

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

1 of 10

**STANDARD FEATURES**

- Evolution™ Controller
- Cellular Connectivity for Mobile Link® and Fleet<sub>1</sub>
- Padlockable Control Panel Cover
- Quiet Operation
- Corrosion Resistant Aluminium Enclosure
- 5 Year/2,000 Hour Limited Warranty
- High Motor-Starting, Surge Capacity
- $\pm 1\%$  Digital Voltage Regulation
- $< 5\%$  Total Harmonic Distortion Power Quality
- Fuel Efficiency
- Controller-Selectable Fuel Type - Propane or Natural Gas
- EPA Emissions Certified
- CA & MA Emissions Compliant Models
- 115 mph (185 km/h) Wind Speed Rating<sub>2</sub>
- UL 2200 Listed
- SwRI Listed & Labeled allowing installation as close as 18 in (457 mm) from structure<sub>3</sub>

1 – Cellular service for the US, Canada, and other supported countries using the Generac Generator Connectivity Accessory, Cellular (GGCAC).

2 – Requires correctly prepared concrete pad and anchoring system.

3 – Must be located away from doors, windows, and fresh air intakes and in accordance with local codes.

[https://assets.swri.org/library/DirectoryOfListedProducts/ConstructionIndustry/973\\_DoC\\_204\\_13204-01-01\\_Rev9.pdf](https://assets.swri.org/library/DirectoryOfListedProducts/ConstructionIndustry/973_DoC_204_13204-01-01_Rev9.pdf)

**OPTIONAL FIELD-INSTALLABLE FEATURES**

Available as field-installable kits

- Push-Button Emergency Stop
- Cold Weather Operation Heaters

**STANDBY POWER RATING**

Model RG04845 - 48 kW, 60 Hz Emergency Standby Power Generator  
 Model RG06045 - 60 kW, 60 Hz Emergency Standby Power Generator  
 Model RG08045 - 80 kW, 60 Hz Emergency Standby Power Generator



Product may vary  
from above image.



\*Assembled in the USA using domestic and foreign parts

**QUIET-TEST** Mobile **Link**.

EPA Emissions Certified  
CA & MA Emissions Compliant Models

**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 cellular connectivity included with every RG generator, Mobile Link allows users to monitor generator status from anywhere in the world using a smartphone, 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, friendly, 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. Digital voltage regulation at  $\pm 1\%$ .
- **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.

## GENERATOR SPECIFICATIONS

### GENERATOR OUTPUT

#### PROPANE

| Voltage           | RG04845    |             | RG06045    |             | RG08045    |             |
|-------------------|------------|-------------|------------|-------------|------------|-------------|
|                   | Power (kW) | Current (A) | Power (kW) | Current (A) | Power (kW) | Current (A) |
| 120/240 V 1-Phase | 48         | 200         | 60         | 250         | 75         | 312         |
| 208/120 V 3-Phase | 48         | 167         | 60         | 208         | 75         | 260         |
| 240/120 V 3-Phase | 48         | 144         | 60         | 180         | 75         | 226         |
| 480/277 V 3-Phase | 48         | 72          | 60         | 90          | 75         | 113         |

#### NATURAL GAS

| Voltage           | RG04845    |             | RG06045    |             | RG08045    |             |
|-------------------|------------|-------------|------------|-------------|------------|-------------|
|                   | Power (kW) | Current (A) | Power (kW) | Current (A) | Power (kW) | Current (A) |
| 120/240 V 1-Phase | 48         | 200         | 60         | 250         | 80         | 333         |
| 208/120 V 3-Phase | 48         | 167         | 60         | 208         | 80         | 278         |
| 240/120 V 3-Phase | 48         | 144         | 60         | 180         | 80         | 241         |
| 480/277 V 3-Phase | 48         | 72          | 60         | 90          | 80         | 120         |

Emergency Standby Power (ESP) Rating: Standby ratings apply to installations served by a reliable utility source. The ESP rating is applicable to varying loads for the duration of a power outage. The average power output over 24 hours shall not exceed 70% of the ESP rating.

### VOLTAGE REGULATION

|            |              |
|------------|--------------|
| Type       | Digital      |
| Sensing    | Single Phase |
| Regulation | ±1%          |

### ALTERNATOR SYSTEM

|                                     |                   | RG04845       | RG06045 | RG08045 |
|-------------------------------------|-------------------|---------------|---------|---------|
| Circuit Breaker (CB) Size (A)       | 120/240 V 1-Phase | 200           | 300     | 400     |
|                                     | 208/120 V 3-Phase | 175           | 200     | 300     |
|                                     | 240/120 V 3-Phase | 150           | 200     | 300     |
|                                     | 480/277 V 3-Phase | 80            | 100     | 150     |
| Alternator Type                     |                   | Synchronous   |         |         |
| Rotor Insulation Class              |                   | H             |         |         |
| Stator Insulation Class             |                   | H             |         |         |
| Telephone Interference Factor (TIF) |                   | < 50          |         |         |
| Bearings                            |                   | Sealed Ball   |         |         |
| Coupling                            |                   | Flexible Disc |         |         |
| Excitation System                   |                   | Direct        |         |         |
| Total Harmonic Distortion           |                   | < 5%          |         |         |

### SURGE CAPACITY

| Surge Amps at <0.4 Power Factor | RG04845             |                     | RG06045             |                     | RG08045             |                     |
|---------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
|                                 | 15% Voltage Dip (A) | 30% Voltage Dip (A) | 15% Voltage Dip (A) | 30% Voltage Dip (A) | 15% Voltage Dip (A) | 30% Voltage Dip (A) |
| 120/240 V 1-Phase               | 100                 | 300                 | 150                 | 413                 | 283                 | 600                 |
| 208/120 V 3-Phase               | 118                 | 242                 | 135                 | 313                 | 236                 | 500                 |
| 240/120 V 3-Phase               | 144                 | 260                 | 117                 | 289                 | 204                 | 432                 |
| 480/277 V 3-Phase               | 64                  | 123                 | 54                  | 122                 | 102                 | 192                 |

# GENERATOR SPECIFICATIONS

## ENGINE SYSTEM

|                                                          | RG04845                                                   | RG06045-RG08045                                           |
|----------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|
| Make                                                     | Generac                                                   |                                                           |
| Model                                                    | 4.5 L Inline 4-Cylinder, Naturally Aspirated              | 4.5 L Inline 4-Cylinder, Turbocharged & Aftercooled       |
| Compression Ratio                                        | 9.9:1                                                     | 8.9:1                                                     |
| Lifter Type                                              | Hydraulic                                                 |                                                           |
| Oil Pump Type                                            | Gear                                                      |                                                           |
| Oil Filter Type                                          | Full Flow Spin-on Cartridge                               |                                                           |
| Crankcase Capacity (qt (L))                              | 12 (11)                                                   |                                                           |
| Temperature Derate                                       | 1.7% per 10 °F above 77 °F<br>(1.5% per 5 °C above 25 °C) |                                                           |
| Altitude Derate                                          | 3% per 1,000 ft above 600 ft (1% per 100 m above 183 m)   | 3% per 1,000 ft above 3,000 ft (1% per 100 m above 915 m) |
| Exercise Speed (rpm)                                     | 1,500                                                     |                                                           |
| Operating Speed (rpm)                                    | 1,800                                                     |                                                           |
| Exhaust Flow at Rated Output (cfm (m <sup>3</sup> /min)) | 104 (2.9)                                                 | 181 (5.1)                                                 |

## GOVERNOR

|                      |             |
|----------------------|-------------|
| Type                 | Electronic  |
| Frequency Regulation | Isochronous |

## COOLING SYSTEM

|                                           | RG04845                     | RG06045-RG08045 |
|-------------------------------------------|-----------------------------|-----------------|
| Coolant                                   | 50/50 (50% Ethylene Glycol) |                 |
| Coolant System Capacity (US gal (L))      | 2.9 (11)                    | 4.5 (17)        |
| Water Pump Type                           | Belt Driven                 |                 |
| Fan Type                                  | Belt Driven                 |                 |
| Fan Quantity                              | 1                           |                 |
| Maximum Ambient Air Temperature (°F (°C)) | 122 (50)                    |                 |

## GENERATOR SPECIFICATIONS

## FUEL SYSTEM

|                                               |                                               |
|-----------------------------------------------|-----------------------------------------------|
| Fuel Types                                    | Liquid Propane (LP) Vapor or Natural Gas (NG) |
| Fuel Type Configuration                       | Controller-Selected Only                      |
| LP Vapor Pressure (in H <sub>2</sub> O (kPa)) | 7-14 (1.74-3.48)                              |
| NG Pressure (in H <sub>2</sub> O (kPa))       | 3.5-14 (0.87-3.48)                            |
| Fuel Shutoff Solenoid                         | Standard                                      |

## FUEL CONSUMPTION

## LIQUID PROPANE

| Rated Load | RG04845  |       | RG06045  |       | RG08045  |       |
|------------|----------|-------|----------|-------|----------|-------|
|            | (US gph) | (L/h) | (US gph) | (L/h) | (US gph) | (L/h) |
| Exercise   | 0.7      | 2.6   | 0.9      | 3.4   | 0.9      | 3.4   |
| 25%        | 2.9      | 11.0  | 2.1      | 7.9   | 2.6      | 9.8   |
| 50%        | 4.2      | 15.9  | 4.4      | 16.7  | 5.7      | 21.6  |
| 75%        | 5.3      | 20.1  | 6.8      | 25.7  | 8.3      | 31.4  |
| 100%       | 6.6      | 25.0  | 8.4      | 31.8  | 10.8     | 40.9  |

Propane - 91,452 BTU/US gal (25.5 MJ/L); 36 ft<sup>3</sup>/US gal (0.27 m<sup>3</sup>/L); 2,540 BTU/ft<sup>3</sup> (94.6 MJ/m<sup>3</sup>); 4.24 lb/US gal (0.508 kg/L)

## NATURAL GAS

| Rated Load | RG04845 |                     | RG06045 |                     | RG08045 |                     |
|------------|---------|---------------------|---------|---------------------|---------|---------------------|
|            | (cfh)   | (m <sup>3</sup> /h) | (cfh)   | (m <sup>3</sup> /h) | (cfh)   | (m <sup>3</sup> /h) |
| Exercise   | 101     | 2.9                 | 103     | 2.9                 | 103     | 2.9                 |
| 25%        | 201     | 5.7                 | 257     | 7.3                 | 292     | 8.3                 |
| 50%        | 336     | 9.5                 | 432     | 12.2                | 534     | 15.1                |
| 75%        | 447     | 12.7                | 618     | 17.5                | 799     | 22.6                |
| 100%       | 607     | 17.2                | 808     | 22.9                | 1,063   | 30.1                |

Natural Gas - 1,036 BTU/ft<sup>3</sup> (38.6 MJ/m<sup>3</sup>)

See Emissions Data Sheets for maximum fuel flow for EPA and SCAQMD permitting purposes

## ELECTRICAL SYSTEM

|                                    |                                              |
|------------------------------------|----------------------------------------------|
| System Voltage (V)                 | 12                                           |
| Charge Alternator (A)              | 35                                           |
| Battery Charger (A)                | 2.5                                          |
| Recommended Battery (not included) | Flooded Lead Acid, Group 27, 600 CCA Minimum |
| Maximum Battery Size               | Flooded Lead Acid, Group 31, 750 CCA Minimum |

## ENCLOSURE

|                                                     | RG04845   | RG06045 | RG08045 |
|-----------------------------------------------------|-----------|---------|---------|
| Sound Level at Exercise Speed (dB(A) @ 23 ft [7 m]) | 68        | 68      | 68      |
| Wind Speed Rating (mph (km/h))                      | 115 (185) |         |         |
| Color                                               | Bisque    |         |         |

# GENERATOR SPECIFICATIONS

## CONTROLLER FEATURES

|                                                                     |                                                                                            |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Two-Line Plain Text LCD                                             | Simple user interface for ease of operation.                                               |
| Multi-Lingual                                                       | English, French, Spanish, and Portuguese                                                   |
| Mode Switch: AUTO                                                   | Automatic Start on Utility failure. 7 day exerciser.                                       |
| OFF                                                                 | Stops unit. Power is removed. Control and charger still operate.                           |
| MANUAL                                                              | Start with starter control, unit stays on. If utility fails, transfer to load takes place. |
| Programmable start delay between 10 – 30 seconds                    | Standard 10 sec                                                                            |
| Engine Start Sequence                                               | Cyclic cranking: 16 sec on, 7 rest (90 sec maximum duration)                               |
| Engine Warm-up                                                      | 5 sec                                                                                      |
| Engine Cool-Down                                                    | 1 min                                                                                      |
| Starter Lock-out                                                    | Starter cannot re-engage until 5 sec after engine has stopped.                             |
| Smart Battery Charger                                               | Standard                                                                                   |
| Automatic Voltage Regulation with Over and Under Voltage Protection | Standard                                                                                   |
| Automatic Low Oil Pressure Shutdown                                 | Standard                                                                                   |
| Overspeed Shutdown                                                  | Standard, 72 Hz                                                                            |
| High Temperature Shutdown                                           | Standard                                                                                   |
| Overcrank Protection                                                | Standard                                                                                   |
| Safety Fused                                                        | Standard                                                                                   |
| Failure to Transfer Protection                                      | Standard                                                                                   |
| Low Battery Protection                                              | Standard                                                                                   |
| 50 Event Run Log                                                    | Standard                                                                                   |
| Future Set Capable Exerciser                                        | Standard                                                                                   |
| Incorrect Wiring Protection                                         | Standard                                                                                   |
| Internal Fault Protection                                           | Standard                                                                                   |
| Common External Fault Capability                                    | Standard                                                                                   |
| Governor Failure Protection                                         | Standard                                                                                   |

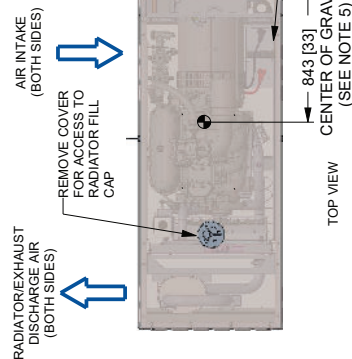
## AVAILABLE ACCESSORIES

| PRODUCT                                                    | PART NUMBER | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Control System Kits</b>                                 |             |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Generac Generator Connectivity Accessory, Cellular (GGCAC) | 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. Available for RG048/60/80 generators without cellular connectivity; NEW RG048/60/80 generators include the GGCAC as standard. |
| Enclosure Mounted Emergency Stop Kit                       | G0079930    | Emergency Stop consists of a red push button switch. It mounts to the exterior of the generator enclosure. It 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 twist release. The switch has an aluminum enclosure which can be mounted extending out from a surface. It 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. The switch has an aluminum enclosure which can be mounted flush. It 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. The switch is behind breakable glass in an aluminum enclosure. The glass can be broken with a tethered hammer. It 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 amount of LP fuel remaining in the tank. The app alerts the user of both remaining LP fuel and usage reports, offering the ultimate peace of mind.                                                                                                                                                                                       |
| <b>Operating Environment Kits</b>                          |             |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Battery Heater Kit                                         | G0079920    | Recommended for operating environments where the temperature drops below 32 °F (0 °C); externally powered by 120 VAC, 60 Hz.                                                                                                                                                                                                                                                                                                           |
| Engine Block Heater Kit                                    | G0099230    | Recommended for operating environments where the temperature drops below 0 °F (-18 °C); externally powered by 120 VAC, 60 Hz.                                                                                                                                                                                                                                                                                                          |
| <b>Installation Kits</b>                                   |             |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Base Plug Kit                                              | G0056510    | Base plugs to fit in the lifting holes of the baseframe to keep debris out.                                                                                                                                                                                                                                                                                                                                                            |
| <b>Maintenance Kits</b>                                    |             |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 4.5 L Gaseous Engine Regular Maintenance Kit               | G0079910    | 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.                                                                                                                                                                                                        |

48 KW

Drawing #A0000293718-D (1 of 2)

| WEIGHT DATA |                    |                             |                               |
|-------------|--------------------|-----------------------------|-------------------------------|
| ENGINE/KW   | ENCLOSURE MATERIAL | WEIGHT GENSET ONLY KG [LBS] | WEIGHT SHIPPING SKID KG [LBS] |
| 4.3L/48KW   | AL                 | 808 [1781]                  | 51 [112]                      |
|             |                    |                             | 859 [1893]                    |



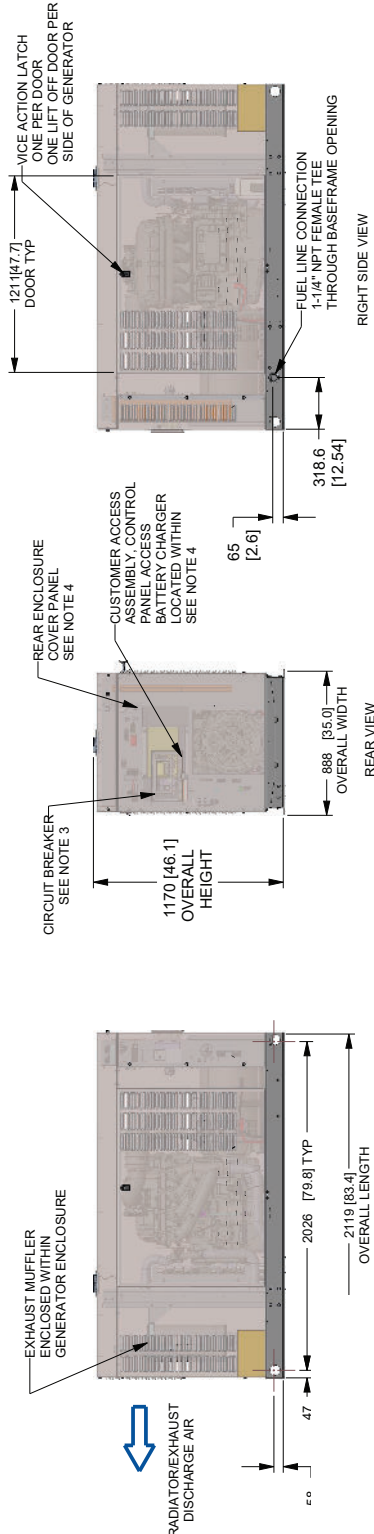
| SERVICE ITEM            | 4.5L        |
|-------------------------|-------------|
| OIL FILL CAP            | LEFT SIDE   |
| OIL DIP STICK           | LEFT SIDE   |
| OIL FILTER              | LEFT SIDE   |
| OIL DRAIN HOSE          | RIGHT SIDE  |
| RADIATOR DRAIN HOSE     | RIGHT SIDE  |
| COOLANT RECOVERY BOTTLE | RIGHT SIDE  |
| RADIATOR FILL CAP       | ROOF TOP    |
| AIR CLEANER ELEMENT     | LEFT SIDE   |
| SPARK PLUGS             | LEFT SIDE   |
| MUFFLER                 | SEE NOTE 11 |
| DRIVE BELT              | EITHER SIDE |
| BATTERY                 | LEFT SIDE   |

REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PARTS LIST

BATTERY 12V  
GROUP 37  
NEGATIVE GROUND  
P/N G358665

#### NOTES:

1. MINIMUM RECOMMENDED CONCRETE PAD SIZE IS 6" OFFSET OF OVERALL LENGTH AND WIDTH OF GENERATOR (1193.8 (47") WIDE X 2423.2 (95.4") LONG). REFERENCE INSTALLATION GUIDE SUPPLIED WITH THE UNIT FOR CONCRETE PAD GUIDELINES. REFERENCE MANUFACTURER'S SPECIFICATIONS IF USING ENGINEERED, PREFABRICATED SLABS.
2. ALLOW SUFFICIENT ROOM ON ALL SIDES OF THE GENERATOR FOR MAINTENANCE AND SERVICING. THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH CURRENT APPLICABLE NFPA 37 AND NFPA 70 STANDARDS AS WELL AS ANY OTHER FEDERAL, STATE, AND LOCAL CODES.
3. CONTROL PANEL / CIRCUIT BREAKER INFORMATION:  
- SEE SPECIFICATION SHEET OR OWNERS MANUAL  
- ACCESSIBLE THROUGH CUSTOMER ACCESS ASSEMBLY DOOR ON REAR OF GENERATOR.
4. REMOVE THE REAR ENCLOSURE COVER PANEL TO ACCESS:  
THE STUB-UP AREAS AS FOLLOWS:  
- HIGH VOLTAGE CONNECTION INCLUDING AC LOAD LEAD CONDUIT CONNECTION  
- NEUTRAL CONNECTION, BATTERY CHARGER 120 VOLT AC (0.5 AMP MAX) CONNECTION.  
- LOW VOLTAGE CONNECTION INCLUDING TRANSFER SWITCH CONTROL WIRES.
5. CENTER OF GRAVITY AND WEIGHT MAY CHANGE DUE TO UNIT OPTIONS.
6. BOTTOM OF GENERATOR SET MUST BE ENCLOSED TO PREVENT PEST INTRUSION AND RECYCLE COOLING AIR FROM EXHAUST AIR FOR COOLING AIR FLOW.
7. REFERENCE PERMANENT FOR THE WIRING.
8. RECOMMENDED MOUNTING BOLTS OR STUDS TO MOUNTING SURFACE SHALL BE 1/2" DIAMETER (USE STANDARD SAE TORQUE SPECS).
9. MUST ALLOW FREE FLOW OF INTAKE AIR, DISCHARGE AIR AND EXHAUST. SEE SPEC SHEET FOR MINIMUM AIR FLOW AND MAXIMUM RESTRICTION REQUIREMENTS.
10. GENERATOR MUST BE INSTALLED SUCH THAT FRESH COOLING AIR IS AVAILABLE AND THAT DISCHARGE AIR FROM RADIATOR IS NOT RECIRCULATED.
11. EXHAUST MUFFLER ENCLOSED WITHIN GENERATOR ENCLOSURE. REMOVE FRONT PANEL TO ACCESS.

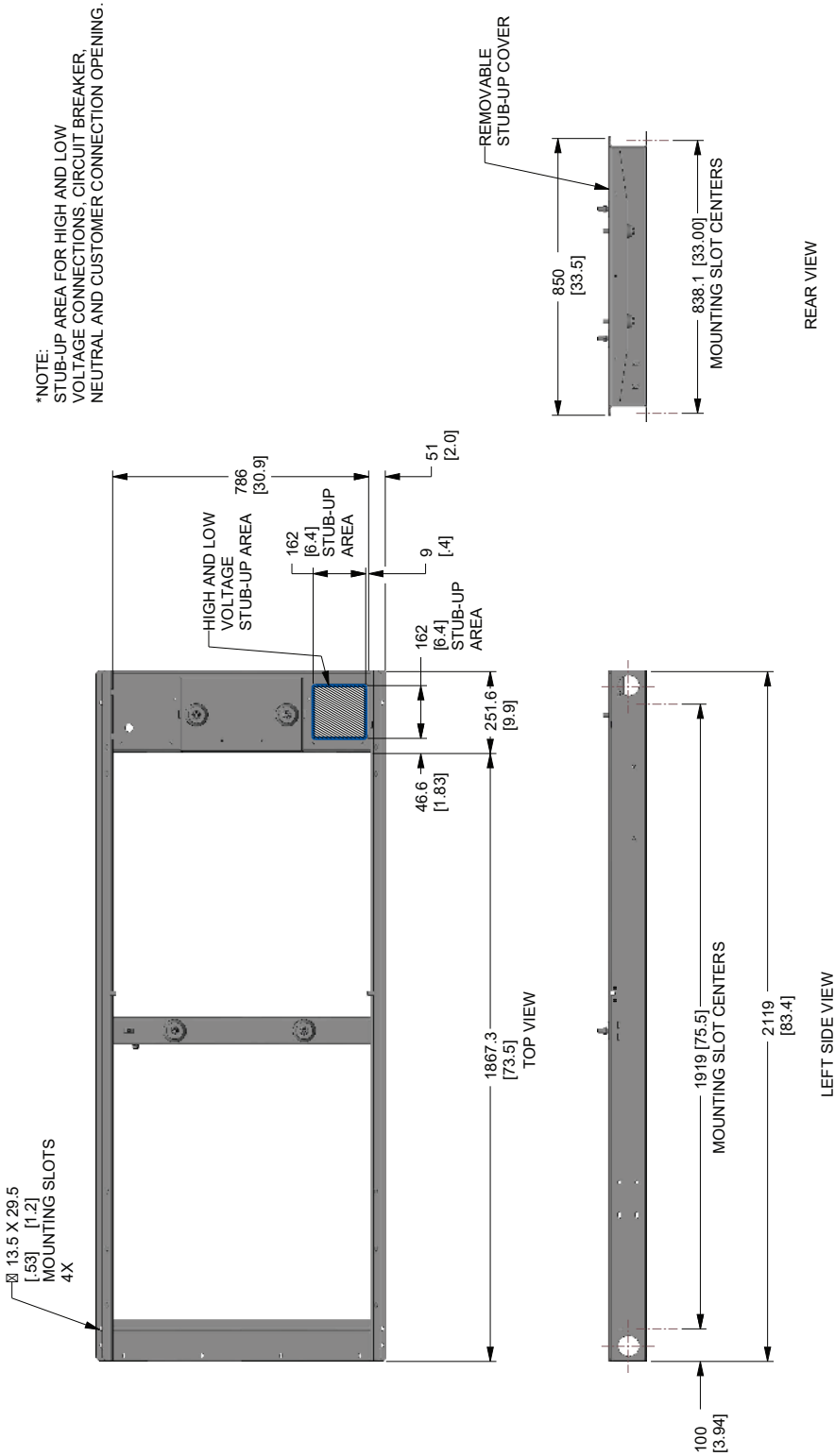


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INSTALLATION DRAWING

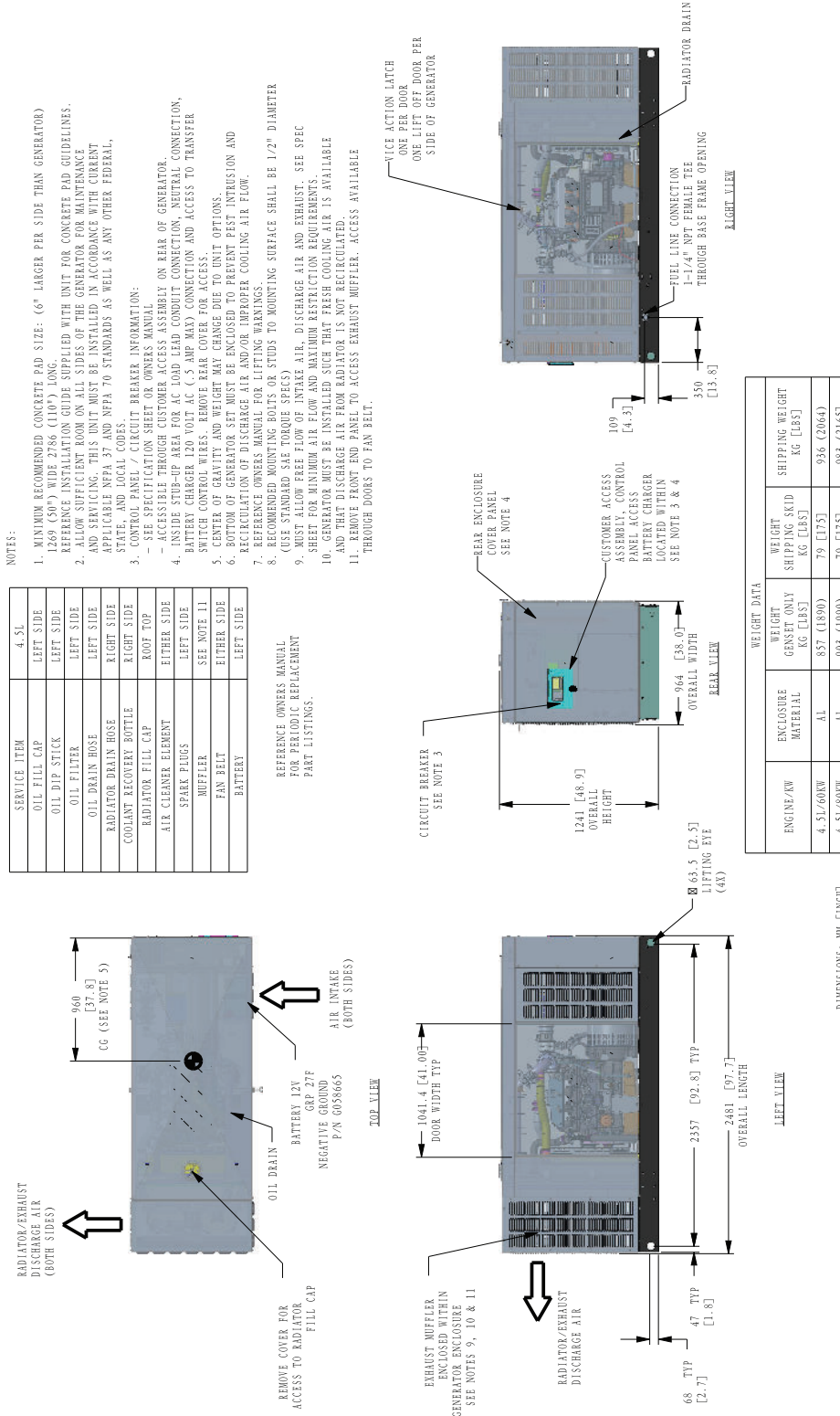
48 KW

Drawing #A0000293718-D (2 of 2)



60 / 80 KW

Drawing #A0000293264 Rev B (1 of 2)



# INSTALLATION DRAWING

60 / 80 KW

Drawing #A0000293264 Rev B (2 of 2)

