# ERVXXSHA1150, ERVXXSVA1150
# Performance™ Fresh Air Systems – 150 CFM

Carrier
Turn to the experts

# Product Data

A200611

- 35 to 150 CFM @ 0.2 in. w.g.
- 35 to 140 CFM @ 0.4 in. w.g.

Introducing the industry's most advanced residential fresh air system, created to offer a universal platform specifically designed and improved to make the contractor's life easier and more profitable while delivering constant superior air quality.

- Thanks to new technology, the airflow calibration and auto-balancing are achieved quickly and maintained throughout the life of the product
- Select the desired CFM (from 35 to 150 CFM) using the very first integrated LCD screen. The airflow is then set up automatically
- Integrated electronic airflow measurement device with real time LCD
- Integrated diagnostic tool
- PMSM ECM motors for very low power consumption
- Suspended installation (chains included)
  OR
- Wall-mount installation (universal brackets included)
  – installation with 2 brackets
  – installation with 4 brackets

## CORE

- Coroplast and plastic membrane with polymer base, non washable
- Dimensions: 12" x 12" x 9" (30.5 cm x 30.5 cm x 23 cm)

## FILTERS

- MERV 8 grade washable standard filter (included)
- Optional MERV13 grade filter part no. SV24285

## OPTIONS

- Complete line of registers and diffusers
- Compatible with the Tandem transition (part no. KVAAC0101HCO) (for units producing up to 130 CFM only)

## UNIT DESCRIPTION

- SRE of 67% at 0°C and 56% at -25°C (64 CFM)
- Ports size: 6 in.
- Recirculation Mode and Recirculation Defrost
- Painted door, corrosion resistant galvanized body
- One-piece molded insulation shell, no air leakage (expanded polystyrene; UL 94 HF-1 certified)
- Constant airflow and auto-balancing device
- Motorized dampers (no additional backdraft dampers required)
- No drain required
- 120V, 60 Hz, 2.5 A, 110 W with 6 foot power cord

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## CONTROLS

**NOTE:** Do not connect the Infinity® System Control directly to the ventilator, as that may cause damage. If you have an Infinity® System Control use one of the optional Main Wall Controls.

If you want the Infinity® System Control to control the ventilator, then you must use a NIM (Network Interface Module) P/N SYSTXCCNIM01 and a Translator Board P/N SYSTXXXTRB01 in order for the System Control to communicate properly. If using the Infinity® Zoning Panel P/N SYSTXCC4ZC01 with the ventilators you must use the Translator Board to communicate between the Zoning Panel and the ventilator. See Table 2 for NIM and TRB requirements for newest ERV and HRV models. See the Installation Manual for wiring diagrams.

Please do not connect the Network Interface Module (NIM) or the Infinity® Zoning Panel to the two terminal blocks on the new ventilator. The new ventilator terminals do not match up to the NIM or Infinity® Zoning Panel terminals. Connecting the two controls may cause damage.


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There are 4 optional main controls and 1 optional auxiliary control available. Refer to the applicable Wall Control specification sheet for more information.

**NOTE:** These controls are compatible only with the latest versions of ERV and HRV ventilators. Older controls will not work with the newest ventilators.

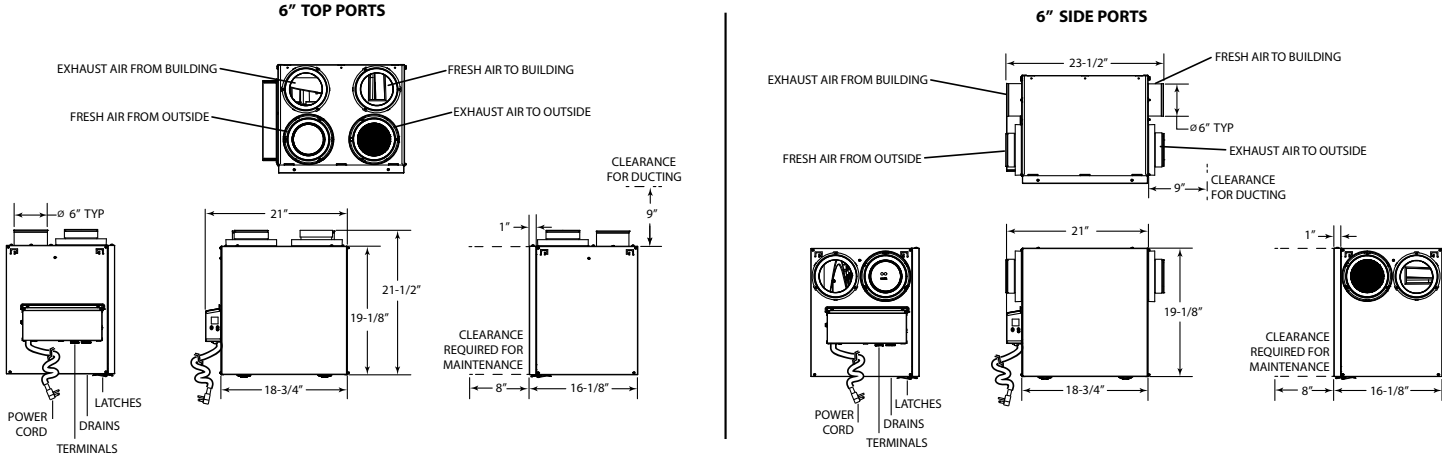
**Table 1 – Controls**

| Control Name | Description of Modes | Model # |
|---|---|---|
| Premium | Touch Screen, Auto 2.0 Fully Configurable, Multiple Modes | KVACN0101CPC |
| Automatic | Auto 1.0, Filter Alert | KVACN0101CAC |
| Dehumidistat | Humidity Sensor / Selection | KVACN0101CDH |
| Speed Selector | 5 Operating Time Periods | KVACN0101CSS |
| AuxiliaryBathroom Override | 20 - 40 - 60 min. Settings | KVACN0101CBO |

**Table 2 – NIM and TRB Requirements for Newest ERV/HRV**

| Infinity® System Control | ERV Product | HRV Product | Network Interface Module SYSTXCCNIM01 | Translator Board SYSTXXXTRB01 |
|---|---|---|---|---|
| SYSTXCCITC01-B/C<br>SYSTXCCWIC01-B<br>SYSTXCCICFO1-B<br>SYSTXCCWIF01-B | ERVXXSVA1130 | HRVXXSVA1130 | Required | Required |
| | ERVXXSHA1130 | HRVXXSHA1130 | Required | Required |
| | ERVXXSVB1145 | HRVXXSVA1160 | Required | Required |
| | ERVXXSHB1145 | HRVXXSHA1160 | Required | Required |
| | ERVXXSVA1150 | HRVXXSVB1160 | Required | Required |
| | ERVXXSHA1150 | HRVXXSHB1160 | Required | Required |
| | ERVCRLHB1200 | HRVCRLHB1250 | Required | Not Required |
| | | | | |
| **Infinity® Zone Panel** | **ERV Product** | **HRV Product** | **Network Interface Module SYSTXCCNIM01** | **Translator Board SYSTXXXTRB01** |
| SYSTXCC4ZC01 | ERVXXSVA1130 | HRVXXSVA1130 | Not Required | Required |
| | ERVXXSHA1130 | HRVXXSHA1130 | Not Required | Required |
| | ERVXXSVB1145 | HRVXXSVA1160 | Not Required | Required |
| | ERVXXSHB1145 | HRVXXSHA1160 | Not Required | Required |
| | ERVXXSVA1150 | HRVXXSVB1160 | Not Required | Required |
| | ERVXXSHA1150 | HRVXXSHB1160 | Not Required | Required |
| | ERVCRLHB1200 | HRVCRLHB1250 | Not Required | Not Required |

## DIMENSIONS

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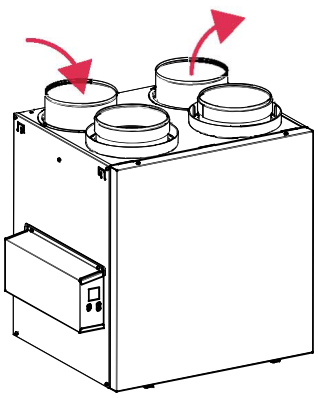
- Total assembled weight (core included) - approx 37 lb. (16.8 kg)
  Shipping weight - approx 44 lb. (20 kg)

## DEFROST SYSTEM

No negative pressure is created by air exhausted to the outdoors since the air is recirculated into the house, helping to prevent any backdraft.



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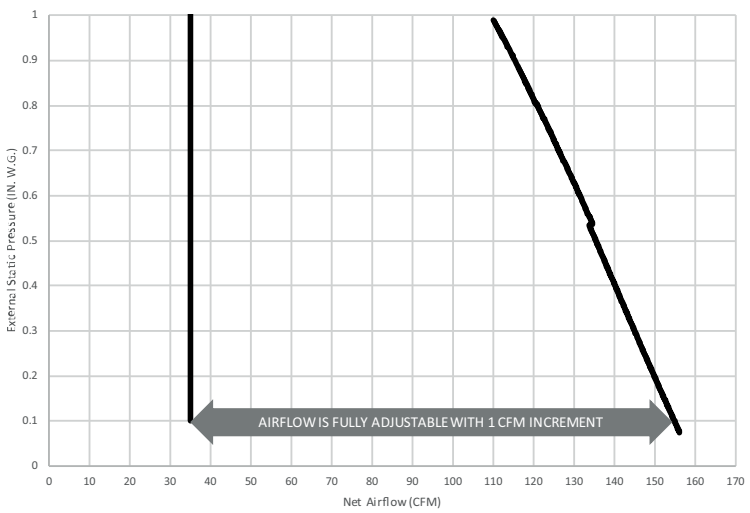
| FACTORY SETTING | OUTDOOR TEMPERATURE* | | | | | |
|---|---|---|---|---|---|---|
| | -5°C TO -15°C 23°F TO 5°F | | -15°C TO -27°C 5°F TO -17°F | | -27°C AND LESS -17°F AND LESS | |
| CFM | AIR EXCHANGE IN MINUTES | DEFROST IN MINUTES | AIR EXCHANGE IN MINUTES | DEFROST IN MINUTES | AIR EXCHANGE IN MINUTES | DEFROST IN MINUTES |
| 0 to 59 | 30 | 5 | 18 | 5 | 17 | 8 |
| 60 to 90 | 40 | 5 | 21 | 5 | 21 | 8 |
| 91 and more | 20 | 5 | 15 | 5 | 15 | 8 |
| **PLUS** | **OUTDOOR TEMPERATURE*** | | | | | |
| | -5°C TO -15°C 23°F TO 5°F | | -15°C TO -27°C 5°F TO -17°F | | -27°C AND LESS -17°F AND LESS | |
| CFM | AIR EXCHANGE IN MINUTES | DEFROST IN MINUTES | AIR EXCHANGE IN MINUTES | DEFROST IN MINUTES | AIR EXCHANGE IN MINUTES | DEFROST IN MINUTES |
| 0 to 59 | 24 | 7 | 14 | 7 | 14 | 10 |
| 60 to 90 | 30 | 7 | 16 | 7 | 15 | 10 |
| 91 and more | 18 | 7 | 12 | 7 | 12 | 10 |
| *Outdoor temperature is read by a thermistor located inside the unit, next to fresh air from outdoor port. | | | | | | |

## FAN CURVES

Thanks to new technology, no need to balance the unit manually. Both PMSM motors are controlled by an artificial intelligence performing 120 readings per minute then processing this information to maintain the requested airflow.

For typical installation, the software will ensure a balanced ventilation at every selected speed regardless of the weather conditions, the type of connection, the variable speed furnace/AHU, the stack effect, the filter clogging and so on. This results in peace of mind for installers and users knowing that the unit will always remain balanced and that it will maintain its maximum heat/energy recovery efficiency.

| Static Pressure (Pa) | Static Pressure (in. w.g.) | Net Supply Airflow (L/s) | Net Supply Airflow (cfm) | Gross Airflow Supply (L/s) | Gross Airflow Supply (cfm) | Gross Airflow Exhaust (L/s) | Gross Airflow Exhaust (cfm) |
|---|---|---|---|---|---|---|---|
| 25 | 0.1 | 73 | 155 | 74 | 157 | 74 | 157 |
| 50 | 0.2 | 71 | 150 | 72 | 153 | 72 | 153 |
| 75 | 0.3 | 68 | 144 | 69 | 146 | 69 | 146 |
| 100 | 0.4 | 66 | 140 | 67 | 142 | 67 | 142 |
| 125 | 0.5 | 64 | 136 | 65 | 138 | 65 | 138 |
| 150 | 0.6 | 62 | 131 | 63 | 133 | 63 | 133 |
| 175 | 0.7 | 59 | 125 | 60 | 127 | 60 | 127 |
| 200 | 0.8 | 57 | 121 | 58 | 123 | 58 | 123 |
| 225 | 0.9 | 54 | 114 | 55 | 117 | 55 | 117 |
| 250 | 1.0 | 52 | 110 | 53 | 112 | 53 | 112 |

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## ENERGY PERFORMANCE

| SUPPLY TEMPERATURE | | NET AIR-FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | ADJUSTED SENSIBLE RECOVERY EFFICIENCY | LATENT RECOVERY / MOISTURE TRANSFER | APPARENT SENSIBLE EFFECTIVENESS* | TOTAL RECOVERY EFFICIENCY | ADJUSTED TOTAL RECOVERY EFFICIENCY |
|---|---|---|---|---|---|---|---|---|---|---|
| °C | °F | L/S | CFM | | | | | | | |
| **HEATING** | | | | | | | | | | |
| 0 | 32 | 30 | 64 | 32 | 67 | 70 | 0.65 | 72 | – | – |
| 0 | 32 | 63 | 133 | 112 | 63 | 69 | 0.53 | 71 | – | – |
| -25 | -13 | 30 | 64 | 57 | 56 | 58 | 0.62 | 72 | – | – |
| 35 | 95 | 33 | 70 | 36 | – | – | 0.54 | 60 | 56 | 58 |
| 35 | 95 | 65 | 138 | 138 | – | – | 0.43 | 51 | 42 | 46 |

*. Data not certified by HVI

## REQUIREMENTS AND STANDARDS

- UL 1812 compliant (safety)
- Could be installed in compliance with CSA F326
- Performance tested as per CSA C439 Standard
- Complies with ROHS 2015/863 directive
- Compliant with Prop 65


Edition Date: 9/22

**Catalog No: ERV-160-65-02PD**

Replaces:ERV-160-65-01PD