

Diesel Generator

15 kVA and 20 kVA

Prime Ratings Range				
	KDG0015P1 KDG0020P1			
	50Hz	50Hz		
kVA	15	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
- 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

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

Generator Set Ratings

Conset	Engine	Alternator	Voltage	Phase Hz	ш_	U-,	Prime	Rating	Amna
Genset	Engine	Alternator	Voltage	Phase	Hz	kWe	kVA	Amps	
KDG0015P1	G20-II	ECO 3-3L/4	415	3	50	12	15	20.9	
KDG0015P1	G20-II	ECO28-2LN/4	230	1	50	12	15	65.2	
KDG0020P1	G20-II	ECO28-1LN/4	415	3	50	16	20	28	
KDG0020P1	G20-II	ECO28-VL/4	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	15 kVA	20 kVA
Engine : model, type	G20-II, Natural aspiration	G20-II, Natural aspiration
No. of cylinders	3	3
Cylinder arrangement	Inline	Inline
Displacement, L (cu. in.)	2.15 (131.2)	2.15 (131.2)
Bore and stroke, mm (in.)	91 x 110 (3.58 x 4.33)	91 x 110 (3.58 x 4.33)
Compression ratio	17.5:1	17.5:1
Governor: type, Class	Mechanical, Class A2	Mechanical, Class A2
Frequency regulation, steady state	ISO 8528 G2	ISO 8528 G2
Air cleaner type, Qty	Dry, 1	Dry, 1
Unit-mounted radiator ambient temperature °C (°F)	50 (122)	50 (122)
Max. power kWm (BHP) @ rated speed (rpm)	18.5 (24.8) @ 1500	19 (25) @ 1500
Diesel Fuel Consumption		
100% Load (Lph)	4	5.3
75% Load (Lph)	3.4	4
Lube Oil Consumption	0. -T	
100% load	0.1.9/ 5/ 5/50	0.1.9/ 0.5.0.5.0
	0.1 % of SFC	0.1 % of SFC
Fuel System		
Fuel prime pump	Mechanical	Mechanical
Fuel filter : Type, Qty	Combo fuel filter, 1	Combo fuel filter, 1
Recommended fuel	HSD-ASTM D2	HSD-ASTM D2
Fuel tank capacity, L	93	93
Fuel filter change period	Initial - 100 hrs / 3 months, Subsequent 500 hrs / 6 months whichever is earlier	Initial - 100 hrs / 3 months, Subsequen 500 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	6	6
Oil filter: Quantity, Type	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
Exhaust System		
Maximum allowable back pressure, KPa (in.Hg)	4 (1.18)	4 (1.18)
Exhaust outlet size at engine hookup, mm (in)	50 (1.97)	50 (1.97)
Silencer Type, Quantity	Residential, 1	Residential, 1
Exhaust temperature at rated kW, dry exhaust, °C (°F)	600 (1112)	600 (1112)
Cooling System		
Ambient temperature, °C (°F)	50 (122)	50 (122)
Coolant capacity including engine, L (gal)	10.9 (2.9)	10.9 (2.9)
Water pump type	Impeller	Impeller
Fan diameter, including blades, mm (in.)	406.5 (16)	406.5 (16)
,		1
Engine Electrical System		
•	12 V	12 V
Starter Motor rated voltage VDC	12 V	12 V
Starter Motor rated voltage VDC Battery charging alternator	12 V, 35 Amp	12 V, 35 Amp
Starter Motor rated voltage VDC Battery charging alternator Ground (negative/positive)	12 V, 35 Amp Negative	12 V, 35 Amp Negative
Engine Electrical System Starter Motor rated voltage VDC Battery charging alternator Ground (negative/positive) Battery type-	12 V, 35 Amp	12 V, 35 Amp
Starter Motor rated voltage VDC Battery charging alternator Ground (negative/positive)	12 V, 35 Amp Negative Flooded type,	12 V, 35 Amp Negative Flooded type,

Alternator Specifications

Specifications	15 kVA	20 kVA
Туре	4 Pole	4 Pole
Exciter type	Brushless	Brushless
Voltage regulator	DSR	DSR
Insulation - Material - Temperature rise, Prime	Class H 125°C	Class H 125°C
Bearing: Quantity, Type	1, Sealed	1, Sealed
Coupling	Flexible disk	Flexible disk
Voltage regulation	+/-1%	+/-1%
Excitation	Self excitation	Self excitation
Frequency, Fixed, Hz	50	50
Short circuit ratio	1.13	0.87
Full load current - 3 Phase, Full load current - 1 Phase	20.9 65.2	28 87
Prime at 125° C, kVA	15	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

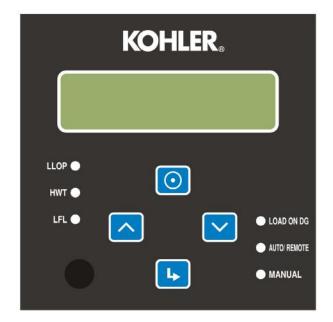
	15 kVA	20 kVA
3 Phase :	6	6
1 Phase :	25	35

Optional Features

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

Controller Information

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)				

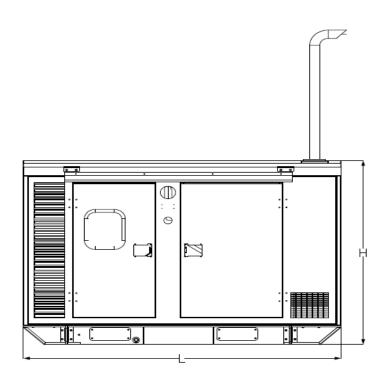


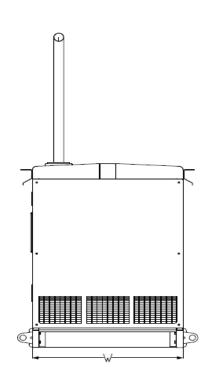
Regulatory Compliance

Specifications	15 kVA	20 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	15 kVA	20 kVA	
Overall Size, L x W x H (mm)	1997 x 950 x 1450	1997 x 950 x 1450	
Weight, dry, max (kg)	758	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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