GENERAC®

Protector® Series

Standby Generators

Liquid-Cooled Gaseous Engine

INCLUDES:

- Power Zone® 410 controller
- Isochronous Electronic Governor
- Sound Attenuated Enclosure
- Closed Coolant Recovery System
- Smart Battery Charger
- UV/Ozone Resistant Hoses
- Voltage and Frequency Regulation Designed for Sensitive Electronics
- 5 Year Limited Warranty
- UL 2200 Listed

STANDBY POWER RATING

Model RG13090 (Aluminum - Bisque) - 130 kW 60 Hz
Model RG15090 (Aluminum - Bisque) - 150 kW 60 Hz

* Product may vary slightly from above image.

*Assembled in the USA using domestic and foreign parts

Meets EPA Emission Regulations CA / MA Emission Compliant

FEATURES

- **INNOVATIVE DESIGN & PROTOTYPE TESTING** are key components of GENERAC'S success in "IMPROVING POWER BY DESIGN." But it doesn't stop there. Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.
- **TEST CRITERIA:**

  - ✓ PROTOTYPE TESTED
  - ✓ SYSTEM TORSIONAL TESTED
  - ✓ NEMA MG1-22 EVALUATION
  - ✓ MOTOR STARTING ABILITY

- **TRUE POWER™ ELECTRICAL TECHNOLOGY:** Superior harmonics and sine wave form produce less than 5% Total Harmonic Distortion for utility quality power. This allows confident operation of sensitive electronic equipment and micro-chip based appliances, such as variable speed HVAC systems.
- **NFPA 110 CAPABILITY:** Generator comes able to support NFPA 110 controller and battery charger requirements.. Requires the addition of an optional NFPA 110 accessory kit.
- **SOLID-STATE, FREQUENCY COMPENSATED VOLTAGE REGULATION:** This state-of-the-art power maximizing regulation system is standard on all Generac models. It provides optimized FAST RESPONSE to changing load conditions and MAXIMUM MOTOR STARTING CAPABILITY by electronically torque-matching the surge loads to the engine.
- **SINGLE SOURCE SERVICE RESPONSE** from Generac's extensive dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component.
- **GENERAC TRANSFER SWITCHES:** Long life and reliability are synonymous with GENERAC POWER SYSTEMS. One reason for this confidence is the GENERAC product line is offered with its own transfer systems and controls for total system compatibility.

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application & engineering data

GENERATOR SPECIFICATIONS

	130 / 150 kW
Type	Synchronous
Rotor Insulation Class	H
Stator Insulation Class	H
Telephone Interference Factor (TIF)	<50
Alternator Output Leads 1-Phase	4 wire
Alternator Output Leads 3-Phase	12 wire
Bearings	Sealed Ball
Coupling	Flexible Disc
Excitation System	Synchronous Brushless
Total Harmonic Distortion	<5%

VOLTAGE REGULATION

Type	Full Digital
Sensing	All
Regulation	Designed for Sensitive Electronics

GOVERNOR SPECIFICATIONS

Type	Electronic
Frequency Regulation	Isochronous
Steady State Regulation	Designed for Sensitive Electronics

ELECTRICAL SYSTEM

Battery Charger Alternator	40 Amp
Static Battery Charger	5 Amp
Recommended Battery (battery included)	Group 31, 925 CCA
System Voltage	12 Volts

GENERATOR FEATURES

Revolving field heavy duty generator
Directly connected to the engine
Operating temperature rise 135° C above 25° C ambient
Class H insulation is NEMA rated
All models fully prototyped tested

ENCLOSURE FEATURES

	130 / 150 kW
Aluminum weather protective enclosure	Ensures protection against mother nature. Electrostatically applied textured epoxy paint for added durability.
Enclosed critical grade muffler	Quiet, critical grade muffler is mounted inside the unit to prevent injuries.
Small, compact, attractive	Makes for an easy, eye appealing installation.
SAE	Sound attenuated enclosure ensures quiet operation.

(All ratings in accordance with BS5514, ISO3046, ISO8528, SAE J1349 and DIN6271)

ENGINE SPECIFICATIONS

Make	Generac
Type	V
Cylinders	8
Displacement - L (in^3)	8.9 (540)
Bore - mm (in)	114 (4.5)
Stroke - mm (in)	108 (4.3)
Compression Ratio (Turbo Charged)	9.1:1
Intake Air System	Turbocharged and Aftercooled
Lifter Type	Hydraulic Roller

ENGINE LUBRICATION SYSTEM

Oil Pump Type	Gear
Oil Filter Type	Full Flow Spin-On Cartridge
Crankcase Capacity - L (qt)	9.9 (10.5)

ENGINE COOLING SYSTEM

Type	Pressurized Closed
Water Pump	Belt-Driven
Fan Speed - RPM	2,330
Fan Diameter - mm (in)	559 (22)
Fan Mode	Pusher

FUEL SYSTEM

Fuel Type	NG or LP (model specific)
Carburetor	Down Draft
Secondary Fuel Regulator	Standard
Fuel Shut Off Solenoid	Standard
LP Fuel Pressure - kPa (in. WC)	1.74-2.74 (7-11)
NG Fuel Pressure - kPa (in. WC)	1.74-2.74 (7-11)

GENERATOR OUTPUT POWER/AMPERAGE – 60 HZ

		Standby Power using NG (kW)	Standby Amperage using NG (A)	Standby Power using LP (kW)	Standby Amperage using LP (A)	CB Size (Both)
RG13090	120/240 V, 1Ø, 1.0 pf	130	542	130	542	600
	208/120 V, 3Ø, 0.8 pf	130	451	130	451	500
	240/120 V, 3Ø, 0.8 pf	130	391	130	391	400
	480/277 V, 3Ø, 0.8 pf	130	195	130	195	225
RG15090	120/240 V, 1Ø, 1.0 pf	144	600	134	558	700
	208/120 V, 3Ø, 0.8 pf	150	520	140	486	600
	240/120 V, 3Ø, 0.8 pf	150	451	140	421	500
	480/277 V, 3Ø, 0.8 pf	150	226	140	210	250

SURGE CAPACITY IN AMPS

		Surge Amperage at 30% Voltage Dip (A)
RG13090	120/240 V, 1Ø	854
	208/120 V, 3Ø	816
	240/120 V, 3Ø	707
	480/277 V, 3Ø	351
RG15090	120/240 V, 1Ø	617
	208/120 V, 3Ø	619
	240/120 V, 3Ø	536
	480/277 V, 3Ø	351

ENGINE FUEL CONSUMPTION

		Natural Gas - m^3/h (CFH)	Liquid Propane L/h (US gph)
RG13090	25% of rated load	14.4 (509)	17.9 (4.7)
	50% of rated load	24.3 (858)	28.9 (7.6)
	75% of rated load	34.1 (1,204)	40.0 (10.6)
	100% of rated load	44.0 (1,554)	51.1 (13.5)
RG15090	25% of rated load	15.9 (562)	19.4 (5.1)
	50% of rated load	27.3 (964)	31.8 (8.4)
	75% of rated load	38.3 (1,353)	44.9 (11.9)
	100% of rated load	50.1 (1,769)	58.1 (15.3)

NOTE:: **Fuel pipe must be sized for full load.**

Natural Gas - 37.26 MJ/m^3 (1,000 BTU/ft^3)

Liquid Propane - 25.5 MJ/L (91,420 BTU/US gal); 0.27 m3/L (36 ft3/US gal); 0.507 kg/L (4.24 lb/US gal)

Refer to “Emissions Data Sheets” for maximum fuel flow for EPA and SCAQMD permitting purposes.

STANDBY RATING: Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-3046-1. Design and specifications are subject to change without notice.

GENERAC®

operating data

ENGINE COOLING

	130 kW	150 kW
Intake Airflow - m^3/min (CFM)	153 (5,415)	158 (5,598)
System Coolant Capacity - L (US gal)	24 (6.3)	24 (6.3)
Heat Rejection to Coolant - kW (BTU/min)	71.3 kW (243,000 BTU/hr)	71.3 kW (243,000 BTU/hr)
Maximum Ambient Air Temperature - °C (°F)	50 (122)	50 (122)

COMBUSTION REQUIREMENTS

Airflow at Rated Power - m^3/min (CFM)	10.5 (371)	9.7 (343)

SOUND EMISSIONS

Sound Output at Normal Load - dB(A) at 7 m (23 ft.)	75	80

EXHAUST

Exhaust Airflow at Rated Output - m^3/min (CFM)	34.0 (1,200)	34.1 (1,204)
Exhaust Temperature at Rated Output - °C (°F)	696 (1,285)	782 (1,440)

ENGINE PARAMETERS

Rated Synchronous Engine Speed - RPM	1,800	1,800

POWER ADJUSTMENT FOR AMBIENT CONDITIONS

Temperature Deration RG13090 using NG & LP	25°C (77°F) before derate	3% for every 5°C above 25°C (1.7% for every 5°F above 77°F)
Temperature Deration RG15090 using NG	25°C (77°F) before derate	7.2% for every 5°C above 25°C (4% for every 10°F above 77°F)
Temperature Deration RG15090 using LP	25°C (77°F) before derate	9.9% for every 5°C above 25°C (5.5% for every 10°F above 77°F)
Altitude Deration (130kW)	1% for every 100 m above 183 m (3% for every 1,000 ft. above 600 ft.)	
Altitude Deration (150 kW)	0.7% for every 100 m above 183 m (2.1% for every 1,000 ft. above 600 ft.)	

What's your cost of downtime during a power outage?

SUPERMARKET			
$39,492	**$25,750**	**$5,004**	**$7,929**
Supermarket	**Pharmacy**	**Convenience Store**	**High-Volume Restaurant**

**Data shown using 2017 and 2019 Generac Power Outage Data reports. Average outage time of 9 hours, per 2019 data.*

PROTECT YOUR BOTTOM LINE. GAIN A COMPETITIVE EDGE.

Whether a power failure is simply not an option, or you just want an advantage over your competitors during a power outage, Generac standby generators provide reliable backup power and make sure you're open for business during an outage, no matter the industry or application.

IDEAL INDUSTRIES/APPLICATIONS:

- Convenience Stores & Gas Stations
- Small Outpatient & Dental Clinics
- School Offices & District Buildings
- Banks & Financial Institutions
- Manufacturing Industry & Distribution
- Restaurants & Bars
- Offices with Small Server Rooms
- Larger Homes or Homes with Guest Houses

130-150KW 60HZ PROTECTOR SERIES

Automatic Standby Gaseous Generator

SPECIFICATIONS (LP/NG)	130kW	150kW
Model Number	RG13090	RG15090
Output Current LP/NG 120/240 V, 1ø 1.0 pf	130/130	140/144
Output Current LP/NG 120/208 V, 3ø 0.8 pf	130/130	140/150
Output Current LP/NG 120/240 V, 3ø 0.8 pf	130/130	140/150
Output Current LP/NG 277/480 V, 3ø 0.8 pf	130/130	140/150
Engine Alternator RPM	1800	1800
Engine	V-Type 8-Cyl.	
Fuel Consumption @ Full load - LPG ft^3/hr (gal/hr)	642	720
Fuel Consumption @ Full load - NG ft^3/hr	1797	2042
db(A) Normal Operating Load	75	80
Automatic Transfer Switch	Not Included	
Enclosure	Aluminum	
Enclosure Color	Bisque	
Warranty	5-Year Limited	
Dimensions (L" x W" x H")	132.7 x 40.7 x 64.1	110.0 x 50.5 x 68.1
Generator Weight (lbs.)	3009	3278

For 'G' Voltage Code 208/120 V and 'J' Voltage Code 240/120 V 60 Hz 3-phase applications utilizing any of the below Residential transfer switches, the G0074110 Phase Sense Kit will be needed for proper phase sensing functionality. Reference Instruction Sheet A0003140507 for installation. RTSN100G3, RTSW100G3, RTSN200G3, RTSW200G3, RTSN400G3, RTSN600G3, RTSN800G3, RTSN100J3, RTSW100J3, RTSN200J3, TSW200J3, RTSN400J3, RTSN600J3, RTSN800J3, RTSI100M3, RTSI200M3.

For 'K' Voltage Code 480/277 V 60 Hz 3-phase applications or 'R' Voltage Code 415/220 V 50 Hz applications utilizing any of the below Residential transfer switches, the G0074120 Phase Sense Kit will be needed for proper phase sensing functionality. Reference Instruction Sheet A0003277957 for installation. RTSN100K3, RTSW100K3, RTSN200K3, RTSW200K3, TSN400K3, RTSN600K3 RTSN800K3, RTSN100R3, RTSN200R3, RTSN400R3.

NATIONWIDE DEALER SERVICE NETWORK

Generac's commitment to service includes scheduled maintenance programs, warranty assistance and emergency service to ensure that Generac customers are never left powerless. The largest nationwide dealer network has factory-trained technicians on staff and maintains large inventories of Generac parts, components and accessories. Find a dealer near you at Generac.com.

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