

COMPETITIVE COMPARISON*

Over the years, as this category has evolved, claims to the consumer have become confusing. Kohler has always tried to provide clear information to the end consumer in a way that is easily understood and conducted side-by-side product and performance comparisons to show key differences. Here is what was found:

	KOHLER 20kW Generator	Other's 20kW Generator
Commercial-Grade Engine	✓	
Corrosion-Proof Enclosure	✓	
Response Time	10 Seconds	20 Seconds
Low-Speed Diagnostic Exercise	✓	✓
Warranty	5 Years / 2000 hours	3 Years or 5 years / 1000 hours
Test Results**		
Maximum Power (kW)	18.53	16.54
Steady State – Voltage Variation	0.70%	6.25%
Steady State – Frequency Variation	0.94%	8.38%

**Notes on test results:

Maximum Power

This maximum power test was completed according to ISO8528 which has tighter voltage and frequency bandwidth parameters than the UL 2200 test, the industry standard for sizing on specification sheets. ISO8528 is focused on how the generator performs and affects any equipment that it powers, while UL2200 is more focused on the overall safety of the generator

Voltage Variation

This test measured the actual voltage of each generator compared to the 240 volts claimed on the respective specification sheets

- An additional observation gathered during testing and warm-up revealed that performance of the other generator varied based on how much load was applied to the generator. Lower voltage was measured as higher loads were applied, and higher voltage was measured when less load was applied. In a home as demand on the generator fluctuates, the voltage on the other generator would also fluctuate. The KOHLER unit remained very close to the rated 240 volts regardless of the load applied

Frequency Variation

This test measured the actual frequency of each generator compared to the 60 hertz claimed on the respective specification sheets

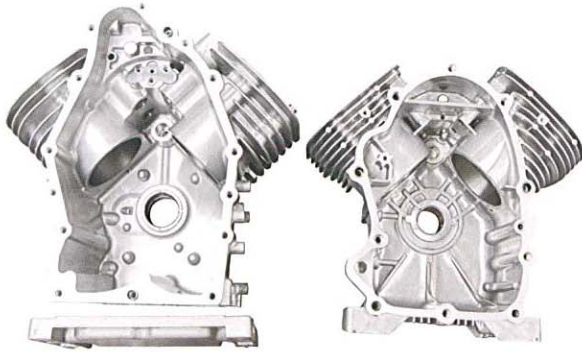
Impact of Voltage and Frequency Variation

When voltage is too high, it can damage sensitive electronics such as plasma screen TVs. On the other hand, when voltage is too low, it can affect motor performance (such as those found in HVAC systems, refrigerators, etc.) and over time shorten the life of the motor. Frequency will also affect motor performance and reduce efficiencies if the frequency does not match what the motor was designed for

KOHLER ADVANTAGE	Benefits to Customer
KOHLER Advantage	Benefit to Consumer
SUPERIOR POWER QUALITY*	Protects electronics from the potentially damaging effects of poor power quality
	Allows HVAC and security systems to function optimally
STRONGER PERFORMANCE*	Greater maximum power versus other 20kW generators
	Can start more large loads like air conditioners without shutting down other appliances
FASTER*	Faster restoration of power in dangerous, dark conditions
EXTRAORDINARY RELIABILITY	Enjoy security of knowing that generator will operate flawlessly when needed
	Beautiful generator stays more attractive even in the harshest of climates with corrosion-proof enclosure
	Trust the quality backed by a longer warranty

*Competitive comparisons between KOHLER and the other top-selling 20 kW generator brand. Faster response time based on published data. Maximum power and higher-quality power output (voltage variation and frequency regulation) based on product testing.

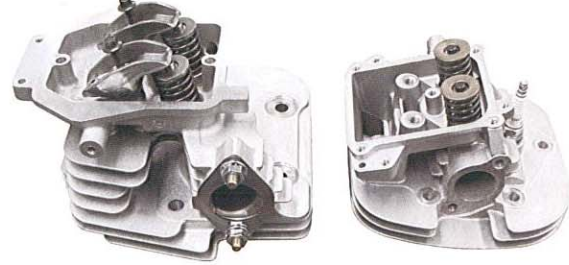
ENGINE BLOCKS



KOHLER
26.9 lb with oil pan

Other leading brand
19.66 lb with oil pan

CYLINDER HEADS



KOHLER

Other leading brand

The KOHLER® cylinder head has angled valves and ports designed for flow rather than manufacturability, and stainless steel port liners are used to improve head and head gasket durability.

HYDRAULIC VALVE LIFTERS

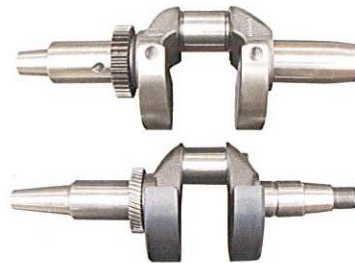


KOHLER

Other leading brand

The KOHLER cylinder head has hydraulic valve lifters to eliminate the need to adjust valve lash.

CRANKSHAFT/PISTON/ROD



KOHLER

Other leading brand

The KOHLER crankshaft has 500 lb thrust and/or side loading capability as well as flywheel side PTO capability.

The engine is the heart of generator performance and reliability, and this is one of the key indicators of the quality of a generator. As you can see from the photos above, the KOHLER engine is designed for tougher commercial applications – making it more durable and reliable for generator use.

With Kohler's stronger engine, we can produce more power for the generator while still staying true to our voltage and frequency ratings. Without that engine strength, one would have to resort to wide swings from rated voltage and rated frequency in order to produce similar generator output. Not all kW is created equal.

KOHLER Background	
KOHLER Accounts	Residential models on NOAA/National Weather Service stations Industrial models back up the nation's airports The Home Depot may sell other generators, but its stores are all backed up by Kohler generators
KOHLER Awards	Leading consumer magazine's Best Buy and Highest Rating <i>Builder</i> magazine - 2009 and 2010 top brand/highest quality <i>Building Products</i> magazine - MVP (Most Valuable Product) award <i>Green Builder</i> magazine - 2010 Hot 50 Products award
KOHLER Quality	The same level of quality and reliability that goes into plumbing products is designed into our generators

KOHLER Awards



KOHLER Generators

QUALITY, CONSTRUCTION, RELIABILITY

*By weight, KOHLER residential generator sets are up to 20% HEAVIER than many competing brands... **WHY?***

COMMERCIAL-GRADE ENGINES

KOHLER engines are physically larger and stronger than competing brands. These engines are also used in heavy-duty, commercial lawn equipment, so are not built simply for periodic, “standby” use - they are built to RUN, *continuously*, under full-load operating conditions.

And every KOHLER engine is factory tested for 30 minutes on a dynamometer.

OIL CAPACITY

KOHLER engines have up to 12% more engine oil capacity than other brands.

More oil = more flow = more cooling = more run time and engine life.

No “Break-In” oil change is required for KOHLER engines.

HYDRAULIC LIFTERS

There is no need to adjust valve lash on KOHLER engines.

SOLID, DIRECT DRIVE ENGINE-ALTERNATOR SET

KOHLER alternators are heavier and larger than competing brands, and use ALL COPPER versus less expensive, lighter-duty copper/aluminum alternators.

WARRANTY

FIVE (5) year / 2000 hours – the best in the business, as expected.

*Why this commitment to heavy-duty construction?
Industrial grade engines and alternators mean unmatched **PERFORMANCE...***

PERFORMANCE

POWER

KOHLER generators provide the fastest response and highest MAX power in the industry, period.

POWER Quality

Perhaps even more important than total power is *Power Quality* or “*Clean Power*”. Your *expensive* and *sensitive electronics* and *digital equipment* do not like even minor variations in electrical frequency or voltage.

Those heavy KOHLER engines and alternators maintain rated voltage and frequency within *LESS THAN 1.0% variation*, even as your power demand changes.

That’s plenty “Clean” for today’s connected world.

Competing brands allow variations in voltage and frequency that can be nearly 9 TIMES higher, which can put your electronics and your “smart home” at risk.

ATTRACTIVE and QUIET

Heavy construction and performance DO NOT mean “heavy” noise or appearance - **Far from it.**

KOHLER’s residential generators are compact, with a clean, attractive residential appearance, and are housed in **corrosion-proof** (14 & 20kW models) enclosures that ensure years of good looks.

And KOHLER generators are not only the most powerful; they are also the most **QUIET**.

For our most popular sizes, sound levels vary from 61 dBA to 69 dBA, 23 feet from the generator in **any** direction. For comparison, typical A/C units today run between 65-72 dBA at 23 feet.

Quality, construction, and performance mean... loyalty from the most trustworthy and
DEMANDING CUSTOMERS...

KOHLER[®] Generators

Demanding Customers

CRITICAL NEEDS

Hospitals, Nuclear Power Plants, The National Weather Service, The National Oceanic and Atmospheric Administration, and our nation's Airports **all** trust KOHLER generators.

HOME DEPOT

The Home Depot sells many different products from many different manufacturers, including generators. *But every Home Depot **store** is backed up by a KOHLER generator.*

CONSUMER REPORTS MAGAZINE and ON-LINE REVIEWS

Consult these for many other, 3rd party impressions of KOHLER and other brands.

Do your research...

*Large businesses and airports that can't afford to lose power, weather stations entrusted with emergency notification, hospitals entrusted to save lives, independent rating agencies and consumers ... all trust **KOHLER** Generators.*

Whose generator do you trust?