



A-F Standby Systems
Power Generation



Date: August 26, 2020

Reference: FSA20 – EQU18.0 Item # 130 500kW Generator Package - SD500

We are pleased to offer the following quote for the above project:

Quantity 1 - Generac Industrial Diesel engine-driven generator set with turbocharged/aftercooled 6-cylinder 15.2L engine, consisting of the following features and accessories:

- Stationary Emergency-Standby rated
- 500 kW Rating, wired for 120/208 VAC three phase, 60 Hz
- Permanent Magnet Excitation
- Level 1 Acoustic Enclosure, Aluminum
 - o Industrial Grey Baked-On Powder Coat Finish
- UL2200
- EPA Certified
- SCAQMD
- H-100 Control Panel
 - o Meets NFPA 99 and 110 requirements
 - o Temp Range -40 to 70 degrees C
 - o Digital Microprocessor:
 - Two 4-line x 20 displays, full system status
 - 3 Phase sensing, +/-0.25% digital voltage regulation
 - RS232, RS485 and Canbus remote ports
 - Waterproof connections
 - All engine sensors are 4-20ma for minimal interference
 - Programmable I/O
 - Built-in PLC for special applications
 - o Engine function monitoring and control:
 - Full range standby operation; programmable auto crank, Emergency Stop, Auto-Off-Manual switch
 - Isochronous Governor, +/-0.25% frequency regulation
 - Full system status on all AC output and engine function parameters
 - Service reminders, trending, fault history (alarm log)
 - I2T function for full generator protection
 - Selectable low-speed exercise
 - o HTS transfer switch function monitoring and control
 - o 2-wire start controls for any 2-wire transfer switch
- 225 AH, 1155 CCA Group 8D Batteries, with rack, installed
- Standard MLCB, 80% rated thermal-magnetic
 - o 2000 Amp
- Battery Charger, 10 Amp, NFPA 110 compliant, installed
- Coolant Heater, 2500W, 240VAC
- 36" 1001 Gallon Double-Wall UL142 Basetank
 - o Mechanical fuel level indicator gauge
 - o Electronic fuel level sender
- Std set of 3 Manuals
- 120V GFCI and 240V Outlet
- 2-Year Comprehensive Warranty

Quantity 1 - Start up & Comissioning

Quantity 1 – Freight to Jobsite Off Loading by Others



Hwy 59 & Hillside Rd. Waukesha, WI 53187 USA
(262) 544-4811 fax: (262) 698-9372 www.generac.com

Quote

Page

0020381590

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QUOTED FOR:

ACF STANDBY SYSTEMS, LLC
9311 SOLAR DR
TAMPA FL 33619-4403
US

Date
08/26/2020

FSA20 - EQU18.0 Item # 130 500kW Generator Package - SD500

Item# / Description

D15.2 500KW (15.2L DIESEL,BI-FUEL)
MPS or SINGLE required? - Single Unit
AGENCY APPROVAL: Select Type: - UL2200
VOLTAGE: Select One: - 120/208 3 phase
FUEL: Select Type: - Diesel
EXCITATION: Select Type: - Permanent Magnet Excitation
KW: Select desired Rating: - 500 KW
REGULATORY OPTIONS: Select: - EPA Certified
REGULATORY OPTIONS: Select: - SCAQMD
ENCLOSURE: Select Type: - L1A Enclosure - Aluminum
ENCLOSURE: Opt Accessories: - No Enclosure Accessory
ENCLOSURE: Select Paint Color: - Industrial Grey
ALTERNATOR: Optional Upsize: - No Alternator upsize
ALTERNATOR: Select Size: - 500 KW
BATTERY: Select Type: - 225AH, 1155CCA, Inst
BATTERY: Select Charger Type: - 10 Amp Battery Charger
BLOCKHEATER: Select Type: - Block heater 2500W 240V
MLCB: Select Type/Accs: - Std MLCB
BASETANK: Select Capacity: - 36" 1001 Gal Basetank, UL/ULC
ACCESSORIES: Alarm Relay: - No Alarm Relay Panel
ACCESSORIES: Annunciator: - No Annunciator
ACCESSORIES: Emergency stop: - No Remote E-Stop
ACCESSORIES: Electrical: - No Light Kit
ACCESSORIES: Misc: - 120V GFCI and 240V Outlet
MANUAL: Select # of Copies: - Std set of 3 Manuals
WARRANTY Options: - EXTENDED - 2 YR P/L/T
SPECIAL OPT select if required - Special Options NOT required
Model - Sales-Mktg - SD0500GG22152D18HPSY2
Derate Altitude Percent - 3 %
Derate Altitude - 3000 Foot
Derate Altitude Step - 1000 Foot
Derate Step Temperature F - 5 °F
Derate Temperature F Percent - 1.7 %
Derate Start Temperature F - 104 °F
UL CIRCUIT BREAKER Size: - 2000 A
FLS: Select Output on Tank - N/A Fuel Level Sender Supplied



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ACF STANDBY SYSTEMS, LLC
9311 SOLAR DR
TAMPA FL 33619-4403

Date
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FSA20 - EQU18.0 Item # 130 500kW Generator Package - SD500

Item# / Description	Line Item	U/M	Quantity	Unit Price	Net Sales Amount
CONTROL PANEL: - H100 Control Panel DUTY: Select Type: - Standby ENCLOSURE: Heater: - NONE FREQUENCY: Select One: - 60 Hz KW Node - 500 KW Standard Breaker Material - CB 2000A 3P 600V E RD E Customer or Internal Model No - SD500					
DEW-EXWAR000021 12.2 18.1 DSL 2C 2 YR P/L/T	20 / 10				

SD500 | 15.2L | 500 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

GENERAC® | **INDUSTRIAL
POWER**

FSA20 – EQU18.0 Item # 130 500kW Generator Package - SD500

Standby Power Rating

500 kW, 625 kVA, 60 Hz

Prime Power Rating*

450 kW, 563 kVA, 60 Hz



*Assembled in the USA using domestic and foreign parts

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

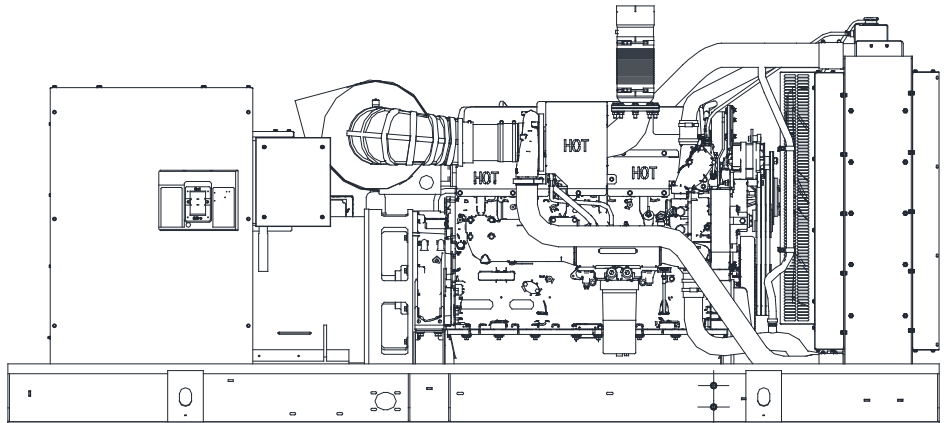


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Codes and Standards

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



UL2200, UL6200, UL1236, 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.

STANDARD FEATURES

ENGINE SYSTEM

- Oil Drain Extension
- Heavy Duty Air Cleaner
- Fan Guard
- Stainless Steel Flexible Exhaust Connection
- Critical Silencer (Enclosed Units Only)
- Factory Filled Oil and Coolant
- Radiator Duct Adapter (Open Set Only)

Fuel System

- Primary Fuel Filter

Cooling System

- Closed Coolant Recovery System
- UV/Ozone Resistant Hoses
- Factory-Installed Radiator
- 50/50 Ethylene Glycol Antifreeze
- 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
- Vented Rotor
- 2/3 Pitch
- Skewed Stator
- Amortisseur Winding
- Permanent Magnet Excitation
- Sealed Bearing
- Full Load Capacity Alternator
- Protective Thermal Switch

GENERATOR SET

- Internal Genset Vibration Isolation
- Separation of Circuits - High/Low Voltage
- Separation of Circuits - Multiple Breakers
- Wrapped Exhaust Piping (Enclosed Units Only)
- Standard Factory Testing
- 2 Year Limited Warranty (Standby Rated Units)
- 1 Year Limited Warranty (Prime Rated Units)
- Silencer Mounted in the Discharge Hood (Enclosed Units Only)

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

FUEL TANKS (If Selected)

- UL 142/ULC S-601
- 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 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
- Low Fuel Pressure
- 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)

CONFIGURABLE OPTIONS**ENGINE SYSTEM**

- Engine Coolant Heater
- Oil Heater
- Level 1 Fan and Belt Guards (Open Set Only)
- Radiator Stone Guard (Open Set Only)

FUEL SYSTEM

- NPT Flexible Fuel Line

ELECTRICAL SYSTEM

- 10A UL Listed Battery Charger
- Battery Warmer

ALTERNATOR SYSTEM

- Alternator Upsizing
- Anti-Condensation Heater

CIRCUIT BREAKER OPTIONS

- Main Line Circuit Breaker
- 2nd Main Line Circuit Breaker
- Shunt Trip and Auxiliary Contact
- Electronic Trip Breakers

GENERATOR SET

- 12 Position Load Center
- Extended Factory Testing

ENCLOSURE

- Weather Protected Enclosure
- Level 1 Sound Attenuated
- Level 2 Sound Attenuated
- Level 2 Sound Attenuated with Motorized Dampers
- Steel Enclosure
- Aluminum Enclosure
- IBC Seismic Certification/OSHPD Preapproval
- Up to 200 MPH Wind Load Rating (Contact Factory for Availability)
- AC/DC Enclosure Lighting Kit
- Enclosure Heater

FUEL TANKS (Size On Last Page)

- 8 in Fill Extension
- 13 in Fill Extension
- 19 in Fill Extension

CONTROL SYSTEM

- NFPA 110 Compliant 21-Light Remote Annunciator
- Remote Relay Assembly (8 or 16)
- Oil Temperature Indication and Alarm
- Ground Fault Annunciator
- 10A Engine Run Relay
- 120V GFCI and 240V Outlets
- Remote E-Stop (Break Glass-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Surface Mount)
- Remote E-Stop (Red Mushroom-Type, Flush Mount)
- Damper Alarm Contacts (Motorized Dampers Only)
- 100dB Alarm Horn

WARRANTY (Standby Gensets Only)

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

ENGINEERED OPTIONS**ENGINE SYSTEM**

- Fluid Containment Pan
- Coolant Heater Ball Valves

ALTERNATOR SYSTEM

- 3rd Breaker Systems

CONTROL SYSTEM

- Spare Inputs (x4) / Outputs (x4)
- Battery Disconnect Switch

GENERATOR SET

- Special Testing
- Battery Box

ENCLOSURE

- Door Open Alarm Switch

TANKS

- Overfill Protection Valve
- UL 2085 Tank
- Stainless Steel Tank
- Special Fuel Tanks
- Vent Extensions
- 5 Gallon Spill Containment Box
- Dealer Supplied AHJ Requirements

APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

Make	Perkins
EPA Emissions Compliance	Stationary Emergency
EPA Emission Reference	See Emission Data Sheet
Cylinder #	6
Type	In-Line
Displacement - in ³ (L)	927.56 (15.2)
Bore - in (mm)	5.39 (137)
Stroke - in (mm)	6.73 (171)
Compression Ratio	16.0:1
Intake Air Method	Turbocharged/Aftercooled
Cylinder Head Type	4-Valve
Piston Type	Aluminum
Crankshaft Type	I-Beam Section

Engine Governing

Governor	Electronic Isochronous
Frequency Regulation (Steady State)	±0.25%

Lubrication System

Oil Pump Type	Gear
Oil Filter Type	Full-Flow
Crankcase Capacity - qt (L)	47.55 (45)

Cooling System

Cooling System Type	Closed Recovery
Water Pump Type	Centrifugal Type, Belt-Driven
Fan Type	Pusher
Fan Speed - RPM	1,658
Fan Diameter - in (mm)	36.5 (927)

Fuel System

Fuel Type	Ultra Low Sulfur Diesel #2
Carburetor	ASTM
Fuel Filtering (Microns)	Primary 10 - Secondary 2
Fuel Inject Pump Make	Electronic
Injector Type	MEUI
Engine Type	Pre-Combustion
Fuel Supply Line - in (mm)	0.5 (12.7) NPT
Fuel Return Line - in (mm)	0.5 (12.7) NPT

Engine Electrical System

System Voltage	24 VDC
Battery Charger Alternator	Standard
Battery Size	See Battery Index 0161970SBY
Battery Voltage	(2)-12 VDC
Ground Polarity	Negative

ALTERNATOR SPECIFICATIONS

Standard Model	K0500124Y23
Poles	4
Field Type	Revolving
Insulation Class - Rotor	H
Insulation Class - Stator	H
Total Harmonic Distortion	<3% (3-Phase)
Telephone Interference Factor (TIF)	<50

Standard Excitation	Permanent Magnet
Bearings	Single Sealed Cartridge
Coupling	Direct via Flexible Disc
Prototype Short Circuit Test	Yes
Voltage Regulator Type	Digital
Number of Sensed Phases	All
Regulation Accuracy (Steady State)	±0.25%

SD500 | 15.2L | 500 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

OPERATING DATA

POWER RATINGS - DIESEL

Standby		
Three-Phase 120/208 VAC @0.8pf	500 kW	Amps: 1,735
Three-Phase 120/240 VAC @0.8pf	500 kW	Amps: 1,504
Three-Phase 277/480 VAC @0.8pf	500 kW	Amps: 752
Three-Phase 346/600 VAC @0.8pf	500 kW	Amps: 601

MOTOR STARTING CAPABILITIES (skVA)

skVA vs. Voltage Dip			
277/480 VAC	30%	208/240 VAC	30%
K0500124Y23	1,050	K0600124Y23	1,120
K0600124Y23	1,560	K0792124Y23	2,130
K0832124Y23	2,800	K0832124Y23	2,090

FUEL CONSUMPTION RATES*

Fuel Pump Lift - ft (m)		Diesel - gph (Lph)	
12 (3.7)		Percent Load	Standby
Total Fuel Pump Flow (Combustion + Return) gph (Lph)		25%	11.2 (42.3)
		50%	17.5 (66.3)
		75%	24.2 (91.4)
		100%	32.0 (121.1)
		121 (457)	

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

COOLING

		Standby
Coolant Flow	gpm (Lpm)	114.1 (432)
Coolant System Capacity	gal (L)	15.5 (586)
Heat Rejection to Coolant	BTU/hr (kW)	648,307 (190)
Inlet Air	scfm (m ³ /min)	30,582 (866)
Maximum Radiator Backpressure	in H ₂ O (kPa)	0.5 (0.12)

COMBUSTION AIR REQUIREMENTS

Standby	
Flow at Rated Power	scfm (m ³ /min)
	1,483 (42)

ENGINE

Standby		
Rated Engine Speed	RPM	1,800
Horsepower at Rated kW**	hp	755
Piston Speed	ft/min (m/min)	2,020 (616)
BMEP	psi (kPa)	358 (2,468)

EXHAUST

		Standby
Exhaust Flow (Rated Output)	scfm (m ³ /min)	3,955 (112)
Maximum Exhaust Backpressure	inHg (kPa)	2.01 (6.8)
Exhaust Temp (Rated Output - Post Silencer)	°F (°C)	1,022 (550)

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

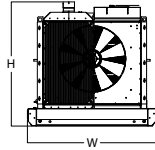
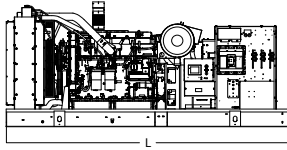
Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions. Please contact a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528, and DIN6271 standards.

SD500 | 15.2L | 500 kW

INDUSTRIAL DIESEL GENERATOR SET

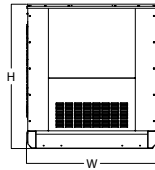
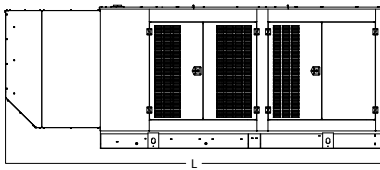
EPA Certified Stationary Emergency

DIMENSIONS AND WEIGHTS*



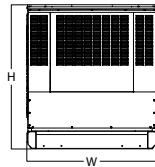
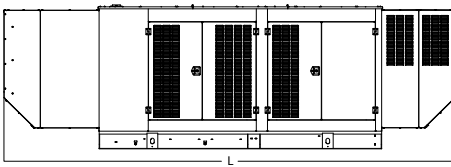
OPEN SET (Includes Exhaust Flex)

Run Time Hours	Usable Capacity Gal (L)	L x W x H - in (mm)	Weight - lbs (kg)	
No Tank	-	154.4 (3,923) x 71.0 (1,803) x 67.3 (1,709)	10,435	(4,733)
9	334	158.5 (4,025) x 71.0 (1,803) x 81.3 (2,065)	12,110	(5,493)
28	1,001	158.5 (4,025) x 71.0 (1,803) x 103.3 (2,623)	15,272	(6,927)
28	1,001	228.0 (5,791) x 71.0 (1,803) x 92.3 (2,344)	13,585	(6,162)
57	2,002	290.0 (7,366) x 71.0 (1,803) x 103.3 (2,623)	15,285	(6,933)



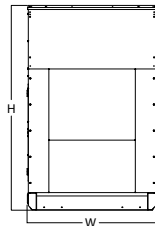
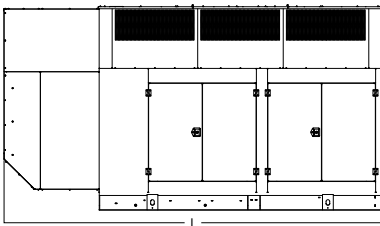
WEATHER PROTECTED ENCLOSURE

Run Time Hours	Usable Capacity Gal (L)	L x W x H - in (mm)	Weight - lbs (kg)	
			Steel	Aluminum
No Tank	-	207.4 (5,268) x 70.9 (1,800) x 79.9 (2,031)	12,672 (5,748)	12,017 (5,451)
9	334	207.4 (5,268) x 70.9 (1,800) x 93.9 (2,387)	14,347 (6,508)	13,692 (6,211)
28	1,001	207.4 (5,268) x 70.9 (1,800) x 115.9 (2,945)	15,272 (6,927)	14,617 (6,630)
28	1,001	228.0 (5,791) x 70.9 (1,800) x 104.9 (2,666)	15,822 (7,177)	15,167 (6,880)
57	2,002	290.0 (7,366) x 70.9 (1,803) x 115.9 (2,945)	17,522 (7,948)	16,867 (7,651)



LEVEL 1 SOUND ATTENUATED ENCLOSURE

Run Time Hours	Usable Capacity Gal (L)	L x W x H - in (mm)	Weight - lbs (kg)	
			Steel	Aluminum
No Tank	-	247.5 (6,285) x 70.9 (1,800) x 80.0 (2,032)	13,677 (6,204)	12,017 (5,451)
9	334	247.5 (6,285) x 70.9 (1,800) x 94.0 (2,388)	15,352 (6,964)	13,692 (6,211)
28	1,001	247.5 (6,285) x 70.9 (1,800) x 116.0 (2,946)	16,277 (7,383)	14,617 (6,630)
28	1,001	247.5 (6,285) x 70.9 (1,800) x 105.0 (2,667)	16,827 (7,633)	15,167 (6,880)
57	2,002	290.0 (7,366) x 70.9 (1,800) x 116.0 (2,946)	18,527 (8,404)	16,867 (7,651)



LEVEL 2 SOUND ATTENUATED ENCLOSURE

Run Time Hours	Usable Capacity Gal (L)	L x W x H - in (mm)	Weight - lbs (kg)	
			Steel	Aluminum
No Tank	-	207.4 (5,268) x 70.9 (1,800) x 114.1 (2,899)	14,016 (6,357)	12,161 (5,516)
9	334	207.4 (5,268) x 70.9 (1,800) x 128.1 (3,255)	15,691 (7,117)	13,836 (6,276)
28	1,001	207.4 (5,268) x 70.9 (1,800) x 150.1 (3,813)	16,616 (7,536)	14,761 (6,695)
28	1,001	228.0 (5,791) x 70.9 (1,800) x 139.1 (3,534)	17,166 (7,786)	15,311 (6,945)
57	2,002	290.0 (7,366) x 70.9 (1,800) x 150.1 (3,813)	18,866 (8,557)	17,011 (7,716)

* All measurements are approximate and for estimation purposes only.

YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER

Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please contact a Generac Power Systems Industrial Dealer for detailed installation drawings.

H-100 CONTROL PANEL



The Quiet-Test™ H-100 Control Panel is a digital microprocessor electronic controller that integrates all engine and transfer switch functions into a single control system.

- Digital Controls for All Safety Shutdowns
- Isochronous Governor Control
- Digital 3 Phase Sensing Voltage Regulator
- Sealed Digital Circuit Board
- Mates with HTS Transfer Switch and Any 2-wire Start ATS
- Alarm and Event Logging
- Built-in Diagnostics
- Internal PLC

Features

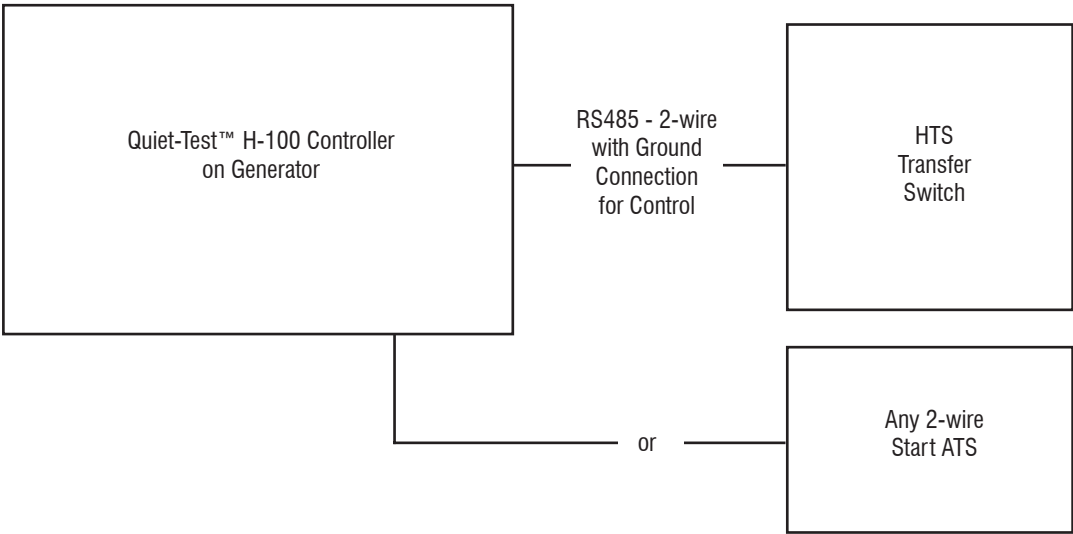
- Two 4-line x 20 Displays
- Full System Status
- 3 Phase Sensing Digital Voltage Regulator
- Remote Ports
 - RS232
 - RS485
 - CANbus
- Waterproof Connections
- Built -in PLC
- Full Range Standby Operation
- Full System Status
 - 3 Phase AC Volts
 - 3 Phase Amps
 - kW
 - Power Factor
 - Reactive Power
 - Oil Pressure
 - Water Temperature
 - Water Level
 - Oil Temperature (Optional)
 - Fuel Pressure
 - Engine Speed
 - Battery Voltage
 - Alternator Frequency
 - Time
 - Date
 - Transfer Switch Status
 - Run Hours
 - Service Reminders
 - Trending
 - Fault History (Alarm Log)
 - I²T Function for Full Generator Protection
- Shutdowns
 - Overvoltage
 - Overspeed
 - Low Oil Pressure
 - High Coolant Temperature
 - Low Coolant Level
- Remote Communications
- Configurable to NFPA 110, Level 1 or 2
- Programmable Auto Crank
- Emergency Stop
- On/Off/Manual Switch
- Not in Auto Flashing Light
- Audible Alarm for Fault Condition
- Transfer Switch Logic Communicates with HTS Transfer Switch
- Selectable Low Speed Exercise
- Temperature Range: -40° to +70°C

The generator set parameters can be manipulated and monitored without standing in front of the control panel with GenLink® software. The Generac H-100 control panel also monitors and controls transfer switch functions when used with the HTS transfer switch.

- Monitors Utility Voltage
- Monitors Generator Voltage
- Timer for Line Interrupt Delay
- Timer for Engine Warmup
- Timer for Minimum Engine Run Time
- Timer for Return to Utility Position
- Timer for Engine Cooldown
- Built-in Exerciser Timer (7 Day)
- Additional 2-wire Start Controls for Any 2-wire Transfer Switch

H-100 CONTROL PANEL

Typical Control Connection



GENprotect™

Seamless Protection for Industrial Power Generators

GENprotect Operation

The design choice of an onsite power system using a Generac Industrial Power Generator assures your emergency power source is protected from unexpected power distribution faults. Typically, a generator will include some type of over-current device, such as a circuit breaker, or be protected by inherent design with the controller protecting the alternator through a protection algorithm. Generac's GENprotect generator protection system monitors the system current output and protects the alternator with extended security against fault scenarios that could occur within the site's downstream distribution system.

It is a common misconception that the alternator's main circuit breaker protects the alternator from a short circuit event. The main output breaker protects the cabling and provides a convenient disconnect. The characteristic trip curve for the industry standard thermal magnetic breaker (MCCB, molded case thermal magnetic or solid state) does not coordinate with the thermal damage limitation for an on-site generator. If circuit breakers are used for generator protection, a solid-state circuit breaker with full adjustments (Long Time, Short Time and Instantaneous, LSI) is required to coordinate the breaker protection curve within the generator thermal damage curve. Historically, this limitation was often accepted in system design since failures of the main generator feeder are extremely rare. Most short circuit events happen at a branch circuit, equipment level, where the fault is easily cleared by the smaller down stream breakers.

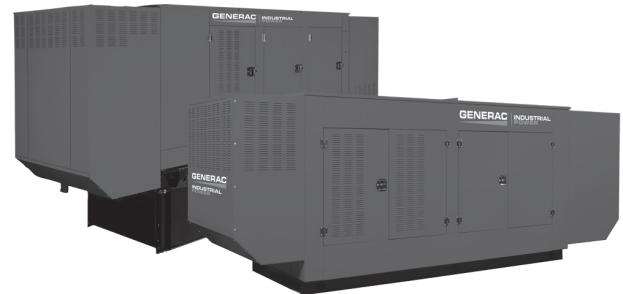
Given the mission critical nature of today's back-up power applications, it is more desirable to protect the system against even relatively rare failure modes. As generator controllers have become more powerful it is feasible for manufactures to supply coordinated short circuit protection integral to the generator control system, negating the need for a main-line circuit breaker.

Generac's GENprotect alternator protection algorithm monitors the generator output. If this monitoring senses short circuit current in excess of rated amps, GENprotect steps in to provide a controlled and safe approach to breaker coordination and alternator protection. GENprotect first limits the alternator short circuit current level to 300%. By limiting the available fault current, GENprotect extends the time the alternator can maintain fault current resulting in consistent breaker coordination. Without this functionality a

line to neutral fault may be at 800% of rated current and need to be cleared within 1.4 seconds. The second function GENprotect performs is I²T thermal protection for the alternator. Since a short circuit event can heat the alternator so rapidly, it is not possible to protect the alternator by monitoring temperature. Instead GENprotect calculates the heat energy of the fault current. When this energy reaches the limits of NEMA MG1, GENprotect trips the generator off-line. This configuration ensures the alternator is protected and the power system is ensured 10 seconds of 300% fault current for breaker coordination.

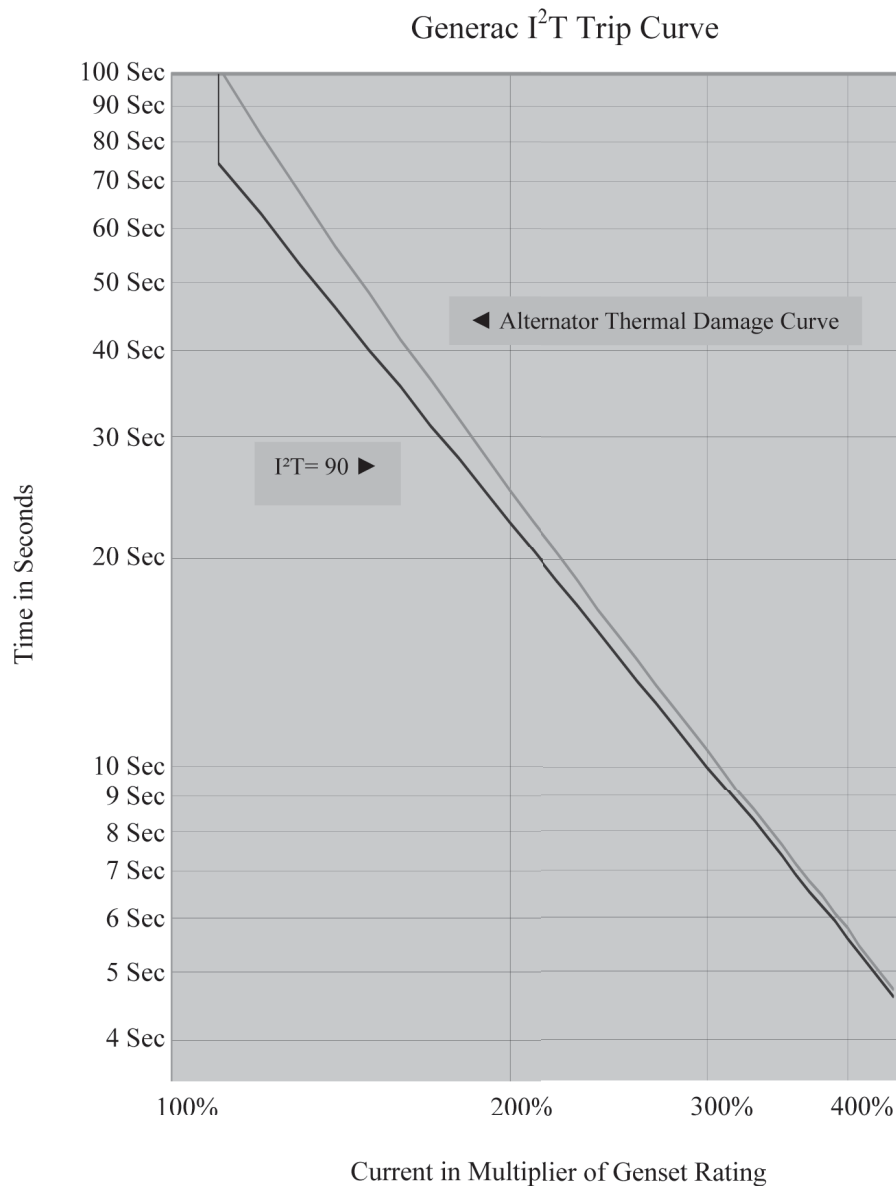
DESCRIPTION

- GENprotect is an alternator protection algorithm approved by UL.
- Protects alternator from damage due to shorts and electrical faults.
- Provides breaker coordination and alternator protection.
- Allows for use of multiple circuit breaker choices, including "no" breaker.



GENprotect™

Seamless Protection for Industrial Power Generators



The above Figure shows the Generac GENprotect thermal protection curve for use in protection and coordination studies. The alternator Thermal Damage Curve is shown just to the right of the GENprotect protection curve. If the alternator load is greater than the thermal damage protection curve for the alternator, the generator set will trip off-line. For example, an overload current of 110% for 75 seconds causes an overload alarm and will trip the generator off-line, shutting down the engine. GENprotect will provide generator protection over a full range of time and current, from instantaneous faults to overloads lasting several minutes. An advantage of GENprotect over a MCCB is that GENprotect allows for downstream breakers to clear faults without tripping the generator off-line, providing selective coordination with the first level of downstream breakers.

ALTERNATOR DATA SHEET

K0600124Y23

General Characteristics

Voltages (V)	208/240, 480	Number of Leads	12
Frequency (Hz)	60	Winding Type	Reconnectable
Phases	3	Air Flow (cfm)	5,085
Speed (rpm)	1800	Total Harmonic Distortion (%)	<5
Excitation System	PMG	Largest Single Harmonic Value (%)	<3.5
Insulation Class	H	Telephone Interference Factor (TIF)	<50
Winding Pitch	2/3	Part Number Reference	OG6299, OH9455, OJ9651, GTA312AID1

Ratings at 0.8 pf based on 40° C Ambient

Voltage (V)	80° C Rise		105° C Rise		125° C Rise		150° C Rise	
	kW	kVA	kW	kVA	kW	kVA	kW	kVA
208/240	394	493	458	573	500	625	542	678
480	473	591	542	678	600	750	650	813

Reactance Base Data at 480V, 750 kVA, 1800 RPM, 60 Hz, 3 Phase

Description	Value
Stator Resistance, Line to Line, High Wye Connection (Ω)	0.005
Rotor Resistance (Ω)	1.975
Exciter Stator Resistance - PMG (Ω)	15.26
Exciter Rotor Resistance - PMG (Ω)	0.1518
Excitation Winding Resistance - PMG (Ω)	0.9442
X_d , Direct Axis Synchronous Reactance (p.u.)	3.24
X_2 , Negative Sequence Reactance (p.u.)	0.180
X_0 , Zero Sequence Reactance (p.u.)	0.021
$X'd$, Direct Axis Transient Reactance (p.u.)	0.226
$X''d$, Direct Axis Subtransient Reactance (p.u.)	0.174
X_q , Quadrature Axis Synchronous Reactance (p.u.)	1.311
$T'd$, Direct Axis Transient Short Circuit Time Constant (s)	0.098

Description	Value
$T''d$, Direct Axis Subtransient Short Circuit Time Constant (s)	0.0017
$T'do$, Direct Axis Transient Open Circuit Time Constant (s)	1.439
T_a , Short Circuit Time Constant of Armature Winding (s)	0.020
Phase Sequence CCW-NDE	T1, T2, T3
Voltage Balance, L-L or L-N (%)	Contact Factory
Deviation Factor (%)	Contact Factory
High Wye Connection, Sustained 3-Phase Short Circuit Current (%) - PMG only	Contact Factory
X/R	Contact Factory
Short Circuit Ratio	0.31
Heat Rejection (BTU/hr) - 100% Rated Load, 480V, 0.8pf, 120°C Temp. Rise	Contact Factory

Reference: Mil-STD-705B
All Ratings are Nominal

ALTERNATOR DATA SHEET

K0600124Y23

skVA

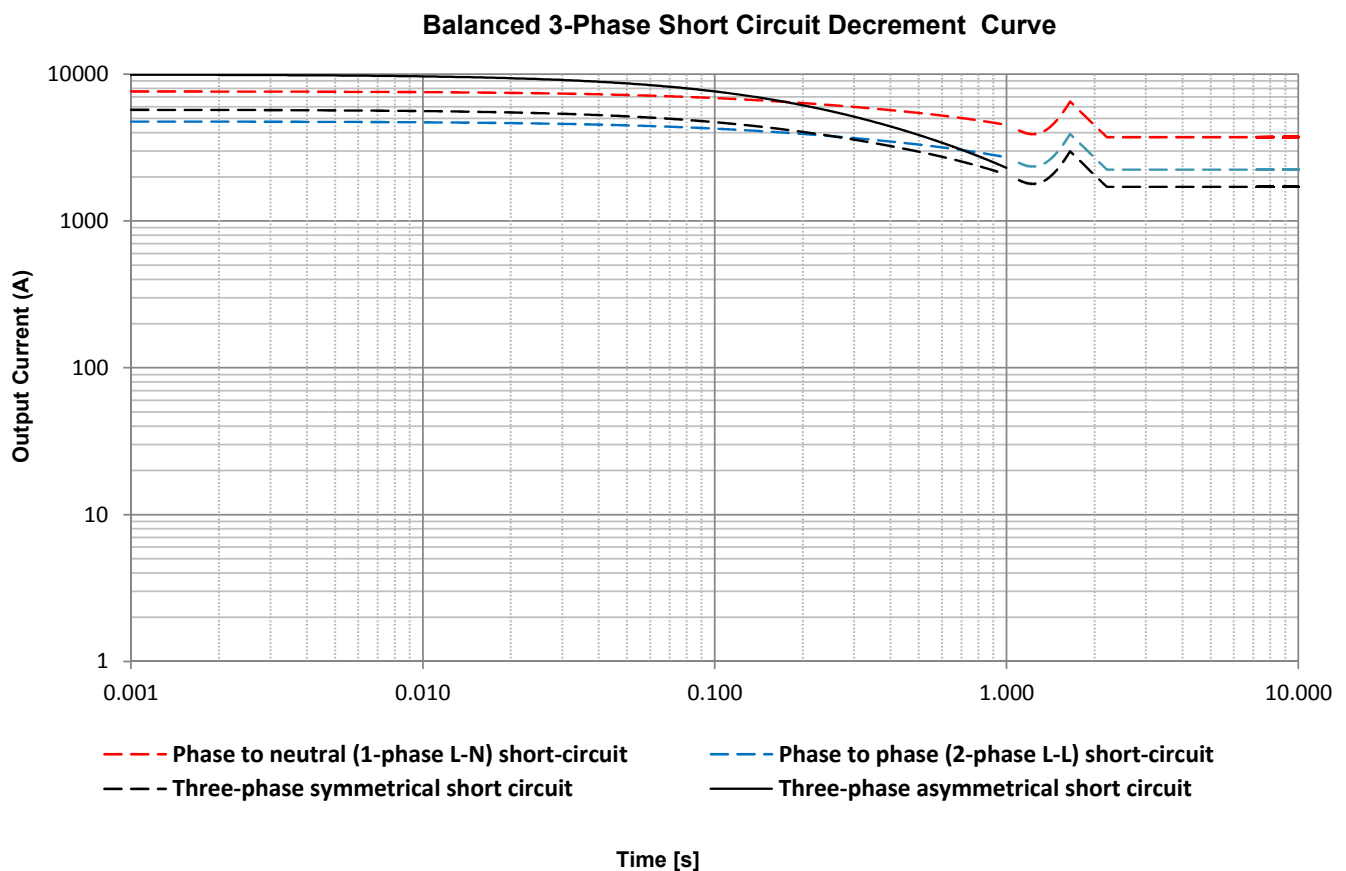
	10%	15%	20%	25%	30%
480V @ 0.3PF	360	560	800	1,060	1,380
480V @ 0.6PF	400	640	900	1,200	1,560
208/240V @ 0.3PF	260	420	600	780	1,000
208/240V @ 0.6PF	280	460	660	880	1,120

Efficiencies

	480V @ 0.8 PF	480V @ 1.0 PF	208/240V @ 0.8PF	208/240V @ 1.0 PF
25% Rated Power*	86.3	89.0	86.7	89.3
50% Rated Power*	90.8	92.8	90.6	92.6
75% Rated Power*	91.7	93.6	91.1	93.1
100% Rated Power*	91.5	93.6	90.7	92.8

*Rated Power value is rating kW at 125°C Winding Temp Rise and 0.8pf

LOG LOG Decrement Curves



INDUSTRIAL GENSET - BATTERY INDEX

• Warranty by Exide Corp. • Exide e-mail: tbgna@exide.com • 800-782-7848 National Hot line

Industrial Spark-Ignited Gensets - Available Batteries

Engine	System Voltage	Battery Quantity	Generac Part #				
			058208 (Group 24F)	077483 (Group 26)	058665 (Group 27F)	061119 (Group 31)	061104 (Group 8D)
G2.4	12	1		X			
G4.5	12	1			X	X	
G5.4	12	1	X		X	X	
G6.8	12	1			X	X	
G9.0	12	1			X	X	
G14.2	24	2					X
G21.9	24	2					X
G25.8	24	2					X
G33.9	24	4					X

X = Battery available with electrolyte and installed in genset.

Industrial Diesel Gensets - Available Batteries

Engine	System Voltage	Battery Quantity	Generac Part #			
			058665 (Group 27F)	061119 (Group 31)	061104/BT0015A00 (Group 8D)	BT0015A02 (Group 8D)
D2.2 Perkins	12	1	X	X		
D2.4 Generac	12	1	X	X		
D3.4 Generac	12	1	X	X		
D4.5 FPT	12	1		X		
D6.7 FPT 100, 130kW	12	1 or 2†		X		
D6.7 FPT 150, 175kW	12	2†		X		
D8.7 FPT	24	2		X		
D10.3 FPT	24	2		X	X	
D12.9 FPT	24	2		X	X	
D12.5 Perkins	24	2			X	
D15.2 Perkins	24	2			X	
D16.0 Volvo	24	2		X	X	
D18.1 Perkins	24	2			X	
D33.9 MHI	24	2			X	X
D37.1 MHI	24	4			X	X
D49.0 MHI	24	4			X	X
D65.4 MHI	24	4			X	X

X = Battery available with electrolyte and installed in genset.

† = Single or dual-paralleled battery options are available on 100 and 130kW. Single-battery option not available on 150 and 175kW.

Part Number	Group Number*	Nominal CCA @ 0° F	Dimensions (in) Nominal		
			L	W	H
058208	24F	525	6.75	10.63	9.00
077483	26	525	6.75	8.25	7.75
058665	27F	700	6.75	12.50	9.00
061119	31	925	6.75	13.00	9.40
061104/ BT0015A00	8D	1,155	11.00	20.80	10.00
BT0015A02	8D	1,300	11.00	20.80	10.00

All batteries are 12V, 6 cell construction, lead calcium type.
For 24V systems, batteries are wired in series.

* BCI Group Size reference.

** Add an "A" suffix to the Generac part number for dry batteries, which are shipped without electrolyte.

GENERATOR ENCLOSURES



DESCRIPTION

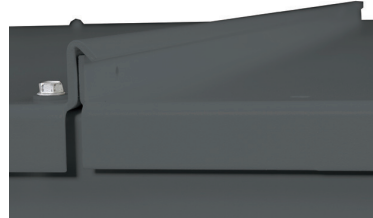
GENERAC POWER SYSTEMS' generator enclosures provide year-round weather protection for your power equipment. Engineered with functionality and value in mind, the enclosure design benefits are unique in that the enclosures utilize dimensionally matched components for either a weather protective configuration or a sound attenuated/acoustic configuration. With common components used between design, modification and on-site upgrades can be accomplished with ease.

The enclosure design offers several benefits over the "standard enclosures" of other manufacturers. Generac's enclosures have been created with the goal of maximizing the customer's product performance satisfaction while maintaining the functionality of reducing exterior noise levels and discouraging product tampering.

Although others may require a "premium" for a self-enclosed exhaust system, rugged steel panel construction or protective polyethylene washers under all exterior panel fasteners, Generac includes these and several other features on every enclosure configuration. Be sure to compare. Generac Enclosures offer additional design enhancement extras that other "standard enclosures" do not.

GENERATOR ENCLOSURES

Post-Free Twin Doors
Provide Large, Unobstructed Service Access



Gasket-Free, Interconnected Roof Panel Joint
Drip-Free, Maintenance-Free

Heavy Gauge, Stainless Steel, Partial Pin Hinges with Nylon Spacers
Durable, Corrosion-Free, Removable Doors



Two-Point Door Latch System
Ensures Proper Seal
Preventing Water Ingress
and Sound Egress



Dense, Closed-Cell Foam Insulation with Reflective Silver Mylar Layer
Improved Sound Attenuation Without Damaging Effects From Radiant Heat Exposure



Lockable Turn and Tuck Stainless Steel Latch Handle
Corrosion-Free, Non-Protruding and Secure



GENERATOR ENCLOSURES

FEATURES:

Dimensional matching of acoustic and non-acoustic enclosure designs

Standardized enclosure components *

Enclosure mounted directly to unit baseframe

Electrostatically painted panels

12 or 14 gauge steel based on kW rating

Aluminum Enclosure optional

Stainless steel door latch and hinge hardware

Stainless steel door latch strike plate

Door hinges utilize slip-pin design

Polyethylene gasketing under door hinges

Keyed door latches

Large removable access doors

Relocation of access doors

Redesigned door gasketing

Weather resistant aluminum roof design with drip ledge

Cabled and gasketed radiator access cover

Acoustic roof panels manufactured with mechanical retention pins

Polyethylene washers under all panel fasteners

Internally fastened enclosure panels (where possible)

Additional roof panel stiffener

Self-enclosed exhaust system

Discharge air duct has been designed with minimal fasteners

Stainless steel exhaust band clamps

Drain holes within air ducts

Rodent-proof, tamper proof enclosure design

Redesigned baseframe lifting lugs

Up to 200 MPH wind kit options (Contact Factory for Availability)

BENEFITS:

Reduces variation in fuel tank pricing, inventory; removes need to change out fuel tank or retrofit

Ease of retrofit or upgrade to acoustic system; reduced parts inventory, costs

Simplified delivery and installation with enclosure and unit in single component design

Maximum protection from weather elements

Maximum sound attenuation, protection and product life

Prevents corrosion in coastal regions

Provides extended component life; maximum protection against rusting

Maximum protection against enclosure paint damage from door latch pin

Provides quick door removal for full-unit access

Additional protection for enclosure paint finish

Protection for equipment and personnel

Ease of maintenance

Provides improved access to MLCB on all units

Improved sealing quality from sound and weather elements

Provides optimum moisture/rain runoff from unit

Provides improved radiator access and additional protection from weather elements

Increased acoustic foam retention within unit

Additional paint finish protection from stainless steel fastener

Provides streamlined unit appearance

Added overall compartment rigidity and acoustic foam panel retention

Provides safe unit operation; no enclosure hot spots; streamlined unit appearance

Ease of removal and access to exhaust system

Provides extended component life; ensures proper exhaust seal

Enables maximum water run-off

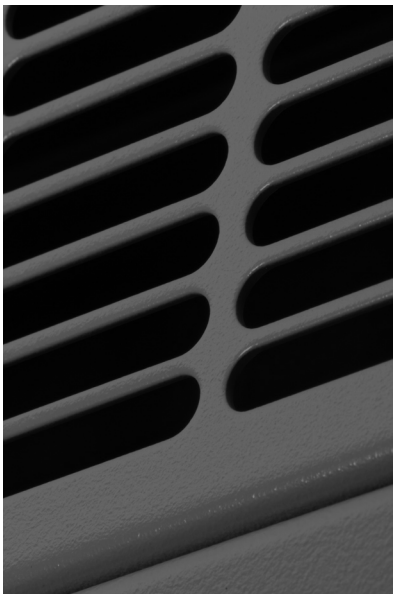
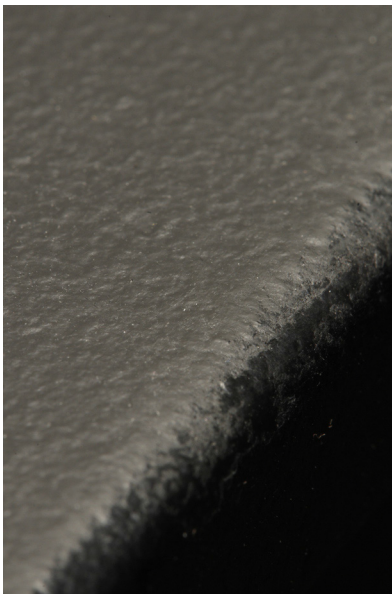
Safety and security for personnel and equipment

Ease of unit relocation; prevents compartment damage from lifting straps

Meets locally enforced wind requirements

* Consult Generac Power Systems, Inc. for installation drawings for specific configurations and dimensions.

RhinoCoat™



Generac's RhinoCoat™ finish system provides superior durability as a standard for all Generac Industrial enclosures, tanks and frames.*

Testing Standards

Generac's RhinoCoat™ finished surfaces are subjected to numerous tests. These include:

- ASTM D - 1186 - 87.....2.5+ MIL Paint Thickness
- ASTM D - 3363 - 92a.....Adequate Material Hardness
- ASTM D 522 - B.....Resistant to Cracking
- ASTM D 3359 - B.....Exceptional Adhesion
- ASTM B117 D 1654.....Resistant to Salt Water Corrosion
- ASTM D1735 D 1654.....Resistant to Humidity
- ASTM 2794 93 (2004).....Exceptional Impact Resistance
- SAEJ1690 - UV Specifications.....UV Protection

In addition to the testing standards above, Generac adds the following test requirements more specific to generator applications:

- Resistant to Typical Oils
- Resistant to Typical Fuels
- Resistant to Typical Antifreeze
- Resistant to Distilled Water

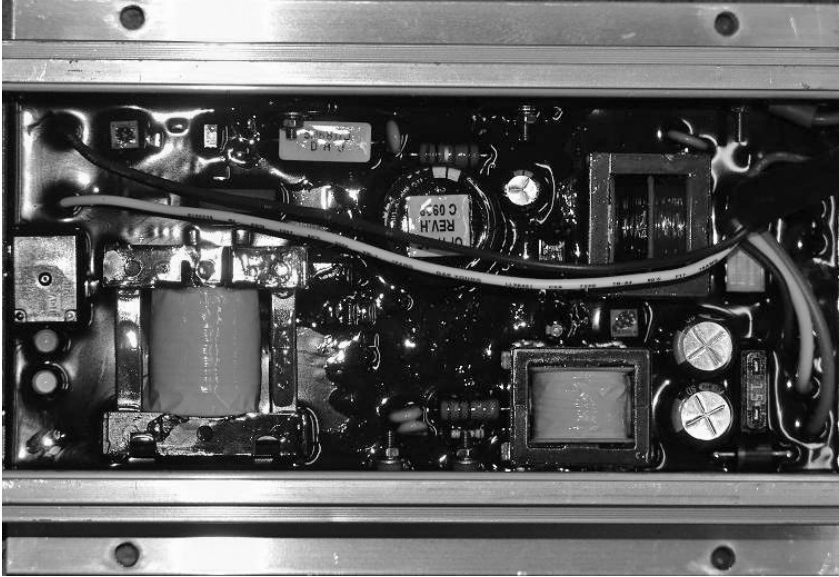
Primary Codes and Standards



*RhinoCoat™ powder coat paint is durable and corrosion resistant however it is not a rust preventative. Generac pretreats all powder coated parts to assist with resistance to corrosion.

BATTERY CHARGER

2.5 amp and 10 amp



Battery charger shown from inside of control panel enclosure.
Connections are made via an attached harness.

The Generac 2.5 amp 12 volt and 10 amp 12/24 volt battery chargers are designed to work with Generac Industrial Controls to provide the ultimate in automatic battery voltage maintenance.

The 2.5 amp charger is self-regulating and produces instantaneous output current adjustments to keep the battery charged to an optimum level. Battery voltage is read on the control panel digital display.

The 10 amp charger has automatic float and equalize control. It precisely monitors the battery's voltage and automatically activates the correct charging mode. The charge rate is limited and controlled to efficiently and safely maintain ideal battery levels under varying conditions.

The equalize system uses a control circuit to limit charging current to 10 amps. When battery voltage drops below a preset level, charging current increases to 5 amps and then to the 10 amp charge rate if needed. When the battery reaches maximum charge, the charger switches to float mode to supply just enough current to maintain the battery at or above 13/26 volts. Battery voltage and charging current are read at the control panel digital display.

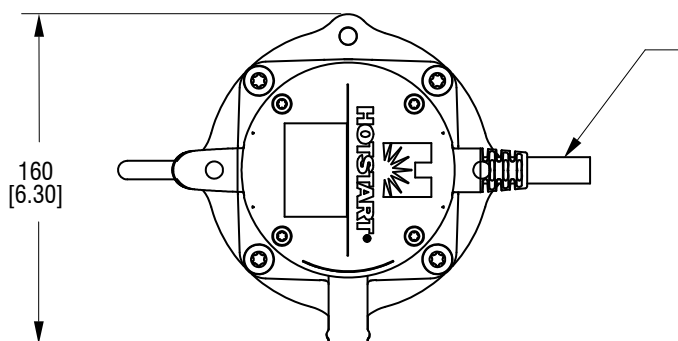
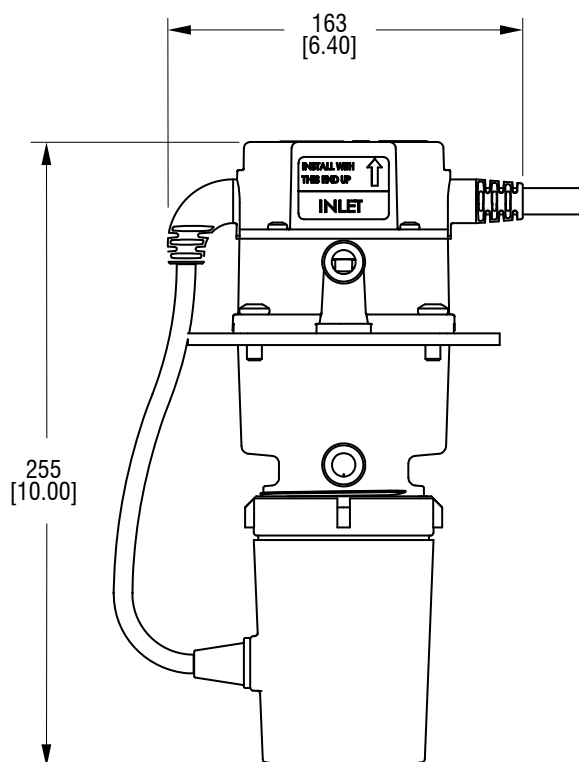
Specifications	2.5A	10A
Nominal Input	120 VAC	120 VAC
Operating AC Line Voltage Range	108 to 132 VAC	108 to 132 VAC
Input AC Line Frequency	50/60 Hz	50/60 Hz
Battery Fuse	N/A	15 A
Nominal Charge Rate	2.5 A	10 A
Equalize Voltage	N/A	13.8/27.6 V
Float Voltage	13.4 V	13.0/26.0 V
Current @ Equalize to Float Transition	N/A	5 A
Battery Under-voltage shutdown	N/A	11/22 V
LED Indicators	No	Yes
AC Line Voltage	N/A	Green LED
Battery Connected and Charging	N/A	Yellow LED
Battery Current Drain	30 mA	30 mA
AC Line Connection	Connector Plug	Connector Plug
Battery Connection	Connector Plug	Connector Plug
Control Connection		AC Power Fail Form Relay Form C 2 A Rating
CUL Recognized	Yes	Yes
NFPA 110 Compliant	No	Yes
AGM Compatible	No	Yes
UL1236	No	Yes
CSA 22.2 No. 107	No	Yes



COOLANT HEATER OPTION 2500 WATT, 240V

SPECIFICATIONS

- HOTSTART® HOTFLOW™ CTM25210-N00
- WATTS: 2500
- VOLTAGE: 240VAC SINGLE PHASE
- FIXED THERMOSTAT: 100/120° F
- FLOW RATE: 3.5 GPM @ 3 PSI
- UL/C-US LISTED



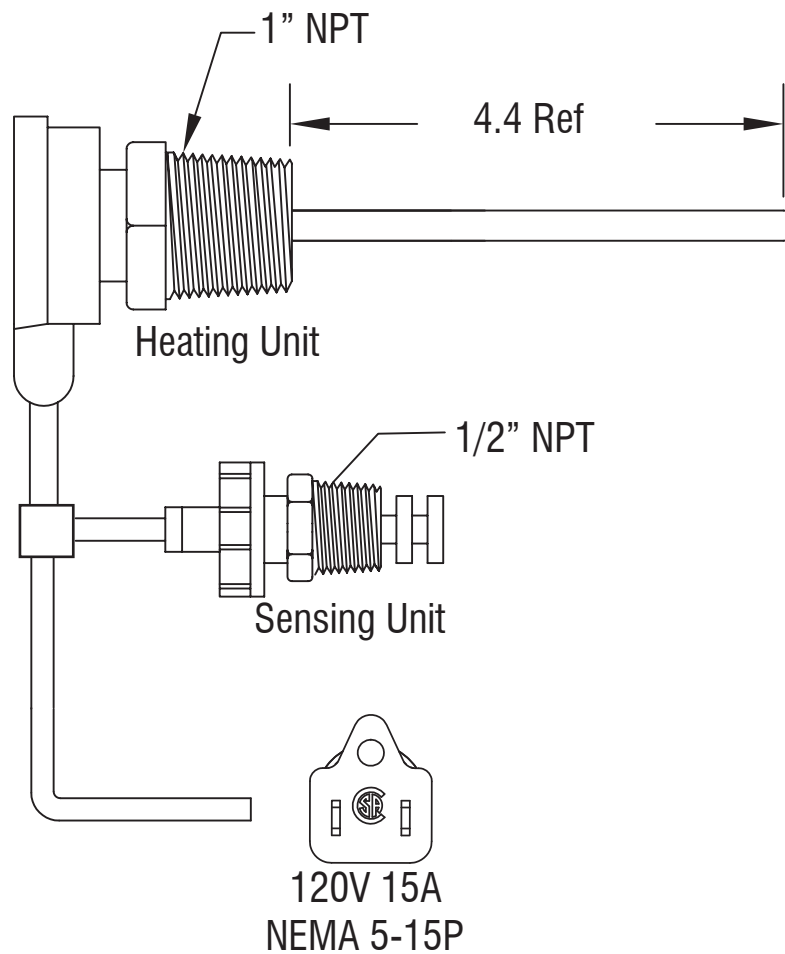
CORD LENGTH: 1220 [48.00]

DIMENSIONS: mm [INCHES]

COOLANT HEATER OPTION 1500 WATT, 120V

SPECIFICATIONS

- Manufacturer: HOTSTART
- Model: CATV-151-WOC
- WATTS: 1500
- VOLTAGE: 120VAC SINGLE PHASE
- FIXED THERMOSTAT: 100/120° F
- UL/C-US LISTED



NOTES:

1. CONTROL PANEL, (OPTIONAL BATTERY CHARGER INSIDE).
2. 120V, 20A GFCI & 250V, 15A OUTLET (OPTIONAL).
3. CONNECTION POINTS FOR CONTROL WIRES PROVIDED IN THE LOW VOLTAGE CONNECTION BOX (USE LOW VOLTAGE STUB-UP AREA).
4. BATTERY (24 VOLT NEGATIVE GROUND SYSTEM).
5. MAIN LINE CIRCUIT BREAKER (MLCB), AC LOAD LEADS. (DIMENSIONS MAY VARY DUE TO UNIT CONFIGURATION)
6. CENTER OF GRAVITY AND WEIGHT MAY CHANGE DUE TO UNIT OPTIONS.
7. ENGINE SERVICE CONNECTIONS:
 - INLET NATURA GAS = N/A
 - INLET DIESEL = 1/2" NPT FEMALE COUPLING
 - RETURN DIESEL = 1/2" NPT FEMALE COUPLING
 - OIL DRAIN = 1/2" NPT FEMALE COUPLING
 - RADIATOR DRAIN = 1/2" NPT FEMALE COUPLING
 - FLEX PIPE OUTLET = 6" I.D. PIPE
 - EXHAUST OUTLET = 5" I.D. SAE FLANGE (TURB O CONNECTION)

***** SEE GENERATOR SIZING GUIDE FOR FUEL PIPE SIZING TO SUIT APPLICATION *****

8. AUXILIARY AC CONNECTION FOR UNIT OPTIONS ARE LOCATED IN HIGH VOLTAGE CONNECTION BOX, UNLESS AN OPTIONAL LOAD CENTER IS INSTALLED.
9. EXHAUST PIPES MAY BE ROTATED TO ALLOW MUFFLER TO POINT OUT TO THE RIGHT OR LEFT SIDE OF GENERATOR. (MAY NOT APPLY TO ALL UNITS)
10. GENERATOR SET MUST BE INSTALLED SUCH THAT FRESH COOLING AIR IS AVAILABLE AND DISCHARGE AIR FROM THE RADIATOR IS NOT RECIRCULATED.
11. BOTTOM OF GENERATOR SET MUST BE ENCLOSED TO PREVENT PEST INTRUSION AND RECIRCULATION OF DISCHARGE AIR AND/OR IMPROPER COOLING AIR FLOW.
12. INSTALL EXHAUST BLANKETS ALONG THIS LINE
13. CONNECT THE OPEN SET EXHAUST PER NFPA 37
14. BOLTS OR STUDS USED TO MOUNT UNIT TO PAD, OR BASE TANK, SHALL BE 5/8"-11 GRADE 5. USE STANDARD SAE TORQUE SPECS. (FOR INSTALLATION OF FUEL TANK TO PAD REFER TO INSTALL DRAWING OF THE BASE TANK)

ADDITIONAL NOTES:

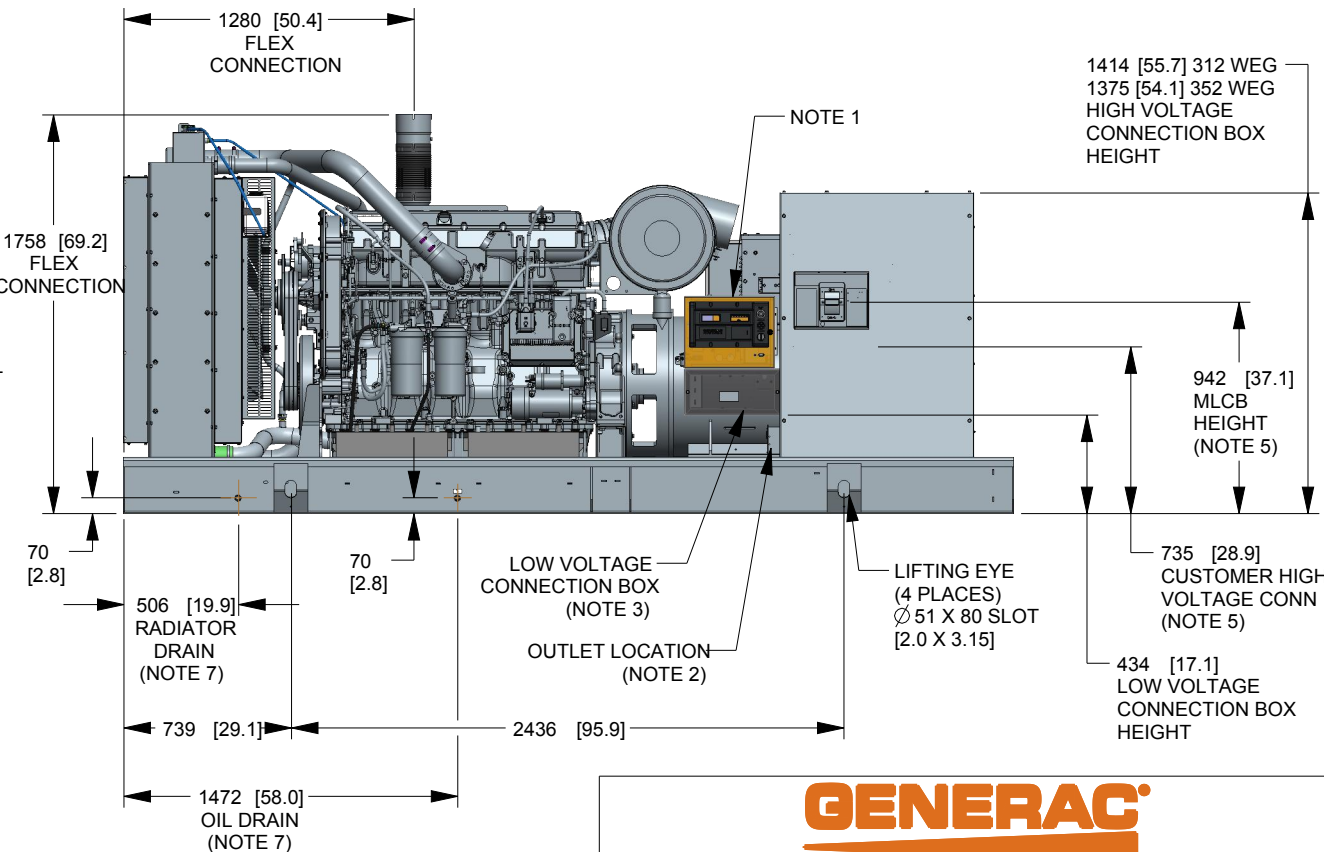
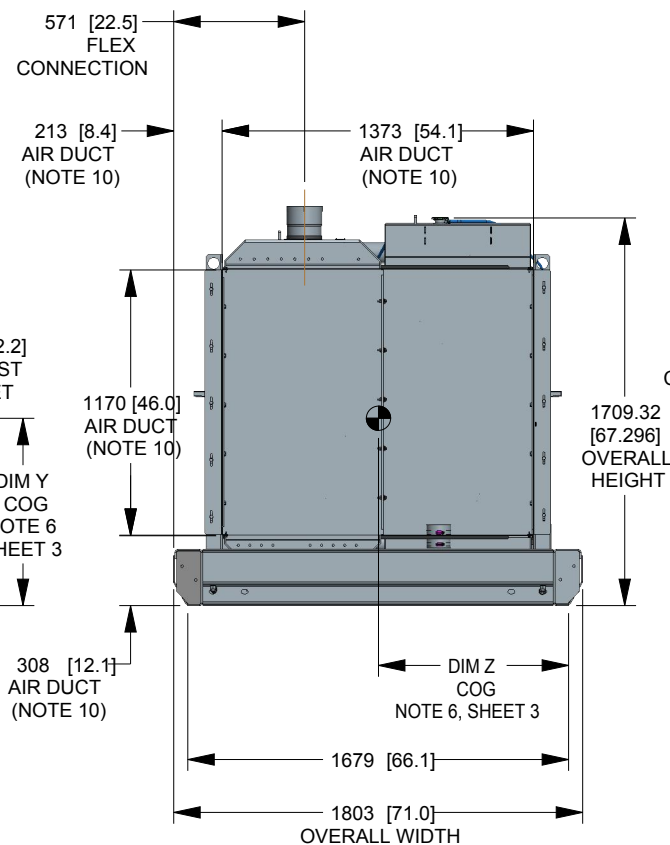
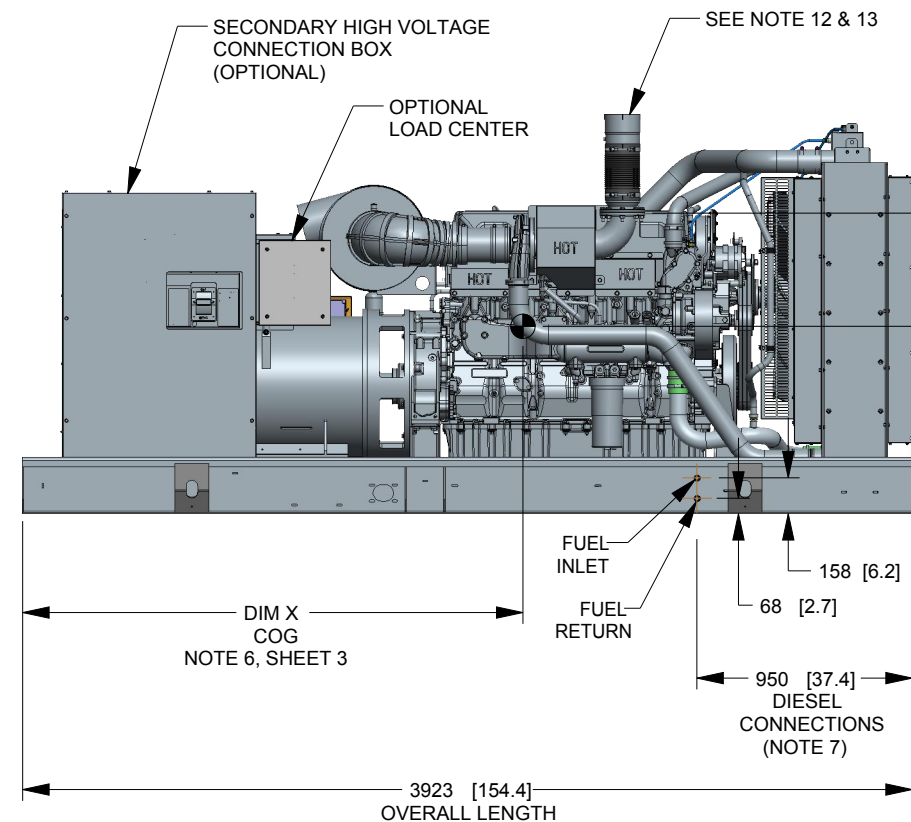
FOR WEIGHT AND CENTER OF GRAVITY DATA SEE NOTE 6, AND SHEET 3.

B

B

A

A



DRAWING CREATED FROM PRO/ENGINEER 3D FILE. ECO MODIFICATION TO BE APPLIED TO SOLID MODEL ONLY.

DIMENSIONS ARE IN MILLIMETERS [INCHES]

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ELECTRONICALLY APPROVED
INSIDE WINDCHILL

GENERAC

TITLE

OPEN SET
D15.2L SD500, PD450

ISSUE DATE: 03/21/14

SIZE

CAGE NO

DWG NO

OK1606

REV

SCALE

0.030

WT-KG

SHEET

1 of 3

INSTALLATION DRAWING

4

3

SH

2/3

REV

H

WINDCHILL VERSION

H.2

1

RECOMMENDED ELECTRICAL STUB-UP

(HIGH VOLTAGE STUB-UP)
AC LOAD LEAD CONDUIT FOR
PERMANENT MAGNET EXCITATION
CONNECTION BOX

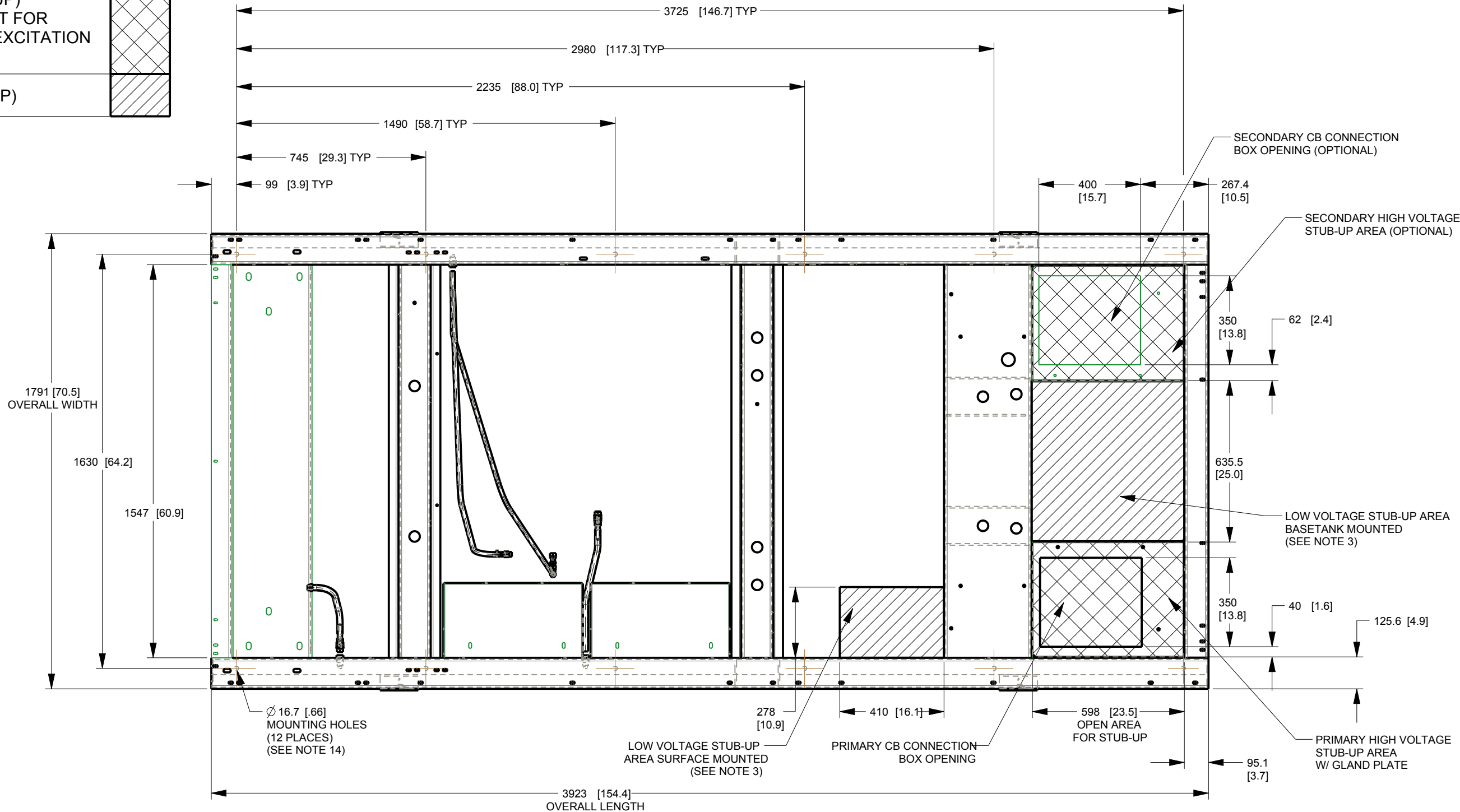
(LOW VOLTAGE STUB-UP)

B

A

B

A



DRAWING CREATED FROM PRO/ENGINEER
3D FILE. ECO MODIFICATION TO BE
APPLIED TO SOLID MODEL ONLY.

DIMENSIONS ARE IN MILLIMETERS [INCHES]

INSTALLATION DRAWING

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ELECTRONICALLY APPROVED
INSIDE WINDCHILL



TITLE

STUB-UP VIEW
D15.2L SD500, PD450

ISSUE DATE: 03/21/14

SIZE

CAGE NO

DWG NO

OK1606

REV

H

SCALE

0.060

WT-KG

SHEET

2 of 3

OPEN SET

MODEL	VOLTAGE	WEIGHT	CENTER OF GRAVITY DIM X	CENTER OF GRAVITY DIM Y	CENTER OF GRAVITY DIM Z
SD/MD 500, PD/WD 450	480V	3,807 kg [8,393 lbs]	1952 [76.9]	642 [25.3]	837 [33.0]
SD/MD 500, PD/WD 450	480V UPSIZED ALT. (642kw)	3,907 kg [8,614 lbs]	1912 [75.3]	639 [25.2]	837 [33.0]
SD500, PD450	208V & 240V				
SD/MD 500, PD/WD 450	480V UPSIZED ALT. (832kw)	4,799 kg [10,580 lbs]	1709 [67.3]	622 [24.5]	837 [33.0]
SD500, PD450	208V & 240V UPSIZED ALT (723kw)				
SD500, PD450	208V & 240V UPSIZED ALT (689kw)	4,506 kg [9,934 lbs]	1758 [69.2]	627 [24.7]	837 [33.0]
SD/MD 500, PD/WD 450	600V	4,157 kg [9,165 lbs]	1859 [73.2]	634 [25.0]	837 [33.0]
SD/MD 500, PD/WD 450	600V UPSIZED ALT. (800kw)	4,733 kg [10,435 lbs]	1720 [67.7]	623 [24.5]	837 [33.0]

NOTE:
CENTER OF GRAVITY AND WEIGHT MAY CHANGE DUE TO UNIT OPTIONS

STD ENCLOSURE, STEEL

MODEL	VOLTAGE	WEIGHT	CENTER OF GRAVITY DIM X	CENTER OF GRAVITY DIM Y	CENTER OF GRAVITY DIM Z
SD/MD 500, PD/WD 450	480V	4,822 kg [10,631 lbs]	2215 [87.2]	771 [30.4]	802 [31.6]
SD/MD 500, PD/WD 450	480V UPSIZED ALT. (642kw)	4,922 kg [10,851 lbs]	2178 [85.7]	766 [30.2]	801 [31.5]
SD500, PD450	208V & 240V				
SD/MD 500, PD/WD 450	480V UPSIZED ALT. (832kw)	5,814 kg [12,818 lbs]	1969 [77.5]	731 [28.8]	798 [31.4]
SD500, PD450	208V & 240V UPSIZED ALT (723kw)				
SD500, PD450	208V & 240V UPSIZED ALT (689kw)	5,521 kg [12,172 lbs]	2023 [79.6]	741 [29.2]	799 [31.5]
SD/MD 500, PD/WD 450	600V	5,172 kg [11,402 lbs]	2122 [83.5]	755 [29.7]	800 [31.5]
SD/MD 500, PD/WD 450	600V UPSIZED ALT. (800kw)	5,748 kg [12,672 lbs]	1981 [78.0]	733 [28.9]	798 [31.4]

STD ENCLOSURE, ALUMINUM

WEIGHT	CENTER OF GRAVITY DIM "X"	CENTER OF GRAVITY DIM "Y"	CENTER OF GRAVITY DIM "Z"
4,329 kg [9,544 lbs]	2138 [84.2]	718 [28.3]	797 [31.4]
4,429 kg [9,764 lbs]	2099 [82.6]	714 [28.1]	797 [31.4]
5,321 kg [11,731 lbs]	1884 [74.2]	685 [27.0]	794 [31.3]
5,028 kg [11,085 lbs]	1938 [76.3]	693 [27.3]	795 [31.3]
4,679 kg [10,315 lbs]	2041 [80.4]	704 [27.7]	796 [31.3]
5,255 kg [11,585 lbs]	1895 [74.6]	687 [27.0]	794 [31.3]

L1A ENCLOSURE, STEEL

MODEL	VOLTAGE	WEIGHT	CENTER OF GRAVITY DIM X	CENTER OF GRAVITY DIM Y	CENTER OF GRAVITY DIM Z
SD/MD 500, PD/WD 450	480V	5,278 kg [11,636 lbs]	2048 [80.6]	803 [31.6]	809 [31.9]
SD/MD 500, PD/WD 450	480V UPSIZED ALT. (642kw)	5,378 kg [11,856 lbs]	2019 [79.5]	797 [31.4]	808 [31.8]
SD500, PD450	208V & 240V				
SD/MD 500, PD/WD 450	480V UPSIZED ALT. (832kw)	6,270 kg [13,823 lbs]	1851 [72.8]	760 [29.9]	804 [31.7]
SD500, PD450	208V & 240V UPSIZED ALT (723kw)				
SD500, PD450	208V & 240V UPSIZED ALT (689kw)	5,977 kg [13,177 lbs]	1894 [74.6]	771 [30.4]	805 [31.7]
SD/MD 500, PD/WD 450	600V	5,628 kg [12,407 lbs]	1976 [77.8]	786 [30.9]	807 [31.8]
SD/MD 500, PD/WD 450	600V UPSIZED ALT. (800kw)	6,204 kg [13,677 lbs]	1861 [73.3]	763 [30.0]	805 [31.7]

L1A ENCLOSURE, ALUMINUM

WEIGHT	CENTER OF GRAVITY DIM "X"	CENTER OF GRAVITY DIM "Y"	CENTER OF GRAVITY DIM "Z"
4,525 kg [9,976 lbs]	2057 [81.0]	736 [29.0]	801 [31.5]
4,625 kg [10,196 lbs]	2022 [79.6]	782 [30.8]	800 [31.5]
5,517 kg [12,163 lbs]	1828 [72.0]	701 [27.6]	797 [31.4]
5,224 kg [11,517 lbs]	1877 [73.9]	710 [28.0]	798 [31.4]
4,875 kg [10,747 lbs]	1971 [77.6]	722 [28.4]	799 [31.5]
5,451 kg [12,017 lbs]	1839 [72.4]	703 [27.7]	797 [31.4]

L2A ENCLOSURE, STEEL

MODEL	VOLTAGE	WEIGHT	CENTER OF GRAVITY DIM X	CENTER OF GRAVITY DIM Y	CENTER OF GRAVITY DIM Z
SD/MD 500, PD/WD 450	480V	5,431 kg [11,973 lbs]	2244 [88.3]	966 [38.0]	805 [31.7]
SD/MD 500, PD/WD 450	480V UPSIZED ALT. (642kw)	5,531 kg [12,194 lbs]	2211 [87.0]	958 [37.7]	804 [31.7]
SD500, PD450	208V & 240V				
SD/MD 500, PD/WD 450	480V UPSIZED ALT. (832kw)	6,423 kg [14,160 lbs]	2019 [79.5]	897 [35.3]	801 [31.5]
SD500, PD450	208V & 240V UPSIZED ALT (723kw)				
SD500, PD450	208V & 240V UPSIZED ALT (689kw)	6,130 kg [13,514 lbs]	2070 [81.5]	915 [36.0]	802 [31.6]
SD/MD 500, PD/WD 450	600V	5,781 kg [12,745 lbs]	2160 [85.0]	939 [37.0]	803 [31.6]
SD/MD 500, PD/WD 450	600V UPSIZED ALT. (800kw)	6,357 kg [14,015 lbs]	2030 [79.9]	901 [35.5]	801 [31.5]

L2A ENCLOSURE, ALUMINUM

WEIGHT	CENTER OF GRAVITY DIM "X"	CENTER OF GRAVITY DIM "Y"	CENTER OF GRAVITY DIM "Z"
4,590 kg [10,119 lbs]	2158 [85.0]	823 [32.4]	799 [31.5]
4,690 kg [10,340 lbs]	2121 [83.5]	816 [32.1]	798 [31.4]
5,582 kg [12,306 lbs]	1913 [75.3]	771 [30.4]	796 [31.3]
5,289 kg [11,660 lbs]	1966 [77.4]	784 [30.9]	796 [31.3]
4,940 kg [10,891 lbs]	2065 [81.3]	801 [31.5]	797 [31.4]
5,516 kg [12,161 lbs]	1924 [75.7]	773 [30.4]	796 [31.3]

DRAWING CREATED FROM PRO/ENGINEER
3D FILE. ECO MODIFICATION TO BE
APPLIED TO SOLID MODEL ONLY.

INSTALLATION DRAWING

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ELECTRONICALLY APPROVED
INSIDE WINDCHILL



TITLE
WEIGHT & CENTER OF GRAVITY
D15.2L SD500, PD450

ISSUE DATE:		03/21/14			
SIZE	CAGE NO	DWG NO	0K1606		REV
B	N/A				H
SCALE	0.060	WT-KG	SHEET	3 of 3	

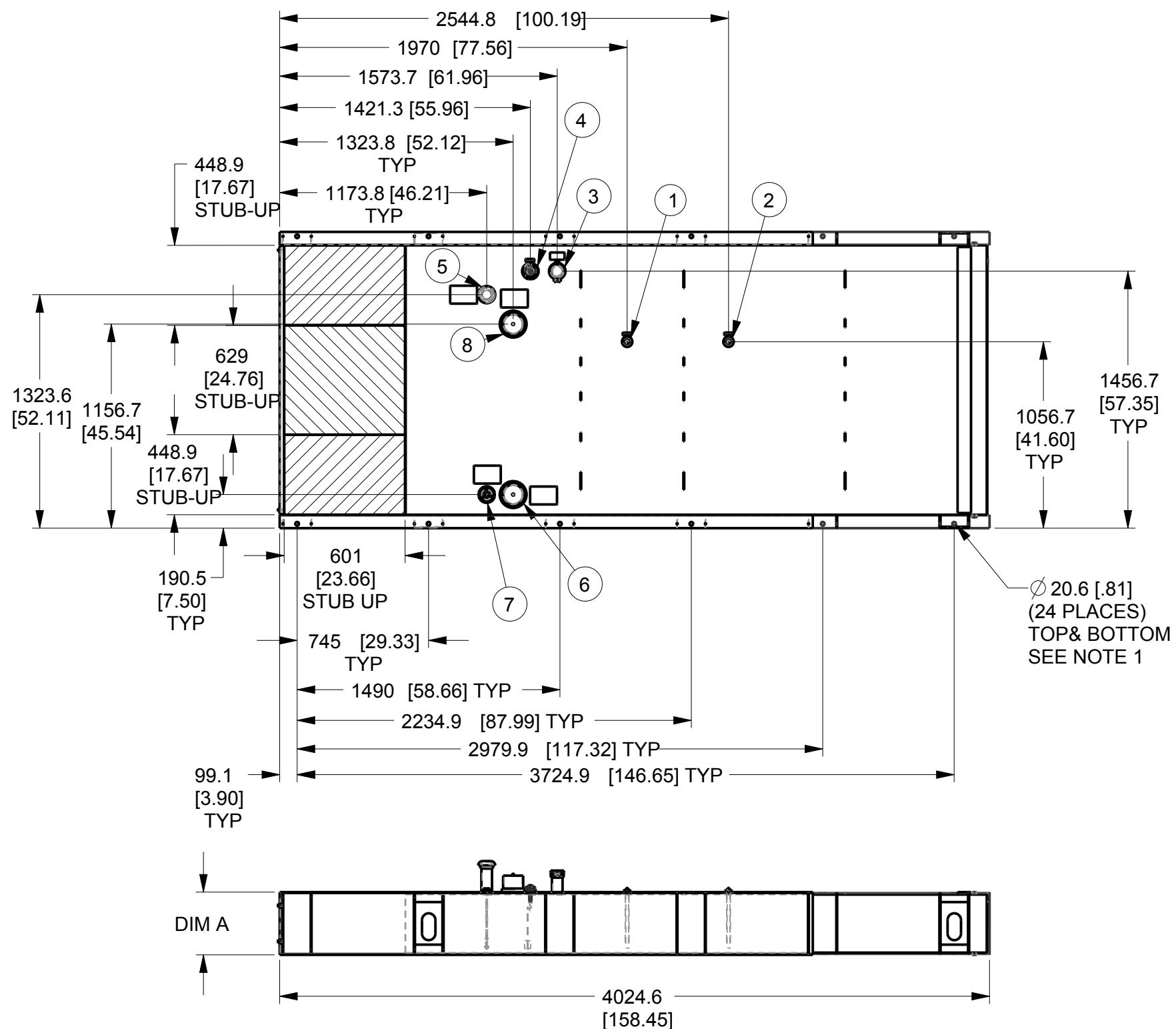
1

B

B

A

A



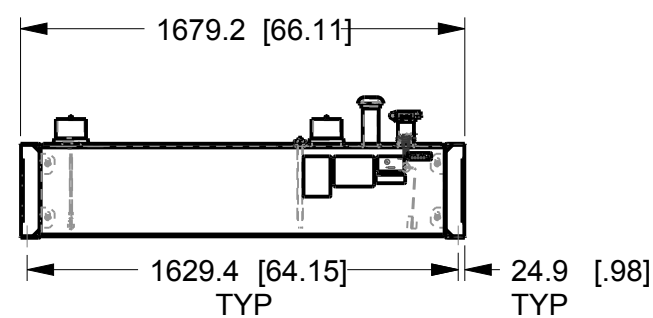
I/N	TANK FITTING	DESCRIPTION
1	1/2" NPT COUPLING	FUEL RETURN
2	1/2" NPT COUPLING	FUEL SUPPLY
3	2" NPT FEMALE	FUEL FILL
4		FUEL LEVEL
5	2" NPT FEMALE	VENT
6	4" NPT WELD FLANGE	EMERGENCY VENT (OUTER) 14" TANK
	5" NPT WELD FLANGE	EMERGENCY VENT (OUTER) 36" TANK
7		BASIN ALARM
8	4" NPT WELD FLANGE	EMERGENCY VENT (INNER) 14" TANK
	5" NPT WELD FLANGE	EMERGENCY VENT (INNER) 36" TANK

CAPACITY SHOWN: LITER [GALLONS]
WEIGHT SHOWN: KILOGRAMS [POUNDS]
LENGTH SHOWN: MM [INCH]

UL #142 / ULC-S601 LISTED

NOTES:
1. MOUNTING BOLTS/STUDS FOR BASETANK TO CONCRETE
PAD SHALL BE 3/4-10 GRADE 5. (USE STANDARD SAE
TORQUE SPECS.)

LOW VOLTAGE STUB-UP
HIGH VOLTAGE STUB-UP



DRAWING CREATED FROM PRO/ENGINEER
3D FILE. ECO MODIFICATION TO BE
APPLIED TO SOLID MODEL ONLY.

TANK P/N	0J8132	0K0184
DIM_A	356 [14]	914 [36]
TOTAL TANK CAPACITY	1355 [358]	3884 [1026]
USABLE TANK CAPACITY	1264 [334]	3789 [1001]
DRY WEIGHT [EST]	760 [1675]	1179 [2600]



TITLE INSTALL H-GROUP BASETANKS G22				
ISSUE DATE: 11/20/12				
SIZE B	CAGE NO N/A	DWG NO 0K1837	REV H	
SCALE	0.035	WT-KG	0.000	SHEET 1 of 1

INSTALLATION DRAWING

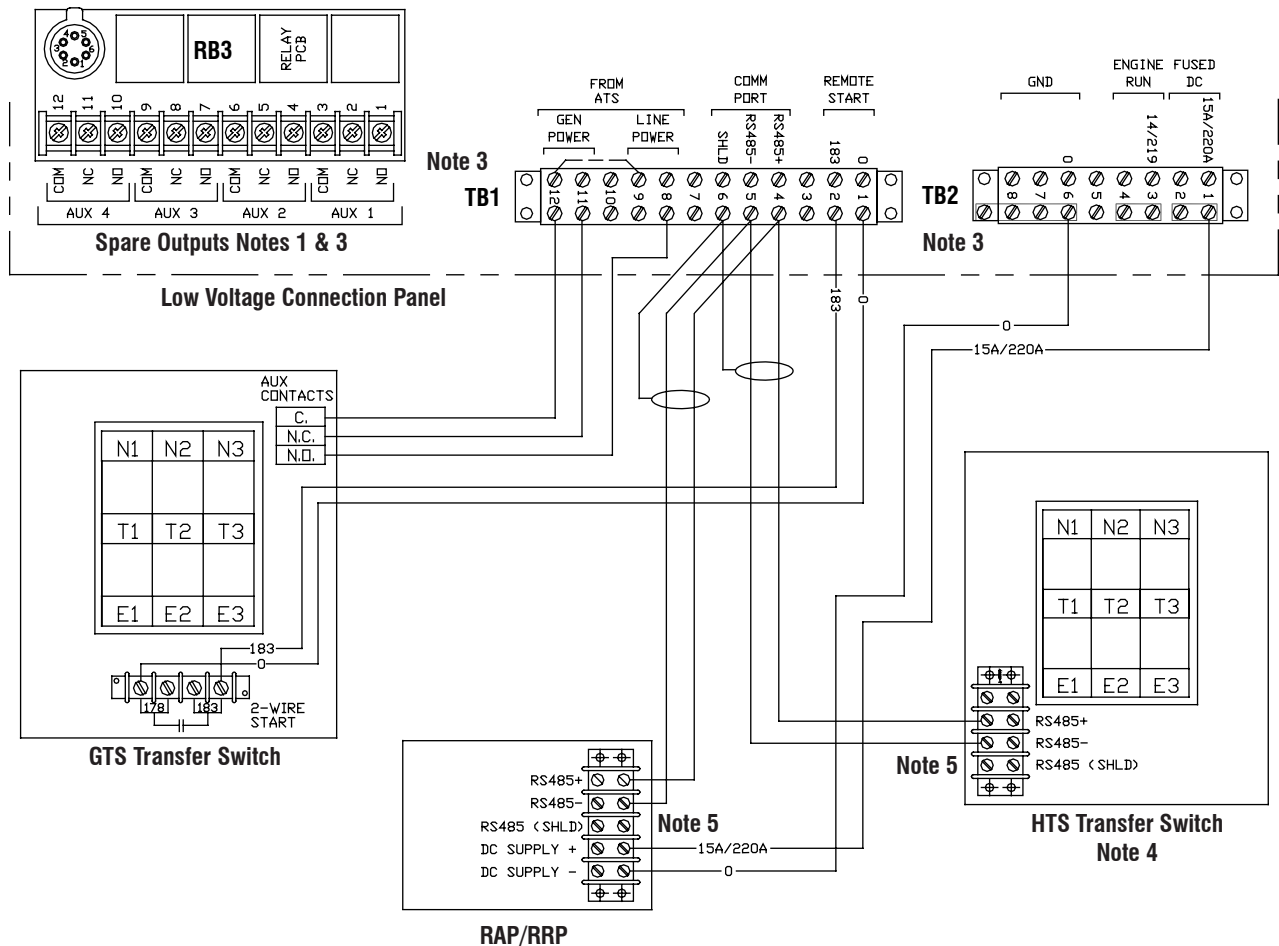
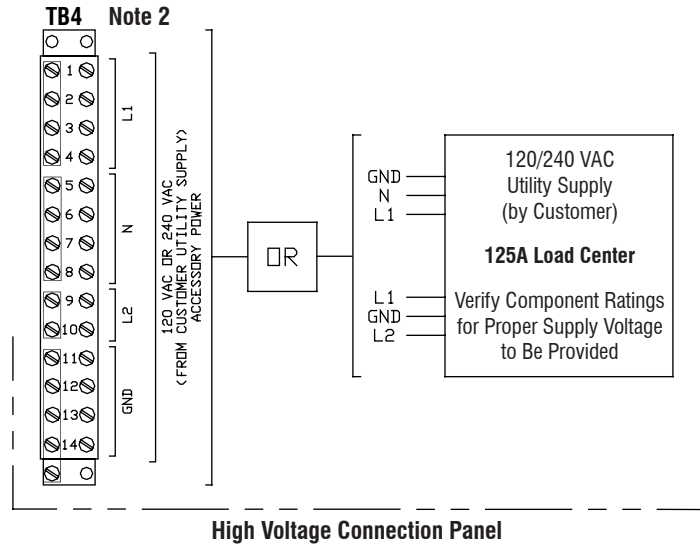
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INSIDE WINDCHILL

H-PANEL CONTROL INTERCONNECTIONS

Notes:

1. Spare Outputs are Standard on Industrial Product Only.
GenLink® Required for Programming. Contacts Rated at 5A at 30VAC/30VDC
2. TB4 Max Wire Size: #10 AWG,
Recommended Tightening Torque: 14 LB-IN
3. TB1, TB2, TB9 & RB3 Max Wire Size: #14 AWG,
Recommended Tightening Torque: 12 LB-IN
4. Refer to H-Panel Manual for Instructions on Enabling HTS Transfer Switch. Refer to HTS Transfer Switch Manual for Dip Switch Settings for Multiple HTS Application
5. Connect the RS-485 Overall Shield at Genset Connection Terminal Only

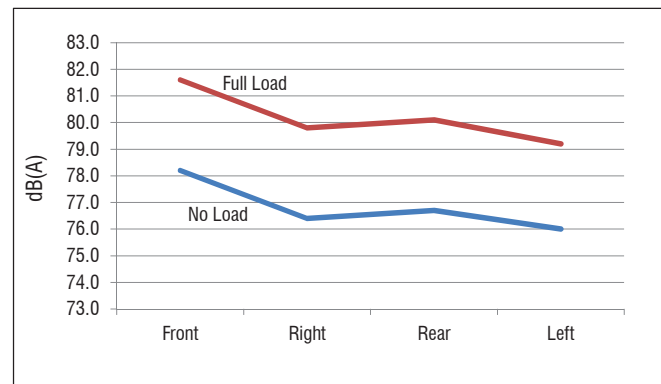
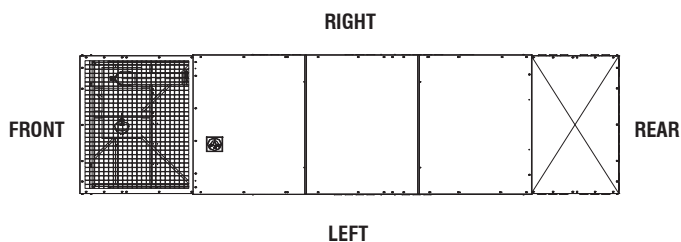


LEVEL 1 ACOUSTIC ENCLOSURE

SD/MD500 DIESEL, SB/MB500 BI-FUEL 15.2L PERKINS

60Hz NO-LOAD DATA, dB(A)										DISTANCE: 7 METERS
MICROPHONE LOCATION	OCTAVE BAND CENTER FREQUENCY (Hz)									
	31.5	63	125	250	500	1000	2000	4000	8000	dB(A)
FRONT	31.6	48.0	59.3	58.7	71.2	70.2	70.9	62.6	54.4	78.2
RIGHT	33.2	47.7	55.1	59.8	66.5	65.2	71.0	61.6	56.0	76.4
REAR	30.6	52.6	58.5	61.5	66.1	67.3	71.0	65.5	58.0	76.7
LEFT	31.9	45.3	56.3	63.4	65.9	66.8	71.7	63.0	55.1	76.0
AVERAGE	31.8	48.4	57.3	60.8	67.4	67.3	71.1	63.1	55.9	76.8

60Hz FULL-LOAD DATA, dB(A)										DISTANCE: 7 METERS
MICROPHONE LOCATION	OCTAVE BAND CENTER FREQUENCY (Hz)									
	31.5	63	125	250	500	1000	2000	4000	8000	dB(A)
FRONT	33.9	55.1	66.0	62.6	73.6	71.6	75.3	68.9	63.4	81.6
RIGHT	37.6	55.6	59.8	66.1	71.0	71.5	78.1	75.1	69.5	79.8
REAR	31.9	56.0	63.3	65.7	73.1	72.9	77.4	74.0	66.3	80.1
LEFT	32.1	55.2	63.0	66.7	70.9	69.9	77.3	74.6	68.5	79.2
AVERAGE	33.9	55.5	63.0	65.3	72.1	71.5	77.0	73.1	66.9	80.2



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

STATEMENT OF EXHAUST EMISSIONS

2020 Perkins Diesel Fueled Generator

The measured emissions values provided here are proprietary to Generac and its authorized dealers. This information may only be disseminated upon request, to regulatory governmental bodies for emissions permitting purposes or to specifying organizations as submittal data when expressly required by project specifications, and shall remain confidential and not open to public viewing. This information is not intended for compilation or sales purposes and may not be used as such, nor may it be reproduced without the expressed written permission of Generac Power Systems, Inc. The data provided shall not be meant to include information made public by Generac.

Generator Model:	SD/MD500	EPA Certificate Number:	LCPXL15.2NZS-017
kW _e Rating:	500	CARB Certificate Number:	Not Applicable
Engine Family:	LCPXL15.2NZS	SCAQMD CEP Number:	545376
Engine Model:	2506C-E15TAG3	Emission Standard Category:	Tier 2
Rated Engine Power (BHP)*:	762	Certification Type:	Stationary Emergency CI
Fuel Consumption (gal/hr)*:	36.4		(40 CFR Part 60 Subpart IIII)
Aspiration:	Turbo/Aftercooled		
Rated RPM:	1,800		

*Engine Power and Fuel Consumption are declared by the Engine Manufacturer of Record and the U.S. EPA.

Emissions based on engine power of specific Engine Model. (These values are actual composite weighted exhaust emissions results over the EPA 5-mode test cycle.)

CO	NOx + NMHC	PM	
1.4	5.7	0.11	Grams/kW-hr
1.0	4.3	0.08	Grams/bhp-hr

- The stated values are actual exhaust emission test measurements obtained from an engine representative of the type described above.
- Values based on 5mode testing are official data of record as submitted to regulatory agencies for certification purposes. Testing was conducted in accordance with prevailing EPA protocol, which is typically accepted by SCAQMD and other regional authorities.
- No emissions values provided above are to be construed as guarantees of emission levels for any given Generac generator unit.
- Generac Power Systems, Inc. reserves the right to revise this information without prior notice.
- Consult state and local regulatory agencies for specific permitting requirements.
- The emission performance data supplied by the equipment manufacturer is only one element required toward completion of the permitting and installation process. State and local regulations may vary on a case-by-case basis and local agencies must be consulted by the permit application/equipment owner prior to equipment purchase or installation. The data supplied herein by Generac Power Systems cannot be construed as a guarantee of installability of the generating set.

Certification of Quality

Generac Power Systems certifies that the products we manufacture have been built and tested in accordance with strict internal and external standards for quality. Our quality management system has been registered with the internationally recognized ISO 9001:2008 standard and our products comply with external standards that include, but are not limited to, CSA, NEMA, EGSA, ISO, and UL.

The Generac Quality Management System (GQMS) ensures the highest standards of quality at every level of production, from raw materials to the finished product. This includes receiving inspection, in-process checks, product and process audits, testing, final inspections, and shipping standards.

Tests of our products are performed in accordance with our internal procedures and controlled through the GQMS to ensure accuracy and effectiveness. The testing process and product designs comply with external standards which may include, but are not limited to: ISO 8528-5, ISO 3046, NFPA 99, NFPA 110, BS 5514, SAE J1349, and DIN 6271.

Generac Power Systems has over one million square feet of manufacturing space and over 2000 employees dedicated to designing and manufacturing power generation equipment in our multiple State of Wisconsin, USA factories. All of our installed and mobile generators are built with pride by our skilled American workforce to ensure our customers receive the quality that they expect from Generac.

We are committed to producing quality products for both our internal and external customers. We will continuously improve our processes and diligently measure all aspects of our business.

Daniel Waschow

Vice President of Quality
Generac Power Systems, Inc.
Waukesha, Wisconsin USA

Generac Power Systems 2 Year (2C) Extended Limited Warranty for Industrial Standby Generators

For the period of warranty noted below, which begins upon the successful start-up and/or on-line activation of the unit, Generac Power Systems, Inc. "Generac" warrants that its Generator will be free from defects in material and workmanship for the items and period set forth below. Generac will, at its discretion, repair or replace any part(s) which, upon evaluation, inspection and testing by Generac or an Independent Authorized Service Dealer, is found to be defective. Any equipment that the purchaser/owner claims to be defective must be evaluated by the nearest Independent Authorized Service Dealer. Emissions components are excluded from coverage under this extended warranty. Emissions warranty coverage is detailed in a separate emissions warranty.

Warranty Coverage: Warranty coverage period is for Two (2) years or two-thousand (2,000) hours, whichever occurs first.

Warranty Coverage in Year(s) 1-2
Parts, Labor and Limited Travel

Limited Gearbox Coverage:

Year(s): 1-5 Coverage	Year(s): 6-10 Coverage
Limited Parts and Labor	Limited Parts Only

Guidelines:

- Unit must be registered and proof of purchase available.
- Any and all warranty repairs and/or concerns must be performed and/or addressed by an Independent Authorized Service Dealer, or branch thereof. Repairs or diagnostics performed by individuals other than an Independent Authorized Service Dealer not authorized in writing by Generac will not be covered.
- This Warranty is transferable between ownership of original install site.
- Generac supplied engine coolant heaters (block-heaters), heater controls and circulating pumps are only covered during the first year of the warranty provision.
- Generac may choose to repair, replace or refund a piece of equipment in its sole discretion.
- Enclosures are warranted against rust for the first year of ownership only. Damage caused after receipt of generator is the responsibility of the owner and is not covered by this warranty. Nicks, scrapes, dents or scratches to the painted enclosure should be repaired promptly by the owner.
- Warranty only applies to permanently wired and mounted units.
- Damage to any covered components or consequential damages caused by the use of a non-OEM part will not be covered by the warranty.
- Proof of performance of all required maintenance must be available.
- Travel allowance is limited to 300 miles maximum and seven and one half (7.5) hours maximum (per occurrence, whichever is less) round trip from the nearest Independent Authorized Service Dealer. Any additional travel required will not be covered.
- Engines, driven components and fuel tanks used in Generac's standby power products system can carry a separate manufacturer's (OEM) warranty (the "OEM Warranties"), unless otherwise expressly stated. OEM Warranties are in addition to this Warranty. All warranty claims for defects in material and/or workmanship on Generac product OEM components, may be directed through the OEM distributor/dealer network. OEM Warranties may vary and are subject to change. Generac shall have no liability under OEM warranties.

The following will NOT be covered by this warranty:

- Costs of normal maintenance (i.e. tune-ups, associated part(s), adjustments, loose/leaking clamps, installation and start-up).
- Damage/failures to the generator caused by accidents, shipping, handling, or improper storage.
- Damage/failures caused by operation with improper fuels, speeds, loads or installations other than what's recommended or specified by Generac Power Systems.
- Damage to the generator due to the use of non-Generac parts and/or equipment, contaminated fuels, oils, coolants/antifreeze or lack of proper fuels, oil or coolants/antifreeze.
- Failures due to normal wear and tear, accident, misuse, abuse, neglect, improper installation, improper sizing, or rodent, reptile, and/or insect infestation.
- Rental equipment used while warranty repairs are being performed and/or any extraordinary equipment used for removal and/or reinstallation of generator (i.e. cranes, hoists, lifts, et. al.).
- Planes, ferries, railroad, buses, helicopters, snowmobiles, snowcats, off-road vehicles or any other mode of transport deemed not standard by Generac.
- Products that are modified or altered in a manner not authorized by Generac in writing.
- Starting batteries, fuses, light bulbs, engine fluids and any related labor.
- Steel enclosures that rust as a result of improper installation, location in a harsh or salt water environment, or are scratched where the integrity of applied paint is compromised.
- Units sold, rated or used for "Prime Power", "Trailer Mounted" or "Rental Unit" applications as defined by Generac. Contact an Independent Authorized Service Dealer for definitions.
- Shipping costs associated with expedited shipping.
- Additional costs for overtime, holiday or emergency labor costs for repairs outside of normal business hours.
- Any incidental, consequential or indirect damages caused by defects in materials or workmanship, or any delay in repair or replacement of the defective part(s).
- Failures caused by any act of God or external cause including without limitation, fire, theft, freezing, war, lightning, earthquake, windstorm, hail, water, tornado, hurricane, or any other matters which are reasonably beyond the manufacturer's control.

THIS WARRANTY SUPERSEDES ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. SPECIFICALLY, GENERAC MAKES NO OTHER WARRANTIES AS TO THE MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ANY IMPLIED WARRANTIES WHICH ARE ALLOWED BY LAW, SHALL BE LIMITED IN DURATION TO THE TERMS OF THE EXPRESS WARRANTY PROVIDED HEREIN. SOME JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. GENERAC'S ONLY LIABILITY SHALL BE THE REPAIR OR REPLACEMENT OF PART(S) AS STATED ABOVE. IN NO EVENT SHALL GENERAC BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, EVEN IF SUCH DAMAGES ARE A DIRECT RESULT OF GENERAC'S NEGLIGENCE. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU ALSO HAVE OTHER RIGHTS UNDER APPLICABLE LAW.

FOR AUSTRALIA ONLY: Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

FOR NEW ZEALAND ONLY: Nothing in this warranty statement excludes, restricts or modifies any condition, warranty right or remedy which pursuant to the New Zealand Legislation (Commonwealth or State) including the Fair Trading Practices Act of 1986 or the Consumer Guarantees Act 1993 ("CGA") applies to this limited warranty and may not be so excluded, restricted or modified. Nothing in this statement is intended to have the effect of contracting out of the provisions of the CGA, except to the extent permitted by that Act, and these terms are to be modified to the extent necessary to give effect to that intention. If you acquire goods from Generac Power Systems or any of its authorized resellers and distributors for the purposes of a business, then pursuant to section 43(2) of the CGA, it is agreed that the provisions of the CGA do not apply.

GENERAC POWER SYSTEMS, INC. • P.O. BOX 8 • Waukesha, WI, USA 53187
Ph: (888) GENERAC (436-3722) • Fax: (262) 544-4851

To locate the nearest Independent Authorized Service Dealer and to download schematics, exploded views and parts lists
visit our website: www.generac.com



CERTIFICATE



This is to certify that

Generac Power Systems, Inc.

S45 W29290 Hwy. 59
Waukesha, WI 53189
United States of America

with the organizational units/sites as listed in the annex

has implemented and maintains a **Quality Management System**.

Scope:

Design, Manufacturing, and Distribution of Generators and Power Products.

Through an audit, documented in a report, it was verified that the management system fulfills the requirements of the following standard:

ISO 9001 : 2015

Certificate registration no. 10012920 QM15

Date of original certification 2013-12-09

Date of certification 2018-07-16

Valid until 2021-07-15



DQS Inc.

Brad McGuire
Managing Director



Annex to certificate
Registration No. 10012920 QM15

Generac Power Systems, Inc.

S45 W29290 Hwy. 59
Waukesha, WI 53189
United States of America

Location

Scope

10012920
Generac Power Systems, Inc.
S45 W29290 Hwy. 59
Waukesha, WI 53189
United States of America

Design, Manufacturing of Generator Components and
Distribution of Service Parts.

10012922
Generac Power Systems, Inc.
211 Murphy Dr.
Eagle, WI 53119
United States of America

Manufacturing and Distribution of Generators.

10012923
Generac Power Systems, Inc.
757 N. Newcomb St.
Whitewater, WI 53190
United States of America

Manufacturing and Distribution of Generators and
Manufacture of Generator components.

10012924
Generac Power Systems, Inc.
900 N. Parkway
Jefferson, WI 53549
United States of America

Manufacturing of Generators and Power Products.

10013528
Generac Power Systems
3815 Oregon St.
Oshkosh, WI 54902
United States of America

Manufacturing of Generators.

Remote Location

Scope

10014175
Generac Power Systems, Inc.
351 Collins Road
Jefferson, WI 53549
United States of America

The remote location at Jefferson, WI performs the
following primary functions: Parts and Components
Receiving, Inventory, and Distribution to Generac
Locations.

This annex (edition: 2018-07-16) is only valid in connection
with the above-mentioned certificate.

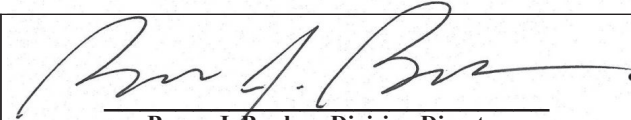


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
2019 MODEL YEAR
CERTIFICATE OF CONFORMITY
WITH THE CLEAN AIR ACT

OFFICE OF TRANSPORTATION
AND AIR QUALITY
ANN ARBOR, MICHIGAN 48105

Certificate Issued To: Caterpillar Inc.
(U.S. Manufacturer or Importer)
Certificate Number: KCPXL15.2NZS-008

Effective Date:
07/24/2018
Expiration Date:
12/31/2019


Byron J. Bunker, Division Director
Compliance Division

Issue Date:
07/24/2018
Revision Date:
N/A

Model Year: 2019
Manufacturer Type: Original Engine Manufacturer
Engine Family: KCPXL15.2NZS

Mobile/Stationary Indicator: Stationary
Emissions Power Category: 560<kW<=2237
Fuel Type: Diesel
After Treatment Devices: No After Treatment Devices Installed
Non-after Treatment Devices: Electronic Control, Engine Design Modification

Pursuant to Section 111 and Section 213 of the Clean Air Act (42 U.S.C. sections 7411 and 7547) and 40 CFR Part 60, and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued with respect to the test engines which have been found to conform to applicable requirements and which represent the following engines, by engine family, more fully described in the documentation required by 40 CFR Part 60 and produced in the stated model year.

This certificate of conformity covers only those new compression-ignition engines which conform in all material respects to the design specifications that applied to those engines described in the documentation required by 40 CFR Part 60 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Part 60.

It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 1068 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate for reasons specified in 40 CFR Part 60. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void *ab initio* for other reasons specified in 40 CFR Part 60.

This certificate does not cover engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
2020 MODEL YEAR
CERTIFICATE OF CONFORMITY
WITH THE CLEAN AIR ACT

OFFICE OF TRANSPORTATION
AND AIR QUALITY
ANN ARBOR, MICHIGAN 48105

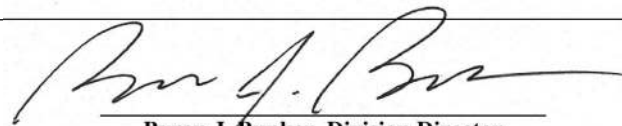
Certificate Issued To: Caterpillar Inc.
(U.S. Manufacturer or Importer)
Certificate Number: LCPXL15.2NZS-017

Effective Date:

07/22/2019

Expiration Date:

12/31/2020


Byron J. Bunker, Division Director
Compliance Division

Issue Date:

07/22/2019

Revision Date:

N/A

Model Year: 2020

Manufacturer Type: Original Engine Manufacturer

Engine Family: LCPXL15.2NZS

Mobile/Stationary Indicator: Stationary

Emissions Power Category: 560<kW<=2237

Fuel Type: Diesel

After Treatment Devices: No After Treatment Devices Installed

Non-after Treatment Devices: Electronic Control, Engine Design Modification

Pursuant to Section 111 and Section 213 of the Clean Air Act (42 U.S.C. sections 7411 and 7547) and 40 CFR Part 60, and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued with respect to the test engines which have been found to conform to applicable requirements and which represent the following engines, by engine family, more fully described in the documentation required by 40 CFR Part 60 and produced in the stated model year.

This certificate of conformity covers only those new compression-ignition engines which conform in all material respects to the design specifications that applied to those engines described in the documentation required by 40 CFR Part 60 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Part 60.

It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 1068 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate for reasons specified in 40 CFR Part 60. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void *ab initio* for other reasons specified in 40 CFR Part 60.

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Warranty

United States Environmental Protection Agency Warranty Statement (Stationary Emergency Compression-Ignition Generators)

Warranty Rights, Obligations and Coverage

Your emission-related warranty covers only components whose failure would increase an engine's emissions of any regulated pollutant where they are designed, built, and equipped to be free from defects in materials and workmanship under applicable regulations of section 213 of the clean air act. To receive information about how to make an emission-related warranty claim, and how to make arrangements for authorized repairs call **1-800-333-1322** or **www.generac.com**. Emission-related warranty claims may be denied without proof of proper maintenance or use, accidents beyond the control of the manufacturer, or act of God. Proper maintenance is specified in the Owner's Manual. Usage is limited to stationary emergency operations and 100 hours per year for maintenance and readiness testing. The warranty period begins when the engine is placed into service. Warranty periods for compression ignition engines greater than 25 horsepower is five years. This warranty is applicable to compression-ignition generator models; equal to and larger than an SD80 starting 1/1/2011, equal to and larger than an SD35 starting 1/1/2012, and all compression-ignition generator models starting 1/1/2013.

Important Note

This warranty statement explains your rights and obligations under the Emission Control System Warranty, which is provided to you by Generac pursuant to federal law. Note that this warranty shall not apply to any incidental, consequential or indirect damages caused by defects in materials or workmanship or any delay in repair or replacement of the defective part(s). This warranty is in place of all other warranties, expressed or implied. Specifically, Generac makes no other warranties as to the merchantability or fitness for a particular purpose. Any implied warranties which are allowed by law, shall be limited in duration to the terms of the express warranty provided herein. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.