Protector® QS Series

GENERAC®

PROTECTOR® QS SERIES

Standby Generators
Liquid-Cooled Gaseous Engine

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.
- True Power™ Electrical Technology
- Isochronous Electronic Governor
- Sound Attenuated Enclosure
- Closed Coolant Recovery System
- Smart Battery Charger
- UV/Ozone Resistant Hoses
- ±1% Voltage Regulation
- Natural Gas or LP Operation
- 5 Year Limited Warranty
- UL 2200 Listed

Standby Power Rating

Model RG022 (Aluminum - Gray) - 22 kW 60 Hz
Model RG027 (Aluminum - Gray) - 27 kW 60 Hz
Model RG032 (Aluminum - Gray) - 32 kW 60 Hz
Model RG038 (Aluminum - Gray) - 38 kW 60 Hz
Model RG048 (Aluminum - Gray) - 48 kW 60 Hz

*Built in the USA using domestic and foreign parts

QUIET TEST™

Meets EPA Emission Regulations
22 & 27 kW are CA/MA emissions compliant
32 & 38 kW not for sale in CA / MA

FEATURES

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

- **TEST CRITERIA:**
  - PROTOTYPE TESTED
  - SYSTEM TORSIONAL TESTED
  - NEMA MG1-22 EVALUATION
  - MOTOR STARTING ABILITY

- **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® ISO 9001:2008

GENERAC®

22 • 27 • 32 • 38 • 48 kW

application & engineering data

GENERATOR SPECIFICATIONS

Type	Synchronous
Rotor Insulation Class	H (22 & 27 kW) or F (32, 38 & 48 kW)
Stator Insulation Class	H
Telephone Interference Factor (TIF)	<50
Alternator Output Leads 1-Phase	4 wire
Alternator Output Leads 3-Phase	6 wire
Bearings	Sealed Ball
Coupling	Flexible Disc
Excitation System	Direct

VOLTAGE REGULATION

Type	Electronic
Sensing	Single Phase
Regulation	± 1%

GOVERNOR SPECIFICATIONS

Type	Electronic
Frequency Regulation	Isochronous
Steady State Regulation	± 0.25%

ELECTRICAL SYSTEM

Battery Charge Alternator	12 Volt 30 Amp
Static Battery Charger	2.5 Amp
Recommended Battery (battery not included)	Group 26 (22, 27, 32 & 38 kW) or Group 24F (48 kW), 525CCA
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 prototyped 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.
Small, compact, attractive	Makes for an easy, eye appealing installation.
SAE	Sound attenuated enclosure ensures quiet operation.

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

ENGINE SPECIFICATIONS: 22, 27, 32 & 38 kW

Make	Generac
Model	In-line
Cylinders	4
Displacement (Liters)	2.4
Bore (in/mm)	3.41/86.5
Stroke (in/mm)	3.94/100
Compression Ratio	9.5:1
Intake Air System	Naturally Aspirated (22 & 27 kW) or Turbocharged/Aftercooled (32 & 38 kW)
Lifter Type	Hydraulic

ENGINE SPECIFICATIONS: 48 kW

Make	Generac
Model	V-Type
Cylinders	8
Displacement (Liters)	5.4
Bore (in/mm)	3.55/90.2
Stroke (in/mm)	4.17/105.9
Compression Ratio	9:1
Intake Air System	Naturally Aspirated
Lifter Type	Hydraulic

ENGINE LUBRICATION SYSTEM

Oil Pump Type	Gear
Oil Filter Type	Full flow spin-on cartridge
Crankcase Capacity (qt/l)	4/3.8 (22, 27, 32 & 38 kW) or 6/5.7 (48 kW)

ENGINE COOLING SYSTEM

Type	Closed
Water Pump	Belt driven
Fan Speed (rpm)	1980 - 22 & 27 kW 1500 - 32 & 38 kW 1954 - 48 kW
Fan Diameter (in/mm)	18.1/459.7 (22 & 27 kW) or 22/558.8 (32, 38 & 48 kW)
Fan Mode	Pusher (22 & 27 kW) or Puller (32, 38 & 48 kW)

FUEL SYSTEM

Fuel Type	Natural gas, propane vapor
Carburetor	Down Draft
Secondary Fuel Regulator	Standard
Fuel Shut Off Solenoid	Standard
Operating Fuel Pressure	5-14" water column/9-26 mm HG
LP Fuel Pressure	11 - 14" Water Column
NG Fuel Pressure	5 - 14" Water Column

22 • 27 • 32 • 38 • 48 kW

operating data

GENERATOR OUTPUT VOLTAGE/kW - 60 Hz

		kW LPG	Amp LPG	kW Nat. Gas	Amp Nat. Gas	CB Size (Both)
RG022	120/240 V, 1Ø, 1.0 pf	22	92	22	92	100
	120/208 V, 3Ø, 0.8 pf	22	76	22	76	80
	120/240 V, 3Ø, 0.8 pf	22	66	22	66	80
RG027	120/240 V, 1Ø, 1.0 pf	27	113	25	104	125
	120/208 V, 3Ø, 0.8 pf	27	94	25	87	100
	120/240 V, 3Ø, 0.8 pf	27	81	25	75	90
RG032	120/240 V, 1Ø, 1.0 pf	32	133	32	133	150
	120/208 V, 3Ø, 0.8 pf	32	111	32	111	125
	120/240 V, 3Ø, 0.8 pf	32	96	32	96	100
	277/480 V, 3Ø, 0.8 pf	32	48	32	48	60
RG038	120/240 V, 1Ø, 1.0 pf	38	158	38	158	175
	120/208 V, 3Ø, 0.8 pf	38	132	38	132	150
	120/240 V, 3Ø, 0.8 pf	38	114	38	114	125
	277/480 V, 3Ø, 0.8 pf	38	57	38	57	60
RG048	120/240 V, 1Ø, 1.0 pf	48	200	48	200	200
	120/208 V, 3Ø, 0.8 pf	48	167	48	167	175
	120/240 V, 3Ø, 0.8 pf	48	144	48	144	150
	277/480 V, 3Ø, 0.8 pf	48	72	48	72	80

SURGE CAPACITY IN AMPS

		Voltage Dip @ < .4 pf	
		15%	30%
RG022	120/240 V, 1Ø	55	135
	120/208 V, 3Ø	40	92
	120/240 V, 3Ø	35	80
RG027	120/240 V, 1Ø	62	170
	120/208 V, 3Ø	70	120
	120/240 V, 3Ø	61	103
RG032	120/240 V, 1Ø	75	180
	120/208 V, 3Ø	87	210
	120/240 V, 3Ø	75	182
	277/480 V, 3Ø	36	87
RG038	120/240 V, 1Ø	75	180
	120/208 V, 3Ø	87	210
	120/240 V, 3Ø	75	182
	277/480 V, 3Ø	36	87
RG048	120/240 V, 1Ø	85	195
	120/208 V, 3Ø	90	218
	120/240 V, 3Ø	78	189
	277/480 V, 3Ø	36	87

ENGINE FUEL CONSUMPTION

		Natural Gas		Propane		
		(ft^3/hr)	(m^3/hr)	(gal/hr)	(l/hr)	(ft^3/hr)
RG022	Exercise cycle	34	1.0	0.4	1.4	13
	25% of rated load	142	4.0	1.4	8.2	52.5
	50% of rated load	207	5.9	2.1	7.8	78.6
	75% of rated load	274.6	7.8	2.9	10.9	104
	100% of rated load	342	9.7	3.6	13.7	129.7
RG027	Exercise cycle	40	1.1	0.4	1.7	15
	25% of rated load	155	4.4	1.6	6.2	58.7
	50% of rated load	233	6.6	2.6	9.5	90.4
	75% of rated load	314	8.9	3.3	12.7	121
	100% of rated load	396	11.2	4.1	15.7	149
RG032	Exercise cycle	44	1.3	0.5	2	19
	25% of rated load	138.8	3.9	1.5	5.7	53
	50% of rated load	218.8	6.2	2.6	10.2	94.9
	75% of rated load	301	8.5	3.7	14.2	132
	100% of rated load	380.6	10.8	4.6	17.6	166
RG038	Exercise cycle	44	1.3	0.5	2	19
	25% of rated load	156	4.4	1.7	6.4	60
	50% of rated load	260	7.4	3	11.4	107.8
	75% of rated load	361.7	10.2	4.2	16.2	153
	100% of rated load	444	12.6	5.4	20.4	192
RG048	Exercise cycle	63	2.0	0.9	3.3	31
	25% of rated load	270.6	7.7	3.1	11.7	110.9
	50% of rated load	425	12.0	5.0	19	151
	75% of rated load	557.7	15.8	6.8	25.8	244.5
	100% of rated load	638	18.5	8.7	33	312

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

For Btu content, multiply ft^3/hr x 2520 (LP) or ft^3/hr x 1000 (NG)

For megajoule content, multiply m^3/hr x 93.15 (LP) or m^3/hr x 37.26 (NG)

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

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

GENERAC®

22 • 27 • 32 • 38 • 48 kW operating data

ENGINE COOLING

	22 kW	27 kW	32 & 38 kW	48 kW
Air flow (inlet air including alternator and combustion air in cfm/cmm)	2400/68	2400/68	2200/62.3	4350/123.2
System coolant capacity (gal/liters)	2.5/9.5	2.5/9.5	2.5/9.5	3/11.4
Heat rejection to coolant (BTU per hr/MJ per hr)	99,000/104.5	105,000/110.8	145,000/153	186,000/196.2
Maximum operation air temperature on radiator (°C/°F)	60/150			
Maximum ambient temperature (°C/°F)	50/140			

COMBUSTION REQUIREMENTS

Flow at rated power (cfm/cmm)	68/1.9	68/1.9	106/3	163/4.6

SOUND EMISSIONS

Sound output in dB(A) at 23 ft (7 m) with generator in exercise mode*	61	61	58	63
Sound output in dB(A) at 23 ft (7 m) with generator operating at normal load*	70	70	64	68

*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)	165/4.7	180/5.1	300/8.5	414/11.7
Exhaust temperature at muffler outlet (°C/°F)	482/900	538/1000	579/1075	552/1025

ENGINE PARAMETERS

Rated Synchronous rpm	1800

POWER ADJUSTMENT FOR AMBIENT CONDITIONS

Temperature Deration ..... 3% for every 10 °C above 25 °C or 1.65% for every 10 °F above 77 °F
Altitude Deration (22, 27 & 48 kW) ..... 1% for every 100 m above 183 m or 3% for every 1000 ft above 600 ft
Altitude Deration (32 & 38 kW) ..... 1% for every 100 m above 915 m or 3% for every 1000 ft above 3000 ft

CONTROLLER FEATURES

2-Line Plain Text LCD Display ..... Simple user interface for ease of operation.
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
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

GENERAC

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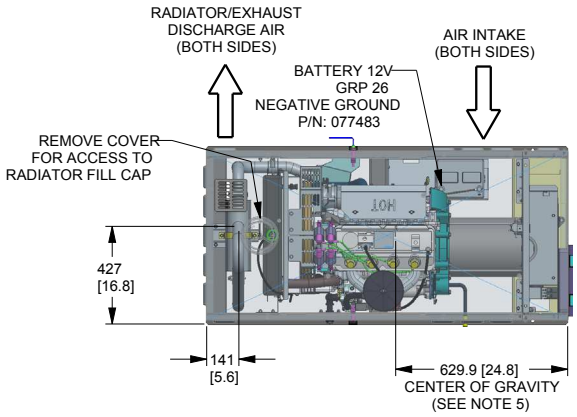
available accessories

Model #	Product	Description
G006463-4	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.
G006478-0	Harness Adapter Kit	The Harness Adapter Kit is required to make liquid-cooled units compatible with Mobile Link™.
G005630-1 - 22, 27, 32 & 38 kW G005632-1- 48 kW	Cold Weather Kit	If the temperature regularly falls below 32 °F (0 °C), install a cold weather kit to maintain optimal battery temperature. Kit consists of battery warmer with thermostat built into the wrap.
G005616-0 - 22, 27, 32 & 38 kW G007088-0 - 48 kW	Extreme Cold Weather Kit	Recommended where the temperature regularly falls below 32 °F (0 °C) for extended periods of time. For liquid cooled units only.
G005651-0	Base Plug Kit	Add base plugs to the base of the generator to keep out debris.
G005704-0	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.
G005656-0 - 22 & 27 kW G005984-0 - 32 & 38 kW G006205-0 - 48 kW	Scheduled Maintenance Kit	The Liquid-Cooled Scheduled Maintenance Kits offer all the hardware necessary to perform complete maintenance on Generac liquid-cooled generators.
G006664-0	Local Wireless Monitor	Completely wireless and battery powered, Generac's wireless remote monitor provides you with instant status information without ever leaving the house.
G006665-0	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.
G006873-0	Smart Management Module (50 Amps)	Smart Management Modules are used in conjunction with the Automatic Transfer Switch to increase its power management capabilities. It provides additional power management flexibility not found in any other power management system.
G006510-0	E-Stop	E-stop allows for immediate fuel shutoff and generator shutdown in the event of an emergency.

22 & 27 kW

Drawing #0K8624-B (1 of 2)

installation layout



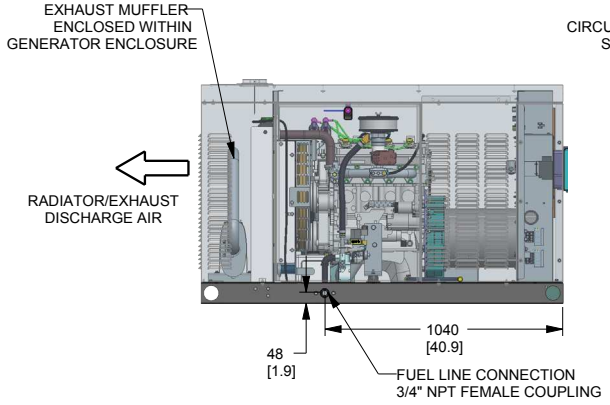
TOP VIEW

SERVICE ITEM	2.4L
OIL FILL CAP	EITHER SIDE
OIL DIP STICK	RIGHT SIDE
OIL FILTER	RIGHT SIDE
OIL DRAIN HOSE	LEFT SIDE
RADIATOR DRAIN	LEFT SIDE
COOLANT RECOVERY BOTTLE	LEFT SIDE
RADIATOR FILL CAP	ROOF TOP
AIR CLEANER ELEMENT	LEFT SIDE
SPARK PLUGS	LEFT SIDE
MUFFLER	SEE NOTE 11
DRIVE BELT	EITHER SIDE
FAN BELT	SEE NOTE 11
BATTERY	LEFT SIDE

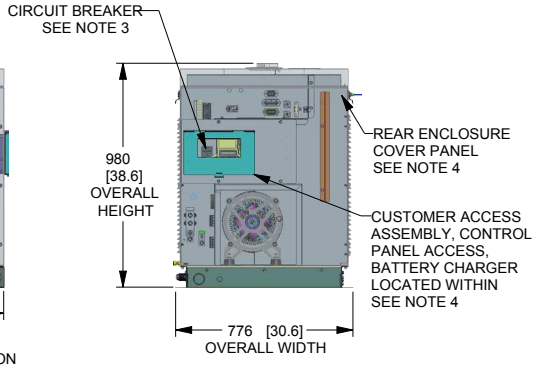
REFERENCE OWNERS MANUAL
FOR PERIODIC REPLACEMENT
PART LISTINGS.

NOTES:

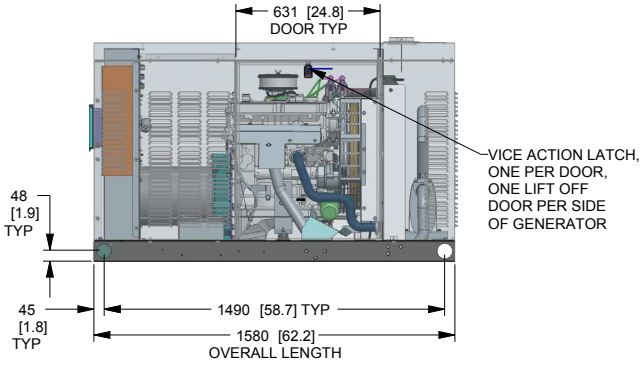
1. MINIMUM RECOMMENDED CONCRETE PAD SIZE: 1092 (43") WIDE X 1885 (74.2") LONG. REFERENCE INSTALLATION GUIDE SUPPLIED WITH UNIT FOR CONCRETE PAD GUIDELINES.
2. ALLOW SUFFICIENT ROOM ON ALL SIDES OF THE GENERATOR FOR MAINTENANCE AND SERVICING. THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH CURRENT APPLICABLE 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 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 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.
11. EXHAUST MUFFLER AND FAN BELT ENCLOSED WITHIN GENERATOR ENCLOSURE, REMOVE FRONT PANEL TO ACCESS.



LEFT SIDE VIEW



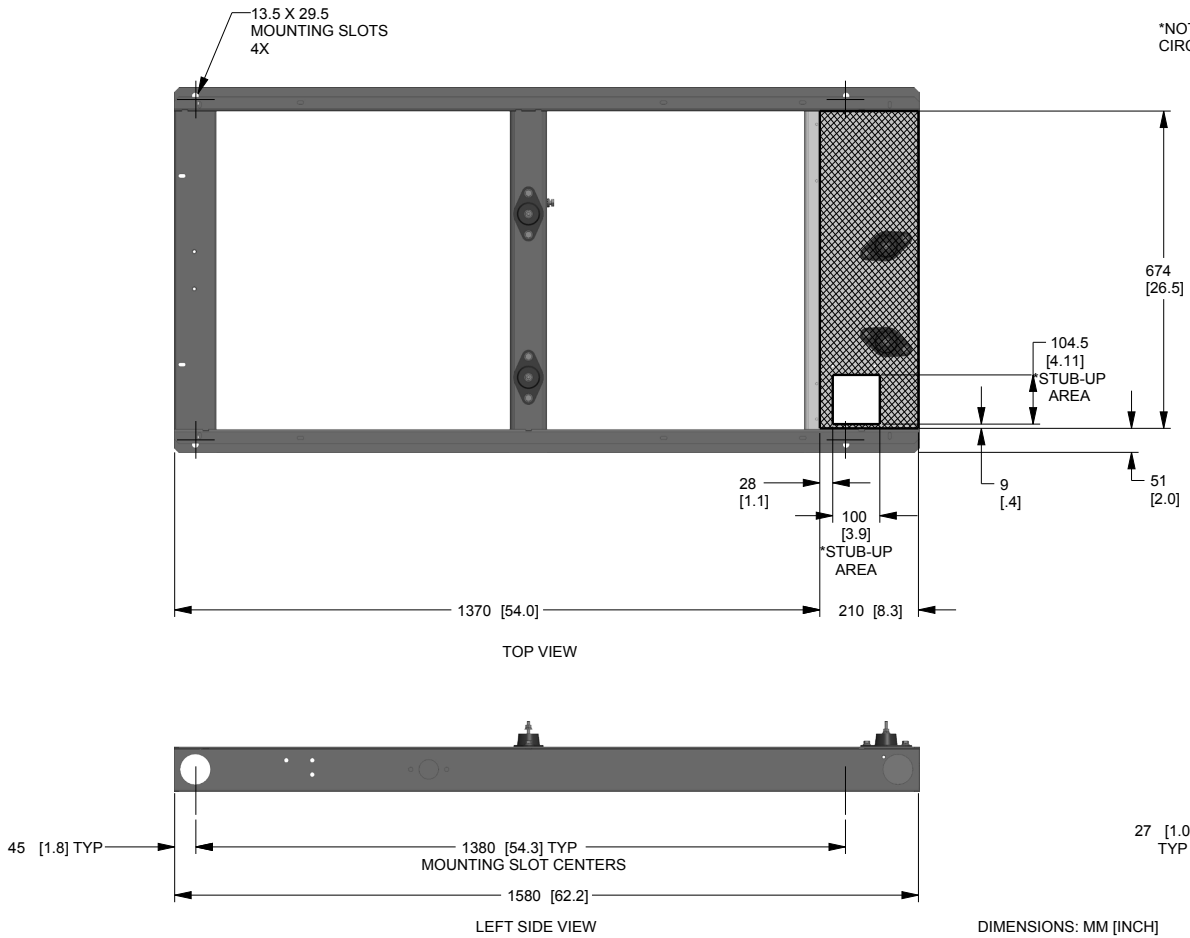
REAR VIEW



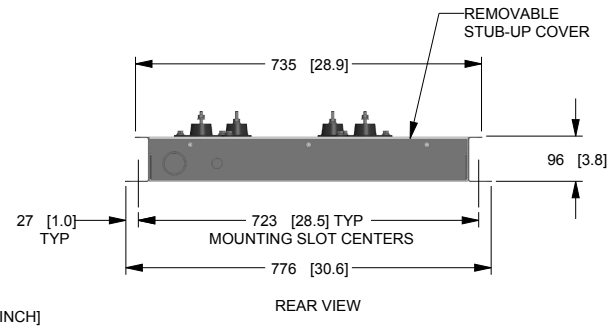
RIGHT SIDE VIEW

WEIGHT DATA				
ENGINE/KW	ENCLOSURE MATERIAL	WEIGHT GENSET ONLY KG [LBS]	WEIGHT SHIPPING SKID KG [LBS]	SHIPPING WEIGHT KG [LBS]
2.4L 22KW	AL	410.5 [905]	30 [66]	440 [971]
2.4L 27KW	AL	426 [940]	30 [66]	456 [1006]

DIMENSIONS: MM [INCH]



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

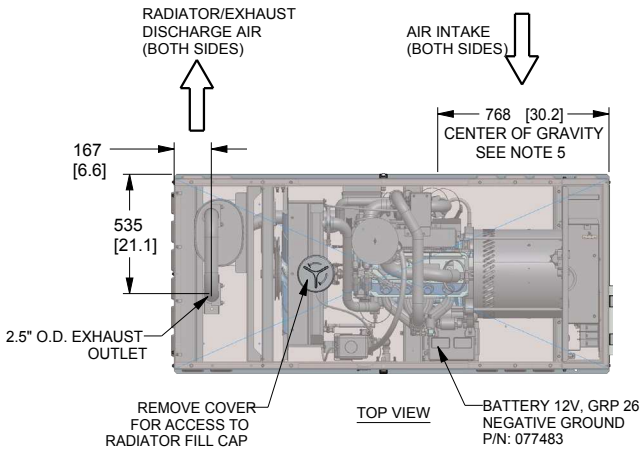


DIMENSIONS: MM [INCH]

32 & 38 kW

Drawing #0K9268-B (1 of 2)

installation layout



SERVICE ITEM	2.4L
OIL FILL CAP	EITHER SIDE
OIL DIP STICK	RIGHT SIDE
OIL FILTER	RIGHT SIDE
OIL DRAIN HOSE	RIGHT SIDE
RADIATOR DRAIN HOSE	LEFT SIDE
COOLANT RECOVERY BOTTLE	LEFT SIDE
RADIATOR FILL CAP ACCESS	ROOF TOP
AIR CLEANER ELEMENT	RIGHT SIDE
SPARK PLUGS	LEFT SIDE
MUFFLER	SEE NOTE 11
DRIVE BELT	EITHER SIDE
FAN BELT	SEE NOTE 11
BATTERY	LEFT SIDE

REFERENCE OWNERS MANUAL
FOR PERIODIC REPLACEMENT
PART LISTINGS.

NOTES:

1. MINIMUM RECOMMENDED CONCRETE PAD SIZE: 1194 (47") WIDE X 2255 (88.8") 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 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.
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.
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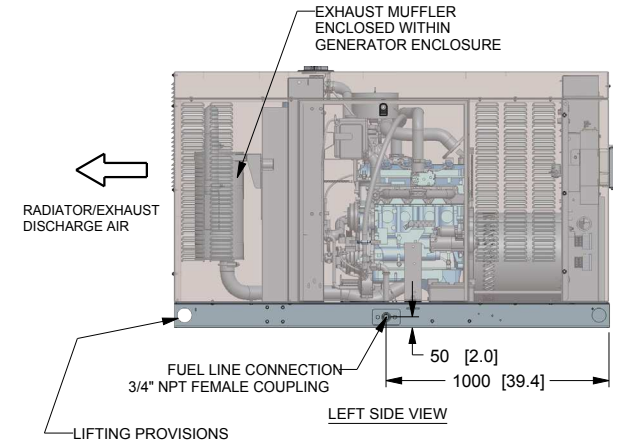
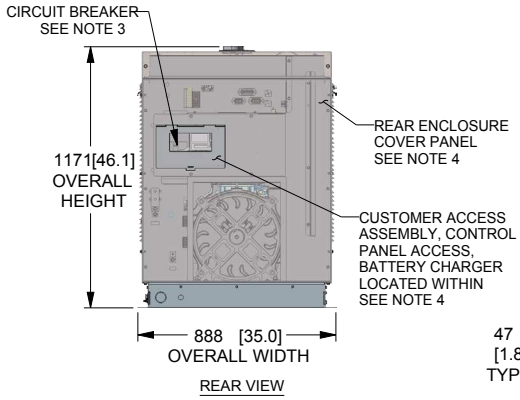
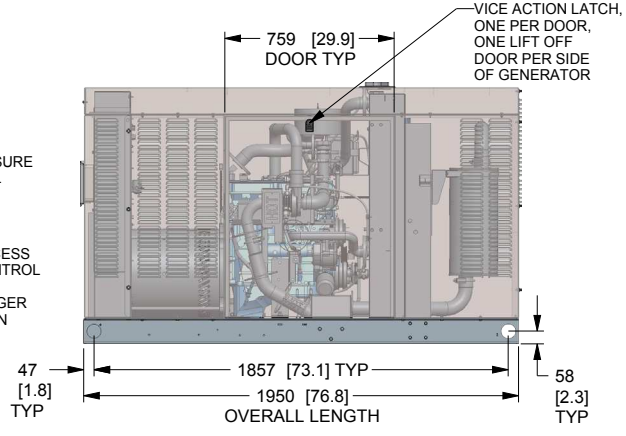
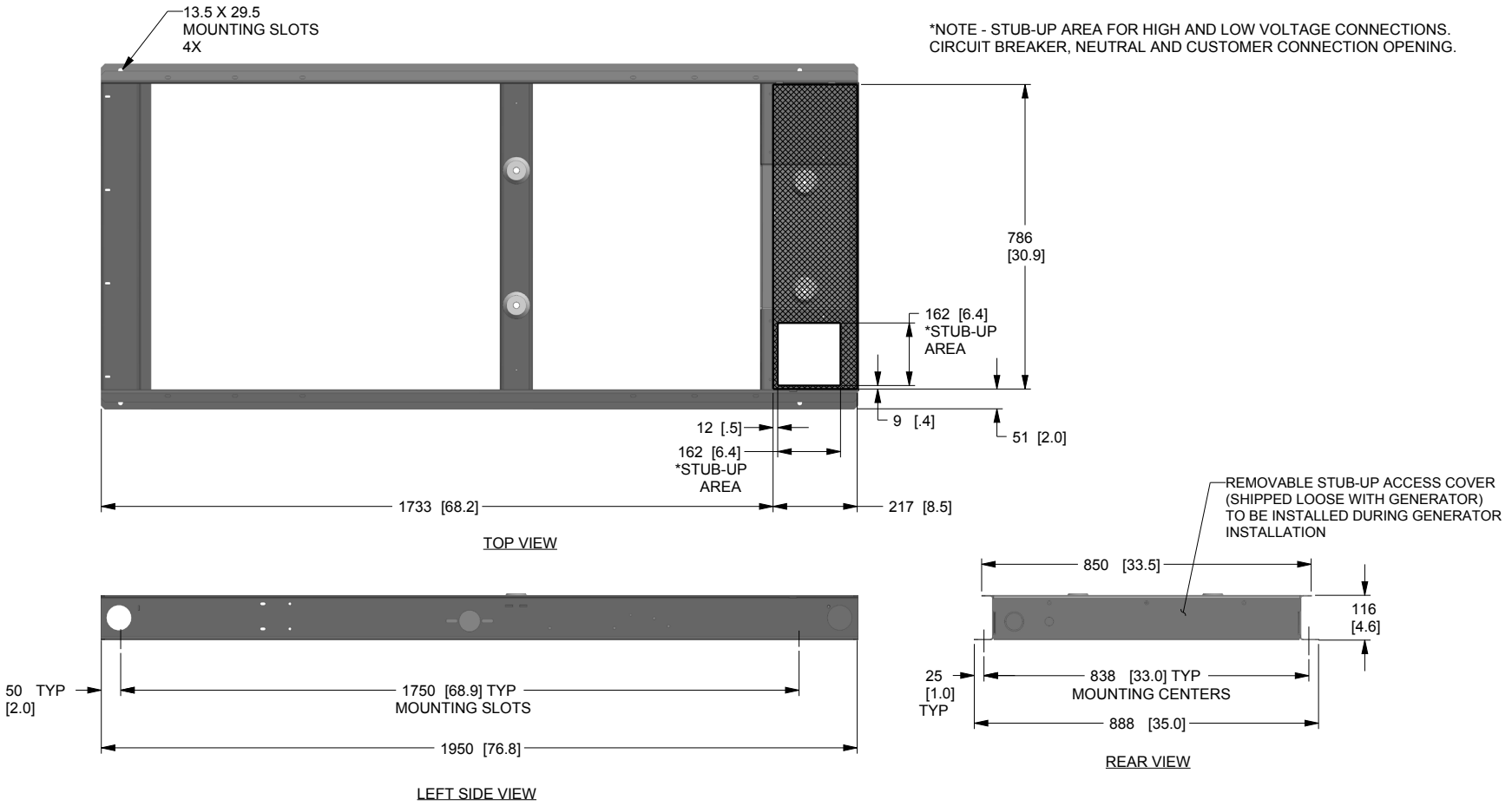






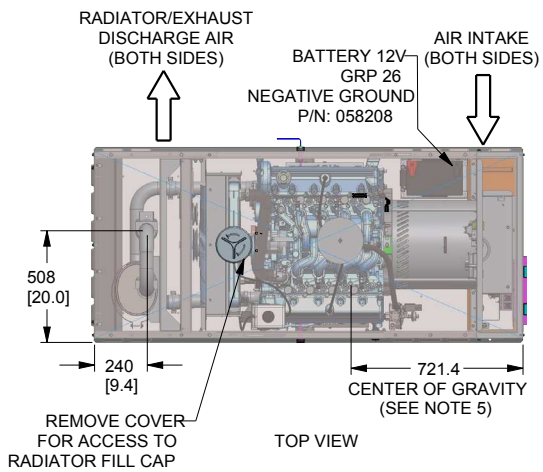
WEIGHT DATA				
ENGINE/KW	ENCLOSURE MATERIAL	WEIGHT GENSET ONLY KG [LBS]	WEIGHT SHIPPING SKID KG [LBS]	SHIPPING WEIGHT KG [LBS]
2.4L 32KW	AL	556 [1225]	44 [98]	600 [1323]
2.4L 38KW	AL	560 [1235]	44 [98]	605 [1333]

DIMENSIONS: MM [INCH]


13.5 X 29.5
MOUNTING SLOTS
4X
*NOTE - STUB-UP AREA FOR HIGH AND LOW VOLTAGE CONNECTIONS.
CIRCUIT BREAKER, NEUTRAL AND CUSTOMER CONNECTION OPENING.
786
[30.9]
162 [6.4]
*STUB-UP
AREA
9 [.4]
51 [2.0]
12 [.5]
162 [6.4]
*STUB-UP
AREA
1733 [68.2]
217 [8.5]
TOP VIEW
REMOVABLE STUB-UP ACCESS COVER
(SHIPPED LOOSE WITH GENERATOR)
TO BE INSTALLED DURING GENERATOR
INSTALLATION
850 [33.5]
116
[4.6]
25
[1.0]
TYP
838 [33.0] TYP
MOUNTING CENTERS
888 [35.0]
REAR VIEW
50 TYP
[2.0]
1750 [68.9] TYP
MOUNTING SLOTS
1950 [76.8]
LEFT SIDE VIEW

48 kW

Drawing #0K9243-B (1 of 2)



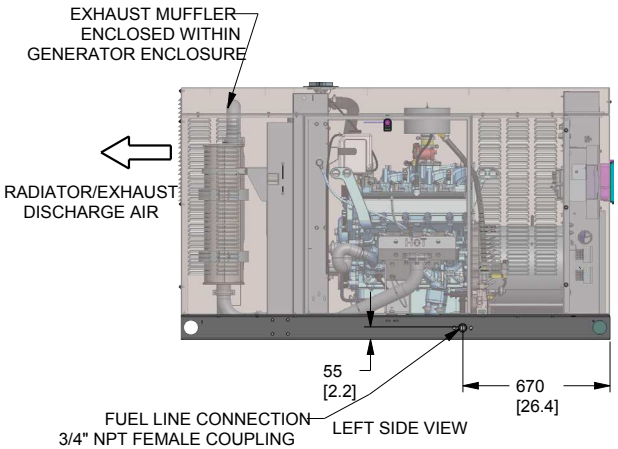
TOP VIEW

SERVICE ITEM	5.4L
OIL FILL CAP	RIGHT SIDE
OIL DIP STICK	LEFT SIDE
OIL FILTER	LEFT SIDE
OIL DRAIN HOSE	RIGHT SIDE
RADIATOR DRAIN HOSE	LEFT SIDE
COOLANT RECOVERY BOTTLE	LEFT SIDE
RADIATOR FILL CAP	ROOF TOP
AIR CLEANER ELEMENT	EITHER SIDE
SPARK PLUGS	EITHER SIDE
MUFFLER	SEE NOTE 11
DRIVE BELT	EITHER SIDE
FAN BELT	SEE NOTE 11
BATTERY	RIGHT SIDE

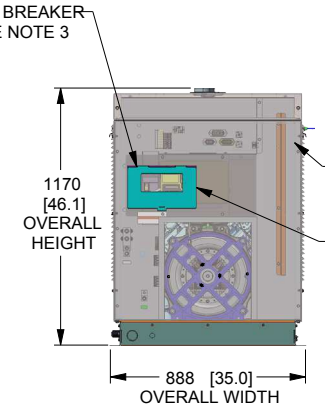
REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PART LISTINGS.

NOTES:

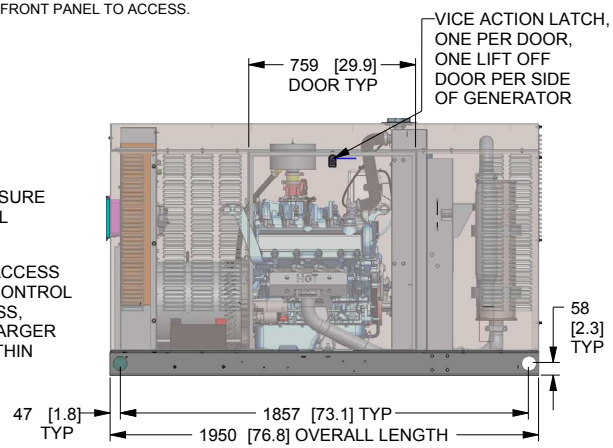
1. MINIMUM RECOMMENDED CONCRETE PAD SIZE: 1194 (47") WIDE X 2256 (88.8") LONG. REFERENCE INSTALLATION GUIDE SUPPLIED WITH UNIT FOR CONCRETE PAD GUIDELINES.
2. ALLOW SUFFICIENT ROOM ON ALL SIDES OF THE GENERATOR FOR MAINTENANCE AND SERVICING. THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH CURRENT APPLICABLE 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 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 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.
11. EXHAUST MUFFLER AND FAN BELT ENCLOSED WITHIN GENERATOR ENCLOSURE, REMOVE FRONT PANEL TO ACCESS.



LEFT SIDE VIEW



REAR VIEW



WEIGHT DATA				
ENGINE/KW	ENCLOSURE MATERIAL	WEIGHT GENSET ONLY KG [LBS]	WEIGHT SHIPPING SKID KG [LBS]	SHIPPING WEIGHT KG [LBS]
5.4L/48KW	AL	705 [1555]	44 [98]	750 [1653]

installation layout

GENERAC®

48 kW

installation layout

Drawing #0K9243-B (2 of 2)