

Prime Ratings Range	
	KDG0020P1
	50Hz
kVA	20



The Kohler Advantage

- One-stop solution for the generating system and accessories
- Manufactured in India with global expertise
- Compact design with ease of maintenance
- Aux 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

- Natural aspirated 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
- Alternator features:
 - Alternator meets Indian and international standards
 - Self-ventilated and drip-proof 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 3 seconds
- Silencer located inside canopy
- On field convertability from manual to AMF

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
- 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
- All routine service points on one side of canopy
- Four point bottom lifting

Conformance Standards

- ISO 3046
- BS 5514
- ISO 8528
- IS 4722
- IEC 34
- BS 5000 (Part 99)
- IS: 13364 (Part 1&2)

Generator Set Ratings

Genset	Engine	Alternator	Voltage	Phase	Hz	Prime Rating		Amps
						kWe	kVA	
KDG0020P1	G20-II	G1R160C3B	415	3	50	16	20	28
KDG0020P1	G20-II	G1R160C5A	230	1	50	16	20	87

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	20 kVA
Engine : model, type	G20-II, Natural aspiration
No. of cylinders	3
Cylinder arrangement	Inline
Displacement, L (cu. in.)	2.15 (131.2)
Bore and stroke, mm (in.)	91 x 110 (3.58 x 4.33)
Compression ratio	17.5:1
Governor: type, Class	Mechanical, Class A2
Frequency regulation, steady state	ISO 8528 G2
Air cleaner type, Qty	Dry, 1
Unit-mounted radiator ambient temperature °C (°F)	50 (122)
Max. power kWm (BHP) @ rated speed (rpm)	19 (25) @ 1500
Diesel Fuel Consumption	
100% Load (Lph)	5.3
75% Load (Lph)	4
Lube Oil Consumption	
100% load	0.1 % of SFC
Fuel System	
Fuel prime pump	Mechanical
Fuel filter : Type, Qty	Combo fuel filter, 1
Recommended fuel	HSD-ASTM D2
Fuel tank capacity, L	93
Fuel filter change period	Initial - 100 hrs / 3 months, Subsequent 500 hrs / 6 months whichever is earlier
Lubrication System	
System type	Forced Lubrication
Lube oil type	Kohler Oil
Oil pan capacity with filter, L	6
Oil filter: Quantity, Type	2, spin on & by-pass
Oil and oil filter change period	Initial - 100 hrs / 3 months, Subsequent 500 hrs / 6 months whichever is earlier
Exhaust System	
Maximum allowable back pressure, KPa (in.Hg)	4 (1.18)
Exhaust outlet size at engine hookup, mm (in)	50 (1.97)
Silencer Type, Quantity	Residential, 1
Exhaust temperature at rated kW, dry exhaust, °C (°F)	600 (1112)
Cooling System	
Ambient temperature, °C (°F)	50 (122)
Coolant capacity including engine, L (gal)	10.9 (2.9)
Water pump type	Impeller
Fan diameter, including blades, mm (in.)	406.5 (16)
Engine Electrical System	
Starter Motor rated voltage VDC	12 V
Battery charging alternator	12 V, 35 Amp
Ground (negative/positive)	Negative
Battery type-	Flooded type, Maintenance free
Amp/hour	90
Quantity	1
Battery voltage, VDC	12

Alternator Specifications

Specifications	20 kVA
Type	4 Pole
Exciter type	Brushless
Voltage regulator	AVR SR-7/3
Insulation - Material - Temperature rise, Prime	Class H 125°C
Bearing: Quantity, Type	1, Sealed
Coupling	Flexible disk
Voltage regulation	+/-1%
Excitation	Self excitation
Frequency, Fixed, Hz	50
Short circuit ratio	0.365
Full load current - 3 Phase, Full load current - 1 Phase	28 87
Prime at 125° C, kVA	20

Advanced Digital Controller (ADC2600)

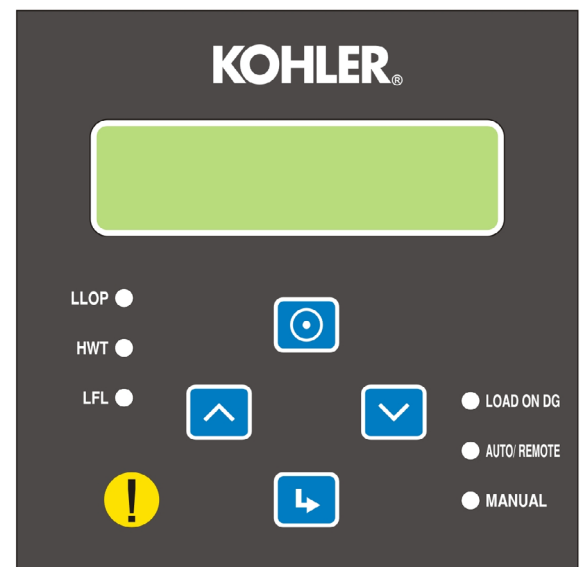
Standard Features

- 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) : 1 run/ph

	20 kVA
3 Phase :	6
1 Phase :	35

Optional Features

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



Controller Information

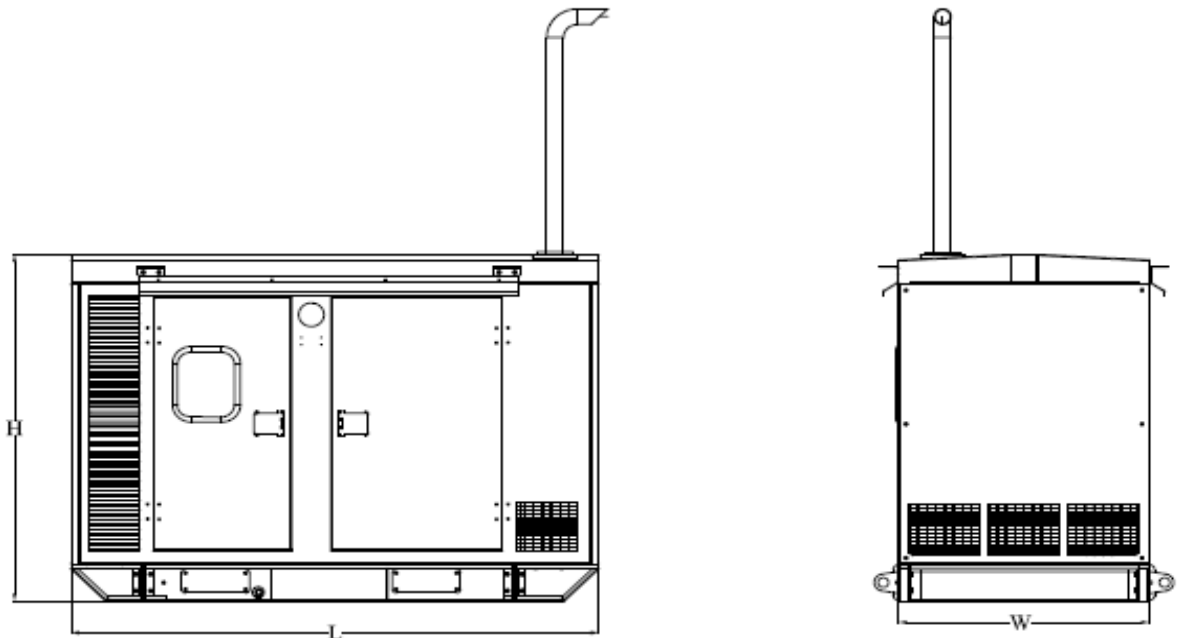
LCD Display	LCD Display Faults	Display Warnings	Optional Accessories	Power Requirements
Runtime hours	High engine temperature	Low battery voltage	Battery charger 12 V	6 to 36 VDC with fuse protection
Engine speed	Low oil pressure	High battery voltage	Mains sensing relay	250 mA @ 12 VDC
Power factor KVAR	Overspeed / underspeed	Low fuel level	Earth leakage protection	125 mA @ 24 VDC
Current	Over and under voltage	Maintenance alarm	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	20 kVA
As per ISO 8178-5 mode cycle (Engine emission)	CPCB-II compliant
Noise level measured at 1 meter distance	< 75 dB (A)

Dimensions and weight

Specifications	20 kVA
Overall Size, L x W x H (mm)	1997 x 950 x 1450
Weight, dry, max (kg)	783



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.

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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.

Authorised Channel Partner:

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kohlerpower.in / 1800 266 0600 / kpi.info@kohler.com / +91 95 2777 7779