

# 10/13/16 kW

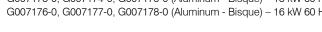


# **GUARDIAN® SERIES Residential Standby Generators Air-Cooled Gas Engine**

#### Standby Power Rating

G007173-0, G007174-0, G007175-0 (Aluminum - Bisque) - 13 kW 60 Hz G007176-0, G007177-0, G007178-0 (Aluminum - Bisque) - 16 kW 60 Hz

# G007171-0, G007172-0 (Aluminum - Bisque) - 10 kW 60 Hz



### **INCLUDES:**

- True Power™ Electrical Technology
- Two-line multilingual digital LCD Evolution™ controller (English/Spanish/French/Portuguese)
- Two transfer switch options available: 100 amp 16 circuit switch or 200 amp service rated smart switch
- 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 by the Southwest Research Institute allowing 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.

https://assets.swri.org/library/DirectoryOfListedProducts/ ConstructionIndustry/973\_DoC\_204\_13204-01-01\_Rev9.pdf







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 you need it 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™ WI-FI CONNECTIVITY: FREE with select Guardian Series home standby generators, Mobile Link Wi-Fi allows users to monitor the status of the generator 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  $\pm 1\%$ .
- SINGLE SOURCE SERVICE RESPONSE from Generac's extensive dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component.
- GENERAC TRANSFER SWITCHES: Long life and reliability are synonymous with GENERAC POWER SYSTEMS. One reason for this confidence is the GENERAC product line is offered with its own transfer systems and controls for total system compatibility.













### **Features and Benefits**

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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.

Remote mounting
 Mounts near an existing distribution panel for simple, low-cost installation.

#### **Evolution™ Controls**

AUTO/MANUAL/OFF illuminated buttons
 Select the operating mode and provide 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 is delivered to the home.

Utility interrupt delay
 Prevents nuisance startups 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. 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.

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# **Features and Benefits**

**GENERAC** 

#### **Installation System**

Listed ANSI Z21.75/CSA 6.27 outdoor appliance connector for the required connection to the gas supply 14 in (35.6 cm) flexible fuel line connector piping.

Integral sediment trap Meets IFGC and NFPA 54 installation requirements.

#### Connectivity

Ability to view generator status Monitor your 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.

Provides maintenance information for your specific model generator when scheduled maintenance is due.

Detailed monthly reports provide historical generator information.

Built in battery diagnostics displaying current state of the battery.

Provides detailed local ambient weather conditions for generator location.

Ability to view generator maintenance information

Monthly report with previous month's activity

Ability to view generator battery information

Weather information



# 10/13/16 kW Specifications

Generator					
Model		G007171-0, G007172-0	G007173-0, G007174-0,	G007176-0, G007177-	
		(10 kW)	G007175-0 (13 kW)	G007178-0 (16 kW)	
Rated maximum continuous po	ower capacity (LP)	10,000 Watts*	13,000 Watts*	16,000 Watts*	
Rated maximum continuous po	ower capacity (NG)	9,000 Watts*	13,000 Watts*	16,000 Watts*	
ated voltage			240		
•	pad current – 240 volts (LP/NG)	41.7 / 37.5	54.2 / 54.2	66.7 / 66.7	
otal Harmonic Distortion	ad 3d1311 2 13 1310 (21/11d)	, 51.15	Less than 5%	00.11 / 00.11	
Main line circuit breaker		45 Amp	60 Amp	70 Amp	
hase		40 / πτρ	1	70711119	
lumber of rotor poles			2		
'					
ated AC frequency			60 Hz		
ower factor	J. A	40.1/-14- 0 000.5	1.0	M 050 004 Minimum	
attery requirement (not include	aea)		640 CCA Minimum or Group 35AG		
Init weight (Ib/kg)		338/153	385/175	420/191	
imensions (L x W x H) in / cr			48 x 25 x 29 / 121.9 x 63.5 x 73.7		
	(7 m) with generator operating at normal load**	61	65	65	
ound output in dB(A) at 23 ft	(7 m) with generator in Quiet-Test™ low-speed exercise mode**	57	55	55	
xercise duration			5 min		
ngine					
ingine type		GENERAC G-Force 400 Series	CENERAC C F	orce 800 Series	
• ,,		1		2	
lumber of cylinders					
isplacement		460 cc		6 cc	
ylinder block			Aluminum w/ cast iron sleeve		
alve arrangement			Overhead valve		
ifter type		Solid	,	raulic	
nition system			Solid-state w/ magneto		
Governor system			Electronic		
Compression ratio			9.5:1		
Starter			12 VDC		
Oil capacity including filter		Approx. 1.1 qt / 1.0 L	Approx. 2.	2 qt / 2.1 L	
perating rpm			3,600	•	
uel consumption			,		
latural Gas	ft³/hr (m³/hr)				
	1/2 Load	101 (2.86)	154 (4.36)	182 (5.15)	
	Full Load	127 (3.60)	225 (6.37)	245 (6.94)	
iquid Propane	ft <sup>3</sup> /hr (gal/hr) [L/hr]	26 (0.07) [2.06]	EC (1 E4) [E 02]	CO /4 70\ [C 4E]	
	1/2 Load	36 (0.97) [3.66] 54 (1.48) [5.62]	56 (1.54) [5.83] 90 (2.45) [9.28]	62 (1.70) [6.45] 109 (2.99) [11.32]	
	Full Load	, , , ,	. ,	, , , .	
lote: Fuel pipe must be size	ed for full load. Required fuel pressure to generator fuel inlet at all load	ranges - 3.5—7.0 in water column (0.8	37—1.74 kPa) for NG, 10—12 in wai	ter column (2.49–2.99 kPa) f	
	<sup>r</sup> ft <sup>3</sup> /hr x 2,500 (LP) or ft <sup>3</sup> /hr x 1,000 (NG). For Megajoule content, multip	ily iliyili x 95.15 (LP) 01 iliyili x 57.20	(NG).		
Controls					
wo-line plain text multilingua	I LCD	Sim	ole user interface for ease of opera	tion.	
Node buttons: AUTO		Automatic start on utility	failure. Weekly, Bi-Weekly, or Mor	thly selectable exerciser.	
MANUAL		Start with starter control	l, unit stays on. If utility fails, trans	fer to load takes place.	
OFF		Stops unit. Po	ver is removed. Control and charge	er still operate.	
Ready to Run/Maintenance me	essages		Standard		
ngine run hours indication			Standard		
rogrammable start delay betw	veen 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			
un/Alarm/Maintenance logs	Noticide det effor waiting		50 events each		
		Ouslin assatis		imum duration)	
ngine start sequence		, ,	16 sec on, 7 sec rest (90 sec max	,	
tarter lock-out		Starter cannot	re-engage until 5 sec after engine	nas stopped.	
mart Battery Charger			Standard		
harger Fault/Missing AC War	•		Standard		
ow Battery/Battery Problem P	Protection and Battery Condition Indication		Standard		
utomatic Voltage Regulation	with Over and Under Voltage Protection		Standard		
Inder-Frequency/Overload/Ste	· · · · · · · · · · · · · · · · · · ·		Standard		
afety Fused/Fuse Problem Pr			Standard		
Automatic Law Oil Proceure/Hi			Chandard		

Standard

Standard

Standard

Standard

Standard

Standard

Automatic Low Oil Pressure/High Oil Temperature Shutdown

Overcrank/Overspeed (@ 72 Hz)/rpm Sense Loss Shutdown

High Engine Temperature Shutdown

Common External Fault Capability

Field Upgradable Firmware

Internal Fault/Incorrect Wiring Protection

<sup>\*\*</sup>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, IS03046 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 6 °C (10 °F) above 16 °C (60 °F).



# **Switch Options**

#### **Limited Circuits Switch Features**

- 16 space, 24 circuit, Breakers not included.
- Electrically operated, mechanically-held contacts for fast, positive connections.
- Rated for all classes of load, 100% equipment rated, both inductive and resistive.
- 2-pole, 250 VAC contactors.
- 30 millisecond transfer time.
- Dual coil design.

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- Rated for both copper and aluminum 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.
- Multi listed for use with 1 in standard, tandem, GFCI, and AFCI breakers from Siemens, Murray, Eaton, and Square D for the most flexible and cost effective install.

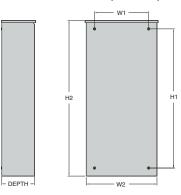
#### **Dimensions**

	Heiç	Height Width Depth		Width	
	H1	H2	W1	W2	Dehiii
in	26.75	30.1	10.5	13.5	6.91
cm	67.94	76.43	26.67	34.18	17.54

Wire Ranges		
Conductor Lug	Neutral Lug	Ground Lug
2/0 - #14	2/0 - #14	2/0 - #14

Model	G007172-0 (10 kW)	G007174-0 (13 kW)	G007177-0 (16 kW)
No. of poles		2	
Current rating (amps)		100	
Voltage rating (VAC)		120 / 240, 1Ø	
Utility voltage monitor (fixed)* -Pick-up -Dropout		80% 65%	
Return to utility*		Approx. 15 sec	
Exercises bi-weekly for 5 minutes*		Standard	
ETL or UL Listed		Standard	
Total circuits available		24	
Tandem breaker capabilities		8 tandems	
Circuit breaker protected Available RMS Symmetrical Fault Current @ 250 Volts		10,000	

\*Function of Evolution controller Exercise can be set to weekly or monthly



#### **Service Rated Smart Switch Features**

- Includes Smart A/C Management (SACM) module standard.
- Intelligently manages up to four air conditioner loads with no additional hardware.
- Up to eight large (240 VAC) loads can be managed with Smart Management Modules (SMMs).
- Electrically operated, mechanically-held contacts for fast, clean connections.
- Rated for all classes of load, 100% equipment rated, both inductive and resistive
- 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.

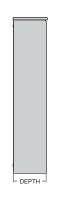
#### **Dimensions**

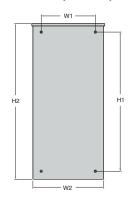
	200 Amps 120/240, 1ø Open Transition Service Rated						
	Heiç	Height Width Donth					
	H1	H2	W1	W2	Depth		
in	26.75	30.1	10.5	13.5	6.3		
cm	67.94	76.45	26.67	34.3	16.01		

Wire Ranges						
Conductor Lug	Neutral Lug	Ground Lug				
400 MCM - #4	350 MCM - #6	2/0 - #14				

Model	G007175-0 (13 kw)	G007178-0 (16 kW)		
No. of poles	2			
Current rating (amps)	20	0		
Voltage rating (VAC)	120/24	10, 1Ø		
Utility voltage monitor (fixed)* -Pick-up -Dropout	80% 65%			
Return to utility*	15 sec			
Exercises bi-weekly for 5 minutes*	Standard			
ETL or UL Listed	Standard			
Enclosure type	NEMA/UL 3R			
Circuit breaker protected	22,000			
Lug range	250 MC	M - #6		

\*Function of Evolution Controller Exercise can be set to weekly or monthly





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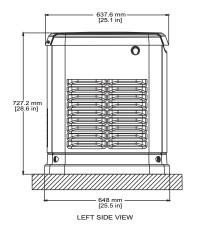


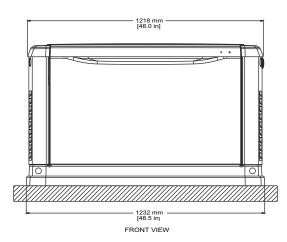
# **Available Accessories**

Model #	Product	Description
G005819-0	26R Wet Cell Battery	Every standby generator requires a battery to start the system. Generac offers the recommended 26R wet cell battery for use with all air-cooled standby product (excluding PowerPact®).
G007101-0	Battery Pad Warmer	The pad warmer rests under the battery. Recommended for use if the 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 the temperature regularly falls below 0 °F (-18 °C).
G007103-1	Breather Warmer	The 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 you may not need. Not compatible with 50 amp pre-wired switches.
G007027-0 - Bisque	Fascia Base Wrap Kit	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 paint kit includes the necessary paint to correctly maintain or touch up a generator enclosure.
G006482-0 – 10 kW G007216-0 – 13 / 16 kW	Scheduled Maintenance Kit	Generac's scheduled maintenance kits provide all the items necessary to perform complete routine maintenance on a Generac automatic standby generator (oil not included).
G007005-0	Wi-Fi LP Fuel Level Monitor	The Wi-Fi enabled LP 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 amps) G007006-0 (100 amps)	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	Mobile Link™ 4G LTE Cellular Accessory	The Mobile Link 4G LTE Cellular Accessory allows users to monitor the status of the generator 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 with an authorized service dealer for fast, friendly, and proactive service. With Mobile Link, users are taken care of before the next power outage.

# **Dimensions & UPCs**

Model	UPC
G007171-0	696471074680
G007172-0	696471074673
G007173-0	696471076400
G007174-0	696471077100
G007175-0	696471077117
G007176-0	696471076417
G007177-0	696471077124
G007178-0	696471077131





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





# STANDBY GENERATOR ACCESSORIES

# **26R Wet Cell Battery**



Model 5819-0

### **DESCRIPTION**

Every standby generator requires a battery to start the system. In efforts to achieve the easiest generator installation, Generac offers the recommended 26R, wet cell battery applicable for virtually all residential Generac standby generators.

\*For use with all air-cooled standby product and liquid-cooled standby product 60kW and below, excluding the QT4842.



# **Automatic Transfer Switches**



# Service and non-Service rated **Automatic Smart Transfer Switches**

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\*CUL only applies to non-service rated switches

### **Description**

Generac Automatic Transfer Switches are designed for use with single phase generators that utilize an Evolution™ or Nexus™ Controller. The 100, 200, and 400 amp open transition switches are available in single phase in both service equipment rated and non-service equipment rated configurations. The 150 and 300 amp open transition switches are only available in a service rated equipment configuration.

### **Standard Features**

Service rated (RXSW) Generac Automatic Transfer Switches are housed in an aluminum NEMA/UL Type 3R enclosure\*, with electrostatically applied and baked powder paint. The Heavy Duty Generac Contactor is a UL 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 5 year limited warranty.

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

### **DPM Technology**

Through the use of digital power technology (DPM), these switches have the capability to manage up to 4 individual HVAC (24 VAC controlled) loads with no additional hardware. When used in tandem with Smart Management Modules, up to 8 more loads can be managed as well, providing the most installation efficient power management options available.







# 100-400 Amps, Single Phase

### **Automatic Smart 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 2-1500 seconds by a qualified dealer*
Engine warm up delay	5 seconds
Standby voltage sensor	
Utility voltage pickup	
Re-transfer time delay	
Engine cool-down timer	
- Fyerciser	5 or 12 minutes adjustable weekly/Ri-weekly/Monthly**

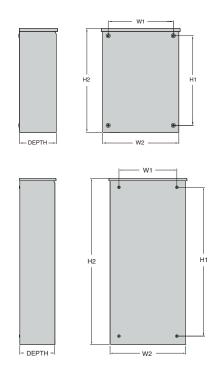
The transfer switch can be operated manually without power applied.

### **Specifications**

Model	RXSC100A3	RXSW100A3	RXSW150A3	RXSC200A3	RXSW200A3	RXSW300A3	RXSC400A3	RXSW400A3
Amps	100	100	150	200	200	300	400	400
Voltage	120/240, 1ø	120/240, 1ø	120/240, 1ø	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	Open Transition Service Rated	Open Transition	Open Transition Service Rated
Enclosure Type	NEMA/UL 3R	NEMA/UL 3R	NEMA/UL 3R	NEMA/UL 3R	NEMA/UL 3R	NEMA/UL 3R	NEMA/UL 3R	NEMA/UL 3R
UL Rating	UL/CUL	UL	UL	UL/CUL	UL	UL	UL/CUL	UL
Withstand Rating (Amps)	10,000	10,000	22,000	10,000	22,000	22,000	22,000	22,000
Lug Range	1/0 - #14			250 MCM - #6		600 MC	M - #4 or 1/0 - 25	50 MCM

### **Dimensions**

Model		RXSC100A3	RXSW100A3	RXSW150A3	RXSC200A3	RXSW200A3	RXSW300A3	RXSC400A3	RXSW400A3
Height (in./mm)	H1	17.24/437.9	17.24/437.9	26.75/679.4	17.24/437.9	26.75/679.4	42.91/1089.9	31.25/793.8	42.91/1089.9
	H2	20/508	20/508	30/762	20/508	30/762	48/1219.2	36/914.4	48/1219.2
Width (in./mm)	W1	12.5/317.5	12.5/317.5	10.5/266.7	12.5/317.5	10.5/266.7	16.69/423.9	19.18/487.2	16.69/423.9
	W2	14.6/370.8	14.6/370.8	13.5/342.9	14.6/370.8	13.5/342.9	21.82/554.2	24/609.6	21.82/554.2
Depth (in./mm)		7.09/180.1	7.09/180.1	6.3/160.1	7.09/180.1	6.3/160.1	10.06/255.5	10.06/255.5	10.06/255.5
Weight (lbs./kilos)		20/9.07	22.5/10.21	39/17.69	20/9.07	39/17.69	140/63.5	133/60.33	140/63.5





<sup>\*</sup>When used in conjunction with units utilizing Evolution™ controls \*\*Adjustable via the controller