4286 7000



Factory: Kohler Power India Pvt. Ltd., (Formerly: Lombardini India Pvt. Ltd.), J-2/1, MIDC Chikalthana, CIDCO, Aurangabad - 431210, Maharashtra, India.



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kohlerpower.in / 🕻 1800 266 0600 /





kpi.info@kohler.com / (S) +91 95 2777 7779

