# KD SERIES GENERATORS for Industrial Power Systems





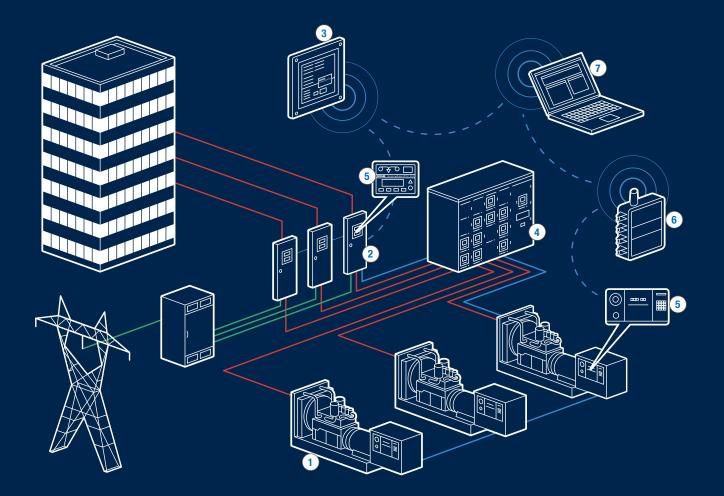
# **TOTAL SYSTEM INTEGRATION**

Every detail down to the last bolt. This isn't your typical power system. It's a KOHLER<sub>o</sub> industrial power system—which means it's designed, tested and manufactured with KOHLER components—including generators, transfer switches, paralleling switchgear, and controllers. But the best part? We customize every power system to your specifications. So no matter how large or complex your job, everything works together seamlessly.

When you choose a KOHLER generator, you know it's backed by a premium warranty, factory support, and an extended network of knowledgeable, factory-trained service techs. And with distribution centers located all over the world, you'll always get the parts you need fast.

So go ahead and explore our large diesel generators on the pages that follow. When you're ready to customize a system that meets your specific needs, give us a call. With specialized knowledge and an agile manufacturing process, we'll make it happen.





## **TOTAL SYSTEM INTEGRATION**

1 KOHLER<sub>®</sub> GENERATOR 800-4000 kW

2 KOHLER AUTOMATIC TRANSFER SWITCH

Open, closed, and programmed – transition operating modes; standard, bypass-isolation, and service-entrance switch configurations 3 KOHLER REMOTE ANNUNCIATOR Remote monitoring and testing of transfer switches

4 KOHLER PARALLELING SWITCHGEAR Low and medium voltage

5 KOHLER APM802 OR APM603 DIGITAL CONTROLLER Controls, monitors, and aids system diagnostics 6 KOHLER WIRELESS MONITOR Performance monitoring around the clock

7 KOHLER MONITORING SOFTWARE Monitors generators and

transfer switches

## **KD SERIES... GENERATORS** Built for the most critical jobs on earth.



#### **REVOLUTIONARY AND RELIABLE**

With almost a century of engineering knowhow behind it, our G-Drive engines are built with an eye on the future—designed to last for decades to come. We engineer, test, and fit every single component. And our computeraided quality-management system oversees every step of development, from the first stage of production through the engine's entire life cycle, to ensure the highest level of quality.

#### **TESTED AND APPROVED**

Created specifically for generator set applications, our G-Drive engines combine greater power with superior efficiency. Reaching up to 43.5 kW/liter, KOHLER® G-Drive engines pair a compact engine form factor with unrivaled kilowatt displacement delivering the highest power density on the market.\* All KOHLER generators meet tough industry testing and quality standards (UL2200, CSA, NFPA).

#### **SMOOTH-RUNNING**

The KOHLER G-Drive engine runs smoothly, quietly, and with low vibration even under extreme operating conditions extending service life and delivering costeffective performance.

#### **ULTIMATE PERFORMANCE**

The KOHLER G-Drive diesel engine's architecture, injection system, and engine management have been designed to achieve optimal generator set performance.

### **FUEL-EFFICIENT**

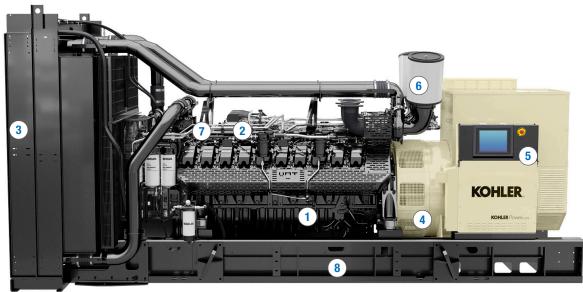
The common rail fuel system generates up to 2200-bar injection pressures for maximum efficiency, optimizing the combustion pressure curve through multiple injections. This produces industry-leading kilowatt displacement in a package that enables a smaller generator set footprint while delivering the best fuel consumption at more nodes than any competitor above 800 kW.

### **COMMON SERVICE PART NUMBERS**

A modular system allows us to scale the number of components depending on the power required. Using standard components means fewer parts must be stocked in the field, and operators require less training. This reduces costs and improves response time.

### **CONTROL AND MAINTENANCE**

KD Series generators feature integrated controls for seamless communication and offer remote monitoring through a VPN connection. Easy-access bearing lube points, coolant level optical gauges on both circuits, and oil replenishment systems help ensure the generator runs optimally and is easy to maintain.



KD1750

#### 1 EMISSION-CERTIFIED Clean-running engines, featuring closed crankcase ventilation, meet EPA emissions standards

- 2 FUEL SYSTEMS Common rail injection systems, designed specifically for the KOHLER<sub>8</sub> large diesel range with minimal low temperature fuel return
- (3) HIGH-AMBIENT 50° COOLING SYSTEMS Designed to meet extreme operating conditions, segmented radiator core sections allow for single replacement instead of entire core
- 4 EFFICIENT PMG ALTERNATORS Provide advanced short-circuit capability and meet NEMA MG 1, IEEE, and ANSI standards; multiple alternator options available providing increased motor starting capabilities

### (5) KOHLER CONTROLLER

Large touch-screen controller with intuitive user interface for paralleling, load, and generator management

#### **6** LOW COMBUSTION AIR

Right sized turbo chargers requires less air to run, creating fewer emissions and enabling optimal performance inside an enclosure

## 7 FUEL PUMP

Efficiently generates high fuel lift and provides flexibility to configure remote fuel delivery systems

(8) OPTIONS AND ACCESSORIES Multiple circuit breakers, battery heaters, block heaters, battery charger, prelube pump, and centrifugal oil filter

# **SPECIFICATIONS**

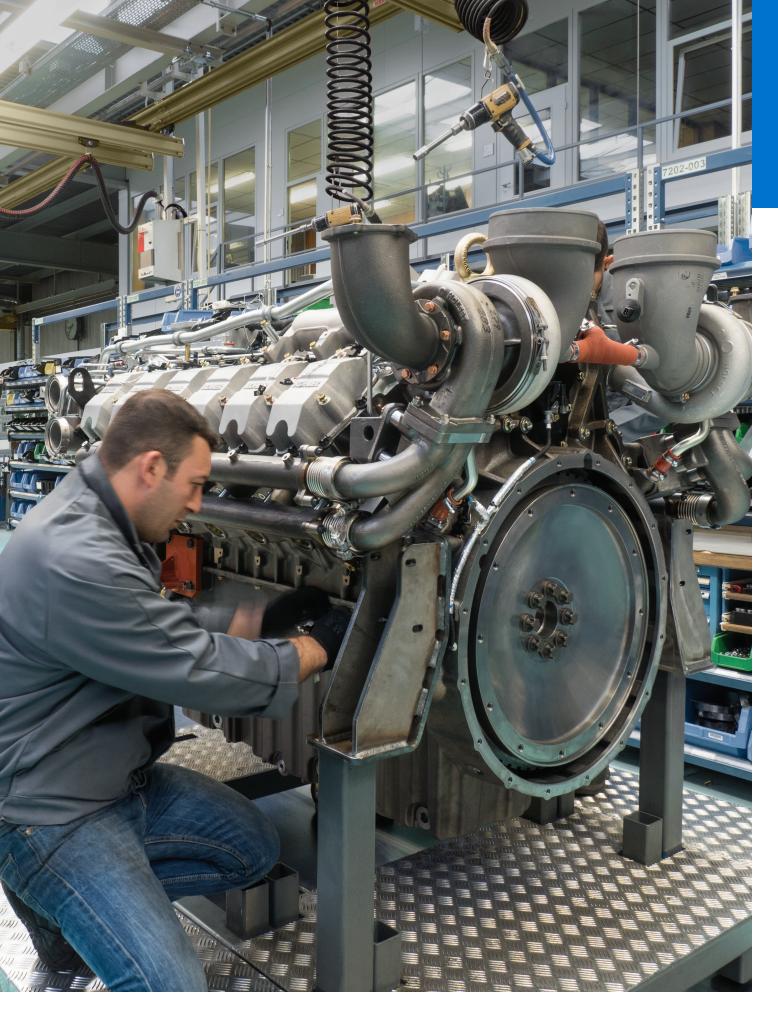






MODEL	STANDBY 60 Hz (kW/kVA)	PRIME 60 Hz (kW/kVA)	RPM	ENGINE MANUFACTURER	EPA EMISSIONS
KD800	800/1000	720/900	1800	Kohler	Tier 2
KD900	900/1125	810/1012	1800	Kohler	Tier 2
KD1000	1000/1250	900/1125	1800	Kohler	Tier 2
KD1250	1250/1562	1120/1400	1800	Kohler	Tier 2
KD1250-4	1250/1562	1130/1412	1800	Kohler	Tier 4
KD1500	1500/1875	1350/1687	1800	Kohler	Tier 2
KD1600	1600/2000	1440/1800	1800	Kohler	Tier 2
KD1750	1750/2187	1580/1975	1800	Kohler	Tier 2
KD2000	2000/2500	1820/2275	1800	Kohler	Tier 2
KD2250	2250/2812	2050/2563	1800	Kohler	Tier 2
KD2500	2500/3125	2270/2837	1800	Kohler	Tier 2
KD2500-4	2500/3125	2270/2837	1800	Kohler	Tier 4
KD2800	2800/3500	2540/3175	1800	Kohler	Tier 2
KD3000	3000/3750	2720/3400	1800	Kohler	Tier 2
KD3250	3250/4063	2950/3688	1800	Kohler	Tier 2
KD3250-4	3250/4062	2950/3688	1800	Kohler	Tier 4
KD3500	3500/4375	3180/3975	1800	Kohler	Tier 2
KD4000	4000/5000	3640/4550	1800	Kohler	Tier 2







## **KOHLER** G-DRIVE ENGINES Massive power in a compact package.

KOHLER G-Drive diesel engines are manufactured with the highest-quality materials and systems. Engineered over a ten-year period for use exclusively in generator set applications, these engines are built for the toughest environmental conditions. If it's dependability you're after, look no further. Our G-Drive engines have proven their power and reliability during nearly 100,000 hours of arduous tests—both in the laboratory and on-site. All of which makes them ideal for a variety of crucial applications such as data centers, hospitals, power plants, and mining sites.

## **ENCLOSURES** Reduce the racket. And put Mother Nature in her place.

If you want to keep the weather out and the noise in, there's really only one way to go. KOHLER<sub>®</sub> enclosures are bolstered by heavy-duty aluminum and acoustic insulation to protect your investment and keep the noise down. In addition, we coat every unit with Power Armor<sub>®</sub> (a textured industrial finish) for heavy-duty durability in harsh conditions. The new design includes a sloped roof to increase the life and safety of the generator.

## **STANDARD FEATURES**

#### **Fitted Enclosures**

Sound enclosures feature durable aluminum construction, stainless steel external hardware, and an LED emergency lighting system.

#### **Certified Packages**

Enclosures are certified for UL2200, IBC, and OSHPD up to 2500 kW from the factory, meaning no on-site certifications needed. All enclosures meet 186 MPH wind rating. Impact Rated per Florida Building Code up to 1750 KW.

#### **Quiet Performance**

Our SL1 and SL2 enclosures offer acoustic insulation to meet your quiet applications.

#### Advanced Corrosion Protection

Power Armor is a textured automotive-grade finish that surpasses a 3000-hour salt spray exposure test and resists fading and scratching.

- 1) SERVICE ACCESS Multiple personnel doors and removable panels offer easy access to generator control, fuel fill, fuel gauge, oil fill, and battery
- 2 INTERNAL EXHAUST SYSTEM Features insulated exhaust silencer for improved aesthetics, safety, and noise reduction
- 3 OIL AND RADIATOR DRAINS Provide an easier, quicker way to service your generator
- AIR INLETS Louvered air inlets limit water ingress and shorten overall length of enclosure
- 5 SLOPED ROOF Reduces water pooling and increases enclosure life
- 6 AVAILABLE ACCESSORIES Electrical packages, heaters, motorized louvers, AQMD options, stairs, and more



KD1750

## **KD SERIES**<sub>TM</sub> EPA CERTIFIED TIER 4 FINAL

## THE SIMPLEST TIER 4 GENERATOR ON THE MARKET.

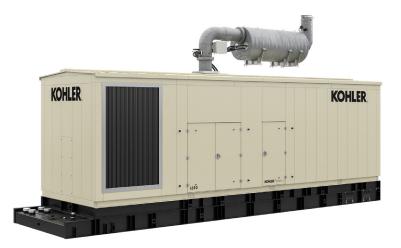
No DPF. No DOC. With only an SCR, we've removed all those complicated aftertreatment specifications. Not only that, since these generators are built for prime power and peak shaving, your clients can save big on utility bills.

### **THE NECESSITY OF TIER 4**

#### Nonemergency

Since 2014, all stationary nonemergency generators operating in the U.S. must be powered by an EPA Certified Tier 4 Final engine. Common stationary nonemergency generator applications include:

- Primary Source of Power to Facility
- Peak Shaving
- Curtailment/Interuptible Rate Programs
- Supplying Power to Electrical Grid



### **KD SERIES TIER 4 FINAL**

- Certified Tier 4 Final
- Simple Selective Catalytic Reduction (SCR) only solution. No Diesel Particulate Filter (DPF) or Diesel Oxidation Catalyst (DOC) required
- Open or enclosed units—Only Kohler offers factory direct Tier 4
   packaged units above 1000KW
- KD3250-4 is largest Tier 4 unit in the market

MODEL	ESP Rating (kWe)	PRP Rating (kWe)	COP Rating (kWe)	Engine	Open / Enclosed
KD1250-4	1250	1120	934	K135 16V	Open / Enclosed
KD2500-4	2500	2270	1892	K175 12V	Open / Enclosed
KD3250-4	3250	2950	2460	K175 16V	Open

## WHY KOHLER KD SERIES THER 4?

- Simplest system in the industry
- No need for:
  - –DOC or DPF
  - -Regeneration
  - -Compressed air
  - -Additional sound attenuation
- KOHLER Tier 4 EATS (Engine Aftertreatment Systems): –Addresses PM in-cylinder –NOx addressed with SCR
- Engine ECU and integrated sensors control all aspects of EATS
- Allows greater flexibility for installations



## **OPEN CONFIGURATION**

- Base generator remains unchanged from Tier 2 configuration
- All base generator options available from Tier 2 units
- Available with APM603 controller only
- EATS is essentially an exhaust accessory
- Supports and platforms sold separately



### **ENCLOSED CONFIGURATION**

In addtion to open unit features, enclosed configurations offer

- Factory packaging available for KD1250-4 and KD2500-4
   –SL2 enclosures only
   –Diesel fuel state tank is standard
  - KD1250-4 (24- or 48-hour) KD2500-4 (24-hour)
- Locates DEF tank and lines
- Correctly sizes DEF and diesel tanks
- All enclosure add-on items are compatible (lights, dampers, etc.)
- Service box for EATS control and filter access



## KOHLER® GENERATOR CONTROLLERS Advanced technology made simple.

At Kohler, we don't do one-size-fits-all. With our controllers, we design custom packages tailored to your needs—from basic controllers managing a single node to more advanced models that enable paralleling multiple generators.

Kohler makes each controller easy to operate, with user-friendly displays and intuitive navigation. Plus, all of our controllers feature advanced network communications for remote monitoring as well as adjustable parameters to accommodate your specific application.

### **STANDARD FEATURES**

#### **Tested and Approved**

Our controllers meet NFPA, UL, and CE standards.

#### Integral Voltage Regulator

KOHLER controllers deliver precise voltage regulation to protect your sensitive equipment from poor power quality.

#### **Seamless System Integration**

Every controller works with our entire range of automatic transfer switches and switchgears for complete system integration.

#### **Alternator Protection**

This must-have technology protects the alternator from thermal overload.

## KOHLER<sub>®</sub> APM603 INTELLIGENT CONTROLLER Customized the way you want it





### **REMOTE COMMUNICATIONS**

#### **Monitor Software**

Monitors and controls generator sets and transfer switches from your personal computer.

#### **Remote Annunciator**

Offers an economical solution for remote annunciation of faults and status conditions for NFPA-110 compliance.

- 1) 71/2" COLOR TFT TOUCH SCREEN
- (2) HIGH VISIBILITY ALARM LEDS
- (3) MASTER CONTROL BUTTONS
- 4) ALARM SILENCE/LAMP TEST BUTTON



## **KOHLER** APM802 **DIGITAL CONTROLLER Technology so advanced, it's easy.**

The APM802 provides advanced controls, system monitoring, and system diagnostics along with remote access—all in a large touch display with intuitive local data access. All critical system information is available locally, as well as remotely, providing you a real-time view of generator performance.



APM802 Digital Controller

### **STANDARD FEATURES**

- 12" touch display for access to information at your fingertips
- Remote access for monitoring and control from anywhere including your mobile device
- Communication with serial (RS-485) and Ethernet (RJ-45) to support Modbus
- Data logging and trending for easy troubleshooting

- Exporting of logged data, event log, and screen shots onto USB
- Advanced input and output configuration to customize your needs

## **SUB-BASE FUEL TANKS** Made to match your environmental needs.

If it's environmental protection you want, you're in the right place. KOHLER<sub>®</sub> tanks feature two pressure-tested containment walls to keep your fuel where it should be—inside. Plus, they're coated with Power Armor Plus<sub>m</sub> (a textured epoxy-based, rubberized finish) for heavy-duty durability.

## STANDARD FEATURES

Our tanks are UL-approved

and can be configured to

other required codes.

Usable tank capacities

operation. Efficient fuel

fuel delivery systems.

provide up to 96 hours of

pump generates high fuel lift,

which allows for tremendous

flexibility to configure remote

**Multiple Sizes** 

secondary containment tanks

meet cUL, IBC, OSHPD, and

#### **Custom Options**

Choose from alarm panels, spill-fill containments, highfuel switches, tank markings, and more.

#### **Premium Protection**

Our Power Armor Plus polyurea-textured coating eliminates the need for exterior epoxy treatment and provides excellent abrasion resistance and corrosion protection.

- 1 STATE TANK Spill-fill containments, three-alarm panel, fuel basin switch, and tank markings
- 2 EMERGENCY PRESSURE RELIEF VENTS Ensure proper venting of inner and outer tank during extreme conditions
- 3 NORMAL VENT WITH CAP Raised above the lockable fuel fill cap
- 4 ELECTRICAL STUB-UP Features large stub-up area for easy installation
- 5 LEAK DETECTION SWITCH Annunciates a contained primary tank fuel leak at generator control
- 6 FUEL SWITCH Interfaces with controller to provide fuel level indication



Sub-Base Fuel Tank

North America 800.544.2444

 KOHLERPOWER.COM

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