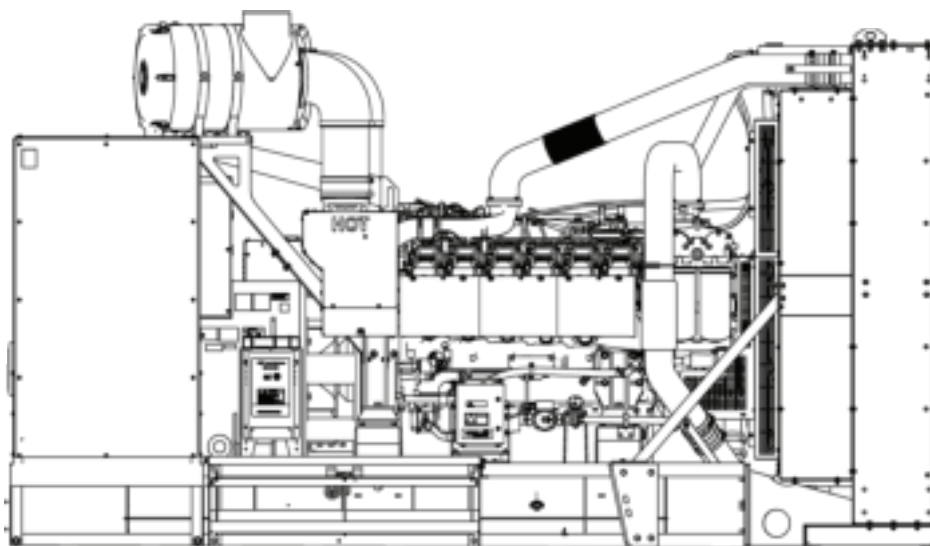




KOHLER® KD1000 2 GENERATOR UNITS



Website: www.woodstockpower.com
Email: sales@woodstockpower.com
Phone: 610-658-3242



KOHLER POWER SYSTEMS FOREWARD

Since 1920, Kohler Company has provided an extensive range of quality on-site electrical power systems and products for standby, prime power, peak shaving, and interruptible rate applications. Kohler Company is a privately owned U.S. firm with over 31,000 employees worldwide.

Kohler manufactures a complete line of commercial generation products ranging in size from 3kW to 2,850kW for use in the residential, mobile, industrial, and marine markets. In addition, we produce a wide range of products including a complete line of engines, generators, controllers, automatic transfer switches and wireless monitors.

Kohler is an ISO 9001 Internationally Registered company, and has an extensive World-wide dealer network to support our power products. The Power Systems manufacturing facility located in Mosel, Wisconsin is where most of the power generation equipment is manufactured. The Mosel facility is a fully integrated 375,000 Square foot manufacturing facility producing in excess of 50,000 generator sets annually.



As-Built Information

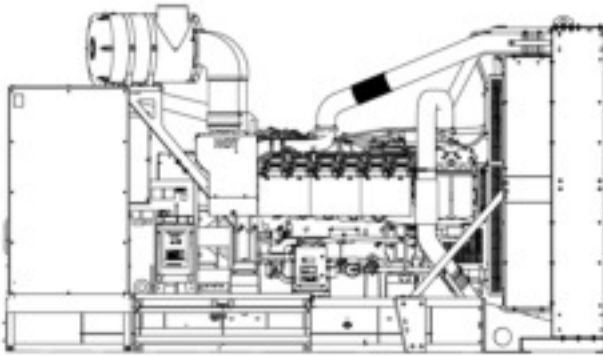
Installed 10001001001-GA1 KD1000,60Hz EPA Tier 2
Installed GM19874-KA1 UL2200 Listing
Installed 333708 Voltage,60Hz,277/480V,3Ph,4W,0.8PF
Installed 10501000701-KA1 Flexible Fuel Lines
Installed 10301000301-MA1 Cooling, Unit Mounted Radiator
Installed 11602002147-KA2 Cover, Transition Duct
Installed 11602013000-CA21 Breaker 1 Right Transition/Leads
Installed 11602001100-KA1 Neutral
Installed 11602002047-KA1 Duct, Transition
Installed 10702000502-KA1 Battery Charger, 24V
Installed 10801000001-MA1 Air Intake, Standard Duty
Installed 11811000200-KA1 Decals, Power Box (Rh)
Installed 11602004247-KA1 Power Box & Mtg
Installed GM78688-TA1 UL tested Label & Approval w/Genset
Installed 11302009100-KA2 Hardware, Tank Installation
Installed 10401000401-KA1 Oil in Genset - 106 Qts.
Installed GM101747-2C Fuel Tank 24 Hour Configurable
Installed 11302005200-KA2 Lifting Base, Sound Level 1
Installed 11602002547-KA2 Panel, J-Box Side
Installed GM101610-1C SL1 Enclosure Aluminum
Installed 299891 Power Factor Test,0.8,3Ph Only
Installed 10201000601-MA1 Alt & Mtg, KH04070TO4D, Std, 0/18"
Unknown GM101671 Warranty, 3-Year, Standard
Installed 10501000045-MA1 Fuel/Water Separator
Installed 10301002801-KA1 Coolant in Genset 33 gals.
Installed 11601004201-MA1 Controller & Harness, Standard
Installed 11602002200-KA29 Leads, R-Frame 2000A Right
Installed 11301001145-MA6 Skid & Mounting, Standard Isolation
Installed GM101747-CA1 Subbase Tanks, KD1000
Installed 11401015747-TA2 Aluminum SL1 Enclosure
Installed 10701000345-MA1 Battery Rack & Cables, Single Starter
Installed 11602002901-KA1 Lead Support
Installed 11602000247-KA11 Panel, LCB Recess R
Installed 11602013000-CA1 Breaker 1 Right Components
Installed 10305000145-KA6 Block Heater, 208V, 1Ph, 6000W
Installed 279989 Nameplate Rating, Standby 130C
Installed GM101610-CA1 Configurable Enclosure, KD1000
Installed 10702002501-KA1 Battery, 2/12V, 1110CCA, AGM
Installed GM52337-KA1 LCB, 1600A, RJF, EL/MICRO, LSI, 100%
Installed 11602000147-KA3 Cover, Power Box (R-Frame)
Installed 13500000501-AA1 APM802, Fuel Tank
Installed 11602001700-KA5 Leads, Neutral 2000A
Installed 10503000600-KA2 State Tank, 1749 Gallon
Installed 11602000700-KA1 Mtg, LCB R-Frame

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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	975- 1000
	kVA	1219- 1250
Prime:	kW	810- 900
	kVA	1012- 1125

Standard Features

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- The 60 Hz generator set offers a UL 2200 listing.
- 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 or 1000-hour limited warranty for standby applications. 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).

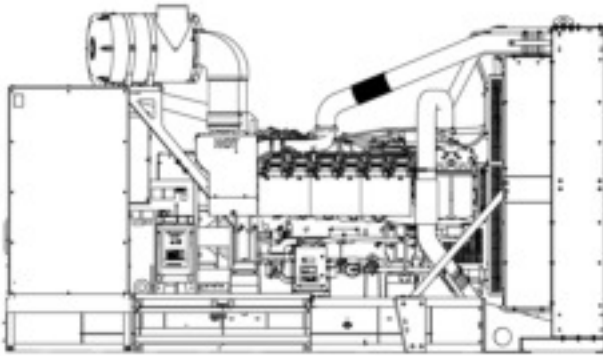
General Specifications

Orderable Generator Model Number	GMKD1000
Manufacturer	Kohler
Engine: model	KD27V12
Alternator Choices	KH04070TO4D KH04830TO4D KH05520TO4D
Performance Class	Per ISO 8528-5
One Step Load Acceptance	100%
Voltage	Wye or 600 V
Controller	APM603, APM802
Fuel Tank Capacity, L (gal.)	3475- 19381 (918- 5120)
Fuel Consumption, L/hr (gal./hr) 100% at Standby	269 (70.9)
Fuel Consumption, L/hr (gal./hr) 100% at Prime Power	247 (65.3)
Emission Level Compliance (KDxxxx)	Tier 2
Open Unit Noise Level @ 7 m dB(A) at Rated Load	96
Data Center Continuous (DCC) Rating (Refer to TIB-101 for definitions)	Same as the Prime Rating below

Generator Set Ratings

Alternator	Voltage	Ph	Hz	150°C Rise Standby Rating		130°C Rise Standby Rating		125°C Rise Prime Rating		105°C Rise Prime Rating	
				kW/kVA	Amps	kW/kVA	Amps	kW/kVA	Amps	kW/kVA	Amps
KH04070TO4D	120/208	3	60	1000/1250	3470	1000/1250	3470	900/1125	3123	810/1012	2810
	127/220	3	60	1000/1250	3281	1000/1250	3281	900/1125	2953	810/1012	2656
	139/240	3	60	1000/1250	3008	975/1219	2933	900/1125	2707	—	—
	220/380	3	60	1000/1250	1900	1000/1250	1899	900/1125	1710	900/1125	1710
	240/416	3	60	1000/1250	1735	1000/1250	1735	900/1125	1562	870/1088	1510
	254/440	3	60	1000/1250	1641	1000/1250	1641	900/1125	1477	900/1125	1477
	277/480	3	60	1000/1250	1504	1000/1250	1504	900/1125	1354	900/1125	1354
KH04830TO4D	347/600	3	60	1000/1250	1203	1000/1250	1203	900/1125	1063	900/1125	1083
	230/400	3	60	1000/1250	1805	1000/1250	1805	900/1125	1624	900/1125	1624
	240/416	3	60	1000/1250	1735	1000/1250	1735	900/1125	1562	900/1125	1562
	254/440	3	60	1000/1250	1641	1000/1250	1641	900/1125	1477	900/1125	1477
	277/480	3	60	1000/1250	1504	1000/1250	1504	900/1125	1354	900/1125	1354

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.



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	975- 1000
	kVA	1219- 1250
Prime:	kW	810- 900
	kVA	1012- 1125

Standard Features

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- The 60 Hz generator set offers a UL 2200 listing.
- 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 or 1000-hour limited warranty for standby applications. 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	GMKD1000
Manufacturer	Kohler
Engine: model	KD27V12
Alternator Choices	KH04070TO4D KH04830TO4D KH05520TO4D
Performance Class	Per ISO 8528-5
One Step Load Acceptance	100%
Voltage	Wye or 600 V
Controller	APM603, APM802
Fuel Tank Capacity, L (gal.)	3475- 19381 (918- 5120)
Fuel Consumption, L/hr (gal./hr) 100% at Standby	269 (70.9)
Fuel Consumption, L/hr (gal./hr) 100% at Prime Power	247 (65.3)
Emission Level Compliance (KDxxxx)	Tier 2
Open Unit Noise Level @ 7 m dB(A) at Rated Load	96
Data Center Continuous (DCC) Rating (Refer to TIB-101 for definitions)	Same as the Prime Rating below

Generator Set Ratings

Alternator	Voltage	Ph	Hz	150°C Rise Standby Rating		130°C Rise Standby Rating		125°C Rise Prime Rating		105°C Rise Prime Rating	
				kW/kVA	Amps	kW/kVA	Amps	kW/kVA	Amps	kW/kVA	Amps
KH04070TO4D	120/208	3	60	1000/1250	3470	1000/1250	3470	900/1125	3123	810/1012	2810
	127/220	3	60	1000/1250	3281	1000/1250	3281	900/1125	2953	810/1012	2656
	139/240	3	60	1000/1250	3008	975/1219	2933	900/1125	2707	—	—
	220/380	3	60	1000/1250	1900	1000/1250	1899	900/1125	1710	900/1125	1710
	240/416	3	60	1000/1250	1735	1000/1250	1735	900/1125	1562	870/1088	1510
	254/440	3	60	1000/1250	1641	1000/1250	1641	900/1125	1477	900/1125	1477
	277/480	3	60	1000/1250	1504	1000/1250	1504	900/1125	1354	900/1125	1354
KH04830TO4D	347/600	3	60	1000/1250	1203	1000/1250	1203	900/1125	1063	900/1125	1083
	230/400	3	60	1000/1250	1805	1000/1250	1805	900/1125	1624	900/1125	1624
	240/416	3	60	1000/1250	1735	1000/1250	1735	900/1125	1562	900/1125	1562
	254/440	3	60	1000/1250	1641	1000/1250	1641	900/1125	1477	900/1125	1477
	277/480	3	60	1000/1250	1504	1000/1250	1504	900/1125	1354	900/1125	1354

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.

Alternator	Voltage	Ph	Hz	150°C Rise Standby Rating		130°C Rise Standby Rating		125°C Rise Prime Rating		105°C Rise Prime Rating	
				kW/kVA	Amps	kW/kVA	Amps	kW/kVA	Amps	kW/kVA	Amps
KH05520TO4D	220/380	3	60	1000/1250	1900	1000/1250	1900	900/1125	1710	900/1125	1710
	230/400	3	60	1000/1250	1805	1000/1250	1805	900/1125	1624	900/1125	1624
	240/416	3	60	1000/1250	1735	1000/1250	1735	900/1125	1562	900/1125	1562
	254/440	3	60	1000/1250	1641	1000/1250	1641	900/1125	1477	900/1125	1477
	277/480	3	60	1000/1250	1504	1000/1250	1504	900/1125	1354	900/1125	1354
	347/600	3	60	1000/1250	1203	1000/1250	1203	900/1125	1083	900/1125	1083

Engine Specifications	60 Hz
Manufacturer	Kohler
Engine: model	KD27V12
Engine: type	4-Cycle, Turbocharged, Charge Air Cooled
Cylinder arrangement	12-V
Displacement, L (cu. in.)	27 (1648)
Bore and stroke, mm (in.)	135 x 157 (5.31 x 6.18)
Compression ratio	15.0:1
Piston speed, m/min. (ft./min.)	565 (1854)
Main bearings: quantity, type	7, Precision Half Shells
Rated rpm	1800
Max. power at rated rpm, kWm (BHP)	1114 (1494)
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

Lubricating System	60 Hz
Type	Full Pressure
Oil pan capacity dipstick mark max., L (qt.) §	79 (83.5)
Oil pan capacity, initial filling, L (qt.) §	101 (106.7)
Oil filter: quantity, type §	2, Cartridge
Oil cooler	Water-Cooled

§ Kohler recommends the use of Kohler Genuine oil and filters.

Fuel System	60 Hz
Fuel supply line, min. ID, mm (in.)	14 (0.55)
Fuel return line, min. ID, mm (in.)	14 (0.55)
Max. fuel flow, Lph (gph)	380 (100)
Min./max. fuel pressure at engine supply connection, kPa (in. Hg)	-30/30 (-8.8/8.8)
Max. return line restriction, kPa (in. Hg)	20 (5.9)
Fuel filter: quantity, type	1, Primary Engine Filter 1, Fuel/Water Separator
Recommended fuel	#2 Diesel ULSD

Fuel Consumption	60 Hz	
Diesel, Lph (gph) at % load	Standby Rating	
	100%	269 (70.9)
	75%	209 (55.3)
	50%	146 (38.6)
Diesel, Lph (gph) at % load	Prime Rating	
	100%	247 (65.3)
	75%	191 (50.4)
	50%	135 (35.6)
Diesel, Lph (gph) at % load	25%	79 (20.8)

Radiator System	60 Hz
Ambient temperature, °C (°F)*	40 (104) 50 (122)
Radiator system capacity, including engine, L (gal.)	113 (29.5) 123 (32.4)
Engine jacket water capacity, L (gal.)	55 (14.4)
Engine jacket water flow, Lpm (gpm)	1015 (268)
Charge cooler air inlet temperature at 25°C (77°F) ambient, °C (°F)	219 (426)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	404 (22996)
Heat rejected to charge air cooler at rated kW, dry exhaust, kW (Btu/min.)	260 (14799)
Turbocharger boost (abs) bar (psi)	3.4 (49)
Water pump type	Vane Wheel
Fan diameter, including blades, mm (in.)	1350 (53.1)
Fan, kWm (HP)	48 (64.3)
Max. restriction of cooling air, intake and discharge side of radiator, kPa (in. H ₂ O)	0.125 (0.5)

* Enclosure with enclosed silencer reduces ambient temperature capability by 5°C (9°F).

Remote Radiator System†	60 Hz
Exhaust manifold type	Dry
Connection sizes:	
Water inlet/outlet, mm (in.)	85 (3.35)
Charge air cooler inlet/outlet (pipe dia. of flange), mm (in.)	127 (5)
Static head allowable above engine, kPa (ft. H ₂ O)	70 (23.5)

† Contact your local distributor for cooling system options and specifications based on your specific requirements.

Exhaust System	60 Hz
Exhaust flow at rated kW, m ³ /min. (cfm)	201.6 (7119)
Exhaust temperature at rated kW at 25°C (77°F) ambient, dry exhaust, °C (°F)	530 (986)
Maximum allowable back pressure, kPa (in. Hg)	8.5 (2.5)
Exh. outlet size at eng. hookup, mm (in.)	See ADV drawing

Electrical System	60 Hz
Battery charging alternator:	
Ground (negative/positive)	Negative
Volts (DC)	24
Ampere rating	140
Starter motor qty. at starter motor power rating, rated voltage (DC)	Standard: 1 @ 7.8 kW, 24; Redundant (optional): 2 @ 7.8 kW, 24
Battery, recommended cold cranking amps (CCA):	
Quantity, CCA rating each, type (with standard starter)	2, 1110, AGM
Quantity, CCA rating each, type (with optional redundant starters)	4, 1110, AGM
Battery voltage (DC)	12

Air Requirements	60 Hz
Radiator-cooled cooling air, m ³ /min. (scfm)‡	1212 (42801)
High ambient radiator-cooled cooling air, m ³ /min (scfm)‡	1350 (47700)
Cooling air required for generator set when equipped with city water cooling or remote radiator, based on 14°C (25°F) rise, m ³ /min. (scfm)‡	653.9 (23092)
Combustion air, m ³ /min. (cfm)	72.7 (2566)
Heat rejected to ambient air:	
Engine, kW (Btu/min.)	136 (7741)
Alternator, kW (Btu/min.)	48 (2732)

‡ Air density = 1.20 kg/m³ (0.075 lbm/ft³)

Alternator Specifications	60 Hz
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)
Material	Class H, Synthetic, Nonhygroscopic
Temperature rise	130°C, 150°C Standby
Bearing: quantity, type	1, Sealed
Coupling type	Flexible Disc
Amortisseur windings	Full
Alternator winding type	Random Wound
Rotor balancing	125%
Voltage regulation, no-load to full-load	±0.25%
One-step load acceptance	100% of Rating
Unbalanced load capability	100% of Rated Standby Current
Peak motor starting kVA:	(35% dip for voltages below)
480 V	KH04070TO4D 3774
480 V	KH04830TO4D 4193
480 V	KH05520TO4D 4612

Alternator Standard 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.
- Brushless alternator with brushless pilot exciter for excellent load response.

NOTE: See TIB- 102 Alternator Data Sheets for alternator application data and ratings, efficiency curves, voltage dip with motor starting curves, and short circuit decrement curves.

Controllers



APM802 Controller

Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.

- 12-inch graphic display with touch screen and menu control provide easy local data access
- Measurements are selectable in metric or English units
- User language is selectable
- Two USB ports allow connection of a flash drive, mouse, or keypad
- Electrical data, mechanical data, and system settings can be saved to a flash drive
- Ethernet port allows connection to a PC type computer or Ethernet switch
- The controller supports Modbus® RTU and TCP protocols
- NFPA 110 Level 1 capability

Refer to G6-152 for additional controller features and accessories.

Modbus® is a registered trademark of Schneider Electric.



APM603 Controller

Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.

- 7-inch graphic display with touch screen and menu control provides easy local data access
- Measurements are selectable in metric or English units
- Paralleling capability to control up to 8 generators on an isolated bus with first-on logic, synchronizer, kW and kVAR load sharing, and protective relays
Note: Parallel with other APM603 controllers only
- Generator management to turn paralleled generators off and on as required by load demand
- Load management to connect and disconnect loads as required
- Controller supports Modbus® RTU, Modbus® TCP, SNMP and BACNet®
- Integrated voltage regulator with $\pm 0.25\%$ regulation
- Built-in alternator thermal overload protection
- UL-listed overcurrent protective device
- NFPA 110 Level 1 capability

Refer to G6-162 for additional controller features and accessories.

BACNet® is a registered trademark of ASHRAE.

Codes and Standards

- Engine-generator set is designed and manufactured in facilities certified to ISO 9001.
- Generator set meets NEMA MG1, BS5000, ISO, DIN EN, and IEC standards, NFPA 110.
- Engine generator set is tested to ISO 8528-5 for transient response.
- The generator set and its components are prototype-tested, factory-built, and production-tested.

Third-Party Compliance

- Tier 2 EPA-Certified for Stationary Emergency Applications

Available Approvals and Listings

- California OSHPD Approval
- CSA Certified
- IBC Seismic Certification
- UL 2200 Listing
- cUL Listing (fuel tanks only)
- Florida Dept. of Environmental Protection (FDEP) Compliance (fuel tanks only)

Warranty Information

- A standard three-year or 1000-hour limited warranty for standby applications. 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.

Available Warranties for Standby Applications

- 5-Year Basic Limited Warranty
- 5-Year Comprehensive Limited Warranty
- 10-Year Major Components Limited Warranty

Standard Features

- Closed Crankcase Ventilation (CCV) Filters
- Customer Connection
- Integral Vibration Isolation
- Local Emergency Stop Switch
- Oil Drain and Coolant Drain Extension
- Operation and Installation Literature
- Battery Rack and Cables

Available Options

Circuit Breakers

- | Type | Rating |
|---|--|
| <input type="checkbox"/> Magnetic Trip | <input type="checkbox"/> 80% |
| <input type="checkbox"/> Thermal Magnetic Trip | <input type="checkbox"/> 100% |
| <input type="checkbox"/> Electronic Trip (LI) | Operation |
| <input type="checkbox"/> Electronic Trip with Short Time (LSI) | <input type="checkbox"/> Manual |
| <input type="checkbox"/> Electronic Trip with Ground Fault (LSIG) | <input type="checkbox"/> Electrically Operated (for paralleling) |

Circuit Breaker Mounting

- Generator Mounted
- Remote Mounted
- Bus Bar (for remote mounted breakers)

Enclosed Remote Mounted Circuit Breakers

- NEMA 1 (15- 5000 A)
- NEMA 3R (15- 1200 A)

Engine Type

- KDxxxx Tier 2 EPA-Certified Engine
- KDxxxx-F Fuel Optimized Engine

Approvals and Listings

- California OSHPD Approval
- CSA Certified
- IBC Seismic Certification
- UL 2200 Listing
- cUL Listing (fuel tanks only)
- Florida Dept. of Environmental Protection (FDEP) Compliance (fuel tanks only)
- Hurricane Rated Enclosure

Enclosed Unit

- Sound Level 1 Enclosure/Fuel Tank Package
- Sound Level 2 Enclosure/Fuel Tank Package

Open Unit

- Exhaust Silencer, Critical (kits: PA-354880 qty. 2 or PA-354898 qty. 1)
- Exhaust Silencer, Hospital (kits: PA-354905 qty. 2 or PA-354912 qty. 1)
- Flexible Exhaust Connector, Stainless Steel

Controller

- Input/Output, Digital
- Load Shed (APM802 only)
- Manual Key Switch
- Remote Emergency Stop Switch
- Lockable Emergency Stop Switch
- Remote Serial Annunciator Panel

Cooling System

- Block Heater; 6000 W, 208 V, (select 1 Ph or 3 Ph) *
- Block Heater; 6000 W, 240 V, (select 1 Ph or 3 Ph) *
- Block Heater; 6000 W, 480 V, (select 1 Ph or 3 Ph) *
- * Required for Ambient Temperatures Below 10°C (50°F)
- Radiator Guard and Duct Flange

Electrical System

- Battery, AGM (kit with qty. 2)
- Battery, AGM (kit with qty. 4)
- Battery Charger
- Battery Heater; 80 W, 120 V, 1Ph
- Generator Heater
- Redundant Starters

Fuel System

- Flexible Fuel Lines
- Restriction Gauge (for fuel/water separator)

Literature

- General Maintenance
- NFPA 110
- Overhaul
- Production

Miscellaneous

- Air Cleaner, Heavy Duty
- Air Cleaner Restriction Indicator
- Alternator Air Filter (will reduce generator set rating by 7%)
- Automatic Oil Replenishment System
- Engine Fluids (oil and coolant) Added
- Rated Power Factor Testing

Electrical Package (Requires Enclosure selection)

- Basic Electrical Package (select 1 Ph or 3 Ph)
- Wire Battery Charger (1 Ph)
- Wire Block Heater (select 1 Ph or 3 Ph)
- Wire Controller Heater (1 Ph)
- Wire Generator Heater (1 Ph)

Warranty (Standby Applications only)

- 5-Year Basic Limited Warranty
- 5-Year Comprehensive Limited Warranty
- 10-Year Major Components Limited Warranty

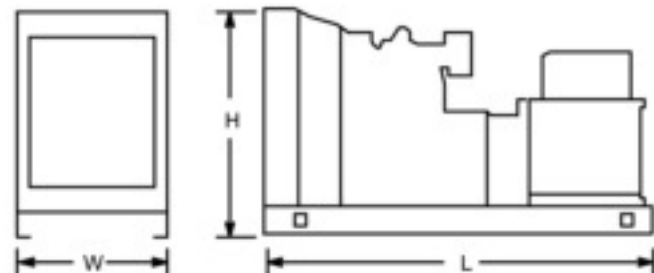
Other

-
-

Dimensions and Weights

Overall Size, max., L x W x H, mm (in.): 4181 x 1986 x 2100
(165.0 x 78.2 x 82.7)

Weight, radiator model, max. wet, kg (lb.): 8083 (17821)



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

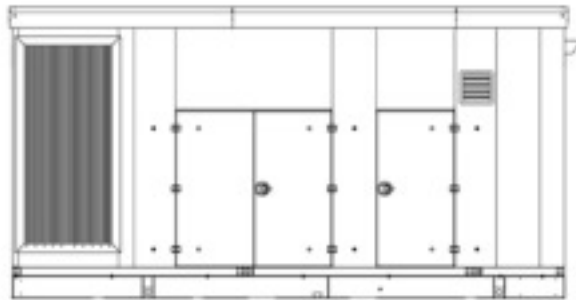
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Sound Enclosure and Subbase Fuel Tank Package

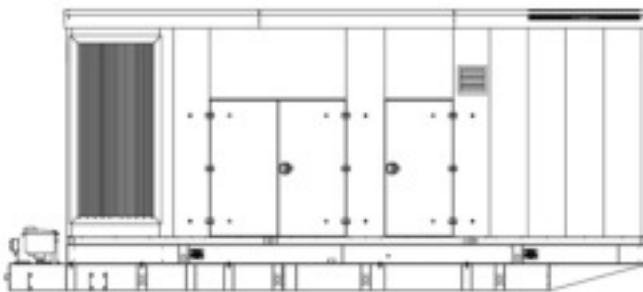
Applicable to the following models:
KD800 - KD2500 (includes KD1250-A)

Sound Level 1 Enclosure Standard Features

- Internal silencers with flexible exhaust connectors and exhaust elbows.
- Mounts to lift base and optional subbase fuel tank.
- Aluminum construction with six large, hinged, removable doors for easy maintenance.
- Fade-, scratch-, and corrosion-resistant Kohler® Power Armor™ automotive-grade textured finish.
- Lockable, flush-mounted door latches.
- Air inlet louvers to reduce rain and snow entry.
- Sloped roof to reduce the buildup of moisture and debris.
- Acoustic insulation that meets UL 94 HF1 flammability classification.
- Sound level 1 enclosure is designed to 150 mph (241 kph) wind load rating.
- Sound level 1 enclosure uses internal silencers, acoustic insulation and acoustic-lined air inlet hoods.



Level 1 Sound Enclosure with Lift Base



Level 2 Sound Enclosure with Subbase Fuel Tank
(shown with optional spill containment)

Sound Level 2 Enclosure Standard Features

- Includes all of the sound level 1 enclosure features with the addition of up to 51 mm (2 in.) acoustic insulation material, intake sound baffles, secondary silencers, and vertical air discharge with rain caps.
- Vertical outlet hood with 90 degree angles to redirect air and reduce noise.
- Sound level 2 enclosure is certified to 186 mph (299 kph) wind load rating for KD800-2500 models.

Subbase Fuel Tank Features

- The fuel tank has a Power Armor Plus™ textured epoxy-based rubberized coating.
- The above-ground rectangular secondary containment tank mounts directly to the generator set, below the generator set skid (subbase).
- Both the inner and outer tanks have UL-listed emergency relief vents.
- Flexible fuel lines are provided with subbase fuel tank selection.
- The containment tank's construction protects against fuel leaks or ruptures. The inner (primary) tank is sealed inside the outer (secondary) tank. The outer tank contains the fuel if the inner tank leaks or ruptures.
- The above ground secondary containment subbase fuel tank meets UL 142 requirements.

Available Approvals and Listings

- UL 2200 Listing
- UL142 Listing (fuel tanks)
- CSA Approval
- IBC Seismic Certification
- California OSHPD Approval (KD800- KD1750 models)
- cUL Listing (fuel tanks only)
- Hurricane Rated Enclosure - Available on sound L2 aluminum, KD800- KD1750 models (Impact rated for Large Missile Level E and Wind load rated per Florida Building Code tested to TAS201-94, TAS202-94 and TAS203-94 standards)

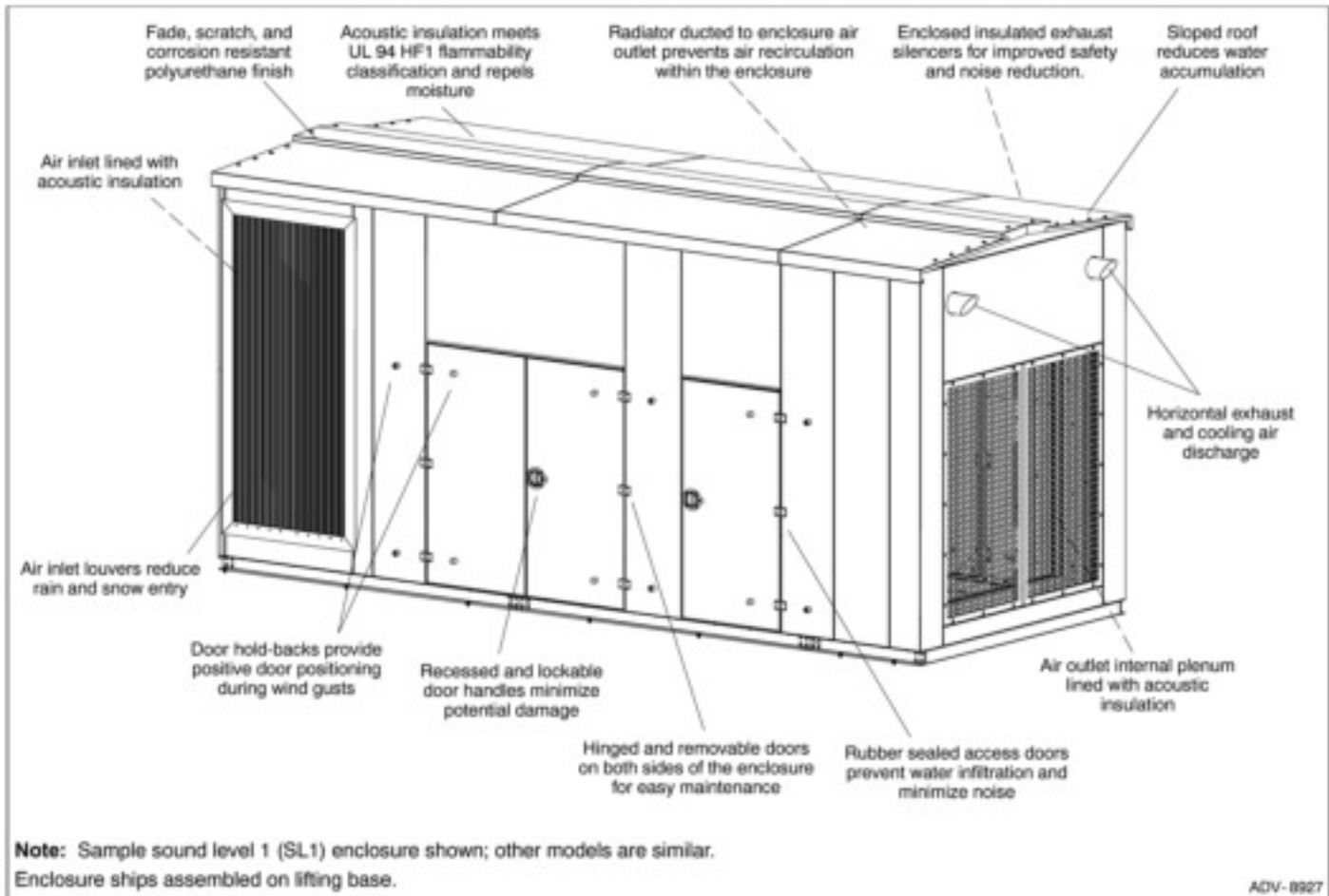
NOTE: Some models may have limited third-party approvals; see your local distributor for details.

Enclosure and Subbase Fuel Tank Combinations

Four enclosure configurations are available:

- Sound Enclosure Level 1
- Sound Enclosure Level 1, AQMD Ready
- Sound Enclosure Level 2
- Sound Enclosure Level 2, AQMD Ready

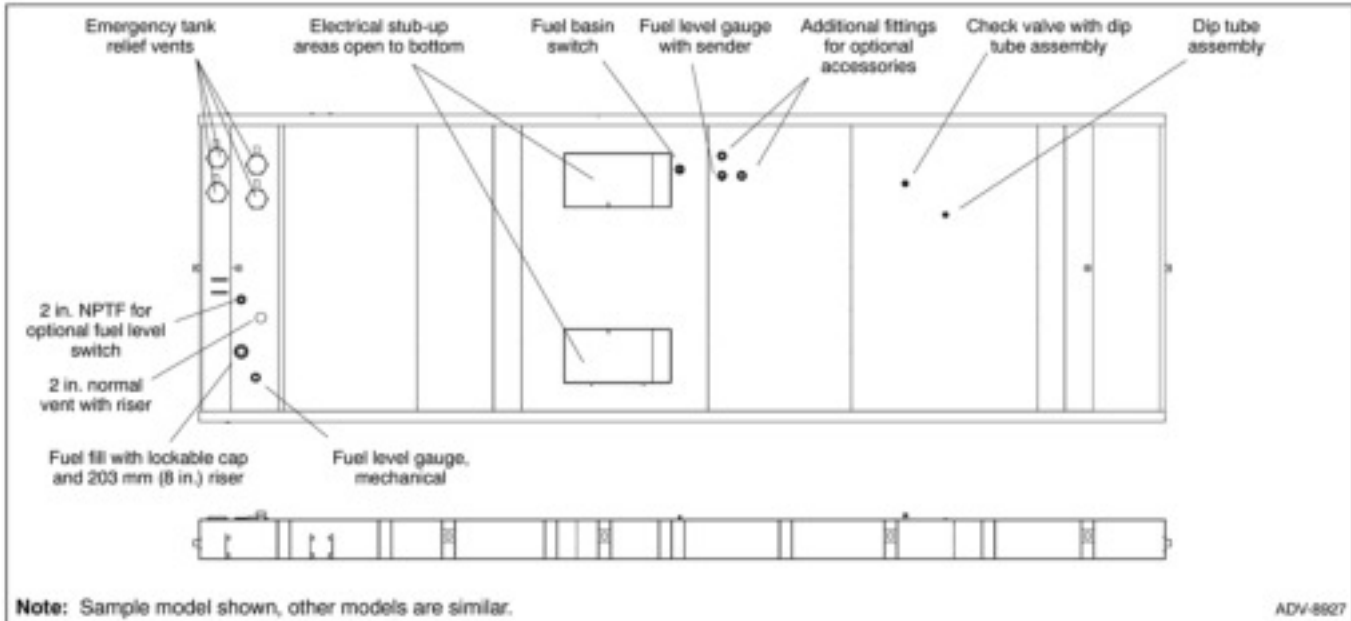
Aluminum Sound Enclosures



Level 1 Sound Enclosure Features

- Heavy-duty formed panels, solid construction. Preassembled package offering corrosion resistant, dent resilient structure mounting directly to lift base or fuel tank.
- Polyurethane enamel paint. Superior finish, durability, and appearance.
- The enclosure has a sloped roof to reduce the buildup of moisture and debris.
- Internal exhaust silencers offering maximum component life and operator safety.
- **NOTE:** Installing an additional length of exhaust tail pipe may increase backpressure levels. Please refer to the generator set spec sheet for the maximum backpressure value.
- Service access. Multiple personnel doors for easy access to generator set control and servicing of the fuel fill, fuel gauge, oil fill, and battery.
- Interchangeable modular panel construction. Allows complete serviceability or replacement without compromising enclosure design.
- Bolted panels facilitate service, future modification upgrades, or field replacement.
- Cooling/combustion air intake. Fixed air intake louvers.
- Sound-attenuating design using critical silencers. Acoustic insulation UL 94 HF1 listed for flame resistance.
- Horizontal air discharge. Sound level 1 (SL1) enclosures use a horizontal design that directs exhaust and cooling air out the end of the enclosure.

Subbase Fuel Tank



Subbase Fuel Tank Standard Features

- Extended operation. State tanks with various capacities for multiple hour requirements.
- UL listed. Secondary containment generator set base tank meeting UL 142 requirements.
- NFPA compliant. Designed to comply with the installation standards of NFPA 30 and NFPA 37.
- Integral external lift lugs. Enables crane with spreader-bar lifting of the complete package (empty tank, mounted generator set, and enclosure) to ensure safety.
- Emergency pressure relief vents. Vents ensure adequate venting of inner and outer tank under extreme pressure and/or emergency conditions.
- Normal vent with cap. Vent is raised above lockable fuel fill.
- Fuel level gauge with sender.
- Mechanical fuel level gauge.
- Leak detection switch. Annunciates a contained primary tank fuel leak condition at generator set control.
- Electrical stub-up area open to bottom.
- Additional 2 in. NPT fittings for optional accessories.

Subbase Fuel Tank Options

Bottom Clearance

- I-beams, provide 102 mm (4 in.) of ground clearance (not available with OSHPD or IBC seismic certification)

Emergency Vent Options

- 127 mm (5 in.), IBC
- 152.4 mm (6 in.), IBC KD800- 1000 12 hr. tank only

Fuel in Basin Options

- Fuel in basin switch, Florida Dept. of Environmental Protection (FDEP) File No. EQ-682 approved
- 100% engine fluid containment

Fuel Supply Options

- Fire safety valve (installed on fuel supply line)
- Ball valve (installed on fuel supply line)

Fuel Fill Options

- Fill pipe extension to within 152 mm (6 in.) of bottom of fuel tank
- 18.9 L (5 gallon) spill containment
- 18.9 L (5 gallon) spill containment with 95% shutoff
- 18.9 L (5 gallon) spill containment fill to within 152 mm (6 in.) of bottom of fuel tank
- 18.9 L (5 gallon) spill containment, OSHPD/IBC
- 18.9 L (5 gallon) spill containment with 95% shutoff, OSHPD/IBC
- 28.4 L (7.5 gallon) spill containment, Florida Dept. of Environmental Protection (FDEP) File No. EQ-345 approved
- 28.4 L (7.5 gallon) spill containment with 95% shutoff, Florida Dept. of Environmental Protection (FDEP) File No. EQ-345/EQ-257 approved

High Fuel Level Switch

- High fuel level switch, 24V
- High fuel level switch, 24V, Florida Dept. of Environmental Protection (FDEP) File No. EQ-682 approved
- Fuel tank panel, 3 alarm, 24 V
- Fuel tank panel, 3 alarm, 24 V, Florida Dept. of Environmental Protection (FDEP) File No. EQ-682 approved

Normal Vent Options

- 3.7 m (12 ft.) above grade (without spill containment)
- 3.7 m (12 ft.) above grade (with spill containment)

Freestanding Stairs

- Stairs only, single door access
- Stairs with platform, single door access
- Stairs with catwalk, 2 door access, door length only
- Stairs with catwalk, 2 door access, full length of enclosure

Tank Marking Options

- Decal, Combustible Liquids - Keep Fire Away (qty. 2)
- Decal, NFPA 704 identification (qty. 2)
- Decal, tank number and safe fuel fill height (qty. 2)

Enclosure and Subbase Fuel Tank Specifications

Fuel Tank Capacity, L (gal.)	Est. Fuel Supply Hours at 60 Hz with Full Load (nominal)	Max. Dimensions, mm (in.)			Max. Weight, † kg (lb.)	Fuel Tank Height, mm (in.)	Sound Pressure Level at 60 Hz with Full Load, dB(A) ‡	
		Length	Width §	Height				
KD800 SL1 Sound Enclosure with Internal Silencer and State Code Subbase Fuel Tank *								
Lifting Base	0	6582 (259)	2616 (103)	3350 (132)	10184 (22452)	—	90	
3475 (918)	12	7309 (288)		3706 (146)	13772 (30362)	356 (14.0)		
6621 (1749)	24			3934 (155)	14252 (31421)	584 (23.0)		
10573 (2793)	48			4264 (168)	14831 (32698)	914 (36.0)		
15740 (4158)	72			9144 (360)	4366 (172)	16242 (35808)		1016 (40.0)
KD800 SL2 Sound Enclosure with Internal Silencer and State Code Subbase Fuel Tank *								
Lifting Base	0	7707 (303)	2616 (103)	3350 (132)	10587 (23340)	—	75	
3475 (918)	12	8434 (332)		3706 (146)	14175 (31250)	356 (14.0)		
6621 (1749)	24			3934 (155)	14655 (32309)	584 (23.0)		
10573 (2793)	48			4290 (169)	15234 (33586)	915 (36.0)		
15740 (4158)	72			9144 (360)	4366 (172)	16645 (36696)		1016 (40.0)
KD900 SL1 Sound Enclosure with Internal Silencer and State Code Subbase Fuel Tank *								
Lifting Base	0	6582 (259)	2616 (103)	3350 (132)	10497 (23343)	—	91	
3475 (918)	12	7309 (288)		3706 (146)	14085 (31253)	356 (14.0)		
6621 (1749)	24			3934 (155)	14565 (32312)	584 (23.0)		
12969 (3426)	48			8400 (331)	4293 (169)	16348 (36243)		940 (37.0)
19381 (5120)	72			11050 (435)	4369 (172)	17527 (38840)		1016 (40.0)
KD900 SL2 Sound Enclosure with Internal Silencer and State Code Subbase Fuel Tank *								
Lifting Base	0	7707 (303)	2616 (103)	3350 (132)	10900 (24231)	—	75	
3475 (918)	12	8434 (332)		3706 (146)	14488 (32141)	356 (14.0)		
6621 (1749)	24			3934 (155)	14968 (33200)	584 (23.0)		
12969 (3426)	48			4290 (169)	16751 (37131)	940 (37.0)		
19381 (5120)	72			11050 (435)	4366 (172)	17930 (39728)		1016 (40.0)
KD1000 SL1 Sound Enclosure with Internal Silencer and State Code Subbase Fuel Tank *								
Lifting Base	0	6582 (259)	2616 (103)	3350 (132)	10810 (23833)	—	92	
3475 (918)	12	7309 (288)		3706 (146)	14396 (31743)	356 (14.0)		
6621 (1749)	24			3934 (155)	14878 (32802)	584 (23.0)		
12969 (3426)	48			8400 (331)	4290 (169)	16661 (36733)		940 (37.0)
19381 (5120)	72			11050 (435)	4366 (172)	17840 (39330)		1016 (40.0)
KD1000 SL2 Sound Enclosure with Internal Silencer and State Code Subbase Fuel Tank *								
Lifting Base	0	7707 (303)	2616 (103)	3353 (132)	11213 (24721)	—	76	
3475 (918)	12	8434 (332)		3706 (146)	14801 (32631)	356 (14.0)		
6621 (1749)	24			3934 (155)	15281 (33690)	584 (23.0)		
12969 (3426)	48			4290 (169)	17064 (37621)	940 (37.0)		
19381 (5120)	72			11050 (435)	4366 (172)	18243 (40218)		1016 (40.0)
KD1250/1500 SL1 Sound Enclosure with Internal Silencers and State Code Subbase Fuel Tank *								
Lifting Base	0	8831 (348)	3033 (119)	3579 (141)	17116 (37748)	—	93	
5863 (1549)	18/15	9594 (378)		3960 (156)	22326 (49234)	381 (15.0)		
9860 (2605)	30/25			4138 (163)	22808 (50296)	559 (22.0)		
11204 (2960)	34/28			4214 (166)	22973 (50661)	635 (25.0)		
19214 (5076)	58/48			11113 (438)	4468 (176)	25277 (55741)		889 (35.0)
21985 (5808)	66/55				4570 (180)	25684 (56637)		991 (39.0)
KD1250/1500 SL2 Sound Enclosure with Internal Silencer and State Code Subbase Fuel Tank *								
Lifting Base	0	10420 (410)	3033 (119)	3579 (141)	18031 (39764)	—	79	
5863 (1549)	18/15	11147 (439)		3960 (156)	23241 (51250)	381 (15.0)		
9860 (2605)	30/25			4138 (163)	23723 (52312)	559 (22.0)		
11204 (2960)	34/28			4214 (166)	23888 (52677)	635 (25.0)		
19214 (5076)	58/48			11113 (438)	4468 (176)	26192 (57757)		889 (35.0)
21985 (5808)	66/55				4570 (180)	26599 (58653)		991 (39.0)

* Data in table is for reference only. Height includes enclosure, lift base, and tank (if equipped). Refer to your authorized Kohler distributor for enclosure and subbase fuel tank specification details.

† Max. weight includes the generator set (wet) with the largest alternator option, enclosure, silencers, lift base, and tank (no fuel).

‡ Log average sound pressure level of 8 measured positions around the perimeter of the unit at a distance of 7 m (23 ft.). Refer to TIB-114 for details. Enclosed generator set sound data for some models was not available at time of print.

§ An additional 940 mm (37 inches) of clearance on each side for opening and closing the access doors is recommended.

NOTE: If the Est. Fuel Supply Hours column shows more than one number, the numbers represent each model in that range.

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