# Protector™ Series

GENERAC®

# PROTECTOR™ SERIES
## Diesel Generator Set



INCLUDES:

- True Power™ Electrical Technology
- Two-line multilingual digital LCD 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
- Five year limited warranty

Not for sale in US/CA

Standby Power Rating

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


QUIET TEST™

USA ENGINEERED & BUILT*

*Assembled in the USA using domestic and foreign parts

# 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.
- **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.
- **TEST CRITERIA:**

  √ PROTOTYPE TESTED
  √ SYSTEM TORSIONALTESTED
  √ NEMA MG1-22 EVALUATION
  √ MOTOR STARTING ABILITY

- **MOBILE LINK® CONNECTIVITY:** FREE with select Protector Series Home standby generators, the Mobile Link family of devices allow 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 dealer for fast, friendly, and proactive service. With Mobile Link, users are taken care of before the next power outage.
- **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%.
- **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.

GENERAC®

# 15 • 20 • 30 • 48 • 50 kW

# Application and 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 single-phase | Three wire |
| Alternator output leads three-phase | Six wire |
| Bearings | Single sealed cartridge |
| Coupling | Direct, flexible disc |
| Excitation system | Direct |
| Total harmonic distortion | < 5% |

## VOLTAGE REGULATION

| | |
|---|---|
| Type | Electronic |
| Sensing | Single-phase |
| Regulation | ± 1% |
| Features | Adjustable voltage and gain |

## GOVERNOR SPECIFICATIONS

| | |
|---|---|
| Type | Electronic isochronous |
| Steady state regulation | ± 0.25% |

## ELECTRICAL SYSTEM

| | |
|---|---|
| Battery charge alternator | 50 amp (15 & 20 kW), 65 amp (30 kW), or 50 amp (48 & 50 kW) |
| Static battery charger | 2 amp |
| Recommended battery (battery not included) | Group 27F, 700CCA*<br>*Group 31, 925CCA batteries can also be used with the 30kW |
| System voltage | 12 volts |

## ALTERNATOR SPECIFICATIONS

Revolving field heavy duty generator
Directly connected to the engine
Operating temperature rise 120 °C (248 °F) above a 40 °C (104 °F) ambient
Class H insulation is NEMA rated
Class F insulation is NEMA rated
All models fully prototype tested

## ENCLOSURE FEATURES

| | |
|---|---|
| Aluminum weather protective enclosure | Provides 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. |

# 15 • 20 • 30 • 48 • 50 kW

# Application and Engineering Data

## ENGINE SPECIFICATIONS: 15 & 20 KW

| | |
|---|---|
| Make | Mitsubishi |
| Model | In-line |
| Cylinders | 4 |
| Displacement (liters) | 2.505 |
| Bore (mm / in) | 88 / 3.46 |
| Stroke (mm / in) | 103 / 4.06 |
| Compression ratio | 22:1 |
| Intake air system | Naturally aspirated |
| Cylinder head type | Cast iron OHV |
| Piston type | Aluminum |

## ENGINE SPECIFICATIONS: 30 KW

| | |
|---|---|
| Make | Perkins |
| Model | In-line |
| Cylinders | 4 |
| Displacement (liters) | 2.216 |
| Bore (mm / in) | 84 / 3.30 |
| Stroke (mm / in) | 100 / 3.94 |
| Compression ratio | 23.3:1 |
| Intake air system | Turbocharged / Aftercooled |
| Cylinder head type | Cast Iron OHV |
| Piston type | Aluminum |

## ENGINE SPECIFICATIONS: 48 & 50 KW

| | |
|---|---|
| Make | Mitsubishi (MHI) |
| Model | In-line |
| Cylinders | 4 |
| Displacement (liters) | 3.3 |
| Bore (mm / in) | 94 / 3.70 |
| Stroke (mm / in) | 120 / 4.72 |
| Compression ratio | 19:1 |
| Intake air system | Turbocharged / aftercooled |
| Cylinder head type | Cast iron OHV |
| Piston type | Aluminum |

## ENGINE LUBRICATION SYSTEM

| | |
|---|---|
| Oil pump type | Gear |
| Oil filter type | Full flow spin-on canister |
| Crankcase capacity (L / qt) | 6.5 / 6.87 - 15 & 20 kW<br>10.6 / 11.2 - 30 kW<br>11.0 / 11.6 – 48 & 50 kW |

## FUEL SYSTEM

| | |
|---|---|
| Fuel type | Ultra low sulfur diesel fuel |
| Fuel pump type | Mechanical engine driven gear |
| Injector type | Mechanical |
| Fuel supply line (mm / in) | 7.94 / 0.31 (ID) |
| Fuel return line (mm / in) | N/A - 15 & 20 kW<br>4.76 / 0.19 (ID) - 30 kW<br>7.94 / 0.31 (ID) - 48 & 50 kW |
| Fuel specification | ASTM |
| Fuel filtering (microns) | 6 - 15 & 20 kW<br>25 - 30 kW<br>6 - 48 & 50 kW |

## ENGINE COOLING SYSTEM

| | |
|---|---|
| Water pump | Pre-lubed, self-sealing |
| Fan speed (rpm) | 2,376 - 15 & 20 kW<br>1,980 - 30 kW<br>2,340 - 48 & 50 kW |
| Fan diameter (mm / in) | 460 / 18.11 - 15 & 20 kW<br>457.2 / 18 - 30 kW<br>431.8 / 17 - 48 & 50 kW |
| Fan mode | Pusher |

## TANK SPECIFICATIONS

| | |
|---|---|
| Total size (L / gal) | 170.3 / 45 - 15 & 20 kW<br>253.6 / 67 - 30, 48, & 50 kW |
| Usable size (L / gal) | 151.4 / 40 - 15 & 20 kW<br>230.9 / 61 - 30, 48, & 50 kW |
| Run time @ 1/2 load (hrs) | 48.7 - 15 kW<br>38.8 - 20 kW<br>44.5 - 30 kW<br>26.5 - 48 & 50 kW |

## WEIGHTS AND DIMENSIONS

| Model | Weight (kg / lb) | Dimensions (L x W x H) (cm / in) |
|---|---|---|
| 15 kW | 622 / 1,372 | 158 x 78 x 124 / 62 x 31 x 49 |
| 20 kW | 622 / 1,372 | 158 x 78 x 124 / 62 x 31 x 49 |
| 30 kW | 783 / 1,726 | 195 x 89 x 147 / 77 x 35 x 57 |
| 48 & 50 kW | 886 / 1,953 | 195 x 89 x 141 / 77 x 35 x 55 |

GENERAC®

# 15 • 20 • 30 • 48 • 50 kW

# Application and Engineering Data

## GENERATOR OUTPUT VOLTAGE / KW–60 HZ

| | | kW (Standby) | Amp (Standby) | kW (Prime) | Amp (Prime) | CB Size |
|---|---|---|---|---|---|---|
| RD015 | 120/240 V, 1Ø, 1.0 pf | 15 | 62 | 12 | 50 | 70 |
| | 120/208 V, 3Ø, 0.8 pf | 15 | 52 | 12 | 42 | 60 |
| | 120/240 V, 3Ø, 0.8 pf | 15 | 45 | 12 | 36 | 50 |
| RD020 | 120/240 V, 1Ø, 1.0 pf | 20 | 83 | 16 | 67 | 100 |
| | 120/208 V, 3Ø, 0.8 pf | 20 | 69 | 16 | 56 | 80 |
| | 120/240 V, 3Ø, 0.8 pf | 20 | 60 | 16 | 48 | 70 |
| RD030 | 120/240 V, 1Ø, 1.0 pf | 30 | 125 | 24 | 100 | 150 |
| | 120/208 V, 3Ø, 0.8 pf | 30 | 104 | 24 | 83 | 125 |
| | 120/240 V, 3Ø, 0.8 pf | 30 | 90 | 24 | 72 | 100 |
| | 277/480 V, 3Ø, 0.8 pf | 30 | 45 | 24 | 36 | 50 |
| RD048 RD050 | 120/240 V, 1Ø, 1.0 pf | 48 | 200 | 38.4 | 183 | 200 |
| | 120/208 V, 3Ø, 0.8 pf | 50 | 173 | 40 | 153 | 200 |
| | 120/240 V, 3Ø, 0.8 pf | 50 | 150 | 40 | 132 | 175 |
| | 277/480 V, 3Ø, 0.8 pf | 50 | 75 | 40 | 66 | 90 |

## SURGE CAPACITY IN AMPS

| | | Voltage Dip @ < 0.4 pf | |
|---|---|---|---|
| | | 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 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

| | | L/hr | gal/hr |
|---|---|---|---|
| RD015 | 25% of rated load | 2.27 | 0.60 |
| | 50% of rated load | 3.22 | 0.85 |
| | 75% of rated load | 4.16 | 1.10 |
| | 100% of rated load | 5.53 | 1.46 |
| RD020 | 25% of rated load | 2.9 | 0.77 |
| | 50% of rated load | 3.90 | 1.03 |
| | 75% of rated load | 5.53 | 1.46 |
| | 100% of rated load | 7.46 | 1.97 |
| RD030 | 25% of rated load | 3.67 | 0.97 |
| | 50% of rated load | 5.19 | 1.37 |
| | 75% of rated load | 7.46 | 1.97 |
| | 100% of rated load | 10.49 | 2.77 |
| RD048 RD050 | 25% of rated load | 4.66 | 1.23 |
| | 50% of rated load | 7.66 | 2.02 |
| | 75% of rated load | 11.43 | 3.02 |
| | 100% of rated load | 15.22 | 4.02 |

# 15 • 20 • 30 • 48 • 50 kW

# Operating Data

## ENGINE COOLING

| Model | 15 kW | 20 kW | 30 kW | 48 & 50 kW |
|---|---|---|---|---|
| Air flow (inlet air including alternator and combustion air in cmm / cfm) | 78 / 2,750 | 78 / 2,750 | 79 / 2,800 | 80 / 2,824 |
| System coolant capacity (L / gal) | 11.4 / 3.0 | 11.4 / 3.0 | 9.5 / 2.5 | 10.6 / 2.8 |
| Heat rejection to coolant (MJ per hr / BTU per hr) | 100.5 / 95,220 | 100.5 / 95,220 | 135.7 / 128,638 | 143.4 / 135,900 |
| Maximum operation air temperature on radiator (°C / °F) | 50 / 122 | | | |
| Maximum ambient temperature (°C / °F) | 50 / 122 | | | |

## COMBUSTION REQUIREMENTS

| | | | | |
|---|---|---|---|---|
| Flow at rated power (cmm / cfm) | | 2.4 / 86.3 | 2.5 / 88.0 | 5.38 / 190 |

## SOUND EMISSIONS

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

## EXHAUST

| | | | | |
|---|---|---|---|---|
| Exhaust flow at rated output (cmm / cfm) | 2.8 / 98.88 | 2.8 / 98.88 | 8.4 / 296.6 | 12.7 / 448 |
| Exhaust temperature at rated output (°C / °F) | 482 / 900 | 482 / 900 | 499 / 930 | 499 / 930 |

## ENGINE PARAMETERS

| | | | | |
|---|---|---|---|---|
| Rated synchronous rpm | 1,800 | | | |
| HP at rated kW | 26.4 | 33.5 | 49 | 85 |

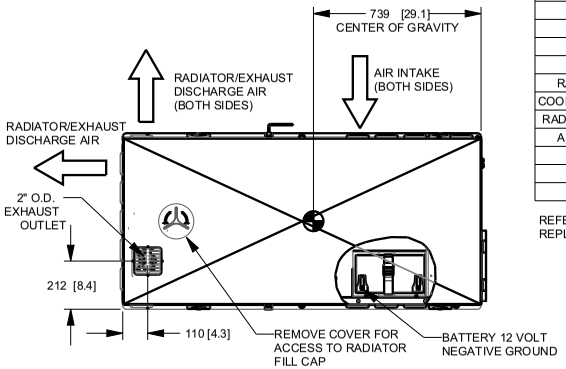
## POWER ADJUSTMENT FOR AMBIENT CONDITIONS

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 1,000 ft above 3,000 ft
Altitude deration (20 kW) ..... 1% for every 100 m above 305 m or 3% for every 1,000 ft above 1,000 ft

## CONTROLLER FEATURES

Two-line plain text multilingual LCD ..... 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 Message. ..... Standard
Engine run hours indication ..... Standard
Programmable start delay between 2–1,500 seconds ..... 5 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 seconds 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 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 upgradeable firmware ..... Standard
Low Coolant Level shutdown ..... Standard
Auxiliary shutdown ..... Standard

# 15 • 20 kW
## D2.5L G2 Single Wall (1 of 2)
## Installation Layout




TOP VIEW

| SERVICE ITEM | 2.5L |
|---|---|
| OIL FILL CAP | RIGHT SIDE |
| OIL DIP STICK | RIGHT SIDE |
| OIL FILTER | RIGHT SIDE |
| OIL DRAIN HOSE | LEFT SIDE |
| RADIATOR DRAIN HOSE | LEFT SIDE |
| COOLANT RECOVERY BOTTLE | LEFT SIDE |
| RADIATOR FILL CAP ACCESS | ROOF |
| AIR CLEANER ELEMENT | LEFT SIDE |
| MUFFLER | FRONT |
| FAN BELT | EITHER SIDE |
| BATTERY | LEFT SIDE |

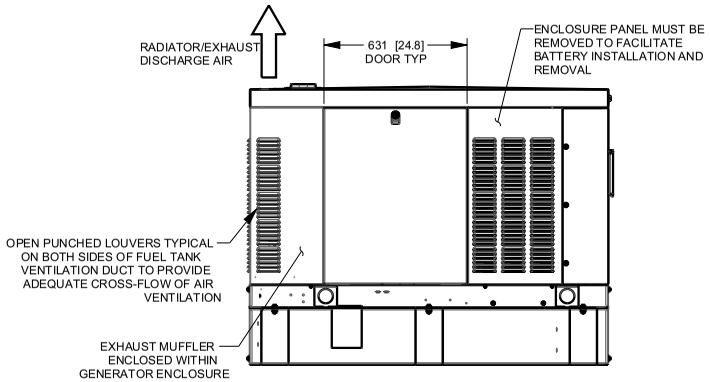
REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PART LISTINGS

| WEIGHT DATA WITH EMPTY BASETANK (SEE NOTE 5) | |
|---|---|
| GENERATOR AS SHOWN | 622 [1372] |
| WITH WOODEN SHIPPING SKID | 661 [1457] |

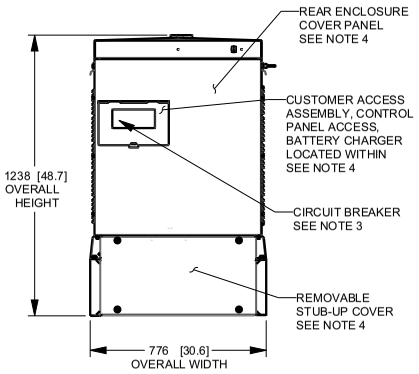
WEIGHT: KG [LBS]
DIMENSIONS: MM [INCH]

NOTES:

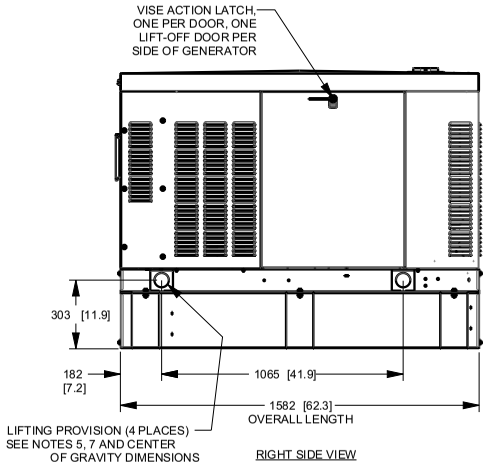
1. MINIMUM RECOMMENDED CONCRETE PAD SIZE: 1092 (43") WIDE X 1887 (74.3") LONG. REFERENCE INSTALLATION GUIDE SUPPLIED WITH UNIT FOR CONCRETE PAD GUIDELINES.
2. ALLOW SUFFICIENT ROOM ON ALL SIDES OF THE GENERATOR FOR MAINTENANCE AND SERVICING. THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH CURRENT APPLICABLE 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 STUB-UP AND REAR ENCLOSURE COVER PANEL TO ACCESS THE STUB-UP AREAS AS FOLLOWS:
   - HIGH VOLTAGE CONNECTION INCLUDING AC LOAD LEAD CONDUIT CONNECTION, NEUTRAL CONNECTION, AND BATTERY CHARGER 120 VOLT AC (0.5 AMP MAX) CONNECTION.
   - LOW VOLTAGE CONNECTION INCLUDING TRANSFER SWITCH CONTROL WIRES AND ACCESSORY RELAY CONNECTION (QTY 4)
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 RECIRCULATION OF DISCHARGE AIR AND/OR IMPROPER COOLING AIR FLOW.
7. REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS.
8. MOUNTING BOLTS OR STUDS TO MOUNTING SURFACE SHALL BE 5/8-11 GRADE 5 (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.




LEFT SIDE VIEW




REAR VIEW




RIGHT SIDE VIEW

# 15 • 20 kW

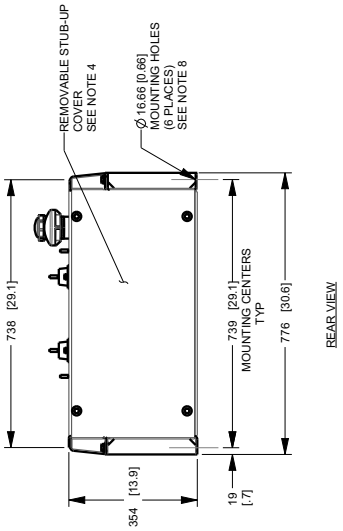
## Installation Layout

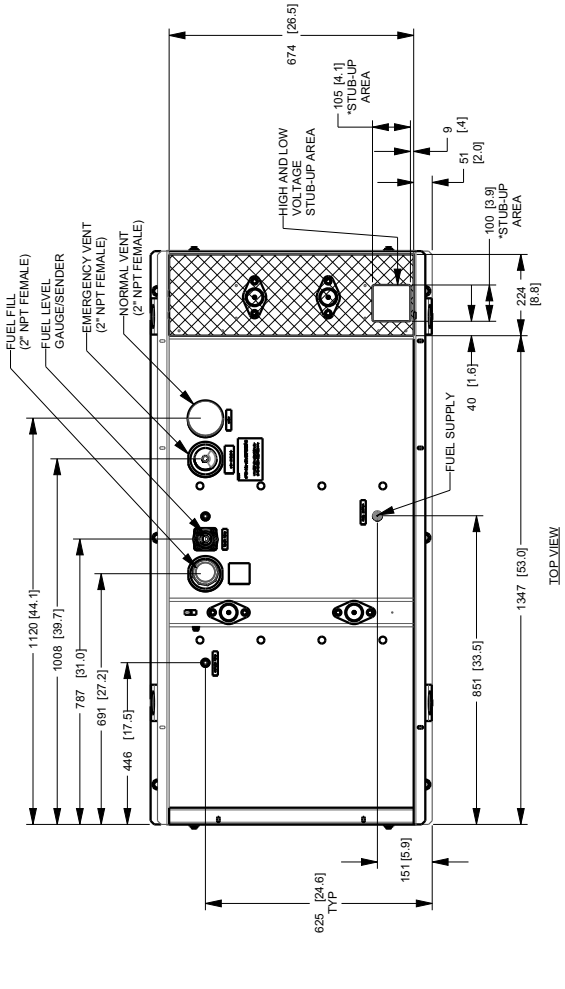
### D2.5L G2 Single Wall (2 of 2)

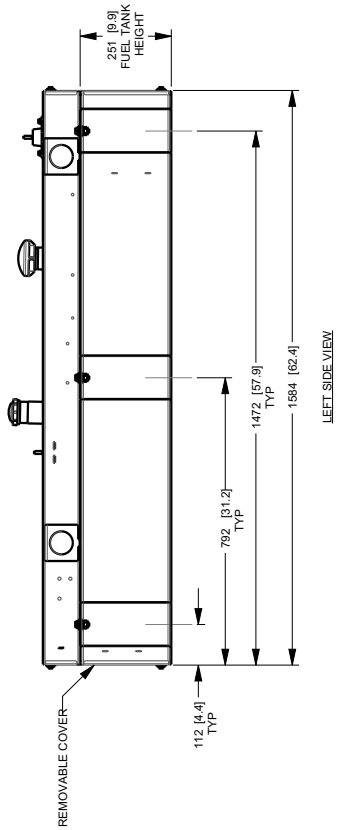
| FUEL TANK | |
|---|---|
| TOTAL CAPACITY | 169 [44] |
| USABLE CAPACITY | 151 [40] |

CAPACITY: LITER [GALLON]
DIMENSIONS: MM [INCH]

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



# 30 kW

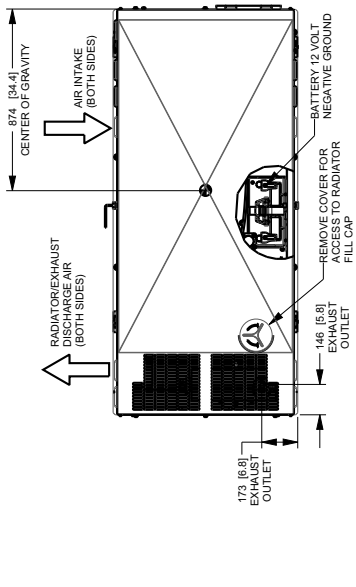


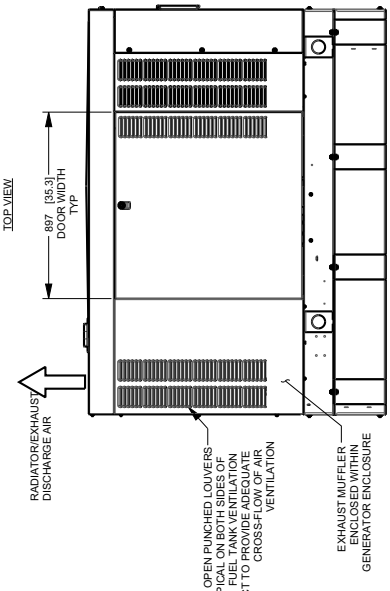
## D2.2L G22 Single Wall (1 of 2)

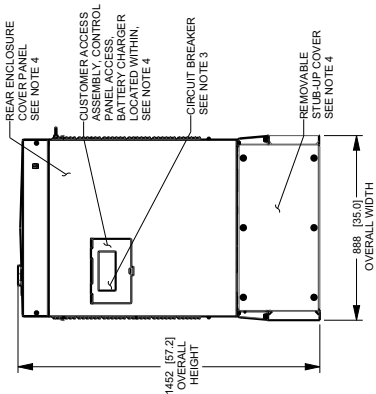
| SERVICE ITEM | 2.2L | WEIGHT DATA WITH EMPTY BASETANK (SEE NOTE 5) | |
|---|---|---|---|
| OIL FILL CAP | RIGHT SIDE | | |
| OIL DIP STICK | RIGHT SIDE | GENERATOR AS SHOWN | 783 [1726] |
| OIL FILTER | RIGHT SIDE | WITH WOODEN SHIPPING SKID | 819 [1806] |
| OIL DRAIN HOSE | RIGHT SIDE | WEIGHT: KG [LBS] | |
| RADIATOR DRAIN HOSE | LEFT SIDE | DIMENSIONS: MM [INCH] | |
| COOLANT RECOVERY BOTTLE | LEFT SIDE | | |
| RADIATOR FILL CAP ACCESS | ROOF | | |
| AIR CLEANER ELEMENT | RIGHT SIDE | | |
| MUFFLER | FRONT SIDE | | |
| FAN BELT | EITHER SIDE | | |
| BATTERY | LEFT SIDE | | |

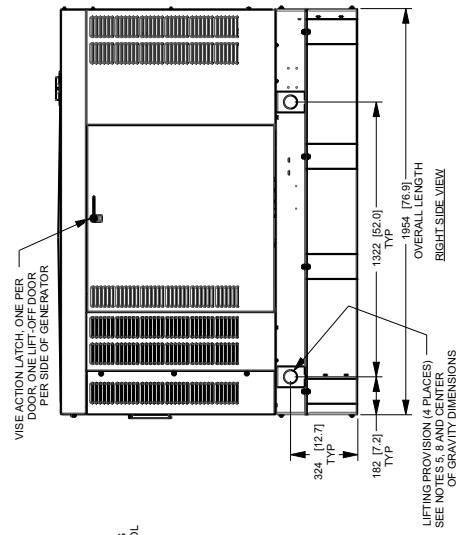
REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PART LISTINGS

NOTES:
1. MINIMUM RECOMMENDED CONCRETE PAD SIZE: 1194 (47") WIDE X 2261 (89") LONG. REFERENCE INSTALLATION GUIDE SUPPLIED WITH UNIT FOR CONCRETE PAD GUIDELINES
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 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 120 VOLT AC (0.5 AMP MAX) CONNECTION
   - LOW VOLTAGE CONTROL CONNECTIONS INCLUDING TRANSFER SWITCH CONTROL WIRES
5. CENTER OF GRAVITY AND WEIGHT MAY CHANGE DUE TO UNIT OPTIONS.
6. ENGINE SERVICE CONNECTIONS
   OIL DRAIN: 3/8" NPT
   EXHAUST OUTLET: 2" O.D.
7. BOTTOM OF GENERATOR SET MUST BE ENCLOSED TO PREVENT PEST INTRUSION AND AND RECIRCULATION OF DISCHARGE AIR AND/OR IMPROPER COOLING AIR FLOW.
8. REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS.
9. MOUNTING BOLTS OR STUDS TO CONCRETE PAD SHALL BE 5/8-11 GRADE 5 (USE STANDARD SAE TORQUE SPECS)



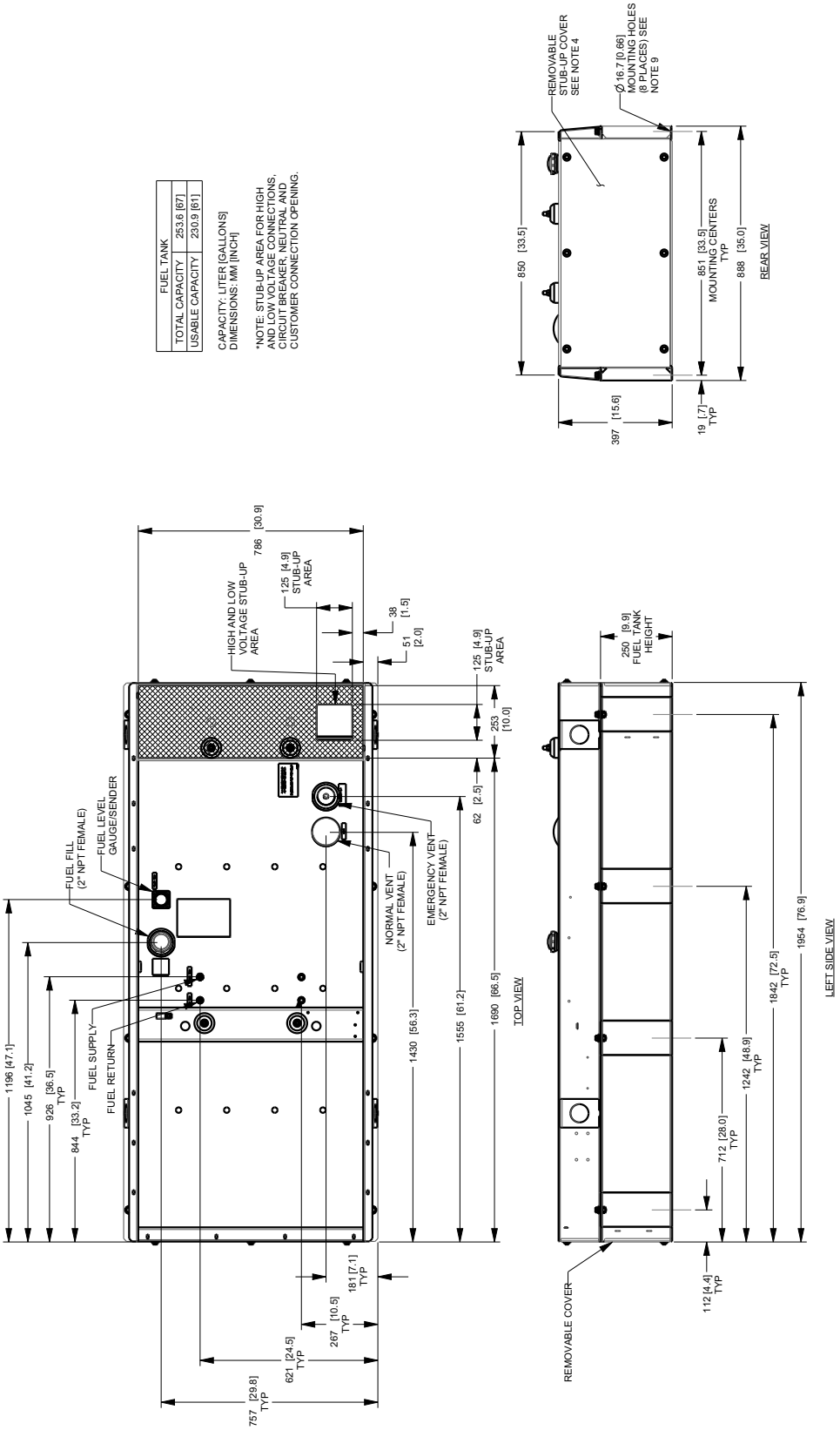



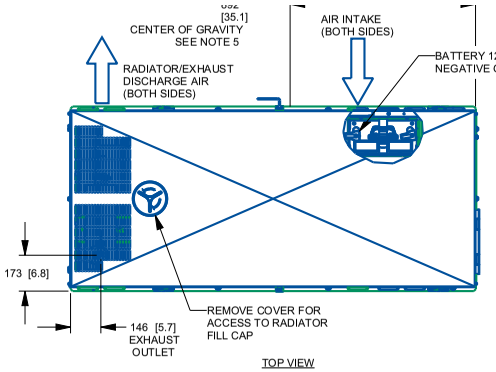
# 30 kW

# Installation Layout

## D2.2L G22 Single Wall (2 of 2)



# 48 • 50 kW
## D3.3L Single Wall (1 of 2)



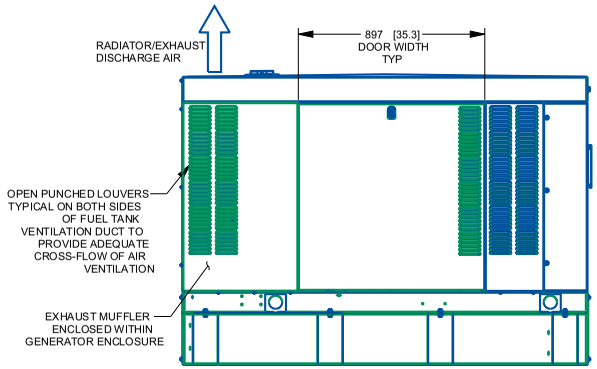

TOP VIEW

| | | | |
|---|---|---|---|
| OIL FILL CAP | LEFT | (SEE NOTE 5) | |
| OIL DIP STICK | LEFT | GENERATOR AS SHOWN | 894 [1971] |
| OIL FILTER | LEFT | WITH WOODEN SHIPPING SKID | 933 [2057] |
| OIL DRAIN HOSE | RIGHT | | |
| RADIATOR DRAIN HOSE | RIGHT | | |
| COOLANT RECOVERY BOTTLE | RIGHT | | |
| RADIATOR FILL CAP ACCESS | ROOF | | |
| AIR CLEANER ELEMENT | RIGHT | | |
| MUFFLER | FRONT | | |
| FAN BELT | EITHER | | |
| BATTERY | RIGHT | | |

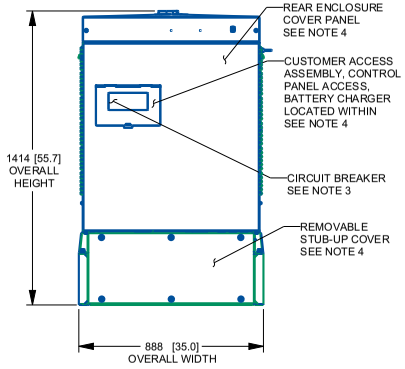
REFERENCE OWNERS MANUAL FOR
PERIODIC REPLACEMENT PART LISTINGS

WEIGHT: KG [LBS]
DIMENSIONS: MM [INCH]

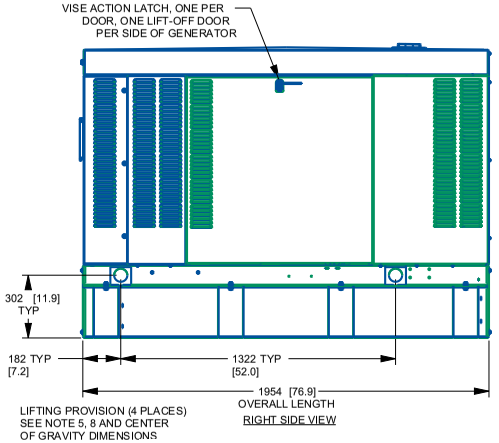
1. MINIMUM RECOMMENDED CONCRETE PAD SIZE: 1194 (47") WIDE X 2261 (89") LONG.
   REFERENCE INSTALLATION GUIDE SUPPLIED WITH UNIT
   FOR CONCRETE PAD GUIDELINES
2. ALLOW SUFFICIENT ROOM ON ALL SIDES OF THE GENERATOR FOR MAINTENANCE
   AND SERVICING. THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH CURRENT
   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 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 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
   OIL DRAIN: 3/8" NPT
   EXHAUST OUTLET: 2" O.D.
7. BOTTOM OF GENERATOR SET MUST BE ENCLOSED TO PREVENT PEST INTRUSION AND
   AND RECIRCULATION OF DISCHARGE AIR AND/OR IMPROPER COOLING AIR FLOW.
8. REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS.
9. MOUNTING BOLTS OR STUDS TO CONCRETE PAD SHALL BE 5/8-11 GRADE 5
   (USE STANDARD SAE TORQUE SPECS)




LEFT SIDE VIEW




REAR VIEW




LIFTING PROVISION (4 PLACES)
SEE NOTE 5, 8 AND CENTER
OF GRAVITY DIMENSIONS

RIGHT SIDE VIEW

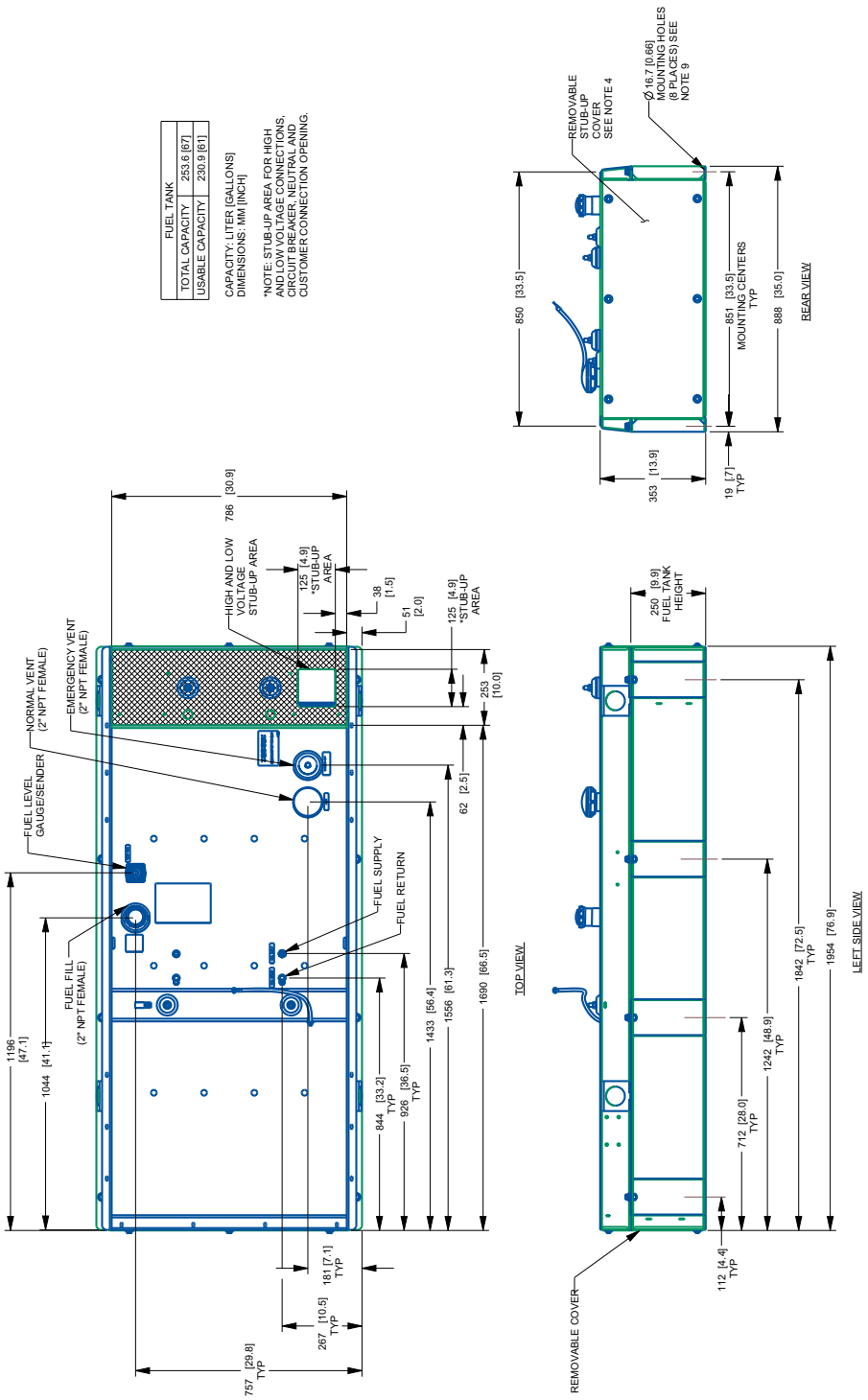
Installation Layout

GENERAC®

# 48 • 50 kW

# Installation Layout

## D3.3L Single Wall (2 of 2)



GENERAC®

# 15 • 20 • 30 • 48 • 50 kW

## Available Accessories

| MODEL # | PRODUCT | DESCRIPTION |
|---|---|---|
| G006478-0 | Harness Adapter Kit | The Harness Adaptor Kit is required to make liquid-cooled units compatible of Mobile Link®. |
| G006502-0 | Spill Box | The five 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. |
| G006504-0 | 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. |
| G006505-0 - 15 & 20 kW<br>G006506-0 - 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. |
| G006507-0 | Fuel Fill Drop Tube | A powder coated 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 steel fuel fill drop tube results in submerged filling, which increases the fuel delivery flow rate and reduces vapors, foam, and potential tank evaporation. |
| G007660-0 - 15 & 20 kW<br>G007661-0 - 30 kW<br>G007662-0 - 48 & 50 kW | Stainless Steel Fuel Lines | Some municipalities require the use of stainless steel fuel lines instead of the standard hoses provided with diesel generator products. These stainless steel fuel lines are fire resistant for additional safety. |
| G006510-0 | E-Stop | E-stop allows for immediate fuel shutoff and generator shutdown in the event of an emergency. |
| G006511-0 | Spill Box Drainback Kit | The spill box drainback kit allows captured fuel from the five gallon spill box to be drained directly into the fuel tank to avoid vapors. |
| G006588-1 | 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. |
| G006512-0 | 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. |
| G007640-0 - 15 & 20 kW<br>G007641-0 - 30 kW<br>G007642-0 - 48 & 50 kW | Scheduled Maintenance Kits | The Protector Scheduled Maintenance Kits provide all the items necessary to perform complete routine maintenance on Generac Protector generators. |
| G007650-0 - 15 & 20 kW<br>G007651-0 - 30 kW<br>G007652-0 - 48 & 50 kW | Cold Weather Kits | Recommended for generators installed in regions where the temperature regularly falls below 0 °C (32 °F). 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. |
| G005703-0 | Touch-Up Paint Kit | If the generator enclosure is scratched or damaged, it is important to touch up the paint to protect from future corrosion. The touch-up paint kit includes the necessary paint to correctly maintain or touch up a generator enclosure. |
| G006873-0 | Smart Management Module (50 amps) | Smart Management Modules (SMM) are used to optimize the performance of a standby generator. It manages large electrical loads upon startup and sheds them to aid in recovery when overloaded. In many cases, using SMM's can reduce the overall size and cost of the system. |
| A0000018981 | Ultrasonic Cleaner Solution | An ultra-concentrated anti-corrosive cleaning solution engineered to reach the smallest cavities to clean the toughest contaminants. This water based formula is non-toxic, biodegradable, safe for both metal and plastic surfaces, and is superior in rinsability. |
| A0000019001 | All Surface Protectant | All surface protectant for vinyl, rubber, and plastics. Creates a barrier that seals and protects surfaces from water and UV rays, while renewing the look of the surface. |
| G007169-0 - 4G LTE Device<br>G007170-0 - Wi-Fi & Ethernet Device | Mobile Link® Cellular Accessories | The Mobile Link family of Cellular Accessories 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 with an authorized service dealer for fast, friendly, and proactive service. With Mobile Link, users are taken care of before the next power outage. |