

GENERAC®**RG
Protector® Series****Protector® Series
Standby Generators
Liquid-Cooled Gaseous Engine****STANDARD FEATURES**

- Power Zone® 410 controller
- Cellular Connectivity for Mobile Link and Fleet¹
- Quiet Operation
- Corrosion Resistant Aluminum Enclosure
- 5 Year/2,000 Hour Limited Warranty
- High Motor-Starting & Surge Capacity
- <5% Total Harmonic Distortion Power Quality
- Model-Specific Fuel - Propane or Natural Gas
- EPA Emissions Certified
- CA & MA Exhaust Emission Compliant
- UL 2200 Listed

1 - Cellular service for the US, Canada, and other supported countries

OPTIONAL FIELD-INSTALLABLE FEATURES

Available as field-installable kits

- Push Button Emergency Stop
- NFPA 110 System Control & Remote Annunciation
- Cold Weather Operation Aids

STANDBY POWER RATING

Model RG13090 - 130 kW, 60 Hz Emergency Standby Generator
Model RG15090 - 150 kW, 60 Hz, Emergency Standby Generator



Product may vary from above image.



Manufactured in the USA, 2018
GENERAC and Protector (TM)

QUIET-TEST™ Mobile **Link™**

EPA Emissions Certified; CA & MA Exhaust Emissions 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.
- **MOBILE LINK® CONNECTIVITY:** Standard Wi-Fi & Ethernet connectivity included with every 22-100 kW RG generator and Cellular connectivity included with every 130-150 kW RG generator. Mobile Link allows users to monitor generator status from anywhere in the world using a smart phone, tablet, or PC. Easily access information such as the current operating status and maintenance alerts. Users can connect an account to an authorized service provider for fast, and proactive service. With Mobile Link, users are taken care of before the next power outage.
- **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.
- **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 service 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.

SURGE CAPACITY

GENERATOR SPECIFICATIONS

ENGINE SYSTEM

		RG13090	RG15090
Make		Generac	
Model		9 L, V-type 8-Cylinder, Turbocharged & Aftercooled	
Compression Ratio		9.1:1	
Lifter Type		Hydraulic	
Oil Pump Type		Gear	
Oil Filter Type		Full Flow Spin-on Cartridge	
Crankcase Capacity (qt (L))		10.5 (9.9)	
Temperature Derate	LP Fuel	3.3% per 10 °F above 77 °F (3% per 5 °C above 25 °C)	22% per 10 °F above 77 °F (19.8% per 5 °C above 25 °C)
	NG Fuel		16% per 10 °F above 77 °F (14.4% per 5 °C above 25 °C)
Altitude Derate		3% per 1,000 ft above 600 ft (1% per 100 m above 183 m)	2.1% per 1,000 ft above 600 ft (0.7% per 100 m above 183 m)
Exercise Speed (rpm)		1,500	
Operating Speed (rpm)		1,800	

GOVERNOR

Type	Electronic
Frequency Regulation	Isochronous
Steady State Regulation	±0.25%

COOLING SYSTEM

Coolant	50/50 (50% Ethylene Glycol)
Coolant System Capacity (US gal (L))	6.3 (24)
Water Pump Type	Belt Driven
Fan Type	Belt Driven
Fan Quantity	1
Exhaust Flow at Rated Output (CFM (m ³ /min))	1,200 (34.0)
Maximum Ambient Air Temperature (°F (°C))	122 (50)

Usable Fuels	Liquid Propane (LP) Vapor or Natural Gas (NG)
Fuel Type Configuration	Model-Specific, Not Selectable
LP Vapor Pressure (in H ₂ O (kPa))	7-11 (1.74-2.74)
NG Pressure (in H ₂ O (kPa))	7-11 (1.74-2.74)
Fuel Shutoff Solenoid	Standard

Rated Load	RG13090		RG15090	
	(US gph)	(L/h)	(US gph)	(L/h)
25%	4.7	17.9	5.1	19.4
50%	7.6	28.9	8.4	31.8
75%	10.6	40.0	11.9	44.9
100%	13.5	51.1	15.3	58.1

Rated Load	RG13090		RG15090	
	(CFH)	(m ³ /h)	(CFH)	(m ³ /h)
25%	509	14.4	562	15.9
50%	858	24.3	964	27.3
75%	1,204	34.1	1,353	38.3
100%	1,554	44.0	1,769	50.1

System Voltage (V)	12
Charge Alternator (A)	40
Battery Charger (A)	5
Recommended Battery (included)	Group 31, 925 CCA Minimum

	RG13090	RG15090
Sound Level at Operating Speed & No Load (dB(A) @23 ft (7 m))	75	80

POWER ZONE 410 CONTROLLER


016030

Standard Features

- 128 x 64 Graphical Display with Heater
 - Multi-Lingual
 - English
 - French
 - Spanish
 - Portuguese
 - Three Phase Sensing Digital Voltage Regulator
 - Full Range Standby Operation
 - Full System Status
 - Three Phase AC Voltage
 - Three Phase Current
 - Power
 - Power Factor
 - Oil Pressure
 - Engine Coolant Temperature
 - Oil Temperature (check for oil temp sensor)
 - Fuel Pressure
 - Engine Speed
 - Battery Voltage
 - Output Frequency
 - Time
 - Date
 - Load On Line Power and Gen Power
 - Hourmeter
 - Service Reminders
 - Fault History (Alarm Log)
 - Remote Communications
 - Programmable Auto Crank
 - Emergency Stop
 - Not in Auto Flashing Light
 - Selectable Low Speed Exercise
 - NFPA 110 System Control Capable
 - 5A Integrated Battery Charger
- Standard Protections**
- Low Oil Pressure
 - Low Coolant Level
 - High/Low Coolant Temperature
 - Oil Temperature
 - Over/Under Speed
 - Over/Under Voltage
 - Over/Under Frequency
 - Over/Under Current

- Overload
- Battery Voltage
- Battery Charger Current
- Phase-to-Phase and Phase-to-Neutral Short Circuits (I²T Algorithm)
- Ground Fault

Display

- Easy Menu Structure
- Multi-Lingual (English, Spanish, French, and Portuguese)
- On Screen Editable Parameters
- Key Function Monitoring
 - Three Phase Voltage, Amperage, Power, Apparent Power, Reactive Power
 - Selectable Average or Line-to-Neutral Voltage Measurements
 - Frequency
 - Engine Speed
 - Engine Coolant Temperature
 - Oil Pressure
 - Battery Voltage
 - Warning and Alarm Indication
 - Diagnostics
 - Maintenance Events/Information
 - Hourmeter

Control Panel

- AUTO/OFF/MANUAL
 - Operation Through Onboard Buttons or Optional Key Switch
 - Indication Through Display Screen and LEDs

- Audible Alarm and Silence
- Auxiliary Shutdown Rocker Switch (on controller)
- Not-in-Auto Indication

Voltage Regulation

- Digital Control
- Three-Phase Sensing
- Variable V/F Slope Settings
- Negative Power Limit
- Loss of Sensing Protection
- Fault Protection (I²T Function)
- High Voltage Limit
- Low Voltage Limit
- Maximum Power Limit

Governor Functionality

- Speed Control through ECM Integration

Communications Ports

- 1 CANbus Port
- 1 USB Port (for Configuration Transfer and Firmware Upgrades)
- 1 RS-485 Modbus Master Port (for External RAP/RRP/External I/O Modules)
- 1 RS-485 Modbus Slave Port (for other uses, e.g. Building Management)
- 2 RS-232 Communication Ports (for connectivity device or other uses)

Codes And Standards

- UL 6200
- CE
- NFPA 110

AVAILABLE ACCESSORIES

PRODUCT	PART NUMBER	DESCRIPTION
Control System Kits		
Generac Generator Connectivity Accessory Cellular	G0072150	The GGCAC provides a reliable cellular connection for the generator. Monitoring of the generator is possible for the owner using Mobile Link and for the servicer using Fleet. Generator owners will have peace-of-mind knowing the generator status at any time and be able to get support when needed. RG13090 and RG15090 generators which do not already have the GGCAC <u>require</u> the A0005792571 Wire Harness to install it; NEW RG13090 and RG15090 generators <u>INCLUDE</u> the GGCAC as standard.
RG13090–RG15090 GGCAC Wire Harness	A0005792571	Wire harness <u>required</u> to connect the G0072150 Generac Generator Connectivity Accessory Cellular to the Power Zone 410 controller in the RG13090 and RG15090.
Enclosure Mounted Emergency Stop Kit	G0065100	Emergency Stop consists of a red push button switch; mounts to the exterior of the generator enclosure; replaces the Generator Emergency Shutdown rocker switch in the same location.
Remote Emergency Stop Kit, Surface Mount	G0099250	Emergency Stop consists of a red push button switch with a twist release; switch has an aluminum enclosure which can be mounted extending out from a surface; mounts remote from generator such as near an electrical panel.
Remote Emergency Stop Kit, Flush Mount	G0099260	Emergency Stop consists of a red push button switch with twist release; switch has an aluminum enclosure which can be mounted flush; mounts remote from generator such as near an electrical panel.
Remote Emergency Stop Kit, Break Glass	G0099270	Emergency Stop consists of a spring-loaded switch; switch is behind breakable glass in an aluminum enclosure; glass can be broken with a tethered hammer; mounts remote from generator such as near an electrical panel.
Generac Load Manager, 50 A	G0070001	50 A Load Manager helps optimize the performance of the standby generator by managing large electrical loads upon startup and shed them to aid in recovery when overloaded.
Generac Load Manager, 100 A	G0070061	100 A Load Manager helps optimize the performance of the standby generator by managing large electrical loads upon startup and shed them to aid in recovery when overloaded.
Generac LTE Propane Tank Fuel Level Monitor	G0070090	The Propane Tank Fuel Level Monitor connects to 4G LTE cellular service to measure and report the amount of LP fuel remaining in the tank. The app alerts the user of both remaining LP fuel levels and usage reports, offering the ultimate peace of mind.
400 A CB Kit	G0098850	400 A Circuit Breaker Kit designed for three-phase products built with a factory installed circuit breaker greater than 400 A.
Power Zone Kits		
NFPA 110 Controller Kit	A0003134325	Includes module with Key Switch, Alarm Horn, and E-stop Switch which connects to power Zone 410 controller; also includes 10 A battery charger; requires G0098511, G0098521, or G0098531 Panel to be considered for NFPA 110 system control and remote annunciation.
Remote Annunciator Panel with 8 Relays	G0098511	Remote annunciator panel with relays; mounts in the structure which is connected to backup power.
Remote Relay Panel	G0098521	Remote relay panel without LED's or keypad; mounts in the structure which is connected to backup power.
Remote Annunciator Panel without Relays	G0098531	Remote annunciator panel without relays; mounts in the structure which is connected to backup power.
Power Zone 410/I/O Extender Kit	G0098370	Expands I/O for the Power Zone 410 controller to provide connections for additional accessories; plugs directly into controller.
Power Zone Gateway Kit	G0089370	Provides an Ethernet connection port for the generator for a Building Management System (BMS); NOT intended for or able to be used with Mobile Link or Fleet.
Operating Environment Kits		
Battery Heater Kit	G0098830	Recommended for operating environments where the temperature drops below 32 °F (0 °C) ; externally powered by 120 VAC, 60 Hz.
Engine Block Heater Kit	G0098840	Recommended for operating environments where the temperature drops below 0 °F (-18 °C) ; externally powered by 120 VAC, 60 Hz.

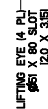
AVAILABLE ACCESSORIES

Installation Kits		
Base Plug Kit	G0056510	Base plugs to fit in the lifting holes of the baseframe to keep debris out.
Maintenance Kits		
9 L Gaseous Engine Regular Maintenance Kit	G0098820	Regular maintenance kit includes oil filter, oil funnel, air filter, and spark plugs.
Bisque Paint Kit	G0057030	If the generator enclosure is scratched or damaged, it is important to touch-up the paint to protect from future corrosion. The paint kit includes the necessary paint to correctly maintain or touch-up a generator enclosure.
Transfer Switch Kits		
3-Phase Voltage Sensing Kit for 208/120 & 240/120V RTS Transfer Switch	G0074110	3-Phase Voltage Sensing Kit <u>required</u> for RTS Transfer Switches <u>when used with</u> the Power Zone 410 controller for 'G' 208/120 or 'J' 240/120 V 3-phase voltage; applies to three-phase RG13090 and RG15090 models with 'G' or 'J' voltage.
3-Phase Voltage Sensing Kit for 480/277 V RTS Transfer Switch	G0074120	3-Phase Voltage Sensing Kit <u>required</u> for RTS Transfer Switches <u>when used with</u> the Power Zone 410 controller for 'K' 480/277 V 3-phase voltage; applies to three-phase RG13090 and RG15090 models with 'K' voltage.

Drawing #A0001618959 (1 of 2)

- NOTES:**

**REFERENCE OWNERS MANUAL
FOR PERIODIC REPLACEMENT
PART LISTINGS.**

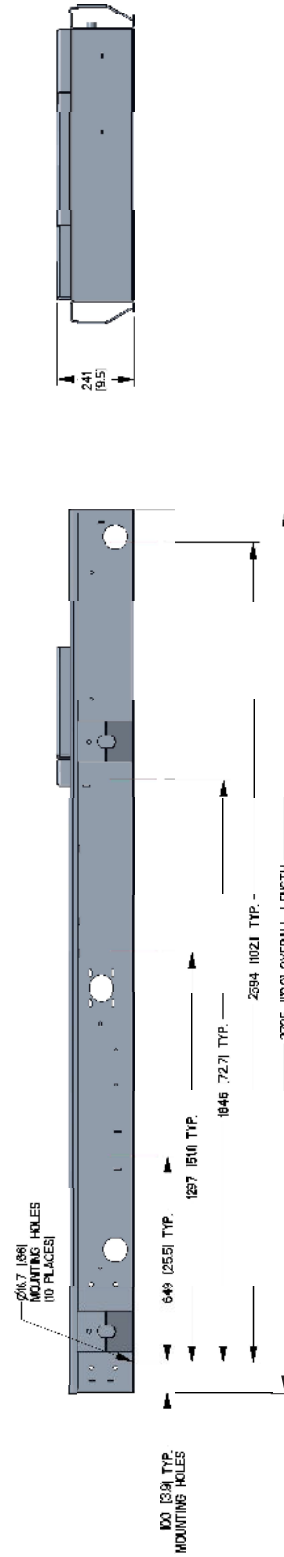
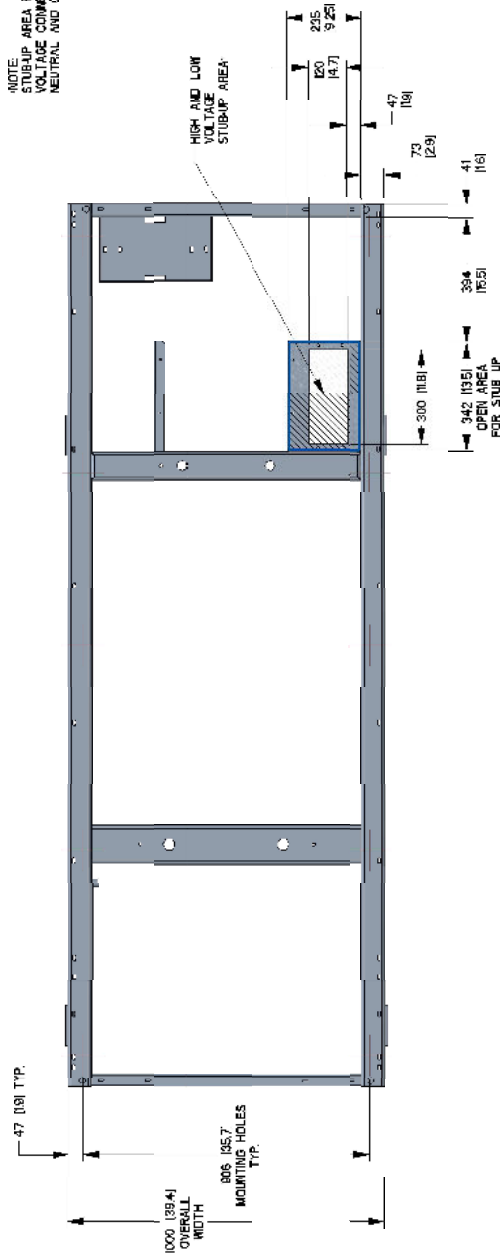


WEIGHT DATA

DIMENSIONS: MM [INCH]

Drawing #A0001618959 (2 of 2)

NOTE:
STUB-UP AREA FOR HIGH AND LOW
VOLTAGE CONNECTIONS, CIRCUIT BREAKER,
NEUTRAL AND CUSTOMER CONNECTION OPENING.

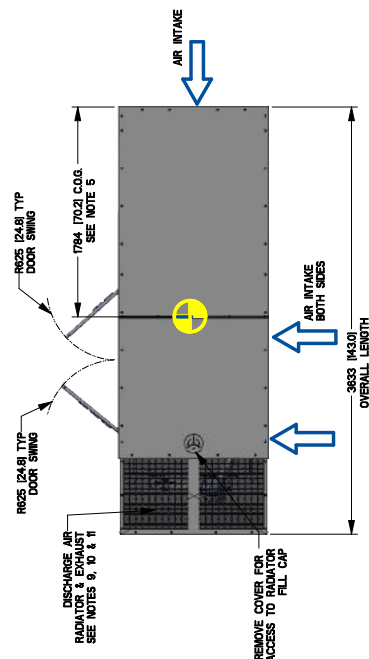


150 KW

Drawing #A0001618957 (1 of 2)

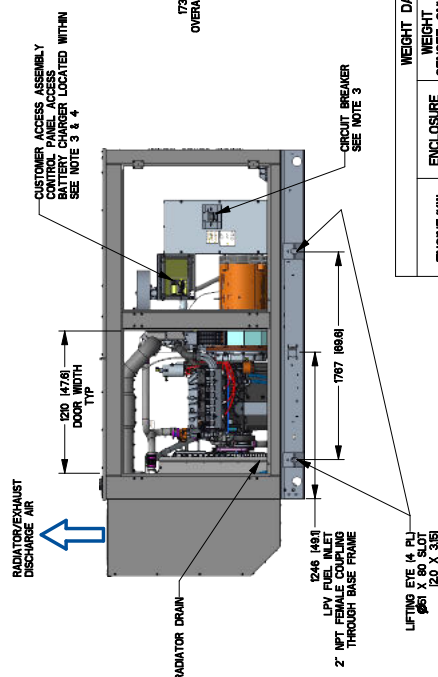
SERVICE ITEM	9.0L
OIL FILL CAP	EITHER SIDE
OIL DIP STICK	RIGHT SIDE
OIL FILTER	LEFT SIDE
OIL DRAIN HOSE	RIGHT SIDE
RADIATOR DRAIN HOSE	LEFT SIDE
COOLANT RECOVERY BOTTLE	RIGHT SIDE
RADIATOR FILL CAP	ROOF TOP
AIR CLEANER ELEMENT	EITHER SIDE
SPARK PLUGS	SEE NOTE 11
MUFFLER	EITHER SIDE
FAN BELT	EITHER SIDE
BATTERY	RIGHT SIDE

REFERENCE OWNERS MANUAL
FOR PERIODIC REPLACEMENT
PART LISTINGS.



NOTES:

1. MINIMUM RECOMMENDED CONCRETE PAD SIZE (6" LARGER PER SIDE THAN FRAME) 15A (627) WIDE 3265 (1297) LONG.
2. REFERENCE INSTALLATION GUIDE SUPPLIED WITH UNIT FOR CONCRETE PAD GUIDELINES.
3. ALLOW SUFFICIENT ROOM ON ALL SIDES OF THE GENERATOR FOR MAINTENANCE ACCESS AND SERVICE. MAINTENANCE ACCESS SHALL BE IN ACCORDANCE WITH THE APPLICABLE NFPA 70, AND NFPA 70B STANDARDS AS WELL AS ANY OTHER FEDERAL, STATE, AND LOCAL CODES.
4. CONSOLE, PANEL, / CIRCUIT BREAKER INFORMATION
5. SEE SPECIFICATION / SHEET OR OWNERS MANUAL
6. MINIMUM CLEARANCE TO THE GENERATOR
7. INSIDE STUBUP AREA FOR A/C LOAD LEAD CONNECTION, NEUTRAL CONNECTION, BATTERY CHARGER 240 VOLT, A/C AMP MAXI CONNECTION AND ACCESS TO TRANSFER SWITCH CONNECTION, PHASES REMOVE REAR COVER FOR ACCESS
8. BOTTOM OF GENERATOR SET MUST BE ENCLOSED TO PREVENT PEST INFESTATION AND RECONTAMINATION OF DISCHARGE AIR FOR LIFTING WARNINGS
9. REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS
10. REMAINING BOLT'S TO STUDS TO ADJUSTING SURFACE SHALL BE 5/8"1 GRADE 5
11. MUST ALLOW FREE FLOW OF INTAKE AIR, DISCHARGE AIR, AND EXHAUST. SEE SPEC
12. GENERATOR MUST BE INSTALLED SUCH THAT FRESH COOLING AIR IS AVAILABLE
13. REMOVE FRONT END PANEL TO ACCESS EXHAUST INLET. ACCESS AVAILABLE THROUGH DOORS TO FAN BELT.



WEIGHT DATA				
ENGINE/KW	ENCLOSURE MATERIAL	WEIGHT GENSET ONLY KG [LBS]	WEIGHT SHIPPING SKID KG [LBS]	SHIPPING WEIGHT KG [LBS]
QCL 450KW	Al	14,87 / 32760	231 / 5090	1510 / 33560

DIMENSIONS: MM [INCH]

INSTALLATION LAYOUT

Drawing #A0001618957 (2 of 2)

