



Russell[®]
By Rheem

PROJECT NAME _____
LOCATION _____
ARCHITECT _____
ENGINEER _____
CONTRACTOR _____
SUBMITTED BY _____ DATE _____

UNIT SUMMARY

Quantity						
Unit Designation						
Model No.						
Total Cooling						
Sensible Cooling						
Air Ent. Evaporator						
Air Lvg. Evaporator						
Heating Input						
Heating Output						
CFM/ESP						
EER/SEER						
Electrical						
Minimum Ampacity						
Min.-Max. Breaker						
Net Unit Weight						
Accessory						
Catalog Form Number						

ACCESSORIES:

NOTES:

Vantix™ Line SH2VY Air Handlers
Nominal Sizes: 2 to 5 Ton [7.03 kW to 17.58 kW]
Constant CFM Motor with Two-Stage Airflow
Expansion Device: Thermal Expansion Valve (TXV)
Efficiencies: 13.4 to 14.3 SEER2
Refrigerant Type: R-454B

JOB NAME _____ LOCATION _____
 CONTRACTOR _____ ORDER NO. _____
 ENGINEER _____ UNIT MODEL NO. _____
 SUBMITTED FOR APPROVAL RECORD COIL MODEL NO. _____
 DATE _____ AIR HANDLER MODEL NO. _____

UNIT DATA

COOLING PERFORMANCE

EFFICIENCY SEER
 TOTAL CAPACITY* MBH [kW]
 SENSIBLE CAPACITY* MBH [kW]
 OUTDOOR DESIGN TEMP..... °F [°C] DB
 TEMP. OF AIR ENTERING
 EVAPORATOR COIL °F [°C] DB
 °F [°C] WB
 POWER INPUT REQUIREMENT kW
 (*uses blower motor heat)

HEATING PERFORMANCE

EFFICIENCY HSPF
 TOTAL CAPACITY* MBH [kW]
 OUTDOOR DESIGN TEMP..... °F [°C] DB
 TEMP. OF AIR ENTERING
 EVAPORATOR COIL °F [°C] DB

SUPPLY AIR BLOWER PERFORMANCE

TOTAL AIR SUPPLY..... CFM [L/s]
 TOTAL RESISTANCE EXTERNAL
 TO UNIT IWG
 BLOWER SPEED..... RPM
 POWER OUTPUT REQUIREMENT BHP
 MOTOR RATING HP [W]
 POWER INPUT REQUIREMENT kW

ELECTRICAL DATA

POWER SUPPLY Hz
 TOTAL UNIT AMPACITY..... AMPS
 MINIMUM WIRE SIZE AWG
 MAXIMUM OVERCURRENT DEVICE
 FUSES/HACR BREAKER AMPS

CLEARANCES

ACCESS SIDE 24" [609.6 mm]
 AIR INLETS 12" [304.8 mm]
 ABOVE UNIT 60" [1524 mm]



FEATURES

- **Constant CFM Motor:**
 - When paired with EcoNet® Smart Thermostat, gradually auto-adjusts from low capacity to 100% of capacity to meet comfort requirements—allowing for ultimate humidity control, quieter sounds levels and year-round energy savings
 - When paired with 24V two-stage thermostat, air handler runs in 2 speeds to match airflow with outdoor unit
- **Quieter Operation¹:** Provided by two-stage operation and truly variable speed airflow technology and sturdy cabinet construction with 1.0 inch of foil faced insulation for quieter sound characteristics
- **Diagnostics:** With the Contractor & EcoNet® Apps, built-in EcoNet® & Bluetooth® technology makes monitoring, troubleshooting and repairing the product easier than ever before
- **Dip Switch Free Installation Commissioning via Bluetooth® Technology:** Seamless final install step without DIP switch configuration using the Contractor App
- **EcoNet® Enabled Air Handler:**
 - The latest in sensor technology and the EcoNet® monitoring system provides a new level of protection, control and energy savings
 - Allows on-the-go control and receipt of system alerts by the homeowner via the EcoNet® Smart Thermostat and EcoNet® App²
- **Aluminum Indoor Coil Design:** Are constructed of aluminum fins bonded to internally grooved aluminum tubing and are more corrosion resistant
- **Versatile 4-Way Convertible Compact Design:** Allows for upflow, downflow, horizontal left and horizontal right applications, even in the smallest of spaces
- **Rugged Steel, Compact Cabinet Construction:** Designed for added strength and versatility
- **Field-installed Auxiliary Heater Kits:** Provide exact heat for indoor comfort and include circuit breakers which meet UL and cUL requirements for service disconnect
- **Less than 2% Cabinet Air Leakage at 1-inch H₂O:** When tested in accordance with ASHRAE Standard 193
- **Designing for Sustainability with Low GWP:** For 2025, the Environmental Protection Agency (EPA) has set a global warming potential (GWP) limit of 700 for refrigerant used in heating and cooling systems. This new requirement will result in a 78%³ lower GWP than previous-generation refrigerants — with only minimal changes to system installation. For us, this is another step toward our continued sustainability goal of reducing greenhouse gas emissions, while still delivering an exceptional level of energy efficient, dependable comfort
- **Refrigerant Detection System⁴:** An integrated one-box, patented design featuring the A2L sensor and mitigation board, offering easier commissioning with a single component and simplified wiring configuration, compatibility with any 24V thermostat application and system protection by automatically pausing outdoor unit operation — if excess refrigerant is detected

¹Based on manufacturer's air handler offering, and the product's airflow stages, motor type and cabinet insulation. Sound levels are also dependent on air handler location and installation.
²Wifi broadband internet connection required. Download the EcoNet® App from the App Store® or Google Play® to set up your EcoNet® Smart Thermostat. Receipt of notifications depend on home WiFi set up. Amazon, Alexa and all related logos are trademarks of Amazon.com, Inc. or its affiliates.
³When comparing the GWP of R-454B to R-410A refrigerant
⁴Factory or field installed in the furnace coil or air handler and is applicable to the complete heating and cooling system featuring Low GWP Refrigerant (A2L)
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9001:2015



SH2VY

ELECTRICAL CONNECTIONS
MAY EXIT TOP OR EITHER SIDE
HIGH VOLTAGE CONNECTION 7/6" [22.2 mm],
1 1/2" [27.8 mm], 1 3/4" [50 mm] DIA. KNOCKOUTS.

LOW VOLTAGE CONNECTION
5/8" [15.9 mm] AND 7/8" [22.2 mm] KNOCKOUT

AUXILIARY DRAIN CONNECTION
3/4" [19.1 mm] FEMALE PIPE THREAD (NPT)
HORIZONTAL APPLICATION ONLY

PRIMARY DRAIN CONNECTION
3/4" [19.1 mm] FEMALE PIPE THREAD (NPT)

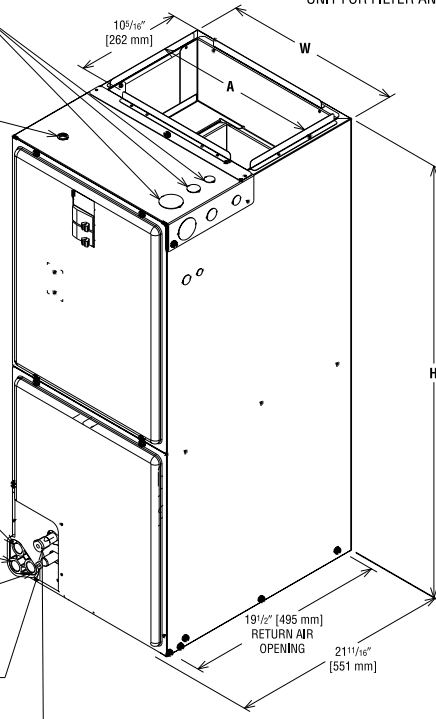
AUXILIARY DRAIN CONNECTION
3/4" [19.1 mm] FEMALE PIPE THREAD (NPT)
UPFLOW/DOWNFLOW APPLICATION ONLY

LIQUID LINE CONNECTION
COPPER (SWEAT)

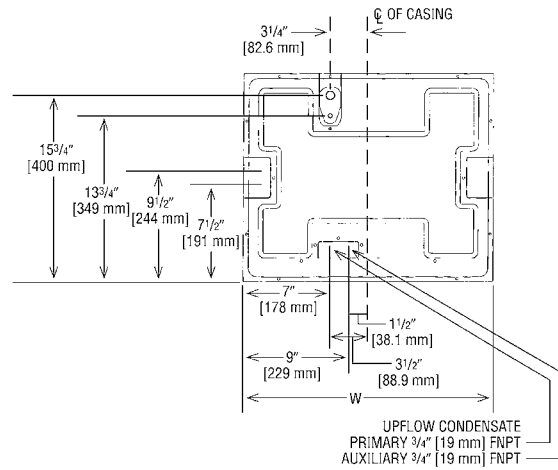
VAPOR LINE CONNECTION
COPPER (SWEAT)

SUPPLY AIR ↑

NOTE: 24" CLEARANCE REQUIRED IN FRONT OF
UNIT FOR FILTER AND COIL MAINTENANCE.



UPFLOW UNIT SHOWN:
UNIT MAY BE INSTALLED UPFLOW, DOWNFLOW,
HORIZONTAL RIGHT OR LEFT AIR SUPPLY.



Unit Dimensions

Model	Model Size	Refrigerant Connections Sweat (In.) [mm] ID		Unit Width "W" In. [mm]	Unit Height "H" In. [mm]	Supply Duct "A" In. [mm]	Unit Weight/Shipping Weight (Lbs.) [kg]
		Liquid	Vapor				
SH2VY	2417STACN	3/8 [9.53]	3/4 [19.05]	17 1/2 [445]	42 1/2 [1080]	16 [406]	91/105 [41/48]
	3617STACN	3/8 [9.53]	3/4 [19.05]	17 1/2 [445]	42 1/2 [1080]	16 [406]	98/112 [44/51]
	3621STACN	3/8 [9.53]	3/4 [19.05]	21 [533]	42 1/2 [1080]	19 1/2 [495]	103/118 [47/54]
	3621MTACN	3/8 [9.53]	7/8 [22.23]	21 [533]	50 1/2 [1282]	19 1/2 [495]	126/142 [57/64]
	3621MTACA	3/8 [9.53]	7/8 [22.23]	21 [533]	57 [1448]	19 1/2 [495]	138/150 [63/68]
	4821STACN	3/8 [9.53]	7/8 [22.23]	21 [533]	50 1/2 [1282]	19 1/2 [495]	128/144 [56/65]
	4821STACA	3/8 [9.53]	7/8 [22.23]	21 [533]	57 [1448]	19 1/2 [495]	140/152 [64/69]
	4824STACN	3/8 [9.53]	7/8 [22.23]	24 1/2 [622]	55 1/2 [1410]	23 [584]	142/160 [64/73]
	6021STACA	3/8 [9.53]	7/8 [22.23]	21 [533]	57 [1448]	19 1/2 [495]	140/152 [64/69]
6024STACN	3/8 [9.53]	7/8 [22.23]	24 1/2 [622]	55 1/2 [1410]	23 [584]	159/176 [72/80]	

[] Designates Metric Conversions

Before proceeding with installation, refer to installation instructions packaged with each model, as well as complying with all Federal, State, Provincial, and Local codes, regulations, and practices.

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