# **KOHLER**

# Models: 14RCA(L)

# Multi-Fuel LPG/Natural Gas



# Standard Features

# RDC2 Controller

- One digital controller manages both the generator set and transfer switch functions (with optional Model RXT).
- Electronic speed control responds quickly to varying demand.
- OnCue<sup>®</sup> Plus Generator Management System for remote monitoring is included with the generator.

## • 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.

## • Designed for Easy Installation

- Sturdy aluminum base can be mounted on gravel or a concrete mounting pad.
- Fuel and electrical connections through the enclosure wall eliminate the need for stub-ups through the base.
- Customer connection terminal block located near the controller allows easy access for field wiring.
- Designed for outdoor installation only.

## • Certifications

- Meets emission regulations for U.S. Environmental Protection Agency (EPA) with both natural gas and LPG.
- UL 2200/cUL listed (60 Hz model).
- CSA certification available (60 Hz model).
- Accepted by the Massachusetts Board of Registration of Plumbers and Gas Fitters.
- Meets 181 mph wind rating.
- 14RCAL models packaged with a Model RXT automatic transfer switch are available. See page 4 and the Model RXT ATS specification sheet.

## • 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

The Kohler® Advantage

protect your valuable electronics.

start and run a 5 ton air conditioner. §

Kohler home generators provide advanced voltage and

harmonic distortion for excellent generator power quality to

performance and backs that up with a premium 5-year or

Exclusive Powerboost<sup>™</sup> technology provides excellent

starting power. The Kohler 14 kW generator can easily

Attractive aluminum enclosure allows installation as

easy access for maintenance and service.

close as 18 inches from your home or small business.  $^{\dagger}$ 

Enclosure panels can be removed without tools to allow

frequency regulation along with ultra-low levels of

Kohler is known for extraordinary reliability and

High Quality Power

Extraordinary Reliability

Powerful Performance

Aluminum Enclosure

•

2000 hour limited warranty.

				Standby Ratings			Non-Standby Ratings				Line Circuit		
				Natur	al Gas	LP	G	Natur	al Gas	LI	PG	Bre	aker
Alt.	Voltage	Phases	Hz	kW∕ kVA	Amps	kW/kVA	Amps	kW∕ kVA	Amps	kW∕ kVA	Amps	Amps	Poles
2F5	120/240	1	60	12/12	50	14/14	58	12/12	50	14/14	58	70	2
	120/208	3	60	12/15	41	13/16	45	12/15	41	13/16	45	50	3
2G5	120/240	3	60	12/15	36	13/16	39	12/15	36	13/16	39	50	3
	277/480	3	60	12/15	18	13/16	20	12/15	18	13/16	20	25	3

Note: The line circuit breaker is automatically selected based on the generator set model and voltage configuration.

KOHLER

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.

† Meets NFPA guidelines for 18 inch clearance to combustible materials. Check state and local codes for minimum distance required from a structure.

# **Alternator Specifications**

# **Alternator Specifications**

Specifications		Alternator		
Manufacturer		Kohler		
Туре		2-Pole, Rotating Field		
Leads, quantity				
2F5		4		
2G5		12		
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	d to full-load RM	S ±1.0%		
One-step load acceptance		100% of Rating		
Peak motor starting kVA:	(35% dip for voltages below)			
240V, 1 ph	2F5 (4 lead)	33 (60 Hz)		
240 or 480 V, 3 ph	2G5 (12 lead)	54 (60 Hz)		

# **Alternator Features**

- Compliance with NEMA, IEEE, and ANSI standards for temperature rise.
- Self-ventilated and dripproof 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%.

Engine

Manufacturer

**Engine Specifications** 

Engine: model, type

Compression ratio

Rated RPM

60 Hz

Valve material

Governor: type

Air cleaner type

LPG, 60 Hz

Cylinder head material

Piston type and material

Crankshaft material

Cylinder arrangement

Displacement, cm<sup>3</sup> (cu. in.)

Bore and stroke, mm (in.)

Main bearings: quantity, type

Natural gas, 60 Hz

Max. engine power at rated rpm, kW (HP)

Frequency regulation, no load to full load

Frequency regulation, steady state

# Application Data Exhaust

Kohler

CH740 4-Cycle

V-2

725 (44)

83 x 67 (3.27 x 2.64)

9:1

2, PTO Side-Load Sleeve Bearings

3600

17.6 (23.6)

15.3 (20.5)

Aluminum

Steel/Stellite®

Aluminum Alloy

Heat Treated, Ductile Iron Electronic

Isochronous

±0.5%

Dry

# Exhaust System

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

# Lubrication

Lubricating System			
Туре	Full Pressure		
Oil capacity (with filter), L (qt.)	1.8 (1.9)		
Oil filter: quantity, type §	1, Cartridge		
Oil cooler	Integral		
§ Kohler recommends the use of Kohler Genuine oil and filters.			

# **Fuel Pipe Size**

Minimum Gas Pipe Size Recommendation, in. NPT				
Pipe Length, m (ft.)	Natural Gas 193,000 Btu/hr.	<b>LPG</b> 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		

# **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				

# **Fuel Requirements**

Natural Gas or LPG			
1/2 NPT			
1.2-2.7 (5-11)			
1.7-2.7 (7-11)			
Nat. Gas	LPG		
90 min.			
4.0 max.	—		
1.0 max.	85 min.		
0.1 max.	5.0 max.		
0.3 max.	2.5 max.		
25 max.			
33.2 (890)	84.2 (2260)		
	1/2 1.2-2. 1.7-2. <b>Nat. Gas</b> 90 min. 4.0 max. 1.0 max. 0.1 max. 0.3 max. 25 r		

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

# **Operation Requirements**

### Fuel Consumption, m<sup>3</sup>/hr. (cfh) @ 60Hz % Load LPG **Natural Gas** 100 5.4 (193)2.3 (81) 75 4.7 (163)2.1 (75)50 3.5 (124)1.8 (60) 25 2.6 (93) 1.2 (45) Exercise 1.7 (60) 0.8 (30)Nominal fuel rating: Natural gas: 37 MJ/m3 (1000 Btu/ft.3) 93 MJ/m<sup>3</sup> (2500 Btu/ft.<sup>3</sup>) LPG: 8.58 ft.<sup>3</sup> = 1 lb. LPG conversion factors: $0.535 \text{ m}^3 = 1 \text{ kg}$ 36.39 ft.<sup>3</sup> = 1 gal.

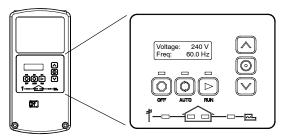
# **Generator Set Sound Data**

Model 14RCA 8 point logarithmic average sound levels are 62 dB(A) during weekly engine exercise and 67dB(A) during full-speed generator diagnostics and normal operation.\*

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<sup>®</sup> Model RXT transfer switch, programmable interface module (PIM), and load shed kit.

# **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

# **RDC2** Controller Features, Continued

- LED indicators for utility power and generator set source availability and ATS position (Model RXT transfer switch required)
- LCD display:
  - 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 maintains steady-state speed at all loads
- Digital voltage regulation:  $\pm$  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<sup>™</sup> 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, Model RXT transfer switch, programmable interface module (PIM), and load management device.
- 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:
  - Load status
  - Test function

# **KOHLER**<sub>®</sub>

# **Generator Set Standard Features**

- Battery cables
- EPA certified fuel system
- Aluminum sound enclosure
- Critical silencer
- Field-connection terminal block
- Fuel solenoid valve and secondary regulator
- Line circuit breaker
- Multi-fuel system, LPG/natural gas, field-convertible
- Oil drain extension with shutoff valve
- OnCue® Plus Generator Management System
- Premium 5-year/2000 hour limited standby warranty
- 18-month/1000 hour limited warranty for non-standby (off-grid) applications
- RDC2 generator set/ATS controller
- Rodent-resistant construction
- Sound-deadening, flame-retardant foam per UL 94, class HF-1

# Available Options

# 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 Accessories

- Battery
- Battery heater, 120VAC
- Battery heater, 240VAC
- Cold weather package, 120VAC
- Cold weather package, 240VAC
- Emergency stop kit
- PowerSync® Automatic Paralleling Module (APM) (single phase only; parallel two 14kW residential generator sets with the RDC2 controller)
- Programmable interface module (PIM) (provides 2 digital inputs and 6 relay outputs)

# **Fuel System Accessories**

- Flexible fuel line (included on QS models)
- Carburetor heater, 120 VAC
- Carburetor heater, 240 VAC
- Carburetor heater is recommended for reliable starting at temperatures below  $0^{\circ}C$  (32°F)

# Literature

- General maintenance literature kit
- Overhaul literature kit
- Production literature kit

# Maintenance

 Maintenance kit (includes air filter, oil, oil filter, and spark plugs)

# Automatic Transfer Switches and Accessories

- Model RDT ATS
- Model RXT ATS
- Model RXT ATS with combined interface/load management board
- Load shed kit for RXT or RDT
- Power relay modules (use up to 4 relay modules for each load management device)
- Other Kohler® ATS

# 14RCAL Model Packages

- 14RCAL with 100 amp RXT with 16-space load center and NEMA 1 steel enclosure for indoor installation
- 14RCAL with 200 amp service entrance-rated Model RXT with combined interface/load management board and corrosion-resistant NEMA 3R aluminum enclosure

# Warranty

- 5-Year Comprehensive Limited Warranty
- 10-Year Comprehensive Limited Warranty

# **Generator Set Dimensions and Weights**

Generator Set Size, L x W x H:

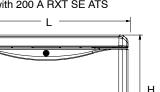
1193 x 666 x 817 mm (47 x 26.2 x 32.2 in.)

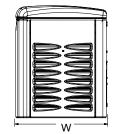
200 kg (440 lb.)

227 kg ( 500 lbs.)

222 kg (490 lb.)

Shipping Weight: 14RCA Generator Set 14RCAL with 100 A RXT ATS w/LC: 14RCAL with 200 A RXT SE ATS





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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