Models: 10/12RESVL

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 5-year or 2000 hour limited warranty.

• Powerful Performance

Exclusive Powerboost™ technology provides excellent starting power. The Kohler 12 kW generator can easily start and run a 5 ton air conditioner with up to 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, neighborhoodfriendly 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.
- OnCue® Plus Generator Management System for remote monitoring is included with every generator.

• Kohler Engine Features

- Kohler Series 7000 V-twin engine with efficient OHV design
- o 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
- o 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

Model RXT Transfer Switch

- 100 amp ATS w/NEMA 1 enclosure with 12-space load center for indoor installation is included
- See page 4 for additional 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.

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

Generator Ratings

					Standby Ratings			
					Natural	Gas	LPG	ì
Model	Voltage	Phase	Hz	Alternator	kW/kVA	Amps	kW/kVA	Amps
10RESVL	120/240	1	60	2F3	9/9	37.5	10/10	41.7
12RESVL	120/240	1	60	2F4	11/11	45.8	12/12	50

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.

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

Alternator Specifications

Alternator Specifications

-		PowerBoost™ Generator		
Specifications		1-Phase		
Manufacturer		Kohler		
Output reconnectable		120/240		
Туре		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	d 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		
240 V, 2F4	(60 Hz)	20.3		

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

Liigiiic				
Engine Specifications	10RESVL	12RESVL		
Manufacturer	Kol	Kohler		
Engine: model, type	KT	KT725		
Cylinder arrangement	V-	V-2		
Displacement, cm ³ (cu. in.)	725	(44)		
Bore and stroke, mm (in.)	83 x 67 (3	3.3 x 2.6)		
Compression ratio	9.0):1		
Main bearings: quantity, type	2, Parent	Material		
Rated RPM				
60 Hz	36	00		
Max. engine power at rated rpm, kW (H	P)			
LPG, 60 Hz	16 (2	16 (21.4)		
Natural gas, 60 Hz	13.4	(18)		
Cylinder head material	Alum	Aluminum		
Valve material	Steel/S	tellite®		
Piston type and material	Aluminu	m Alloy		
Crankshaft material	Heat Treated	, Ductile Iron		
Governor: type	Elect	ronic		
Frequency regulation, no load to full load	l Isochr	Isochronous		
Frequency regulation, steady state	±1.	±1.0%		
Air cleaner type	Di	Dry		

Exhaust

Exhaust System	10RESVL	12RESVL
Exhaust temperature exiting the		
enclosure at rated kW, dry, °C (°F)	106 (224)	106 (224)

Engine Electrical

Engine Electrical System	10RESVL	12RESVL	
Ignition system	Electronic, Capacitive Discharge		
Starter motor rated voltage (DC)	1	2	
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	5	1	

Lubrication

Lubricating System	10RESVL	12RESVL	
Туре	Full Pressure		
Oil capacity (with filter), L (qt.) *	1.9 (2.0)		
Oil filter: quantity, type	1, Cartridge		

^{*} Oil capacity for a new, dry engine.

Fuel Pipe Size

Minimum Gas Pipe Size Recommendation, in. NPT						
	10RE	ESVL	12RESVL			
Pipe Length, m (ft.)	Natural Gas 157,100 Btu/hr.	LPG 185,297 Btu/hr.	Natural Gas 208,550 Btu/hr.	LPG 257,000 Btu/hr.		
8 (25)	3/4	3/4	3/4	3/4		
15 (50)	1	3/4	1	3/4		
30 (100)	1	1	1	1		
46 (150)	1	1	1	1		
61 (200)	1 1/4	1	1 1/4	1		

Fuel Requirements

Fuel System	10RESVL	12RESVL	
Fuel types	Natural Gas or LPG		
Fuel supply inlet	1/2 NPT		
Fuel supply pressure, kPa (in. H ₂ O):			
Natural gas	.87-2.7 (3.5-11)		
LP	1.7-2.7	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 r	max.			
Lower heating value, MJ/m ³ (Btu/ft ³), (minimum)	33.2 (890)	84.2 (2260)			
* Contact your local distributor for suitability and rating derates based					

our local distributor for suitability and rating derates based on fuel compositions outside these limits.

Operation Requirements

Fuel Cons	sumption				
	Fuel				
Model	Туре	% Load	Fuel C	onsumpt	tion, m ³ /hr. (cfh)
		100	4.2	(146)	
		75	3.4	(119)	
	Natural Gas	50	2.9	(101)	
	auo	25	2.4	(86)	
10RESVL		Exercise	2.0	(73)	
IUNESVL		100	2.0	(72)	
		75	1.7	(60)	
	LPG	50	1.4	(51)	
		25	1.2	(42)	
		Exercise	1.0	(37)	
	Natural Gas	100	4.2	(149)	
		75	3.6	(125)	
		50	2.7	(95)	
		25	2.0	(70)	
12RESVL		Exercise	1.5	(54)	
IZRESVL	LPG	100	2.3	(80)	
		75	1.9	(68)	
		50	1.6	(56)	
		25	1.2	(43)	
		Exercise	0.9	(32)	

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

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

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

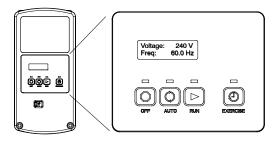
Sound Data

Model 10RESVL and 12RESVL 8 point logarithmic average sound levels are 67 dB(A) during weekly engine exercise and 71 dB(A) during full-speed generator diagnostics and normal operation. The lowest point sound levels are 64 dB(A) and 69 dB(A) respectively as compared to competitor ratings.*

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 control module (LCM).

The DC2 controller's 2-line LCD screen 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
 - o Two lines x 16 characters per line
 - o Backlit display with adjustable contrast for excellent visibility in all lighting conditions
- Scrolling system status display
 - o Generator set status
 - Voltage and frequency
 - Engine temperature
 - o Oil pressure
 - o Battery voltage
 - o Engine runtime hours
 - o Maintenance reminders
 - o OnCue® status (connected/disconnected)
- · Date and time displays
- Smart engine cooldown senses engine temperature
- Digital isochronous governor to maintain steady-state speed
- Digital voltage regulation: ±1.0% RMS no-load to full-load
- Automatic start with programmed cranking cycle
- Exercise modes
 - o 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 or RSB transfer switches
- Diagnostic messages
 - o Displays diagnostic messages for the engine, generator, Model RXT transfer switch, programmable interface module (PIM), and load control module (LCM)
 - 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.

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 Kohler Power Systems Asia Pacific Headquarters 7 Jurong Pier Road Singapore 619159 Phone (65) 6264-6422, Fax (65) 6264-6455

Generator Set Standard Features

- ATS: Model RXT automatic transfer switch with indoor enclosure and 12-circuit load center
- Battery cables
- Braided stainless steel flexible fuel line
- Critical silencer
- DC2 generator set/ATS controller
- EPA certified fuel system
- Field-connection terminal block
- Fuel solenoid valve and secondary regulator
- Line circuit breaker:

10RESVL: 50 amps 12RESVL: 60 amps

- Multi-fuel system, LPG/natural gas, field-convertible
- Oil drain extension with shutoff valve
- OnCue® Plus Generator Management System
- Rodent-resistant construction
- Sound enclosure with sound-deadening, flame-retardant foam per UL 94, class HF-1
- 5-year limited warranty

Model RXT Transfer Switch



- 100 amp RXT with 12-space load center and NEMA 1 steel enclosure for indoor installation
- 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
- See Specification Sheet G11-121 for more information

Available Accessories

Approvals and Listings

☐ CSA Approval (60 Hz only)

Concrete Mounting Pads

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

Available Accessories, Continued

Controller Accessories

- Programmable Interface Module (PIM) (provides 2 digital inputs and 6 relay outputs)
- □ Load Control Module (LCM) (provides 4 power relays and 2 HVAC relays)

Electrical System

Battery

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])

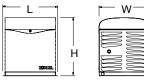
Miscellaneous Accessories

Generator Set Dimensions and Weights

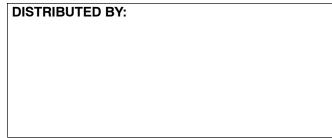
Overall Size, L x W x H: 712 x 777 x 824 mm (28 x 30 x 32.4 in.)

Shipping Weight: 10RESVL w/ATS 12RESVL w/ATS

203 kg (448 lb.) 205 kg (453 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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^{*} Accessories are available through Kohler authorized distributors and dealers.