



## 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 5-year or 2000 hour limited warranty.
- Perfect for Tight Lot Lines**  
 Can be placed as close as 18 inches from your home or small business, providing installation flexibility even on smaller lots. (Only applies to engine specification numbers GM88347-GA7 or higher. Check state and local codes for minimum required distance from a structure.)
- Powerful Performance**  
 Exclusive Powerboost™ technology provides excellent starting power. The Kohler 8 kW generator can easily start and run a 4 ton air conditioner with up to 4.5 kW preload.\*
- Enclosure**  
 Bold new Kohler design in steel, dipped in e-coat for extra corrosion protection and painted with a durable powder coat finish.
- Quiet Operation**  
 Kohler home generators provide quiet, neighborhood-friendly performance.

## Standard Features

- RDC2 Controller**
  - One digital controller manages both the generator set and transfer switch functions (with optional Model RXT transfer switch).
  - 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 with adjustable contrast is easy to read, even in direct sunlight or low light.
  - OnCue® Plus Generator Management System for remote monitoring is included with every generator.
- Kohler Engine Features**
  - Kohler engine with efficient OHV design
  - Powerful, reliable air-cooled performance
  - Simple field conversion between natural gas and LPG fuels while maintaining emission certification
- Designed for Easy Installation**
  - Steel base
  - Hinged, locking roof
  - Fuel and electrical connections through the enclosure wall eliminate the need for stub-ups through the bottom
  - Accepts natural gas fuel pressure as low as 3.5 inches
  - Load connection terminal block allows easy field wiring
  - Designed for outdoor installation only
- Approved for stationary standby applications in locations served by a reliable utility source
- Meets 181 mph wind rating
- 8RESVL model packaged with a Model RXT automatic transfer switch is available. See page 4 and the Model RXT ATS specification sheet.
- 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 listed (60 Hz model)
  - Accepted by the Massachusetts Board of Registration of Plumbers and Gas Fitters.

## Generator Ratings

| Model | Voltage | Phase | Hz | Alternator | Standby Ratings |      |        |      |
|-------|---------|-------|----|------------|-----------------|------|--------|------|
|       |         |       |    |            | Natural Gas     |      | LPG    |      |
|       |         |       |    |            | kW/kVA          | Amps | kW/kVA | Amps |
| 8RESV | 120/240 | 1     | 60 | 2F3        | 7/7             | 29.2 | 8/8    | 33.3 |

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                               | PowerBoost™ Generator<br>1-Phase |
|--|----------------------------------|
| Manufacturer                                 | Kohler                           |
| Output reconnectable                         | 120/240                          |
| Type   | 2-Pole, Rotating Field           |
| Leads, quantity                              | 4                                |
| Voltage regulator                            | Digital                          |
| Insulation:                                  | NEMA MG1-1.66                    |
| Material                                     | Class H                          |
| Temperature rise                             | Class H                          |
| Bearing: quantity, type                      | 1, Sealed Ball                   |
| 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:                     | (35% dip for voltages below)     |
| 240 V, 2F3 (60 Hz)                           | 16.8                             |

## 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                        | SV620                      |
| Cylinders                                  | Single                     |
| Displacement, cm <sup>3</sup> (cu. in.)    | 597 (36.4)                 |
| Bore and stroke, mm (in.)                  | 94 x 86 (3.7 x 3.44)       |
| Compression ratio                          | 8.5:1                      |
| Main bearings: quantity, type              | 2, Parent Material         |
| Rated RPM                                  |                            |
| 60 Hz                                      | 3600                       |
| Max. engine power at rated rpm, kW (HP)    |                            |
| LPG, 60 Hz                                 | 11 (14.8)                  |
| Natural gas, 60 Hz                         | 8.5 (11.4)                 |
| Cylinder head material                     | Aluminum                   |
| Valve material                             | Steel                      |
| 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         | ±1.0%                      |
| 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.) * | 1.5 (1.6)     |
| Oil filter: quantity, type            | 1, Cartridge  |

\* Oil capacity for a new, dry engine.

### Fuel Pipe Size

| Minimum Gas Pipe Size Recommendation, in. NPT |                               |                        |  |
|---|-------------------------------|------------------------|--|
| Pipe Length, m (ft.)                          | Natural Gas<br>99,200 Btu/hr. | LPG<br>160,800 Btu/hr. |  |
| 8 (25)  | 3/4 in.                       | 1/2 in.                |  |
| 15 (50)                                       | 3/4 in.                       | 3/4 in.                |  |
| 30 (100)                                      | 1 in.                         | 3/4 in.                |  |
| 46 (150)                                      | 1 in.                         | 1 in.                  |  |
| 61 (200)                                      | 1 1/4 in.                     | 1 in.                  |  |

### Exhaust

| Exhaust System  |           |
|---|-----------|
| Exhaust temperature exiting the enclosure at rated kW, dry, °C (°F) | 190 (374) |

## 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                                       | 0.87-2.7 (3.5-11)  |
| 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>), (minimum) 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                  |             |   |   |
|-----------------------------------|-------------|---|---|
| Model                             | Fuel Type   | % Load  | Fuel Consumption, m <sup>3</sup> /hr. (cfh) |
| 8RESV                             | Natural Gas | 100   | 3.9 (136)                                   |
|                                   |             | 75  | 2.7 (95)                                    |
|                                   |             | 50  | 2.0 (69)                                    |
|                                   |             | 25  | 1.5 (53)                                    |
|                                   |             | Exercise  | 1.1 (39)                                    |
|                                   | LPG         | 100   | 1.7 (59)                                    |
|                                   |             | 75  | 1.3 (45)                                    |
|                                   |             | 50  | 1.0 (36)                                    |
|                                   |             | 25  | .75 (26)                                    |
|                                   |             | Exercise  | .38 (14)                                    |
| 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.                   |   |

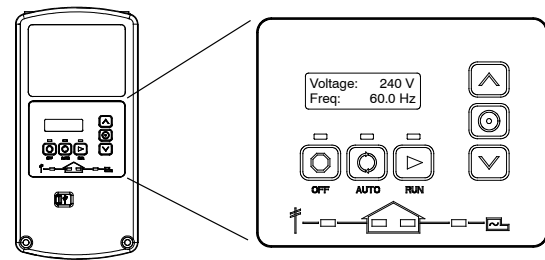
## Sound Data

Model 8RESV 8 point logarithmic average sound levels are 66 dB(A) during weekly engine exercise and 72 dB(A) during full-speed generator diagnostics and normal operation. For comparison to competitor ratings, the lowest point sound levels are 63 dB(A) and 68 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.

## RDC2 Controller



The RDC2 controller provides integrated control for the generator set, Kohler® Model RXT transfer switch, programmable interface module (PIM), and load management device.

The RDC2 controller's 2-line LCD screen displays status messages and system settings that are clear and easy to read, even in direct sunlight or low light.

## RDC2 Controller Features

- Membrane keypad
  - OFF, AUTO, and RUN pushbuttons
  - Select and arrow buttons for access to system configuration and adjustment menus
- LED indicators for OFF, AUTO, and RUN modes
- LED indicators for utility power and generator set source availability and ATS position (Model RXT transfer switch required)
- LCD screen
  - Two lines x 16 characters per line
  - Backlit display with adjustable contrast for excellent visibility in all lighting conditions
- Scrolling system status display
  - Generator set status
  - Voltage and frequency
  - Engine temperature
  - Oil pressure
  - Battery voltage
  - Engine runtime hours
- Date and time displays
- 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
- Programmable exerciser can be set to start automatically on any future day and time, and run every week or every two weeks
- 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 Model RDT transfer switches

See additional controller features on the next page.

## Additional RDC2 Controller Features

- Diagnostic messages
  - Displays diagnostic messages for the engine, generator, Model RXT transfer switch, programmable interface module (PIM), and load management
  - Over 70 diagnostic messages can be displayed
- Maintenance reminders
- System settings
  - System voltage, frequency, and phase
  - Voltage adjustment
  - Measurement system, English or metric
- ATS status (Model RXT ATS required)
  - Source availability
  - ATS position (normal/utility or emergency/generator)
  - Source voltage and frequency
- ATS control (Model RXT ATS required)
  - Source voltage and frequency settings
  - Engine start time delay
  - Transfer time delays
  - Voltage calibration
  - Fixed pickup and dropout settings
- Programmable Interface Module (PIM) status displays
  - Input status (active/inactive)
  - Output status (active/inactive)
- Load control menus

## Generator Set Standard Features

- Battery cables
- Critical silencer
- EPA certified fuel system
- Field-connection terminal block
- Fuel solenoid valve and secondary regulator
- Line circuit breaker: 40 Amps
- Multi-fuel system, LPG/natural gas, field-convertible
- Oil drain extension with shutoff valve
- OnCue® Plus Generator Management System
- RDC2 generator set/ATS controller
- Rodent-resistant construction
- Sound enclosure with sound-deadening, flame-retardant foam per UL 94, class HF-1
- 5-year limited warranty

## Available Accessories\*

### Approvals and Listings

- CSA Approval

### Concrete Mounting Pads

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

### Electrical System

- Battery

### Fuel System

- Flexible fuel line

## Available Accessories, Continued

### Controller Accessories

- Programmable Interface Module (PIM) (provides 2 digital inputs and 6 relay outputs)
- Load shed kit
- Power relay modules (use up to 4 modules for each load management device)

### Maintenance

- Maintenance kit

### Literature

- 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])

### Kohler® Automatic Transfer Switch

- Model RXT, see specification sheet G11-121
- Model RDT, see specification sheet G11-98
- Model RXT with combined interface/load management board
- Other Kohler® ATS

### 8RESVL Model Package

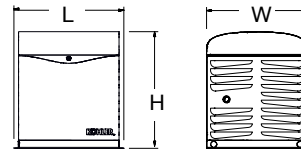
- 8RESVL with 100 amp RXT with 12-space load center and NEMA 1 steel enclosure for indoor installation

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

## Generator Set Dimensions and Weights

Overall Generator Size, L x W x H: 777 x 712 x 824 mm (30.6 x 28 x 32.4 in.)

Shipping Weights:  
 8RESV Generator Set 172 kg (378 lb.)  
 8RESVL w/100 amp RXT ATS 181 kg (398 lb.)



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

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