INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency



Standby Power Rating 50 kW, 63 kVA, 60 Hz

Prime Power Rating* 45 kW, 56 kVA, 60 Hz





*EPA Certified Prime ratings are not available in the US or its Territories

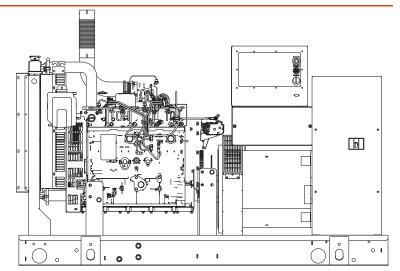


Image used for illustration purposes only

Codes and Standards

Not all codes and standards apply to all configurations. Contact factory for details.





UL2200, UL508, UL489, UL142



CSA C22.2



BS5514 and DIN 6271



SAE J1349



NFPA 37, 70, 99, 110



NEC700, 701, 702, 708



ISO 3046, 7637, 8528, 9001



NEMA ICS10, MG1, 250, ICS6, AB1



ANSI C62.41



IBC 2009, CBC 2010, IBC 2012, ASCE 7-05, ASCE 7-10, ICC-ES AC-156 (2012)

Powering Ahead

For over 50 years, Generac has provided innovative design and superior manufacturing.

Generac ensures superior quality by designing and manufacturing most of its generator components, including alternators, enclosures and base tanks, control systems and communications software.

Generac gensets utilize a wide variety of options, configurations and arrangements, allowing us to meet the standby power needs of practically every application.

Generac searched globally to ensure the most reliable engines power our generators. We choose only engines that have already been proven in heavy-duty industrial applications under adverse conditions.

Generac is committed to ensuring our customers' service support continues after their generator purchase.

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

GENERAC

STANDARD FEATURES

ENGINE SYSTEM

- Oil Drain Extension
- Air Cleaner
- Fan Guard
- Stainless Steel Flexible Exhaust Connection
- Radiator Duct Adapter (Open Set Only)

Fuel System

- · Fuel Lockoff Solenoid
- Secondary Fuel Filter

Cooling System

- · Closed Coolant Recovery System
- UV/Ozone Resistant Hoses
- Factory-Installed Radiator
- Radiator Drain Extension

Electrical System

- Battery Charging Alternator
- **Battery Cables**
- **Battery Tray**
- **Rubber-Booted Engine Electrical Connections**
- Solenoid Activated Starter Motor

ALTERNATOR SYSTEM

- UL2200 GENprotect[™]
- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- **Brushless Excitation**
- Sealed Bearing
- Full Load Capacity Alternator
- Protective Thermal Switch

GENERATOR SET

- Genset Vibration Isolation
- Separation of Circuits High/Low Voltage
- Separation of Circuits Dual Breakers
- Standard Factory Testing
- 2 Year Limited Warranty (Standby Rated Units)
- 1 Year Limited Warranty (Prime Rated Units)

ENCLOSURE (If Selected)

- Rust-Proof Fasteners with Nylon Washers to Protect Finish
- High Performance Sound-Absorbing Material (Sound Attenuated Enclosures)
- **Gasketed Doors**
- Stamped Air-Intake Louvers
- Upward Facing Discharge Hoods (Radiator and Exhaust)
- Stainless Steel Lift Off Door Hinges
- Stainless Steel Lockable Handles
- RhinoCoat™ Textured Polyester Powder Coat Paint

TANKS (If Selected)

- UL 142
- Double Wall
- Vents
- Sloped Top
- Sloped Bottom
- Factory Pressure Tested 2 psi
- Rupture Basin Alarm
- Fuel Level
- Check Valve In Supply and Return Lines
- RhinoCoat™ Textured Polyester Powder Coat Paint
- Stainless Steel Hardware

CONTROL SYSTEM



Digital H Control Panel- Dual 4x20 Display

Program Functions

- · Programmable Crank Limiter
- 7-Day Programmable Exerciser
- Special Applications Programmable Logic Controller
- RS-232/485 Communications
- · All Phase Sensing Digital Voltage Regulator
- · 2-Wire Start Capability
- Date/Time Fault History (Event Log)
- Isochronous Governor Control

- Waterproof/Sealed Connectors
- Audible Alarms and Shutdowns Not in Auto (Flashing Light)
- Auto/Off/Manual Switch
- E-Stop (Red Mushroom-Type)
- NFPA110 Level I and II (Programmable)
- Customizable Alarms, Warnings, and Events
- Modbus® Protocol
- Predictive Maintenance Algorithm
- Sealed Boards
- Password Parameter Adjustment Protection
- Single Point Ground
- 16 Channel Remote Trending
- 0.2 msec High Speed Remote Trending
- Alarm Information Automatically Annunciated on the Display

Full System Status Display

- Power Output (kW)
- Power Factor
- kW Hours, Total, and Last Run
- Real/Reactive/Apparent Power
- All Phase AC Voltage
- All Phase Currents

Oil Pressure

- Coolant Temperature
- · Coolant Level
- Engine Speed
- Battery Voltage
- Frequency

Alarms and Warnings

- Oil Pressure
- Coolant Temperature
- Coolant Level **Engine Overspeed**
- **Battery Voltage**
- Alarms and Warnings Time and Date Stamped Snap Shots of Key Operation Parameters During Alarms and Warnings
- Alarms and Warnings Spelled Out (No Alarm Codes)

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

GENERAC INDUSTRIAL POWER

CONFIGURABLE OPTIONS

ENGINE SYSTEM

- Oil Make-Up System
- Oil Heater
- O Industrial Silencer
- O Critical Silencer

FUEL SYSTEM

- O Flexible Fuel Lines
- O Primary Fuel Filter

COOLING SYSTEM

- O 120 VAC Coolant Heater
- O 208 VAC Coolant Heater
- O 240 VAC Coolant Heater

ELECTRICAL SYSTEM

- O Battery Box
- O Battery Heater
- O 10A UL Listed Float/Equalize Battery Charger

ALTERNATOR SYSTEM

- O Main Line Circuit Breaker
- O 2nd Circuit Breaker
- O 3rd Circuit Breaker
- Alternator Upsizing
- Anti-Condensation Heater
- Tropical Coating
- O Permanent Magnet Excitation

GENERATOR SET

- O Weather Protected Enclosure
- O Level 1 Sound Attenuated Enclosure
- O Level 2 Sound Attenuated Enclosure
- IBC Seismic Certified/Seismic Rated Vibration Isolators
- O Steel Enclosure
- O Aluminum Enclosure
- O Enclosure Light Kits

CONTROL SYSTEM

- NFPA 110 Level 1 Compliant 21-Light Remote Annunciator
- O Remote Relay Assembly (8 or 16)
- O Spare Inputs (x4) Outputs (x4)
- O Oil Temperature Indication and Alarm
- O Remote E-Stop (Break Glass-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Surface Mount)
- O Remote E-Stop (Red Mushroom-Type, Flush Mount)
- O Remote Communication Modem
- 10A Engine Run Relay
- O Ground Fault Annunciator
- O 100 dB Alarm Horn

WARRANTY (Standby Gensets Only)

- O 2 Year Extended Limited Warranty
- 5 Year Limited Warranty
- 5 Year Extended Limited Warranty
- O 7 Year Extended Limited Warranty
- 10 Year Extended Limited Warranty

ENGINEERED OPTIONS

ENGINE SYSTEM

- Coolant Heater Ball Valves
- O Fluid Containment Pan

CONTROL SYSTEM

O Battery Disconnect Switch

GENERATOR SET

- O Special Testing
- O Battery Box

ENCLOSURE

- O Door Open Alarm
- Enclosure Heater
- Motorized Dampers

TANKS

- Overfill Protection Valve
- O ULC S-601
- O UL 2085 Tank
- O Special Fuel Tanks
- External Vent Extensions
- O Tank Risers
- \circ 5 Gallon Spill Box
- O Lockable Fuel Fill
- $\ \, \circ \ \, \text{Pipe Flanges}$
- O 90% High Fuel Alarm

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency



APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

B.fI	lance (FDT
Make	Iveco/FPT
EPA Emissions Compliance	Stationary Emergency
EPA Emissions Reference	See Emission Data Sheet
Cylinder #	4
Туре	In-Line
Displacement - in ³ (L)	274 (4.5)
Bore - in (mm)	4.1 (105)
Stroke - in (mm)	5.2 (132)
Compression Ratio	17.5:1
Intake Air Method	Turbocharged

2-Valve

Aluminum

Forged Steel

14.4 (13.6)

Engine Governing

Crankcase Capacity - qt (L)

Cylinder Head Type

Piston Type

Crankshaft Type

Governor	Electronic Isochronous	
Frequency Regulation (Steady State)	±0.25%	
Lubrication System		
Oil Pump Type	Gear	
Oil Filter Type	Full-Flow Cartridge	

Cooling System

Cooling System Type	Closed	
Water Pump Type	Belt Driven Centrifugal	
Fan Type	Pusher	
Fan Speed - RPM	2,538	
Fan Diameter - in (mm)	26 (660)	

Fuel System

Fuel Type	Ultra Low Sulfur Diesel Fuel	
Fuel Specifications	ASTM	
Fuel Filtering (Microns)	5	
Fuel Pump Type	Engine Driven Gear	
Injector Type	Mechanical	
Fuel Supply Line - in (mm)	0.25 (6.35) NPT	
Fuel Return Line - in (mm)	0.25 (6.35) NPT	

Engine Electrical System

System Voltage	12 VDC
Battery Charger Alternator	Standard
Battery Size	See Battery Index 0161970SBY
Battery Voltage	12 VDC
Ground Polarity	Negative

ALTERNATOR SPECIFICATIONS

Standard Model	K0050124Y21
Poles	4
Field Type	Revolving
Insulation Class - Rotor	Н
Insulation Class - Stator	Н
Total Harmonic Distortion	<5%
Telephone Interference Factor (TIF)	< 50

Standard Excitation	Synchronous Brushless	
Bearings	One, Pre-Lubed and Sealed	
Coupling	Direct via Flexible Disc	
Prototype Short Circuit Test	Yes	
Voltage Regulator Type	Digital	
Number of Sensed Phases	3	
Regulation Accuracy (Steady State)	±0.25%	

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency



OPERATING DATA

POWER RATINGS

	Standby	
Single-Phase 120/240 VAC @1.0pf	50 kW	Amps: 208
Three-Phase 120/208 VAC @0.8pf	50 kW	Amps: 174
Three-Phase 120/240 VAC @0.8pf	50 kW	Amps: 151
Three-Phase 277/480 VAC @0.8pf	50 kW	Amps: 75
Three-Phase 346/600 VAC @0.8pf	50 kW	Amps: 60

MOTOR STARTING CAPABILITIES (skVA)

skVA vs. Voltage Dip

277/480 VAC	30%	208/240 VAC	30%
K0050124Y21	98	K0050124Y21	75

FUEL CONSUMPTION RATES*

Fuel Pump Lift- ft (m)

3 (1)

Total Fuel Pump Flow (Combustion + Return) - gph (Lph) 13.6 (51.5)

Diesel - gph (Lph)

Percent Load	Standby	
25%	1.15 (4.35)	
50%	2.25 (8.52)	
75%	3.21 (12.15)	
100%	4.15 (15.75)	

^{*} Fuel supply installation must accommodate fuel consumption rates at 100% load.

COOLING

		Standby
Coolant Flow	gpm (Lpm)	32.7 (123.8)
Coolant System Capacity	gal (L)	4.5 (17.44)
Heat Rejection to Coolant	BTU/hr (kW)	121,000 (35.5)
Inlet Air	scfm (m³/min)	6,360 (180)
Maximum Operating Radiator Air Temperature	°F (°C)	122 (50)
Maximum Ambient Temperature (Before Derate)		See Bulletin No. 0199270SSD
Maximum Radiator Backpressure	in H ₂ O (kPa)	0.5 (0.12)

COMBUSTION AIR REQUIREMENTS

	Standby	Prime
Flow at Rated Power scfm (m³/min)	205 (5.80)	189 (5.35)

ENGINE EXHAUST

		Standby
Rated Engine Speed	RPM	1,800
Horsepower at Rated kW**	hp	80
Piston Speed	ft/min (m/min)	1,559 (475)
BMEP	psi (kPa)	128.5 (886)

		Standby
Exhaust Flow (Rated Output)	scfm (m³/min)	497 (14.1)
Max. Allowable Backpressure	inHg (kPa)	1.5 (5.1)
Exhaust Temp (Rated Output)	°F (°C)	850 (454)

Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions.

Please contact a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528, and DIN6271 standards. Standby - See Bulletin 10000018933

Prime - See Bulletin 10000018926

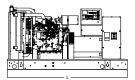
^{**} Refer to "Emissions Data Sheet" for maximum bHP for EPA and SCAQMD permitting purposes.

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

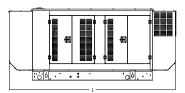
GENERAC INDUSTRIAL

DIMENSIONS AND WEIGHTS*

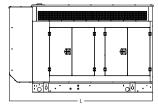


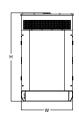












OPEN SET (Includes Exhaust Flex)

Run Time Usable Capacity - Gal (L)		e Capacity L x W x H - in (mm)			
No Tank	-	76.0 (1,930) x 37.0 (940) x 53.0 (1,346)	1,996 (905)		
13	54 (204)	76.0 (1,930) x 37.0 (940) x 66.0 (1,676)	2,476 (1,123)		
32	132 (500)	76.0 (1,930) x 37.0 (940) x 78.0 (1,981)	2,706 (1,227)		
51	211 (799)	76.0 (1,930) x 37.0 (940) x 90.0 (2,286)	2,915 (1,322)		
72	300 (1,136)	93.0 (2,362) x 37.0 (940) x 94.0 (2,388)	2,978 (1,351)		
122	510 (1,931)	117.0 (2,972) x 47.0 (1,194) x 96.0 (2,438)	3,361 (1,525)		

WEATHER PROTECTED ENCLOSURE

Run Time - Hours Usable Capacity - Gal (L)		me Capacity L x W x H - in (mm)			
No Tank	-	95.0 (2,413) x 38.0 (965) x 50.0 (1,270)	2,298 (1,042)		
13	54 (204)	95.0 (2,413) x 38.0 (965) x 63.0 (1,600)	2,778 (1,260)		
32	132 (500)	95.0 (2,413) x 38.0 (965) x 75.0 (1,905)	3,008 (1,364)		
51	211 (799)	95.0 (2,413) x 38.0 (965) x 87.0 (2,210)	3,217 (1,459)		
72	300 (1,136)	95.0 (2,413) x 38.0 (965) x 91.0 (2,311)	3,280 (1,488)		
122	510 (1,931)	117.0 (2,972) x 47.0 (1,194) x 93.0 (2,362)	3,663 (1,662)		

LEVEL 1 SOUND ENCLOSURE

Run Time - Hours	Usable Capacity - Gal (L)	L x W x H - in (mm)	Weight - Ibs (kg)
No Tank	-	112.0 (2,845) x 38.0 (965) x 50.0 (1,270)	2,451 (1,112)
13	54 (204)	112.0 (2,845) x 38.0 (965) x 63.0 (1,600)	2,931 (1,329)
32	132 (500)	112.0 (2,845) x 38.0 (965) x 75.0 (1,905)	3,161 (1,434)
51	211 (799)	112.0 (2,845) x 38.0 (965) x 87.0 (2,210)	3,370 (1,529)
72	300 (1,136)	112.0 (2,845) x 38.0 (965) x 91.0 (2,311)	3,433 (1,557)
122	510 (1,931)	135.0 (3,429) x 47.0 (1,194) x 93.0 (2,362)	3,816 (1,731)

LEVEL 2 SOUND ENCLOSURE

Run Time - Hours	Usable Capacity - Gal (L)	Weight - lbs (kg)		
No Tank	-	95.0 (2,413) x 38.0 (965) x 62.0 (1,575)	2,456 (1,114)	
13	54 (204)	95.0 (2,413) x 38.0 (965) x 75.0 (1,905)	2,936 (1,332)	
32	132 (500)	95.0 (2,413) x 38.0 (965) x 87.0 (2,210)	3,166 (1,436)	
51	211 (799)	95.0 (2,413) x 38.0 (965) x 99.0 (2,515)	3,375 (1,531)	
72	300 (1,136)	95.0 (2,413) x 38.0 (965) x 103.0 (2,616)	3,438 (1,559)	
122	510 (1,931)	117.0 (2,972) x 47.0 (1,194) x 105.0 (2,667)	3,821 (1,733)	

^{*} All measurements are approximate and for estimation purposes only. Specification characteristics may change without notice. Please contact a Generac Power Systems Industrial Dealer for detailed installation drawings.

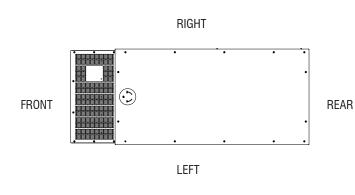


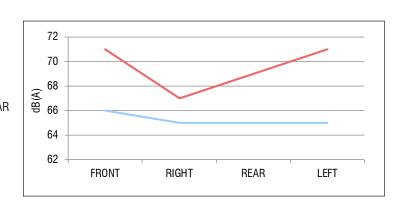


LEVEL 2 SOUND ATTENUATED ENCLOSURE D4.5L SD050

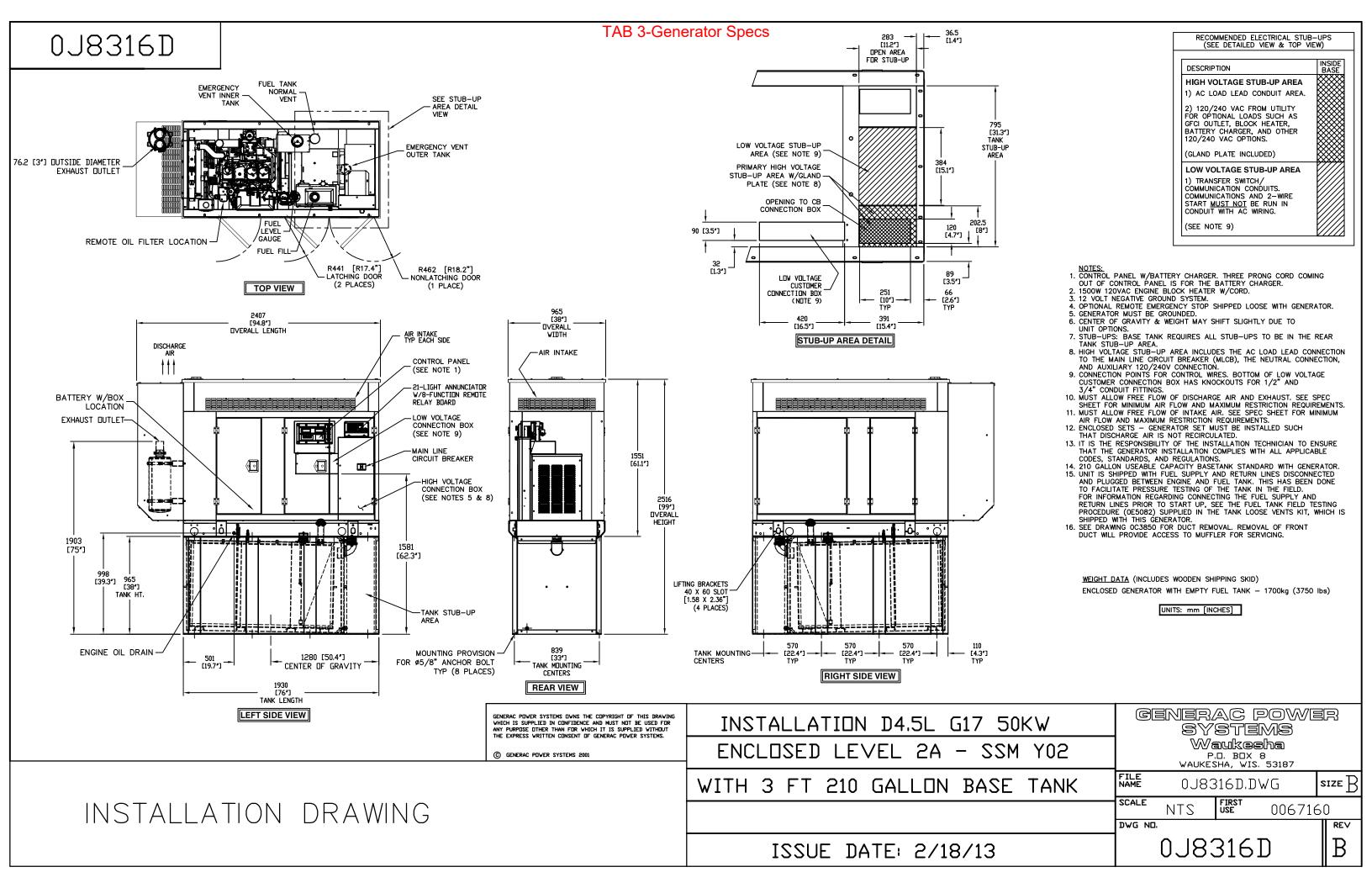
	60Hz NC)-LOAD, d	iB(A)					DIST	TANCE: 7	METERS
MICROPHONE	OCTAVE BAND CENTER FREQUENCY (Hz)									
LOCATION	31.5	63	125	250	500	1,000	2,000	4,000	8,000	dB(A)
FRONT	31	56	59	58	62	58	54	50	42	66
RIGHT	31	58	55	58	59	55	50	47	41	65
REAR	29	60	54	56	60	54	49	45	38	65
LEFT	30	55	57	58	60	57	53	49	43	65
AVERAGE	30	57	57	57	60	56	51	48	41	65

	60Hz FU	LL-LOAD	, dB(A)					DIST	TANCE: 7	METERS
MICROPHONE	OCTAVE BAND CENTER FREQUENCY (Hz)									
LOCATION	31.5	63	125	250	500	1,000	2,000	4,000	8,000	dB(A)
FRONT	31	61	67	59	64	60	57	56	50	71
RIGHT	30	57	62	60	61	58	55	52	46	67
REAR	27	65	60	61	61	56	52	51	43	69
LEFT	29	65	67	60	63	58	58	55	49	71
AVERAGE	30	62	64	60	62	58	55	53	47	69



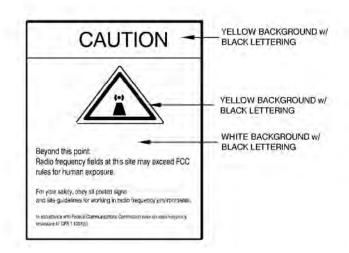


- All positions at 23 feet (7 meters) from side faces of generator set.
- Test conducted on a 100 foot diameter asphalt surface.
- Sound pressure levels are subject to instrumentation, installation and testing conditions.
- Sound levels are ±2 dB(A).

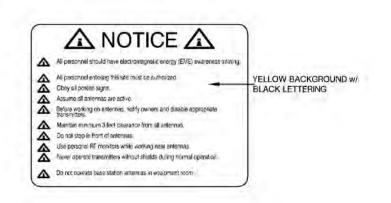




(1) VERTICAL BRIDGE - SITE ID SIGN



(2) RF EXPOSURE CAUTION SIGN



(3) NOTICE-RFE SIGN

12" HIGH X 18" WIDE (OPERATIONS PROVIDED)

SIGNAGE NOTES:

- SIGNS SHALL BE FABRICATED FROM CORROSION RESISTANT PRESSED METAL, AND PAINTED WITH LONG LASTING UV RESISTANT COATINGS.
- 2. SIGNS (EXCEPT WHERE NOTED OTHERWISE) SHALL BE MOUNTED TO THE TOWER, GATE, AND FENCE USING A MINIMUM OF 9 GAUGE ALUMINUM WIRE, HOG RINGS (AS UTILIZED IN FENCE INSTALLATIONS) OR BRACKETS WHERE NECESSARY. BRACKETS SHALL BE OF SIMILAR METAL AS THE STRUCTURE TO AVOID GALVANIC CORROSION.
- ADDITIONAL SITE # AND EMERGENCY CONTACT SIGNS SHALL BE MOUNTËD AT EACH ACCESS ROAD GATE LEADING TO THE COMPOUND AS WELL AS THE COMPOUND GATE ITSELF.
- . CARRIER SITE # AND EMERGENCY CONTACT SIGNS SHALL BE MOUNTED ON THE EQUIPMENT CABINET W/ PERMANENT SET ADHESIVE. TWO SIDED TAPE SHALL BE UTILIZED AT EACH CORNER ON THE BACKSIDE TO AID PLACEMENT UNTIL ADHESIVE SETS.

verticalbridge 700 PARK OF COMMERCE DRIVE BOCA RATON FL. 33487 TEL: (561) 948-6367

PROJECT INFORMATION:

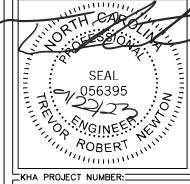
SITE NAME: CROSSPOINT SITE No.: US-NC-5292 PROJECT #: 2112981 NC HIGHWAY 42 MONCURE, NC 27559 CHATHAM COUNTY

└PLANS PREPARED BY: □

AMBER PARK DRIVE, SUII ALPHARETTA, GA 30009 PHONE: 770-619-4280 WWW.KIMLEY-HORN.COM NC LICENSE F-0102

REV: DATE: ISSUED FOR: BY: 3 0 09/19/23 CONSTRUCTION TRN

LICENSER:



013291005

□DRAWN BY:□ CHECKED BY:

SHEET TITLE:

SITE SIGNAGE **DETAILS**

∟SHEET NUMBER:—

C11

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc.

Copyright Kimley-Horn and Associates, Inc., 2023

