20/22/24 kW

GENERAC®

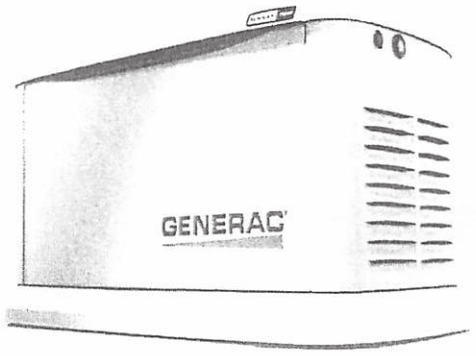
GUARDIAN® SERIES
Residential Standby Generators
Air-Cooled Gas Engine

INCLUDES:

- True Power™ Electrical Technology
- Two-line multilingual digital LCD Evolution™ controller (English/Spanish/French/Portuguese)
- 200 amp service rated transfer switch available
- Electronic governor
- Standard Wi-Fi® connectivity
- System status & maintenance interval LED indicators
- Sound attenuated enclosure
- Flexible fuel line connector
- Natural gas or LP gas operation
- 5 Year limited warranty
- Listed and labeled for installation as close as 18 in (457 mm) to a structure.*
  **Must be located away from doors, windows, and fresh air intakes and in accordance with local codes.*

Standby Power Rating

G007038-1, G007039-1, G007038-3, G007039-3 (Aluminum - Bisque) - 20 kW 60 Hz
G007042-2, G007043-2, G007042-3, G007043-3 (Aluminum - Bisque) - 22 kW 60 Hz
G007209-0, G007210-1 (Aluminum - Bisque) - 24 kW 60 Hz



c ETL us or c UL us LISTED QUIET TEST Mobile Link

Note: CETL or CUL certification only applies to unbundled units and units packaged with limited circuit switches. Units packaged with the Smart Switch are ETL or UL certified in the USA only.

FEATURES

INNOVATIVE ENGINE DESIGN & RIGOROUS TESTING are at the heart of Generac's success in providing the most reliable generators possible. Generac's G-Force engine lineup offers added peace of mind and reliability for when it's needed the most. The G-Force series engines are purpose built and designed to handle the rigors of extended run times in high temperatures and extreme operating conditions.

TRUE POWER ELECTRICAL TECHNOLOGY Superior harmonics and sine wave form produce less than 5% Total Harmonic Distortion for utility quality power. This allows confident operation of sensitive electronic equipment and micro-chip based appliances, such as variable speed HVAC systems.

TEST CRITERIA

- PROTOTYPE TESTED
- SYSTEM TORSIONAL TESTED
- NEMA MG1-22 EVALUATION
- MOTOR STARTING ABILITY

MOBILE LINK® CONNECTIVITY FREE with select Guardian Series Home standby generators, Mobile Link Wi-Fi 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 that the GENERAC product line is offered with its own transfer systems and controls for total system compatibility.

THE GENERAC PROMISE

GENERAC

20/22/24 kW

Features and Benefits

Engine

Generac G-Force design	Maximizes engine "breathing" for increased fuel efficiency. Plateau honed cylinder walls and plasma moly rings help the engine run cooler, reducing oil consumption and resulting in longer engine life.
"Spiny-lok" cast iron cylinder walls	Rigid construction and added durability provide long engine life.
Electronic ignition/spark advance	These features combine to assure smooth, quick starting every time.
Full pressure lubrication system	Pressurized lubrication to all vital bearings means better performance, less maintenance, and longer engine life. Now featuring up to a 2 year/200 hour oil change interval.
Low oil pressure shutdown system	Shutdown protection prevents catastrophic engine damage due to low oil.
High temperature shutdown	Prevents damage due to overheating.

Generator

Revolving field	Allows for a smaller, light weight unit that operates 25% more efficiently than a revolving armature generator.
Skewed stator	Produces a smooth output waveform for compatibility with electronic equipment.
Displaced phase excitation	Maximizes motor starting capability.
Automatic voltage regulation	Regulating output voltage to ±1% prevents damaging voltage spikes.
UL 2200 listed	For your safety.

Transfer Switch (if applicable)

Fully automatic	Transfers vital electrical loads to the energized source of power.
NEMA 3R	Can be installed inside or outside for maximum flexibility
Integrated load management technology	Capability to manage additional loads for efficient power management.
Remote mounting	Mounts near an existing distribution panel for simple, low-cost installation.

Evolution™ Controls

AUTO/MANUAL/OFF illuminated buttons	Selects the operating mode and provides easy, at-a-glance status indication in any condition.
Two-line multilingual LCD	Provides homeowners easily visible logs of history, maintenance, and events up to 50 occurrences.
Sealed, raised buttons	Smooth, weather-resistant user interface for programming and operations.
Utility voltage sensing	Constantly monitors utility voltage, setpoints 65% dropout, 80% pick-up, of standard voltage.
Generator voltage sensing	Constantly monitors generator voltage to verify the cleanest power delivered to the home.
Utility interrupt delay	Prevents nuisance start-ups of the engine, adjustable 2-1500 seconds from the factory default setting of 5 seconds by a qualified dealer.
Engine warm-up	Verifies engine is ready to assume the load, setpoint approximately 5 seconds.
Engine cool-down	Allows engine to cool prior to shutdown, setpoint approximately 1 minute.
Programmable exercise	Operates engine to prevent oil seal drying and damage between power outages by running the generator for 5 minutes every other week. Also offers a selectable setting for weekly or monthly operation providing flexibility and potentially lower fuel costs to the owner.
Smart battery charger	Delivers charge to the battery only when needed at varying rates depending on outdoor air temperature. Compatible with lead acid and AGM-style batteries.
Main line circuit breaker	Protects generator from overload.
Electronic governor	Maintains constant 60 Hz frequency.

Unit

SAE weather protective enclosure	Sound attenuated enclosures ensure quiet operation and protection against mother nature, withstanding winds up to 150 mph (241 km/h). Hinged key locking roof panel for security. Lift-out front for easy access to all routine maintenance items. Electrostatically applied textured epoxy paint for added durability.
Enclosed critical grade muffler	Quiet, critical grade muffler is mounted inside the unit to prevent injuries.
Small, compact, attractive	Makes for an easy, eye appealing installation, as close as 18 in (457 mm) away from a structure.

GENERAC

20/22/24 kW

Features and Benefits

Installation System

14 in (35.6 cm) flexible fuel line connector	Listed ANSI Z21.75/CSA 6.27 outdoor appliance connector for the required connection to the gas supply piping.
Integral sediment trap	Meets IFGC and NFPA 54 installation requirements.

Connectivity (Wi-Fi equipped models only)

Ability to view generator status	Monitor generator with a smartphone, tablet, or computer at any time via the Mobile Link application for complete peace of mind.
Ability to view generator Exercise/Run and Total Hours	Review the generator's complete protection profile for exercise hours and total hours.
Ability to view generator maintenance information	Provides maintenance information for the specific model generator when scheduled maintenance is due.
Monthly report with previous month's activity	Detailed monthly reports provide historical generator information.
Ability to view generator battery information	Built in battery diagnostics displaying current state of the battery.
Weather information	Provides detailed local ambient weather conditions for generator location.

GENERAC

20/22/24 kW

Specifications

Generator

Model	G007038-1 G007039-1 (20 kW)	G007042-2 G007043-2 (22 kW)	G007038-3 G007039-3 (20 kW)	G007042-3 G007043-3 (22 kW)	G007209-0 G007210-1 (24 kW)
Rated maximum continuous power capacity (LP)	20,000 Watts*	22,000 Watts*	20,000 Watts*	22,000 Watts*	24,000 Watts*
Rated maximum continuous power capacity (NG)	18,000 Watts*	19,500 Watts*	18,000 Watts*	19,500 Watts*	21,000 Watts*
Rated voltage			240		
Rated maximum continuous load current – 240 volts (LP/NG)	83.3 / 75.0	91.7 / 81.3	83.3 / 75.0	91.7 / 81.3	100 / 87.5
Total Harmonic Distortion			Less than 5%		
Main line circuit breaker	90 amp	100 amp	90 amp	100 amp	100 amp
Phase			1		
Number of rotor poles			2		
Rated AC frequency			60 Hz		
Power factor			1.0		
Battery requirement (not included)			12 Volts, Group 26R 540 CCA minimum or Group 35AGM 650 CCA minimum		
Unit weight (lb / kg)	448 / 203	466 / 211	436 / 198	445 / 202	455 / 206
Dimensions (L x W x H) in / cm			48 x 25 x 29 / 121.9 x 63.5 x 73.7		
Sound output in dB(A) at 23 ft (7 m) with generator operating at normal load**	67	67	67	67	67
Sound output in dB(A) at 23 ft (7 m) with generator in Quiet-Test™ low-speed exercise mode**	55	57	55	57	57
Exercise duration			5 min		

Engine

Engine type			GENERAC G-Force 1000 Series		
Number of cylinders			2		
Displacement			999 cc		
Cylinder block			Aluminum w/ cast iron sleeve		
Valve arrangement			Overhead valve		
Ignition system			Solid-state w/ magneto		
Governor system			Electronic		
Compression ratio			9.5:1		
Starter			12 VDC		
Oil capacity including filter			Approx. 1.9 qt / 1.8 L		
Operating rpm			3,600		
Fuel consumption					
Natural gas	ft^3/hr (m^3/hr)				
	1/2 Load	204 (5.78)	226 (6.46)	164 (4.64)	203 (5.75)
	Full Load	301 (8.52)	327 (9.26)	287 (8.13)	306 (8.66)
Liquid propane	ft^3/hr (gal/hr) [L/hr]				
	1/2 Load	87 (2.37) [8.99]	92 (2.53) [9.57]	86 (2.36) [8.95]	92 (2.53) [9.57]
	Full Load	130 (3.56) [13.48]	142 (3.90) [14.77]	136 (3.74) [14.15]	142 (3.90) [14.77]

Note: **Fuel pipe must be sized for full load.** Required fuel pressure to generator fuel inlet at all load ranges - 3.5–7 in water column (0.87–1.74 kPa) for NG, 10–12 in water column (2.49–2.99 kPa) for LP gas. For BTU content, multiply ft^3/hr x 2500 (LP) or ft^3/hr x 1000 (NG). For Megajoule content, multiply m^3/hr x 93.15 (LP) or m^3/hr x 37.26 (NG).

Controls

Two-line plain text multilingual LCD	Simple user interface for ease of operation.
Mode buttons: AUTO	Automatic start on utility failure. Weekly, Bi-weekly, or Monthly selectable exerciser.
MANUAL	Start with starter control, unit stays on. If utility fails, transfer to load takes place.
OFF	Stops unit. Power is removed. Control and charger still operate.
Ready to Run/Maintenance messages	Standard
Engine run hours indication	Standard
Programmable start delay between 2–1500 seconds	Standard (programmable by dealer only)
Utility Voltage Loss/Return to Utility adjustable (brownout setting)	From 140-171 V / 190-216 V
Future Set Capable Exerciser/Exercise Set Error warning	Standard
Run/Alarm/Maintenance logs	50 events each
Engine start sequence	Cyclic cranking: 16 sec on, 7 rest (90 sec maximum duration).
Starter lock-out	Starter cannot re-engage until 5 sec after engine has stopped.
Smart Battery Charger	Standard
Charger Fault/Missing AC warning	Standard
Low Battery/Battery Problem Protection and Battery Condition indication	Standard
Automatic Voltage Regulation with Over and Under Voltage Protection	Standard
Under-Frequency/Overload/Stepper Overcurrent Protection	Standard
Safety Fused/Fuse Problem Protection	Standard
Automatic Low Oil Pressure/High Oil Temperature Shutdown	Standard
Overcrank/Overspeed (@ 72 Hz)/rpm Sense Loss Shutdown	Standard
High Engine Temperature Shutdown	Standard
Internal Fault/Incorrect Wiring protection	Standard
Common external fault capability	Standard
Field upgradable firmware	Standard

**Sound levels are taken from the front of the generator. Sound levels taken from other sides of the generator may be higher depending on installation parameters. Rating definitions - Standby: Applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. (All ratings in accordance with BS5514, ISO3046 and DIN6271). * Maximum kilovolt amps and current are subject to and limited by such factors as fuel BTU/megajoule content, ambient temperature, altitude, engine power and condition, etc. Maximum power decreases approximately 3.5% for each 1,000 ft (304.8 m) above sea level and also will decrease approximately 1% for each 10 °F (6 °C) above 60 °F (16 °C).

GENERAC

20/22/24 kW

Switch Options

Service Rated Automatic Transfer Switch Features

- Intelligently manages up to four air conditioner loads with no additional hardware.
- Up to eight additional large (240 VAC) loads can be managed when used in conjunction with Smart Management Modules (SMMs).
- Electrically operated, mechanically-held contacts for fast, clean connections.
- Main breakers are rated for 80% continuous load.
- 2-pole, 250 VAC contactors.
- Service equipment rated, dual coil design.
- Rated for both aluminum and copper conductors.
- Main contacts are silver plated or silver alloy to resist welding and sticking.
- NEMA/UL 3R aluminum outdoor enclosure allows for indoor or outdoor mounting flexibility.

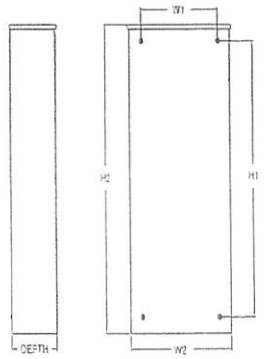
Model	G007039-1, G007039-3 (20 kW) G007043-2, G007043-3 (22 kW) G007210-1 (24 kW)
No. of poles	2
Current rating (amps)	200
Voltage rating (VAC)	120/240, 1Ø
Utility voltage monitor (fixed)*	
-Pick-up	80%
-Dropout	65%
Return to Utility*	Approx. 13 sec
ETL or UL listed	Standard
Enclosure type	NEMA/UL 3R
Circuit breaker protected	22,000
Lug range	250 MCM - #6

*Function of Evolution controller
Exercise can be set to weekly, bi-weekly, or monthly

Dimensions

	200 Amps 120/240, 1ø Open Transition Service Rated				
	Height		Width		Depth
	H1	H2	W1	W2	
in	26.8	30.1	10.5	13.5	6.9
cm	67.95	76.43	26.67	34.18	17.5

Wire Ranges		
Conductor Lug	Neutral Lug	Ground Lug
250 MCM - #6	350 MCM - #6	2/0 - #14



GENERAC

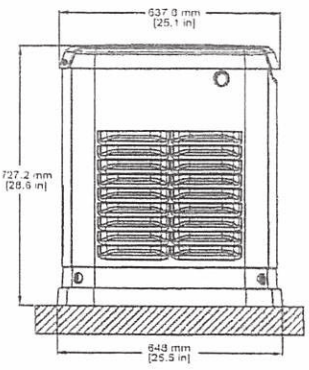
20/22/24 kW

Available Accessories

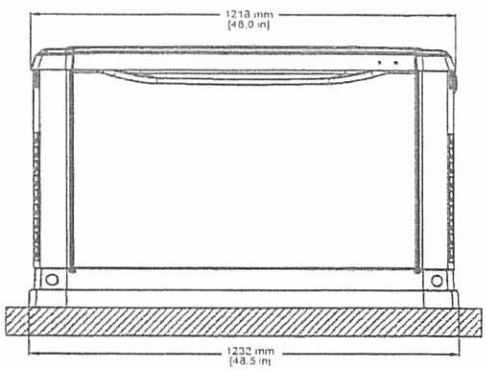
Model #	Product	Description
G007101-0	Battery Pad Warmer	Pad warmer rests under the battery. Recommended for use if temperature regularly falls below 0 °F (-18 °C). (Not necessary for use with AGM-style batteries).
G007102-0	Oil Warmer	Oil warmer slips directly over the oil filter. Recommended for use if temperature regularly falls below 0 °F (-18 °C).
G007103-1	Breather Warmer	Breather warmer is for use in extreme cold weather applications. For use with Evolution controllers only in climates where heavy icing occurs.
G005621-0	Auxiliary Transfer Switch Contact Kit	The auxiliary transfer switch contact kit allows the transfer switch to lock out a single large electrical load that may not be needed. Not compatible with 50 amp pre-wired switches.
G007027-0 - Bisque	Fascia Base Wrap Kit (Standard on 22/24 kW)	The fascia base wrap snaps together around the bottom of the new air-cooled generators. This offers a sleek, contoured appearance as well as offering protection from rodents and insects by covering the lifting holes located in the base.
G005703-0 - Bisque	Touch-Up Paint Kit	If the generator enclosure is scratched or damaged, it is important to touch up the paint to protect from future corrosion. The touch-up paint kit includes the necessary paint to correctly maintain or touch up a generator enclosure.
G006485-0	Scheduled Maintenance Kit	Generac's scheduled maintenance kit provides all the items necessary to perform complete routine maintenance on a Generac automatic standby generator (oil not included).
G007005-0	Wi-Fi LP Tank Fuel Level Monitor	The Wi-Fi enabled LP tank fuel level monitor provides constant monitoring of the connected LP fuel tank. Monitoring the LP tank's fuel level is an important step in verifying the generator is ready to run during an unexpected power failure. Status alerts are available through a free application to notify users when the LP tank is in need of a refill.
G007000-0 (50 amp) G007006-0 (100 amp)	Smart Management Module	Smart Management Modules (SMM) are used to optimize the performance of a standby generator. It manages large electrical loads upon startup and sheds them to aid in recovery when overloaded. In many cases, using SMM's can reduce the overall size and cost of the system.
G007169-0 - 4G LTE G007170-0 - Wi-Fi/ Ethernet	Mobile Link® Cellular Accessories	The Mobile Link family of Cellular Accessories allow users to monitor generator status from anywhere in the world, using a smart phone, tablet, or PC. Easily access information such as the current operating status and maintenance alerts. Users can connect an account with an authorized service dealer for fast, friendly, and proactive service. With Mobile Link, users are taken care of before the next power outage.
G007220-0 - Bisque	Base Plug Kit	Base plugs snap into the lifting holes on the base of air-cooled home standby generators. This offers a sleek, contoured appearance, as well as offers protection from rodents and insects by covering the lifting holes located in the base. Kit contains four plugs, sufficient for use on a single air-cooled home standby generator.

Dimensions & UPCs

Model	UPC
G007038-1	696471074185
G007038-3	696471074185
G007039-1	696471074192
G007039-3	696471074192
G007042-2	696471074208
G007042-3	696471074208
G007043-2	696471074215
G007043-3	696471074215
G007209-0	696471071511
G007210-1	696471084801



LEFT SIDE VIEW



FRONT VIEW

Dimensions shown are approximate. See installation manual for exact dimensions. DO NOT USE THESE DIMENSIONS FOR INSTALLATION PURPOSES.

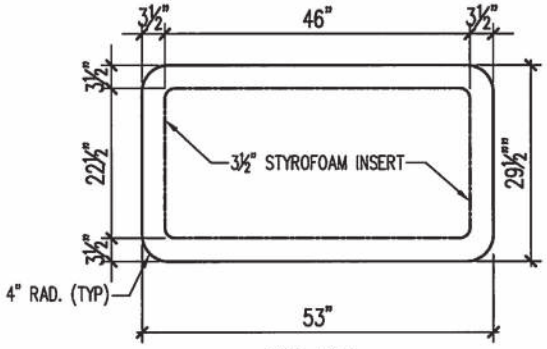
GENERAC

ELECTRIC GENERATOR PRE-CAST CONCRETE
PADS PAD DEPOT, INC.

DESIGN CALCULATIONS:
WIND EXPOSURE = Condition C
IMPORTANCE FACTOR = 1
Vult = 170 mph
SHAPE FACTOR = 0.90
EXPOSURE ADJUSTMENT FACTOR (Uplift) = 0.67 (Ht. Above Ground< 5')

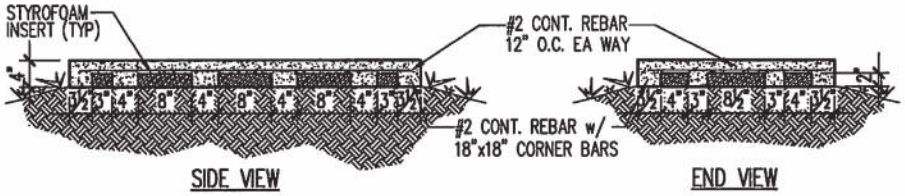
PAD FOR: GENERAC AIR-COOLED 16KW; 18KW; 20KW; 22KW; 24KW GENERATORS

L = 4.0' W = 2.1' H = 2.4' Unit Wt. = 455lbs. Pad Wt = 225lbs Po(wind) = 26.5x1.21=32.06psf
V(vertical reaction) = 225lbs + 455lbs = 680lbs
Overturn Uplift (U) = (L)(H)(Po)(Shape Factor) = 4.0x2.4x32.06x0.9 = 277lbs Wind Uplift, Ph = 60psf
Wind U = (W)(L)(Ph)(Exp. Adj. Factor)= 4.0x2.4x60x0.67 = 386lbs
Total Uplift = U + Wind U = 277 + 386 = 663lbs
Total V (Vertical Download= Pad Wt.+ Unit Wt.= 225 + 455 = 680lbs > 663lbs



TOP VIEW

DESIGN CRITERIA NOTES:
1. ALL CONCRETE TO BE 3000 PSI, 28 DAY STRENGTH.
2. ALL REINFORCED GRADE STEEL TO BE A-615 GR 60.
3. 7th. ED. 2020 FLORIDA BUILDING CODE.
4. WIND DESIGN: Vult = 170 mph; Vasd = 132 mph.
5. WIND EXPOSURE = C



SIDE VIEW END VIEW

Digitally signed by Lan-Anh Nguyen
Date: 2021.06.12 21:39:34 -04'00'

NEW IMAGE DESIGN & BUILD, LLC
CLEARWATER, FL. 33764
PHONE: (850) 522-5959 / (813) 293-8538
EMAIL: newimagedesignbuild@gmail.com

GENERX GENERATORS

CONSULTANT
LAN ENGINEERING
CA# 32690

THESE CONSTRUCTION DOCUMENTS HAVE BEEN PREPARED UNDER THE DIRECT SUPERVISION OF LAN-ANH NGUYEN, P.E. OF FLORIDA. I, LAN-ANH NGUYEN, HEREBY CERTIFIES THAT THESE DOCUMENTS COMPLY WITH ALL APPLICABLE SECTIONS OF THE FLORIDA BUILDING CODE 2020, 7th. EDITION.

THESE PLANS SHALL REFERENCE COMPLIANCE WITH THE 2020, 7th. EDITION FLORIDA BUILDING CODE SECTION 1620, DESIGN CRITERIA & ASCE 7-16.

THIS DRAWING AND DESIGN IS VALID FOR 12 MONTHS AFTER THE DATE IT IS SIGNED & SEALED.

DATE:

CLIENT:

PRE-CAST CONCRETE GENERATOR PAD

15/18/20/22/24 KW GENERATORS

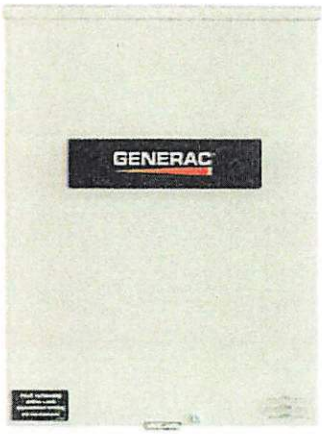
PROJECT#	GENERX20-21
DATE:	3/3/2021
DRAWN BY:	G.S.
SCALE:	N.T.S.

SHEET 1 OF 1

Automatic
Transfer Switches

GENERAC®

Service and Non-Service Rated Automatic Transfer Switches



Models: RXSC100A3
RXSW100A3
RXSW150A3
RXSC200A3
RXSW200A3

Description

This series of Generac Automatic Transfer Switches is designed for use with single phase generators that utilize an Evolution™ or Nexus™ Controller. The 100 and 200 Amp open transition switches are available in single phase in both service equipment rated and non-service equipment rated configurations. The 150 Amp open transition switch is only available in a service rated equipment configuration.

Standard Features

Service rated (RXSW) Generac Automatic Transfer Switches are housed in an aluminum NEMA Type 3R enclosure*, with electrostatically applied and baked powder paint. The Heavy Duty Generac Contactor is an ETL recognized device, designed for years of service. The controller at the generator handles all the timing, sensing, exercising functions, and transfer commands. All switches are covered by a five year limited warranty.

* Non-service rated (RXSC) switches are housed in a steel enclosure.

Load Management Technology

Through the use of the integrated Smart A/C Module (SACM), these switches have the capability to manage up to four individual HVAC (24 VAC controlled) loads with no additional hardware. When used in tandem with external Smart Management Modules, a total of eight more loads can be managed, providing the most installation efficient power management options available.

GENERAC®

GENERAC

100-200 Amps, Single Phase

Automatic Transfer Switches

Functions

All timing and sensing functions originate in the generator controller.

Utility Voltage Drop-out	<65%
Timer to Generator Start	10 Second Factory Set. Adjustable Between 2 - 1,500 Seconds by a Qualified Dealer*
Engine Warmup Delay	5 Seconds
Standby Voltage Sensor	65% for 5 Seconds
Utility Voltage Pickup	>80%
Re-transfer Time Delay	15 Seconds
Engine Cooldown Timer	60 Seconds
Exerciser	Nexus™: 12 Minutes Weekly Evolution™: 5 to 12 Minutes Adjustable, Weekly/Bi-weekly/Monthly
The Transfer Switch can be Operated Manually Without Power Applied	

* When used in conjunction with units utilizing Evolution™ controls

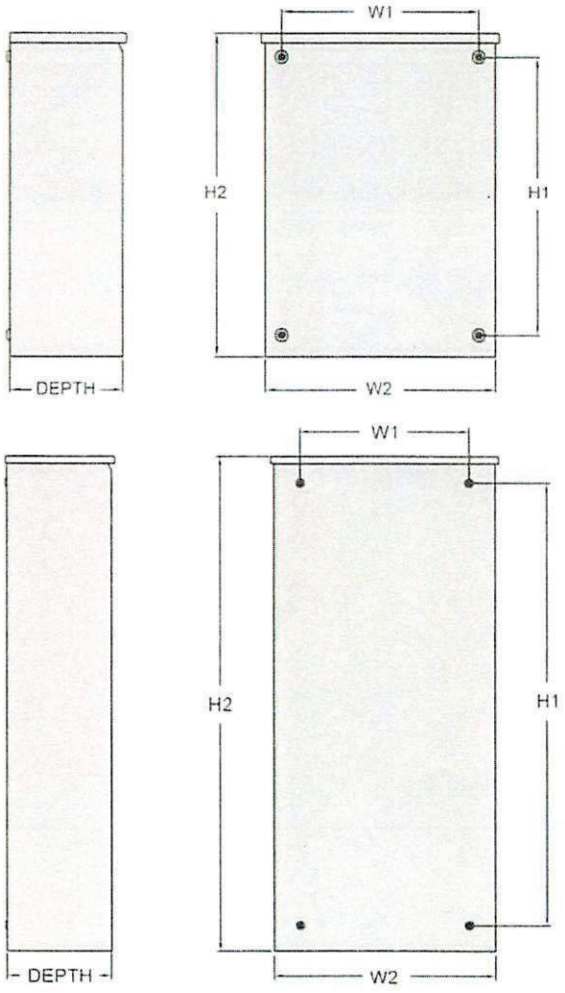
Specifications

Model	RXSC100A3	RXSW100A3	RXSW150A3	RXSC200A3	RXSW200A3
Amps	100	100	150	200	200
Voltage	120/240, 1ø	120/240, 1ø	120/240, 1ø	120/240, 1ø	120/240, 1ø
Load Transition Type (Automatic)	Open Transition	Open Transition Service Rated	Open Transition Service Rated	Open Transition	Open Transition Service Rated
Enclosure Type	NEMA 3R	NEMA 3R	NEMA 3R	NEMA 3R	NEMA 3R
ETL Rating	cETLus	ETLus	ETLus	cETLus	ETLus
Withstand Rating (Amps)	10,000	10,000	22,000	10,000	22,000
Lug Range	2/0 - #14		250 MCM - #6		

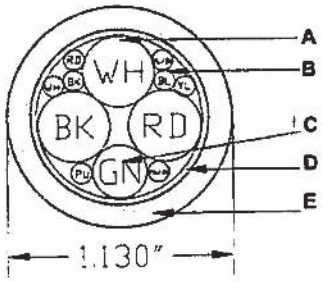
100-200 Amps, Single Phase

Dimensions

Model		RXSC100A3	RXSW100A3	RXSW150A3	RXSC200A3	RXSW200A3
Height - in (mm)	H1	17.2 (437.9)	17.2 (437.9)	26.8 (679.4)	17.2 (437.9)	26.8 (679.4)
	H2	20.0 (508.0)	20.0 (508.0)	30.0 (672.0)	20.0 (508.0)	30.0 (672.0)
Width - in (mm)	W1	12.5 (317.5)	12.5 (317.5)	10.5 (266.7)	12.5 (317.5)	10.5 (266.7)
	W2	14.6 (370.8)	14.6 (370.8)	13.5 (342.9)	14.6 (370.8)	13.5 (342.9)
Depth - in (mm)		7.1 (180.1)	7.1 (180.1)	6.3 (160.1)	7.1 (180.1)	6.3 (160.1)
Weight - lbs (kg)		20.0 (9.1)	22.5 (10.2)	39.0 (17.7)	20.0 (9.1)	39.0 (17.7)



Cable Engineered by Draka
600 Volt, Tray Cable
PVC/Nylon Insulated Circuit Conductors
Overall PVC Jacket



Components

A: (3) - #1 AWG Class B stranded, 8000 series, aluminum conductors w/50 mils (1.27 mm) heat and moisture resistant, polyvinyl chloride (PVC) insulation and jacketed w/ 7 mils (0.18 mm) nylon applied directly to the surface of the insulation.

B: (8) - #18 AWG Class K stranded, soft drawn, bare copper conductors w/15 mils (0.38 mm) heat and moisture resistant, polyvinyl chloride (PVC) insulation and jacketed w/ 4 mils (0.10 mm) nylon applied directly to the surface of the insulation.

C: (1) - #6 AWG Class B stranded, 8000 series, aluminum conductor w/30 mils (0.76 mm) heat and moisture resistant, polyvinyl chloride (PVC) insulation and jacketed w/ 5 mils (0.13 mm) nylon applied directly to the surface of the insulation

D: Mylar binder tape.

E: 80 mils (2.03 mm) of heat and moisture resistant, polyvinyl chloride (PVC) jacket. A ripcord shall be placed underneath the jacket.

Print Legend

(UL) E60544 POWER AND CONTROL TRAY CABLE TYPE TC-ER-JP 1 AWG AL (42,4 mm2) 3/C + 6 AWG AL (13,3 mm2) 1/C GROUND THWN CONDS & 18 AWG (0,82 mm2) 8/C TFFN CONDS 600V 75C DRY/75C WET OIL RES I SUNLIGHT RESISTANCE DIRECT BURIAL JOIST PULL TCERDirect P/N AL TCERJP 1624G+2 "sequential footage print"

Physical Characteristics

Cable Weight:	635 lb/mft (945 kg/km)
Copper Weight:	40 lb/mft (60 kg/km)
Aluminum Weight:	260 lb/mft (387 kg/km)
Nominal Cable OD:	1.130 in (28.7 mm)
Conductor Color Code:	1 AWG - Black, White and Red 6 AWG - Green 18 AWG - Black, Red, Yellow, Yellow/Black, Blue, White, Purple and Purple/Black
Jacket Color:	medium – dark GREY

Rev	DATE	CHANGE DETAIL
0	07/28/20	New Issue
1	01/29/21	Jacket color changed
2	01/29/21	Added SAP1C P/N
3		

Approvals:	Engineering:		Final:	

PRYSMIAN
Draka
General Cable

Draka Engineered Solutions
One Tamaqua Blvd
Schuylkill Haven PA 17972
Phone: 570-385-4381 Fax: 570-385-1092

Project Name:	
Part Number:	20359341
Quote Number:	Q20345934
File Number:	type tc thhn-pvc 3C1AL 1C6AL 8C18BC TCERDirect 20359341
Page Number:	Page 1 of 2

Electrical / Optical Characteristics

Voltage: 600V

Specifications

Conductors: ASTM B 3, ASTM B 174, ASTM B 801

Insulation: ICEA S-95-658 (NEMA WC 70), ICEA S-73-532 (NEMA WC 57), UL 83 for Type THWN wires

Jacket: ICEA S-95-658 (NEMA WC 70), ICEA S-73-532 (NEMA WC 57), UL 1277
Bending Radius: 5 x OD

Ratings

UL THWN 600V

UL Type TC-ER-JP 600V

The insulation is acceptable for use in locations at 75 °C dry and 75 °C wet.

The cable is suitable for use in cable trays, aerial or direct burial installations.

The cable is JP rated for installation in accordance with Part II of Article 334.

Packaging

Bulk reels

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EngDrawing-Rev01-April07

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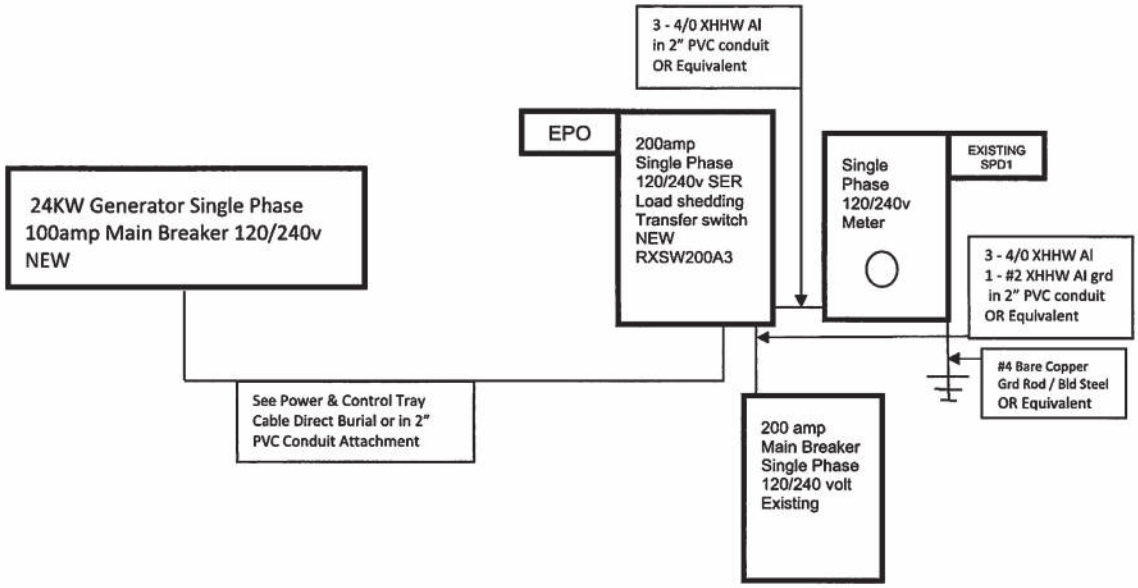
Dale Jarosz EC13009069
10949 SW 93rd Terr
Ocala, FL 34481
352-581-7008
September 21, 2024

Customer: Korin Barrs
833 SW Old Niblack Ave.
Fort White, FL 32038

Electrical Line Diagram NEC 2020



Canter POWER SYSTEMS

Wattage Worksheet

4322 Piedmont Parkway, Greensboro, NC 27410
Phone: 336-448-4000 / Toll Free: 1-888-372-3278

Name:	Korin Barrs	**Contract Date:**	09/05/2024
Address:	833 SW Old Niblack Ave	**RSVP ID:**	339613
City State Zip:	Fort White FL 32038	**Prefer Phone:**	352-256-8177
Email:	Ksbarrs2018@gmail.com	**Cell Phone:**	352- 840-3254

Electrical Utility Company:	Clay county
Electrical Jurisdiction:	Columbia County
Generator Model:	7210 - 24/21 kw Air-Cooled Generac Standby Generator, Aluminum Enclosure with 200 amp TS, equipped with WIFI

Direct Connection to Generator (Primary):	20604 VA (85 Amp) 20.6 kW
Connected via Load Shed Device (Load Shed):	10042 VA 10.0 kW
Total Calculated Load:	30646 VA 30.6 kW
Generator Fuel Type:	Propane

General Loads - Includes one circuit in each room/area listed	SqFt / Qty	Primary or Load Shed	Load Shed Priority	VA	kW
General Lighting - Whole House	1904	1 - Primary	N/A	5712	5.712
Branch Circuit - Laundry Circuits	1	1 - Primary	N/A	1500	1.500
Branch Circuit - Small Appliance Circuits	2	1 - Primary	N/A	3000	3.000
Fixed Appliances - Clothes Dryer - Electric	1	1 - Primary	N/A	5000	5.000
Fixed Appliances - Counter-mounted Cooking Surface	1	1 - Primary	N/A	8000	8.000
Fixed Appliances - Dishwasher	1	1 - Primary	N/A	1500	1.500
Fixed Appliances - Freezer	1	1 - Primary	N/A	500	0.500
Fixed Appliances - Refrigerator (1st refrigerator included in Small Appliance Circuits)	1	1 - Primary	N/A	800	0.800
Fixed Appliances - Wall Oven - Single	1	1 - Primary	N/A	4000	4.000
Fixed Appliances - Water Heater	1	1 - Primary	N/A	4500	4.500
Fixed Appliances - Well Pump	1	1 - Primary	N/A	2000	2.000

Heat / A-C Load	Wattage	Primary or Load Shed	Load Shed Priority	VA	kW
Type: Heat Pump	**Area Served:**				
Compressor and Fan	3542	2 - Load Shed	1	3542	3.5
Supplemental Electric Heat	10000	2 - Load Shed	1	6500	6.5

Load Shed Device Specifications

Device	Model
50amp Generac Smart Management Module	G007000
100amp Generac Smart Management Module	G007006
Direct Wire to Automatic Transfer Switch	(See ATS Specs)

Generator Electrical Load Capacity

Model	Capacity on NG	Capacity on LP
7290 or 7291 - 26/21 kW Air Cooled Generac Standby Generator	22.5 kW	26 kW
7209 or 7210 - 24/21 kW Air Cooled Generac Standby Generator	21 kW	24 kW
7042 or 7043 - 22/19.5 kW Air Cooled Generac Standby Generator	19.5 kW	22 kW
7038 or 7039 - 20/18 kW Air Cooled Generac Standby Generator	18 kW	20 kW
7226 or 7228 - 18/17 kW Air Cooled Generac Standby Generator	17 kW	18 kW
7223 or 7224 or 7225 - 14 kW Air Cooled Generac Standby Generator	14 kW	14 kW
7171 or 7172 - 10/9 kW Air Cooled Generac Standby Generator	9 kW	10 kW
7077 - 20/17 kW Air Cooled Generac Standby Generator (3 Phase)	17 kW	20 kW

ATTENTION:

BEFORE LEAVING THE JOB SITE, PLEASE CALL OUR TECHNICAL DEPARTMENT FOR ANY INSTALLATION OR STARTUP ISSUES

MONDAY - SATURDAY 8:00AM - 8:00PM

JAMES KELLY 336.894.0057 **JULIAN CURRENCE** 336.404.3877 **MIKE HORNYAK** 336.402.6289