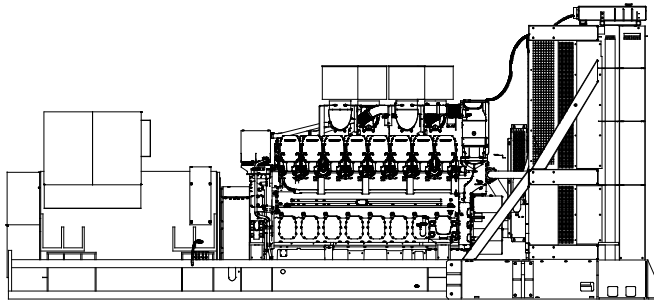


KDxxxx designates a generator set with a Tier 2 EPA-Certified engine.
KDxxxx-F designates a 60 Hz generator set with a fuel optimized engine.



Ratings Range

		60 Hz
▶ Standby:	kW	3250
	kVA	4062
Prime:	kW	2950
	kVA	3688



Standard Features

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- Approved for use with certified renewable Hydrotreated Vegetable Oil (HVO) / Renewable Diesel (RD) fuels compliant with EN15940 / ASTM D975.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- cULus listing (UL 2200 and CSA C22.2 No. 100).
- The generator set accepts rated load in one step.
- The 60 Hz generator set meets NFPA 110, Level 1, when equipped with the necessary accessories and installed per NFPA standards.
- A standard three-year unlimited-hour limited warranty for standby applications in the U.S. And Canada. Five-year basic, five-year comprehensive, and ten-year extended limited warranties are also available.
- A standard two-year or 8700-hour limited warranty for prime power applications.
- Other features:
 - Kohler designed controllers for one-source system integration and remote communication. See Controllers on page 4.
 - The low coolant level shutdown prevents overheating (standard on radiator models only).

General Specifications

Orderable Generator Model Number	GMKD3250
Manufacturer	Kohler
Engine: model	KD83V16
Alternator Choices	KH07631TO4D KH07632TO4D ▶ KH07640TO4D KH08590TO4D KH09390TO4D KH09370TO4D
Performance Class	Per ISO 8528-5
One Step Load Acceptance	100%
Voltage	480 V, 600 V, 4160 V, 6600 V, or 12470- 13800 V
Controller	APM603, APM802
Fuel Consumption, L/hr (gal./hr) 100% at Standby	820 (216.6)
Fuel Consumption, L/hr (gal./hr) 100% at Prime Power	771 (203.7)
Emission Level Compliance (KDxxxx)	Tier 2
Open Unit Noise Level @ 7 m dB(A) at Rated Load	99
Data Center Continuous (DCC) Rating (Refer to TIB-101 for definitions)	Same as the Standby Rating below

Conscious Care™ Qualified

- Reduce operating costs, fuel consumption, and greenhouse gas emissions with Conscious Care™ maintenance program.

Generator Set Ratings

Alternator	Voltage	Ph	Hz	130°C Rise Standby Rating		105°C Rise Prime Rating	
				kW/kVA	Amps	kW/kVA	Amps
KH07631TO4D	2400/4160	3	60	3250/4062	564	2950/3688	512
	3810/6600	3	60	3250/4062	356	2950/3688	323
	7200/12470	3	60	3250/4062	189	2950/3688	171
	7620/13200	3	60	3250/4062	178	2950/3688	162
	7970/13800	3	60	3250/4062	170	2950/3688	155
KH07632TO4D	7200/12470	3	60	3250/4062	189	2950/3688	171
KH07640TO4D	277/480	3	60	3250/4060	4887	3250/4060	4887
KH08590TO4D	277/480	3	60	3250/4060	4887	3250/4060	4887
	347/600	3	60	3250/4060	3910	3250/4060	3910
KH09390TO4D	277/480	3	60	3250/4060	4887	3250/4060	4887
KH09370TO4D	2400/4160	3	60	3250/4062	564	2950/3688	512
	3810/6600	3	60	3250/4062	356	2950/3688	323

RATINGS: All three-phase units are rated at 0.8 power factor. **Standby Ratings:** The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. **Prime Power Ratings:** 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 and ISO-3046-1. For limited running time and continuous ratings, consult the factory. Obtain technical information bulletin (TIB-101) for ratings guidelines, complete ratings definitions, and site condition derates. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

Model: KD3250, continued

Alternator Specifications

Specifications	Alternator
Alternator manufacturer	Kohler
Type	4-Pole, Rotating-Field
Exciter type	Brushless, Permanent-Magnet Pilot Exciter
Voltage regulator	Solid State, Volts/Hz
Insulation	NEMA MG1, UL 1446, Vacuum Pressure Impregnated (VPI)
Insulation: Material	Class H, Synthetic, Nonhygroscopic
Insulation: Temperature Rise	130°C, 150°C Standby
Bearing: quantity, type	1, Sealed
Coupling	Flexible disc
Amortisseur windings	Full
Rotor balancing (60Hz)	125%
Voltage regulation, no-load to full-load RMS	+/-0.25%
Unbalanced load capability	100% of Rated Standby Current
• The pilot-excited, permanent magnet (PM) alternator provides superior short-circuit capability. • All models are brushless, rotating-field alternators. • NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting. • Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds. • Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field. • Self-ventilated and dripproof construction. • Superior voltage waveform from two-thirds pitch windings and skewed stator. • Brushless alternator with brushless pilot exciter for excellent load response.	

Engine

Engine Specification

Engine Manufacturer	Kohler Diesel
Engine Model	KD83V16
Engine: type	4-Cycle, Turbocharged, Intercooled
Cylinder arrangement	16-V
Displacement, L (cu. in.)	83 (5048)
Bore and stroke, mm (in.)	175 x 215 (6.89 x 8.46)
Compression ratio	16.0:1
Piston speed, m/min. (ft./min.)	774 (2539)
Main bearings: quantity, type	9, Precision Half-Shell
Rated rpm	1800
Max. power at rated rpm, kWm (BHP)	3490 (4680)
Cylinder head material	Cast Iron
Crankshaft material	Steel
Valve (exhaust) material	Steel
Governor: type, make/model	KODEC Electronic Control
Frequency regulation, no-load to-full load	Isochronous
Frequency regulation, steady state	±0.25%
Frequency	Fixed
Air cleaner type, all models	Dry

Model: KD3250, continued

Exhaust

Exhaust System

Exhaust flow at rated kW,m3/min. (cfm)	711 (25109)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	489 (912)
Maximum allowable back pressure, kPa (in. Hg)	8.5 (2.5)
Exh. outlet size at eng. hookup, mm (in.)	See ADV Drawing

Engine Electrical

Engine Electrical System

Starter motor qty. at starter motor power rating, rated voltage (DC)	Standard: 2 @ 9 kW, 24
Battery charging alternator: Ground (negative/positive)	Negative
Battery charging alternator: Volts (DC)	24
Battery charging alternator: Ampere rating	140
Quantity, CCA rating each, type (with standard starters)	4, 1110, AGM
Battery voltage (DC)	12
Starter motor qty. at starter motor power rating, rated voltage (DC)	Standard: 2 @ 9 kW, 24
Battery charging alternator: Ground (negative/positive)	Negative
Battery charging alternator: Volts (DC)	24
Battery charging alternator: Ampere rating	140
Quantity, CCA rating each, type (with standard starters)	4, 1110, AGM
Battery voltage (DC)	12

Fuel

Fuel System

Fuel type	Diesel
Fuel supply line, min. ID, mm (in.)	25 (1.0)
Fuel return line, min. ID, mm (in.)	19 (0.75)
Max. fuel flow, Lph (gph)	1050 (277.4)
Min./max. fuel pressure at engine supply connection, kPa (in. Hg)	-30/30 (-8.8/8.8)
Max. return line restriction, kPa (in. Hg)	30 (8.9)
Fuel Filter Primary	3
Fuel Filter Water Separator	2
Recommended fuel	#2 Diesel ULSD / RD / HVO

Lubrication

Lubrication System

Type	Full Pressure
Oil pan capacity, initial filling, L (qt.)	420 (444)
Oil filter: quantity, type	8, Cartridge
Oil cooler	Water-cooled
Type	Full Pressure
Oil pan capacity, initial filling, L (qt.)	420 (444)
Oil filter: quantity, type	8, Cartridge
Oil cooler	Water-cooled

Model: KD3250, continued

Cooling	
Radiator System	
Ambient temperature, °C (°F)	50 (122)
Engine jacket water capacity, L (gal.)	375 (99)
Radiator system capacity, including engine, L (gal.)	192 (315)
Engine jacket water flow, Lpm (gpm)	2480 (655)
Charge cooler water flow, Lpm (gpm)	810 (214)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	1170 (66537), 1263 (71890) Low Nox
Heat rejected to charge air cooling water at rated kW, dry exhaust, Kw Btu/min.	970 (55163), 1096 (62384) Low Nox
Water pump type	Centrifugal
Fan diameter, including blades, mm (in.)	2743 (108)
Fan, kWm (HP)	95 (127.4)
Max. restriction of cooling air, intake and discharge side of radiator, kPA (in. H2O)	0.125 (0.5)
* Enclosure with enclosed silencer reduces ambient temperature capability by 5°C (9°F).	

Remote Radiator System	
Exhaust manifold type	Dry
Connection Size	Class 150 ANSI Flange
Water inlet/outlet, mm (in.)	216 (8.5) Bold Circle
Charge air cooler inlet/outlet (pipe dia. of flange), mm (in.)	178 (7.0) Bolt Circle
Static head allowable above engine, kPa (ft. H2O)	70 (23.5)
Note:	Contact your local distributor for cooling system options and specifications based on your specific requirements.

Operation Requirements

Air Requirements	
Radiator-cooled cooling air, m3/min. (scfm) *	3823 (135000)
Cooling air required for generator set when equipped with city water cooling or remote radiator, based on 14°C (25°F) rise, m3/min. rise and ambient temp. of 29°C (85°F) m3/min. (cfm)	1214 (42887)
Combustion air, m3/min. (cfm)	257 (9059)
Heat rejected to ambient air: Engine, kW (Btu/min.)	160 (9099)
Heat rejected to ambient air: Alternator, kW (Btu/min.)	179 (10200)
*Air density = 1.20 kg/m3 (0.075 lbm/ft3)	

Fuel Consumption

Diesel, Lph (gph), at % load	Rating
Standby Fuel Consumption at 100% load	820 Lph (216.6 gph)
Standby Fuel Consumption at 75% load	726 Lph (191.9)
Standby Fuel Consumption at 50% load	482 Lph (127.4 gph)
Standby Fuel Consumption at 25% load	278 Lph (73.5 gph)
Prime Fuel Consumption at 100% load	771 Lph (203.7 gph)
Prime Fuel Consumption at 75% load	642 Lph (169.7 gph)
Prime Fuel Consumption at 50% load	466 Lph (123.2 gph)
Prime Fuel Consumption at 25% load	243 Lph (64.1 gph)

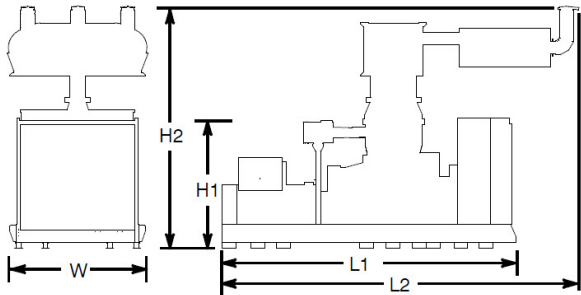
Model: KD3250, continued

Continuous Fuel Consumption at 0% load

** Volumetric Fuel consumption is up to 4% higher when using HVO/RC than #2 ULSD.

Dimensions and Weights

Dim Weight Spec		Dim Weight Value	
Fuel		Diesel	
Engine Manufacturer		Kohler	
Overall Size, L x W x H, mm (in.):		7648 x 3172 x 3451 (301.0 x 124.9 x 135.9)	
Weight (radiator model), wet, kg (lb.):		32513 (71707)	
		7969 x 3640 x 6262 (313.7 x 143.3 x 246.5)	
		9257 x 3640 x 6262 (364.4 x 143.3 x 246.5)	



NOTE: This drawing is provided for reference only and should not be used for planning installation. Contact your local distributor for more detailed information.

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