

## Protector™ Series

### Diesel Generator Set

#### INCLUDES:

- Two Line LCD Multilingual Digital Evolution™ Controller (English/Spanish/French/Portuguese) with external viewing window for easy indication of generator status and breaker position.
- Isochronous Electronic Governor
- Sound Attenuated Aluminum Enclosure
- Smart Battery Charger
- UV/Ozone Resistant Hoses
- ±1% Voltage Regulation
- Integrated Base Tank Provides Up to 40 Hours of Run Time
- 5 Year Limited Warranty\*
- UL/CUL2200/UL 142 Listed
- Meets code requirements for External Vent and Fill

#### Standby Power Rating

- Model RD015 - 15 kW 60 Hz
- Model RD020 - 20 kW 60 Hz
- Model RD030 - 30 kW 60 Hz
- Model RD048 - 48 kW 60 Hz (single phase only)
- Model RD050 - 50 kW 60 Hz (three phase only)



QUIET-TEST™



\*Built in the USA using domestic and foreign parts

Meets EPA Emission Regulations  
CA/MA Emissions Compliant

\* 5 year warranty applicable to U.S. and Territories/Canada. International warranty is 3 year limited.

## 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.
- **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 ±1%.
- **TEST CRITERIA:**
  - ✓ PROTOTYPE TESTED
  - ✓ NEMA MG1-22 EVALUATION
  - ✓ SYSTEM TORSIONAL TESTED
  - ✓ MOTOR STARTING ABILITY
- **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 that the GENERAC product line includes its own transfer systems and controls for total system compatibility.

**15 • 20 • 30 • 48 • 50 kW****application & engineering data****GENERATOR SPECIFICATIONS**

|                                     |                                      |
|-------------------------------------|--------------------------------------|
| Type                                | Synchronous                          |
| Rotor Insulation Class              | H (15 & 20 kW) or F (30, 48 & 50 kW) |
| Stator Insulation Class             | H                                    |
| Telephone Interference Factor (TIF) | <50                                  |
| Alternator Output Leads 1-Phase     | 3 wire                               |
| Alternator Output Leads 3-Phase     | 6 wire                               |
| Bearings                            | Single Sealed Cartridge              |
| Coupling                            | Direct, Flexible Disc                |
| Excitation System                   | Direct                               |

**VOLTAGE REGULATION**

|            |                           |
|------------|---------------------------|
| Type       | Electronic                |
| Sensing    | Single Phase              |
| Regulation | ± 1%                      |
| Features   | Adjustable Voltage & Gain |

**GOVERNOR SPECIFICATIONS**

|                         |                        |
|-------------------------|------------------------|
| Type                    | Electronic Isochronous |
| Steady State Regulation | ± 0.25%                |

**ELECTRICAL SYSTEM**

|  |  |
|--|--|
| Battery Charge Alternator                  | 50 Amp (15 & 20 kW) or 70 Amp (30, 48 & 50 kW) |
| Smart Battery Charger                      | 2 Amp  |
| Recommended Battery (battery not included) | Group 27F, 700 CCA                             |
| System Voltage                             | 12 Volts                                       |

**GENERATOR FEATURES**

Revolving field heavy duty generator  
 Directly connected to the engine  
 Operating temperature rise 120°C above a 40°C ambient  
 Class H insulation is NEMA rated  
 Class F insulation is NEMA rated  
 All models fully prototype tested

**ENCLOSURE FEATURES**

|                                       |  |
|---------------------------------------|--|
| 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 and maximize sound dampening.     |
| 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)

## 15 • 20 • 30 • 48 • 50 kW

## application & engineering data

### ENGINE SPECIFICATIONS: 15 & 20 kW

|                          |                      |
|--------------------------|----------------------|
| Make                     | Generac              |
| Model                    | In-line              |
| Cylinders                | 4                    |
| Displacement (Liters)    | 2.28                 |
| Bore (in./mm)            | 3.46/88              |
| Stroke (in./mm)          | 3.70/94              |
| Compression Ratio        | 21.3:1               |
| Intake Air System        | Naturally Aspirated  |
| Cylinder Head Type       | Cast Iron OHV        |
| Piston Type              | Aluminum             |
| EPA Emissions Compliance | Emergency Stationary |

### ENGINE SPECIFICATIONS: 30 kW

|                          |                      |
|--------------------------|----------------------|
| Make                     | Generac              |
| Model                    | In-line              |
| Cylinders                | 4                    |
| Displacement (Liters)    | 2.4                  |
| Bore (in./mm)            | 3.54/90              |
| Stroke (in./mm)          | 3.70/94              |
| Compression Ratio        | 21.3:1               |
| Intake Air System        | Turbocharged         |
| Cylinder Head Type       | Cast Iron OHV        |
| Piston Type              | Aluminum             |
| EPA Emissions Compliance | Emergency Stationary |

### ENGINE SPECIFICATIONS: 48/50 kW

|                          |                          |
|--------------------------|--------------------------|
| Make                     | Generac                  |
| Model                    | In-Line                  |
| Cylinders                | 4                        |
| Displacement (Liters)    | 3.4                      |
| Bore in/mm               | 3.86/98                  |
| Stroke in/mm             | 4.45/113                 |
| Compression Ratio        | 18.5:1                   |
| Intake Air System        | Turbocharged/Aftercooled |
| Cylinder Head Type       | Cast Iron OHV            |
| Piston Type              | Aluminum                 |
| EPA Emissions Compliance | Emergency Stationary     |

### WEIGHTS AND DIMENSIONS

|                            | 15 kW                       | 20 kW | 30 kW                       | 48 kW    | 50 kW |
|----------------------------|-----------------------------|-------|-----------------------------|----------|-------|
| Weight (lb/kg)             | 1380/626                    |       | 1927/874                    | 2197/997 |       |
| Dimensions (LxWxH) (in/cm) | 81 x 31 x 50/205 x 78 x 128 |       | 95 x 35 x 57/242 x 89 x 145 |          |       |

### ENGINE LUBRICATION SYSTEM

|                                    |                            |
|------------------------------------|----------------------------|
| Oil Pump Type                      | Gear                       |
| Oil Filter Type                    | Full flow spin-on canister |
| Crankcase Capacity (quarts/liters) | 6.87/6.5 - 15 & 20 kW      |
|                                    | 6.8/6.4 - 30 kW            |
|                                    | 7.4/7 - 48 & 50 kW         |

### ENGINE COOLING SYSTEM

|                       |   |
|-----------------------|---|
| Type                  | Pressurized radiator - 15 & 20 kW<br>Closed recovery - 30, 48 & 50 kW |
| Water Pump            | Pre-lubed, self-sealing   |
| Fan Speed (rpm)       | 1800 - 15 & 20 kW   |
|                       | 2061 - 30 kW  |
|                       | 2029 - 48 & 50 kW   |
| Fan Diameter (in./mm) | 18.11/460 (15 & 20 kW)<br>22/559 (30, 48 & 50 kW)                     |
| Fan Mode              | Pusher  |

### FUEL SYSTEM

|                          |                                  |
|--------------------------|----------------------------------|
| Fuel Type                | Ultra Low Sulfur Diesel Fuel     |
| Fuel Pump Type           | Mechanical Engine Driven<br>Gear |
| Injector Type            | Mechanical                       |
| Fuel Supply Line (mm/in) | 7.94/0.31 (ID)                   |
| Fuel Return Line (mm/in) | 7.94/0.31 (ID)                   |
| Fuel Specification       | ASTM                             |
| Fuel Filtering (microns) | 5 - 15, 20 & 30 kW               |
|                          | 10 - 48 & 50 kW                  |

### TANK SPECIFICATIONS

|                              |                           |
|------------------------------|---------------------------|
| Total Size (gallons/liters)  | 34/128.7 - 15 & 20 kW     |
|                              | 62/234.7 - 30, 48 & 50 kW |
| Usable Size (gallons/liters) | 32/121.1 - 15 & 20 kW     |
|                              | 57/215.8 - 30, 48 & 50 kW |
| Run Time @ 1/2 Load (hrs)    | 41 - 15 kW                |
|                              | 31 - 20 kW                |
|                              | 38 - 30 kW                |
|                              | 25 - 48 & 50 kW           |
| Listings                     | UL142                     |

**15 • 20 • 30 • 48 • 50 kW**

**operating data**

**GENERATOR OUTPUT VOLTAGE/kW - 60 Hz**

|                 |                       | <b>kW (Standby)</b> | <b>Amp (Standby)</b> | <b>CB Size</b> |
|-----------------|-----------------------|---------------------|----------------------|----------------|
| RD015           | 120/240 V, 1Ø, 1.0 pf | 15                  | 62                   | 70             |
|                 | 120/208 V, 3Ø, 0.8 pf | 15                  | 52                   | 60             |
|                 | 120/240 V, 3Ø, 0.8 pf | 15                  | 45                   | 50             |
| RD020           | 120/240 V, 1Ø, 1.0 pf | 20                  | 83                   | 100            |
|                 | 120/208 V, 3Ø, 0.8 pf | 20                  | 69                   | 80             |
|                 | 120/240 V, 3Ø, 0.8 pf | 20                  | 60                   | 70             |
| RD030           | 120/240 V, 1Ø, 1.0 pf | 30                  | 125                  | 150            |
|                 | 120/208 V, 3Ø, 0.8 pf | 30                  | 104                  | 125            |
|                 | 120/240 V, 3Ø, 0.8 pf | 30                  | 90                   | 100            |
|                 | 277/480 V, 3Ø, 0.8 pf | 30                  | 45                   | 50             |
| RD048/<br>RD050 | 120/240 V, 1Ø, 1.0 pf | 48                  | 200                  | 200            |
|                 | 120/208 V, 3Ø, 0.8 pf | 50                  | 173                  | 200            |
|                 | 120/240 V, 3Ø, 0.8 pf | 50                  | 150                  | 175            |
|                 | 277/480 V, 3Ø, 0.8 pf | 50                  | 75                   | 90             |

**SURGE CAPACITY IN AMPS**

|                 |               | <b>Voltage Dip @ &lt; .4 pf</b> |     |
|-----------------|---------------|---------------------------------|-----|
|                 |               | 15%                             | 30% |
|                 |               |                                 |     |
| RD015           | 120/240 V, 1Ø | 53                              | 129 |
|                 | 120/208 V, 3Ø | 37                              | 90  |
|                 | 120/240 V, 3Ø | 32                              | 78  |
| RD020           | 120/240 V, 1Ø | 87                              | 211 |
|                 | 120/208 V, 3Ø | 59                              | 143 |
|                 | 120/240 V, 3Ø | 51                              | 124 |
| RD030           | 120/240 V, 1Ø | 66                              | 168 |
|                 | 120/208 V, 3Ø | 59                              | 144 |
|                 | 120/240 V, 3Ø | 51                              | 125 |
|                 | 277/480 V, 3Ø | 26                              | 64  |
| RD048/<br>RD050 | 120/240 V, 1Ø | 69                              | 189 |
|                 | 120/208 V, 3Ø | 90                              | 218 |
|                 | 120/240 V, 3Ø | 78                              | 189 |
|                 | 277/480 V, 3Ø | 36                              | 87  |

**ENGINE FUEL CONSUMPTION**

|                 |                    | gal/hr | L/hr  |
|-----------------|--------------------|--------|-------|
|                 |                    |        |       |
| RD015           | 25% of rated load  | 0.51   | 1.93  |
|                 | 50% of rated load  | 0.79   | 2.99  |
|                 | 75% of rated load  | 1.14   | 4.31  |
|                 | 100% of rated load | 1.48   | 5.58  |
| RD020           | 25% of rated load  | 0.67   | 2.6   |
|                 | 50% of rated load  | 1.05   | 3.97  |
|                 | 75% of rated load  | 1.52   | 5.32  |
|                 | 100% of rated load | 1.98   | 7.48  |
| RD030           | 25% of rated load  | 0.92   | 3.5   |
|                 | 50% of rated load  | 1.45   | 5.5   |
|                 | 75% of rated load  | 1.96   | 7.4   |
|                 | 100% of rated load | 2.74   | 10.4  |
| RD048/<br>RD050 | 25% of rated load  | 1.35   | 5.11  |
|                 | 50% of rated load  | 2.15   | 8.14  |
|                 | 75% of rated load  | 3.06   | 11.58 |
|                 | 100% of rated load | 3.98   | 15.07 |

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.

**15 • 20 • 30 • 48 • 50 kW**

**operating data**

**ENGINE COOLING**

|   | 15 kW     | 20 kW     | 30 kW         | 48/50 kW      |
|---|-----------|-----------|---------------|---------------|
| Air flow (inlet air including alternator and combustion air in cfm/cmm) | 2824/80   | 2824/80   | 3038/86       | 2824/80       |
| System coolant capacity (gal/liters)                                    | 2.8/10.6  | 2.8/10.6  | 2.8/10.6      | 2.8/10.6      |
| Heat rejection to coolant (BTU per hr/MJ per hr)                        | 63,535/67 | 63,535/67 | 111,000/117.1 | 135,900/143.4 |
| Maximum operation air temperature on radiator (°C/°F)                   | 50/122    |           |               |               |
| Maximum ambient temperature (°C/°F)                                     | 50/122    |           |               |               |

**COMBUSTION REQUIREMENTS**

|                               |           |           |         |          |
|-------------------------------|-----------|-----------|---------|----------|
| Flow at rated power (cfm/cmm) | 84.76/2.4 | 84.76/2.4 | 90/2.55 | 190/5.38 |
|-------------------------------|-----------|-----------|---------|----------|

**SOUND EMISSIONS**

|   |    |
|---|----|
| Sound output in dB(A) at 23 ft (7 m) with generator in exercise mode*         | 65 |
| Sound output in dB(A) at 23 ft (7 m) with generator operating at normal load* | 70 |

\*Sound levels are taken from the front of the generator. Sound levels taken from other sides of the generator may be higher depending on installation parameters.

**EXHAUST**

|   |            |            |           |            |
|---|------------|------------|-----------|------------|
| Exhaust flow at rated output (cfm/cmm)      | 98.88/2.8  | 98.88/2.8  | 230/6.51  | 448/12.7   |
| Exhaust temperature at rated output (°C/°F) | 604.4/1120 | 604.4/1120 | 454.4/850 | 604.4/1120 |

**ENGINE PARAMETERS**

|                       |      |      |    |    |
|-----------------------|------|------|----|----|
| Rated Synchronous RPM | 1800 |      |    |    |
| HP at rated kW        | 26.4 | 33.5 | 49 | 85 |

**POWER ADJUSTMENT FOR AMBIENT CONDITIONS**

|  |  |
|--|--|
| Temperature Deration .....                   | 3% for every 5 °C above 25 °C or 1.7% for every 5 °F above 77 °F     |
| Altitude Deration (15, 30, 48 & 50 kW) ..... | 1% for every 100 m above 915 m or 3% for every 1000 ft above 3000 ft |
| Altitude Deration (20 kW) .....              | 1% for every 100 m above 305 m or 3% for every 1000 ft above 1000 ft |

**CONTROLLER FEATURES**

|   |  |
|---|--|
| 2-Line Plain Text Multilingual LCD Display .....                              | Simple user interface for ease of operation.   |
| Mode Buttons: Auto .....  | Automatic Start on Utility failure. Programmable 7 day exerciser.                          |
| Manual .....  | Start with starter control, unit stays on. If utility fails, transfer to load takes place. |
| Off .....   | Stops unit. Power is removed. Control and charger still operate.                           |
| Ready to Run/Maintenance Messages .....                                       | Standard   |
| Engine Run Hours Indication .....   | Standard   |
| Programmable start delay between 2-1500 seconds .....                         | Standard (programmable by dealer only)   |
| Utility Voltage Loss/Return to Utility Adjustable .....                       | From 140-171 V/190-216 V   |
| Future Set Capable Exerciser/Exercise Set Error Warning .....                 | Standard   |
| Run/Alarm/Maintenance Logs .....  | 50 Events Each   |
| Engine Start Sequence .....   | Cyclic cranking: 16 sec on, 7 rest (90 sec maximum duration).                              |
| Starter Lock-out .....  | Starter cannot re-engage until 5 sec after engine has stopped.                             |
| Smart Battery Charger .....   | Standard   |
| Charger Fault/Missing AC Warning .....  | Standard   |
| Low Battery/Battery Problem Protection and Battery Condition Indication ..... | Standard   |
| Automatic Voltage Regulation with Over and Under Voltage Protection .....     | Standard   |
| Under-Frequency/Overload/Stepper Overcurrent Protection .....                 | Standard   |
| Safety Fused/Fuse Problem Protection .....                                    | Standard   |
| Automatic Low Oil Pressure/High Oil Temperature Shutdown .....                | Standard   |
| Overcrank/Overspeed (@ 72 Hz)/RPM Sense Loss Shutdown .....                   | Standard   |
| High Engine Temperature Shutdown .....  | Standard   |
| Internal Fault/Incorrect Wiring Protection .....                              | Standard   |
| Common External Fault Capability .....  | Standard   |
| Field Upgradable Firmware .....   | Standard   |

15 & 20 kW

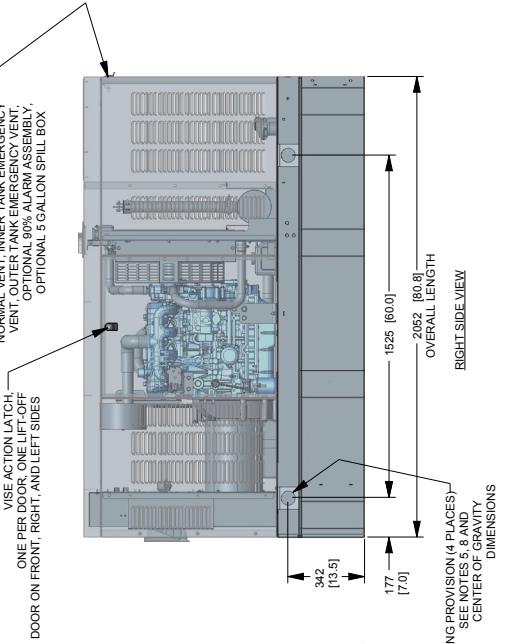
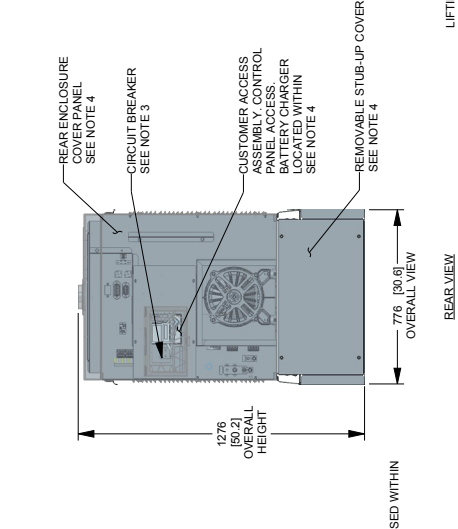
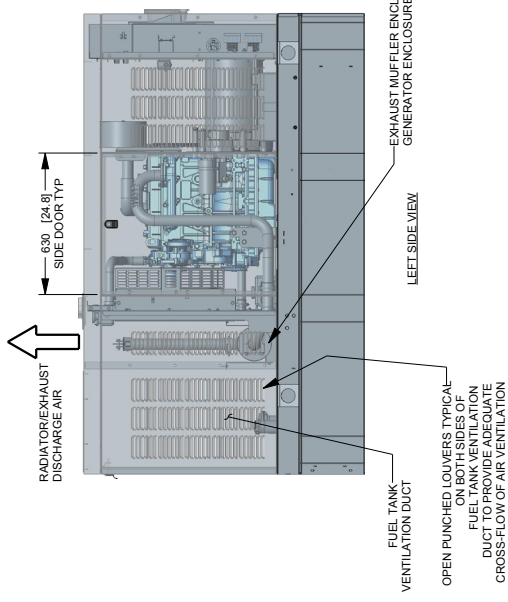
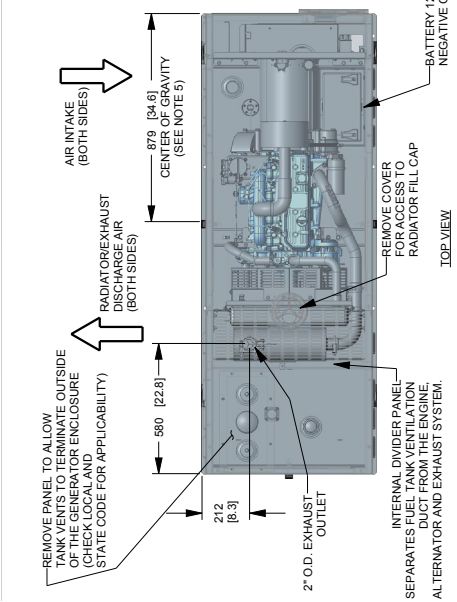
Drawing #0K7025-A (1 of 2)

| SERVICE ITEM             | 2, 3L       | WEIGHT DATA WITH EMPTY BASE/TANK (SEE NOTE 5) |
|--------------------------|-------------|---|
| OIL FILL CAP             | RIGHT SIDE  | GENERATOR AS SHOWN 628 [1380]                 |
| OIL DIP STICK            | RIGHT SIDE  | WITH WOODEN SHIPPING SKID 665 [1465]          |
| OIL FILTER               | RIGHT SIDE  | WEIGHT, KG (LBS)                              |
| OIL DRAIN HOSE           | RIGHT SIDE  | DIMENSIONS, MM (INCH)                         |
| RADIATOR DRAIN HOSE      | LEFT SIDE   |   |
| COOLANT RECOVERY BOTTLE  | LEFT SIDE   |   |
| RADIATOR FILL CAP ACCESS | ROOF TOP    |   |
| AIR CLEANER ELEMENT      | EITHER SIDE |   |
| MUFFLER                  | FRONT       |   |
| FAN BELT                 | EITHER SIDE |   |
| BATTERY                  | LEFT SIDE   |   |

NOTES:

- MINIMUM RECOMMENDED CONCRETE PAD SIZE-1,092 (43") WIDE X 2,956 (93") LONG. REFERENCE INSTALLATION GUIDE SUPPLIED WITH UNIT FOR CONCRETE PAD GUIDELINES.
- 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.
- SEE SPECIFICATION SHEET OR OWNERS MANUAL FOR LIFTING INFORMATION.
- REMOVE THE STUB-UP TANK AND REAR ENCLOSURE COVER PANELS TO ACCESS THE STUB-UP AREAS AS FOLLOWS:
  - HIGH VOLTAGE CONNECTION INCLUDING AC LOAD LEAD CONDUIT CONNECTION, HIGH VOLTAGE CONNECTION INCLUDING TRANSFER SWITCH CONTROL WIRES AND ACCESSORY RELAY CONNECTION (QTY 4)
- CENTER OF GRAVITY AND WEIGHT MAY CHANGE DUE TO UNIT OPTIONS.
- BOTTOM OF GENERATOR SET MUST BE ENCLOSED TO PREVENT PEST INTRUSION AND RECIRCULATION OF DISCHARGE AIR AND/OR IMPROPER COOLING AIR FLOW.
- SEE SPECIFICATION SHEET OR OWNERS MANUAL FOR LIFTING WARNINGS.
- REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS.
- MOUNTING BOLTS OR STUDS TO MOUNTING SURFACE SHALL BE 5/8-11 GRADE 5 (USE STANDARD SAE TORQUE SPECS)
- MUST ALLOW FREE FLOW OF INTAKE AIR, DISCHARGE AIR AND EXHAUST. SEE SPEC SHEET FOR MINIMUM AIR FLOW RESTRICTION REQUIREMENTS.
- GENERATOR MUST BE INSTALLED SUCH THAT FRESH COOLING AIR IS AVAILABLE AND THAT DISCHARGE AIR FROM RADIATOR IS NOT RECIRCULATED.

REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PART LISTINGS.

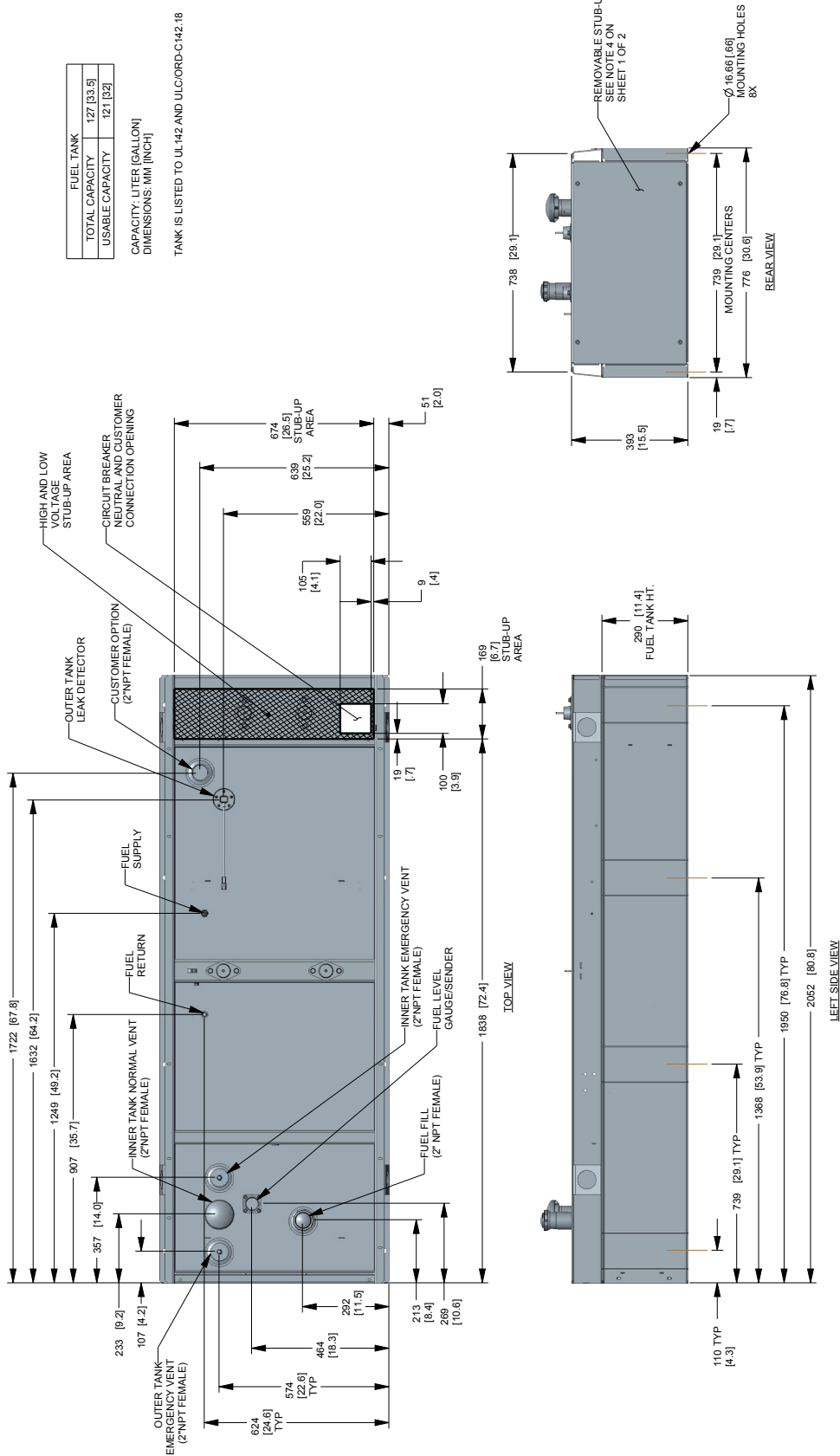


# 15 & 20 kW

| FUEL TANK       |            |
|-----------------|------------|
| TOTAL CAPACITY  | 127 [33.9] |
| USABLE CAPACITY | 121 [32]   |

CAPACITY, LITER (GALLON)  
DIMENSIONS: MM (INCH)

TANK IS LISTED TO UL-142 AND ULC/ORD-C142:18





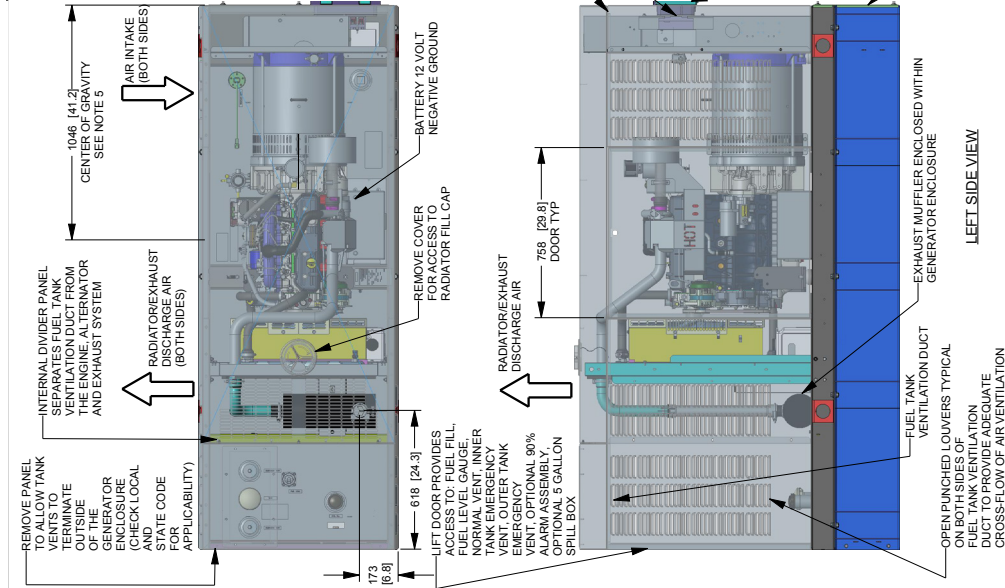
30 kW

Drawing #0K7002-B (1 of 2)

| SERVICE ITEM        | 2.4L        | WEIGHT DATA WITH EMPTY BASETANK (SEE NOTE 5) |
|---------------------|-------------|--|
| OIL FILL CAP        | RIGHT SIDE  | GENERATOR AS SHOWN 826 [1920]                |
| OIL DIP STICK       | RIGHT SIDE  | WITH WOODEN SHIPPING SKID 871 [1920]         |
| OIL FILTER          | RIGHT SIDE  |  |
| OIL DRAIN HOSE      | RIGHT SIDE  |  |
| RADIATOR DRAIN HOSE | LEFT SIDE   |  |
| AIR CLEANER ELEMENT | LEFT SIDE   |  |
| MUFFLER             | FRONT       |  |
| FAN BELT            | EITHER SIDE |  |
| BATTERY             | LEFT SIDE   |  |

REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PART LISTINGS.

TOP VIEW



- NOTES:
1. MINIMUM RECOMMENDED CONCRETE PAD SIZE: 184 (4'7") WIDE X 2718 (1'07") LONG. REFERENCE INSTALLATION GUIDE SUPPLIED WITH UNIT.
  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:
    - CONTROL PANEL / CIRCUIT BREAKER ACCESSIBLE THROUGH CUSTOMER ACCESS ASSEMBLY DOOR ON REAR OF GENERATOR.
    - REMOVE THE REAR TANK AND 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, 120V/240V (10 AMP MAX) CONNECTION.
      - LIFT DOOR FOR ACCESS TO ENGINE SERVICE CONNECTIONS AND Wires
    - CENTER OF GRAVITY AND WEIGHT MAY CHANGE DUE TO UNIT OPTIONS.
    - ENGINE SERVICE CONNECTIONS
    - OIL DRAIN: 3/8" NPT
    - EXHAUST OUTLET: 2" O.D.
  4. BOTTOM OF GENERATOR SET MUST BE ENCLOSED TO PREVENT PEST INTRUSION AND AIR FLOW THROUGH ENCLOSURE FOR COOLING AIR FLOW.
  5. EXHAUST SYSTEM MAXIMUM BACK PRESSURE: 3/8 INCHES H2O.
  6. REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS.
  7. MOUNTING BOLTS OR STUDS TO CONCRETE PAD SHALL BE 5/8-11 GRADE 5 (USE STANDARD SAE TORQUE SPECS)



30 kW

**GENERAC®**

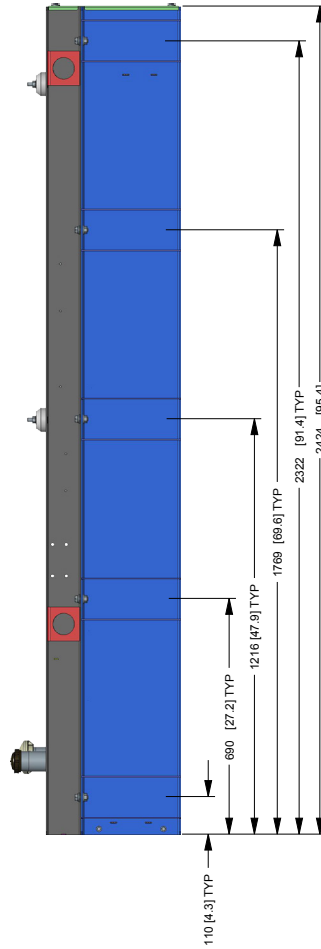
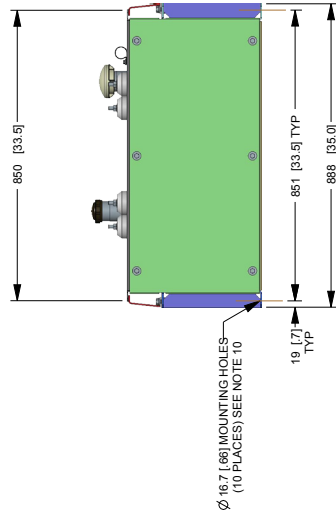
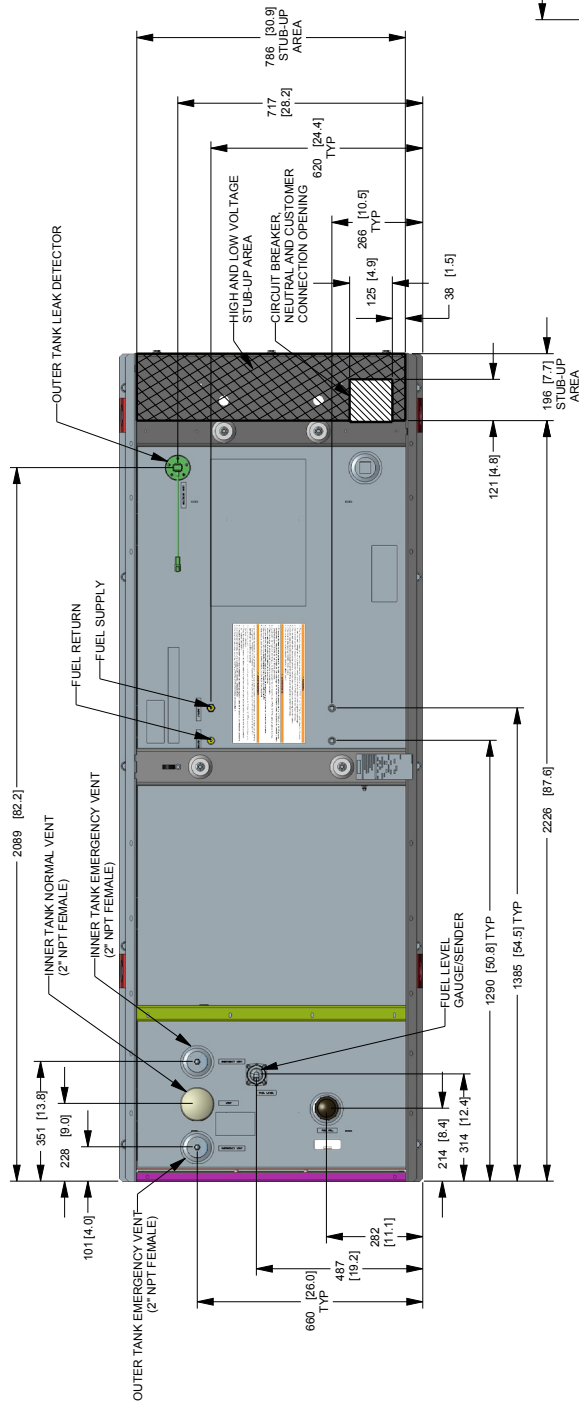
installation layout

Drawing #0K7002-B (2 of 2)

Protector™ Series

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| FUEL TANK                   |          |
|-----------------------------|----------|
| TOTAL CAPACITY              | 232 [61] |
| USABLE CAPACITY             | 202 [55] |
| CAPACITY, LITER (GALLON)    |          |
| DIMENSIONS: MM (INCH)       |          |
| TANK IS LISTED TO UL142 AND |          |
| ULCORD C142.18              |          |



48 & 50 kW

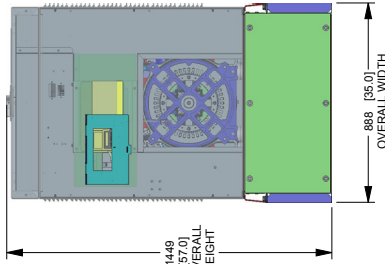
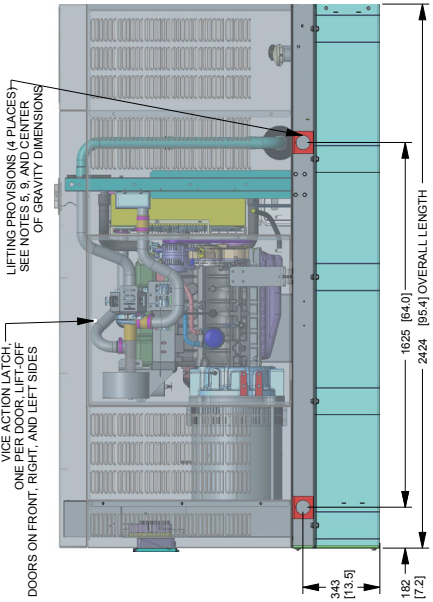
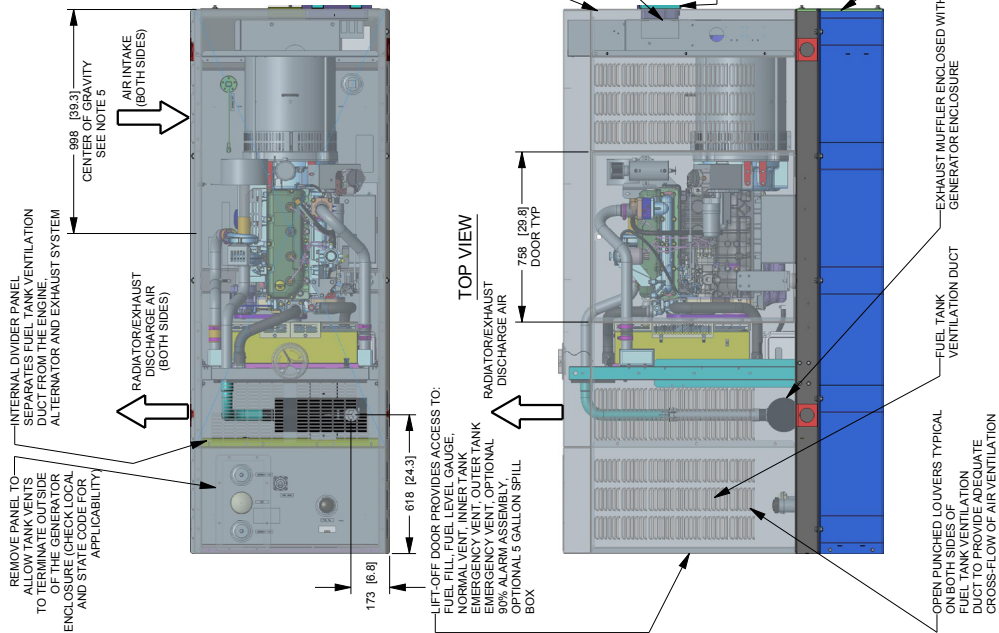
Drawing #0K6968-A (1 of 2)

| SERVICE ITEM        | 3-4L        | WEIGHT DATA WITH EMPTY BASE TANK (SEE NOTE 5) |
|---------------------|-------------|---|
| OIL FILL CAP        | RIGHT SIDE  | GENERATOR AS SHOWN                            |
| OIL DIP STICK       | RIGHT SIDE  | 997 [2197]                                    |
| OIL FILTER          | RIGHT SIDE  | WITH WOODEN SHIPPING SKID                     |
| OIL DRAIN HOSE      | RIGHT SIDE  | 1042 [2297]                                   |
| RADIATOR DRAIN HOSE | LEFT SIDE   |   |
| AIR CLEANER ELEMENT | RIGHT SIDE  |   |
| MUFFLER             | FRONT       |   |
| FAN BELT            | EITHER SIDE |   |
| BATTERY             | LEFT SIDE   |   |

NOTES:

1. MINIMUM RECOMMENDED CONCRETE PAD SIZE: 1194 (47") WIDE X 2718 (107") LONG. REFERENCE INSTALLATION GUIDE SUPPLIED WITH UNIT.
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 OR 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 TANK AND REAR ENCLOSE COVER PANEL TO ACCESS THE REAR TANK AND REAR ENCLOSE COVER PANEL TO ACCESS:
  - HIGH VOLTAGE CONNECTIONS INCLUDING AC LOAD LEAD CONDUIT CONNECTION
  - NEUTRAL VOLTAGE CONNECTION, BATTERY CHARGER 120 VOLT AC (0.5 AMP MAX) CONNECTION
  - LOW VOLTAGE CONNECTIONS INCLUDING TRANSFER SWITCH CONTROL WIRES
5. CENTER OF GRAVITY AND WEIGHT MAY CHANGE DUE TO UNIT OPTIONS.
6. ENGINE SERVICE CONNECTIONS:
  - EXHAUST OUTLET, 2" O.D.
  - DRIVE SHAFT
7. BOTTOM OF GENERATOR SET MUST BE ENCLOSED TO PREVENT PEST INTRUSION AND RECIRCULATION OF DISCHARGE AIR AND/OR IMPROPER COOLING AIR FLOW.
8. EXHAUST SYSTEM MAXIMUM BACK PRESSURE: 35 INCHES H2O.
9. REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS.
10. MOUNTING BOLTS OR STUDS TO CONCRETE PAD SHALL BE 5/8-11 GRADE 5 (USE STANDARD SAE TORQUE SPECS)

REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PART LISTINGS.



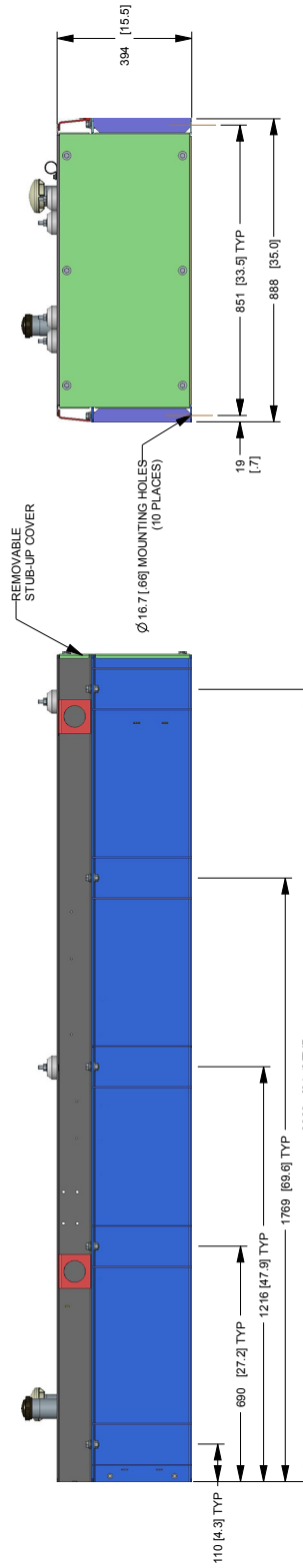
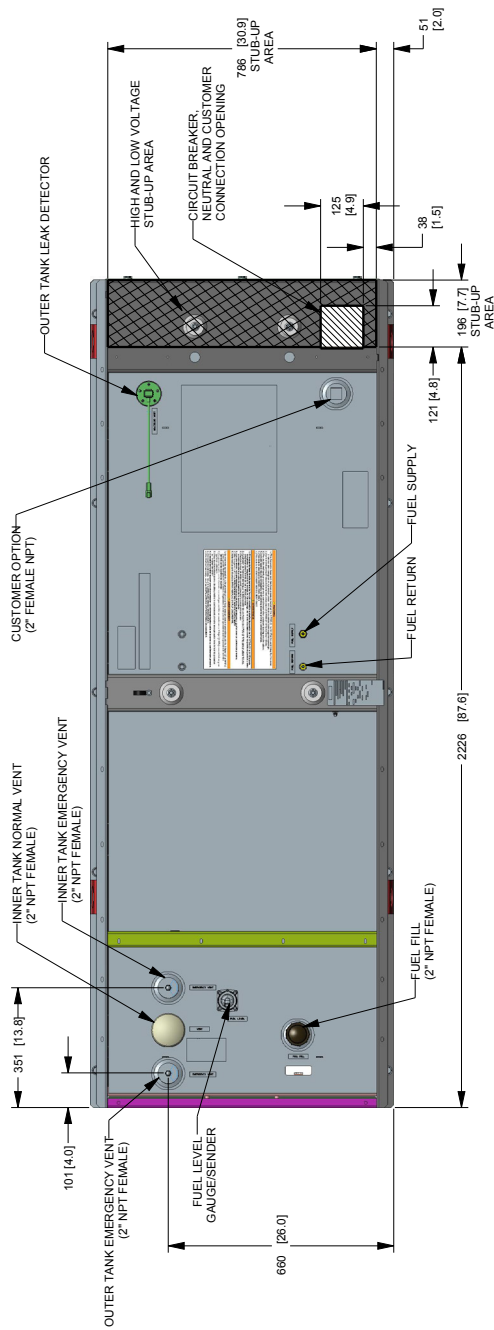
# 48 & 50 kW

## installation layout

Drawing #0K6968-A (2 of 2)

| FUEL TANK                 |          |
|---------------------------|----------|
| TOTAL CAPACITY            | 233 [61] |
| USABLE CAPACITY           | 209 [55] |
| CAPACITY: LITER (GALLONS) |          |
| DIMENSIONS: MM (INCH)     |          |

THIS TANK IS LISTED TO UL142 AND ULCOORD C142.18



15 • 20 • 30 • 48 • 50 kW

available accessories

| Model #  | Product                           | Description   |
|--|-----------------------------------|---|
| 006463-3   | Mobile Link™                      | Generac's Mobile Link allows you to check the status of your generator from anywhere that you have access to an Internet connection from a PC or with any smart device. You will even be notified when a change in the generator's status occurs via e-mail or text message. Note: Harness Adapter Kit required. Available in the U.S. only.                                    |
| 006478-0   | Harness Adapter Kit               | The Harness Adapter Kit is required to make liquid-cooled units compatible with Mobile Link™.   |
| 006502-0   | Spill Box                         | The 5-gallon spill box screws into the existing fuel fill port of the base tank. It captures and contains fuel if over fueling or spilling occurs during the fill process.  |
| 006504-0   | 90% Fuel Level Alarm              | The 90% fuel level alarm alerts the fuel fill operator when the tank reaches a 90% fill level by sounding an audible alarm and triggering an LED warning light.   |
| 006505-0 - 15 & 20 kW<br>006506-0 - 30, 48 & 50 kW                 | Tank Risers                       | Tank risers are required in some municipalities to help avoid potential base tank corrosion caused by mounting on rough surfaces.   |
| 006507-0   | Fuel Fill Drop Tube               | A powder coat painted, steel fuel fill drop tube is required in some municipalities to prevent sparking due to static electricity buildup, which can be caused by the fuel dropping into the tank from the fill area. Using a drop tube also results in submerged filling, which increases the fuel delivery flow rate and reduces vapors, foam and potential tank evaporation. |
| 006513-0 - 15 & 20 kW<br>006517-0 - 30 kW<br>006516-0 - 48 & 50 kW | Stainless Steel Fuel Lines        | Some municipalities require the use of stainless steel fuel lines instead of the standard hoses provided with the diesel generator products. These stainless steel lines are fire resistant for additional safety.  |
| 006510-0   | E-Stop                            | E-stop allows for immediate fuel shutoff and generator shutdown in the event of an emergency.   |
| 006511-0   | Spill Box Drainback Kit           | The spill box drainback kit allows fuel that was captured in the 5-gallon spill box to be drained directly back into the fuel tank to avoid vapors.   |
| 006588-1   | Vent Extension Support Kit        | The vent extension support kit consists of two aluminum plates with the appropriate pipe cutouts to secure the vent extension pipes coming through the top of the generator enclosure. It helps to minimize stress on the NPT fittings integrated on the tank and also helps protect against pests.   |
| 006512-0   | Lockable Fuel Cap                 | The cast iron, lockable fuel cap provides the ability to lock the fuel system to prevent unwanted fuel tampering or fuel siphoning.   |
| 006572-0 - 15 & 20 kW<br>006571-0 - 30 kW<br>006570-0 - 48 & 50 kW | Maintenance Kits                  | The Protector Maintenance Kits offer all the hardware necessary to perform complete maintenance on Generac Protector generators.  |
| 006560-0 - 15 & 20 kW<br>006559-0 - 30 kW<br>006558-0 - 48 & 50 kW | Cold Weather Kits                 | Recommended for generators installed in regions where the temperature regularly falls below 32 °F (0 °C). The Cold Weather Kits consist of a block heater with all necessary mounting hardware and a battery warmer with a thermostat built into the battery wrap.  |
| 005704-0   | Paint Kit                         | 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 properly maintain or touch-up a generator enclosure.  |
| 006664-0   | Local Wireless Remote             | Completely wireless and battery powered, Generac's wireless remote monitor provides you with instant status information without ever leaving the house.   |
| 006665-0   | Wireless Remote Extension Harness | Recommended for use with the Wireless Remote on units up to 60 kW, required for use on units 70 kW or greater.  |
| 006873-0   | Smart Management Module (50 Amps) | Manage large loads by utilizing up to 8 individual Smart Management modules. These devices are installed directly in line with existing appliance wiring for easy installation.   |