Protector® Series

GENERAC®

Protector® Series
Standby Generators
Liquid-Cooled Gaseous Engine

STANDARD FEATURES:

- Power Zone® 410 Controller, NFPA 110 Capable
- Cellular Connectivity for Mobile Link and Fleet
- Quiet Operation
- Corrosion Resistant Enclosure & Frame
- 5 Year/2,000 Hour Limited Warranty
- Hi Motor Starting, Surge Capacity
- Fuel Efficiency
- Controller-Selectable Fuel Type - Natural Gas or Propane Vapor
- 1-Phase or Configurable 3-Phase Voltage Output
- Single-Side Regular Maintenance Access
- EPA & SCAQMD Exhaust Emissions Certified
- As close as 18 in (457 mm) offset distance from structure

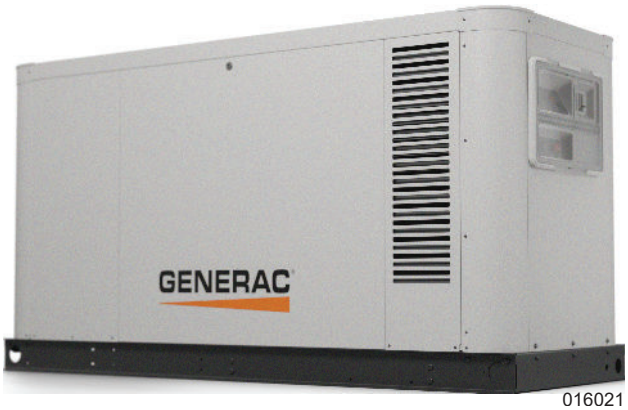
OPTIONAL FIELD-INSTALLABLE FEATURES

Available as field-installable kits

- Generator Ready-Status Indicator
- Emergency Stop
- NFPA 110 Control & Annunciation
- Cold Weather Operation Aids
- Additional Level 2 Sound Reduction
- Extreme High Wind
- Provisions for Rooftop and Elevated Mounting
- Baseframe Block-off
- Engine Fluid Containment
- Seismic Anchoring

STANDBY POWER RATING

Model XG03245 – 32 kW, 60 Hz Emergency Standby Power Generator
Model XG04045 – 40 kW, 60 Hz Emergency Standby Power Generator



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* Product may vary slightly from above image.

USA ENGINEERED & BUILT*
*Assembled in the USA using domestic and foreign parts

QUIET TEST™ Mobile Link™

016040

Meets EPA Emission Regulations
CA / MA Emissions Compliant

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 XG 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 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 the GENERAC product line is offered with its own transfer systems and controls for total system compatibility.

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GENERATOR SPECIFICATIONS

GENERATOR OUTPUT

Voltage	XG03245				XG04045			
	Natural Gas		Liquid Propane		Natural Gas		Liquid Propane	
	Power (kW)	Current (A)	Power (kW)	Current (A)	Power (kW)	Current (A)	Power (kW)	Current (A)
120/240 1–Phase	32	133	32	133	40	167	40	167
208/120 3–Phase	32	111	32	111	40	139	40	139
240/120 3–Phase	32	96	32	96	40	120	40	120
480/277 3–Phase	32	48	32	48	40	60	40	60

VOLTAGE REGULATION

Type	Electronic
Sensing	All Phases
Regulation	±1%

GOVERNOR SPECIFICATIONS

Type	Electronic
Frequency Regulation	Isochronous
Steady State Regulation	±0.25%

ALTERNATOR SYSTEM SPECIFICATIONS

	XG03245		XG04045	
	1-Phase	3-Phase	1-Phase	3-Phase
Voltage Output	120/240 V Only	208/120 V; Configurable for 480/277 or 240/120 V with Optional Field-Installable VCC	120/240 V Only	208/120 V; Configurable for 480/277 or 240/120 V with Optional Field-Installable VCC
Circuit Breaker (CB) Size	150 A	Not Included; Optional Field-Installable Kit	200 A	Not Included; Optional Field-Installable Kit
Type	Synchronous		Synchronous	
Rotor Insulation Class	F		F	
Stator Insulation Class	H		H	
Telephone Interference Factor (TIF)	<50		<50	
Bearings	Sealed Ball		Sealed Ball	
Coupling	Flexible Disc		Flexible Disc	
Excitation System	Direct		Direct	

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ENGINE SYSTEM SPECIFICATIONS

ENGINE SPECIFICATIONS

	XG03245	XG04045
Make	Generac	
Model	Inline 4–Cylinder	
Cylinders	4	
Displacement (L)	4.5	
Bore (mm (in))	114 (4.5)	
Stroke (mm (in))	108 (4.25)	
Compression Ratio	9.9:1	
Lifter Type	Hydraulic	
Intake Air System	Naturally Aspirated	
Temperature Derate	1.5% per every 5°C above 25°C (1.65% per every 10°F above 77°F)	
Altitude Derate	1% per every 100 m above 183 m (3% per every 1000 ft above 600 ft)	
Exercise Speed (RPM)	1,200	
Operating Speed (RPM)	1,800	

SOUND EMISSIONS

	XG03245	XG04045
Sound Level at Exercise Speed (dB(A)) at 7 m (23 ft)	58	58
Sound Level at Operating Speed & No Load (dB(A)) at 7 m (23 ft)	64	64

ENGINE LUBRICATION SYSTEM

	XG03245	XG04045
Oil Pump Type	Gear	
Oil Filter Type	Full Flow Spin-On Cartridge	
Crankcase Capacity (L (US gal))	11 (2.9)	

COOLING SYSTEM

	XG03245	XG04045
Coolant	50/50 (50% Ethylene Glycol)	
Coolant System Capacity (L (US gal))	11 (2.9)	
Water Pump	Belt–Driven	
Fan Type	Mechanical	
Fan Quantity	1	
Maximum Ambient Air Temperature (°C (°F))	50 (122)	

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FUEL SYSTEM SPECIFICATIONS

FUEL TYPES

	XG03245	XG04045
Natural Gas	**Yes**	**Yes**
NG Pressure (kPa (in. WC))	0.87 – 3.48 (3.5 – 14)	
Liquid Propane	**Yes**	**Yes**
LP Vapor Pressue (kPa (in. WC))	1.74 – 3.48 (7–14)	
Fuel Type Configuration	Controller-Selected	
Fuel Shutoff Solenoid	Standard, Dual	

FUEL CONSUMPTION

Rated Load	XG03245				XG04045			
	Natural Gas		Liquid Propane		Natural Gas		Liquid Propane	
	(m^3/h)	(CFH)	L/h	(US gph)	m^3/h	(CFH)	L/h	(US gph)
25%	4.8	169	8.3	2.2	5.2	184	10.0	2.6
50%	6.8	240	12.9	3.4	8.2	289	14.5	3.8
75%	9.5	335	15.8	4.2	11.1	392	17.7	4.7
100%	11.5	406	18.5	4.9	14.0	494	21.7	5.7

ELECTRICAL SYSTEM

	XG03245	XG04045
System Voltage (V)	12	
Battery Charge Alternator (A)	37	
Battery Charger (A)	5	
Recommended Battery (not included)	Group 27R, 725 CCA Minimum	
Maximum Allowable Battery	Group 31R	

POWER ZONE 410 CONTROLLER

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Standard Features

- 128 x 64 Graphical Display with Heater
- Multi-Lingual
- Three Phase Sensing Digital Voltage Regulator
- Full Range Standby Operation
- Full System Status
  - Three Phase AC Voltage
  - Three Phase Current
  - Power
  - Power Factor
  - Oil Pressure
  - Engine Coolant Temperature
  - Oil Temperature (check for oil temp sensor)
  - Fuel Pressure
  - Engine Speed
  - Battery Voltage
  - Output Frequency
  - Time
  - Date
  - Load On Line Power and Gen Power
  - Hourmeter
  - Service Reminders
  - Fault History (Alarm Log)
- Remote Communications
- Programmable Auto Crank
- Emergency Stop
- Not in Auto Flashing Light
- Selectable Low Speed Exercise
- NFPA 110 Capable
- 5A Integrated Battery Charger

Standard Protections

- Low Oil Pressure
- Low Coolant Level
- High/Low Coolant Temperature
- Oil Temperature
- Over/Under Speed
- Over/Under Voltage
- Over/Under Frequency
- Over/Under Current
- Overload
- Battery Voltage
- Battery Charger Current
- Phase-to-Phase and Phase-to-Neutral Short Circuits (I^2T Algorithm)
- Ground Fault

Display

- Easy Menu Structure
- Multi-Lingual (English, Spanish, French)
- On Screen Editable Parameters
- Key Function Monitoring
  - Three Phase Voltage, Amperage, Power, Apparent Power, Reactive Power
  - Selectable Average or Line-to-Neutral Voltage Measurements
  - Frequency
  - Engine Speed
  - Engine Coolant Temperature
  - Oil Pressure
  - Battery Voltage
  - Warning and Alarm Indication
  - Diagnostics
  - Maintenance Events/Information
  - Hourmeter

Control Panel

- Auto/Off/Manual
  - Operation Through Onboard Buttons or Optional Key Switch
  - Indication Through Display Screen and LEDs
- Audible Alarm and Silence
- Auxiliary Shutdown Rocker Switch (on controller)
- Not-in-Auto Indication

Voltage Regulation

- Digital Control
- Three Phase Sensing
- Variable V/F Slope Settings
- Negative Power Limit
- Loss of Sensing Protection
- Fault Protection (I^2T Function)
- High Voltage Limit
- Low Voltage Limit
- Maximum Power Limit

Governor Functionality

- Speed Control through ECM Integration

Communications Ports

- 1 CANbus Port
- 1 USB Port (for Configuration Transfer and Firmware Upgrades)
- 1 RS-485 Modbus Master Port (for External RAP/RRP/External I/O Modules)
- 1 RS-485 Modbus Slave Port (for other uses, e.g. Building Management)
- 2 RS-232 Communication Ports (for Tether or other uses)

Codes And Standards

- UL 6200
- CE
- NFPA 110

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ACCESSORIES

PRODUCT	PART NUMBER	DESCRIPTION
3-Phase XG Generator Model Kits		
XG032/40 'G' 208/120 V 3-Phase Voltage Configuration Cartridge	G0099010	Voltage Configuration Cartridge (VCC) for 208/120 V 3-Phase output; INSTALLED in every 3-phase XG03245 and XG04045 model.
XG032/40 'J' 240/120 V 3-Phase Voltage Configuration Cartridge	G0099020	Voltage Configuration Cartridge (VCC) for 240/120 V 3-Phase output; NOT included with any XG03245 or XG04045 model.
XG032/40 'K' 480/277 V 3-Phase Voltage Configuration Cartridge	G0099030	Voltage Configuration Cartridge (VCC) for 480/277 V 3-Phase output; NOT included with any XG03245 or XG04045 model.
60 A 3–Pole Circuit Breaker (CB) Kit	G0099040	3–pole, 60 A CB and mounting hardware (typical for 32kW, 480/277 V 3–phase generator)
70 A 3–Pole Circuit Breaker (CB) Kit	G0099190	3–pole, 70 A CB and mounting hardware (typical for 40kW, 480/277 V 3–phase generator)
80 A 3–Pole Circuit Breaker (CB) Kit	G0099050	3–pole, 80 A CB and mounting hardware (typical for 40kW, 480/277 V 3–phase generator)
100 A 3–Pole Circuit Breaker (CB) Kit	G0099060	3–pole, 100 A CB and mounting hardware (typical for 32kW, 240/120 V 3–phase generator)
125 A 3–Pole Circuit Breaker (CB) Kit	G0099070	3–pole, 125 A CB and mounting hardware (typical for 32kW, 208/120 V 3–phase generator)
150 A 3–Pole Circuit Breaker (CB) Kit	G0099080	3–pole, 150 A CB and mounting hardware (typical for 40kW, 240/120 or 208/120 V 3–phase generator)
175 A 3–Pole Circuit Breaker (CB) Kit	G0099090	3–pole, 175 A CB and mounting hardware (typical for 40kW, 208/120 V 3–phase generator)
200 A 3–Pole Circuit Breaker (CB) Kit	G0099200	3–pole, 200 A CB and mounting hardware (typical for 40kW, 208/120 V 3–phase generator)
Control System Kits		
Generator Ready-Status Indicator Kit	G0099100	3-color LED display providing at-a-glance indication of generator ready-to-run status.
Enclosure-Mounted E-Stop Kit	G0079930	Emergency Stop switch that is mounted to the exterior of the generator enclosure.
Remotely Mounted E-Stop Kit	G0089350	Emergency Stop switch that can be mounted separate from the generator such as near an electrical panel.
Smart Management Module, 50 A	G0070000	50 A Smart Management Module (SMM) helps optimize the performance of the standby generator by managing large electrical loads upon startup and shed them to aid in recovery when overloaded.
Smart Management Module, 100 A	G0070060	100 A Smart Management Module (SMM) helps optimize the performance of the standby generator by managing large electrical loads upon startup and shed them to aid in recovery when overloaded.
LP Fuel Level Monitor	G0070050	The Tank Utility monitor integrates with Mobile Link to provide tank level readings, offering customers peace of mind.
Power Zone Kits		
NFPA 110 Controller Kit	G0099120	Adds Key Switch, Alarm Horn, and E-stop switch to Power Zone 410 controller; mounted below controller and visible through cover; requires G0098511, G0098521, or G0098531 to be considered for NFPA 110 standard.
Remote Annunciator Panel with 8 Relays	G0098511	Remote annunciator panel with relays to be mounted within structure provided backup power.
Remote Relay Panel	G0098521	Remote relay panel without LEDs or keypad to be mounted within structure provided backup power.
Remote Annunciator Panel without Relays	G0098531	Remote annunciator panel without relays to be mounted within structure provided backup power.
Power Zone Gateway	Coming Soon	Provides an Ethernet connection to the generator instead of cellular; connects to the PZ410 controller.
Operating Environment Kits		
Battery Heater Kit	G0079920	Recommended for operating environments where the temperature drops below 0°C (32°F); externally powered by 120 VAC, 60 Hz.

Engine Block Heater Kit	G0079900	Recommend for operating environments where the temperature drops below -18°C (0°F); externally powered by 240 VAC, 60 Hz.
Additional Level 2 Sound Reduction Kit	G0099110	Further reduces sound level of generator; assembles to top of generator enclosure exhaust discharge area.
Extreme High Wind Kit	G0099130	Increases wind speed rating of generator to 300 km/h (186 mph); assembles to exterior of generator enclosure and frame.
Installation Kits		
Rooftop & Elevated Mounting Sub-Baseframe Structure Kit	G0099140	Support structure for mounting a generator on a rooftop or elevated frame; does NOT include the frame itself.
Baseframe Block-off Kit	G0099150	Aluminum panel to close off the bottom of the generator; ensures proper airflow through the generator while keeping objects out; required whenever the generator is elevated.
Engine Fluid Containment Kit	G0099160	Containment pan to capture 110% of all engine oil and coolant; Includes a sensor to detect the presence of fluid in the pan to display a warning on the controller screen; includes Power Zone I/O Extender.
Seismic Anchoring Kit	G0099170	Anchor bolts for securing the generator in a defined, seismically active area with recommended mounting surface recommendations; does not supersede local building codes or requirements.
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.
Metro Gray Enclosure Touch-up Paint Kit	G0099180	If the generator enclosure is scratched or damaged, it is important to touch-up the paint to protect against corrosion. The paint kit includes the necessary paint to properly maintain or touch-up a generator enclosure.
Transfer Switch Kits		
3-Phase Voltage Sensing Kit for 240/120 & 208/120 V RTS Transfer Switch	G0074110	3-Phase Voltage Sensing Kit required for RTS Transfer Switches when used with the Power Zone 410 controller for 'G' 208/120 or 'J' 240/120 V 3-phase voltage; applies to 3-phase XG03245 and XG04045 models configured for 'G' or 'J' voltage.
3-Phase Voltage Sensing Kit for 480/277 V RTS Transfer Switch	G0074120	3-Phase Voltage Sensing Kit required for RTS Transfer Switches when used with the Power Zone 410 controller for 'K' 480/277 V 3-phase voltage; applies to 3-phase XG03245 and XG04045 models configured for 'K' voltage.

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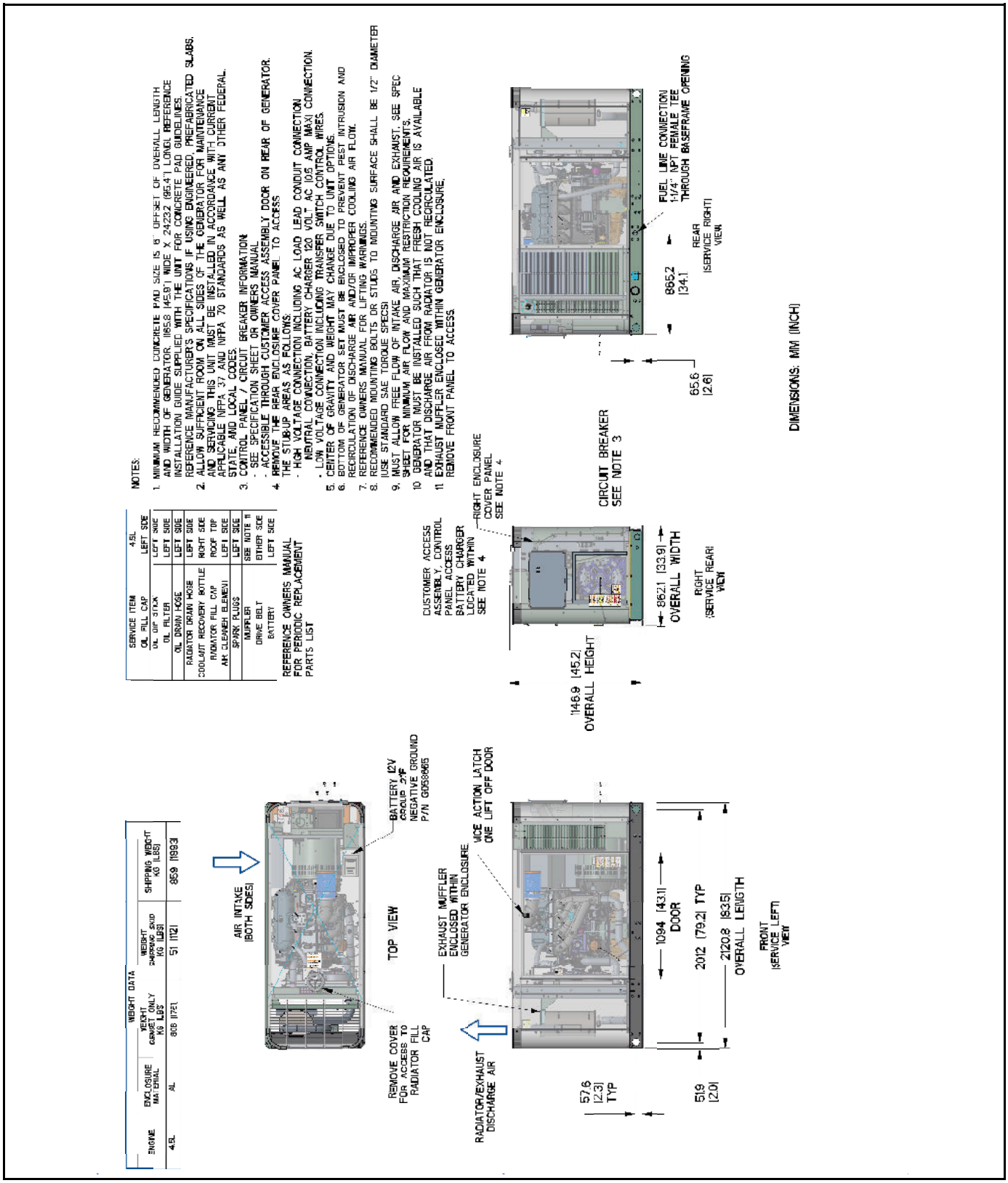
INSTALLATION LAYOUT

32–40–48 KW

Drawing # A0005421459 (1 of 2)



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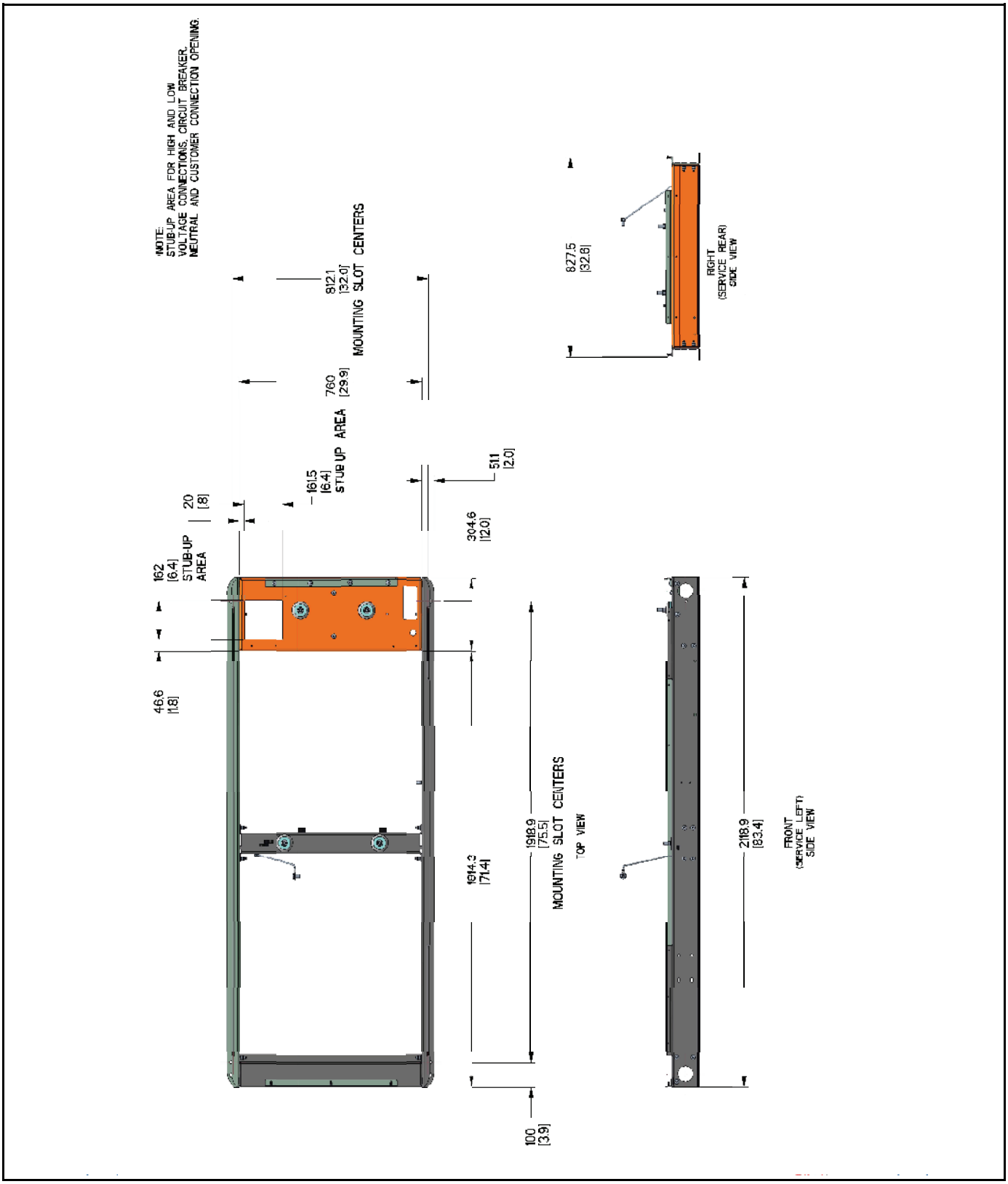
INSTALLATION LAYOUT

Drawing # A0005421459 (2 of 2)



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