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. §

Aluminum Enclosure

- Attractive aluminum enclosure allows installation as close as 18 inches from your home or small business.
- Enclosure panels can be removed without tools to allow easy access for maintenance and service.

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® 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.
- o UL 2200/cUL listed (60 Hz model).
- o CSA certification available (60 Hz model).
- Accepted by the Massachusetts Board of Registration of Plumbers and Gas Fitters.
- o 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

				Standby Ratings			Non-Standby Ratings			Line Circuit			
					Natural Gas		LPG		Natural Gas		LPG		Breaker
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.

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 3.5 °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

	Alternator
K	ohler
2-	Pole, Rotating Field
4	
12	2
D	igital
N	EMA MG1-1.66
С	lass H
10	30°C Standby
1,	, Sealed
D	irect
Fi	ull
I to full-load RMS	±1.0%
10	00% of Rating
(35% dip for volt	tages below)
2F5 (4 lead)	33 (60 Hz)
2G5 (12 lead)	54 (60 Hz)
	2- 4 1: D N C 1: 1, D F I to full-load RMS 10 (35% dip for vol 2F5 (4 lead)

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%.

Application Data

Engine

g	
Engine Specifications	
Manufacturer	Kohler
Engine: model, type	CH740 4-Cycle
Cylinder arrangement	V-2
Displacement, cm ³ (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	
60 Hz	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

Exhaust

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

Minimum Gas Pipe Size Recommendation, in. NPT				
Pipe Length, m (ft.)	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		

Fuel Requirements

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

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 ₄ and higher, % by volume	0.3 max.	2.5 max.
Sulfur, ppm mass (maximum)	25	max.
Lower heating value, MJ/m³ (Btu/ft³), (minimum)	33.2 (890)	84.2 (2260)
+ 0		

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

Operation Requirements

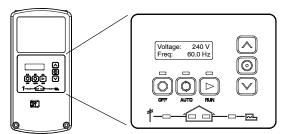
Fuel Consumption, m ³ /hr. (cfh) @ 60Hz					
% Load	Natural Gas		LPG		
100	5.4	(193)	2.3	(81)	
75	4.7	(163)	2.1	(75)	
50	3.5	(124)	1.8	(60)	
25	2.6	(93)	1.2	(45)	
Exercise	1.7	(60)	8.0	(30)	

37 MJ/m3 (1000 Btu/ft.3) Nominal fuel rating: Natural gas: 93 MJ/m³ (2500 Btu/ft.³) LPG:

LPG conversion factors: $8.58 \text{ ft.}^3 = 1 \text{ lb.}$ $0.535 \text{ m}^3 = 1 \text{ kg}$

 $36.39 \text{ ft.}^3 = 1 \text{ gal.}$

RDC2 Controller



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

RDC2 Controller Features

- Membrane keypad:
 - o 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 display:
 - o Two lines x 16 characters per line
 - Backlit display with adjustable contrast for excellent visibility in all lighting conditions
- Scrolling system status display:
 - o Generator set status
 - Voltage and frequency
 - o Engine temperature
 - o Oil pressure
 - o Battery voltage
 - o 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: ±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
 - o 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, Model RXT transfer switch, programmable interface module (PIM), and load management device.
- Maintenance reminders
- System settings:
 - System voltage, frequency, and phase
 - Voltage adjustment
 - o 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
 - o Engine start time delay
 - o Transfer time delays
 - Voltage calibration
 - Fixed pickup and dropout settings
- Programmable Interface Module (PIM) status displays:
 - o Input status (active/inactive)
 - Output status (active/inactive)
- Load control menus:
 - Load status
 - Test function



KOHLER CO., Kohler, Wisconsin 53044 USA Phone 920-457-4441, Fax 920-459-1646 For the nearest sales and service outlet in the US and Canada, phone 1-800-544-2444 KOHLERPower.com

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

☐ General maintenance literature kit

Maintenance kit (includes air filter, oil, oil filter, and

Overhaul literature kitProduction literature kitMaintenance

spark plugs)

- Rodent-resistant construction
- Sound-deadening, flame-retardant foam per UL 94, class HF-1

Available Options

	Approvals and Listings CSA approval
	Communication Accessories 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)
	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°C (32°F)
	Literature

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)

Automatic Transfer Switches and Accessories

14RCAL Model Packages

☐ Other Kohler® ATS

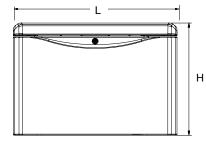
- ☐ 14RCAL with 100 amp RXT with 16-space load center and NEMA 1 steel enclosure for indoor installation
- ☐ 14RCAL with 200 amp service entrance-rated Model RXT with combined interface/load management board and corrosion-resistant NEMA 3R aluminum enclosure

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.)

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

200 kg (440 lb.) 227 kg (500 lbs.) 222 kg (490 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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