

# KOHLER Power Systems

**Multi-Fuel  
LPG/Natural Gas**



## The Kohler® Advantage

- **High Quality Power**  
Kohler home generators provide advanced voltage and frequency regulation along with ultra-low levels of harmonic distortion for excellent generator power quality to protect your valuable electronics.
- **Extraordinary Reliability**  
Kohler is known for extraordinary reliability and performance and backs that up with a premium 5-year or 2000 hour limited warranty.
- **Powerful Performance**  
Exclusive PowerBoost™ technology provides excellent starting power. The Kohler 14 kW generator can easily start and run a 5 ton air conditioner.\*
- **Corrosion-Proof Enclosure**  
The bold new Kohler design is completely corrosion proof, even in harsh seaside environments, and is impact-resistant even at -34° C (-30° F).
- **Fast Response**  
Kohler generators restore power to your home quickly and reliably.
- **Quiet Operation**  
Kohler home generators provide quiet, neighborhood-friendly performance.

## Standard Features

- **DC2 Controller**
  - One digital controller manages both the generator set and Model RXT transfer switch functions.
  - Designed for today's most sophisticated electronics.
  - Electronic speed control responds quickly to varying household demand.
  - Digital voltage regulation protects your sensitive electronics from harmonic distortion and unstable power quality.
  - Two-line, backlit LCD display is easy to read, even in direct sunlight or low light.
- **Kohler Command PRO Engine Features**
  - Kohler Command PRO® OHV engine with hydraulic valve lifters for reliable performance without routine valve adjustment or lengthy break-in requirements.
  - Powerful, reliable air-cooled performance.
  - Simple field conversion between natural gas and LPG fuels while maintaining emission certification.
- **Designed for Easy Installation**
  - Polymer base eliminates the need for a concrete mounting pad, reducing installation time and cost.
  - Hinged, locking roof.
  - Fuel and electrical connections through the enclosure wall eliminate the need for stub-ups through the bottom.
  - Load connection terminal block allows easy field wiring.
  - Designed for outdoor installation only.
- **Model RXT Transfer Switch**
  - 100 amp and 200 amp Model RXT automatic transfer switches are available.
  - See page 4 for more information.
- **Certifications**
  - Meets emission regulations for U.S. Environmental Protection Agency (EPA) 40 CFR 60 stationary source standards with both LPG and natural gas.  
**Note:** CARB does not regulate emergency standby generators outputting less than 50 HP. Only the EPA standards apply.
  - UL 2200/cUL listed (60 Hz model).
  - Accepted by the Massachusetts Board of Registration of Plumbers and Gas Fitters
- **Warranty**
  - 5-year/2000 hour limited warranty for on-grid (standby) applications in locations served by a reliable utility source.
  - 18 month/1000 hour limited warranty for off-grid (non-standby) applications.

## Generator Ratings

Model	Voltage	Phase	Hz	Alternator	Standby Ratings			
					Natural Gas		LPG	
					kW/kVA	Amps	kW/kVA	Amps
14RESAL	120/240	1	60	2F5	12/12	50	14/14	58

RATINGS: Standby ratings apply to installations served by a reliable utility source. All single-phase units are rated at 1.0 power factor. The standby rating is applicable to variable loads with an average load factor of 80% for the duration of the power outage. No overload capacity is specified at this rating. Ratings are in accordance with ISO-3046/1, BS5514, AS2789, and DIN 6271. GENERAL GUIDELINES FOR DERATING: *ALTITUDE*: Derate 4% per 305 m (1000 ft.) elevation above 153 m (500 ft.). *TEMPERATURE*: Derate 2% per 5.5° C (10° F) temperature increase above 16° C (60° F). Availability is subject to change without notice. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever. Contact your local Kohler Co. generator distributor for availability.

\* Check the appliance manufacturer's specifications for actual power requirements. Consult a Kohler® Power Systems professional to calculate your exact residential power system requirements.

# Alternator Specifications

## Alternator Specifications

Specifications	Alternator
Manufacturer	Kohler
Type	2-Pole, Rotating Field
Leads, quantity	4
Voltage regulator	Digital
Insulation:	NEMA MG1-1.66
Material	Class H
Temperature rise	130°C Standby
Bearing: quantity, type	1, Sealed
Coupling	Direct
Amortisseur windings	Full
Voltage regulation, no-load to full-load RMS	± 1.0%
One-step load acceptance	100% of Rating
Peak motor starting kVA @ 240 V:	33

## Alternator Features

- Compliance with NEMA, IEEE, and ANSI standards for temperature rise.
- Self-ventilated and drip-proof construction.
- Windings are vacuum-impregnated with epoxy varnish for dependability and long life.
- Superior voltage waveform and minimum harmonic distortion from skewed alternator construction.
- Digital voltage regulator with ±1.0% no-load to full-load RMS regulation.
- Rotating-field alternator with static exciter for excellent load response.
- Total harmonic distortion (THD) from no load to full load with a linear load is less than 5%.

## Application Data

### Engine

Engine Specifications	
Manufacturer	Kohler
Engine: model, type	CH740 4-Cycle
Cylinder arrangement	V-2
Displacement, cm <sup>3</sup> (cu. in.)	725 (44)
Bore and stroke, mm (in.)	83 x 67 (3.27 x 2.64)
Compression ratio	9:1
Main bearings: quantity, type	2, Parent Material
Rated RPM	3600
Max. engine power at rated rpm, kW (HP)	
LPG, 60 Hz	17.6 (23.6)
Natural gas, 60 Hz	15.3 (20.5)
Cylinder head material	Aluminum
Valve material	Steel/Stellite®
Piston type and material	Aluminum Alloy
Crankshaft material	Heat Treated, Ductile Iron
Governor: type	Electronic
Frequency regulation, no load to full load	Isochronous
Frequency regulation, steady state	±0.5%
Air cleaner type	Dry

### Engine Electrical

Engine Electrical System	
Ignition system	Electronic, Capacitive Discharge
Starter motor rated voltage (DC)	12
Battery (purchased separately):	
Ground	Negative
Volts (DC)	12
Battery quantity	1
Recommended cold cranking amps: (CCA) rating for -18°C (0°F)	500
Group size	51

### Lubrication

Lubricating System	
Type	Full Pressure
Oil capacity (with filter), L (qt.)	1.8 (1.9)
Oil filter: quantity, type	1, Cartridge
Oil cooler	Integral

### Fuel Pipe Size

Pipe Length, m (ft.)	Minimum Gas Pipe Size Recommendation, in. NPT	
	Natural Gas 193,000 Btu/hr.	LPG 203,000 Btu/hr.
8 (25)	3/4	3/4
15 (50)	1	3/4
30 (100)	1	1
46 (150)	1 1/4	1
61 (200)	1 1/4	1

### Exhaust

Exhaust System	
Exhaust temperature exiting the enclosure at rated kW, dry, °C (°F)	260 (500)

## Fuel Requirements

Fuel System	
Fuel types	Natural Gas or LPG
Fuel supply inlet	1/2 NPT
Fuel supply pressure, kPa (in. H <sub>2</sub> O):	
Natural gas	1.2-2.7 (5-11)
LP	1.7-2.7 (7-11)

Fuel Composition Limits *	Nat. Gas	LPG
Methane, % by volume (minimum)	90 min.	—
Ethane, % by volume (maximum)	4.0 max.	—
Propane, % by volume	1.0 max.	85 min.
Propene, % by volume (maximum)	0.1 max.	5.0 max.
C <sub>4</sub> and higher, % by volume	0.3 max.	2.5 max.
Sulfur, ppm mass (maximum)	25 max.	
Lower heating value, MJ/m <sup>3</sup> (Btu/ft <sup>3</sup> ), min.	33.2 (890)	84.2 (2260)

\* Contact your local distributor for suitability and rating derates based on fuel compositions outside these limits.

## Operation Requirements

Fuel Consumption	Fuel Consumption, m <sup>3</sup> /hr. (cfh)	
Fuel Type	% Load	
Natural Gas	100	5.4 (193)
	75	4.7 (163)
	50	3.5 (124)
	25	2.6 (93)
	Exercise	1.7 (60)
LPG	100	2.3 (81)
	75	2.1 (75)
	50	1.8 (60)
	25	1.2 (45)
	Exercise	0.8 (30)
Nominal fuel rating:	Natural gas:	37 MJ/m <sup>3</sup> (1000 Btu/ft. <sup>3</sup> )
	LPG:	93 MJ/m <sup>3</sup> (2500 Btu/ft. <sup>3</sup> )
LPG conversion factors:	8.58 ft. <sup>3</sup> = 1 lb.	
	0.535 m <sup>3</sup> = 1 kg	
	36.39 ft. <sup>3</sup> = 1 gal.	

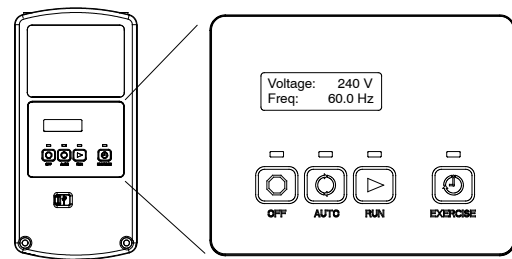
## Sound Data

Model 14RESAL 8 point logarithmic average sound levels are 63 dB(A) during weekly engine exercise and 67 dB(A) during full-speed generator diagnostics and normal operation. For comparison to competitor ratings, the lowest point sound levels are 58 dB(A) and 63 dB(A) respectively.\*

All sound levels are measured at 7 meters with no load.

\* Lowest of 8 points measured around the generator. Sound levels at other points around generator may vary depending on installation parameters.

## DC2 Controller



The DC2 controller provides integrated control for the generator set, Kohler® Model RXT transfer switch, programmable interface module (PIM), and load management.

The DC2 controller's 2-line LCD display provides a clear, easy-to-read display of status messages even in direct sunlight or low light.

## DC2 Controller Features

- OFF, AUTO, RUN, and EXERCISE pushbuttons
- LED indicators for OFF, AUTO, RUN, and EXERCISE modes
- LCD display:
  - Two lines x 16 characters per line
  - Backlit display with adjustable contrast for excellent visibility
- Scrolling system status display:
  - Generator set status
  - Voltage and frequency
  - Engine temperature
  - Oil pressure
  - Battery voltage
  - Engine runtime hours
  - Maintenance reminders
  - OnCue® status (connected/disconnected)
- Smart engine cooldown senses engine temperature
- Digital isochronous governor to maintain steady-state speed at all loads
- Digital voltage regulation: ± 1.0% RMS no-load to full-load
- Automatic start with programmed cranking cycle
- Exercise modes:
  - Unloaded weekly exercise with complete system diagnostics
  - Unloaded full-speed exercise
  - Loaded full-speed exercise (Model RXT ATS required)
- Front-access mini USB connector for SiteTech™ or USB Utility connection
- Integral Ethernet connector for Kohler® OnCue® Plus
- Built-in 2.5 amp battery charger
- Remote two-wire start/stop capability for optional connection of a Model RDT transfer switch
- Diagnostic messages:
  - Displays diagnostic messages for the engine, generator set, model RXT transfer switch, and optional programmable interface module (PIM)
  - Over 70 diagnostic messages can be displayed
- A laptop computer and Kohler® SiteTech™ software can be used to change system settings or upgrade controller firmware

## Standard Generator Set Features

- ATS: Model RXT automatic transfer switch
- Battery cables
- Corrosion-proof polymer sound enclosure
- Critical silencer
- DC2 generator set/ATS controller
- EPA-certified fuel system
- Field-connection terminal block
- Flexible fuel line
- Fuel solenoid valve and secondary regulator
- Line circuit breaker:  
70 amps
- Multi-fuel system, LPG/natural gas, field-convertible
- Oil drain extension with shutoff valve
- Premium 5-year/2000 hour limited warranty for on-grid (standby) applications
- 18-month/1000 hour limited warranty for non-standby (off-grid) applications
- Rodent-resistant construction
- Sound-deadening, flame-retardant foam per UL 94, class HF-1

## Available Accessories\*

### Communication Accessories

- OnCue® Plus Generator Management System
- OnCue® Plus Wireless Generator Management System

### Concrete Mounting Pads

- Concrete mounting pad, 3 in. thick
- Concrete mounting pad, 4 in. thick (recommended for storm-prone areas)

### Controller Accessories

- Emergency stop kit
- Programmable interface module (PIM)  
(provides 2 digital inputs and 6 relay outputs)

### Electrical System

- Battery
- Battery heater

### Maintenance

- Maintenance kit (air and oil filters)
- General maintenance literature kit
- Overhaul literature kit
- Production literature kit

### Starting Aids

- Carburetor heater, 120 VAC (recommended for reliable starting at temperatures below 0°C [32°F])

### Transfer Switch Accessories

- RXT status indicator for standard interface board
- RXT status indicator for combined interface/load management board
- Power relay modules (use up to 4 relay modules with the RXT combined load management board)

\* Accessories are available through Kohler authorized distributors and dealers.

## Model RXT Transfer Switch



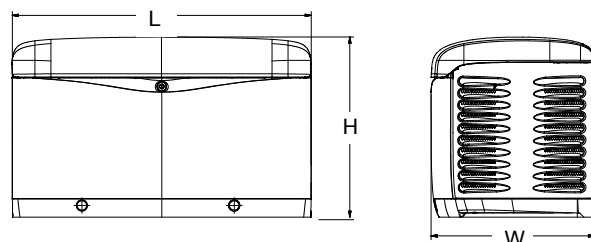
100 Amp with optional status indicator shown.

- UL listed
- 240 VAC/60 Hz
- Withstand rating 10,000 amps with specified breakers
- Designed for use only with Kohler® generator sets equipped with the RDC2 or DC2 controller
- The following transfer switch models are now available:
  - 100 amp RXT with 16-space load center and NEMA 1 steel enclosure for indoor installation
  - 200 amp service entrance-rated Model RXT with combined interface/load management board and corrosion-resistant NEMA 3R aluminum enclosure
- See the RXT ATS Specification Sheet for more information

## Generator Set Dimensions and Weights

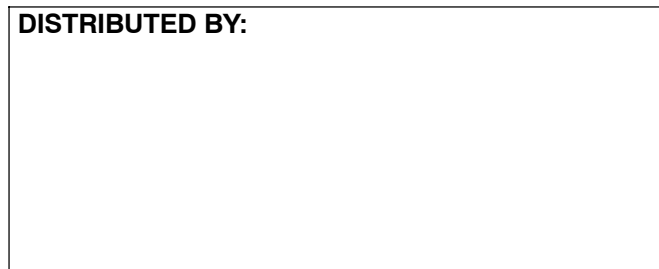
Overall Size, L x W x H: 1216 x 665 x 733 mm  
(48 x 26.2 x 29 in.)

Shipping Weight (with RXT ATS):  
 w/100 amp RXT ATS 216 kg (476 lb.)  
 w/200 amp RXT ATS 212 kg (467 lb.)



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

## DISTRIBUTED BY:



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