# **ERVXXLHB1210**

# Preferred™ Fresh Air Systems – 210 CFM



# **Product Data**



A230316BR

- 65 to 206 CFM [31 to 97 L/s] @ 0.4 in. w.g.
- 65 to 199 CFM [31 to 94 L/s] @ 0.6 in. w.g.

Advanced residential fresh air system, created to offer a universal platform specifically designed for quick and easy installation while delivering constant fresh air to the home.

- Airflow calibration and auto-balancing are achieved quickly and maintained throughout the life of the product
- Select the desired CFM (from 65 to 210 CFM) using the 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
- Recirculate air within the dwelling with recirculation mode using a main wall control (use with setup T-1, T-2 and T-3 only)
- Suspended installation (chains included)
  OR
- Wall-mount installation (universal brackets included)
  - installation with 2 brackets or 4 brackets

#### CORE

- Polypropylene crossflow core with polymeric membrane and aluminum covers, impact resistant, non washable
- Dimensions: 12" x 12" x 13" (30.5 cm x 30.5 cm x 33 cm)

## **FILTERS**

- MERV 8 grade washable standard filter (included)
- Optional MERV13 grade filter part no. SV24300

### **OPTIONS**

 Compatible with the Tandem transition (part no. KVAAC0101HCO) (for units producing up to 110 CFM [52 L/s] only)

### UNIT DESCRIPTION

- SRE of 78% at 0°C (81 CFM, 38 L/s), and 65% at -25°C (83 CFM, 39 L/s), and 81% at 0°C (64 CFM, 30 L/s)
- Ports size: 6 in.
- · Recirculation Defrost
- · Corrosion resistant galvanized cabinet
- 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, 3.6 A, 270 W with 6 foot power cord









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## **CONTROLS**

**NOTE:** Do not connect the Evolution<sup>TM</sup> Connex<sup>TM</sup> Control directly to the ventilator, as that may cause damage. If you have an Evolution<sup>TM</sup> Connex<sup>TM</sup> Control use one of the optional Main Wall Controls.

If you want the Evolution™ System Control to control the ventilator, then you must use a NIM (Network Interface Module) P/N SYSTXBBNIM01 and a Translator Board P/N SYSTXXXTRB01 in order for the System Control to communicate properly. If using the Evolution™ Zoning Panel P/N SYSTXBB4ZC01 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 Evolution<sup>TM</sup> Zoning Panel to the two terminal blocks on the new ventilator. The new ventilator terminals do not match up to the NIM or Evolution<sup>TM</sup> Zoning Panel terminals. Connecting the two controls may cause damage.

PREMIUM









BATHROOM

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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.

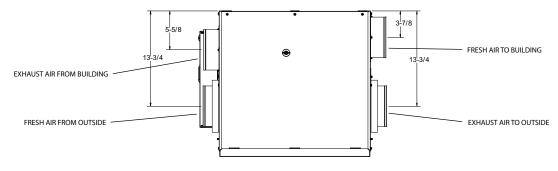
Table 1 - Controls

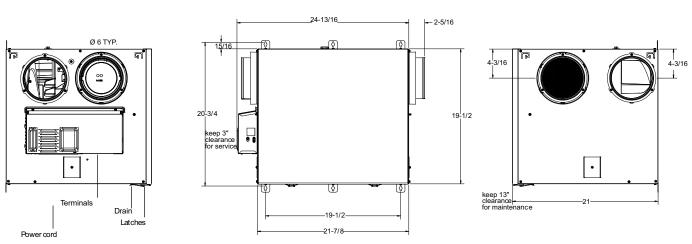
| Control Name               | Description of Modes                                      | Model #      |  |  |
|----------------------------|---|--------------|--|--|
| Premium                    | Touch Screen, Auto 2.0 Fully Configurable, Multiple Modes | KVACN0101BPC |  |  |
| Automatic                  | Auto 1.0, Filter Alert                                    | KVACN0101BAC |  |  |
| Dehumidistat               | Humidity Sensor / Selection                               | KVACN0101BDH |  |  |
| Speed Selector             | 5 Operating Time Periods                                  | KVACN0101BSS |  |  |
| AuxiliaryBathroom Override | 20 - 40 - 60 min. Settings                                | KVACN0101BBO |  |  |

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

| Evolution® Connex™ Control       | ERV Product  | HRV Product                        | Network Interface Module<br>SYSTXCCNIM01 | Translator Board<br>SYSTXXXTRB01 |  |
|----------------------------------|--------------|------------------------------------|--|----------------------------------|--|
|                                  | ERVXXSVA1130 | HRVXXSVA1130                       | Required                                 | Required                         |  |
|                                  | ERVXXSHA1130 | HRVXXSHA1130                       | Required                                 | Required                         |  |
| SYSTXBBECC01-B/C                 | ERVXXSVB1145 | HRVXXSVA1160                       | Required                                 | Required                         |  |
| SYSTXBBWEC01-B<br>SYSTXBBECF01-B | ERVXXSHB1145 | HRVXXSHA1160                       | Required                                 | Required                         |  |
| SYSTXBBWEF01-B                   | ERVXXSVA1150 | ERVXXSVA1150 HRVXXSVB1160 Required |  | Required                         |  |
|                                  | ERVXXSHA1150 | HRVXXSHB1160                       | Required                                 | Required                         |  |
|                                  | ERVXXLHB1210 | HRVXXLHB1230                       | Required                                 | Required                         |  |
| Evolution® Zone Panel            | ERV Product  | HRV Product                        | Network Interface Module SYSTXCCNIM01    | Translator Board<br>SYSTXXXTRB01 |  |
|                                  | ERVXXSVA1130 | HRVXXSVA1130                       | Not Required                             | Required                         |  |
|                                  | ERVXXSHA1130 | HRVXXSHA1130                       | Not Required                             | Required                         |  |
|                                  | ERVXXSVB1145 | HRVXXSVA1160                       | Not Required                             | Required                         |  |
| SYSTXBB4ZC01                     | ERVXXSHB1145 | HRVXXSHA1160                       | Not Required                             | Required                         |  |
|                                  | ERVXXSVA1150 | HRVXXSVB1160                       | Not Required                             | Required                         |  |
|                                  | ERVXXSHA1150 | HRVXXSHB1160                       | Not Required                             | Required                         |  |
|                                  | ERVXXLHB1210 | HRVXXLHB1230                       | Not Required                             | Required                         |  |

# **DIMENSIONS**

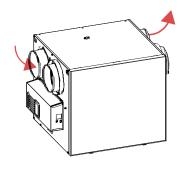




• Total assembled weight (core included) - approx 47 lb. (21.4 kg) Shipping weight - approx 55 lb. (25 kg) A230239

### **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. Defrost is activated at a temperature of -5°C (23°F) and lower as specified. See Table 3.



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Table 3 – Defrost Settings

| FACTORY SETTING | OUTDOOR TEMPERATURE*    |                    |                         |                    |                                  |                    |  |  |  |
|-----------------|-------------------------|--------------------|-------------------------|--------------------|----------------------------------|--------------------|--|--|--|
|                 | -5°C TC<br>23°F T       |                    | -15°C T(<br>5°F TO      |                    | -27°C AND LESS<br>-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         | 25                      | 6                  | 14                      | 5                  | 13                               | 7                  |  |  |  |
| 60 to 104       | 25                      | 6                  | 15                      | 5                  | 14                               | 7                  |  |  |  |
| 105 and more    | 15                      | 6                  | 10                      | 5                  | 9                                | 7                  |  |  |  |
| PLUS            | OUTDOOR TEMPERATURE*    |                    |                         |                    |                                  |                    |  |  |  |
|                 | -5°C TC<br>23°F T       |                    | -15°C TO<br>5°F TO      |                    | -27°C AND LESS<br>-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         | 25                      | 7                  | 14                      | 7                  | 12                               | 8                  |  |  |  |
| 60 to 104       | 25                      | 7                  | 15                      | 7                  | 13                               | 8                  |  |  |  |
| 105 and more    | 15                      | 7                  | 10                      | 7                  | 9                                | 8                  |  |  |  |

NOTE: There is a 10-minute additional defrost every 5 defrost cycles.

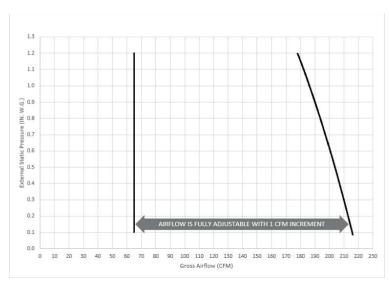
## **FAN CURVES**

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 is designed to remain balanced and maintain heat/energy recovery efficiency.

NOTE: Fan curve is not certified by HVI.

| STATIC<br>PRESSURE<br>(PA) | STATIC<br>PRESSURE<br>(IN. W.G.) | NET SUPPLY<br>AIREOW<br>(L/s) | NET<br>SUPPLY<br>AIREOW<br>(CFM) | Gross<br>Aireow<br>Supply<br>(L/s) | GROSS<br>AIREOW<br>SUPPLY<br>(CFM) | GROSS<br>AIREOW<br>EXHAUST<br>(L/s) | GROSS<br>AIRIEOW<br>EXHAUST<br>(CFM) |
|----------------------------|----------------------------------|-------------------------------|----------------------------------|------------------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| 25                         | 0.1                              | 101                           | 214                              | 102                                | 216                                | 102                                 | 216                                  |
| 50                         | 0.2                              | 99                            | 210                              | 100                                | 212                                | 100                                 | 212                                  |
| 75                         | 0.3                              | 98                            | 208                              | 99                                 | 210                                | 99                                  | 210                                  |
| 100                        | 0.4                              | 97                            | 206                              | 98                                 | 208                                | 98                                  | 208                                  |
| 125                        | 0.5                              | 95                            | 201                              | 96                                 | 203                                | 96                                  | 203                                  |
| 150                        | 0.6                              | 94                            | 199                              | 95                                 | 201                                | 95                                  | 201                                  |
| 175                        | 0.7                              | 92                            | 195                              | 93                                 | 197                                | 93                                  | 197                                  |
| 200                        | 0.8                              | 90                            | 191                              | 91                                 | 193                                | 91                                  | 193                                  |
| 225                        | 0.9                              | 89                            | 189                              | 90                                 | 191                                | 90                                  | 191                                  |
| 250                        | 1.0                              | 87                            | 184                              | 88                                 | 186                                | 88                                  | 186                                  |
| 275                        | 1.1                              | 85                            | 180                              | 86                                 | 182                                | 86                                  | 182                                  |
| 300                        | 1.2                              | 83                            | 176                              | 84                                 | 178                                | 84                                  | 178                                  |



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## **ENERGY PERFORMANCE**

| SUP<br>TEMPER | PLY<br>RATURE | NET AIR-<br>FLOW |     |            |     | POWER<br>CONSUMED<br>WATTS | SENSIBLE<br>RECOVERY | Y SENSIBLE RECOVERY | APPARENT<br>SENSIBLE<br>EFFECTIVENESS* | TOTAL<br>RECOVERY<br>EFFICIENCY | ADJUSTED<br>TOTAL<br>RECOVERY<br>EFFICIENCY | LATENT<br>PERFORMANCE<br>COEFFICIENT |
|---------------|---------------|------------------|-----|------------|-----|----------------------------|----------------------|---------------------|--|---------------------------------|---|--------------------------------------|
| °C            | °F            | L/S              | CFM | EFFICIENCY |     |                            |                      |                     |  |                                 |   |                                      |
| HEATING       | HEATING       |                  |     |            |     |                            |                      |                     |  |                                 |   |                                      |
| 0             | 32            | 30               | 64  | 28         | 81% | 83%                        | 84%                  | _                   | -                                      | 0.64                            |   |                                      |
| 0             | 32            | 38               | 81  | 37         | 78% | 81%                        | 82%                  | -                   | _                                      | 0.62                            |   |                                      |
| 0             | 32            | 76               | 161 | 147        | 72% | 77%                        | 78%                  | -                   | _                                      | 0.53                            |   |                                      |
| -25           | -13           | 39               | 83  | 75         | 65% | 67%                        | 81%                  | -                   | _                                      | 0.63                            |   |                                      |
| COOLIN        | COOLING       |                  |     |            |     |                            |                      |                     |  |                                 |   |                                      |
| 35            | 95            | 31               | 66  | 31         | _   | _                          | 76%                  | 67%                 | 69%                                    | 0.66                            |   |                                      |
| 35            | 95            | 38               | 81  | 38         | _   | _                          | 74%                  | 64%                 | 66%                                    | 0.63                            |   |                                      |
| 35            | 95            | 76               | 161 | 155        | _   | _                          | 65%                  | 52%                 | 56%                                    | 0.53                            |   |                                      |

<sup>\*.</sup> Data not certified by HVI

## **REQUIREMENTS AND STANDARDS**

- Meets UL 1812 (safety)
- Meets CSA C22.2 No. 113 (safety)
- Could be installed to CSA F326
- Performance tested in accordance with CSA C439 Standard
- Meets Novoclimat requirements when used in conjunction with Premium wall control
- Meets Prop 65
- This product earned the ENERGY STAR® by meeting strict energy efficiency guidelines set by Natural Resources Canada and the US EPA. This product meets ENERGY STAR requirements only when used in Canada.

Edition Date: 11/23