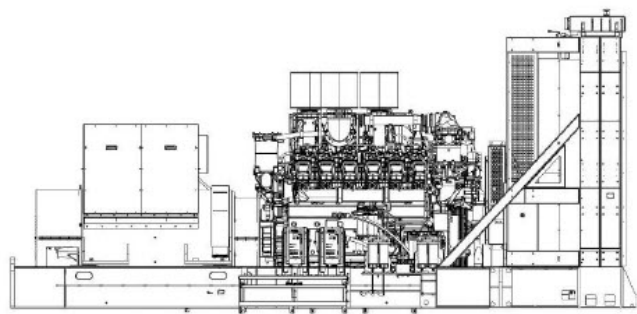




Standard Features

- 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 emergency generator set meets NFPA 110, Level 1, when equipped with the necessary accessories and installed per NFPA standards.
- A standard three-year unlimited-hour 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.

Alternator Features

- 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.

Other Features

- Kohler designed controllers for one-source system integration and remote communication.
- The low coolant level shutdown prevents overheating (standard on radiator models only).Conscious Care qualified. Reduce operating cost, fuel consumption, and greenhouse gas emisisions.

Enclosure Features

- See Enclosure Spec sheet for details.

Generator Set Rating

Standby 130C Rise Ratings						
Alternator	Voltage	Ph	Hz	Peak kVA	kW/kVA	Amps
KH08100TO4D	7970/13800	3	60	5087	2500/3125	131

RATINGS: All three-phase units are rated at 0.8 power factor.

Model: KD2500-A, 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, Nonhydroscopic
Insulation: Temperature Rise	130°C, 150°C Standby
Bearing: quantity, type	1 or 2, Sealed
Coupling	Flexible disc or Coupling
Amortisseur windings	Full
Rotor balancing (60Hz)	125%
Alternator winding type	> 600 V Random Wound, < 600 V Form Wound
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	KD62V12A
Engine: type	4-Cycle, Turbocharged, Intercooled
Cylinder arrangement	12-V
Displacement, L (cu. in.)	62 (3783)
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	7, Precision Half Shells
Rated rpm	1800
Max. power at rated rpm, kWm (BHP)	2700 (3621)
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: KD2500-A, continued

Exhaust

Exhaust System

Exhaust flow at rated kW,m ³ /min. (cfm)	533 (18833)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	470 (878_
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 @ kW, 24; Redundant (optional); 2 @ 15 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
Quantity, CCA rating each, type (with optional redundant starters)	8, 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)	877 (232)
Min./max. fuel pressure at engine supply connection, kPa (in. Hg)	- 50/50 (- 14.8/14.8)
Maximum diesel fuel lift, m (ft.)	6 (20)
Max. return line restriction, kPa (in. Hg)	30 (8.9)
Fuel filter: quantity, type	2, Primary Engine Filter
Fuel Filter Secondary	2, Fuel/Water Separator
Recommended fuel	#2 Diesel ULSD/HVO/RD

Lubrication

Lubrication System

Type	Full Pressure
Oil pan capacity with filter, L (qt.)	378 (400)
Oil filter: quantity, type	6, Cartridge
Oil cooler	Water-Cooled

Model: KD2500-A, continued

Cooling	
Radiator System	
Ambient temperature, °C (°F)	50 (122) 40 (104)
Engine jacket water flow, Lpm (gpm)	2110 (557)
Engine jacket water capacity, L (gal.)	260 (69)
Radiator system capacity, including engine, L (gal.)	643 (170) 539 (142)
Charge cooler water flow, Lpm (gpm)	600 (159)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	884 (50317)
Heat rejected to charge air cooling water at rated kW, dry exhaust, Kw Btu/min.	790 (44967)
Fan diameter, including blades, mm (in.)	2235 (88) 1901 (75)
Fan, kWm (HP)	90 (120.7) 85 (114)
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)	

Fuel Consumption	
Diesel, Lph (gph), at % load	Rating
Standby Fuel Consumption at 100% load	654.4 Lph (172.9 gph)
Standby Fuel Consumption at 75% load	576.5 Lph (152.3 gph)
Standby Fuel Consumption at 50% load	374.8 Lph (99.0 gph)
Standby Fuel Consumption at 25% load	210.4 Lph (55.6 gph)
Prime Fuel Consumption at 100% load	618.1 Lph (163.3 gph)
Prime Fuel Consumption at 75% load	513.4 Lph (135.7 gph)
Prime Fuel Consumption at 50% load	340.8 Lph (90.0 gph)
Prime Fuel Consumption at 25% load	195.0 Lph (51.5 gph)
Continuous Fuel Consumption at 0% load	** Volumetric Fuel consumption is up to 4% higher when using HVO/RD 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.):	6873 x 2915 x 3301 (270.6 x 114.8 x 130.0)
Weight (radiator model), wet, kg (lb.):	23539 (51913)

