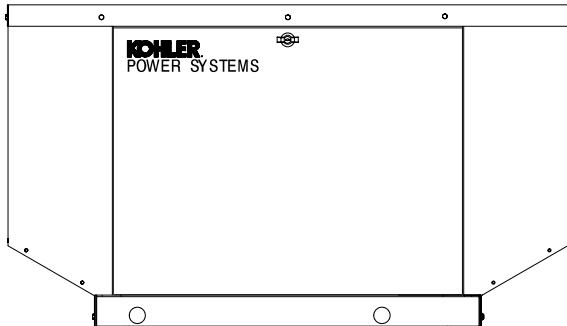


# Models: 8.5/11RMY

# KOHLER POWER SYSTEMS

## Dual-Fuel LP Gas & Natural Gas

**ISO 9001**  
**KOHLER**  
 POWER SYSTEMS  
 NATIONALLY REGISTERED



## Standard Features

- 60 Hz generator sets are UL 2200-listed.
- Generator sets are CSA-certified.
- Kohler Co. provides one-source responsibility for the generating system and accessories.
- A one-year limited warranty covers all systems and components. Extended warranties are available.
- Generator set and components are prototype-tested, factory-built, and production-tested.
- Sound enclosure ensures quiet operation.
  - Average sound levels with no load: 64 dB(A) for both the 8.5RMY and the 11RMY
  - Average sound levels at full load: 68 dB(A) for the 8.5RMY and 70 dB(A) for the 11RMY
  - Sound-deadening, flame-retardant foam per UL 94, class HF-1
  - Internal exhaust system with a USDA Forest Service-approved spark arrestor
  - Rodent-proof construction
- Emission Certifications (60 Hz Models):
  - Meets Environmental Protection Agency (EPA) nonstationary unit requirements
  - California Air Resources Board (CARB)-certified for both LP and natural gas
  - Dual-fuel system allows easy field-conversion between natural gas and LP while maintaining emission certification
- Generator features:
  - Kohler's PowerBoost™ voltage regulation system provides instant response to load changes
  - Skewed generator construction produces a smooth AC waveform
- Other features:
  - Integral vibration isolation
  - Electronic, isochronous governor that provides precise frequency regulation

## Generator Ratings

Model Series	Voltage	Phase	Hz	Generator Model	Standby Amps		Standby Ratings, kW/kVA	
					Nat. Gas	LP Gas	Nat. Gas	LP Gas
8.5RMY	120/240	1	60	2F4	29	35	7.0/7.0	8.5/8.5
8.5RMY	110/220	1	50	2F4	29	34	6.3/6.3	7.5/7.5
11RMY	120/240	1	60	2F4	40	46	9.5/9.5	11.0/11.0
11RMY	110/220	1	50	2F4	39	44	8.5/8.5	9.6/9.6

RATINGS: Standby ratings are continuous for the duration of any power outage. No overload capacity is specified at this rating. All single-phase units are rated at 1.0 power factor. GENERAL GUIDELINES FOR DERATING: *ALTITUDE*: Derate 4% per 305 m (1000 ft.) elevation above 153 m (500 ft.). *TEMPERATURE*: Derate 1% per 5.5°C (10°F) temperature increase above 25°C (77°F). Availability is subject to change without notice. Kohler Co. 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.

# Alternator Specifications

Specifications	PowerBoost™ Generator 1-Phase
Manufacturer	Kohler
Output reconnectable	120/240
Type	2-Pole, Rotating Field
Leads, quantity	4
Voltage regulator	Solid State
Insulation: NEMA MG1-1.66	
Material .....	Class 180 (H)
Temperature rise .....	Class 180 (H)
Bearing: quantity, type	1, Sealed Ball
Coupling	Direct
Amortisseur windings	Full
Voltage regulation, no-load to full-load	±2%
One-step load acceptance	100% of Rating
Peak motor starting kVA:	
2F4, 8.5RMY .....	16 (60 Hz)
2F4, 11RMY .....	20 (60 Hz)

- UL, NEMA, IEEE, and ANSI standards compliance for temperature rise
- Self-ventilated and dripproof construction
- Vacuum-impregnated windings with fungus-resistant epoxy varnish for dependability and long life
- Superior voltage waveform and minimum harmonic distortion from skewed alternator construction
- PowerBoost™ voltage regulator with ±2% no-load to full-load regulation
- Rotating-field alternator with static exciter for excellent load response
- Regulated battery-charging winding, 15 amps (nominal)

## Application Data

### Engine

Engine Specifications	60 Hz	50 Hz
Manufacturer	Kohler	
Engine: model, type		
8.5RMY .....	CH20 4-Cycle	
11RMY .....	CH25 4-Cycle	
Cylinder arrangement	V-2	
Displacement, cc (cu. in.)		
8.5RMY .....	624 (38)	
11RMY .....	725 (44)	
Bore and stroke, mm (in.)		
8.5RMY .....	77 x 67 (3.03 x 2.64)	
11RMY .....	83 x 67 (3.27 x 2.64)	
Compression ratio		
8.5RMY .....	8.5:1	
11RMY .....	9.0:1	
Piston speed, m/min. (ft./min.)	482 (1583)	402 (1319)
Main bearings: quantity, type	2, Parent Material	
Rated rpm	3600	3000
Max. power at rated rpm, natural gas, kW (HP)		
8.5RMY .....	10.0 (13.4)	9.1 (12.2)
11RMY .....	12.2 (16.3)	10.8 (14.5)
Cylinder head material	Aluminum	
Valve material	Steel/Stellite®	
Piston type and material	Aluminum Alloy	
Crankshaft material	Heat Treated, Ductile Iron	
Governor: type, make/model	Electronic, Kohler	
Frequency regulation, no-load to full-load	Isochronous	
Frequency regulation, steady state	±0.5%	
Air cleaner type	Dry	

### Exhaust

Exhaust System	60 Hz	50 Hz
Exhaust flow at rated kW, m <sup>3</sup> /min. (cfm)		
8.5RMY .....	3.3 (115)	2.7 (96)
11RMY .....	3.8 (135)	3.2 (113)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	760 (1400)	
Maximum allowable back pressure, kPa (in. Hg)	7.5 (2.2)	

### Engine Electrical

Engine Electrical System	60 Hz	50 Hz
Ignition system	Electronic	
Battery charging system:	Battery Charging Winding	
Ground (negative/positive) .....	Negative	
Volts (DC) .....	12	
Ampere rating .....	15	
Starter motor rated voltage (DC)	12	
Recommended battery cold cranking amps (CCA) rating for -18°C (0°F)	675	
Battery, quantity	1	
Battery voltage (DC)	12	
Rolling current at 0°C (32°F)	100 amps	

### Fuel

Fuel System	60 Hz	50 Hz
Fuel types	Natural Gas or LP Vapor	
Fuel supply inlet	1/2 NPT	
Fuel supply pressure, kPa (in. H <sub>2</sub> O)	1.7-2.7 (7-11)	

### Lubrication

Lubricating System	60 Hz	50 Hz
Type	Full Pressure	
Oil capacity (with filter), L (qt.)	1.9 (2.0)	
Oil filter: quantity, type	1, Cartridge	
Oil cooler	Integral	

# Application Data

## Operation Requirements

Cooling Air Requirements	8.5RMY		11RMY	
	60 Hz	50 Hz	60 Hz	50 Hz
Total inlet air requirement, m <sup>3</sup> /min. (cfm)	27.8 (980)	23.2 (820)	28.0 (990)	23.4 (825)
Cooling air, m <sup>3</sup> /min. (cfm)	26.9 (950)	22.4 (790)	26.9 (950)	22.4 (790)
Combustion air, m <sup>3</sup> /min. (cfm)	0.9 (33.4)	0.8 (28.0)	1.1 (39.2)	0.9 (32.6)
<b>Fuel Consumption</b>				
Natural Gas, m <sup>3</sup> /hr. (cfh) at % load				
100%	3.7 (132)	3.3 (118)	5.4 (192)	4.5 (160)
75%	3.2 (113)	2.9 (101)	4.4 (154)	3.7 (129)
50%	2.6 (93)	2.3 (83)	3.3 (116)	2.7 (97)
25%	2.2 (77)	1.9 (69)	2.2 (78)	1.8 (65)
LP Gas, m <sup>3</sup> /hr. (cfh) at % load				
100%	2.0 (72)	1.7 (61)	2.8 (99)	2.3 (82)
75%	1.3 (45)	1.1 (38)	2.3 (80)	1.9 (66)
50%	1.0 (36)	0.9 (31)	1.7 (60)	1.4 (49)
25%	0.8 (29)	0.7 (25)	1.1 (40)	0.9 (33)
LP conversion factors: 8.58 cf = 1 lb. 36.39 cf = 1 gal.				

### Minimum Gas Pipe Size Recommendation, in. NPT

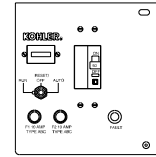
Pipe Length, m (ft.)	Natural Gas		LP Gas	
	8.5RMY	11RMY	8.5RMY	11RMY
Max. Btu/hr	132,000	199,000	180,000	248,000
8 (25)	3/4	3/4	1/2	3/4
15 (50)	3/4	1	3/4	1
30 (100)	1	1	1	1
46 (150)	1	1 1/4	1	1
61 (200)	1	1 1/4	1	1 1/4

## Acoustic Data

Load	Average sound level at 7 m, dB(A)
No load	64
8.5 kW	68
11 kW	70

NOTE: Test performed with the generator set operating with sound enclosure. Sound levels measured in dB(A), reference 20  $\mu$ Pa.

# Controller



## Standard Controller Features

- Type: Decision-Maker™ 1 relay controller
- Power source: 12 volts DC with fuse protection
- Running time hour meter
- Switches and controls:
  - Master control switch: run/reset-off/auto (engine start)
  - Local/remote two-wire start control
- Faults with shutdown:
  - High engine temperature
  - Low oil pressure
  - Overcrank safety
  - Overspeed
- Line circuit breaker:
  - 8.5RMY: 40 amps
  - 11RMY: 50 amps
- Common fault lamp

## Standard Features and Accessories

### Standard Features

- Battery Cables
- Battery Holder
- Flexible Fuel Line at Engine
- Fuel Solenoid Valve and Secondary Regulator
- Line Circuit Breaker
- Oil Drain Extension with Shutoff Valve
- One-Year Limited Warranty
- Rodent-Proof Construction
- Silencer, Critical
- Sound Enclosure
- Spark Arrestor, USDA Forest Service-Approved
- CARB- and EPA-Certified Fuel System
- Dual-Fuel System, LP and Natural Gas, Field-Convertible

### Kohler® G120 Automatic Transfer Switch

- 100 and 200 ampere available
- 240-volt rating, 50 or 60 Hz.
- Outdoor enclosure, NEMA 3R
- UL 1008-listed and CSA-certified
- User-enabled generator set exerciser, standard equipment
- Solid state electronics
- Weight: less than 23 kg (50 lb.)
- Dimensions, H x W x D, mm (in.): 610 x 457 x 279  
(24 x 18 x 11)

See the G120 specification sheet, G11-72, for more detailed information.

### Accessories

#### Controller

- Run relay kit
- Common fault relay kit

#### Electrical System

- Battery
- Battery chargers
- Battery heater

#### Fuel System

- Gas strainer

#### Maintenance

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

#### Starting Aids

- Carburetor heater, 120 VAC
- Carburetor heater, 12 VDC

#### Transfer Switch

- Kohler automatic transfer switch

#### Warranty

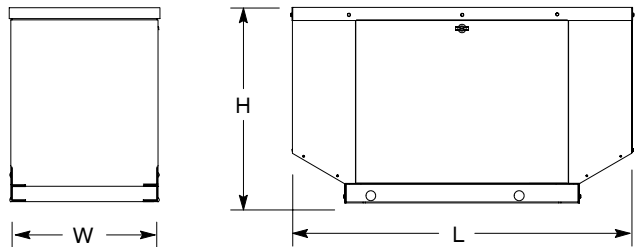
- Two-year warranty

#### Miscellaneous Accessories

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

### Dimensions and Weights

Overall Size, L x W x H, mm (in.): 1320 x 660 x 762  
(52 x 26 x 30)  
 Weight, kg (lb.): 181 (400)  
 Shipping weight, kg (lb.): 249 (550)



NOTE: This drawing is 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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