

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 Fleet₁
- Padlockable Control Panel Cover
- Quiet Operation
- Corrosion Resistant Aluminium Enclosure
- 5 Year/2,000 Hour Limited Warranty
- High Motor-Starting, Surge Capacity
- ±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 Rating₂
- UL 2200 Listed
- SwRI Listed & Labeled allowing installation as close as 18 in (457 mm) from structure₃

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

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 ±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	400
	208/120 V 3-Phase	175	300
	240/120 V 3-Phase	150	300
	480/277 V 3-Phase	80	100
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 (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 ³ /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 ₂ O (kPa))	7-14 (1.74-3.48)
NG Pressure (in H ₂ 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 ft³/US gal (0.27 m³/L); 2,540 BTU/ft³ (94.6 MJ/m³); 4.24 lb/US gal (0.508 kg/L)

NATURAL GAS

Rated Load	RG04845		RG06045		RG08045	
	(cfh)	(m ³ /h)	(cfh)	(m ³ /h)	(cfh)	(m ³ /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/ft³ (38.6 MJ/m³)

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		

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
Control System Kits		
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.
Operating Environment Kits		
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.
Installation Kits		
Base Plug Kit	G0056510	Base plugs to fit in the lifting holes of the baseframe to keep debris out.
Maintenance Kits		
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)

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	ETHER SIDE
BATTERY	LEFT SIDE

REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PARTS LIST

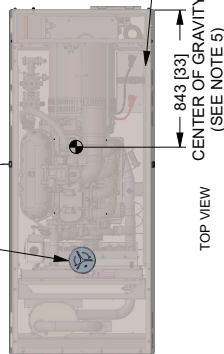
WEIGHT DATA	
ENGINE/KW	ENCLOSURE MATERIAL
4.5L/48KW	AL
WEIGHT GENSET ONLY KG [LBS]	WEIGHT SHIPPING SKID KG [LBS]
808 [1781]	51 [112]
SHIPPING WEIGHT KG [LBS]	859 [1893]

RADIATOR/EXHAUST DISCHARGE AIR (BOTH SIDES)

AIR INTAKE (BOTH SIDES)



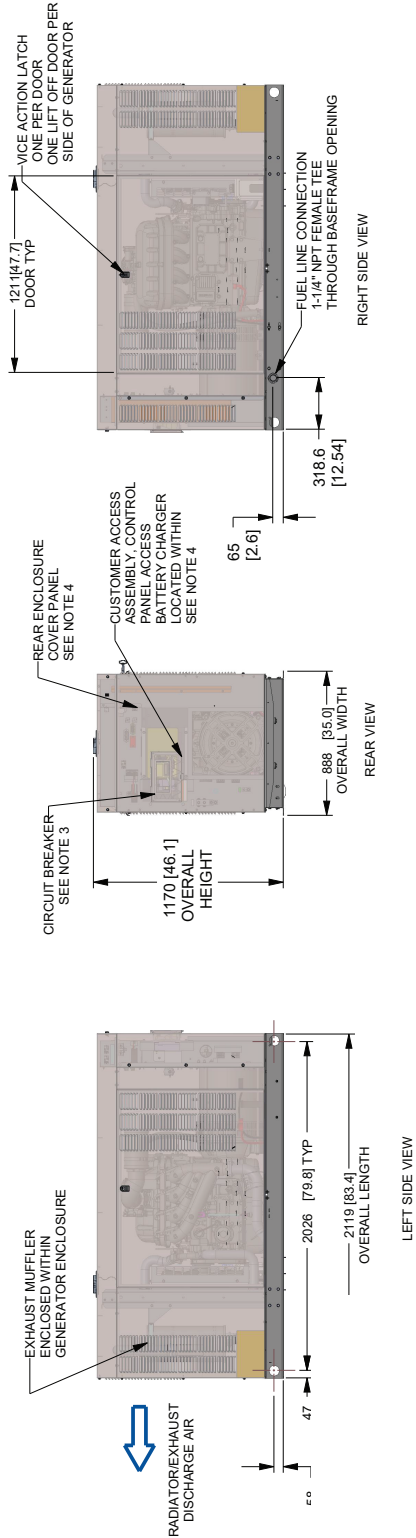
REMOVE COVER FOR ACCESS TO RADIATOR FILL CAP



BATTERY 12V GROUND POSITIVE GROUND NEGATIVE GROUND PIN G358665

NOTES:

- 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.
- 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.
- CONTROL PANEL / CIRCUIT BREAKER INFORMATION:
- SEE SPECIFICATION SHEET OR OWNERS MANUAL
- ACCESSIBLE THROUGH CUSTOMER ACCESS ASSEMBLY DOOR ON REAR OF GENERATOR.
- REMOVE THE REAR ENCLOSURE COVER PANEL TO ACCESS:
- 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.
- CENTER OF GRAVITY AND WEIGHT MAY CHANGE DUE TO UNIT OPTIONS.
- BOTTOM OF GENERATOR SET MUST BE ENCLOSED TO PREVENT PEST INTRUSION AND RECYCLE COOLING AIR FOR REUSE.
- RECYCLE COOLING AIR FOR REUSE.
- RECOMMENDED MOUNTING BOLTS OR STUDS TO MOUNTING SURFACE SHALL BE 1/2" DIAMETER (USE STANDARD SAE TORQUE SPECS).
- MUST ALLOW FREE FLOW OF INTAKE AIR, DISCHARGE AIR AND EXHAUST. SEE SPEC SHEET FOR MINIMUM AIR FLOW AND MAXIMUM RESTRICTION REQUIREMENTS.
- GENERATOR MUST BE INSTALLED SUCH THAT FRESH COOLING AIR IS AVAILABLE AND THAT DISCHARGE AIR FROM RADIATOR IS NOT RECIRCULATED.
- EXHAUST MUFFLER ENCLOSED WITHIN GENERATOR ENCLOSURE. REMOVE FRONT PANEL TO ACCESS.



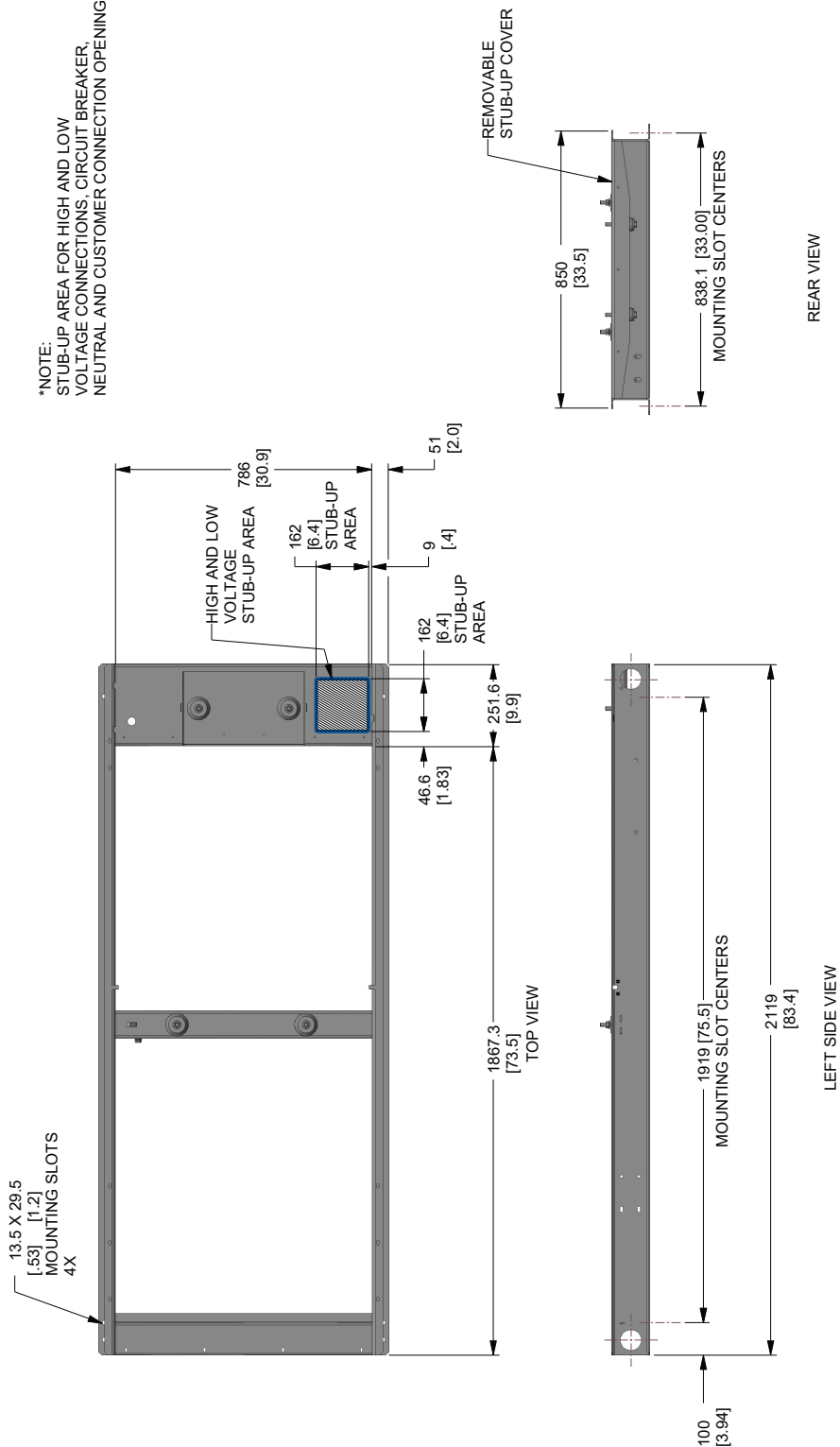
DIMENSIONS: MM [INCH]

INSTALLATION DRAWING

48 KW

Drawing #A0000293718-D (2 of 2)

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



DIMENSIONS: MM [INCH]

60 / 80 KW

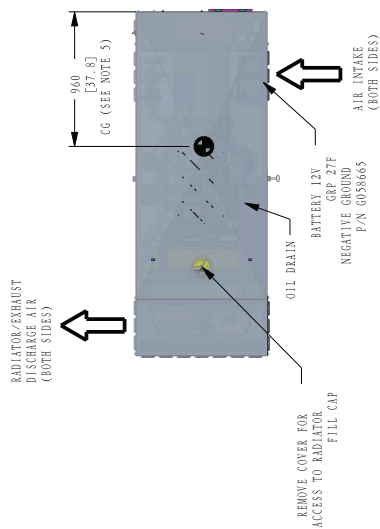
Drawing #A0000293264 Rev B (1 of 2)

NOTES:

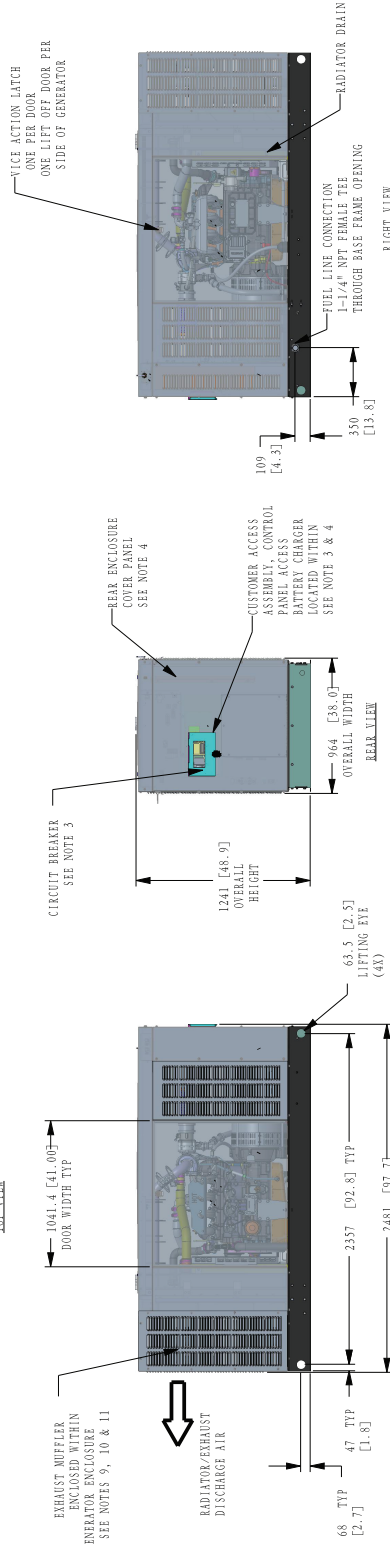
- MINIMUM RECOMMENDED CONCRETE PAD SIZE: (6" LARGER PER SIDE THAN GENERATOR) 1269 (50") WIDE 2786 (110") LONG. REFERENCE INSTALLATION GUIDE SUPPLIED WITH UNIT FOR CONCRETE PAD GUIDELINES.
- ALLOW SUFFICIENT ROOM ON ALL SIDES OF THE GENERATOR FOR MAINTENANCE AND SERVICING. THIS UNIT MUST BE INSTALLED IN ACCORDANCE WITH CURRENT APPLICABLE NFPA 37 AND NFPA 70 STANDARDS AS WELL AS ANY OTHER FEDERAL, STATE, AND LOCAL CODES.
- CONTROL PANEL / CIRCUIT BREAKER INFORMATION:
 - SEE SPECIFICATION SHEET OR OWNERS MANUAL.
 - ACCESSIBLE THROUGH CUSTOMER ACCESS ASSEMBLY ON REAR OF GENERATOR.
 - INSIDE STUPE AREA FOR AC LOAD LEAD CONNECTION, NEUTRAL CONNECTION, BATTERY POSITIVE LEAD CONNECTION, AND ACCESS TO TRANSFER SWITCH CONTROL WIRES. REMOVE REAR COVER FOR ACCESS.
 - 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.
- REFERENCE OWNERS MANUAL FOR LIFTING WARNINGS.
- RECOMMENDED MOUNTING BOLTS OR STUDS TO MOUNTING SURFACE SHALL BE 1/2" DIAMETER (USE STANDARD SAE TORQUE SPECS).
- MUST ALLOW FREE FLOW OF INTAKE AIR, DISCHARGE AIR AND EXHAUST. SEE SPEC SHEET FOR MINIMUM AIR FLOW AND MAXIMUM RESTRICTION REQUIREMENTS.
- GENERATOR MUST BE INSTALLED SUCH THAT FRESH COOLING AIR IS AVAILABLE AND THAT DISCHARGE AIR FROM RADIATOR IS NOT RECIRCULATED.
- REMOVE FRONT END PANEL TO ACCESS EXHAUST MUFFLER. ACCESS AVAILABLE THROUGH DOORS TO FAN BELT.

SERVICE ITEM	4 SL
OIL FILL CAP	LEFT SIDE
OIL DIP STICK	LEFT SIDE
OIL FILTER	LEFT SIDE
OIL DRAIN HOSE	LEFT SIDE
RADIATOR DRAIN HOSE	RIGHT SIDE
COOLANT RECOVERY BOTTLE	RIGHT SIDE
RADIATOR FILL CAP	ROOF TOP
AIR CLEANER ELEMENT	EITHER SIDE
SPARK PLUGS	LEFT SIDE
MUFFLER	SEE NOTE 11
FAN BELT	EITHER SIDE
BATTERY	LEFT SIDE

REFERENCE OWNERS MANUAL FOR PERIODIC REPLACEMENT PART LISTINGS.



TOP VIEW



WEIGHT DATA			
ENGINE/KW	ENCLOSURE MATERIAL	WEIGHT GENSET ONLY KG [LBS]	WEIGHT SHIPPING SKID KG [LBS]
4.5L/60KW	AL	857 (1890)	79 (175)
4.5L/80KW	AL	903 (1990)	79 (175)
			936 (2064)
			983 (2165)

DIMENSIONS: MM [INCH]

LEFT VIEW

RIGHT VIEW

INSTALLATION DRAWING

60 / 80 KW

Drawing #A0000293264 Rev B (2 of 2)

