

HVI TESTED/CERTIFIED

**HEAT RECOVERY
VENTILATORS
AND
ENERGY RECOVERY
VENTILATORS**

(DUCTED HEAT AND ENERGY RECOVERY VENTILATORS)

NOTICE:

HVI has adopted CSA C439-00, *Standard Methods of Test for Rating the Performance of Heat Recovery Ventilators*, as its test standard for determining product performance for certification. ORTECH Laboratories has been approved to perform the testing.

HVI Performance Specification Sheets for certified heat recovery ventilators are available from the manufacturer.

1993 ASHRAE Handbook Fundamentals, SI Edition
Used for conversion factors to convert cubic feet per
minute to Liters per second and inches water gage to
Pascals.



USE OF HVI LABEL

Companies whose products have been certified by HVI shall affix appropriate Labels to those products

EXPLANATION OF CERTIFIED DUCTED HRV AND ERV DESIGN SPECIFICATION SHEET

This sheet is intended primarily for the designer and contains actual results of tests and calculated values from test data. The equipment tested was supplied by the manufacturer who certifies that the equipment tested is representative of the designated model offered for sale.

Definitions and Notes Regarding the Headings Used Follow:

Model: The manufacturer's designation of the unit tested. This designation also appears on the HVI certification label.

VENTILATION PERFORMANCE⁽¹⁾

A note about nomenclature:

"Points" 1 through 4 are referred to. These are standardized as follows:
 1 = air from outside. 2 = air from equipment to space.
 3 = air from space to equipment. 4 = air from equipment to outside.



External Static Pressure: The total differential measured between points 1 and 2 (supply) or points 3 and 4 (exhaust) in question.

Gross Airflow: The measured airflow rate at points 2 and 3, which may contain recirculation air (from cross-leakage). These values are used only for selecting ductwork.

Net Supply Airflow: The gross supply airflow reduced by measured cross-leakage (EATR). This is the actual amount of outside air supplied by the unit and is used only for sizing the equipment for the required ventilation rate.

Exhaust Air Transfer Ratio (EATR): Ratio of the quantity of exhaust air found in the supply airstream to the gross supply air flow. When multiplied by 100, this ratio can be expressed as a percentage. Gross Supply Airflow x (1-EATR) = Net Supply Airflow.

Low Temperature Ventilation Reduction Factor (LTVRF): The percentage reduction in flow rate of the supply and exhaust air streams at the end of the 72 hour Cold Weather Test (see -13°F supply temp. below) compared with operation under non-frosting conditions. The final flow rate is taken as the average of the last 12 hours of test. This reduction in flow results from frost and ice buildup in the core and shutdown of fans for defrosting.

Low Temperature Imbalance Factor (LTIF): The ratio of Supply Airflow to Exhaust Airflow over the last 12 hours of the 72 hour Cold Weather Test.

Latent Recovery/Moisture Transfer (LRMT): Moisture recovered divided by moisture exhausted and corrected for the effects of cross-leakage. LRMT = 0 indicates that moisture was not transferred (net of cross-leakage) from the exhaust to the supply air. LRMT = 1 would indicate complete transfer of moisture. LRMT is provided for the +32°F and -13°F test conditions as an indication of moisture handling characteristics and may be used to evaluate the moisture removal ability of the equipment at the test condition as well as to confirm the manufacturer's published data.

The moisture removal ability should be considered when the ventilation rate is selected on the basis of moisture control. LRMT may be used to approximate this ability at the 32°F and -13°F test condition by substitution into the following equation.

$$RH_2O = NSA (1-LRMT) (W_3-W_1)$$

- Where:
- RH₂O = Moisture removal rate
 - NSA = Net supply airflow
 - LRMT = Latent Recovery/Moisture Transfer
 - W₃ = Humidity ratio of indoor air
 - W₁ = Humidity ratio of outdoor air

NOTE:
 A. That if the factor (1-LRMT) is removed from the equation or if LRMT = 0

Footnote⁽¹⁾: All data are given for standard air (0.075 lb./cu. ft.). CFM may be read SCFM.

then the equation becomes $RH_2O = NSA (W_3-W_1)$, or the equivalent of direct outdoor air supply and balanced exhaust at the conditions of test. The factor may therefore be used to evaluate the moisture removal ability of the equipment with respect to that of unmodified outdoor air at the design conditions of test.

B) Test conditions are 71.6° and 40% relative humidity (W₁, 0.0066) for indoor air. Outside relative humidity can vary from 50 - 100% giving $0.0019 < W < 0.0038$ for the +32°F condition and $0.0002 < W < 0.0004$ for the -13°F condition.

Some equipment will vary in LRMT with changes in indoor and outdoor conditions. Consult the equipment supplier for performance at conditions other than those described.

ENERGY PERFORMANCE

Values for energy performance are listed for various test points of supply (outside air) temperature and set airflow. Specific conditions of note are given below organized according to supply temperature. The corresponding airflow points are selected for test according to specific pressure for Net Supply Airflow. More or fewer test points may be listed for various units depending on their ability to meet the required Net Supply Airflow test conditions.

It is important to recognize that for comparison of equipment only values at equivalent supply temperature and net airflow should be used.

+32° Supply Temp.: Steady state test at one or both of 50 CFM and 117 CFM, 0.2 in. wg and 0.4 in. wg differential. To determine corresponding external static pressure for a specific net airflow to the ventilation performance table. Values of pressure may not be consistent with the 50 CFM and/or 117 CFM net airflow test points as the equipment may have been operated in low speed⁽²⁾.

-13°F Supply Temp.: The test duration is for a fixed 72 hour period at maximum speed of 0.4 in. wg differential. This is often referred to as the "72 hour Cold Weather Test" (see LTVRF and LTIF above). The net supply airflow shown is the average of the last 12 hours of test and must not be reduced by the LTVRF. All other values are also the average of the last 12 hours of test. Note that the "72 hour Cold Weather Test" may be conducted for equipment designed for higher design temperatures. If a value other than -13°F is used, it will be recorded in place of -13°F.

+95°F Supply Temp.: Cooling values for one or both of 50 CFM and 117 CFM will be listed according to the ability of the equipment to meet the test conditions⁽²⁾. Outdoor air conditions are +95°F, 50% R.H., indoor air conditions are +75°F, 50% R.H. Total Recovery Efficiency (see below) is given in place of Sensible Recovery Efficiency (see below) as the latter value is not relevant for cooling load applications.

Watts: The average power consumed during the specific test. **DO NOT USE TO ASCERTAIN REQUIRED ELECTRIC SERVICE.** Refer to the electrical rating information supplied by the manufacturer. The watts shown are those recorded during the test; the equipment may be in high or low speed setting.

Apparent Sensible Effectiveness (ASEF): The measured temperature rise of the supply air stream divided by the difference between the supply temperature (point 1) and exhaust temperature (point 3) and multiplied by the ratio of mass flow rate of the supply divided by the minimum of the mass flow rate of the supply or exhaust streams. This value is useful principally to predict final delivered air temperature at a given flow rate.

Sensible Recovery Efficiency (SRE): The sensible energy recovered minus the supply fan energy and preheat coil energy, divided by the sensible energy exhausted plus the exhaust fan energy. This calculation corrects for the effects of cross-leakage, purchased energy for fan and controls, as well as defrost systems. This value is used principally to predict and compare energy performance.

Total Recovery Efficiency (TRE): The total energy (enthalpy) recovered minus the supply fan energy and the preheat coil energy, divided by the total energy (enthalpy) exhausted plus the exhaust fan energy. This calculation corrects for the effects of cross-leakage and external purchased energy for fans and controls. It is used principally to predict and compare energy performance.

Footnote⁽²⁾: If the equipment produces less than 0.2 in. wg at high speed or more than 0.4 in. wg at low(est) speed at the specific net supply airflow, the test will not be conducted.

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

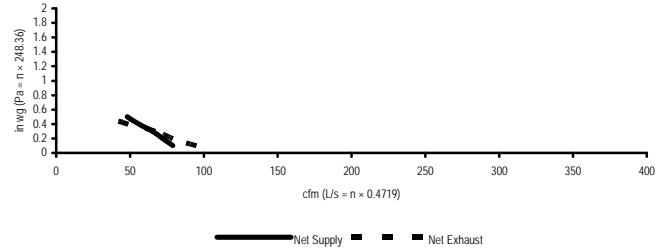
Section 3-1

AEROMATIC

Model: 7260 • Options Installed: none
 Electrical Requirements: Volts: 120 Amps: 1.6
 Exhaust Air Transfer Ratio: .028 @ 100 Pa/0.4 in. wg .024 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 20.1% Supply 29.9% Exhaust • Low Temp. Imbalance Factor: 1.12

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | NET SUPPLY AIR FLOW | | | | GROSS AIR FLOW | | | |
|----------------------|---------------------|-------|-----|-----|----------------|----|---------|----|
| | Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| 25 | 0.1 | | 37 | 79 | 39 | 82 | 45 | 95 |
| 50 | 0.2 | | 34 | 72 | 33 | 70 | 37 | 79 |
| 75 | 0.3 | | 30 | 65 | 29 | 62 | 31 | 67 |
| 100 | 0.4 | | 27 | 56 | 23 | 49 | 23 | 49 |
| 125 | 0.5 | | 23 | 48 | 17 | 36 | 16 | 33 |



ENERGY PERFORMANCE

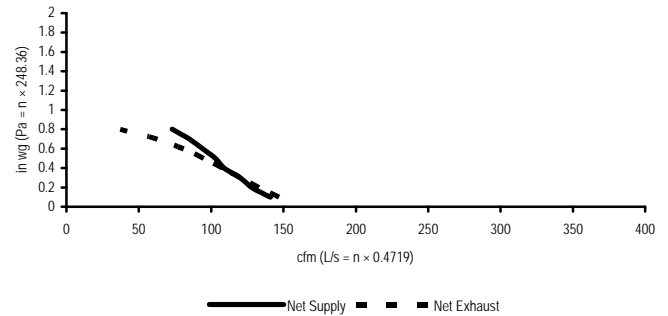
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 25 | 54 | 104 | 56 | 75 | 0.01 |
| | 0 | +32 | 31 | 66 | 114 | 56 | 71 | 0.02 |
| | 0 | +32 | 38 | 81 | 126 | 54 | 71 | 0.02 |
| | -25 | -13 | 21 | 46 | 95 | 58 | 83 | 0.01 |
| COOLING | +35 | +95 | | | | | TOTAL RECOVERY EFFICIENCY Not tested | |
| | +35 | +95 | | | | | | |

AEROMATIC

Model: 7290 • Options Installed: none
 Electrical Requirements: Volts: 120 Amps: 1.8
 Exhaust Air Transfer Ratio: 0.0324 @ 100 Pa/0.4 in. wg 0.0322 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 15.1% Supply 25.1% Exhaust • Low Temp. Imbalance Factor: 1.07

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | NET SUPPLY AIR FLOW | | | | GROSS AIR FLOW | | | |
|----------------------|---------------------|-------|-----|-----|----------------|-----|---------|-----|
| | Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| 25 | 0.1 | | 66 | 141 | 68 | 145 | 69 | 147 |
| 50 | 0.2 | | 60 | 128 | 62 | 133 | 62 | 133 |
| 75 | 0.3 | | 56 | 120 | 58 | 124 | 56 | 120 |
| 100 | 0.4 | | 51 | 109 | 53 | 113 | 51 | 108 |
| 125 | 0.5 | | 48 | 103 | 50 | 106 | 45 | 95 |
| 150 | 0.6 | | 44 | 94 | 46 | 97 | 38 | 81 |
| 175 | 0.7 | | 40 | 85 | 41 | 88 | 29 | 63 |
| 200 | 0.8 | | 34 | 73 | 36 | 76 | 17 | 37 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 66 | 128 | 65 | 80 | 0.01 |
| | 0 | +32 | 41 | 87 | 152 | 63 | 77 | 0.00 |
| | 0 | +32 | 51 | 109 | 172 | 62 | 75 | 0.02 |
| | -25 | -13 | 33 | 70 | 136 | 62 | 82 | 0.06 |
| COOLING | +35 | +95 | | | | | TOTAL RECOVERY EFFICIENCY Not tested | |
| | +35 | +95 | | | | | | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

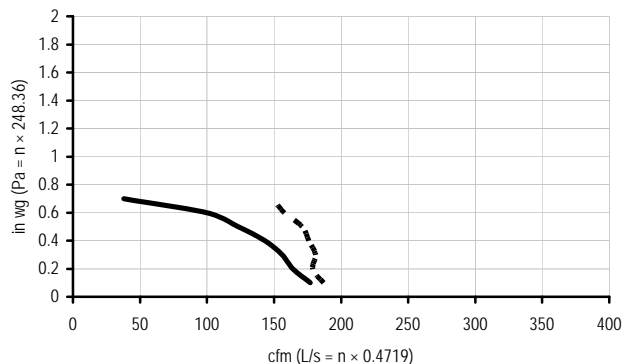
Section 3-2

AIRFLOW

Model: AIR 150-D • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 2% Supply 0% Exhaust • Low Temp. Imbalance Factor: n/a

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 83 | 177 | 83 | 177 | 88 | 187 |
| 50 | 0.2 | 77 | 164 | 77 | 164 | 84 | 179 |
| 75 | 0.3 | 73 | 156 | 73 | 156 | 85 | 181 |
| 100 | 0.4 | 67 | 143 | 67 | 143 | 83 | 176 |
| 125 | 0.5 | 58 | 123 | 58 | 123 | 81 | 171 |
| 150 | 0.6 | 47 | 100 | 47 | 100 | 74 | 158 |
| 175 | 0.7 | 18 | 38 | 18 | 38 | 70 | 149 |



— Net Supply - - Net Exhaust

ENERGY PERFORMANCE

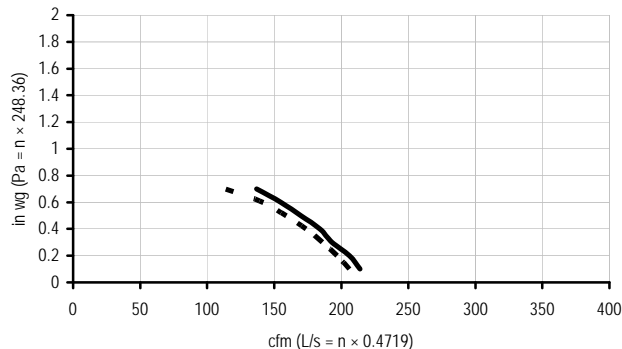
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | 32 | 32 | 67 | 78 | 66 | 76 | -0.01 |
| | 0 | 32 | 44 | 94 | 95 | 64 | 72 | -0.20 |
| | 0 | 32 | 56 | 118 | 110 | 60 | 68 | -0.02 |
| | -25 | -13 | 32 | 68 | 82 | 60 | 78 | 0.08 |
| COOLING | 35 | 95 | 31 | 66 | 74 | TOTAL RECOVERY EFFICIENCY 20 | | |

AIRFLOW

Model: AIR 200-D • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 1% Supply 2% Exhaust • Low Temp. Imbalance Factor: 0.967

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 101 | 214 | 102 | 216 | 97 | 206 |
| 50 | 0.2 | 97 | 206 | 98 | 208 | 93 | 197 |
| 75 | 0.3 | 91 | 193 | 93 | 197 | 88 | 186 |
| 100 | 0.4 | 87 | 184 | 88 | 186 | 82 | 174 |
| 125 | 0.5 | 80 | 170 | 81 | 172 | 75 | 159 |
| 150 | 0.6 | 73 | 155 | 74 | 157 | 67 | 142 |
| 175 | 0.7 | 65 | 137 | 65 | 138 | 54 | 114 |



— Net Supply - - Net Exhaust

ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 68 | 144 | 114 | 59 | 66 | 0 |
| | 0 | +32 | 63 | 133 | 109 | 58 | 66 | 0 |
| | 0 | +32 | 56 | 119 | 100 | 60 | 67 | 0 |
| | -25 | -13 | 60 | 127 | 100 | 59 | 69 | 0 |
| | -25 | -13 | 55 | 117 | | 60 | | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

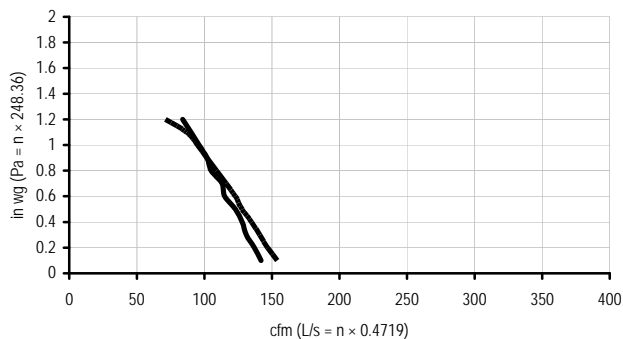
Section 3-3

AIRFLOW

Model: 120 AIR-R • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.10 @100 Pa/0.4 in. wg 0.11 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 3.0% Supply 15.0% Exhaust • Low Temp. Imbalance Factor: 1.01

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 67 | 142 | 68 | 144 | 72 | 154 |
| 50 | 0.2 | 64 | 137 | 65 | 138 | 69 | 147 |
| 75 | 0.3 | 62 | 131 | 62 | 133 | 66 | 141 |
| 100 | 0.4 | 60 | 128 | 61 | 129 | 64 | 135 |
| 125 | 0.5 | 58 | 123 | 58 | 124 | 60 | 128 |
| 150 | 0.6 | 54 | 115 | 55 | 116 | 58 | 123 |
| 175 | 0.7 | 53 | 113 | 54 | 114 | 55 | 116 |
| 200 | 0.8 | 49 | 105 | 50 | 106 | 51 | 109 |
| 225 | 0.9 | 48 | 102 | 48 | 103 | 48 | 102 |
| 250 | 1.0 | 45 | 96 | 46 | 97 | 45 | 95 |
| 275 | 1.1 | 42 | 90 | 43 | 91 | 41 | 87 |
| 300 | 1.2 | 39 | 84 | 40 | 85 | 33 | 71 |



Net Supply Net Exhaust

ENERGY PERFORMANCE

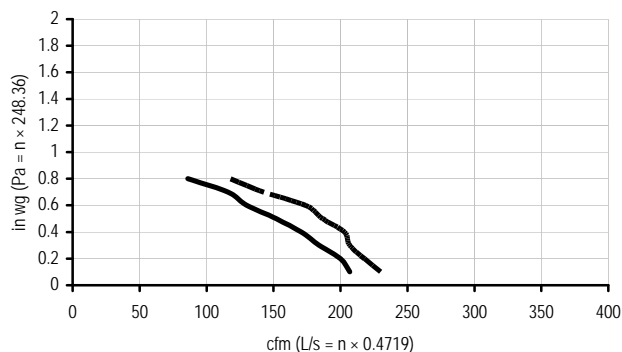
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | 32 | 33 | 70 | 76 | 59 | 68 | 0.03 |
| | 0 | 32 | 42 | 89 | 94 | 57 | 67 | 0.03 |
| | 0 | 32 | 56 | 130 | 156 | 52 | 62 | 0.03 |
| | -25 | -13 | 32 | 67 | 109 | 56 | 72 | 0.01 |

AIRFLOW

Model: 200 AIR-R • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.04 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 2% Supply 11% Exhaust • Low Temp. Imbalance Factor: 1.03

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 97 | 207 | 100 | 214 | 108 | 230 |
| 50 | 0.2 | 94 | 200 | 97 | 206 | 103 | 218 |
| 75 | 0.3 | 87 | 184 | 90 | 191 | 97 | 207 |
| 100 | 0.4 | 80 | 171 | 84 | 179 | 96 | 203 |
| 125 | 0.5 | 71 | 152 | 76 | 161 | 88 | 187 |
| 150 | 0.6 | 61 | 130 | 66 | 140 | 82 | 174 |
| 175 | 0.7 | 55 | 116 | 60 | 129 | 67 | 143 |
| 200 | 0.8 | 40 | 86 | 46 | 98 | 56 | 118 |



Net Supply Net Exhaust

ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 66 | 81 | 64 | 74 | 0.06 |
| | 0 | +32 | 45 | 96 | 99 | 63 | 71 | 0.03 |
| | 0 | +32 | 55 | 117 | 113 | 61 | 69 | 0.03 |
| | -25 | -13 | 51 | 109 | 119 | 62 | 73 | 0.01 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

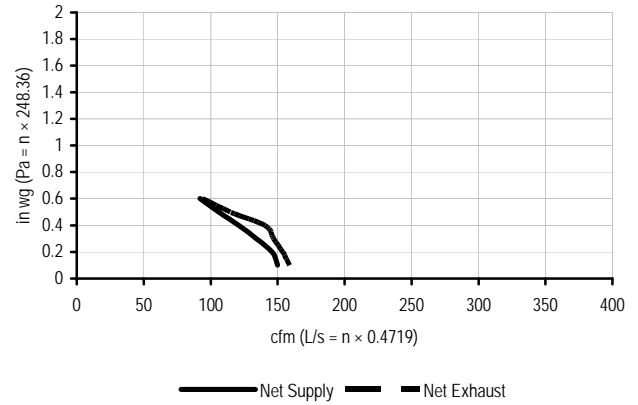
Section 3-4

AIRFLOW

Model: 155 AIR-R • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.05 @ 100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 3% Supply 11% Exhaust • Low Temp. Imbalance Factor: 1.02

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 71 | 150 | 74 | 157 | 75 | 159 |
| 50 | 0.2 | 69 | 146 | 72 | 152 | 73 | 154 |
| 75 | 0.3 | 63 | 134 | 66 | 140 | 69 | 147 |
| 100 | 0.4 | 57 | 121 | 59 | 126 | 67 | 141 |
| 125 | 0.5 | 50 | 106 | 52 | 111 | 54 | 115 |
| 150 | 0.6 | 43 | 92 | 45 | 96 | 44 | 94 |



ENERGY PERFORMANCE

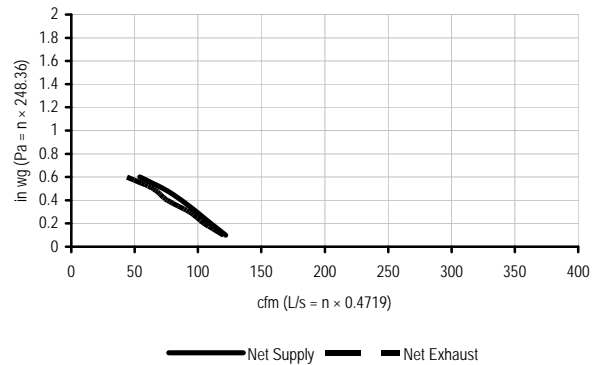
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 65 | 84 | 64 | 76 | 0.04 |
| | 0 | +32 | 40 | 84 | 97 | 64 | 74 | 0.02 |
| | 0 | +32 | 55 | 117 | 117 | 62 | 71 | 0.00 |
| | -25 | -13 | 32 | 68 | 93 | 66 | 78 | 0.01 |

AIRTECH-107

Model: H-140 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 0.9
 Exhaust Air Transfer Ratio: .001 @ 100 Pa / 0.4 in. wg .014 @ 50 Pa / 0.2 in. wg

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 57 | 122 | 58 | 123 | 56 | 120 |
| 50 | 0.2 | 52 | 110 | 52 | 111 | 49 | 105 |
| 75 | 0.3 | 46 | 99 | 47 | 100 | 44 | 93 |
| 100 | 0.4 | 41 | 87 | 41 | 87 | 36 | 76 |
| 125 | 0.5 | 34 | 73 | 34 | 73 | 31 | 65 |
| 150 | 0.6 | 26 | 54 | 26 | 55 | 21 | 44 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 66 | 52 | 71 | 80 | 0.60 |
| | 0 | +32 | 41 | 88 | 68 | 67 | 76 | 0.55 |
| | 0 | +32 | 48 | 103 | 90 | 65 | 73 | 0.53 |
| | -25 | -13 | | | | | | |
| COOLING | +35 | +95 | 30 | 64 | 52 | | | |
| | +35 | +95 | | | | | | |

TOTAL RECOVERY EFFICIENCY
55

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

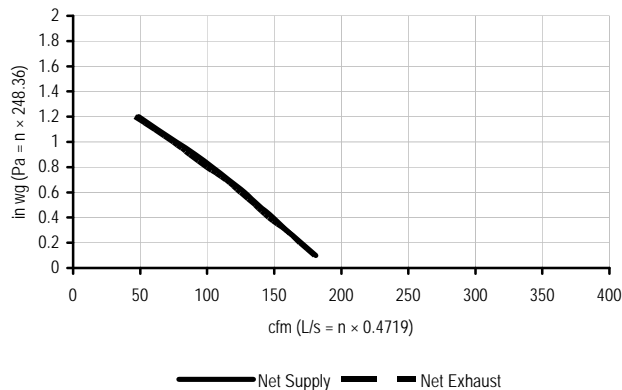
Section 3-5

AMANA BRAND INDOOR AIR QUALITY PRODUCTS

Model: HRV150 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.03 @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 5% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.82

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| | | | | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 85 | 181 | 87 | 184 | 84 | 180 |
| 50 | 0.2 | 80 | 170 | 82 | 174 | 79 | 169 |
| 75 | 0.3 | 75 | 159 | 76 | 162 | 75 | 159 |
| 100 | 0.4 | 70 | 149 | 71 | 151 | 68 | 146 |
| 125 | 0.5 | 65 | 138 | 66 | 141 | 64 | 136 |
| 150 | 0.6 | 60 | 128 | 61 | 130 | 59 | 125 |
| 175 | 0.7 | 55 | 116 | 56 | 119 | 54 | 114 |
| 200 | 0.8 | 49 | 104 | 50 | 106 | 47 | 100 |
| 225 | 0.9 | 43 | 91 | 43 | 92 | 41 | 87 |
| 250 | 1.0 | 36 | 77 | 37 | 79 | 35 | 75 |
| 275 | 1.1 | 30 | 63 | 30 | 64 | 29 | 61 |
| 300 | 1.2 | 23 | 49 | 24 | 50 | 22 | 46 |



ENERGY PERFORMANCE

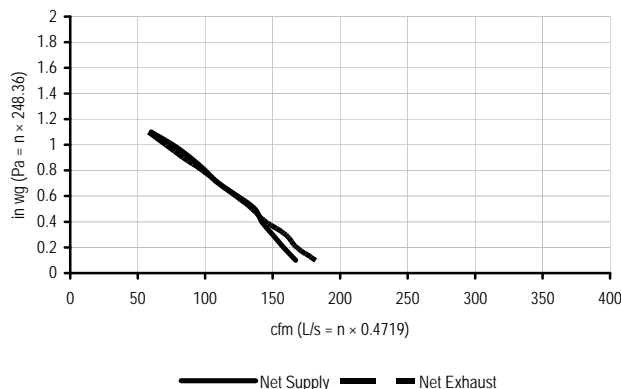
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | 32 | 31 | 67 | 72 | 60 | 73 | -0.11 |
| | 0 | 32 | 51 | 109 | 98 | 59 | 70 | 0.00 |
| | 0 | 32 | 76 | 161 | 144 | 55 | 63 | 0.00 |
| | -25 | -13 | 32 | 68 | 73 | 56 | 77 | -0.02 |

AMANA BRAND INDOOR AIR QUALITY PRODUCTS

Model: HRV150D • Options Installed: Damper
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 12% Supply 14% Exhaust • Low Temp. Imbalance Factor: 0.96

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| | | | | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 78 | 167 | 80 | 169 | 86 | 182 |
| 50 | 0.2 | 74 | 158 | 75 | 160 | 79 | 168 |
| 75 | 0.3 | 71 | 150 | 72 | 152 | 75 | 160 |
| 100 | 0.4 | 67 | 142 | 68 | 144 | 68 | 145 |
| 125 | 0.5 | 65 | 137 | 66 | 140 | 63 | 135 |
| 150 | 0.6 | 58 | 124 | 59 | 126 | 58 | 123 |
| 175 | 0.7 | 52 | 110 | 53 | 112 | 52 | 110 |
| 200 | 0.8 | 47 | 100 | 48 | 101 | 46 | 98 |
| 225 | 0.9 | 42 | 89 | 43 | 91 | 40 | 84 |
| 250 | 1.0 | 36 | 76 | 36 | 77 | 34 | 71 |
| 275 | 1.1 | 28 | 60 | 28 | 60 | 27 | 58 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 65 | 72 | 59 | 73 | 0.01 |
| | 0 | +32 | 49 | 104 | 102 | 61 | 70 | 0.00 |
| | 0 | +32 | 76 | 161 | 148 | 58 | 66 | -0.01 |
| | -25 | -13 | 32 | 68 | 96 | 61 | 77 | 0.02 |

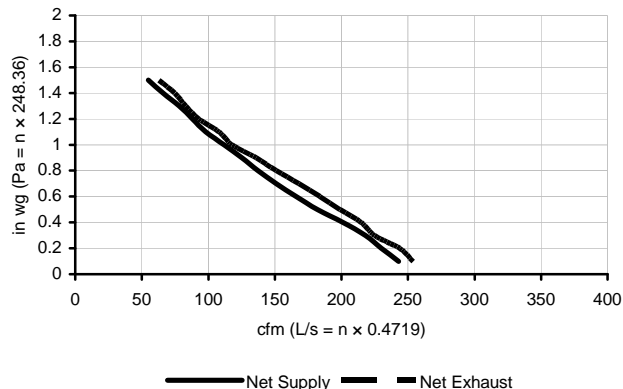
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-6

AMANA BRAND INDOOR AIR QUALITY PRODUCTS

Model: HRV200 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2.1
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 8% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.81

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 114 | 243 | 116 | 246 | 120 | 254 |
| 50 | 0.2 | 109 | 230 | 110 | 233 | 115 | 244 |
| 75 | 0.3 | 103 | 218 | 104 | 221 | 106 | 225 |
| 100 | 0.4 | 95 | 201 | 96 | 204 | 101 | 215 |
| 125 | 0.5 | 86 | 182 | 87 | 185 | 94 | 199 |
| 150 | 0.6 | 78 | 166 | 79 | 168 | 87 | 184 |
| 175 | 0.7 | 71 | 151 | 72 | 154 | 79 | 168 |
| 200 | 0.8 | 65 | 137 | 66 | 139 | 71 | 151 |
| 225 | 0.9 | 59 | 125 | 60 | 127 | 64 | 136 |
| 250 | 1.0 | 53 | 112 | 53 | 113 | 56 | 118 |
| 275 | 1.1 | 46 | 98 | 47 | 99 | 51 | 108 |
| 300 | 1.2 | 42 | 88 | 42 | 90 | 44 | 93 |
| 325 | 1.3 | 37 | 78 | 37 | 79 | 39 | 83 |
| 350 | 1.4 | 31 | 66 | 32 | 67 | 35 | 75 |
| 375 | 1.5 | 26 | 55 | 26 | 56 | 30 | 63 |

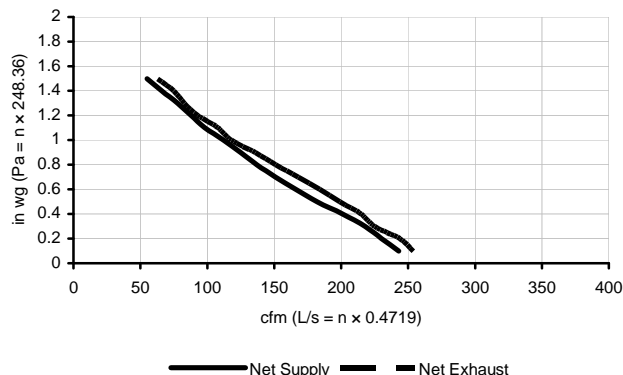


| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | ENERGY PERFORMANCE SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------|---|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 31 | 65 | 108 | 62 | 77 | 0.06 |
| | 0 | +32 | 55 | 117 | 154 | 62 | 74 | 0.07 |
| | 0 | +32 | 90 | 191 | 246 | 60 | 71 | 0.00 |
| | -25 | -13 | 61 | 129 | 154 | 59 | 79 | 0.00 |

AMANA BRAND INDOOR AIR QUALITY PRODUCTS

Model: HRV200D • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2.1
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 8% Supply 18% Exhaust • Low Temp. Imbalance Factor: 1.09

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 114 | 243 | 116 | 246 | 120 | 254 |
| 50 | 0.2 | 109 | 230 | 110 | 233 | 115 | 244 |
| 75 | 0.3 | 103 | 218 | 104 | 221 | 106 | 225 |
| 100 | 0.4 | 95 | 201 | 96 | 204 | 101 | 215 |
| 125 | 0.5 | 86 | 182 | 87 | 185 | 94 | 199 |
| 150 | 0.6 | 78 | 166 | 79 | 168 | 87 | 184 |
| 175 | 0.7 | 71 | 151 | 72 | 154 | 79 | 168 |
| 200 | 0.8 | 65 | 137 | 66 | 139 | 71 | 151 |
| 225 | 0.9 | 59 | 125 | 60 | 127 | 64 | 136 |
| 250 | 1.0 | 53 | 112 | 53 | 113 | 56 | 118 |
| 275 | 1.1 | 46 | 98 | 47 | 99 | 51 | 108 |
| 300 | 1.2 | 42 | 88 | 42 | 90 | 44 | 93 |
| 325 | 1.3 | 37 | 78 | 37 | 79 | 39 | 83 |
| 350 | 1.4 | 31 | 66 | 32 | 67 | 35 | 75 |
| 375 | 1.5 | 26 | 55 | 26 | 56 | 30 | 63 |



| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | ENERGY PERFORMANCE SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------|---|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 31 | 65 | 108 | 62 | 77 | 0.06 |
| | 0 | +32 | 55 | 117 | 154 | 62 | 74 | 0.07 |
| | 0 | +32 | 90 | 191 | 246 | 60 | 71 | 0.00 |
| | -25 | -13 | 59 | 126 | 141 | 64 | 81 | 0.01 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

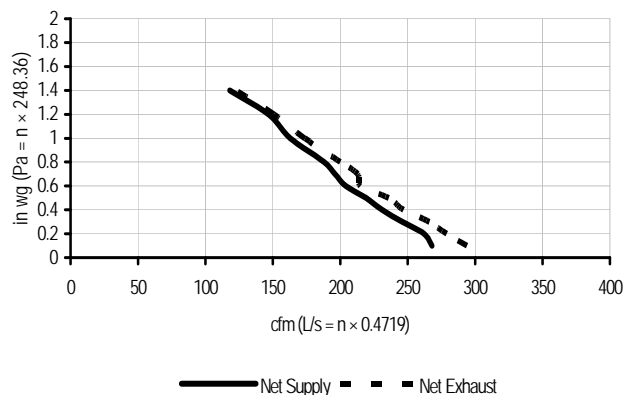
Section 3-7

AMANA BRAND INDOOR AIR QUALITY PRODUCTS

Model: HRV300D • Options Installed: None
 Electrical Requirements: Volts: 115 Amps: 2.7
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 7% Supply 9% Exhaust • Low Temp. Imbalance Factor: 0.96

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 126 | 268 | 131 | 277 | 139 | 294 |
| 50 | 0.2 | 124 | 262 | 127 | 270 | 132 | 279 |
| 75 | 0.3 | 116 | 246 | 119 | 253 | 126 | 266 |
| 100 | 0.4 | 109 | 231 | 112 | 238 | 117 | 247 |
| 125 | 0.5 | 103 | 219 | 107 | 226 | 111 | 236 |
| 150 | 0.6 | 96 | 204 | 100 | 211 | 101 | 215 |
| 175 | 0.7 | 93 | 196 | 95 | 202 | 101 | 213 |
| 200 | 0.8 | 89 | 188 | 92 | 194 | 94 | 200 |
| 250 | 1.0 | 77 | 163 | 79 | 168 | 82 | 174 |
| 300 | 1.2 | 69 | 147 | 71 | 151 | 71 | 151 |
| 350 | 1.4 | 56 | 118 | 57 | 121 | 58 | 123 |



ENERGY PERFORMANCE

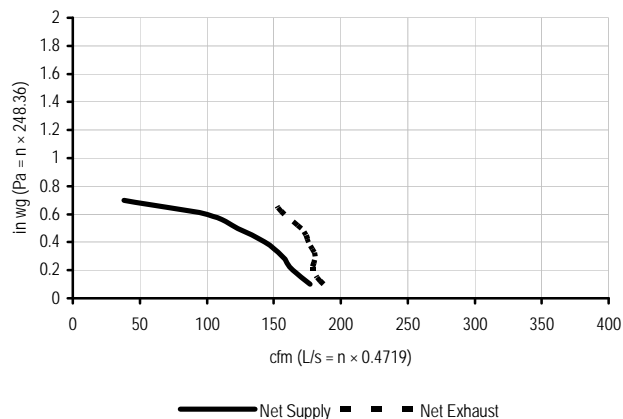
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|----------------------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 126 | 76 | 91 | .02 |
| | 0 | +32 | 55 | 117 | 212 | 78 | 92 | .01 |
| | 0 | +32 | 74 | 157 | 262 | 78 | 91 | -.09 |
| | -25 | -13 | 57 | 121 | 224 | 72 | 91 | .09 |
| | -25 | -13 | 55 | 117 | 220 | 72 | - | -- |
| | TOTAL RECOVERY EFFICIENCY | | | | | | | |
| COOLING | +35 | +95 | 54 | 115 | 206 | | 18 | |
| | +35 | +95 | 74 | 159 | 260 | | 17 | |

AMERICAN ALDES VENTILATION CORPORATION

Model: LT15 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 2% Supply 0% Exhaust • Low Temp. Imbalance Factor: n/a

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 83 | 177 | 83 | 177 | 88 | 187 |
| 50 | 0.2 | 77 | 164 | 77 | 164 | 84 | 179 |
| 75 | 0.3 | 73 | 156 | 73 | 156 | 85 | 181 |
| 100 | 0.4 | 67 | 143 | 67 | 143 | 83 | 176 |
| 125 | 0.5 | 58 | 123 | 58 | 123 | 81 | 171 |
| 150 | 0.6 | 47 | 100 | 47 | 100 | 74 | 158 |
| 175 | 0.7 | 18 | 38 | 18 | 38 | 70 | 149 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|----------------------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | 32 | 32 | 67 | 78 | 66 | 76 | -0.01 |
| | 0 | 32 | 44 | 94 | 95 | 64 | 72 | -0.20 |
| | 0 | 32 | 56 | 118 | 110 | 60 | 68 | -0.02 |
| | -25 | -13 | 32 | 68 | 82 | 60 | 78 | 0.08 |
| | TOTAL RECOVERY EFFICIENCY | | | | | | | |
| COOLING | 35 | 95 | 31 | 66 | 74 | | 20 | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

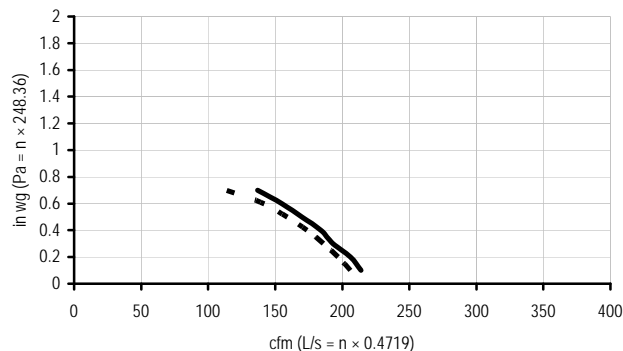
Section 3-8

AMERICAN ALDES VENTILATION CORPORATION

Model: LT20 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 1% Supply 2% Exhaust • Low Temp. Imbalance Factor: 0.967

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 101 | 214 | 102 | 216 | 97 | 206 |
| 50 | 0.2 | 97 | 206 | 98 | 208 | 93 | 197 |
| 75 | 0.3 | 91 | 193 | 93 | 197 | 88 | 186 |
| 100 | 0.4 | 87 | 184 | 88 | 186 | 82 | 174 |
| 125 | 0.5 | 80 | 170 | 81 | 172 | 75 | 159 |
| 150 | 0.6 | 73 | 155 | 74 | 157 | 67 | 142 |
| 175 | 0.7 | 65 | 137 | 65 | 138 | 54 | 114 |



— Net Supply - - - Net Exhaust

ENERGY PERFORMANCE

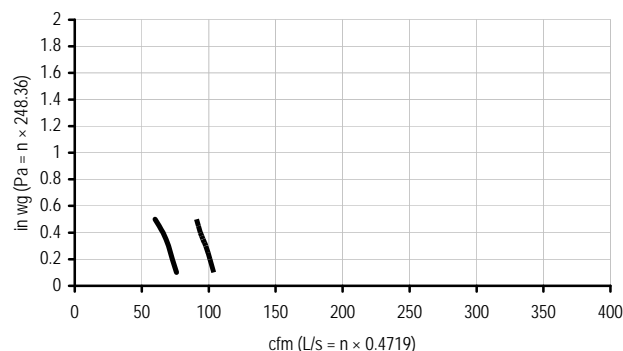
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 68 | 144 | 114 | 59 | 66 | 0 |
| | 0 | +32 | 63 | 133 | 109 | 58 | 66 | 0 |
| | 0 | +32 | 56 | 119 | 100 | 60 | 67 | 0 |
| | -25 | -13 | 60 | 127 | 100 | 59 | 69 | 0 |
| | -25 | -13 | 55 | 117 | | 60 | | |

AMERICAN ALDES VENTILATION CORPORATION

Model: 95 SRD • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 0.90
 Exhaust Air Transfer Ratio: 0.10 @100 Pa/0.4 in. wg 0.08 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 15% Supply, 22% Exhaust Low • Temp. Imbalance Factor: 1.00

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 36 | 76 | 40 | 84 | 49 | 104 |
| 50 | 0.2 | 34 | 73 | 38 | 81 | 48 | 101 |
| 75 | 0.3 | 33 | 70 | 37 | 78 | 46 | 98 |
| 100 | 0.4 | 31 | 66 | 34 | 73 | 44 | 94 |
| 125 | 0.5 | 29 | 60 | 32 | 67 | 43 | 91 |



— Net Supply - - - Net Exhaust

ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 28 | 60 | 59 | 75 | 88 | -0.01 |
| | 0 | +32 | 33 | 71 | 58 | 73 | 86 | 0.03 |
| | 0 | +32 | 42 | 89 | 89 | 73 | 84 | 0.04 |
| | -25 | -13 | 29 | 61 | 76 | 68 | 86 | 0.02 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

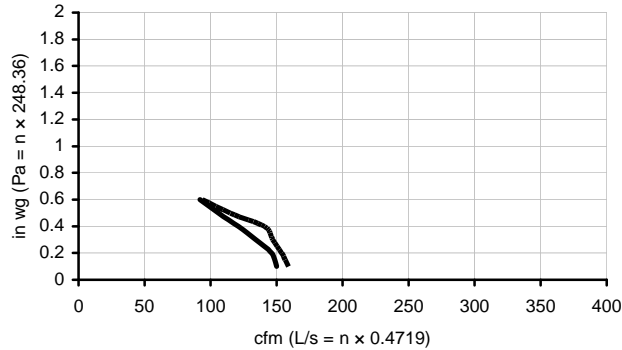
Section 3-9

AMERICAN ALDES VENTILATION CORPORATION

Model: 155 SRD • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.05 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 3% Supply 11% Exhaust • Low Temp. Imbalance Factor: 1.02

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 71 | 150 | 74 | 157 | 75 | 159 |
| 50 | 0.2 | 69 | 146 | 72 | 152 | 73 | 154 |
| 75 | 0.3 | 63 | 134 | 66 | 140 | 69 | 147 |
| 100 | 0.4 | 57 | 121 | 59 | 126 | 67 | 141 |
| 125 | 0.5 | 50 | 106 | 52 | 111 | 54 | 115 |
| 150 | 0.6 | 43 | 92 | 45 | 96 | 44 | 94 |



— Net Supply - - - Net Exhaust

ENERGY PERFORMANCE

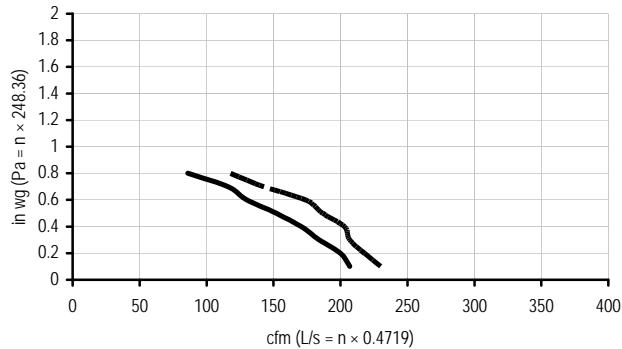
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 65 | 84 | 64 | 76 | 0.04 |
| | 0 | +32 | 40 | 84 | 97 | 64 | 74 | 0.02 |
| | 0 | +32 | 55 | 117 | 117 | 62 | 71 | 0.00 |
| | -25 | -13 | 32 | 68 | 93 | 66 | 78 | 0.01 |

AMERICAN ALDES VENTILATION CORPORATION

Model: 200 SRD • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.04 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 2% Supply 11% Exhaust • Low Temp. Imbalance Factor: 1.03

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 97 | 207 | 100 | 214 | 108 | 230 |
| 50 | 0.2 | 94 | 200 | 97 | 206 | 103 | 218 |
| 75 | 0.3 | 87 | 184 | 90 | 191 | 97 | 207 |
| 100 | 0.4 | 80 | 171 | 84 | 179 | 96 | 203 |
| 125 | 0.5 | 71 | 152 | 76 | 161 | 88 | 187 |
| 150 | 0.6 | 61 | 130 | 66 | 140 | 82 | 174 |
| 175 | 0.7 | 55 | 116 | 60 | 129 | 67 | 143 |
| 200 | 0.8 | 40 | 86 | 46 | 98 | 56 | 118 |



— Net Supply - - - Net Exhaust

ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 66 | 81 | 64 | 74 | 0.06 |
| | 0 | +32 | 45 | 96 | 99 | 63 | 71 | 0.03 |
| | 0 | +32 | 55 | 117 | 113 | 61 | 69 | 0.03 |
| | -25 | -13 | 51 | 109 | 119 | 62 | 73 | 0.01 |

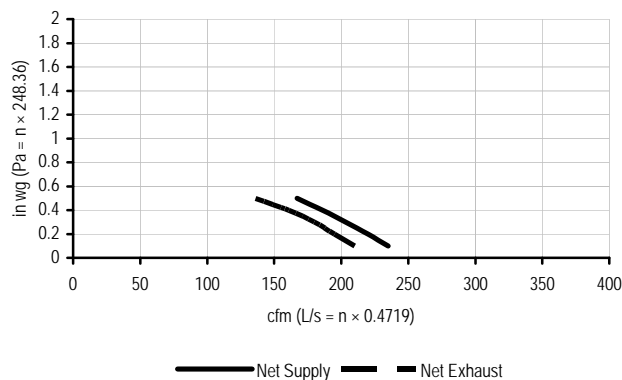
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-10

AMERICAN ALDES VENTILATION CORPORATION

Model: 300DDD • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2.9
 Exhaust Air Transfer Ratio: 0.02 @ 100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 6% Supply 0 % Exhaust • Low Temp. Imbalance Factor: 0.04

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 100 | 0.4 | 111 | 235 | 113 | 239 | 99 | 210 |
| 125 | 0.5 | 104 | 220 | 106 | 225 | 92 | 195 |
| 150 | 0.6 | 96 | 203 | 98 | 208 | 85 | 180 |
| 175 | 0.7 | 88 | 186 | 90 | 191 | 76 | 161 |
| 200 | 0.8 | 79 | 167 | 80 | 170 | 64 | 136 |

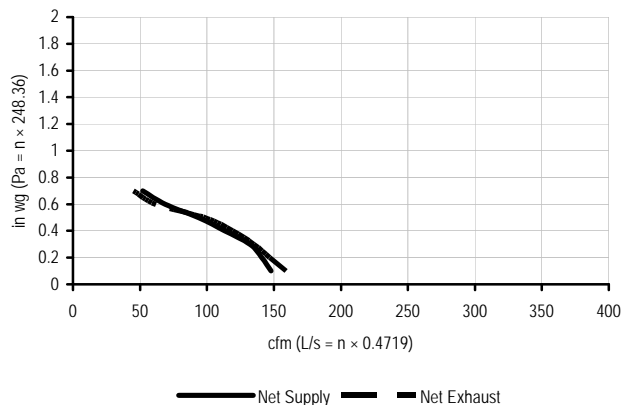


| ENERGY PERFORMANCE | | | | | | | | |
|----------------------------------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 98 | 208 | 234 | 75 | 84 | 0.00 |
| | 0 | +32 | 78 | 165 | 178 | 77 | 87 | 0.00 |
| | 0 | +32 | 56 | 119 | 150 | 79 | 90 | 0.00 |
| | -25 | -13 | 59 | -- | --- | 75 | 87 | 0.00 |
| | -25 | -13 | 55 | 125 | 156 | 75 | --- | --- |
| COOLING | +35 | +95 | 57 | 121 | 150 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 33 | |

AMERICAN STANDARD

Model Number: AERVR100A9P00A • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.02 @ 100 Pa/0.4 in. wg 0.02 @ 50 Pa/0.2 in. wg

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 70 | 148 | 71 | 151 | 75 | 159 |
| 50 | 0.2 | 66 | 141 | 67 | 143 | 69 | 147 |
| 75 | 0.3 | 62 | 132 | 63 | 134 | 64 | 135 |
| 100 | 0.4 | 53 | 113 | 54 | 115 | 56 | 119 |
| 125 | 0.5 | 44 | 94 | 45 | 96 | 47 | 99 |
| 150 | 0.6 | 32 | 69 | 33 | 70 | 29 | 62 |
| 175 | 0.7 | 24 | 52 | 25 | 53 | 21 | 45 |



| ENERGY PERFORMANCE | | | | | | | | |
|----------------------------------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 58 | 124 | 121 | 72 | 80 | 0.55 |
| COOLING | +35 | +95 | 59 | 126 | 121 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 46 | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

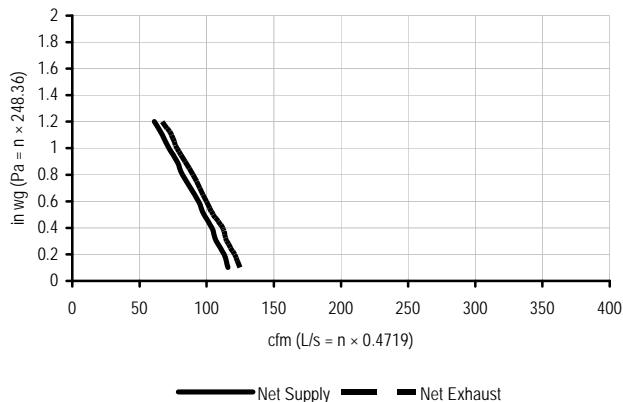
Section 3-12

BROAN – NUTONE LLC

Model: ERV90HCS • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.03 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 27.9% Supply 30.2% Exhaust • Low Temp. Imbalance Factor: 1.13

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 55 | 116 | 56 | 119 | 59 | 125 |
| 50 | 0.2 | 53 | 113 | 55 | 116 | 57 | 121 |
| 75 | 0.3 | 50 | 107 | 52 | 111 | 54 | 115 |
| 100 | 0.4 | 49 | 104 | 50 | 107 | 53 | 112 |
| 125 | 0.5 | 46 | 98 | 48 | 101 | 50 | 105 |
| 150 | 0.6 | 44 | 94 | 46 | 97 | 47 | 100 |
| 175 | 0.7 | 42 | 88 | 43 | 91 | 45 | 95 |
| 200 | 0.8 | 39 | 82 | 40 | 84 | 42 | 90 |
| 225 | 0.9 | 37 | 78 | 38 | 81 | 40 | 84 |
| 250 | 1.0 | 34 | 72 | 35 | 75 | 37 | 78 |
| 275 | 1.1 | 32 | 67 | 33 | 69 | 35 | 74 |
| 300 | 1.2 | 29 | 61 | 30 | 63 | 32 | 67 |



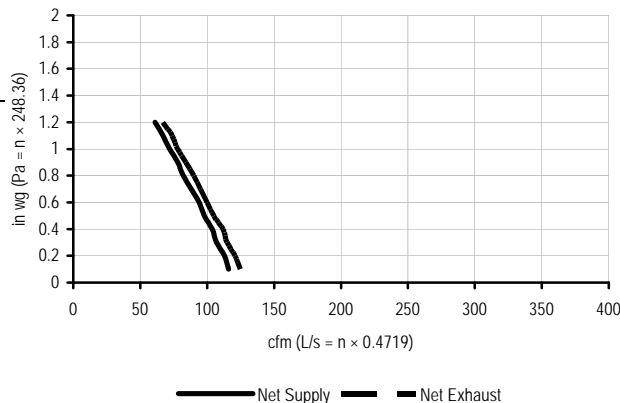
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 13 | 28 | 73 | 69 | 94 | 0.68 |
| | 0 | +32 | 45 | 96 | 137 | 62 | 74 | 0.48 |
| | -25 | -13 | 25 | 54 | 102 | 54 | 83 | 0.58 |
| COOLING | +35 | +95 | 14 | 29 | 70 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 54 | |

BROAN – NUTONE LLC

Model: ERV90HCT • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.03 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 27.9% Supply 30.2% Exhaust • Low Temp. Imbalance Factor: 1.13

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 55 | 116 | 56 | 119 | 59 | 125 |
| 50 | 0.2 | 53 | 113 | 55 | 116 | 57 | 121 |
| 75 | 0.3 | 50 | 107 | 52 | 111 | 54 | 115 |
| 100 | 0.4 | 49 | 104 | 50 | 107 | 53 | 112 |
| 125 | 0.5 | 46 | 98 | 48 | 101 | 50 | 105 |
| 150 | 0.6 | 44 | 94 | 46 | 97 | 47 | 100 |
| 175 | 0.7 | 42 | 88 | 43 | 91 | 45 | 95 |
| 200 | 0.8 | 39 | 82 | 40 | 84 | 42 | 90 |
| 225 | 0.9 | 37 | 78 | 38 | 81 | 40 | 84 |
| 250 | 1.0 | 34 | 72 | 35 | 75 | 37 | 78 |
| 275 | 1.1 | 32 | 67 | 33 | 69 | 35 | 74 |
| 300 | 1.2 | 29 | 61 | 30 | 63 | 32 | 67 |



| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 13 | 28 | 73 | 69 | 94 | 0.68 |
| | 0 | +32 | 45 | 96 | 137 | 62 | 74 | 0.48 |
| | -25 | -13 | 25 | 54 | 102 | 54 | 83 | 0.58 |
| COOLING | +35 | +95 | 14 | 29 | 70 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 54 | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

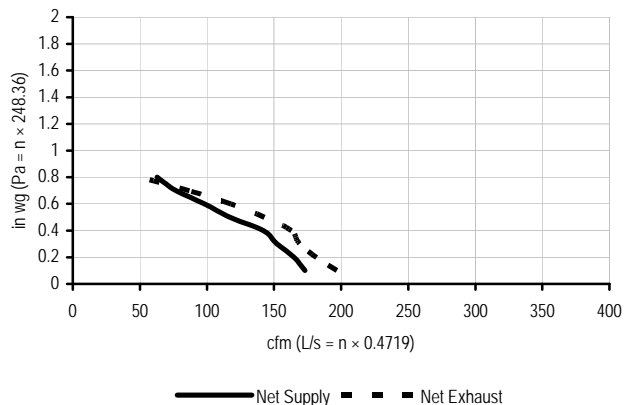
Section 3-13

BROAN - NUTONE LLC

Model: ERV 100 HC • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.06 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.79

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 82 | 173 | 87 | 184 | 93 | 197 |
| 50 | 0.2 | 78 | 165 | 83 | 175 | 86 | 182 |
| 75 | 0.3 | 72 | 152 | 76 | 162 | 80 | 169 |
| 100 | 0.4 | 67 | 142 | 71 | 151 | 77 | 163 |
| 125 | 0.5 | 55 | 117 | 59 | 124 | 67 | 143 |
| 150 | 0.6 | 46 | 98 | 49 | 104 | 56 | 118 |
| 175 | 0.7 | 36 | 77 | 39 | 82 | 41 | 87 |
| 200 | 0.8 | 30 | 63 | 32 | 67 | 24 | 51 |



ENERGY PERFORMANCE

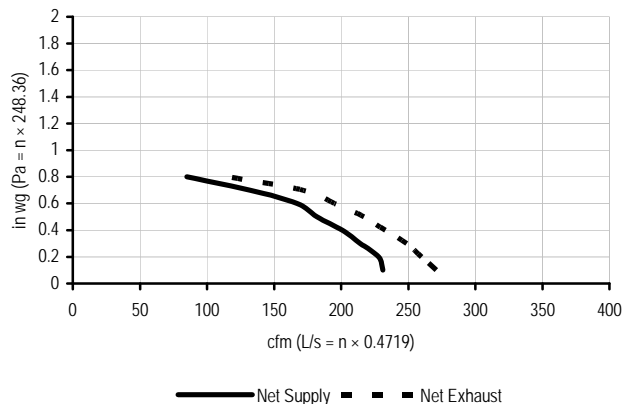
| SUPPLY TEMPERATURE | °C | | °F | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|--------------------|-----|-----|-----|-----|--------------|---------------------------|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | | | |
| HEATING | 0 | +32 | 29 | 60 | 56 | 71 | 79 | 0.52 | | |
| | 0 | +32 | 47 | 100 | 80 | 64 | 73 | 0.41 | | |
| | 0 | +32 | 65 | 137 | 126 | 60 | 68 | 0.36 | | |
| | -15 | 5 | 31 | 65 | 64 | 56 | 81 | 0.41 | | |
| COOLING | +35 | +95 | 28 | 59 | 52 | TOTAL RECOVERY EFFICIENCY | | 45 | | |

BROAN - NUTONE LLC

Model: ERV 200 HC • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.9
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.06 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.84

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 109 | 231 | 116 | 245 | 128 | 271 |
| 50 | 0.2 | 108 | 228 | 114 | 241 | 123 | 260 |
| 75 | 0.3 | 101 | 214 | 107 | 227 | 118 | 249 |
| 100 | 0.4 | 95 | 201 | 101 | 213 | 110 | 233 |
| 125 | 0.5 | 86 | 182 | 91 | 193 | 102 | 217 |
| 150 | 0.6 | 79 | 167 | 84 | 177 | 92 | 195 |
| 175 | 0.7 | 62 | 132 | 66 | 140 | 81 | 172 |
| 200 | 0.8 | 40 | 85 | 42 | 90 | 55 | 116 |



ENERGY PERFORMANCE

| SUPPLY TEMPERATURE | °C | | °F | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|--------------------|-----|-----|-----|-----|--------------|---------------------------|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | | | |
| HEATING | 0 | +32 | 52 | 110 | 93 | 69 | 76 | 0.45 | | |
| | 0 | +32 | 74 | 157 | 130 | 64 | 71 | 0.38 | | |
| | 0 | +32 | 96 | 203 | 193 | 60 | 68 | 0.30 | | |
| | -15 | 5 | 52 | 110 | 122 | 55 | 76 | 0.26 | | |
| COOLING | +35 | +95 | 50 | 106 | 89 | TOTAL RECOVERY EFFICIENCY | | 41 | | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

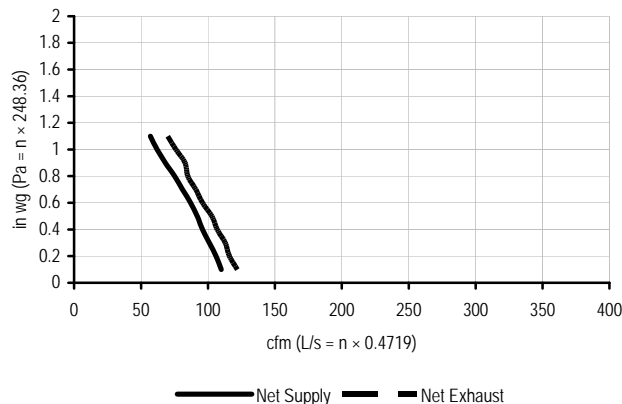
Section 3-14

BROAN – NUTONE LLC

Model: HRV90HS • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.05 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 16.4% Supply 31.3% Exhaust • Low Temp. Imbalance Factor: 1.15

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 52 | 110 | 52 | 110 | 58 | 122 |
| 50 | 0.2 | 50 | 106 | 50 | 106 | 55 | 116 |
| 75 | 0.3 | 48 | 101 | 48 | 102 | 53 | 113 |
| 100 | 0.4 | 45 | 96 | 46 | 97 | 50 | 107 |
| 125 | 0.5 | 43 | 92 | 43 | 92 | 49 | 103 |
| 150 | 0.6 | 41 | 87 | 41 | 87 | 45 | 96 |
| 175 | 0.7 | 38 | 81 | 38 | 81 | 43 | 91 |
| 200 | 0.8 | 35 | 75 | 36 | 76 | 40 | 85 |
| 225 | 0.9 | 32 | 68 | 33 | 69 | 39 | 83 |
| 250 | 1.0 | 29 | 62 | 29 | 62 | 36 | 76 |
| 275 | 1.1 | 27 | 57 | 27 | 58 | 33 | 70 |



ENERGY PERFORMANCE

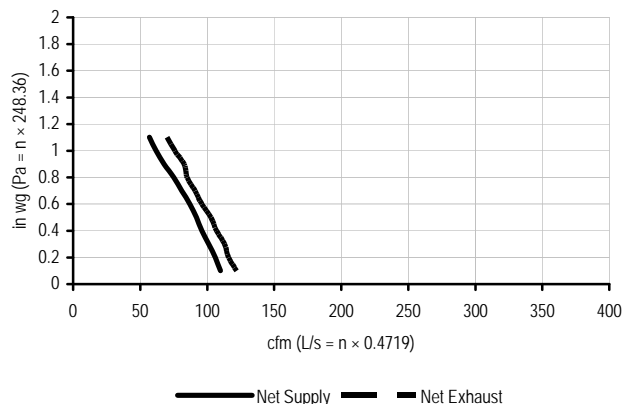
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 23 | 48 | 68 | 66 | 78 | 0.07 |
| | 0 | +32 | 30 | 63 | 82 | 65 | 76 | 0.04 |
| | 0 | +32 | 44 | 93 | 116 | 59 | 68 | 0.04 |
| | -25 | -13 | 30 | 63 | 110 | 55 | 81 | 0.08 |

BROAN – NUTONE LLC

Model: HRV90HT • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.05 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 16.4% Supply 31.3% Exhaust • Low Temp. Imbalance Factor: 1.15

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 52 | 110 | 52 | 110 | 58 | 122 |
| 50 | 0.2 | 50 | 106 | 50 | 106 | 55 | 116 |
| 75 | 0.3 | 48 | 101 | 48 | 102 | 53 | 113 |
| 100 | 0.4 | 45 | 96 | 46 | 97 | 50 | 107 |
| 125 | 0.5 | 43 | 92 | 43 | 92 | 49 | 103 |
| 150 | 0.6 | 41 | 87 | 41 | 87 | 45 | 96 |
| 175 | 0.7 | 38 | 81 | 38 | 81 | 43 | 91 |
| 200 | 0.8 | 35 | 75 | 36 | 76 | 40 | 85 |
| 225 | 0.9 | 32 | 68 | 33 | 69 | 39 | 83 |
| 250 | 1.0 | 29 | 62 | 29 | 62 | 36 | 76 |
| 275 | 1.1 | 27 | 57 | 27 | 58 | 33 | 70 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 23 | 48 | 68 | 66 | 78 | 0.07 |
| | 0 | +32 | 30 | 63 | 82 | 65 | 76 | 0.04 |
| | 0 | +32 | 44 | 93 | 116 | 59 | 68 | 0.04 |
| | -25 | -13 | 30 | 63 | 110 | 55 | 81 | 0.08 |

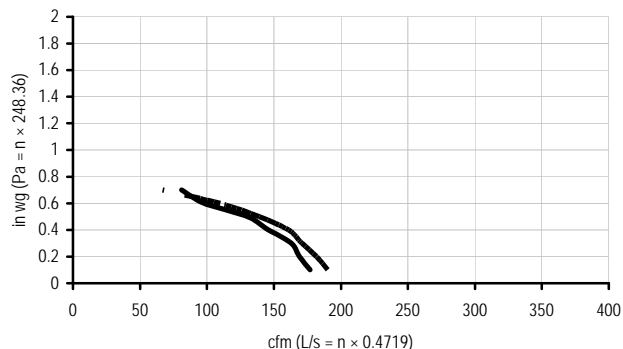
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-15

BROAN – NUTONE LLC

Model: HRV 100H • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.05 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 9% Supply 22% Exhaust • Low Temp. Imbalance Factor: 1.00

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 84 | 177 | 88 | 186 | 90 | 190 |
| 50 | 0.2 | 80 | 169 | 84 | 178 | 86 | 182 |
| 75 | 0.3 | 77 | 163 | 81 | 171 | 81 | 171 |
| 100 | 0.4 | 69 | 146 | 72 | 153 | 76 | 161 |
| 125 | 0.5 | 61 | 130 | 65 | 137 | 66 | 139 |
| 150 | 0.6 | 46 | 98 | 49 | 103 | 52 | 110 |
| 175 | 0.7 | 38 | 81 | 40 | 85 | 32 | 67 |



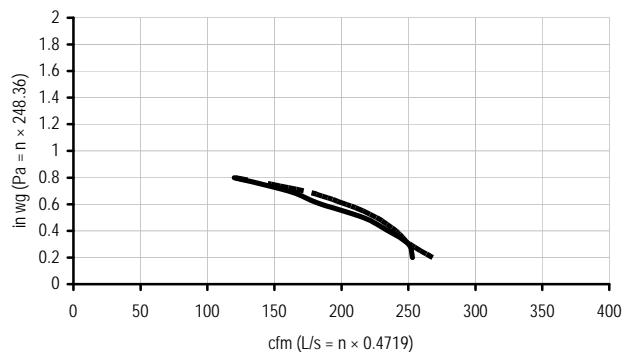
— Net Supply — Net Exhaust

| ENERGY PERFORMANCE | | | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|--|--|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER | | |
| | °C | °F | L/S | CFM | | | | | | |
| HEATING | 0 | +32 | 30 | 64 | 54 | 75 | 83 | -0.03 | | |
| | 0 | +32 | 46 | 97 | 78 | 67 | 74 | 0.01 | | |
| | 0 | +32 | 65 | 138 | 124 | 64 | 72 | -0.02 | | |
| | -25 | -13 | 26 | 55 | 62 | 67 | 89 | 0.05 | | |

BROAN - NUTONE LLC

Model: HRV 200H • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.9
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.04 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 23% Exhaust • Low Temp. Imbalance Factor: 1.00

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 50 | 0.2 | 119 | 253 | 125 | 264 | 126 | 268 |
| 75 | 0.3 | 118 | 250 | 124 | 262 | 118 | 251 |
| 100 | 0.4 | 111 | 235 | 116 | 245 | 114 | 241 |
| 125 | 0.5 | 102 | 216 | 106 | 224 | 107 | 226 |
| 150 | 0.6 | 87 | 185 | 91 | 193 | 96 | 204 |
| 175 | 0.7 | 76 | 160 | 79 | 167 | 81 | 172 |
| 200 | 0.8 | 57 | 120 | 59 | 124 | 57 | 121 |



— Net Supply — Net Exhaust

| ENERGY PERFORMANCE | | | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|--|--|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER | | |
| | °C | °F | L/S | CFM | | | | | | |
| HEATING | 0 | +32 | 51 | 109 | 92 | 70 | 77 | -0.01 | | |
| | 0 | +32 | 73 | 155 | 128 | 65 | 72 | -0.02 | | |
| | 0 | +32 | 102 | 215 | 191 | 62 | 70 | -0.01 | | |
| | -25 | -13 | 52 | 110 | 104 | 60 | 94 | 0.05 | | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

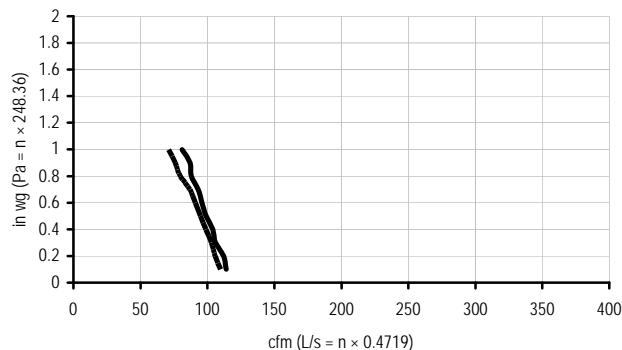
Section 3-16

BROAN - NUTONE LLC

Model: Guardian Plus HR 2.5 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.6
 Exhaust Air Transfer Ratio: 0.05 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 3.6% Supply 4.2% Exhaust • Low Temp. Imbalance Factor: 1.20

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 53 | 114 | 56 | 119 | 52 | 110 |
| 50 | 0.2 | 53 | 112 | 55 | 117 | 50 | 106 |
| 75 | 0.3 | 50 | 106 | 52 | 111 | 48 | 103 |
| 100 | 0.4 | 49 | 104 | 51 | 109 | 46 | 99 |
| 125 | 0.5 | 46 | 99 | 49 | 103 | 45 | 95 |
| 150 | 0.6 | 45 | 96 | 48 | 101 | 43 | 91 |
| 175 | 0.7 | 44 | 93 | 46 | 98 | 41 | 87 |
| 200 | 0.8 | 42 | 88 | 44 | 93 | 38 | 80 |
| 225 | 0.9 | 41 | 87 | 43 | 91 | 36 | 76 |
| 250 | 1.0 | 38 | 81 | 40 | 85 | 33 | 71 |



— Net Supply - - - Net Exhaust

ENERGY PERFORMANCE

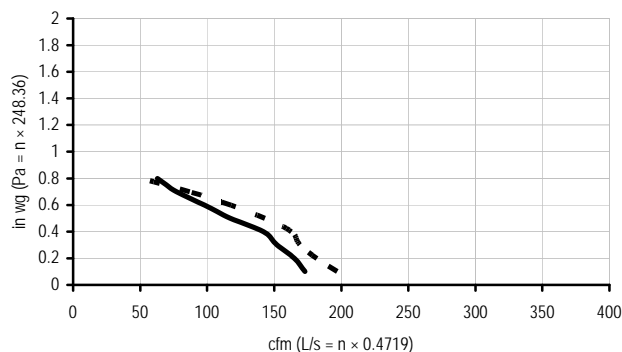
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 24 | 52 | 116 | 63 | 85 | 0.02 |
| | 0 | +32 | 35 | 74 | 147 | 59 | 75 | 0.05 |
| | 0 | +32 | 44 | 94 | 189 | 57 | 75 | 0.01 |
| | -25 | -13 | 16 | 35 | 114 | 58 | 95 | 0.01 |

BRYANT

Model: ERVBLHU1150-B • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.06 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.79

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 82 | 173 | 87 | 184 | 93 | 197 |
| 50 | 0.2 | 78 | 165 | 83 | 175 | 86 | 182 |
| 75 | 0.3 | 72 | 152 | 76 | 162 | 80 | 169 |
| 100 | 0.4 | 67 | 142 | 71 | 151 | 77 | 163 |
| 125 | 0.5 | 55 | 117 | 59 | 124 | 67 | 143 |
| 150 | 0.6 | 46 | 98 | 49 | 104 | 56 | 118 |
| 175 | 0.7 | 36 | 77 | 39 | 82 | 41 | 87 |
| 200 | 0.8 | 30 | 63 | 32 | 67 | 24 | 51 |



— Net Supply - - - Net Exhaust

ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 29 | 60 | 56 | 71 | 79 | 0.52 |
| | 0 | +32 | 47 | 100 | 80 | 64 | 73 | 0.41 |
| | 0 | +32 | 65 | 137 | 126 | 60 | 68 | 0.36 |
| | -15 | 5 | 31 | 65 | 64 | 56 | 81 | 0.41 |
| COOLING | +35 | +95 | 28 | 59 | 52 | TOTAL RECOVERY EFFICIENCY | | 45 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

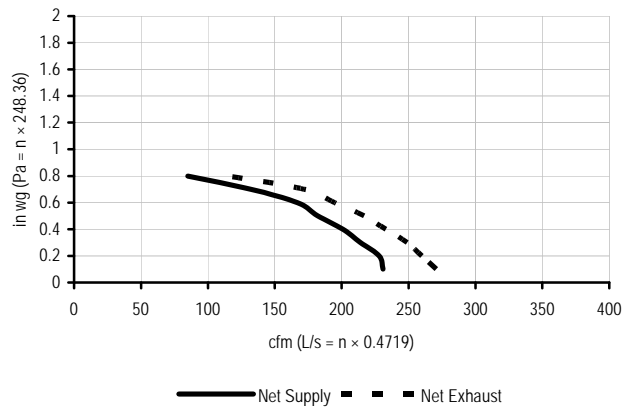
Section 3-17

BRYANT

Model: ERVBLHU1200-B • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.9
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.06 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 0% Exhaust • Low Temp. Imbalance Factor: .84

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 109 | 231 | 116 | 245 | 128 | 271 |
| 50 | 0.2 | 108 | 228 | 114 | 241 | 123 | 260 |
| 75 | 0.3 | 101 | 214 | 107 | 227 | 118 | 249 |
| 100 | 0.4 | 95 | 201 | 101 | 213 | 110 | 233 |
| 125 | 0.5 | 86 | 182 | 91 | 193 | 102 | 217 |
| 150 | 0.6 | 79 | 167 | 84 | 177 | 92 | 195 |
| 175 | 0.7 | 62 | 132 | 66 | 140 | 81 | 172 |
| 200 | 0.8 | 40 | 85 | 42 | 90 | 55 | 116 |



ENERGY PERFORMANCE

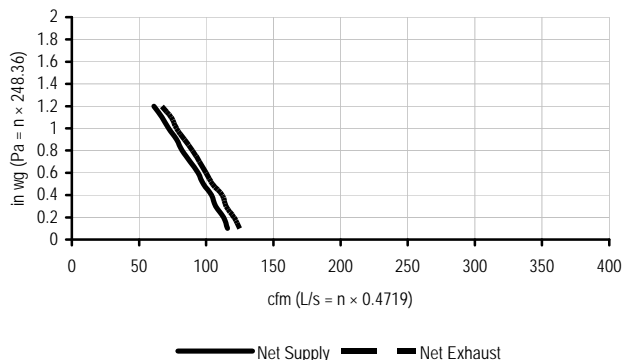
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 52 | 110 | 93 | 69 | 76 | 0.45 |
| | 0 | +32 | 74 | 157 | 130 | 64 | 71 | 0.38 |
| | 0 | +32 | 96 | 203 | 193 | 60 | 68 | 0.30 |
| | -15 | 5 | 52 | 110 | 122 | 55 | 76 | 0.26 |
| COOLING | +35 | +95 | 50 | 106 | 89 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 41 | |

BRYANT

Model: ERVBBSHA1100-A • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.03 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 27.9% Supply 30.2% Exhaust • Low Temp. Imbalance Factor: 1.13

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 55 | 116 | 56 | 119 | 59 | 125 |
| 50 | 0.2 | 53 | 113 | 55 | 116 | 57 | 121 |
| 75 | 0.3 | 50 | 107 | 52 | 111 | 54 | 115 |
| 100 | 0.4 | 49 | 104 | 50 | 107 | 53 | 112 |
| 125 | 0.5 | 46 | 98 | 48 | 101 | 50 | 105 |
| 150 | 0.6 | 44 | 94 | 46 | 97 | 47 | 100 |
| 175 | 0.7 | 42 | 88 | 43 | 91 | 45 | 95 |
| 200 | 0.8 | 39 | 82 | 40 | 84 | 42 | 90 |
| 225 | 0.9 | 37 | 78 | 38 | 81 | 40 | 84 |
| 250 | 1.0 | 34 | 72 | 35 | 75 | 37 | 78 |
| 275 | 1.1 | 32 | 67 | 33 | 69 | 35 | 74 |
| 300 | 1.2 | 29 | 61 | 30 | 63 | 32 | 67 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 13 | 28 | 73 | 69 | 94 | 0.68 |
| | 0 | +32 | 45 | 96 | 137 | 62 | 74 | 0.48 |
| | -25 | -13 | 25 | 54 | 102 | 54 | 83 | 0.58 |
| COOLING | +35 | +95 | 14 | 29 | 70 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 54 | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

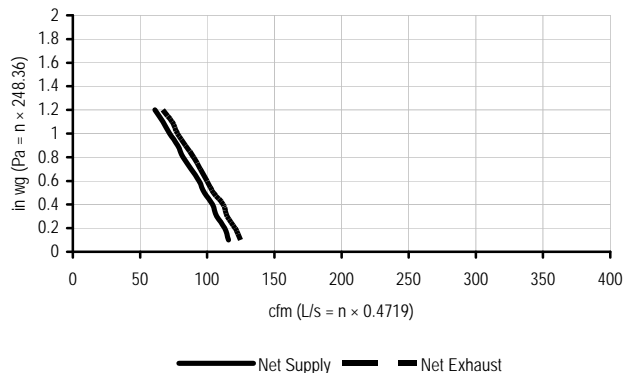
Section 3-18

BRYANT

Model: ERVBBSVA1100-A • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.03 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 27.9% Supply 30.2% Exhaust • Low Temp. Imbalance Factor: 1.13

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 55 | 116 | 56 | 119 | 59 | 125 |
| 50 | 0.2 | 53 | 113 | 55 | 116 | 57 | 121 |
| 75 | 0.3 | 50 | 107 | 52 | 111 | 54 | 115 |
| 100 | 0.4 | 49 | 104 | 50 | 107 | 53 | 112 |
| 125 | 0.5 | 46 | 98 | 48 | 101 | 50 | 105 |
| 150 | 0.6 | 44 | 94 | 46 | 97 | 47 | 100 |
| 175 | 0.7 | 42 | 88 | 43 | 91 | 45 | 95 |
| 200 | 0.8 | 39 | 82 | 40 | 84 | 42 | 90 |
| 225 | 0.9 | 37 | 78 | 38 | 81 | 40 | 84 |
| 250 | 1.0 | 34 | 72 | 35 | 75 | 37 | 78 |
| 275 | 1.1 | 32 | 67 | 33 | 69 | 35 | 74 |
| 300 | 1.2 | 29 | 61 | 30 | 63 | 32 | 67 |



ENERGY PERFORMANCE

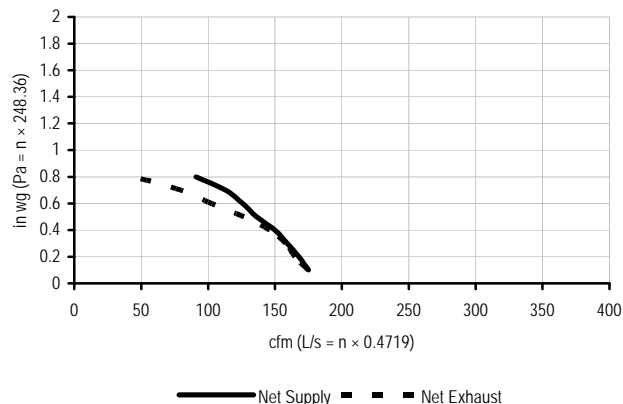
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 13 | 28 | 73 | 69 | 94 | 0.68 |
| | 0 | +32 | 45 | 96 | 137 | 62 | 74 | 0.48 |
| | -25 | -13 | 25 | 54 | 102 | 54 | 83 | 0.58 |
| COOLING | +35 | +95 | 14 | 29 | 70 | | 54 | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 54 | |

BRYANT

Model: HRVBLHA1150-A • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 10% Supply 13% Exhaust • Low Temp. Imbalance Factor: 0.90

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 83 | 175 | 83 | 176 | 83 | 175 |
| 50 | 0.2 | 79 | 168 | 80 | 169 | 78 | 165 |
| 75 | 0.3 | 75 | 159 | 75 | 159 | 75 | 158 |
| 100 | 0.4 | 71 | 150 | 71 | 151 | 69 | 146 |
| 125 | 0.5 | 64 | 136 | 64 | 136 | 60 | 127 |
| 150 | 0.6 | 59 | 126 | 60 | 127 | 49 | 103 |
| 175 | 0.7 | 53 | 113 | 53 | 113 | 38 | 80 |
| 200 | 0.8 | 43 | 91 | 43 | 91 | 21 | 45 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 66 | 85 | 69 | 81 | -0.01 |
| | 0 | +32 | 56 | 119 | 124 | 60 | 70 | -0.01 |
| | -25 | -13 | 37 | 78 | 114 | 62 | 80 | 0.08 |

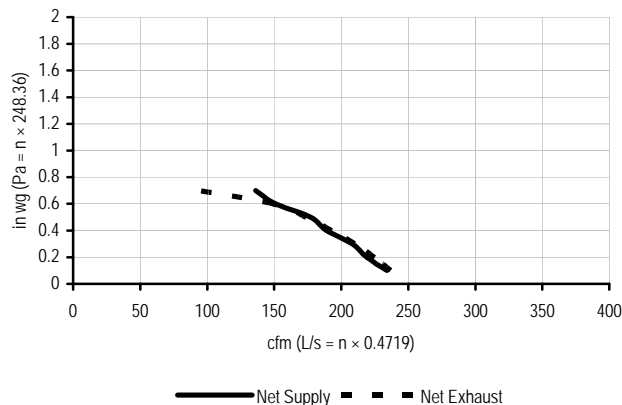
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-19

BRYANT

Model: HRVBLHA1250-A • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 2.1
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 10% Supply 13% Exhaust • Low Temp. Imbalance Factor: 0.90

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 110 | 234 | 112 | 237 | 112 | 237 |
| 50 | 0.2 | 103 | 219 | 105 | 223 | 106 | 225 |
| 75 | 0.3 | 98 | 208 | 100 | 211 | 99 | 210 |
| 100 | 0.4 | 89 | 189 | 91 | 192 | 91 | 193 |
| 125 | 0.5 | 84 | 177 | 85 | 180 | 82 | 174 |
| 150 | 0.6 | 71 | 151 | 72 | 153 | 70 | 149 |
| 175 | 0.7 | 64 | 136 | 65 | 138 | 44 | 94 |

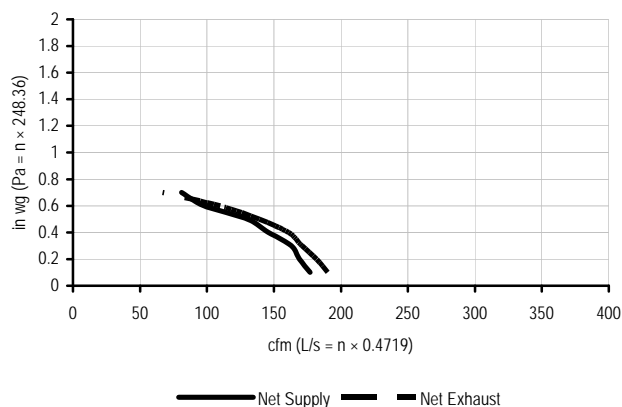


| | ENERGY PERFORMANCE | | | | | | | |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 56 | 119 | 124 | 60 | 70 | -0.01 |
| | 0 | +32 | 86 | 182 | 197 | 53 | 62 | -0.01 |
| | -25 | -13 | 37 | 78 | 114 | 62 | 80 | 0.08 |

BRYANT

Model: HRVBLHU1150-B • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.05 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 9% Supply 22% Exhaust • Low Temp. Imbalance Factor: 1.0

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 84 | 177 | 88 | 186 | 90 | 190 |
| 50 | 0.2 | 80 | 169 | 84 | 178 | 86 | 182 |
| 75 | 0.3 | 77 | 163 | 81 | 171 | 81 | 171 |
| 100 | 0.4 | 69 | 146 | 72 | 153 | 76 | 161 |
| 125 | 0.5 | 61 | 130 | 65 | 137 | 66 | 139 |
| 150 | 0.6 | 46 | 98 | 49 | 103 | 52 | 110 |
| 175 | 0.7 | 38 | 81 | 40 | 85 | 32 | 67 |



| | ENERGY PERFORMANCE | | | | | | | |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 54 | 75 | 83 | -0.03 |
| | 0 | +32 | 46 | 97 | 78 | 67 | 74 | 0.01 |
| | 0 | +32 | 65 | 138 | 124 | 64 | 72 | -0.02 |
| | -25 | -13 | 26 | 55 | 62 | 67 | 89 | 0.05 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

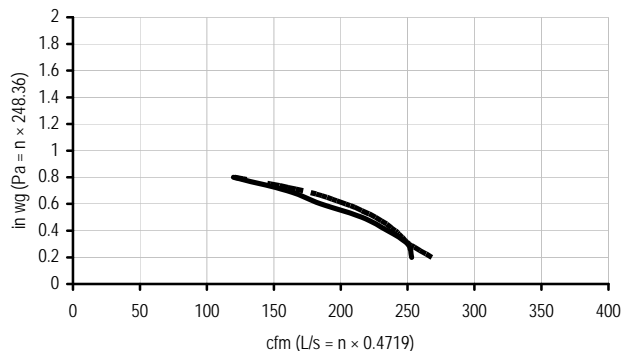
Section 3-20

BRYANT

Model: HRVBBLHU1250-B • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.9
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.04 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent. Reduction Factor: 0% Supply 23% Exhaust • Low Temp. Imbalance Factor: 1.0

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 50 | 0.2 | 119 | 253 | 125 | 264 | 126 | 268 |
| 75 | 0.3 | 118 | 250 | 124 | 262 | 118 | 251 |
| 100 | 0.4 | 111 | 235 | 116 | 245 | 114 | 241 |
| 125 | 0.5 | 102 | 216 | 106 | 224 | 107 | 226 |
| 150 | 0.6 | 87 | 185 | 91 | 193 | 96 | 204 |
| 175 | 0.7 | 76 | 160 | 79 | 167 | 81 | 172 |
| 200 | 0.8 | 57 | 120 | 59 | 124 | 57 | 121 |



— Net Supply - - - Net Exhaust

ENERGY PERFORMANCE

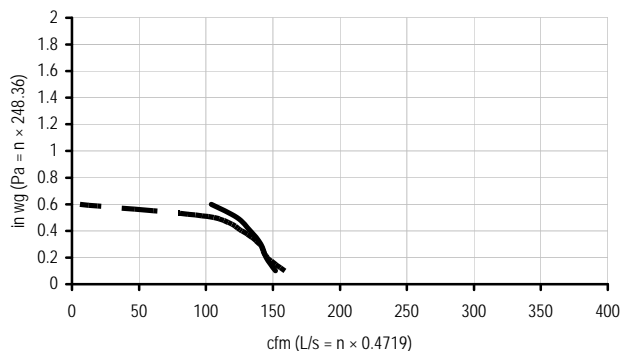
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 51 | 109 | 92 | 70 | 77 | -0.01 |
| | 0 | +32 | 73 | 155 | 128 | 65 | 72 | -0.02 |
| | 0 | +32 | 102 | 215 | 191 | 62 | 70 | -0.02 |
| | -25 | -13 | 52 | 110 | 104 | 60 | 94 | 0.05 |

BRYANT

Model: HRVBBLVU1150-B • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.2
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent. Reduction Factor: 11% Supply 20% Exhaust • Low Temp. Imbalance Factor: 1.10

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 72 | 152 | 73 | 155 | 75 | 159 |
| 50 | 0.2 | 68 | 145 | 70 | 148 | 69 | 146 |
| 75 | 0.3 | 67 | 141 | 68 | 144 | 66 | 140 |
| 100 | 0.4 | 63 | 133 | 64 | 136 | 60 | 127 |
| 125 | 0.5 | 58 | 123 | 59 | 125 | 50 | 106 |
| 150 | 0.6 | 49 | 104 | 50 | 106 | 3 | 6 |



— Net Supply - - - Net Exhaust

ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 103 | 81 | 92 | 0.02 |
| | 0 | +32 | 46 | 99 | 115 | 76 | 85 | 0.03 |
| | 0 | +32 | 54 | 106 | 117 | 72 | 80 | 0.02 |
| | -25 | -13 | 30 | 64 | 110 | 69 | 89 | 0.11 |
| COOLING | +35 | +95 | 34 | 72 | 105 | | TOTAL RECOVERY EFFICIENCY | |
| | +35 | +95 | 50 | 106 | 109 | | 23 | 26 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

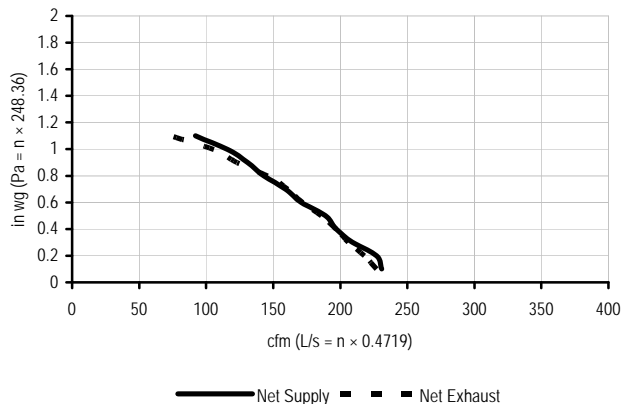
Section 3-21

BRYANT

Model: HRVBBLVU1200-B • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 2.2
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.06 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 12.8% Supply 9.4% Exhaust • Low Temp. Imbalance Factor: 0.93

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 109 | 231 | 116 | 246 | 107 | 227 |
| 50 | 0.2 | 107 | 227 | 114 | 242 | 103 | 218 |
| 75 | 0.3 | 99 | 209 | 105 | 222 | 97 | 206 |
| 100 | 0.4 | 93 | 197 | 99 | 210 | 93 | 197 |
| 125 | 0.5 | 89 | 189 | 95 | 201 | 88 | 186 |
| 150 | 0.6 | 81 | 171 | 86 | 182 | 81 | 172 |
| 175 | 0.7 | 75 | 159 | 80 | 169 | 76 | 161 |
| 200 | 0.8 | 68 | 143 | 72 | 153 | 69 | 146 |
| 225 | 0.9 | 62 | 131 | 66 | 140 | 58 | 123 |
| 250 | 1.0 | 55 | 116 | 58 | 123 | 50 | 106 |
| 275 | 1.1 | 43 | 92 | 46 | 97 | 35 | 74 |



ENERGY PERFORMANCE

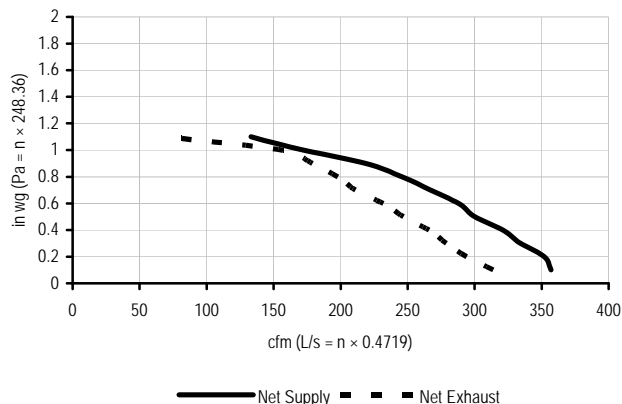
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 52 | 111 | 158 | 84 | 95 | 0.05 |
| | 0 | +32 | 55 | 117 | --- | 84 | --- | --- |
| | 0 | +32 | 71 | 151 | 184 | 79 | 90 | 0.03 |
| | 0 | +32 | 84 | 179 | 210 | 79 | 89 | 0.12 |
| | -25 | -13 | 57 | 121 | 176 | 72 | 88 | -0.04 |
| COOLING | +35 | +95 | 55 | 117 | 160 | | 13 | |
| | +35 | +95 | 76 | 162 | 198 | | 15 | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | | |

BRYANT

Model: HRVBBLVU1330-B • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 4.6
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 13.3% Supply 15.8% Exhaust • Low Temp. Imbalance Factor: 0.99

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 168 | 357 | 172 | 364 | 148 | 314 |
| 50 | 0.2 | 166 | 352 | 170 | 360 | 139 | 294 |
| 75 | 0.3 | 158 | 334 | 160 | 340 | 132 | 279 |
| 100 | 0.4 | 151 | 321 | 155 | 328 | 126 | 266 |
| 125 | 0.5 | 142 | 300 | 144 | 306 | 117 | 247 |
| 150 | 0.6 | 136 | 288 | 139 | 294 | 109 | 232 |
| 175 | 0.7 | 126 | 267 | 128 | 272 | 100 | 211 |
| 200 | 0.8 | 116 | 246 | 118 | 251 | 93 | 198 |
| 225 | 0.9 | 103 | 219 | 105 | 223 | 84 | 179 |
| 250 | 1.0 | 82 | 173 | 84 | 177 | 74 | 157 |
| 275 | 1.1 | 63 | 133 | 64 | 136 | 33 | 70 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 55 | 117 | 219 | 80 | 94 | 0.07 |
| | 0 | +32 | 86 | 183 | 290 | 74 | 86 | 0.02 |
| | 0 | +32 | 117 | 249 | 436 | 70 | 83 | -0.01 |
| | -25 | -13 | 55 | 117 | 264 | 74 | 89 | 0.17 |
| COOLING | +35 | +95 | 85 | 181 | 286 | | 12 | |
| | +35 | +95 | 115 | 245 | 434 | | 9 | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

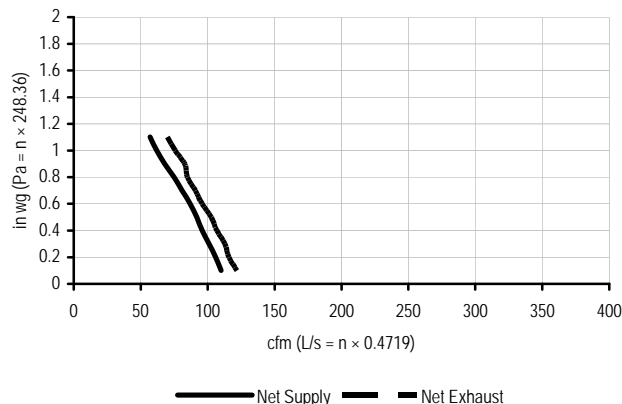
Section 3-22

BRYANT

Model: HRVBBSHA1100-A • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.05 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 16.4% Supply 31.3% Exhaust • Low Temp. Imbalance Factor: 1.15

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 52 | 110 | 52 | 110 | 58 | 122 |
| 50 | 0.2 | 50 | 106 | 50 | 106 | 55 | 116 |
| 75 | 0.3 | 48 | 101 | 48 | 102 | 53 | 113 |
| 100 | 0.4 | 45 | 96 | 46 | 97 | 50 | 107 |
| 125 | 0.5 | 43 | 92 | 43 | 92 | 49 | 103 |
| 150 | 0.6 | 41 | 87 | 41 | 87 | 45 | 96 |
| 175 | 0.7 | 38 | 81 | 38 | 81 | 43 | 91 |
| 200 | 0.8 | 35 | 75 | 36 | 76 | 40 | 85 |
| 225 | 0.9 | 32 | 68 | 33 | 69 | 39 | 83 |
| 250 | 1.0 | 29 | 62 | 29 | 62 | 36 | 76 |
| 275 | 1.1 | 27 | 57 | 27 | 58 | 33 | 70 |



ENERGY PERFORMANCE

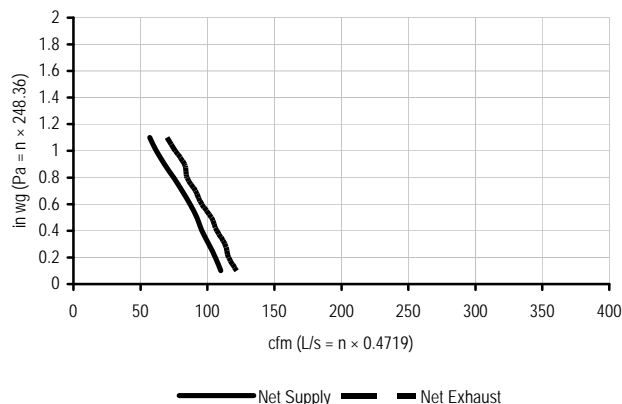
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 23 | 48 | 68 | 66 | 78 | 0.07 |
| | 0 | +32 | 30 | 63 | 82 | 65 | 76 | 0.04 |
| | 0 | +32 | 44 | 93 | 116 | 59 | 68 | 0.04 |
| | -25 | -13 | 30 | 63 | 110 | 55 | 81 | 0.08 |

BRYANT

Model: HRVBBSVA1100-A • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.05 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 16.4% Supply 31.3% Exhaust • Low Temp. Imbalance Factor: 1.15

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 52 | 110 | 52 | 110 | 58 | 122 |
| 50 | 0.2 | 50 | 106 | 50 | 106 | 55 | 116 |
| 75 | 0.3 | 48 | 101 | 48 | 102 | 53 | 113 |
| 100 | 0.4 | 45 | 96 | 46 | 97 | 50 | 107 |
| 125 | 0.5 | 43 | 92 | 43 | 92 | 49 | 103 |
| 150 | 0.6 | 41 | 87 | 41 | 87 | 45 | 96 |
| 175 | 0.7 | 38 | 81 | 38 | 81 | 43 | 91 |
| 200 | 0.8 | 35 | 75 | 36 | 76 | 40 | 85 |
| 225 | 0.9 | 32 | 68 | 33 | 69 | 39 | 83 |
| 250 | 1.0 | 29 | 62 | 29 | 62 | 36 | 76 |
| 275 | 1.1 | 27 | 57 | 27 | 58 | 33 | 70 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 23 | 48 | 68 | 66 | 78 | 0.07 |
| | 0 | +32 | 30 | 63 | 82 | 65 | 76 | 0.04 |
| | 0 | +32 | 44 | 93 | 116 | 59 | 68 | 0.04 |
| | -25 | -13 | 30 | 63 | 110 | 55 | 81 | 0.08 |

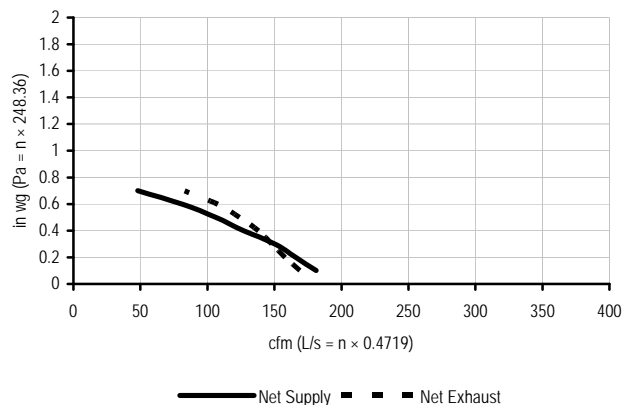
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-23

BRYANT

Model: HRVBBSVU1150-B • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.2
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 6.5% Supply 16.3% Exhaust • Low Temp. Imbalance Factor: 1.08

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 85 | 181 | 86 | 183 | 80 | 169 |
| 50 | 0.2 | 78 | 166 | 79 | 168 | 75 | 158 |
| 75 | 0.3 | 71 | 150 | 72 | 152 | 70 | 148 |
| 100 | 0.4 | 60 | 127 | 60 | 128 | 65 | 138 |
| 125 | 0.5 | 50 | 106 | 50 | 107 | 59 | 124 |
| 150 | 0.6 | 38 | 81 | 38 | 81 | 51 | 108 |
| 175 | 0.7 | 23 | 48 | 23 | 49 | 39 | 83 |

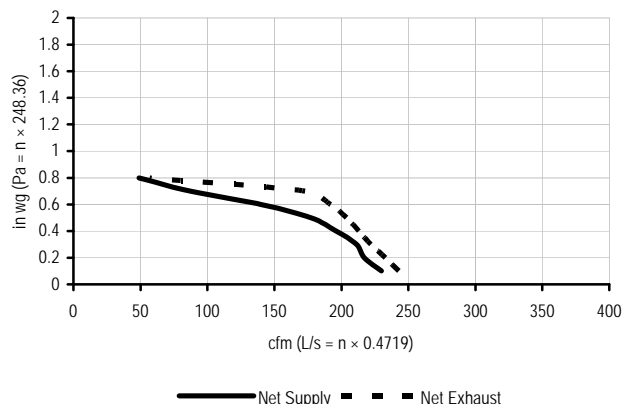


| ENERGY PERFORMANCE | | | | | | | | | |
|--------------------|---------------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|--|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER | |
| | °C | °F | L/S | CFM | | | | | |
| HEATING | 0 | +32 | 30 | 64 | 65 | 69 | 76 | 0.00 | |
| | 0 | +32 | 42 | 89 | 79 | 65 | 71 | -0.10 | |
| | 0 | +32 | 54 | 115 | 97 | 61 | 66 | -0.07 | |
| COOLING | -25 | -13 | 32 | 68 | 76 | 60 | 78 | 0.12 | |
| | -25 | -13 | 30 | 64 | 74 | 60 | -- | -- | |
| | TOTAL RECOVERY EFFICIENCY | | | | | | | 20 | |
| | | | | | | | | 18 | |

BRYANT

Model: HRVBBSVU1200-B • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.75
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 13.5% Supply 19.7% Exhaust • Low Temp. Imbalance Factor: 1.04

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 109 | 230 | 109 | 231 | 115 | 243 |
| 50 | 0.2 | 102 | 217 | 103 | 219 | 110 | 233 |
| 75 | 0.3 | 100 | 211 | 100 | 212 | 105 | 222 |
| 100 | 0.4 | 93 | 196 | 93 | 196 | 101 | 213 |
| 125 | 0.5 | 84 | 177 | 84 | 177 | 96 | 204 |
| 150 | 0.6 | 66 | 140 | 67 | 142 | 91 | 192 |
| 175 | 0.7 | 41 | 87 | 42 | 88 | 82 | 173 |
| 200 | 0.8 | 23 | 49 | 23 | 49 | 27 | 57 |



| ENERGY PERFORMANCE | | | | | | | | | |
|--------------------|---------------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|--|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER | |
| | °C | °F | L/S | CFM | | | | | |
| HEATING | 0 | +32 | 56 | 119 | 110 | 77 | 83 | -0.01 | |
| | 0 | +32 | 75 | 160 | 135 | 73 | 78 | 0.00 | |
| | 0 | +32 | 89 | 189 | 152 | 71 | 76 | -0.03 | |
| COOLING | -25 | -13 | 56 | 119 | 131 | 67 | 81 | 0.20 | |
| | -25 | -13 | 55 | 117 | 130 | 67 | --- | --- | |
| | TOTAL RECOVERY EFFICIENCY | | | | | | | 21 | |
| | | | | | | | | 21 | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

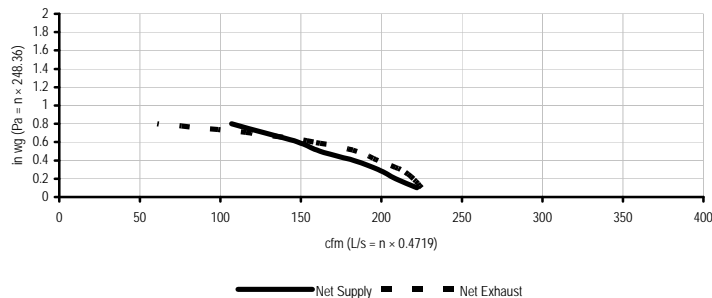
Section 3-24

BRYANT

Model: ERVBLHA1200-A • Options Installed:
 Electrical Requirements: Volts: 120 Amps: 2.1
 Exhaust Air Transfer Ratio: 0.01 @ 100 Pa/0.4 in. wg .01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 24.8% Supply 43% Exhaust • Low Temp. Imbalance Factor: 1.28

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 105 | 222 | 106 | 225 | 106 | 225 |
| 50 | 0.2 | 99 | 209 | 100 | 212 | 104 | 220 |
| 75 | 0.3 | 93 | 198 | 94 | 200 | 100 | 212 |
| 100 | 0.4 | 86 | 183 | 88 | 186 | 93 | 198 |
| 125 | 0.5 | 76 | 162 | 78 | 165 | 87 | 185 |
| 150 | 0.6 | 70 | 148 | 71 | 150 | 75 | 158 |
| 175 | 0.7 | 60 | 128 | 61 | 130 | 56 | 119 |
| 200 | 0.8 | 50 | 107 | 51 | 108 | 29 | 61 |



ENERGY PERFORMANCE

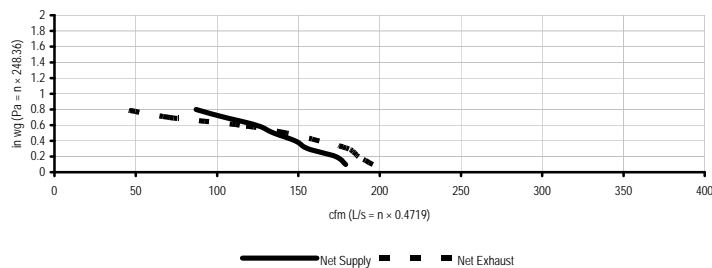
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 39 | 80 | 84 | 60 | 72 | 0.60 |
| | 0 | +32 | 54 | 114 | 113 | 58 | 69 | 0.53 |
| | 0 | +32 | 79 | 167 | 169 | 56 | 66 | 0.45 |
| | -25 | -13 | 31 | 65 | 116 | 41 | 86 | 0.47 |
| COOLING | +35 | +95 | 39 | 82 | 81 | | | |
| | +35 | +95 | | | | | 52 | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 52 | |

BRYANT

Model: ERVBLHA1150-A • Options Installed:
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.02 @ 100 Pa/0.4 in. wg .04 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 28.6% Supply 29.5% Exhaust • Low Temp. Imbalance Factor: 1.05

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 84 | 179 | 85 | 181 | 92 | 196 |
| 50 | 0.2 | 82 | 173 | 83 | 175 | 88 | 187 |
| 75 | 0.3 | 74 | 156 | 75 | 158 | 85 | 181 |
| 100 | 0.4 | 70 | 148 | 71 | 151 | 77 | 163 |
| 125 | 0.5 | 64 | 135 | 65 | 137 | 67 | 143 |
| 150 | 0.6 | 58 | 124 | 59 | 125 | 54 | 114 |
| 175 | 0.7 | 50 | 105 | 50 | 106 | 33 | 71 |
| 200 | 0.8 | 41 | 87 | 42 | 88 | 20 | 43 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 66 | 61 | 75 | 0.62 |
| | 0 | +32 | 46 | 97 | 77 | 60 | 71 | 0.58 |
| | 0 | +32 | 66 | 141 | 137 | 57 | 69 | 0.52 |
| | -25 | -13 | 22 | 47 | 92 | 49 | 80 | 0.56 |
| COOLING | +35 | +95 | 31 | 65 | 63 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 56 | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

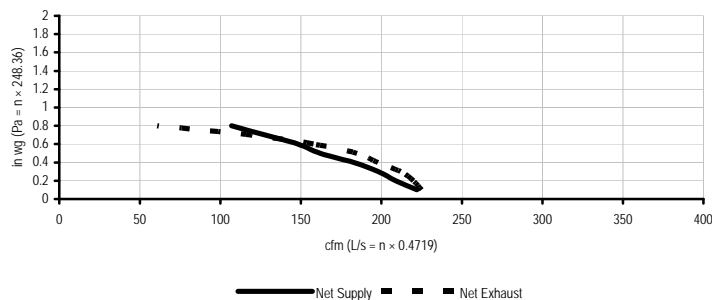
Section 3-25

CARRIER CORPORATION

Model: ERVCCLHA1200-A • Options Installed:
 Electrical Requirements: Volts: 120 Amps: 2.1
 Exhaust Air Transfer Ratio: 0.01 @ 100 Pa/0.4 in. wg .01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 24.8% Supply 43% Exhaust • Low Temp. Imbalance Factor: 1.28

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 105 | 222 | 106 | 225 | 106 | 225 |
| 50 | 0.2 | 99 | 209 | 100 | 212 | 104 | 220 |
| 75 | 0.3 | 93 | 198 | 94 | 200 | 100 | 212 |
| 100 | 0.4 | 86 | 183 | 88 | 186 | 93 | 198 |
| 125 | 0.5 | 76 | 162 | 78 | 165 | 87 | 185 |
| 150 | 0.6 | 70 | 148 | 71 | 150 | 75 | 158 |
| 175 | 0.7 | 60 | 128 | 61 | 130 | 56 | 119 |
| 200 | 0.8 | 50 | 107 | 51 | 108 | 29 | 61 |



ENERGY PERFORMANCE

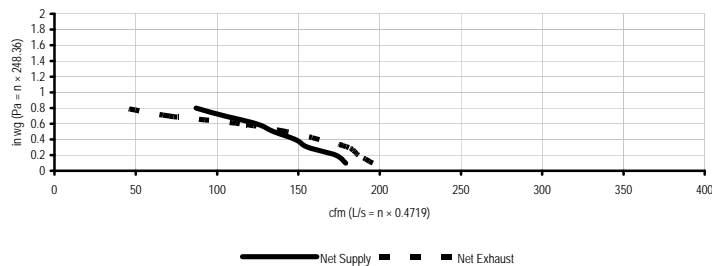
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 39 | 80 | 84 | 60 | 72 | 0.60 |
| | 0 | +32 | 54 | 114 | 113 | 58 | 69 | 0.53 |
| | 0 | +32 | 79 | 167 | 169 | 56 | 66 | 0.45 |
| | -25 | -13 | 31 | 65 | 116 | 41 | 86 | 0.47 |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 52 | |
| COOLING | +35 | +95 | 39 | 82 | 81 | | | |
| | +35 | +95 | | | | | | |

CARRIER CORPORATION

Model: ERVCCLHA1150-A • Options Installed:
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.02 @ 100 Pa/0.4 in. wg .04 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 28.6% Supply 29.5% Exhaust • Low Temp. Imbalance Factor: 1.05

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 84 | 179 | 85 | 181 | 92 | 196 |
| 50 | 0.2 | 82 | 173 | 83 | 175 | 88 | 187 |
| 75 | 0.3 | 74 | 156 | 75 | 158 | 85 | 181 |
| 100 | 0.4 | 70 | 148 | 71 | 151 | 77 | 163 |
| 125 | 0.5 | 64 | 135 | 65 | 137 | 67 | 143 |
| 150 | 0.6 | 58 | 124 | 59 | 125 | 54 | 114 |
| 175 | 0.7 | 50 | 105 | 50 | 106 | 33 | 71 |
| 200 | 0.8 | 41 | 87 | 42 | 88 | 20 | 43 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 66 | 61 | 75 | 0.62 |
| | 0 | +32 | 46 | 97 | 77 | 60 | 71 | 0.58 |
| | 0 | +32 | 66 | 141 | 137 | 57 | 69 | 0.52 |
| | -25 | -13 | 22 | 47 | 92 | 49 | 80 | 0.56 |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 56 | |
| COOLING | +35 | +95 | 31 | 65 | 63 | | | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

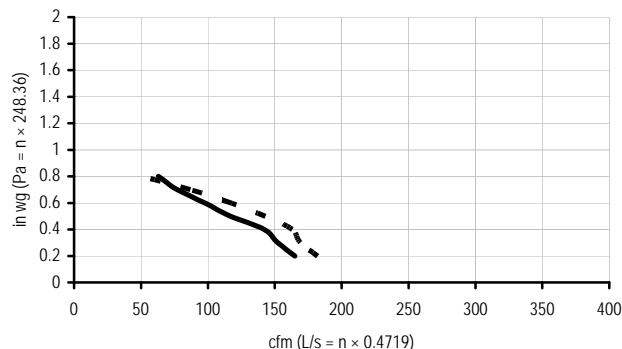
Section 3-26

CARRIER CORPORATION

Model: ERVCCLHU1150-B • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.06 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.79

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| | | | | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 81 | 173 | 87 | 184 | 93 | 197 |
| 50 | 0.2 | 78 | 165 | 83 | 175 | 86 | 182 |
| 75 | 0.3 | 72 | 152 | 76 | 162 | 80 | 169 |
| 100 | 0.4 | 67 | 142 | 71 | 151 | 77 | 163 |
| 125 | 0.5 | 55 | 117 | 59 | 124 | 67 | 143 |
| 150 | 0.6 | 46 | 98 | 49 | 104 | 56 | 118 |
| 175 | 0.7 | 36 | 77 | 39 | 82 | 41 | 87 |
| 200 | 0.8 | 30 | 63 | 32 | 67 | 24 | 51 |



— Net Supply - - - Net Exhaust

ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 29 | 60 | 56 | 71 | 79 | 0.52 |
| | 0 | +32 | 47 | 100 | 80 | 64 | 73 | 0.41 |
| | 0 | +32 | 54 | 137 | 126 | 60 | 68 | 0.36 |
| | -15 | 5 | 31 | 65 | 64 | 56 | 81 | 0.41 |
| COOLING | +35 | +95 | 28 | 59 | 52 | TOTAL RECOVERY EFFICIENCY | | 45 |

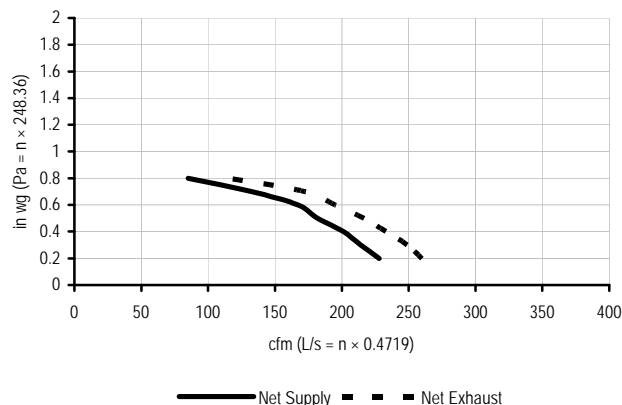
CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

Section 3-27

CARRIER CORPORATION

Model: ERVCLHU1200-B • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.9
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.06 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor : 0% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.84

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| | | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 109 | 231 | 116 | 245 | 128 | 271 |
| 50 | 0.2 | 108 | 228 | 114 | 241 | 123 | 260 |
| 75 | 0.3 | 101 | 214 | 107 | 227 | 118 | 249 |
| 100 | 0.4 | 95 | 201 | 101 | 213 | 110 | 233 |
| 125 | 0.5 | 86 | 182 | 91 | 193 | 102 | 217 |
| 150 | 0.6 | 79 | 167 | 84 | 177 | 92 | 195 |
| 175 | 0.7 | 62 | 132 | 66 | 140 | 81 | 172 |
| 200 | 0.8 | 40 | 85 | 42 | 90 | 55 | 116 |

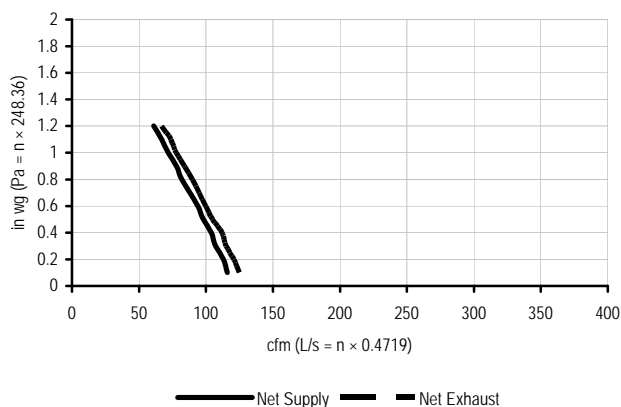


| ENERGY PERFORMANCE | | | | | | | | |
|---------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 52 | 110 | 93 | 69 | 76 | 0.45 |
| | 0 | +32 | 74 | 157 | 130 | 64 | 71 | -0.38 |
| | 0 | +32 | 96 | 203 | 193 | 60 | 68 | -0.30 |
| | -15 | 5 | 52 | 110 | 122 | 55 | 76 | 0.26 |
| COOLING | +35 | +95 | 50 | 106 | 89 | | 41 | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | | |

CARRIER CORPORATION

Model: ERVCCSHA1100-A • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.03 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 27.9% Supply 30.2% Exhaust • Low Temp. Imbalance Factor: 1.13

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| | | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 55 | 116 | 56 | 119 | 59 | 125 |
| 50 | 0.2 | 53 | 113 | 55 | 116 | 57 | 121 |
| 75 | 0.3 | 50 | 107 | 52 | 111 | 54 | 115 |
| 100 | 0.4 | 49 | 104 | 50 | 107 | 53 | 112 |
| 125 | 0.5 | 46 | 98 | 48 | 101 | 50 | 105 |
| 150 | 0.6 | 44 | 94 | 46 | 97 | 47 | 100 |
| 175 | 0.7 | 42 | 88 | 43 | 91 | 45 | 95 |
| 200 | 0.8 | 39 | 82 | 40 | 84 | 42 | 90 |
| 225 | 0.9 | 37 | 78 | 38 | 81 | 40 | 84 |
| 250 | 1.0 | 34 | 72 | 35 | 75 | 37 | 78 |
| 275 | 1.1 | 32 | 67 | 33 | 69 | 35 | 74 |
| 300 | 1.2 | 29 | 61 | 30 | 63 | 32 | 67 |



| ENERGY PERFORMANCE | | | | | | | | |
|---------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 13 | 28 | 73 | 69 | 94 | 0.68 |
| | 0 | +32 | 45 | 96 | 137 | 62 | 74 | 0.48 |
| | -25 | -13 | 25 | 54 | 102 | 54 | 83 | 0.58 |
| COOLING | +35 | +95 | 14 | 29 | 70 | | 54 | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | | |

CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

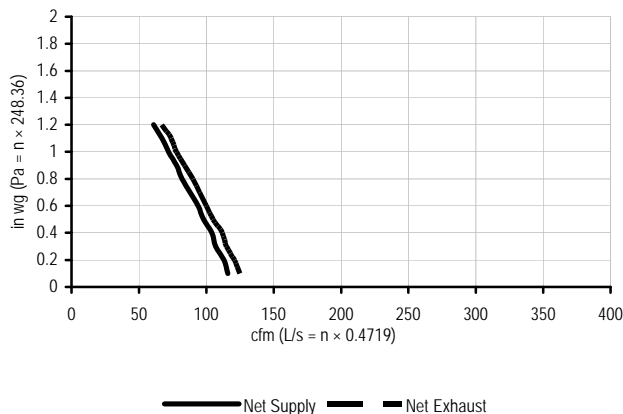
Section 3-28

CARRIER CORPORATION

Model: ERVCCSVA1100-A • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.03 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 27.9% Supply 30.2% Exhaust • Low Temp. Imbalance Factor: 1.13

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 55 | 116 | 56 | 119 | 59 | 125 |
| 50 | 0.2 | 53 | 113 | 55 | 116 | 57 | 121 |
| 75 | 0.3 | 50 | 107 | 52 | 111 | 54 | 115 |
| 100 | 0.4 | 49 | 104 | 50 | 107 | 53 | 112 |
| 125 | 0.5 | 46 | 98 | 48 | 101 | 50 | 105 |
| 150 | 0.6 | 44 | 94 | 46 | 97 | 47 | 100 |
| 175 | 0.7 | 42 | 88 | 43 | 91 | 45 | 95 |
| 200 | 0.8 | 39 | 82 | 40 | 84 | 42 | 90 |
| 225 | 0.9 | 37 | 78 | 38 | 81 | 40 | 84 |
| 250 | 1.0 | 34 | 72 | 35 | 75 | 37 | 78 |
| 275 | 1.1 | 32 | 67 | 33 | 69 | 35 | 74 |
| 300 | 1.2 | 29 | 61 | 30 | 63 | 32 | 67 |



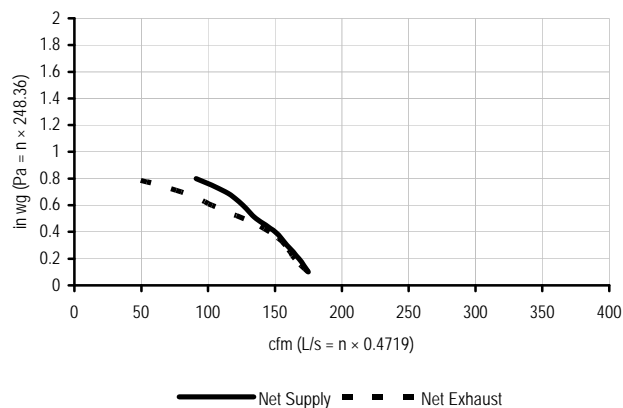
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 13 | 28 | 73 | 69 | 94 | 0.68 |
| | 0 | +32 | 45 | 96 | 137 | 62 | 74 | 0.48 |
| | -25 | -13 | 25 | 54 | 102 | 54 | 83 | 0.58 |
| COOLING | +35 | +95 | 14 | 29 | 70 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 54 | |

CARRIER CORPORATION

Model: HRVCLHA1150-A • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 10% Supply 13% Exhaust • Low Temp. Imbalance Factor: 0.90

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 83 | 175 | 83 | 176 | 83 | 175 |
| 50 | 0.2 | 79 | 168 | 80 | 169 | 78 | 165 |
| 75 | 0.3 | 75 | 159 | 75 | 159 | 75 | 158 |
| 100 | 0.4 | 71 | 150 | 71 | 151 | 69 | 146 |
| 125 | 0.5 | 64 | 136 | 64 | 136 | 60 | 127 |
| 150 | 0.6 | 59 | 126 | 60 | 127 | 49 | 103 |
| 175 | 0.7 | 53 | 113 | 53 | 113 | 38 | 80 |
| 200 | 0.8 | 43 | 91 | 43 | 91 | 21 | 45 |



| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 66 | 85 | 69 | 81 | -0.01 |
| | 0 | +32 | 56 | 119 | 124 | 60 | 70 | -0.01 |
| | -25 | -13 | 37 | 78 | 114 | 62 | 80 | 0.08 |

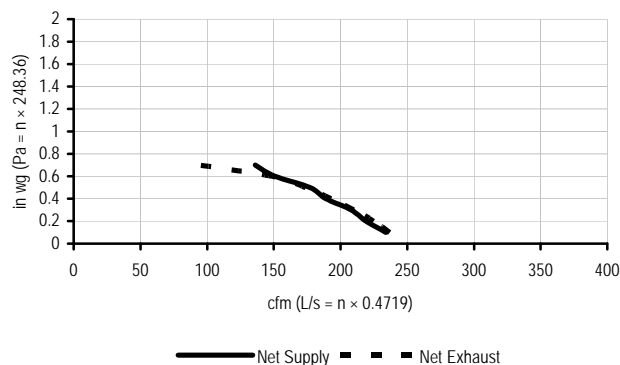
CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

Section 3-29

CARRIER CORPORATION

Model: HRVCCLHA1250-A • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 2.1
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 10% Supply 13% Exhaust • Low Temp. Imbalance Factor: 0.90

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 110 | 234 | 112 | 237 | 112 | 237 |
| 50 | 0.2 | 103 | 219 | 105 | 223 | 106 | 225 |
| 75 | 0.3 | 98 | 208 | 100 | 211 | 99 | 210 |
| 100 | 0.4 | 89 | 189 | 91 | 192 | 91 | 193 |
| 125 | 0.5 | 84 | 177 | 85 | 180 | 82 | 174 |
| 150 | 0.6 | 71 | 151 | 72 | 153 | 70 | 149 |
| 175 | 0.7 | 64 | 136 | 65 | 138 | 44 | 94 |

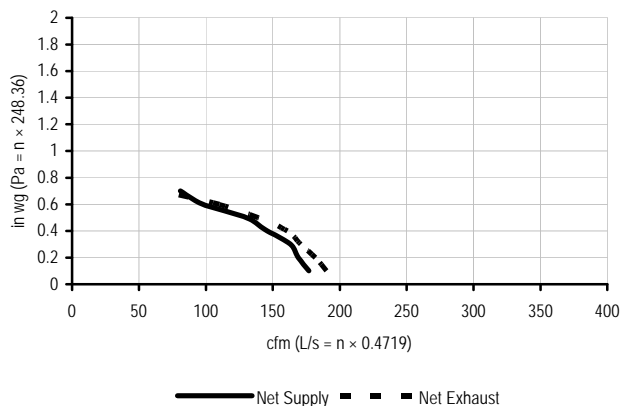


| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 56 | 119 | 124 | 60 | 70 | -0.01 |
| | 0 | +32 | 86 | 182 | 197 | 53 | 62 | -0.01 |
| | -25 | -13 | 37 | 78 | 114 | 62 | 80 | 0.08 |

CARRIER CORPORATION

Model: HRVCCLHU1150-B • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.05 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 9% Supply 22% Exhaust • Low Temp. Imbalance Factor: 1.0

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 84 | 177 | 88 | 186 | 90 | 190 |
| 50 | 0.2 | 80 | 169 | 84 | 178 | 86 | 182 |
| 75 | 0.3 | 77 | 163 | 81 | 171 | 81 | 171 |
| 100 | 0.4 | 69 | 146 | 72 | 153 | 76 | 161 |
| 125 | 0.5 | 61 | 130 | 65 | 137 | 66 | 139 |
| 150 | 0.6 | 46 | 98 | 49 | 103 | 52 | 110 |
| 175 | 0.7 | 38 | 81 | 40 | 85 | 32 | 67 |



| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 54 | 75 | 83 | -0.03 |
| | 0 | +32 | 46 | 97 | 78 | 67 | 74 | 0.01 |
| | 0 | +32 | 65 | 138 | 124 | 64 | 72 | -0.02 |
| | -25 | -13 | 26 | 55 | 62 | 67 | 89 | 0.05 |

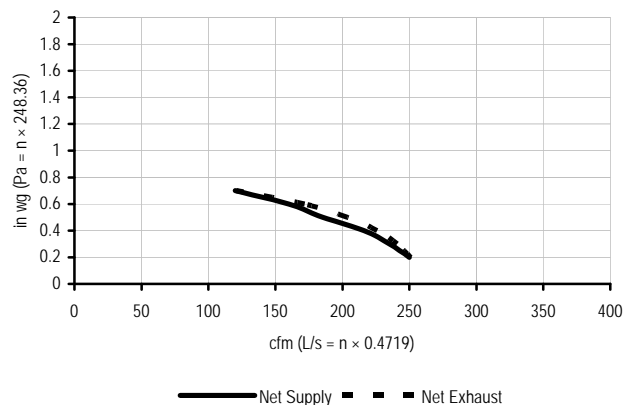
CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

Section 3-30

CARRIER CORPORATION

Model: HRVCLHU1250-B • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.9
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.04 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 23% Exhaust • Low Temp. Imbalance Factor: 1.0

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 50 | 0.2 | 120 | 253 | 124 | 264 | 126 | 268 |
| 75 | 0.3 | 118 | 250 | 123 | 262 | 118 | 251 |
| 100 | 0.4 | 111 | 235 | 116 | 245 | 114 | 241 |
| 125 | 0.5 | 102 | 216 | 106 | 224 | 107 | 226 |
| 150 | 0.6 | 87 | 185 | 91 | 193 | 96 | 204 |
| 175 | 0.7 | 75 | 160 | 78 | 167 | 81 | 172 |
| 200 | 0.8 | 57 | 120 | 59 | 124 | 57 | 121 |

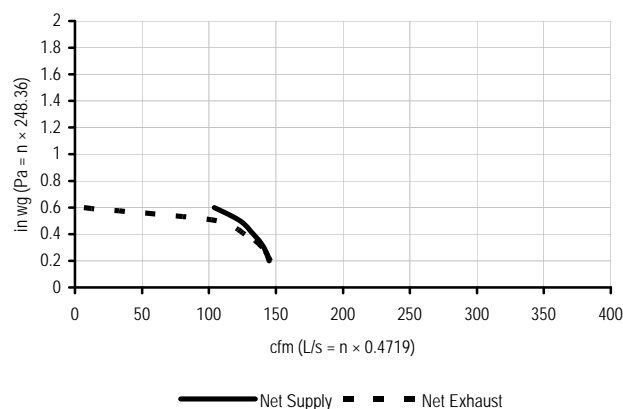


| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 51 | 109 | 92 | 70 | 77 | -0.01 |
| | 0 | +32 | 73 | 155 | 128 | 65 | 72 | -0.02 |
| | 0 | +32 | 102 | 215 | 191 | 62 | 70 | -0.01 |
| | -25 | -13 | 52 | 110 | 104 | 60 | 94 | 0.05 |

CARRIER CORPORATION

Model: HRVCLVU1150-B • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.2
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 11% Supply 20% Exhaust • Low Temp. Imbalance Factor: 1.10

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 72 | 152 | 73 | 155 | 75 | 159 |
| 50 | 0.2 | 68 | 145 | 70 | 148 | 69 | 146 |
| 75 | 0.3 | 67 | 141 | 68 | 144 | 66 | 140 |
| 100 | 0.4 | 63 | 133 | 64 | 136 | 60 | 127 |
| 125 | 0.5 | 58 | 123 | 59 | 125 | 50 | 106 |
| 150 | 0.6 | 49 | 104 | 50 | 106 | 3 | 6 |



| ENERGY PERFORMANCE | | | | | | | | |
|---------------------------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 30 | 64 | 103 | 81 | 92 | 0.02 |
| | 0 | +32 | 46 | 99 | 115 | 76 | 85 | 0.03 |
| | 0 | +32 | 54 | 106 | 117 | 72 | 80 | 0.02 |
| | -25 | -13 | 30 | 64 | 110 | 69 | 89 | 0.11 |
| COOLING | +35 | +95 | 34 | 72 | 105 | | | |
| | +35 | +95 | 50 | 106 | 109 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 23 | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 26 | |

CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

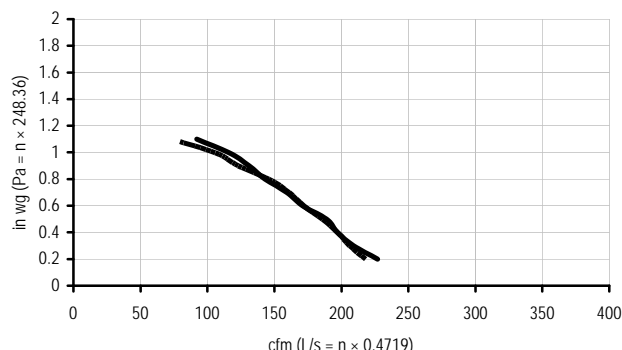
Section 3-31

CARRIER CORPORATION

Model: HRVCLVU1200-B • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 2.2
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.06 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 12.8% Supply 9.4% Exhaust • Low Temp. Imbalance Factor: .093

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 109 | 231 | 116 | 245 | 128 | 271 |
| 50 | 0.2 | 108 | 228 | 114 | 241 | 123 | 260 |
| 75 | 0.3 | 101 | 214 | 107 | 227 | 118 | 249 |
| 100 | 0.4 | 95 | 201 | 101 | 213 | 110 | 233 |
| 125 | 0.5 | 86 | 182 | 91 | 193 | 102 | 217 |
| 150 | 0.6 | 79 | 167 | 84 | 177 | 92 | 195 |
| 175 | 0.7 | 62 | 132 | 66 | 140 | 81 | 172 |
| 200 | 0.8 | 40 | 85 | 42 | 90 | 55 | 116 |



Net Supply Net Exhaust

ENERGY PERFORMANCE

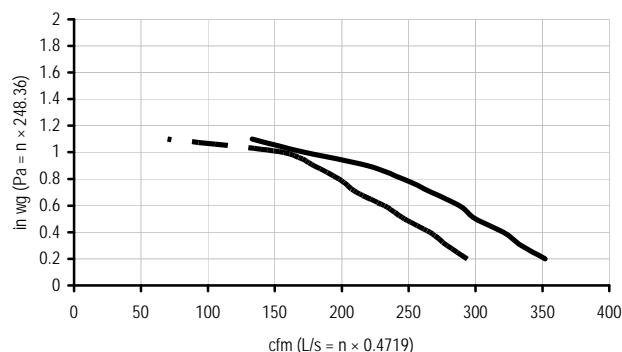
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 52 | 111 | 158 | 84 | 95 | 0.05 |
| | 0 | +32 | 55 | 117 | --- | 84 | --- | --- |
| | 0 | +32 | 71 | 151 | 184 | 79 | 90 | 0.03 |
| | 0 | +32 | 84 | 179 | 210 | 79 | 89 | 0.12 |
| | -25 | -13 | 57 | 121 | 176 | 72 | 88 | -0.04 |
| COOLING | +35 | +95 | 55 | 117 | 160 | | | |
| | +35 | +95 | 76 | 162 | 198 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 13 | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 15 | |

CARRIER CORPORATION

Model: HRVCLVU1330-B • Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 4.6
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 13.3% Supply 15.8% Exhaust • Low Temp. Imbalance Factor: 0.99

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 168 | 357 | 172 | 364 | 148 | 314 |
| 50 | 0.2 | 166 | 352 | 170 | 360 | 139 | 294 |
| 75 | 0.3 | 158 | 334 | 160 | 340 | 132 | 279 |
| 100 | 0.4 | 151 | 321 | 155 | 328 | 126 | 266 |
| 125 | 0.5 | 142 | 300 | 144 | 306 | 117 | 247 |
| 150 | 0.6 | 136 | 288 | 139 | 294 | 109 | 232 |
| 175 | 0.7 | 126 | 267 | 128 | 272 | 100 | 211 |
| 200 | 0.8 | 116 | 246 | 118 | 251 | 93 | 198 |
| 225 | 0.9 | 103 | 219 | 105 | 223 | 84 | 179 |
| 250 | 1.0 | 82 | 173 | 84 | 177 | 74 | 157 |
| 275 | 1.1 | 63 | 133 | 64 | 136 | 33 | 70 |



Net Supply Net Exhaust

ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 55 | 117 | 219 | 80 | 94 | -0.07 |
| | 0 | +32 | 86 | 183 | 290 | 74 | 86 | 0.02 |
| | 0 | +32 | 117 | 249 | 436 | 70 | 83 | -0.01 |
| | -25 | -13 | 55 | 117 | 264 | 74 | 89 | 0.07 |
| COOLING | +35 | +95 | 85 | 181 | 286 | | | |
| | +35 | +95 | 115 | 245 | 434 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 12 | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 9 | |

CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

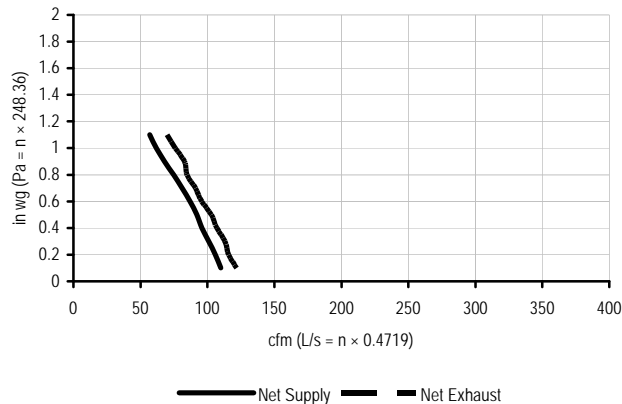
Section 3-32

CARRIER CORPORATION

Model: HRVCCSHA1100-A • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.05 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 16.4% Supply 31.3% Exhaust • Low Temp. Imbalance Factor: 1.15

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 52 | 110 | 52 | 110 | 58 | 122 |
| 50 | 0.2 | 50 | 106 | 50 | 106 | 55 | 116 |
| 75 | 0.3 | 48 | 101 | 48 | 102 | 53 | 113 |
| 100 | 0.4 | 45 | 96 | 46 | 97 | 50 | 107 |
| 125 | 0.5 | 43 | 92 | 43 | 92 | 49 | 103 |
| 150 | 0.6 | 41 | 87 | 41 | 87 | 45 | 96 |
| 175 | 0.7 | 38 | 81 | 38 | 81 | 43 | 91 |
| 200 | 0.8 | 35 | 75 | 36 | 76 | 40 | 85 |
| 225 | 0.9 | 32 | 68 | 33 | 69 | 39 | 83 |
| 250 | 1.0 | 29 | 62 | 29 | 62 | 36 | 76 |
| 275 | 1.1 | 27 | 57 | 27 | 58 | 33 | 70 |



ENERGY PERFORMANCE

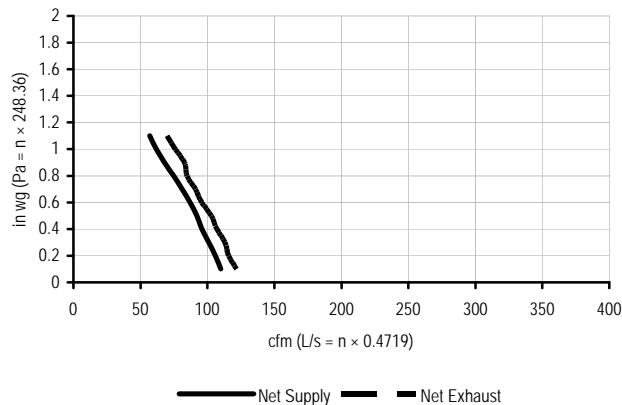
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 23 | 48 | 68 | 66 | 78 | 0.07 |
| | 0 | +32 | 30 | 63 | 82 | 65 | 76 | 0.04 |
| | 0 | +32 | 44 | 93 | 116 | 59 | 68 | 0.04 |
| | -25 | -13 | 30 | 63 | 110 | 55 | 81 | 0.08 |

CARRIER CORPORATION

Model: HRVCCSVA1100-A • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.05 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 16.4% Supply 31.3% Exhaust • Low Temp. Imbalance Factor: 1.15

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 52 | 110 | 52 | 110 | 58 | 122 |
| 50 | 0.2 | 50 | 106 | 50 | 106 | 55 | 116 |
| 75 | 0.3 | 48 | 101 | 48 | 102 | 53 | 113 |
| 100 | 0.4 | 45 | 96 | 46 | 97 | 50 | 107 |
| 125 | 0.5 | 43 | 92 | 43 | 92 | 49 | 103 |
| 150 | 0.6 | 41 | 87 | 41 | 87 | 45 | 96 |
| 175 | 0.7 | 38 | 81 | 38 | 81 | 43 | 91 |
| 200 | 0.8 | 35 | 75 | 36 | 76 | 40 | 85 |
| 225 | 0.9 | 32 | 68 | 33 | 69 | 39 | 83 |
| 250 | 1.0 | 29 | 62 | 29 | 62 | 36 | 76 |
| 275 | 1.1 | 27 | 57 | 27 | 58 | 33 | 70 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 23 | 48 | 68 | 66 | 78 | 0.07 |
| | 0 | +32 | 30 | 63 | 82 | 65 | 76 | 0.04 |
| | 0 | +32 | 44 | 93 | 116 | 59 | 68 | 0.04 |
| | -25 | -13 | 30 | 63 | 110 | 55 | 81 | 0.08 |

CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

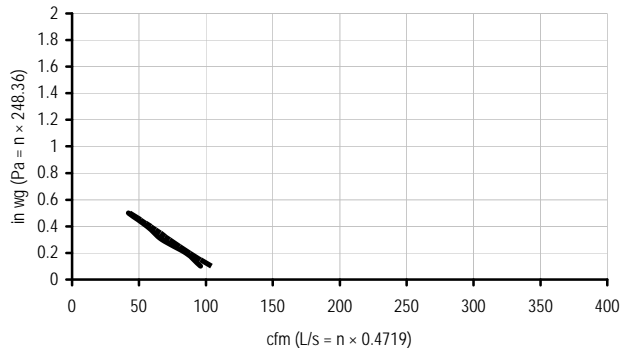
Section 3-34

FANTECH, INC. (FANTECH)

Model: SH704 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 0.4
 Exhaust Air Transfer Ratio: 0.04 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 7% Supply 9% Exhaust • Low Temp. Imbalance Factor: 0.97

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 45 | 96 | 47 | 100 | 49 | 104 |
| 50 | 0.2 | 40 | 85 | 41 | 88 | 41 | 88 |
| 75 | 0.3 | 32 | 67 | 33 | 70 | 34 | 73 |
| 100 | 0.4 | 26 | 56 | 27 | 58 | 28 | 59 |
| 125 | 0.5 | 20 | 42 | 20 | 43 | 20 | 43 |



— Net Supply — Net Exhaust

ENERGY PERFORMANCE

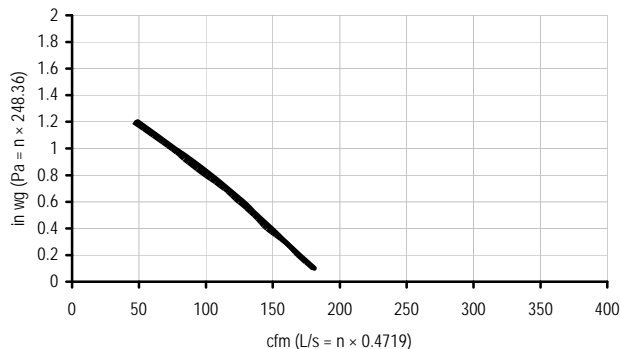
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 26 | 55 | 36 | 57 | 67 | 0.02 |
| | 0 | +32 | 32 | 67 | 40 | 55 | 63 | 0.00 |
| | 0 | +32 | 39 | 84 | 40 | 54 | 60 | 0.00 |
| | -25 | -13 | 34 | 73 | 35 | 53 | 66 | 0.01 |

FANTECH, INC. (FANTECH)

Model: SHR 1504 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio:0.03 @ 100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 5% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.82

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 85 | 181 | 87 | 184 | 84 | 180 |
| 50 | 0.2 | 80 | 170 | 82 | 174 | 79 | 169 |
| 75 | 0.3 | 75 | 159 | 76 | 162 | 75 | 159 |
| 100 | 0.4 | 70 | 149 | 71 | 151 | 68 | 146 |
| 125 | 0.5 | 65 | 138 | 66 | 141 | 64 | 136 |
| 150 | 0.6 | 60 | 128 | 61 | 130 | 59 | 125 |
| 175 | 0.7 | 55 | 116 | 56 | 119 | 54 | 114 |
| 200 | 0.8 | 49 | 104 | 50 | 106 | 47 | 100 |
| 225 | 0.9 | 43 | 91 | 43 | 92 | 41 | 87 |
| 250 | 1.0 | 36 | 77 | 37 | 79 | 35 | 75 |
| 275 | 1.1 | 30 | 63 | 30 | 64 | 29 | 61 |
| 300 | 1.2 | 23 | 49 | 24 | 50 | 22 | 46 |



— Net Supply — Net Exhaust

ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 67 | 72 | 60 | 73 | -0.11 |
| | 0 | +32 | 51 | 109 | 98 | 59 | 70 | 0.00 |
| | 0 | +32 | 76 | 161 | 144 | 55 | 63 | 0.00 |
| | -25 | -13 | 32 | 68 | 73 | 56 | 77 | -0.02 |

CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

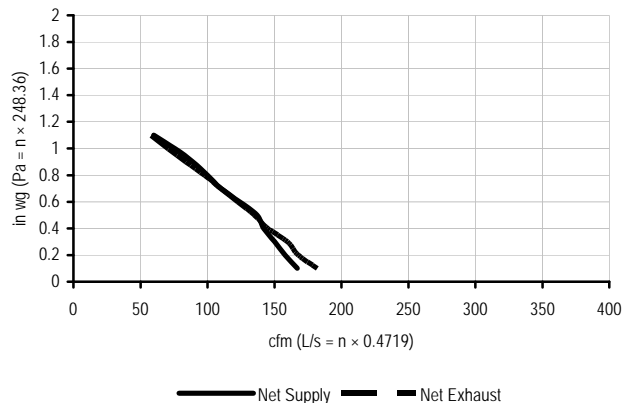
Section 3-35

FANTECH, INC. (FANTECH)

Model: SHR 1505R • Options Installed: Damper
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 12% Supply 14% Exhaust • Low Temp. Imbalance Factor: 0.96

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 78 | 167 | 80 | 169 | 86 | 182 |
| 50 | 0.2 | 74 | 158 | 75 | 160 | 79 | 168 |
| 75 | 0.3 | 71 | 150 | 72 | 152 | 75 | 160 |
| 100 | 0.4 | 67 | 142 | 68 | 144 | 68 | 145 |
| 125 | 0.5 | 65 | 137 | 66 | 140 | 63 | 135 |
| 150 | 0.6 | 58 | 124 | 59 | 126 | 58 | 123 |
| 175 | 0.7 | 52 | 110 | 53 | 112 | 52 | 110 |
| 200 | 0.8 | 47 | 100 | 48 | 101 | 46 | 98 |
| 225 | 0.9 | 42 | 89 | 43 | 91 | 40 | 84 |
| 250 | 1.0 | 36 | 76 | 36 | 77 | 34 | 71 |
| 275 | 1.1 | 28 | 60 | 28 | 60 | 27 | 58 |



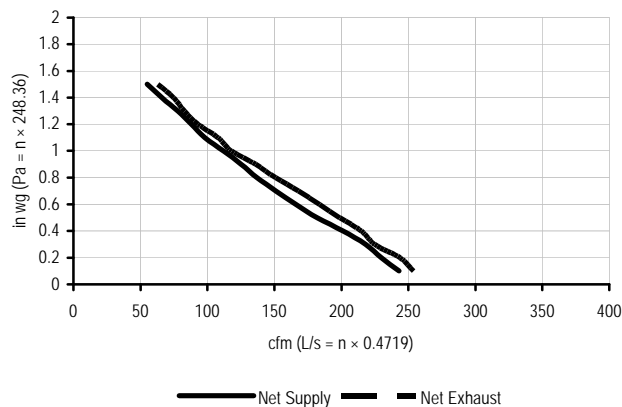
ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 65 | 72 | 59 | 73 | 0.01 |
| | 0 | +32 | 49 | 104 | 102 | 61 | 70 | 0.00 |
| | 0 | +32 | 76 | 161 | 148 | 58 | 66 | -0.01 |
| | -25 | -13 | 32 | 68 | 96 | 61 | 77 | 0.02 |

FANTECH, INC. (FANTECH)

Model: SHR 2004 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2.1
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 8% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.81

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 114 | 243 | 116 | 246 | 120 | 254 |
| 50 | 0.2 | 109 | 230 | 110 | 233 | 115 | 244 |
| 75 | 0.3 | 103 | 218 | 104 | 221 | 106 | 225 |
| 100 | 0.4 | 95 | 201 | 96 | 204 | 101 | 215 |
| 125 | 0.5 | 86 | 182 | 87 | 185 | 94 | 199 |
| 150 | 0.6 | 78 | 166 | 79 | 168 | 87 | 184 |
| 175 | 0.7 | 71 | 151 | 72 | 154 | 79 | 168 |
| 200 | 0.8 | 65 | 137 | 66 | 139 | 71 | 151 |
| 225 | 0.9 | 59 | 125 | 60 | 127 | 64 | 136 |
| 250 | 1.0 | 53 | 112 | 53 | 113 | 56 | 118 |
| 275 | 1.1 | 46 | 98 | 47 | 99 | 51 | 108 |
| 300 | 1.2 | 42 | 88 | 42 | 90 | 44 | 93 |
| 325 | 1.3 | 37 | 78 | 37 | 79 | 39 | 83 |
| 350 | 1.4 | 31 | 66 | 32 | 67 | 35 | 75 |
| 375 | 1.5 | 26 | 55 | 26 | 56 | 30 | 63 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 65 | 108 | 62 | 77 | 0.06 |
| | 0 | +32 | 55 | 117 | 154 | 62 | 74 | 0.07 |
| | 0 | +32 | 90 | 191 | 246 | 60 | 71 | 0.00 |
| | -25 | -13 | 61 | 129 | 154 | 59 | 79 | 0.00 |

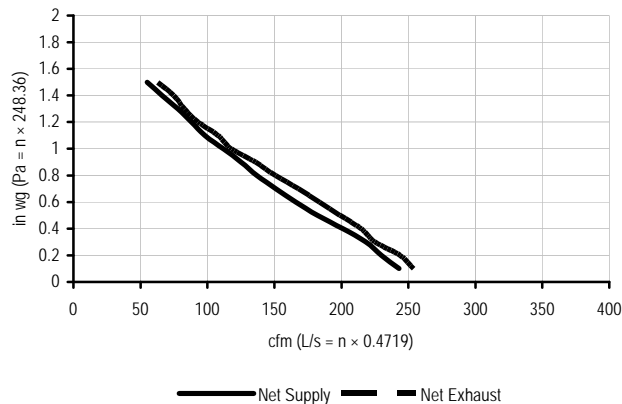
CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

Section 3-36

FANTECH, INC. (FANTECH)

Model: SHR 2005R • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2.1
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 8% Supply 18% Exhaust • Low Temp. Imbalance Factor: 1.09

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 114 | 243 | 116 | 246 | 120 | 254 |
| 50 | 0.2 | 109 | 230 | 110 | 233 | 115 | 244 |
| 75 | 0.3 | 103 | 218 | 104 | 221 | 106 | 225 |
| 100 | 0.4 | 95 | 201 | 96 | 204 | 101 | 215 |
| 125 | 0.5 | 86 | 182 | 87 | 185 | 94 | 199 |
| 150 | 0.6 | 78 | 166 | 79 | 168 | 87 | 184 |
| 175 | 0.7 | 71 | 151 | 72 | 154 | 79 | 168 |
| 200 | 0.8 | 65 | 137 | 66 | 139 | 71 | 151 |
| 225 | 0.9 | 59 | 125 | 60 | 127 | 64 | 136 |
| 250 | 1.0 | 53 | 112 | 53 | 113 | 56 | 118 |
| 275 | 1.1 | 46 | 98 | 47 | 99 | 51 | 108 |
| 300 | 1.2 | 42 | 88 | 42 | 90 | 44 | 93 |
| 325 | 1.3 | 37 | 78 | 37 | 79 | 39 | 83 |
| 350 | 1.4 | 31 | 66 | 32 | 67 | 35 | 75 |
| 375 | 1.5 | 26 | 55 | 26 | 56 | 30 | 63 |

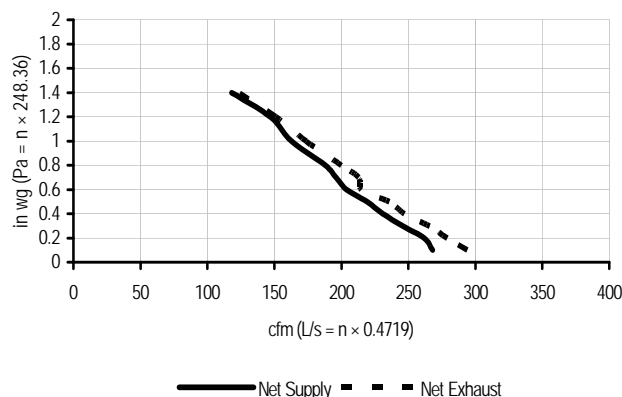


| | SUPPLY TEMPERATURE | | NET AIR FLOW | | ENERGY PERFORMANCE | | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | | |
| HEATING | 0 | +32 | 31 | 65 | 108 | 62 | 77 | 0.06 |
| | 0 | +32 | 55 | 117 | 154 | 62 | 74 | 0.07 |
| | 0 | +32 | 90 | 191 | 246 | 60 | 71 | 0.00 |
| | -25 | -13 | 59 | 126 | 141 | 64 | 81 | 0.01 |

FANTECH, INC. (FANTECH)

Model: SHR 3005R • Options Installed: None
 Electrical Requirements: Volts: 115 Amps: 2.7
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 7% Supply 9% Exhaust • Low Temp. Imbalance Factor: 0.96

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 126 | 268 | 131 | 277 | 139 | 294 |
| 50 | 0.2 | 124 | 262 | 127 | 270 | 132 | 279 |
| 75 | 0.3 | 116 | 246 | 119 | 253 | 126 | 266 |
| 100 | 0.4 | 109 | 231 | 112 | 238 | 117 | 247 |
| 125 | 0.5 | 103 | 219 | 107 | 226 | 111 | 236 |
| 150 | 0.6 | 96 | 204 | 100 | 211 | 101 | 215 |
| 175 | 0.7 | 93 | 196 | 95 | 202 | 101 | 213 |
| 200 | 0.8 | 89 | 188 | 92 | 194 | 94 | 200 |
| 250 | 1.0 | 77 | 163 | 79 | 168 | 82 | 174 |
| 300 | 1.2 | 69 | 147 | 71 | 151 | 71 | 151 |
| 350 | 1.4 | 56 | 118 | 57 | 121 | 58 | 123 |



| | SUPPLY TEMPERATURE | | NET AIR FLOW | | ENERGY PERFORMANCE | | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | | |
| HEATING | 0 | +32 | 30 | 64 | 126 | 76 | 91 | .02 |
| | 0 | +32 | 55 | 117 | 212 | 78 | 92 | .01 |
| | 0 | +32 | 74 | 157 | 262 | 78 | 91 | -.09 |
| | -25 | -13 | 57 | 121 | 224 | 72 | 91 | .09 |
| | -25 | -13 | 55 | 117 | 220 | 72 | -- | -- |
| COOLING | +35 | +95 | 54 | 115 | 206 | 18 | 18 | |
| | +35 | +95 | 74 | 159 | 260 | 17 | 17 | |

TOTAL RECOVERY EFFICIENCY

CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

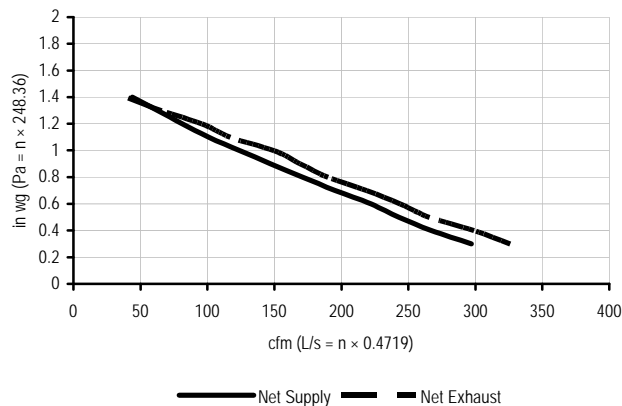
Section 3-37

FANTECH, INC. (FANTECH)

Model: SHR 3205R • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2.5
 Exhaust Air Transfer Ratio: 0.03 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 11.8% Supply 13.4% Exhaust • Low Temp. Imbalance Factor: 1.00

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 75 | 0.3 | 140 | 297 | 144 | 306 | 153 | 326 |
| 100 | 0.4 | 126 | 267 | 129 | 275 | 141 | 299 |
| 125 | 0.5 | 114 | 243 | 117 | 250 | 125 | 266 |
| 150 | 0.6 | 104 | 222 | 108 | 229 | 115 | 244 |
| 175 | 0.7 | 92 | 195 | 94 | 201 | 103 | 219 |
| 200 | 0.8 | 80 | 171 | 83 | 176 | 89 | 190 |
| 225 | 0.9 | 69 | 147 | 71 | 151 | 79 | 169 |
| 250 | 1.0 | 58 | 124 | 60 | 128 | 71 | 150 |
| 275 | 1.1 | 47 | 101 | 49 | 103 | 55 | 117 |
| 300 | 1.2 | 38 | 81 | 39 | 84 | 45 | 96 |
| 325 | 1.3 | 30 | 63 | 30 | 65 | 31 | 66 |
| 350 | 1.4 | 21 | 44 | 21 | 46 | 18 | 39 |



ENERGY PERFORMANCE

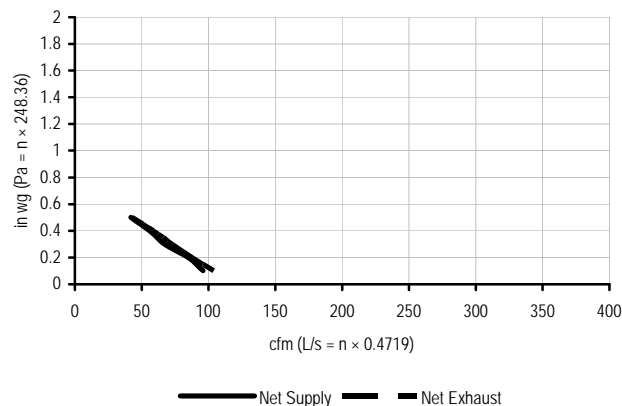
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 56 | 118 | 136 | 66 | 77 | 0.02 |
| | 0 | +32 | 76 | 162 | 182 | 66 | 76 | 0.02 |
| | 0 | +32 | 116 | 248 | 272 | 64 | 74 | 0.03 |
| | -25 | -13 | 58 | 123 | 168 | 67 | 79 | 0.05 |

FANTECH, INC. (FANTECH)

Model: VH704 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 0.4
 Exhaust Air Transfer Ratio: 0.04 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 7% Supply 9% Exhaust • Low Temp. Imbalance Factor: 0.97

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 45 | 96 | 47 | 100 | 49 | 104 |
| 50 | 0.2 | 40 | 85 | 41 | 88 | 41 | 88 |
| 75 | 0.3 | 32 | 67 | 33 | 70 | 34 | 73 |
| 100 | 0.4 | 26 | 56 | 27 | 58 | 28 | 59 |
| 125 | 0.5 | 20 | 42 | 20 | 43 | 20 | 43 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 26 | 55 | 36 | 57 | 67 | 0.02 |
| | 0 | +32 | 32 | 67 | 40 | 55 | 63 | 0.00 |
| | 0 | +32 | 39 | 84 | 40 | 54 | 60 | 0.00 |
| | -25 | -13 | 34 | 73 | 35 | 53 | 66 | 0.01 |

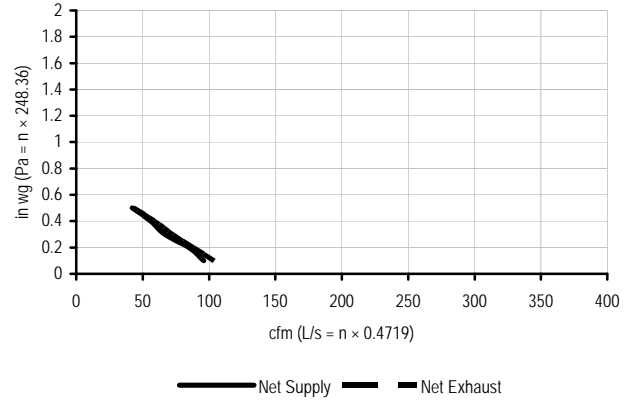
CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

Section 3-38

FANTECH, INC. (FANTECH)

Model: VHR704 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 0.4
 Exhaust Air Transfer Ratio: 0.04 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 7% Supply 9% Exhaust • Low Temp. Imbalance Factor: 0.97

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 45 | 96 | 47 | 100 | 49 | 104 |
| 50 | 0.2 | 40 | 85 | 41 | 88 | 41 | 88 |
| 75 | 0.3 | 32 | 67 | 33 | 70 | 34 | 73 |
| 100 | 0.4 | 26 | 56 | 27 | 58 | 28 | 59 |
| 125 | 0.5 | 20 | 42 | 20 | 43 | 20 | 43 |

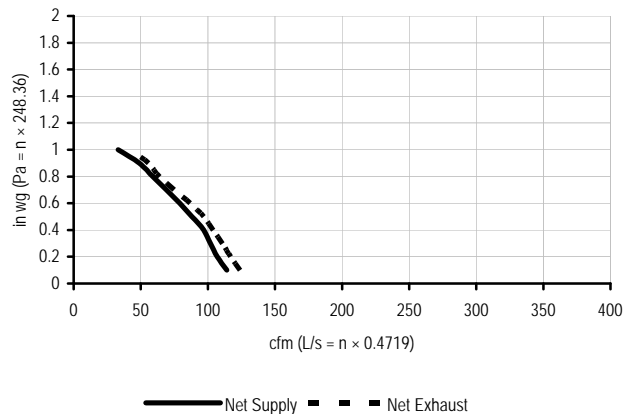


| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 26 | 55 | 36 | 57 | 67 | 0.02 |
| | 0 | +32 | 32 | 67 | 40 | 55 | 63 | 0.00 |
| | 0 | +32 | 39 | 84 | 40 | 54 | 60 | 0.00 |
| | -25 | -13 | 34 | 73 | 35 | 53 | 66 | 0.01 |

FANTECH, INC. (FANTECH)

Model: VHR 904 • Options Installed: Damper
 Electrical Requirements: Volts: 120 Amps: 0.4
 Exhaust Air Transfer Ratio: 0.10 @100 Pa/0.4 in. wg 0.10 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 12% Supply 2% Exhaust • Low Temp. Imbalance Factor: 0.88

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 54 | 114 | 55 | 116 | 59 | 124 |
| 50 | 0.2 | 50 | 107 | 51 | 109 | 55 | 117 |
| 75 | 0.3 | 48 | 102 | 49 | 104 | 52 | 111 |
| 100 | 0.4 | 46 | 97 | 47 | 99 | 49 | 104 |
| 125 | 0.5 | 42 | 88 | 42 | 90 | 46 | 97 |
| 150 | 0.6 | 37 | 79 | 38 | 80 | 41 | 87 |
| 175 | 0.7 | 33 | 69 | 33 | 70 | 35 | 75 |



| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 28 | 60 | 88 | 69 | 81 | 0.00 |
| | 0 | +32 | 41 | 88 | 175 | 62 | 76 | 0.02 |
| | 0 | +32 | 53 | 113 | 180 | 61 | 75 | 0.02 |

CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

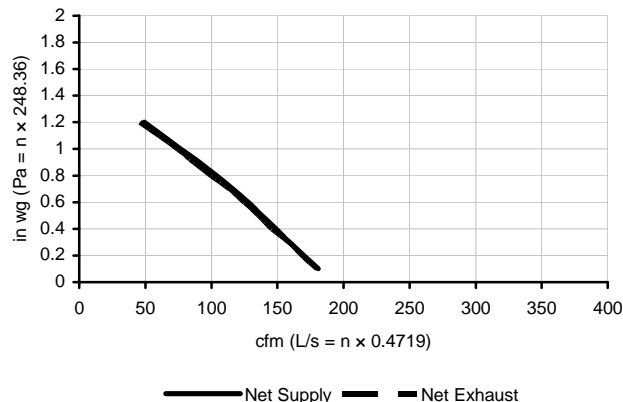
Section 3-39

FANTECH, INC. (FANTECH)

Model: VHR 1404 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.03 @ 100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 5% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.82

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 85 | 181 | 87 | 184 | 84 | 180 |
| 50 | 0.2 | 80 | 170 | 82 | 174 | 79 | 169 |
| 75 | 0.3 | 75 | 159 | 76 | 162 | 75 | 159 |
| 100 | 0.4 | 70 | 149 | 71 | 151 | 68 | 146 |
| 125 | 0.5 | 65 | 138 | 66 | 141 | 64 | 136 |
| 150 | 0.6 | 60 | 128 | 61 | 130 | 59 | 125 |
| 175 | 0.7 | 55 | 116 | 56 | 119 | 54 | 114 |
| 200 | 0.8 | 49 | 104 | 50 | 106 | 47 | 100 |
| 225 | 0.9 | 43 | 91 | 43 | 92 | 41 | 87 |
| 250 | 1.0 | 36 | 77 | 37 | 79 | 35 | 75 |
| 275 | 1.1 | 30 | 63 | 30 | 64 | 29 | 61 |
| 300 | 1.2 | 23 | 49 | 24 | 50 | 22 | 46 |



ENERGY PERFORMANCE

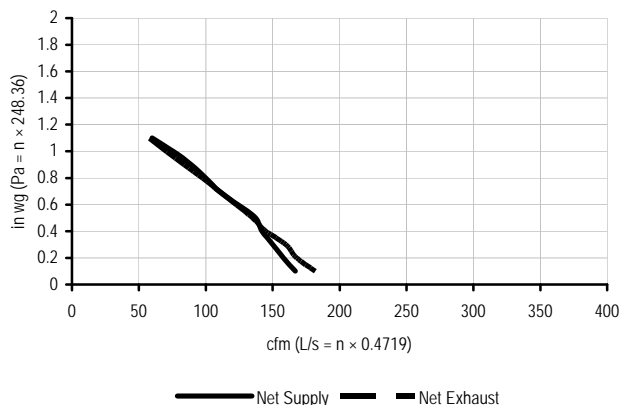
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 31 | 67 | 72 | 60 | 73 | -0.11 |
| | 0 | +32 | 51 | 109 | 98 | 59 | 70 | 0.00 |
| | 0 | +32 | 76 | 161 | 144 | 55 | 63 | 0.00 |
| | -25 | -13 | 32 | 68 | 73 | 56 | 77 | -0.02 |

FANTECH, INC. (FANTECH)

Model: VHR 1405R • Options Installed: Damper
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.02 @ 100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 12% Supply 14% Exhaust • Low Temp. Imbalance Factor: 0.96

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 78 | 167 | 80 | 169 | 86 | 182 |
| 50 | 0.2 | 74 | 158 | 75 | 160 | 79 | 168 |
| 75 | 0.3 | 71 | 150 | 72 | 152 | 75 | 160 |
| 100 | 0.4 | 67 | 142 | 68 | 144 | 68 | 145 |
| 125 | 0.5 | 65 | 137 | 66 | 140 | 63 | 135 |
| 150 | 0.6 | 58 | 124 | 59 | 126 | 58 | 123 |
| 175 | 0.7 | 52 | 110 | 53 | 112 | 52 | 110 |
| 200 | 0.8 | 47 | 100 | 48 | 101 | 46 | 98 |
| 225 | 0.9 | 42 | 89 | 43 | 91 | 40 | 84 |
| 250 | 1.0 | 36 | 76 | 36 | 77 | 34 | 71 |
| 275 | 1.1 | 28 | 60 | 28 | 60 | 27 | 58 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 31 | 65 | 72 | 59 | 73 | 0.01 |
| | 0 | +32 | 49 | 104 | 102 | 61 | 70 | 0.00 |
| | 0 | +32 | 76 | 161 | 148 | 58 | 66 | -0.01 |
| | -25 | -13 | 32 | 68 | 96 | 61 | 77 | 0.02 |

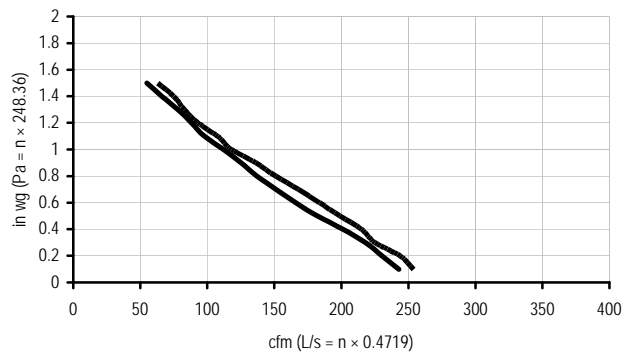
CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

Section 3-40

FANTECH, INC. (FANTECH)

Model: VHR 2004 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2.1
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 8% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.81

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 114 | 243 | 116 | 246 | 120 | 254 |
| 50 | 0.2 | 109 | 230 | 110 | 233 | 115 | 244 |
| 75 | 0.3 | 103 | 218 | 104 | 221 | 106 | 225 |
| 100 | 0.4 | 95 | 201 | 96 | 204 | 101 | 215 |
| 125 | 0.5 | 86 | 182 | 87 | 185 | 94 | 199 |
| 150 | 0.6 | 78 | 166 | 79 | 168 | 87 | 184 |
| 175 | 0.7 | 71 | 151 | 72 | 154 | 79 | 168 |
| 200 | 0.8 | 65 | 137 | 66 | 139 | 71 | 151 |
| 225 | 0.9 | 59 | 125 | 60 | 127 | 64 | 136 |
| 250 | 1.0 | 53 | 112 | 53 | 113 | 56 | 118 |
| 275 | 1.1 | 46 | 98 | 47 | 99 | 51 | 108 |
| 300 | 1.2 | 42 | 88 | 42 | 90 | 44 | 93 |
| 325 | 1.3 | 37 | 78 | 37 | 79 | 39 | 83 |
| 350 | 1.4 | 31 | 66 | 32 | 67 | 35 | 75 |
| 375 | 1.5 | 26 | 55 | 26 | 56 | 30 | 63 |



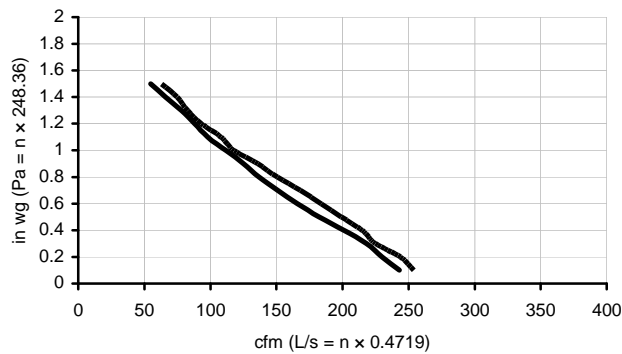
— Net Supply — Net Exhaust

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 65 | 108 | 62 | 77 | 0.06 |
| | 0 | +32 | 55 | 117 | 154 | 62 | 74 | 0.07 |
| | 0 | +32 | 90 | 191 | 246 | 60 | 71 | 0.00 |
| | -25 | -13 | 61 | 129 | 154 | 59 | 79 | 0.00 |

FANTECH, INC. (FANTECH)

Model: VHR 2005R • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2.1
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 8% Supply 18% Exhaust • Low Temp. Imbalance Factor: 1.09

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 114 | 243 | 116 | 246 | 120 | 254 |
| 50 | 0.2 | 109 | 230 | 110 | 233 | 115 | 244 |
| 75 | 0.3 | 103 | 218 | 104 | 221 | 106 | 225 |
| 100 | 0.4 | 95 | 201 | 96 | 204 | 101 | 215 |
| 125 | 0.5 | 86 | 182 | 87 | 185 | 94 | 199 |
| 150 | 0.6 | 78 | 166 | 79 | 168 | 87 | 184 |
| 175 | 0.7 | 71 | 151 | 72 | 154 | 79 | 168 |
| 200 | 0.8 | 65 | 137 | 66 | 139 | 71 | 151 |
| 225 | 0.9 | 59 | 125 | 60 | 127 | 64 | 136 |
| 250 | 1.0 | 53 | 112 | 53 | 113 | 56 | 118 |
| 275 | 1.1 | 46 | 98 | 47 | 99 | 51 | 108 |
| 300 | 1.2 | 42 | 88 | 42 | 90 | 44 | 93 |
| 325 | 1.3 | 37 | 78 | 37 | 79 | 39 | 83 |
| 350 | 1.4 | 31 | 66 | 32 | 67 | 35 | 75 |
| 375 | 1.5 | 26 | 55 | 26 | 56 | 30 | 63 |



— Net Supply — Net Exhaust

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 65 | 108 | 62 | 77 | 0.06 |
| | 0 | +32 | 55 | 117 | 154 | 62 | 74 | 0.07 |
| | 0 | +32 | 90 | 191 | 246 | 60 | 71 | 0.00 |
| | -25 | -13 | 59 | 126 | 141 | 64 | 81 | 0.01 |

CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

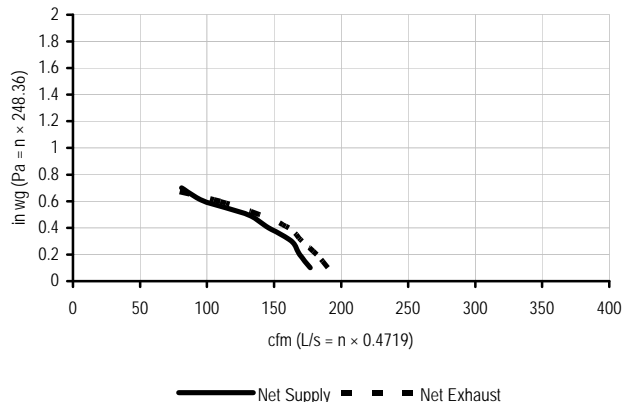
Section 3-42

FRIGIDAIRE

Model: HRV-150 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.05 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 9% Supply 22%Exhaust • Low Temp. Imbalance Factor: 1.0

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 84 | 177 | 88 | 186 | 90 | 190 |
| 50 | 0.2 | 80 | 169 | 84 | 178 | 86 | 182 |
| 75 | 0.3 | 77 | 163 | 81 | 171 | 81 | 171 |
| 100 | 0.4 | 69 | 146 | 72 | 153 | 76 | 161 |
| 125 | 0.5 | 61 | 130 | 65 | 137 | 66 | 139 |
| 150 | 0.6 | 46 | 98 | 49 | 103 | 52 | 110 |
| 175 | 0.7 | 38 | 81 | 40 | 85 | 32 | 67 |



ENERGY PERFORMANCE

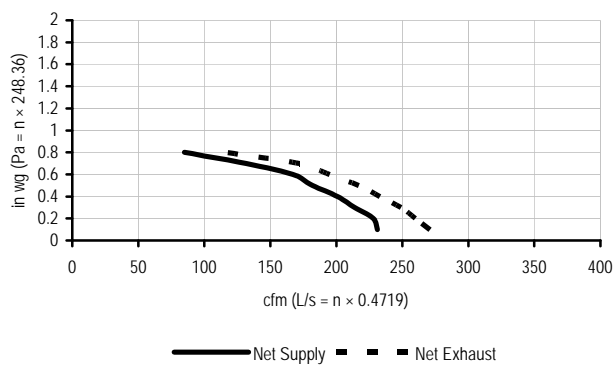
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 54 | 75 | 83 | -0.03 |
| | 0 | +32 | 46 | 97 | 78 | 67 | 74 | 0.01 |
| | 0 | +32 | 65 | 138 | 124 | 64 | 72 | -0.02 |
| | -25 | -13 | 26 | 55 | 62 | 67 | 89 | 0.05 |

FRIGIDAIRE

Model: ERV-210 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.9
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.06 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.84

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 109 | 231 | 116 | 245 | 128 | 271 |
| 50 | 0.2 | 108 | 228 | 114 | 241 | 123 | 260 |
| 75 | 0.3 | 101 | 214 | 107 | 227 | 118 | 249 |
| 100 | 0.4 | 95 | 201 | 101 | 213 | 110 | 233 |
| 125 | 0.5 | 86 | 182 | 91 | 193 | 102 | 217 |
| 150 | 0.6 | 79 | 167 | 84 | 177 | 92 | 195 |
| 175 | 0.7 | 62 | 132 | 66 | 140 | 81 | 172 |
| 200 | 0.8 | 40 | 85 | 42 | 90 | 55 | 116 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 52 | 110 | 93 | 69 | 76 | 0.45 |
| | 0 | +32 | 74 | 157 | 130 | 64 | 71 | 0.38 |
| | 0 | +32 | 96 | 203 | 193 | 60 | 68 | 0.30 |
| | -15 | -5 | 52 | 110 | 122 | 55 | 76 | 0.26 |
| COOLING | +35 | +95 | 50 | 106 | 89 | | | |

TOTAL RECOVERY EFFICIENCY
41

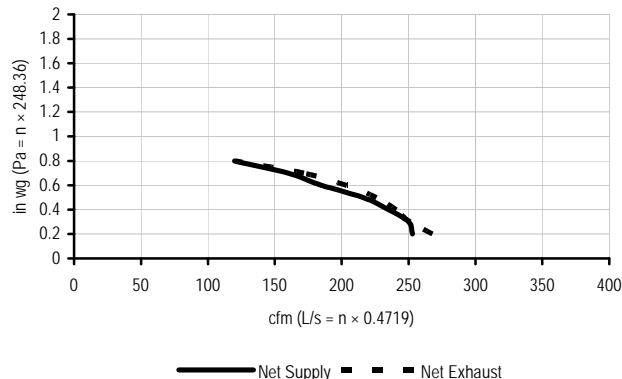
CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

Section 3-43

FRIGIDAIRE

Model: HRV-210 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.9
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.04 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 23% Exhaust • Low Temp. Imbalance Factor: 1.0

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 50 | 0.2 | 119 | 253 | 125 | 264 | 126 | 268 |
| 75 | 0.3 | 118 | 250 | 124 | 262 | 118 | 251 |
| 100 | 0.4 | 111 | 235 | 116 | 245 | 114 | 241 |
| 125 | 0.5 | 102 | 216 | 106 | 224 | 107 | 226 |
| 150 | 0.6 | 87 | 185 | 91 | 193 | 96 | 204 |
| 175 | 0.7 | 76 | 160 | 79 | 167 | 81 | 172 |
| 200 | 0.8 | 57 | 120 | 59 | 124 | 57 | 121 |

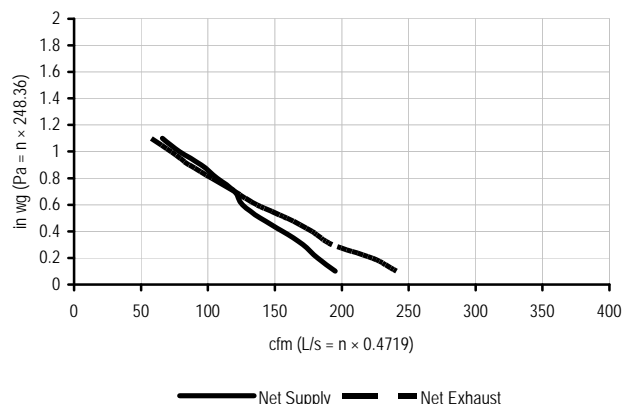


| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 51 | 109 | 92 | 70 | 77 | -0.01 |
| | 0 | +32 | 73 | 155 | 128 | 65 | 72 | -0.02 |
| | 0 | +32 | 102 | 215 | 191 | 62 | 70 | -0.01 |
| | -25 | -13 | 52 | 110 | 104 | 60 | 94 | 0.05 |

GENERAL FILTERS, INC. (GENERAL AIRE)

Model: 8160 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 17.8% Supply 13.8% Exhaust • Low Temp. Imbalance Factor: 0.88

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 92 | 195 | 92 | 196 | 113 | 241 |
| 50 | 0.2 | 85 | 182 | 86 | 183 | 105 | 223 |
| 75 | 0.3 | 80 | 171 | 81 | 172 | 91 | 193 |
| 100 | 0.4 | 73 | 156 | 74 | 157 | 84 | 178 |
| 125 | 0.5 | 65 | 139 | 66 | 140 | 75 | 159 |
| 150 | 0.6 | 59 | 126 | 60 | 127 | 65 | 137 |
| 175 | 0.7 | 56 | 120 | 57 | 120 | 57 | 120 |
| 200 | 0.8 | 50 | 107 | 50 | 107 | 48 | 103 |
| 225 | 0.9 | 45 | 95 | 45 | 96 | 40 | 86 |
| 250 | 1.0 | 37 | 79 | 38 | 80 | 34 | 73 |
| 275 | 1.1 | 31 | 66 | 31 | 67 | 27 | 58 |



| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 66 | 88 | 66 | 78 | 0.00 |
| | 0 | +32 | 42 | 89 | 104 | 64 | 76 | 0.00 |
| | 0 | +32 | 56 | 119 | 114 | 63 | 72 | 0.00 |
| | -25 | -13 | 32 | 67 | 86 | 59 | 77 | 0.02 |

CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

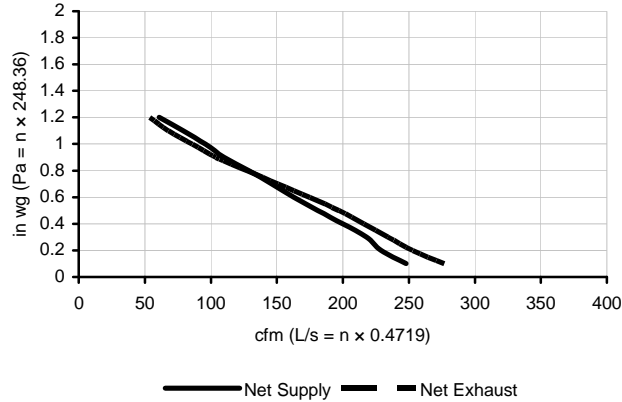
Section 3-44

GENERAL FILTERS, INC. (GENERAL AIRE)

Model: 8220 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.10 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 2.3% Supply 0.2% Exhaust • Low Temp. Imbalance Factor: 0.91

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 117 | 248 | 118 | 250 | 130 | 277 |
| 50 | 0.2 | 108 | 229 | 109 | 231 | 119 | 253 |
| 75 | 0.3 | 102 | 218 | 103 | 220 | 110 | 234 |
| 100 | 0.4 | 94 | 200 | 95 | 202 | 101 | 216 |
| 125 | 0.5 | 85 | 181 | 86 | 183 | 92 | 197 |
| 150 | 0.6 | 77 | 163 | 78 | 165 | 82 | 175 |
| 175 | 0.7 | 69 | 146 | 70 | 148 | 71 | 151 |
| 200 | 0.8 | 61 | 129 | 61 | 131 | 60 | 128 |
| 225 | 0.9 | 52 | 110 | 52 | 111 | 49 | 104 |
| 250 | 1.0 | 45 | 96 | 46 | 97 | 40 | 86 |
| 275 | 1.1 | 37 | 79 | 38 | 80 | 32 | 68 |
| 300 | 1.2 | 29 | 61 | 29 | 62 | 26 | 54 |



ENERGY PERFORMANCE

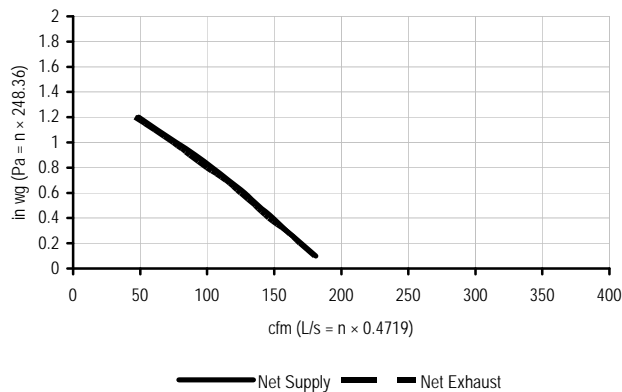
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 55 | 118 | 106 | 61 | 71 | 0.00 |
| | 0 | +32 | 75 | 160 | 132 | 58 | 65 | 0.00 |
| | 0 | +32 | 87 | 185 | 150 | 55 | 62 | 0.00 |
| | -25 | -13 | 57 | 120 | 105 | 58 | 72 | 0.01 |

GOODMAN INDOOR AIR QUALITY PRODUCTS

Model: HRV150 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.03 @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 5% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.82

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 85 | 181 | 87 | 184 | 84 | 180 |
| 50 | 0.2 | 80 | 170 | 82 | 174 | 79 | 169 |
| 75 | 0.3 | 75 | 159 | 76 | 162 | 75 | 159 |
| 100 | 0.4 | 70 | 149 | 71 | 151 | 68 | 146 |
| 125 | 0.5 | 65 | 138 | 66 | 141 | 64 | 136 |
| 150 | 0.6 | 60 | 128 | 61 | 130 | 59 | 125 |
| 175 | 0.7 | 55 | 116 | 56 | 119 | 54 | 114 |
| 200 | 0.8 | 49 | 104 | 50 | 106 | 47 | 100 |
| 225 | 0.9 | 43 | 91 | 43 | 92 | 41 | 87 |
| 250 | 1.0 | 36 | 77 | 37 | 79 | 35 | 75 |
| 275 | 1.1 | 30 | 63 | 30 | 64 | 29 | 61 |
| 300 | 1.2 | 23 | 49 | 24 | 50 | 22 | 46 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | 32 | 31 | 67 | 72 | 60 | 73 | -0.11 |
| | 0 | 32 | 51 | 109 | 98 | 59 | 70 | 0.00 |
| | 0 | 32 | 76 | 161 | 144 | 55 | 63 | 0.00 |
| | -25 | -13 | 32 | 68 | 73 | 56 | 77 | -0.02 |

CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

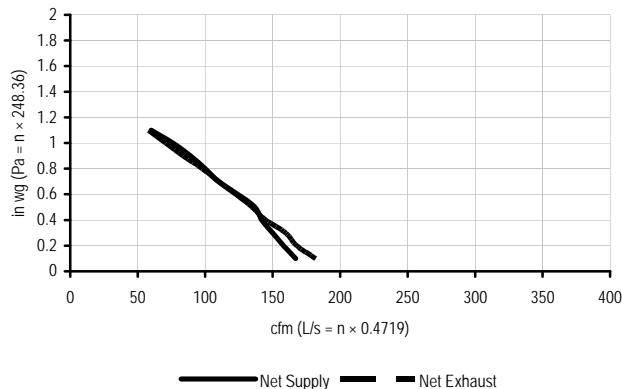
Section 3-45

GOODMAN INDOOR AIR QUALITY PRODUCTS

Model: HRV150D • Options Installed: Damper
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 12% Supply 14% Exhaust • Low Temp. Imbalance Factor: 0.96

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 78 | 167 | 80 | 169 | 86 | 182 |
| 50 | 0.2 | 74 | 158 | 75 | 160 | 79 | 168 |
| 75 | 0.3 | 71 | 150 | 72 | 152 | 75 | 160 |
| 100 | 0.4 | 67 | 142 | 68 | 144 | 68 | 145 |
| 125 | 0.5 | 65 | 137 | 66 | 140 | 63 | 135 |
| 150 | 0.6 | 58 | 124 | 59 | 126 | 58 | 123 |
| 175 | 0.7 | 52 | 110 | 53 | 112 | 52 | 110 |
| 200 | 0.8 | 47 | 100 | 48 | 101 | 46 | 98 |
| 225 | 0.9 | 42 | 89 | 43 | 91 | 40 | 84 |
| 250 | 1.0 | 36 | 76 | 36 | 77 | 34 | 71 |
| 275 | 1.1 | 28 | 60 | 28 | 60 | 27 | 58 |



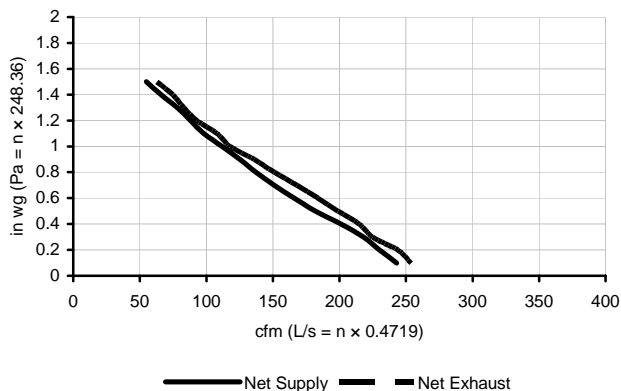
ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 31 | 65 | 72 | 59 | 73 | 0.01 |
| | 0 | +32 | 49 | 104 | 102 | 61 | 70 | 0.00 |
| | 0 | +32 | 76 | 161 | 148 | 58 | 66 | -0.01 |
| | -25 | -13 | 32 | 68 | 96 | 61 | 77 | 0.02 |

GOODMAN INDOOR AIR QUALITY PRODUCTS

Model: HRV200 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2.1
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 8% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.81

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 114 | 243 | 116 | 246 | 120 | 254 |
| 50 | 0.2 | 109 | 230 | 110 | 233 | 115 | 244 |
| 75 | 0.3 | 103 | 218 | 104 | 221 | 106 | 225 |
| 100 | 0.4 | 95 | 201 | 96 | 204 | 101 | 215 |
| 125 | 0.5 | 86 | 182 | 87 | 185 | 94 | 199 |
| 150 | 0.6 | 78 | 166 | 79 | 168 | 87 | 184 |
| 175 | 0.7 | 71 | 151 | 72 | 154 | 79 | 168 |
| 200 | 0.8 | 65 | 137 | 66 | 139 | 71 | 151 |
| 225 | 0.9 | 59 | 125 | 60 | 127 | 64 | 136 |
| 250 | 1.0 | 53 | 112 | 53 | 113 | 56 | 118 |
| 275 | 1.1 | 46 | 98 | 47 | 99 | 51 | 108 |
| 300 | 1.2 | 42 | 88 | 42 | 90 | 44 | 93 |
| 325 | 1.3 | 37 | 78 | 37 | 79 | 39 | 83 |
| 350 | 1.4 | 31 | 66 | 32 | 67 | 35 | 75 |
| 375 | 1.5 | 26 | 55 | 26 | 56 | 30 | 63 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 31 | 65 | 108 | 62 | 77 | 0.06 |
| | 0 | +32 | 55 | 117 | 154 | 62 | 74 | 0.07 |
| | 0 | +32 | 90 | 191 | 246 | 60 | 71 | 0.00 |
| | -25 | -13 | 61 | 129 | 154 | 59 | 79 | 0.00 |

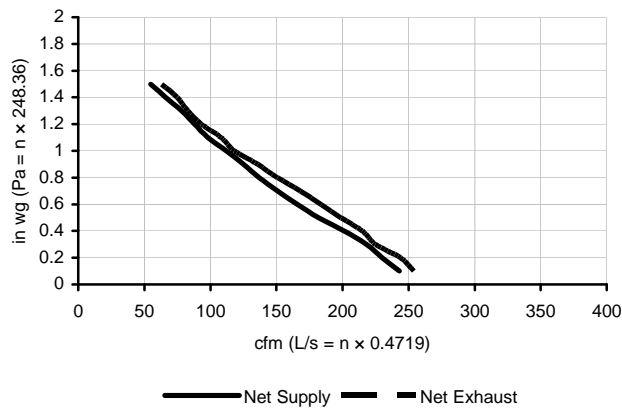
CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

Section 3-46

GOODMAN INDOOR AIR QUALITY PRODUCTS

Model: HRV200D • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2.1
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 8% Supply 18% Exhaust • Low Temp. Imbalance Factor: 1.09

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 114 | 243 | 116 | 246 | 120 | 254 |
| 50 | 0.2 | 109 | 230 | 110 | 233 | 115 | 244 |
| 75 | 0.3 | 103 | 218 | 104 | 221 | 106 | 225 |
| 100 | 0.4 | 95 | 201 | 96 | 204 | 101 | 215 |
| 125 | 0.5 | 86 | 182 | 87 | 185 | 94 | 199 |
| 150 | 0.6 | 78 | 166 | 79 | 168 | 87 | 184 |
| 175 | 0.7 | 71 | 151 | 72 | 154 | 79 | 168 |
| 200 | 0.8 | 65 | 137 | 66 | 139 | 71 | 151 |
| 225 | 0.9 | 59 | 125 | 60 | 127 | 64 | 136 |
| 250 | 1.0 | 53 | 112 | 53 | 113 | 56 | 118 |
| 275 | 1.1 | 46 | 98 | 47 | 99 | 51 | 108 |
| 300 | 1.2 | 42 | 88 | 42 | 90 | 44 | 93 |
| 325 | 1.3 | 37 | 78 | 37 | 79 | 39 | 83 |
| 350 | 1.4 | 31 | 66 | 32 | 67 | 35 | 75 |
| 375 | 1.5 | 26 | 55 | 26 | 56 | 30 | 63 |

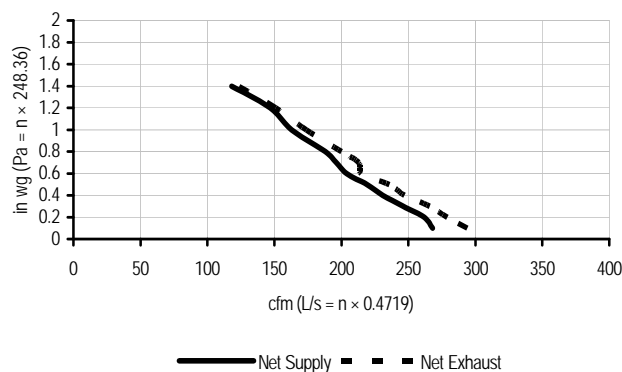


| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 31 | 65 | 108 | 62 | 77 | 0.06 |
| | 0 | +32 | 55 | 117 | 154 | 62 | 74 | 0.07 |
| | 0 | +32 | 90 | 191 | 246 | 60 | 71 | 0.00 |
| | -25 | -13 | 59 | 126 | 141 | 64 | 81 | 0.01 |

GOODMAN INDOOR AIR QUALITY PRODUCTS

Model: HRV300D • Options Installed: None
 Electrical Requirements: Volts: 115 Amps: 2.7
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 7% Supply 9% Exhaust • Low Temp. Imbalance Factor: 0.96

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 126 | 268 | 131 | 277 | 139 | 294 |
| 50 | 0.2 | 124 | 262 | 127 | 270 | 132 | 279 |
| 75 | 0.3 | 116 | 246 | 119 | 253 | 126 | 266 |
| 100 | 0.4 | 109 | 231 | 112 | 238 | 117 | 247 |
| 125 | 0.5 | 103 | 219 | 107 | 226 | 111 | 236 |
| 150 | 0.6 | 96 | 204 | 100 | 211 | 101 | 215 |
| 175 | 0.7 | 93 | 196 | 95 | 202 | 101 | 213 |
| 200 | 0.8 | 89 | 188 | 92 | 194 | 94 | 200 |
| 250 | 1.0 | 77 | 163 | 79 | 168 | 82 | 174 |
| 300 | 1.2 | 69 | 147 | 71 | 151 | 71 | 151 |
| 350 | 1.4 | 56 | 118 | 57 | 121 | 58 | 123 |



| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------------------------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 30 | 64 | 126 | 76 | 91 | .02 |
| | 0 | +32 | 55 | 117 | 212 | 78 | 92 | .01 |
| | 0 | +32 | 74 | 157 | 262 | 78 | 91 | -.09 |
| | -25 | -13 | 57 | 121 | 224 | 72 | 91 | .09 |
| | -25 | -13 | 55 | 117 | 220 | 72 | -- | -- |
| COOLING | +35 | +95 | 54 | 115 | 206 | | 18 | |
| | +35 | +95 | 74 | 159 | 260 | | 17 | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | | |

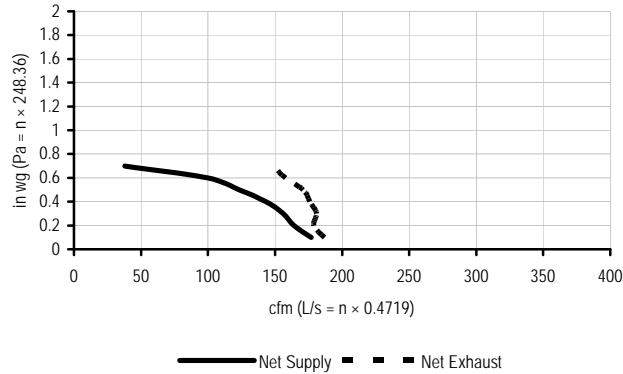
CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

Section 3-47

HONEYWELL, INC.

Model: HR150 • Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 2% Supply 0% Exhaust • Low Temp. Imbalance Factor: n/a

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 83 | 177 | 83 | 177 | 88 | 187 |
| 50 | 0.2 | 77 | 164 | 77 | 164 | 84 | 179 |
| 75 | 0.3 | 73 | 156 | 73 | 156 | 85 | 181 |
| 100 | 0.4 | 67 | 143 | 67 | 143 | 83 | 176 |
| 125 | 0.5 | 58 | 123 | 58 | 123 | 81 | 171 |
| 150 | 0.6 | 47 | 100 | 47 | 100 | 74 | 158 |
| 175 | 0.7 | 18 | 38 | 18 | 38 | 70 | 149 |

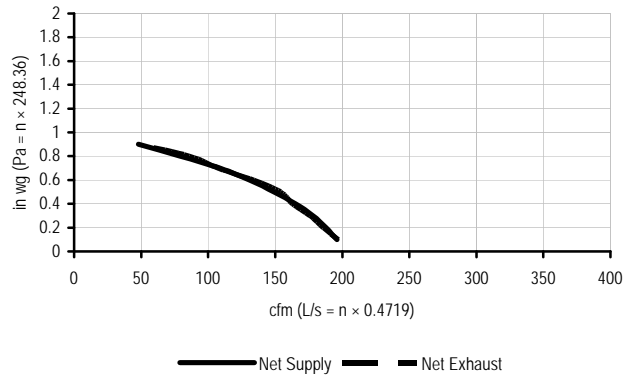


| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | 32 | 32 | 67 | 78 | 66 | 76 | -0.01 |
| | 0 | 32 | 44 | 94 | 95 | 64 | 72 | -0.02 |
| | 0 | 32 | 56 | 118 | 110 | 60 | 68 | -0.02 |
| | -25 | -13 | 32 | 68 | 82 | 60 | 78 | 0.08 |
| COOLING | 35 | 95 | 31 | 66 | 74 | | | |
| | | | | | | | TOTAL RECOVERY EFFICIENCY | |
| | | | | | | | 20 | |

HONEYWELL, INC.

Model: HR200 • Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 1% Supply 2% Exhaust • Low Temp. Imbalance Factor: 0.967

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 101 | 214 | 102 | 216 | 97 | 206 |
| 50 | 0.2 | 97 | 206 | 98 | 208 | 93 | 197 |
| 75 | 0.3 | 91 | 193 | 93 | 197 | 88 | 186 |
| 100 | 0.4 | 87 | 184 | 88 | 186 | 82 | 174 |
| 125 | 0.5 | 80 | 170 | 81 | 172 | 75 | 159 |
| 150 | 0.6 | 73 | 155 | 74 | 157 | 67 | 142 |
| 175 | 0.7 | 65 | 137 | 65 | 138 | 54 | 114 |



| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 68 | 144 | 114 | 59 | 66 | 0 |
| | 0 | +32 | 63 | 133 | 109 | 58 | 66 | 0 |
| | 0 | +32 | 56 | 119 | 100 | 60 | 67 | 0 |
| | -25 | -13 | 60 | 127 | 100 | 59 | 69 | 0 |
| | -25 | -13 | 55 | 117 | | 60 | | |

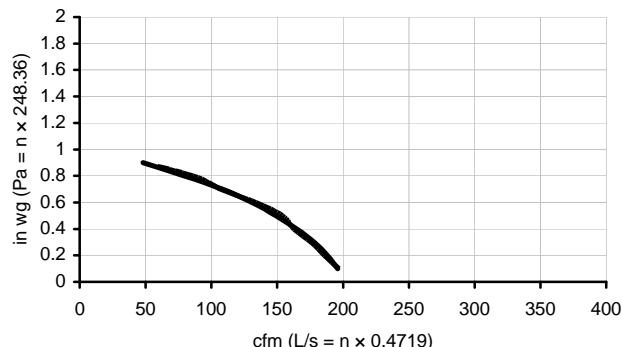
CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

Section 3-48

HONEYWELL, INC.

Model: HR205 • Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 6.0% Supply 13.0% Exhaust • Low Temp. Imbalance Factor: 1.03

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|--|--|
| Pa | in wg | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | | | |
| | | L/s | cfm | SUPPLY | | EXHAUST | | | |
| | | L/s | cfm | L/s | cfm | L/s | cfm | | |
| 25 | 0.1 | 93 | 196 | 94 | 199 | 93 | 197 | | |
| 50 | 0.2 | 89 | 188 | 90 | 190 | 88 | 186 | | |
| 75 | 0.3 | 84 | 178 | 85 | 181 | 83 | 176 | | |
| 100 | 0.4 | 78 | 165 | 79 | 167 | 77 | 163 | | |
| 125 | 0.5 | 70 | 149 | 71 | 151 | 73 | 154 | | |
| 150 | 0.6 | 62 | 131 | 63 | 133 | 63 | 134 | | |
| 175 | 0.7 | 51 | 109 | 52 | 110 | 51 | 108 | | |
| 200 | 0.8 | 37 | 79 | 38 | 80 | 41 | 86 | | |
| 225 | 0.9 | 23 | 48 | 23 | 49 | 22 | 47 | | |



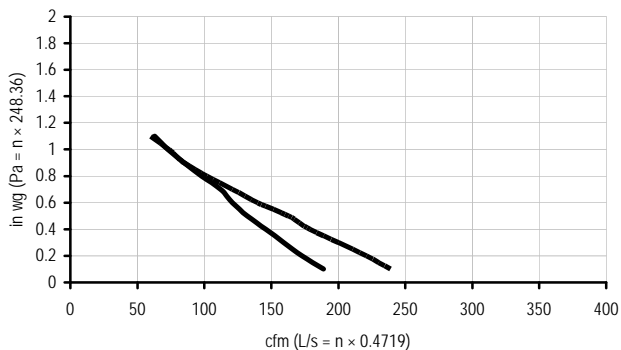
— Net Supply — Net Exhaust

| ENERGY PERFORMANCE | | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|---------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER | TOTAL RECOVERY EFFICIENCY |
| | °C | °F | L/S | CFM | | | | | |
| HEATING | 0 | +32 | 31 | 65 | 74 | 69 | 80 | -0.01 | 70 |
| | 0 | +32 | 45 | 96 | 94 | 67 | 75 | -0.01 | |
| | 0 | +32 | 55 | 117 | 105 | 64 | 72 | -0.01 | |
| | -25 | -13 | 31 | 67 | 84 | 70 | 83 | 0.03 | |
| COOLING | +35 | +95 | 30 | 64 | 72 | | 22 | | |

IMPERIAL AIR TECHNOLOGIES, INC. (GREENTEK)

Model: DH 7.15 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 9.4% Supply 9.6% Exhaust • Low Temp. Imbalance Factor: 0.94

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|--|--|
| Pa | in wg | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | | | |
| | | L/s | cfm | SUPPLY | | EXHAUST | | | |
| | | L/s | cfm | L/s | cfm | L/s | cfm | | |
| 25 | 0.1 | 89 | 189 | 90 | 191 | 113 | 239 | | |
| 50 | 0.2 | 81 | 173 | 82 | 174 | 104 | 221 | | |
| 75 | 0.3 | 75 | 159 | 75 | 160 | 94 | 200 | | |
| 100 | 0.4 | 69 | 146 | 69 | 148 | 84 | 179 | | |
| 125 | 0.5 | 62 | 132 | 63 | 133 | 77 | 163 | | |
| 150 | 0.6 | 57 | 121 | 58 | 122 | 66 | 140 | | |
| 175 | 0.7 | 53 | 112 | 53 | 113 | 57 | 121 | | |
| 200 | 0.8 | 46 | 98 | 47 | 99 | 48 | 102 | | |
| 225 | 0.9 | 40 | 85 | 40 | 86 | 40 | 85 | | |
| 250 | 1.0 | 34 | 73 | 35 | 74 | 35 | 74 | | |
| 275 | 1.1 | 30 | 63 | 30 | 64 | 28 | 60 | | |



— Net Supply — Net Exhaust

| ENERGY PERFORMANCE | | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|--|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER | |
| | °C | °F | L/S | CFM | | | | | |
| HEATING | 0 | +32 | 32 | 68 | 90 | 68 | 82 | 0.01 | |
| | 0 | +32 | 43 | 92 | 104 | 67 | 78 | 0.01 | |
| | 0 | +32 | 56 | 119 | 114 | 65 | 75 | 0.01 | |
| | -25 | -13 | 32 | 67 | 92 | 64 | 84 | 0.04 | |

CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

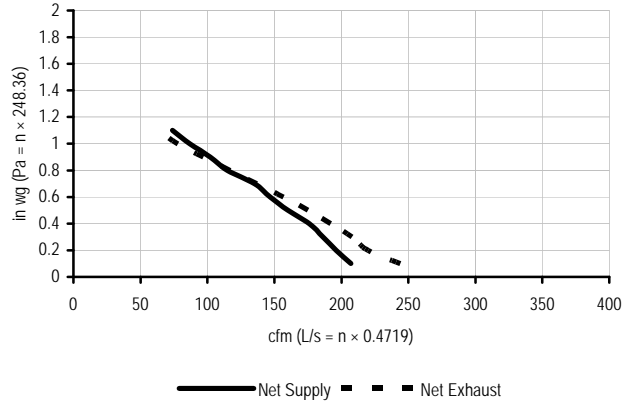
Section 3-49

IMPERIAL AIR TECHNOLOGIES, INC. (GREENTEK)

Model: DH 10.22 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.2
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 12.1% Supply 15.1% Exhaust • Low Temp. Imbalance Factor: 0.99

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 97 | 207 | 98 | 208 | 115 | 244 |
| 50 | 0.2 | 92 | 196 | 93 | 197 | 103 | 220 |
| 75 | 0.3 | 87 | 186 | 88 | 187 | 98 | 208 |
| 100 | 0.4 | 83 | 176 | 83 | 177 | 90 | 192 |
| 125 | 0.5 | 75 | 160 | 75 | 160 | 82 | 175 |
| 150 | 0.6 | 69 | 147 | 69 | 148 | 74 | 157 |
| 175 | 0.7 | 64 | 135 | 64 | 136 | 64 | 137 |
| 200 | 0.8 | 54 | 115 | 54 | 115 | 55 | 117 |
| 225 | 0.9 | 48 | 102 | 48 | 102 | 46 | 97 |
| 250 | 1.0 | 41 | 87 | 41 | 88 | 37 | 78 |
| 275 | 1.1 | 35 | 74 | 35 | 74 | 30 | 64 |



ENERGY PERFORMANCE

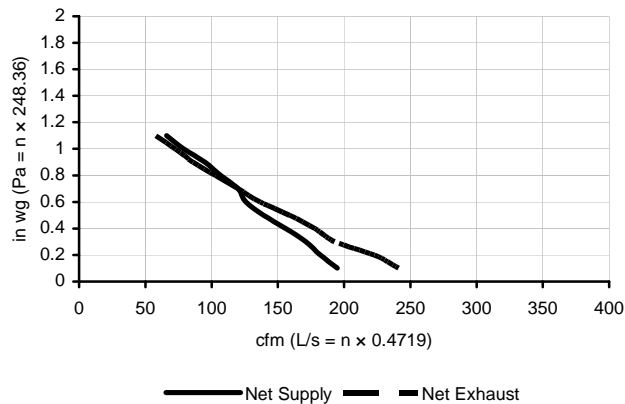
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 56 | 120 | 124 | 63 | 74 | 0.03 |
| | 0 | +32 | 75 | 159 | 158 | 60 | 68 | 0.03 |
| | 0 | +32 | 86 | 182 | 172 | 59 | 66 | 0.02 |
| | -25 | -13 | 52 | 110 | 147 | 61 | 75 | 0.08 |

IMPERIAL AIR TECHNOLOGIES, INC. (GREENTEK)

Model: PH 7.15 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 17.8% Supply 13.8% Exhaust • Low Temp. Imbalance Factor: 0.88

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 92 | 195 | 92 | 196 | 113 | 241 |
| 50 | 0.2 | 85 | 182 | 86 | 183 | 105 | 223 |
| 75 | 0.3 | 80 | 171 | 81 | 172 | 91 | 193 |
| 100 | 0.4 | 73 | 156 | 74 | 157 | 84 | 178 |
| 125 | 0.5 | 65 | 139 | 66 | 140 | 75 | 159 |
| 150 | 0.6 | 59 | 126 | 60 | 127 | 65 | 137 |
| 175 | 0.7 | 56 | 120 | 57 | 120 | 57 | 120 |
| 200 | 0.8 | 50 | 107 | 50 | 107 | 48 | 103 |
| 225 | 0.9 | 45 | 95 | 45 | 96 | 40 | 86 |
| 250 | 1.0 | 37 | 79 | 38 | 80 | 34 | 73 |
| 275 | 1.1 | 31 | 66 | 31 | 67 | 27 | 58 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 66 | 88 | 66 | 78 | 0.00 |
| | 0 | +32 | 42 | 89 | 104 | 64 | 76 | 0.00 |
| | 0 | +32 | 56 | 119 | 114 | 63 | 72 | 0.00 |
| | -25 | -13 | 32 | 67 | 86 | 59 | 77 | 0.02 |

CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

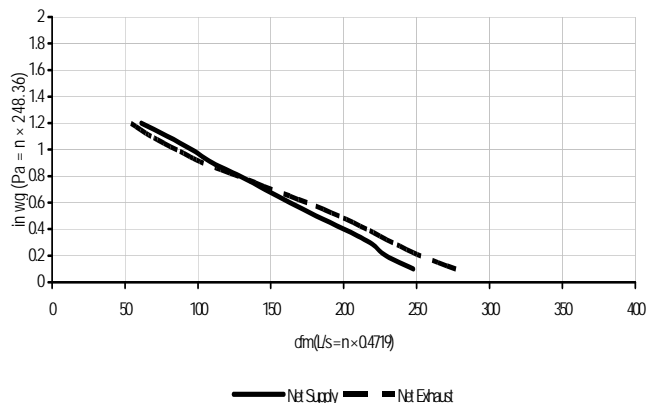
Section 3-50

IMPERIAL AIR TECHNOLOGIES, INC. (GREENTEK)

Model: PH 10.22 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.10 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 2.3% Supply 0.2% Exhaust • Low Temp. Imbalance Factor: 0.91

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 117 | 248 | 118 | 250 | 130 | 277 |
| 50 | 0.2 | 108 | 229 | 109 | 231 | 119 | 253 |
| 75 | 0.3 | 102 | 218 | 103 | 220 | 110 | 234 |
| 100 | 0.4 | 94 | 200 | 95 | 202 | 101 | 216 |
| 125 | 0.5 | 85 | 181 | 86 | 183 | 92 | 197 |
| 150 | 0.6 | 77 | 163 | 78 | 165 | 82 | 175 |
| 175 | 0.7 | 69 | 146 | 70 | 148 | 71 | 151 |
| 200 | 0.8 | 61 | 129 | 61 | 131 | 60 | 128 |
| 225 | 0.9 | 52 | 110 | 52 | 111 | 49 | 104 |
| 250 | 1.0 | 45 | 96 | 46 | 97 | 40 | 86 |
| 275 | 1.1 | 37 | 79 | 38 | 80 | 32 | 68 |
| 300 | 1.2 | 29 | 61 | 29 | 62 | 26 | 54 |



ENERGY PERFORMANCE

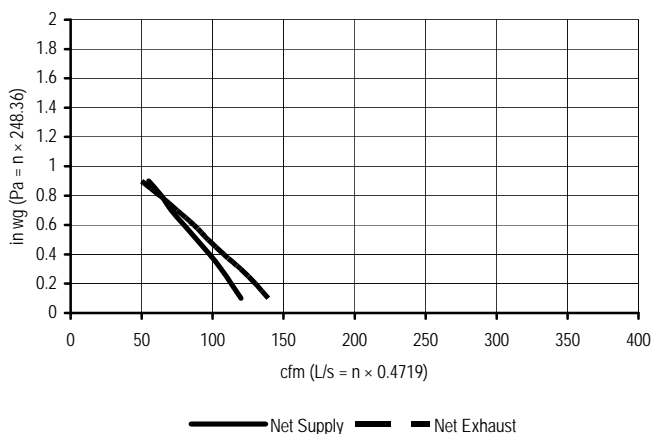
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 55 | 118 | 106 | 61 | 71 | 0.00 |
| | 0 | +32 | 75 | 160 | 132 | 58 | 65 | 0.00 |
| | 0 | +32 | 87 | 185 | 150 | 55 | 62 | 0.00 |
| | -25 | -13 | 57 | 120 | 105 | 58 | 72 | 0.01 |

IMPERIAL AIR TECHNOLOGIES, INC. (GREENTEK)

Model: SS 3.12 DD (SP) • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.013 @100 Pa/0.4 in. wg 0.013 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 16.3% Supply 16.3% Exhaust • Low Temp. Imbalance Factor: 1.03

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 56 | 120 | 57 | 121 | 65 | 139 |
| 50 | 0.2 | 53 | 113 | 54 | 114 | 61 | 130 |
| 75 | 0.3 | 50 | 106 | 51 | 107 | 56 | 120 |
| 100 | 0.4 | 46 | 98 | 47 | 99 | 51 | 108 |
| 125 | 0.5 | 42 | 89 | 42 | 90 | 46 | 97 |
| 150 | 0.6 | 38 | 80 | 38 | 81 | 41 | 87 |
| 175 | 0.7 | 34 | 71 | 34 | 72 | 35 | 75 |
| 200 | 0.8 | 30 | 64 | 30 | 65 | 30 | 63 |
| 225 | 0.9 | 26 | 55 | 26 | 55 | 23 | 50 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 30 | 64 | 90 | 59 | 72 | 0.00 |
| | 0 | +32 | 44 | 94 | 118 | 56 | 66 | 0.00 |
| | 0 | +32 | 54 | 115 | 134 | 54 | 64 | 0.00 |
| | -25 | -13 | 30 | 63 | 97 | 59 | 75 | 0.03 |
| COOLING | +35 | +95 | | | | | | |
| | +35 | +95 | | | | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | | |

CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

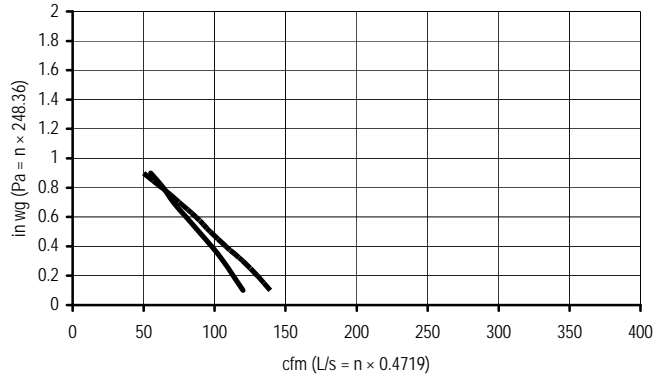
Section 3-51

IMPERIAL AIR TECHNOLOGIES, INC. (GREENTEK)

Model: SS 3.12 DD (TP) • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.013 @100 Pa/0.4 in. wg 0.013 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 16.3% Supply 16.3% Exhaust • Low Temp. Imbalance Factor: 1.03

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 56 | 120 | 57 | 121 | 65 | 139 |
| 50 | 0.2 | 53 | 113 | 54 | 114 | 61 | 130 |
| 75 | 0.3 | 50 | 106 | 51 | 107 | 56 | 120 |
| 100 | 0.4 | 46 | 98 | 47 | 99 | 51 | 108 |
| 125 | 0.5 | 42 | 89 | 42 | 90 | 46 | 97 |
| 150 | 0.6 | 38 | 80 | 38 | 81 | 41 | 87 |
| 175 | 0.7 | 34 | 71 | 34 | 72 | 35 | 75 |
| 200 | 0.8 | 30 | 64 | 30 | 65 | 30 | 63 |
| 225 | 0.9 | 26 | 55 | 26 | 55 | 23 | 50 |



— Net Supply - - - Net Exhaust

ENERGY PERFORMANCE

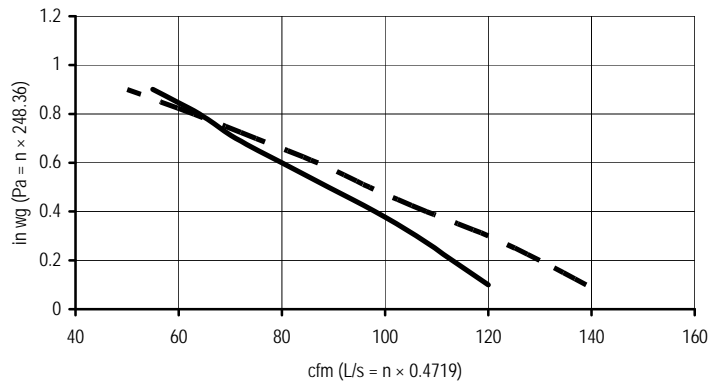
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 90 | 59 | 72 | 0.00 |
| | 0 | +32 | 44 | 94 | 118 | 56 | 66 | 0.00 |
| | 0 | +32 | 54 | 115 | 134 | 54 | 64 | 0.00 |
| | -25 | -13 | 30 | 63 | 97 | 59 | 75 | 0.03 |
| COOLING | +35 | +95 | | | | | | |
| | +35 | +95 | | | | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | | |

IMPERIAL AIR TECHNOLOGIES, INC. (GREENTEK)

Model: SS 3.12 FSD (SP) • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.013 @100 Pa/0.4 in. wg 0.013 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 16.3% Supply 16.3% Exhaust • Low Temp. Imbalance Factor: 1.03

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 56 | 120 | 57 | 121 | 65 | 139 |
| 50 | 0.2 | 53 | 113 | 54 | 114 | 61 | 130 |
| 75 | 0.3 | 50 | 106 | 51 | 107 | 56 | 120 |
| 100 | 0.4 | 46 | 98 | 47 | 99 | 51 | 108 |
| 125 | 0.5 | 42 | 89 | 42 | 90 | 46 | 97 |
| 150 | 0.6 | 38 | 80 | 38 | 81 | 41 | 87 |
| 175 | 0.7 | 34 | 71 | 34 | 72 | 35 | 75 |
| 200 | 0.8 | 30 | 64 | 30 | 65 | 30 | 63 |
| 225 | 0.9 | 26 | 55 | 26 | 55 | 23 | 50 |



— Net Supply - - - Net Exhaust

ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 90 | 59 | 72 | 0.00 |
| | 0 | +32 | 44 | 94 | 118 | 56 | 66 | 0.00 |
| | 0 | +32 | 54 | 115 | 134 | 54 | 64 | 0.00 |
| | -25 | -13 | 33 | 71 | 94 | 54 | 74 | 0.01 |
| COOLING | +35 | +95 | | | | | | |
| | +35 | +95 | | | | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | | |

CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

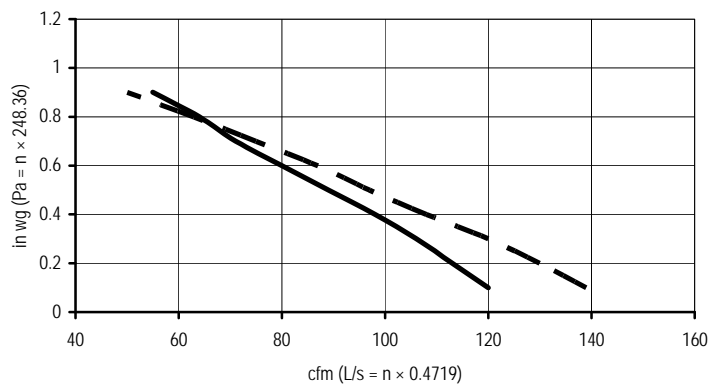
Section 3-52

IMPERIAL AIR TECHNOLOGIES, INC. (GREENTEK)

Model: SS 3.12 FSD (TP) • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.013 @100 Pa/0.4 in. wg 0.013 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 16.3% Supply 16.3% Exhaust • Low Temp. Imbalance Factor: 1.03

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 56 | 120 | 57 | 121 | 65 | 139 |
| 50 | 0.2 | 53 | 113 | 54 | 114 | 61 | 130 |
| 75 | 0.3 | 50 | 106 | 51 | 107 | 56 | 120 |
| 100 | 0.4 | 46 | 98 | 47 | 99 | 51 | 108 |
| 125 | 0.5 | 42 | 89 | 42 | 90 | 46 | 97 |
| 150 | 0.6 | 38 | 80 | 38 | 81 | 41 | 87 |
| 175 | 0.7 | 34 | 71 | 34 | 72 | 35 | 75 |
| 200 | 0.8 | 30 | 64 | 30 | 65 | 30 | 63 |
| 225 | 0.9 | 26 | 55 | 26 | 55 | 23 | 50 |



— Net Supply — Net Exhaust

ENERGY PERFORMANCE

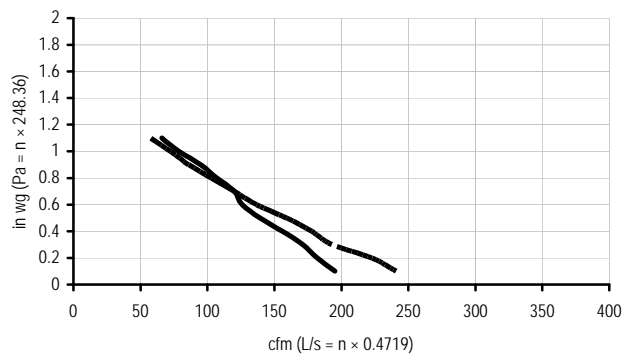
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 90 | 59 | 72 | 0.00 |
| | 0 | +32 | 44 | 94 | 118 | 56 | 66 | 0.00 |
| | 0 | +32 | 54 | 115 | 134 | 54 | 64 | 0.00 |
| | -25 | -13 | 33 | 71 | 94 | 54 | 74 | 0.01 |
| COOLING | +35 | +95 | | | | | | |
| | +35 | +95 | | | | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | | |

IMPERIAL AIR TECHNOLOGIES, INC. (GREENTEK)

Model: TPH 7.15 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 17.8% Supply 13.8% Exhaust • Low Temp. Imbalance Factor: 0.88

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 92 | 195 | 92 | 196 | 113 | 241 |
| 50 | 0.2 | 85 | 182 | 86 | 183 | 105 | 223 |
| 75 | 0.3 | 80 | 171 | 81 | 172 | 91 | 193 |
| 100 | 0.4 | 73 | 156 | 74 | 157 | 84 | 178 |
| 125 | 0.5 | 65 | 139 | 66 | 140 | 75 | 159 |
| 150 | 0.6 | 59 | 126 | 60 | 127 | 65 | 137 |
| 175 | 0.7 | 56 | 120 | 57 | 120 | 57 | 120 |
| 200 | 0.8 | 50 | 107 | 50 | 107 | 48 | 103 |
| 225 | 0.9 | 45 | 95 | 45 | 96 | 40 | 86 |
| 250 | 1.0 | 37 | 79 | 38 | 80 | 34 | 73 |
| 275 | 1.1 | 31 | 66 | 31 | 67 | 27 | 58 |



— Net Supply — Net Exhaust

ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 66 | 88 | 66 | 78 | 0.00 |
| | 0 | +32 | 42 | 89 | 104 | 64 | 76 | 0.00 |
| | 0 | +32 | 56 | 119 | 114 | 63 | 72 | 0.00 |
| | -25 | -13 | 32 | 67 | 86 | 59 | 77 | 0.02 |

CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

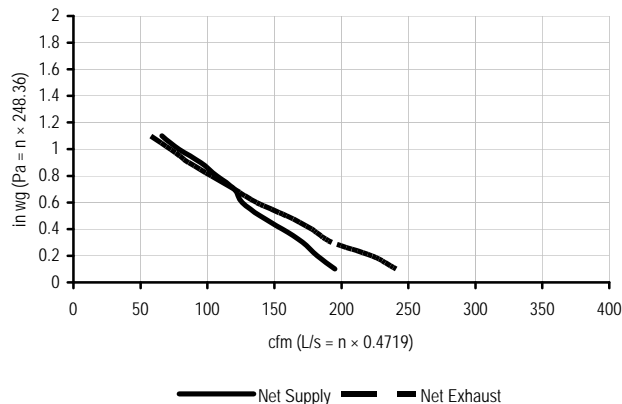
Section 3-53

IMPERIAL AIR TECHNOLOGIES, INC. (IMPERIAL)

Model: SDU160 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 17.8% Supply 13.8% Exhaust • Low Temp. Imbalance Factor: 0.88

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 92 | 195 | 92 | 196 | 113 | 241 |
| 50 | 0.2 | 85 | 182 | 86 | 183 | 105 | 223 |
| 75 | 0.3 | 80 | 171 | 81 | 172 | 91 | 193 |
| 100 | 0.4 | 73 | 156 | 74 | 157 | 84 | 178 |
| 125 | 0.5 | 65 | 139 | 66 | 140 | 75 | 159 |
| 150 | 0.6 | 59 | 126 | 60 | 127 | 65 | 137 |
| 175 | 0.7 | 56 | 120 | 57 | 120 | 57 | 120 |
| 200 | 0.8 | 50 | 107 | 50 | 107 | 48 | 103 |
| 225 | 0.9 | 45 | 95 | 45 | 96 | 40 | 86 |
| 250 | 1.0 | 37 | 79 | 38 | 80 | 34 | 73 |
| 275 | 1.1 | 31 | 66 | 31 | 67 | 27 | 58 |



ENERGY PERFORMANCE

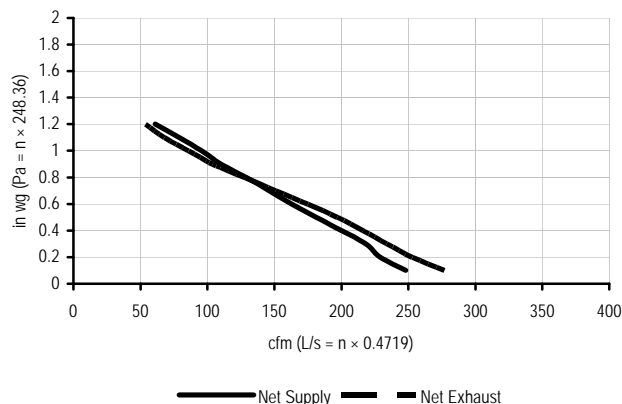
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 31 | 66 | 88 | 66 | 78 | 0.00 |
| | 0 | +32 | 42 | 89 | 104 | 64 | 76 | 0.00 |
| | 0 | +32 | 56 | 119 | 114 | 63 | 72 | 0.00 |
| | -25 | -13 | 32 | 67 | 86 | 59 | 77 | 0.02 |

IMPERIAL AIR TECHNOLOGIES, INC. (IMPERIAL)

Model: SDU 220 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.10 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 2.3% Supply 0.2% Exhaust • Low Temp. Imbalance Factor: 0.91

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 117 | 248 | 118 | 250 | 130 | 277 |
| 50 | 0.2 | 108 | 229 | 109 | 231 | 119 | 253 |
| 75 | 0.3 | 102 | 218 | 103 | 220 | 110 | 234 |
| 100 | 0.4 | 94 | 200 | 95 | 202 | 101 | 216 |
| 125 | 0.5 | 85 | 181 | 86 | 183 | 92 | 197 |
| 150 | 0.6 | 77 | 163 | 78 | 165 | 82 | 175 |
| 175 | 0.7 | 69 | 146 | 70 | 148 | 71 | 151 |
| 200 | 0.8 | 61 | 129 | 61 | 131 | 60 | 128 |
| 225 | 0.9 | 52 | 110 | 52 | 111 | 49 | 104 |
| 250 | 1.0 | 45 | 96 | 46 | 97 | 40 | 86 |
| 275 | 1.1 | 37 | 79 | 38 | 80 | 32 | 68 |
| 300 | 1.2 | 29 | 61 | 29 | 62 | 26 | 54 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 55 | 118 | 106 | 61 | 71 | 0.00 |
| | 0 | +32 | 75 | 160 | 132 | 58 | 65 | 0.00 |
| | 0 | +32 | 87 | 185 | 150 | 55 | 62 | 0.00 |
| | -25 | -13 | 57 | 120 | 105 | 58 | 72 | 0.01 |

CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

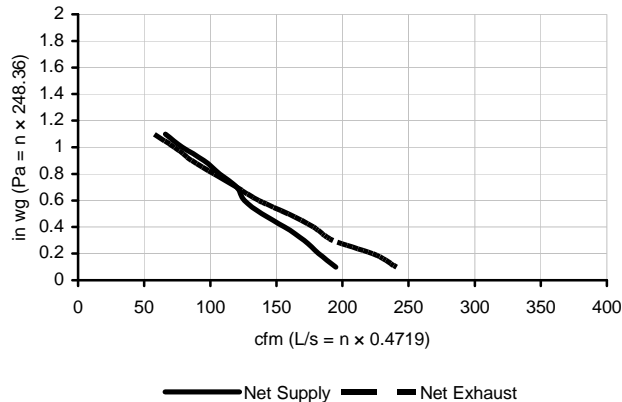
Section 3-54

IMPERIAL AIR TECHNOLOGIES, INC. (IMPERIAL)

Model: TSD160 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 17.8% Supply 13.8% Exhaust • Low Temp. Imbalance Factor: 0.88

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | | |
|----------------------|---------------------|-------|----------------|-----|-----|-----|-------------|
| | Pa | in wg | L/s | cfm | L/s | cfm | EXHAUST L/s |
| 25 | 0.1 | 92 | 195 | 92 | 196 | 113 | 241 |
| 50 | 0.2 | 85 | 182 | 86 | 183 | 105 | 223 |
| 75 | 0.3 | 80 | 171 | 81 | 172 | 91 | 193 |
| 100 | 0.4 | 73 | 156 | 74 | 157 | 84 | 178 |
| 125 | 0.5 | 65 | 139 | 66 | 140 | 75 | 159 |
| 150 | 0.6 | 59 | 126 | 60 | 127 | 65 | 137 |
| 175 | 0.7 | 56 | 120 | 57 | 120 | 57 | 120 |
| 200 | 0.8 | 50 | 107 | 50 | 107 | 48 | 103 |
| 225 | 0.9 | 45 | 95 | 45 | 96 | 40 | 86 |
| 250 | 1.0 | 37 | 79 | 38 | 80 | 34 | 73 |
| 275 | 1.1 | 31 | 66 | 31 | 67 | 27 | 58 |



ENERGY PERFORMANCE

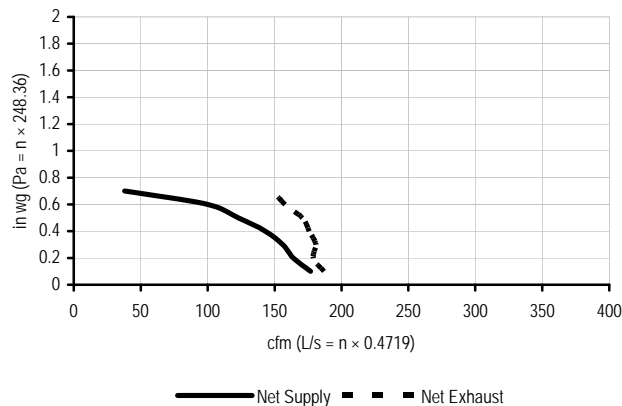
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 66 | 88 | 66 | 78 | 0.00 |
| | 0 | +32 | 42 | 89 | 104 | 64 | 76 | 0.00 |
| | 0 | +32 | 56 | 119 | 114 | 63 | 72 | 0.00 |
| | -25 | -13 | 32 | 67 | 86 | 59 | 77 | 0.02 |

LENNOX

Model: HRV1-150 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 2% Supply 0% Exhaust • Low Temp. Imbalance Factor: n/a

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | | |
|----------------------|---------------------|-------|----------------|-----|-----|-----|-------------|
| | Pa | in wg | L/s | cfm | L/s | cfm | EXHAUST L/s |
| 25 | 0.1 | 83 | 177 | 83 | 177 | 88 | 187 |
| 50 | 0.2 | 77 | 164 | 77 | 164 | 84 | 179 |
| 75 | 0.3 | 73 | 156 | 73 | 156 | 85 | 181 |
| 100 | 0.4 | 67 | 143 | 67 | 143 | 83 | 176 |
| 125 | 0.5 | 58 | 123 | 58 | 123 | 81 | 171 |
| 150 | 0.6 | 47 | 100 | 47 | 100 | 74 | 158 |
| 175 | 0.7 | 18 | 38 | 18 | 38 | 70 | 149 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | 32 | 32 | 67 | 78 | 66 | 76 | -0.01 |
| | 0 | 32 | 44 | 94 | 95 | 64 | 72 | -0.20 |
| | 0 | 32 | 56 | 118 | 110 | 60 | 68 | -0.02 |
| | -25 | -13 | 32 | 68 | 82 | 60 | 78 | 0.08 |
| COOLING | 35 | 95 | 31 | 66 | 74 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 20 | |

CERTIFIED HEAT AND ENERGY RECOVERY VENTILATORS

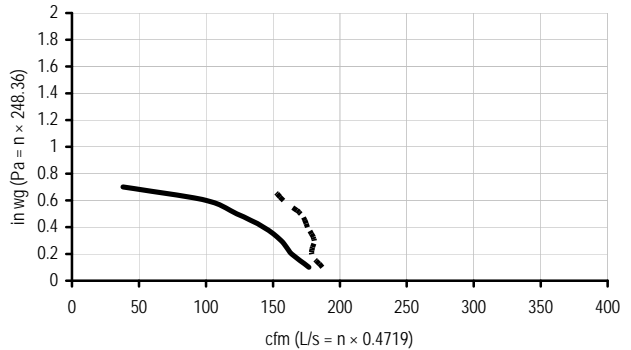
Section 3-56

LENNOX

Model: HRV2-150SDP • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 2% Supply 0% Exhaust • Low Temp. Imbalance Factor: n/a

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 83 | 177 | 83 | 177 | 88 | 187 |
| 50 | 0.2 | 77 | 164 | 77 | 164 | 84 | 179 |
| 75 | 0.3 | 73 | 156 | 73 | 156 | 85 | 181 |
| 100 | 0.4 | 67 | 143 | 67 | 143 | 83 | 176 |
| 125 | 0.5 | 58 | 123 | 58 | 123 | 81 | 171 |
| 150 | 0.6 | 47 | 100 | 47 | 100 | 74 | 158 |
| 175 | 0.7 | 18 | 38 | 18 | 38 | 70 | 149 |



ENERGY PERFORMANCE

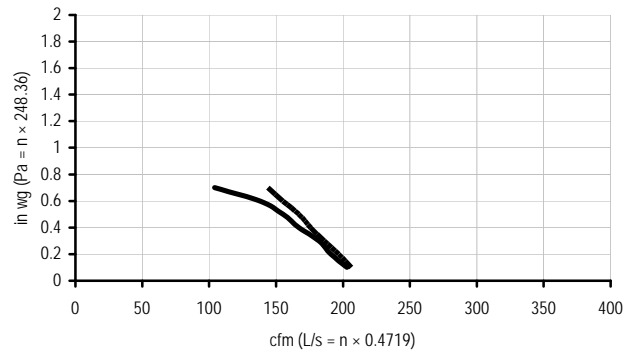
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | 32 | 32 | 67 | 78 | 66 | 76 | -0.01 |
| | 0 | 32 | 44 | 94 | 95 | 64 | 72 | -0.20 |
| | 0 | 32 | 56 | 118 | 110 | 60 | 68 | -0.02 |
| | | -25 | -13 | 32 | 68 | 82 | 60 | 78 |
| COOLING | 35 | 95 | 31 | 66 | 74 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 20 | |

LENNOX

Model: HRV2-195DDP • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 1% Supply 3% Exhaust • Low Temp. Imbalance Factor: 0.98

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 96 | 203 | 98 | 208 | 97 | 206 |
| 50 | 0.2 | 90 | 191 | 92 | 195 | 93 | 197 |
| 75 | 0.3 | 86 | 182 | 87 | 185 | 88 | 186 |
| 100 | 0.4 | 79 | 167 | 81 | 172 | 83 | 176 |
| 125 | 0.5 | 73 | 155 | 74 | 157 | 79 | 167 |
| 150 | 0.6 | 65 | 138 | 66 | 140 | 73 | 155 |
| 175 | 0.7 | 49 | 104 | 50 | 106 | 68 | 144 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 90 | 191 | 161 | 77 | 83 | --- |
| | 0 | +32 | 83 | 176 | 155 | 77 | 84 | --- |
| | 0 | +32 | 54 | 114 | 116 | 81 | 88 | --- |
| | 0 | +32 | 55 | 117 | 117 | 80 | --- | --- |
| | | -25 | -13 | 56 | 119 | 125 | 77 | 87 |
| | -25 | -13 | 55 | 117 | 123 | 77 | --- | --- |
| COOLING | +35 | +95 | 57 | 121 | 121 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 24 | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

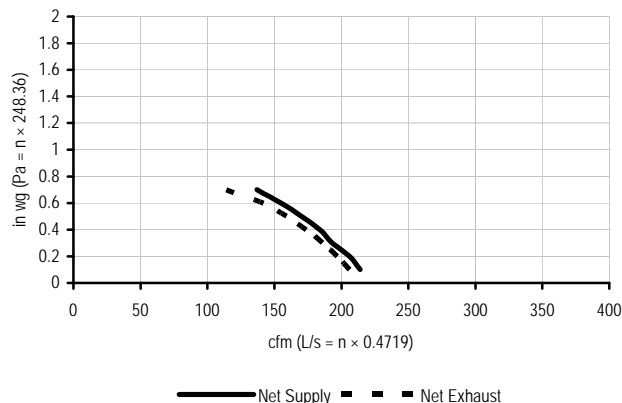
Section 3-57

LENNOX

Model: HRV2-200SDP • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor : 1% Supply 2.0% Exhaust • Low Temp. Imbalance Factor: .967

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 101 | 214 | 102 | 216 | 97 | 206 |
| 50 | 0.2 | 97 | 206 | 98 | 208 | 93 | 197 |
| 75 | 0.3 | 91 | 193 | 93 | 197 | 88 | 186 |
| 100 | 0.4 | 87 | 184 | 88 | 186 | 82 | 174 |
| 125 | 0.5 | 80 | 170 | 81 | 172 | 75 | 159 |
| 150 | 0.6 | 73 | 155 | 74 | 157 | 67 | 142 |
| 175 | 0.7 | 65 | 137 | 65 | 138 | 54 | 114 |



ENERGY PERFORMANCE

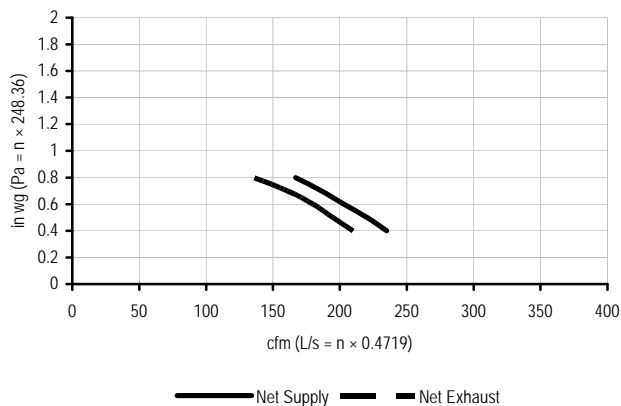
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 68 | 144 | 114 | 59 | 66 | 0 |
| | 0 | +32 | 63 | 133 | 109 | 58 | 66 | 0 |
| | 0 | +32 | 56 | 119 | 100 | 60 | 67 | 0 |
| | -25 | -13 | 60 | 127 | 100 | 59 | 69 | 0 |
| | -25 | -13 | 55 | 117 | | 60 | | |
| | | | | | | | | |

LENNOX

Model: HRV2-300DDP • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2.9
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 6% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.04

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 100 | 0.4 | 111 | 235 | 113 | 239 | 99 | 210 |
| 125 | 0.5 | 104 | 220 | 106 | 225 | 92 | 195 |
| 150 | 0.6 | 96 | 203 | 98 | 208 | 85 | 180 |
| 175 | 0.7 | 88 | 186 | 90 | 191 | 76 | 161 |
| 200 | 0.8 | 79 | 167 | 80 | 170 | 64 | 136 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 98 | 208 | 234 | 75 | 84 | --- |
| | 0 | +32 | 78 | 165 | 178 | 77 | 87 | --- |
| | 0 | +32 | 56 | 119 | 150 | 79 | 90 | --- |
| | -25 | -13 | 59 | 125 | 156 | 75 | 87 | --- |
| | -25 | -13 | 55 | 117 | --- | 75 | --- | --- |
| | | | | | | | | |
| COOLING | +35 | +95 | 57 | 121 | 150 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 33 | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

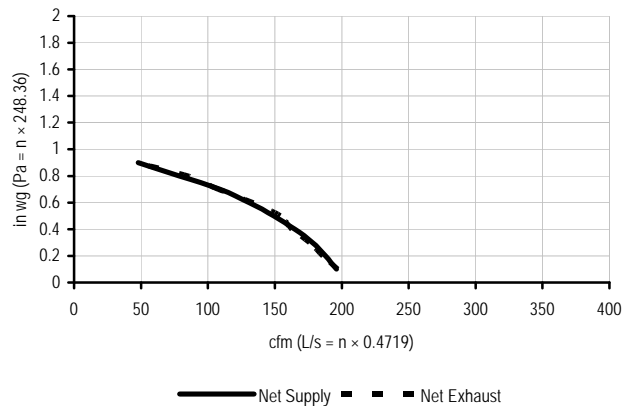
Section 3-58

LENNOX

Model: HRV2-200SRPTOP • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 1% Supply 0% Exhaust • Low Temp. Imbalance Factor: 1.03

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 93 | 196 | 94 | 199 | 93 | 197 |
| 50 | 0.2 | 89 | 188 | 90 | 190 | 88 | 186 |
| 75 | 0.3 | 84 | 178 | 85 | 181 | 83 | 176 |
| 100 | 0.4 | 78 | 165 | 79 | 167 | 77 | 163 |
| 125 | 0.5 | 70 | 149 | 71 | 151 | 73 | 154 |
| 150 | 0.6 | 62 | 131 | 63 | 133 | 63 | 134 |
| 175 | 0.7 | 51 | 109 | 52 | 110 | 51 | 108 |
| 200 | 0.8 | 37 | 79 | 38 | 80 | 41 | 86 |
| 225 | 0.9 | 23 | 48 | 23 | 49 | 22 | 47 |



ENERGY PERFORMANCE

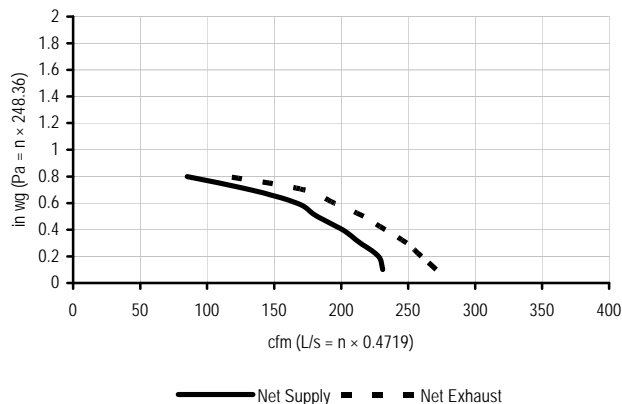
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 65 | 74 | 69 | 80 | -0.01 |
| | 0 | +32 | 45 | 96 | 94 | 67 | 75 | -0.01 |
| | 0 | +32 | 55 | 117 | 105 | 64 | 72 | -0.01 |
| | -25 | -13 | 31 | 67 | 84 | 70 | 83 | 0.03 |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 22 | |
| COOLING | +35 | +95 | 30 | 64 | 72 | | | |

MAYTAG

Model: ERV-150 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: ---- @100 Pa/0.4 in. wg 0.06 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.79

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 82 | 173 | 87 | 184 | 93 | 197 |
| 50 | 0.2 | 78 | 165 | 83 | 175 | 86 | 182 |
| 75 | 0.3 | 72 | 152 | 76 | 162 | 80 | 169 |
| 100 | 0.4 | 67 | 142 | 71 | 151 | 77 | 163 |
| 125 | 0.5 | 55 | 117 | 59 | 124 | 67 | 143 |
| 150 | 0.6 | 46 | 98 | 49 | 104 | 56 | 118 |
| 175 | 0.7 | 36 | 77 | 39 | 82 | 41 | 87 |
| 200 | 0.8 | 30 | 63 | 32 | 67 | 24 | 51 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 29 | 60 | 56 | 71 | 79 | 0.52 |
| | 0 | +32 | 47 | 100 | 80 | 64 | 73 | 0.41 |
| | 0 | +32 | 65 | 137 | 126 | 60 | 68 | 0.36 |
| | -15 | -5 | 31 | 65 | 64 | 56 | 81 | 0.41 |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 45 | |
| COOLING | +35 | +95 | 28 | 59 | 52 | | | |

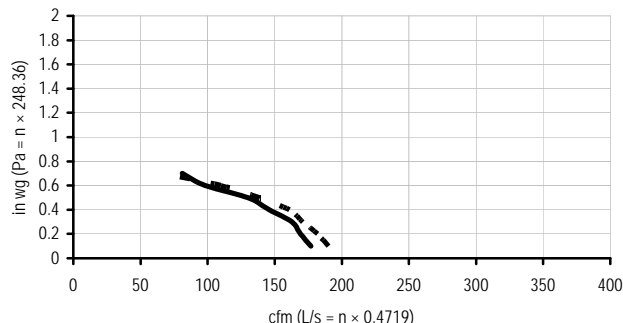
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-59

MAYTAG

Model: HRV-150 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.05 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 9% Supply 22%Exhaust • Low Temp. Imbalance Factor: 1.0

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|-----|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 84 | 177 | 88 | 186 | 90 | 190 |
| 50 | 0.2 | 80 | 169 | 84 | 178 | 86 | 182 |
| 75 | 0.3 | 77 | 163 | 81 | 171 | 81 | 171 |
| 100 | 0.4 | 69 | 146 | 72 | 153 | 76 | 161 |
| 125 | 0.5 | 61 | 130 | 65 | 137 | 66 | 139 |
| 150 | 0.6 | 46 | 98 | 49 | 103 | 52 | 110 |
| 175 | 0.7 | 38 | 81 | 40 | 85 | 32 | 67 |



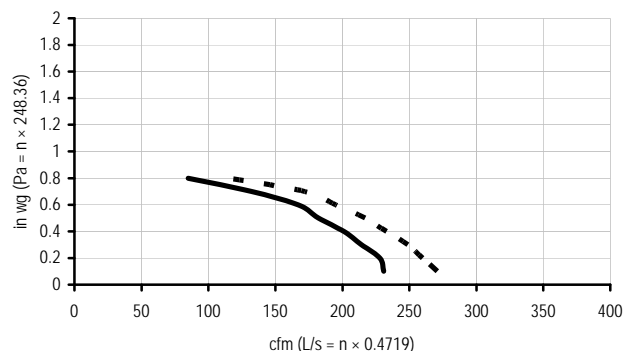
— Net Supply - - - Net Exhaust

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 54 | 75 | 83 | -0.03 |
| | 0 | +32 | 46 | 97 | 78 | 67 | 74 | 0.01 |
| | 0 | +32 | 65 | 138 | 124 | 64 | 72 | -0.02 |
| | -25 | -13 | 26 | 55 | 62 | 67 | 89 | 0.05 |

MAYTAG

Model: ERV-210 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.9
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.06 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.84

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|-----|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 109 | 231 | 116 | 245 | 128 | 271 |
| 50 | 0.2 | 108 | 228 | 114 | 241 | 123 | 260 |
| 75 | 0.3 | 101 | 214 | 107 | 227 | 118 | 249 |
| 100 | 0.4 | 95 | 201 | 101 | 213 | 110 | 233 |
| 125 | 0.5 | 86 | 182 | 91 | 193 | 102 | 217 |
| 150 | 0.6 | 79 | 167 | 84 | 177 | 92 | 195 |
| 175 | 0.7 | 62 | 132 | 66 | 140 | 81 | 172 |
| 200 | 0.8 | 40 | 85 | 42 | 90 | 55 | 116 |



— Net Supply - - - Net Exhaust

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 52 | 110 | 93 | 69 | 76 | 0.45 |
| | 0 | +32 | 74 | 157 | 130 | 64 | 71 | 0.38 |
| | 0 | +32 | 96 | 203 | 193 | 60 | 68 | 0.30 |
| | -15 | -5 | 52 | 110 | 122 | 55 | 76 | 0.26 |
| COOLING | +35 | +95 | 50 | 106 | 89 | | | |

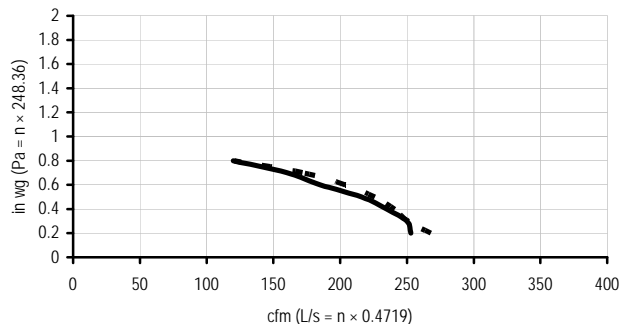
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-60

MAYTAG

Model: HRV-210 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.9
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.04 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 23% Exhaust • Low Temp. Imbalance Factor: 1.0

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 50 | 0.2 | 119 | 253 | 125 | 264 | 126 | 268 |
| 75 | 0.3 | 118 | 250 | 124 | 262 | 118 | 251 |
| 100 | 0.4 | 111 | 235 | 116 | 245 | 114 | 241 |
| 125 | 0.5 | 102 | 216 | 106 | 224 | 107 | 226 |
| 150 | 0.6 | 87 | 185 | 91 | 193 | 96 | 204 |
| 175 | 0.7 | 76 | 160 | 79 | 167 | 81 | 172 |
| 200 | 0.8 | 57 | 120 | 59 | 124 | 57 | 121 |



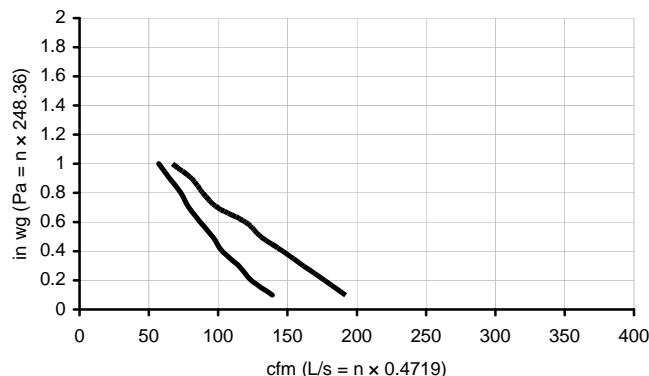
— Net Supply - - - Net Exhaust

| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 51 | 109 | 92 | 70 | 77 | -0.01 |
| | 0 | +32 | 73 | 155 | 128 | 65 | 72 | -0.02 |
| | 0 | +32 | 102 | 215 | 191 | 62 | 70 | -0.01 |
| | -25 | -13 | 52 | 110 | 104 | 60 | 94 | 0.05 |

NU-AIR VENTILATION SYSTEMS, INC.

Model: A7045 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 66 | 139 | 67 | 143 | 90 | 192 |
| 50 | 0.2 | 58 | 124 | 60 | 127 | 83 | 177 |
| 75 | 0.3 | 54 | 115 | 55 | 117 | 76 | 162 |
| 100 | 0.4 | 49 | 103 | 50 | 106 | 69 | 147 |
| 125 | 0.5 | 45 | 96 | 46 | 98 | 62 | 131 |
| 150 | 0.6 | 41 | 87 | 42 | 89 | 57 | 120 |
| 175 | 0.7 | 37 | 79 | 38 | 81 | 47 | 100 |
| 200 | 0.8 | 34 | 73 | 35 | 74 | 42 | 89 |
| 225 | 0.9 | 31 | 65 | 32 | 67 | 38 | 81 |
| 250 | 1.0 | 27 | 57 | 27 | 58 | 32 | 67 |



— Net Supply - - - Net Exhaust

| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 65 | 120 | 61 | 78 | 0.04 |
| | 0 | +32 | 46 | 97 | 164 | 55 | 69 | 0.05 |
| | 0 | +32 | 56 | 118 | 170 | 53 | 64 | 0.02 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

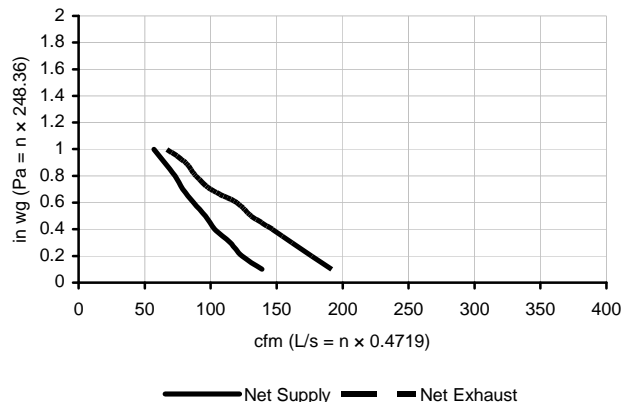
Section 3-61

NU-AIR VENTILATION SYSTEMS, INC.

Model: NU-145DP • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 66 | 139 | 67 | 143 | 90 | 192 |
| 50 | 0.2 | 58 | 124 | 60 | 127 | 83 | 177 |
| 75 | 0.3 | 54 | 115 | 55 | 117 | 76 | 162 |
| 100 | 0.4 | 49 | 103 | 50 | 106 | 69 | 147 |
| 125 | 0.5 | 45 | 96 | 46 | 98 | 62 | 131 |
| 150 | 0.6 | 41 | 87 | 42 | 89 | 57 | 120 |
| 175 | 0.7 | 37 | 79 | 38 | 81 | 47 | 100 |
| 200 | 0.8 | 34 | 73 | 35 | 74 | 42 | 89 |
| 225 | 0.9 | 31 | 65 | 32 | 67 | 38 | 81 |
| 250 | 1.0 | 27 | 57 | 27 | 58 | 32 | 67 |



ENERGY PERFORMANCE

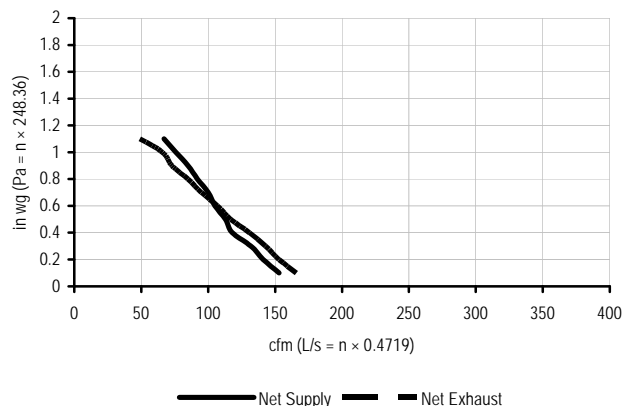
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 65 | 120 | 61 | 78 | 0.04 |
| | 0 | +32 | 46 | 97 | 164 | 55 | 69 | 0.05 |
| | 0 | +32 | 56 | 118 | 170 | 53 | 64 | 0.02 |

NU-AIR VENTILATION SYSTEMS, INC.

Model: CEA15-R • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.05 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 11% Supply 13.0%Exhaust • Low Temp. Imbalance Factor: 0.90

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 72 | 153 | 76 | 161 | 78 | 166 |
| 50 | 0.2 | 66 | 141 | 70 | 149 | 72 | 153 |
| 75 | 0.3 | 62 | 132 | 65 | 138 | 67 | 143 |
| 100 | 0.4 | 56 | 118 | 58 | 124 | 61 | 131 |
| 125 | 0.5 | 53 | 113 | 56 | 119 | 55 | 117 |
| 150 | 0.6 | 49 | 105 | 52 | 111 | 50 | 107 |
| 175 | 0.7 | 47 | 100 | 49 | 105 | 45 | 95 |
| 200 | 0.8 | 43 | 92 | 45 | 96 | 40 | 85 |
| 225 | 0.9 | 40 | 85 | 42 | 89 | 34 | 73 |
| 250 | 1.0 | 35 | 76 | 37 | 79 | 31 | 66 |
| 275 | 1.1 | 32 | 67 | 33 | 71 | 23 | 49 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 110 | 62 | 77 | 0.02 |
| | 0 | +32 | 45 | 96 | 144 | 56 | 70 | 0.01 |
| | 0 | +32 | 55 | 117 | 162 | 55 | 67 | 0.01 |
| | -25 | -13 | 30 | 63 | 125 | 55 | 75 | 0.03 |
| COOLING | 35+ | 95+ | 30 | 64 | 116 | TOTAL RECOVERY EFFICIENCY | | 12 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

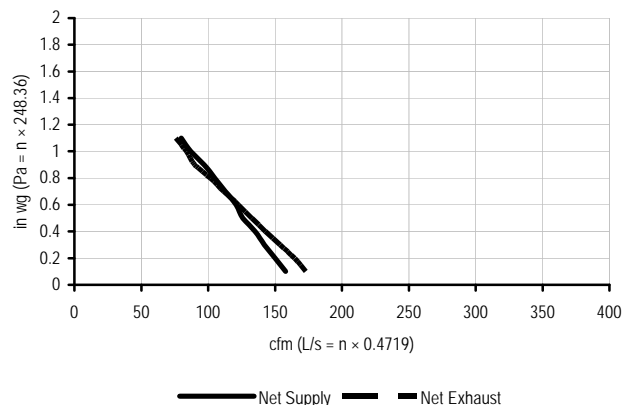
Section 3-62

NU-AIR VENTILATION SYSTEMS, INC.

Model: CEA18-C • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.05 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 0%Exhaust • Low Temp. Imbalance Factor: 1.03

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 74 | 158 | 78 | 166 | 81 | 173 |
| 50 | 0.2 | 71 | 150 | 74 | 158 | 78 | 165 |
| 75 | 0.3 | 67 | 142 | 70 | 149 | 72 | 154 |
| 100 | 0.4 | 63 | 135 | 67 | 141 | 67 | 143 |
| 125 | 0.5 | 59 | 126 | 62 | 132 | 63 | 133 |
| 150 | 0.6 | 57 | 121 | 60 | 127 | 58 | 123 |
| 175 | 0.7 | 53 | 113 | 56 | 119 | 53 | 112 |
| 200 | 0.8 | 49 | 105 | 52 | 110 | 48 | 102 |
| 225 | 0.9 | 46 | 97 | 48 | 101 | 43 | 90 |
| 250 | 1.0 | 41 | 87 | 43 | 91 | 39 | 84 |
| 275 | 1.1 | 37 | 80 | 39 | 83 | 36 | 76 |



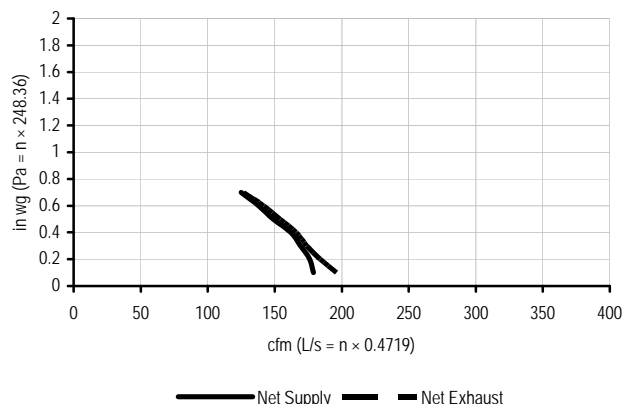
| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 114 | 63 | 78 | 0.12 |
| | 0 | +32 | 45 | 95 | 142 | 60 | 73 | 0.07 |
| | 0 | +32 | 56 | 119 | 162 | 57 | 69 | 0.00 |
| | -25 | -13 | 32 | 68 | 126 | 62 | 76 | 0.06 |

NU-AIR VENTILATION SYSTEMS, INC.

Model: CEA20-D • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 8% Supply 6%Exhaust • Low Temp. Imbalance Factor: 0.87

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 84 | 179 | 86 | 183 | 92 | 196 |
| 50 | 0.2 | 83 | 176 | 85 | 180 | 87 | 184 |
| 75 | 0.3 | 79 | 169 | 81 | 173 | 82 | 174 |
| 100 | 0.4 | 76 | 162 | 78 | 165 | 78 | 166 |
| 125 | 0.5 | 70 | 149 | 72 | 153 | 72 | 154 |
| 150 | 0.6 | 65 | 138 | 66 | 141 | 67 | 142 |
| 175 | 0.7 | 59 | 125 | 60 | 128 | 60 | 127 |



| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 40 | 86 | 140 | 60 | 72 | 0.02 |
| | 0 | +32 | 54 | 116 | 158 | 59 | 69 | 0.02 |
| | 0 | +32 | 64 | 135 | 178 | 59 | 70 | 0.03 |
| | -25 | -13 | 56 | 118 | 176 | 57 | 73 | 0.03 |
| COOLING | +35 | +95 | 54 | 114 | 156 | TOTAL RECOVERY EFFICIENCY | | 24 |

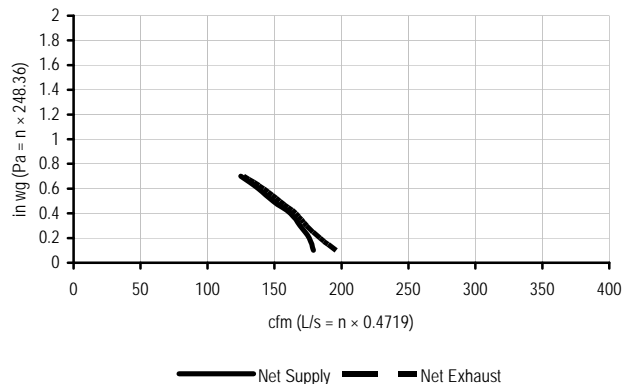
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-63

NU-AIR VENTILATION SYSTEMS, INC.

Model: NU-165 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 8% Supply 6%Exhaust • Low Temp. Imbalance Factor: 0.87

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 84 | 179 | 86 | 183 | 92 | 196 |
| 50 | 0.2 | 83 | 176 | 85 | 180 | 87 | 184 |
| 75 | 0.3 | 79 | 169 | 81 | 173 | 82 | 174 |
| 100 | 0.4 | 76 | 162 | 78 | 165 | 78 | 166 |
| 125 | 0.5 | 70 | 149 | 72 | 153 | 72 | 154 |
| 150 | 0.6 | 65 | 138 | 66 | 141 | 67 | 142 |
| 175 | 0.7 | 59 | 125 | 60 | 128 | 60 | 127 |

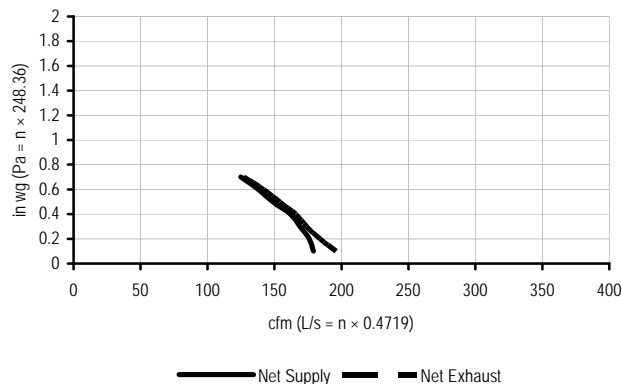


| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 40 | 86 | 140 | 60 | 72 | 0.02 |
| | 0 | +32 | 54 | 116 | 158 | 59 | 69 | 0.02 |
| | 0 | +32 | 64 | 135 | 178 | 59 | 70 | 0.03 |
| | -25 | -13 | 56 | 118 | 176 | 57 | 73 | 0.03 |
| COOLING | +35 | +95 | 54 | 114 | 156 | | TOTAL RECOVERY EFFICIENCY 24 | |

NU-AIR VENTILATION SYSTEMS, INC.

Model: NU-175 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 8% Supply 6%Exhaust • Low Temp. Imbalance Factor: 0.87

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 84 | 179 | 86 | 183 | 92 | 196 |
| 50 | 0.2 | 83 | 176 | 85 | 180 | 87 | 184 |
| 75 | 0.3 | 79 | 169 | 81 | 173 | 82 | 174 |
| 100 | 0.4 | 76 | 162 | 78 | 165 | 78 | 166 |
| 125 | 0.5 | 70 | 149 | 72 | 153 | 72 | 154 |
| 150 | 0.6 | 65 | 138 | 66 | 141 | 67 | 142 |
| 175 | 0.7 | 59 | 125 | 60 | 128 | 60 | 127 |



| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 40 | 86 | 140 | 60 | 72 | 0.02 |
| | 0 | +32 | 54 | 116 | 158 | 59 | 69 | 0.02 |
| | 0 | +32 | 64 | 135 | 178 | 59 | 70 | 0.03 |
| | -25 | -13 | 56 | 118 | 176 | 57 | 73 | 0.03 |
| COOLING | +35 | +95 | 54 | 114 | 156 | | TOTAL RECOVERY EFFICIENCY 24 | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

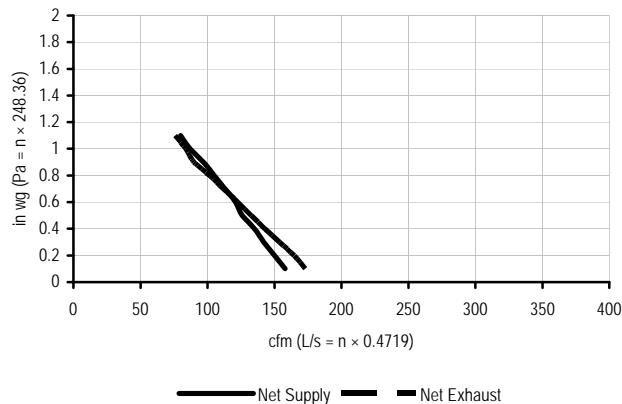
Section 3-64

NU-AIR VENTILATION SYSTEMS, INC.

Model: NU-176 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.05 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 0%Exhaust • Low Temp. Imbalance Factor: 1.03

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 74 | 158 | 78 | 166 | 81 | 173 |
| 50 | 0.2 | 71 | 150 | 74 | 158 | 78 | 165 |
| 75 | 0.3 | 67 | 142 | 70 | 149 | 72 | 154 |
| 100 | 0.4 | 63 | 135 | 67 | 141 | 67 | 143 |
| 125 | 0.5 | 59 | 126 | 62 | 132 | 63 | 133 |
| 150 | 0.6 | 57 | 121 | 60 | 127 | 58 | 123 |
| 175 | 0.7 | 53 | 113 | 56 | 119 | 53 | 112 |
| 200 | 0.8 | 49 | 105 | 52 | 110 | 48 | 102 |
| 225 | 0.9 | 46 | 97 | 48 | 101 | 43 | 90 |
| 250 | 1.0 | 41 | 87 | 43 | 91 | 39 | 84 |
| 275 | 1.1 | 37 | 80 | 39 | 83 | 36 | 76 |



ENERGY PERFORMANCE

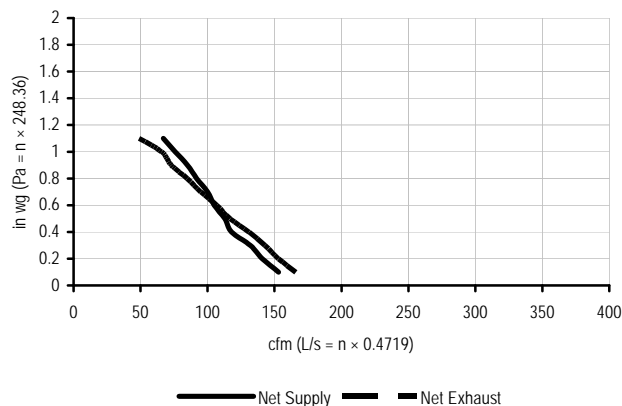
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 114 | 63 | 78 | 0.12 |
| | 0 | +32 | 45 | 95 | 142 | 60 | 73 | 0.07 |
| | 0 | +32 | 56 | 119 | 162 | 57 | 69 | 0.00 |
| | -25 | -13 | 32 | 68 | 126 | 62 | 76 | 0.06 |

NU-AIR VENTILATION SYSTEMS, INC.

Model: NU1450 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.05 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 11% Supply 13.0%Exhaust • Low Temp. Imbalance Factor: 0.90

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 72 | 153 | 76 | 161 | 78 | 166 |
| 50 | 0.2 | 66 | 141 | 70 | 149 | 72 | 153 |
| 75 | 0.3 | 62 | 132 | 65 | 138 | 67 | 143 |
| 100 | 0.4 | 56 | 118 | 58 | 124 | 61 | 131 |
| 125 | 0.5 | 53 | 113 | 56 | 119 | 55 | 117 |
| 150 | 0.6 | 49 | 105 | 52 | 111 | 50 | 107 |
| 175 | 0.7 | 47 | 100 | 49 | 105 | 45 | 95 |
| 200 | 0.8 | 43 | 92 | 45 | 96 | 40 | 85 |
| 225 | 0.9 | 40 | 85 | 42 | 89 | 34 | 73 |
| 250 | 1.0 | 35 | 76 | 37 | 79 | 31 | 66 |
| 275 | 1.1 | 32 | 67 | 33 | 71 | 23 | 49 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 110 | 62 | 77 | 0.02 |
| | 0 | +32 | 45 | 96 | 144 | 56 | 70 | 0.01 |
| | 0 | +32 | 55 | 117 | 162 | 55 | 67 | 0.01 |
| | -25 | -13 | 30 | 63 | 125 | 55 | 75 | 0.03 |
| COOLING | 35+ | 95+ | 30 | 64 | 116 | | TOTAL RECOVERY EFFICIENCY | 12 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

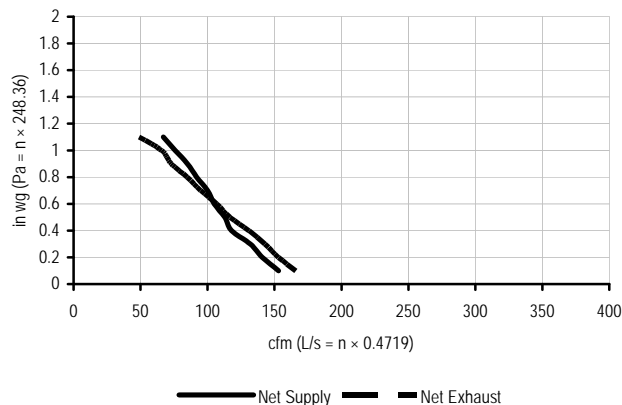
Section 3-65

NU-AIR VENTILATION SYSTEMS, INC.

Model: OP154 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.05 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 11% Supply 13.0%Exhaust • Low Temp. Imbalance Factor: 0.90

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 72 | 153 | 76 | 161 | 78 | 166 |
| 50 | 0.2 | 66 | 141 | 70 | 149 | 72 | 153 |
| 75 | 0.3 | 62 | 132 | 65 | 138 | 67 | 143 |
| 100 | 0.4 | 56 | 118 | 58 | 124 | 61 | 131 |
| 125 | 0.5 | 53 | 113 | 56 | 119 | 55 | 117 |
| 150 | 0.6 | 49 | 105 | 52 | 111 | 50 | 107 |
| 175 | 0.7 | 47 | 100 | 49 | 105 | 45 | 95 |
| 200 | 0.8 | 43 | 92 | 45 | 96 | 40 | 85 |
| 225 | 0.9 | 40 | 85 | 42 | 89 | 34 | 73 |
| 250 | 1.0 | 35 | 76 | 37 | 79 | 31 | 66 |
| 275 | 1.1 | 32 | 67 | 33 | 71 | 23 | 49 |



ENERGY PERFORMANCE

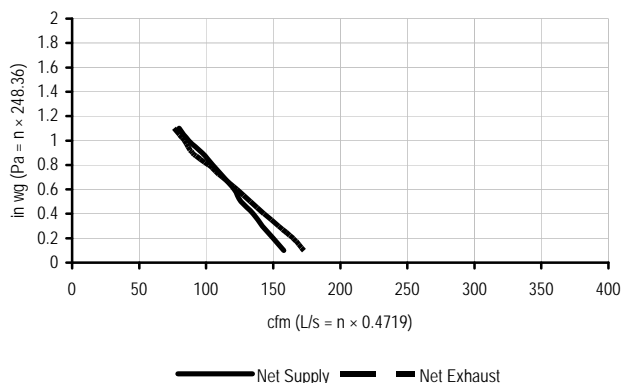
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|-------------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 110 | 62 | 77 | 0.02 |
| | 0 | +32 | 45 | 96 | 144 | 56 | 70 | 0.01 |
| | 0 | +32 | 55 | 117 | 162 | 55 | 67 | 0.01 |
| | -25 | -13 | 30 | 63 | 125 | 55 | 75 | 0.03 |
| COOLING | 35+ | 95+ | 30 | 64 | 116 | | TOTAL RECOVERY EFFICIENCY 12 | |

NU-AIR VENTILATION SYSTEMS, INC.

Model: OP176 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.05 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 0% Exhaust • Low Temp. Imbalance Factor: 1.03

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 74 | 158 | 78 | 166 | 81 | 173 |
| 50 | 0.2 | 71 | 150 | 74 | 158 | 78 | 165 |
| 75 | 0.3 | 67 | 142 | 70 | 149 | 72 | 154 |
| 100 | 0.4 | 63 | 135 | 67 | 141 | 67 | 143 |
| 125 | 0.5 | 59 | 126 | 62 | 132 | 63 | 133 |
| 150 | 0.6 | 57 | 121 | 60 | 127 | 58 | 123 |
| 175 | 0.7 | 53 | 113 | 56 | 119 | 53 | 112 |
| 200 | 0.8 | 49 | 105 | 52 | 110 | 48 | 102 |
| 225 | 0.9 | 46 | 97 | 48 | 101 | 43 | 90 |
| 250 | 1.0 | 41 | 87 | 43 | 91 | 39 | 84 |
| 275 | 1.1 | 37 | 80 | 39 | 83 | 36 | 76 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|-------------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 114 | 63 | 78 | 0.12 |
| | 0 | +32 | 45 | 95 | 142 | 60 | 73 | 0.07 |
| | 0 | +32 | 56 | 119 | 162 | 57 | 69 | 0.00 |
| | -25 | -13 | 32 | 68 | 126 | 62 | 76 | 0.06 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

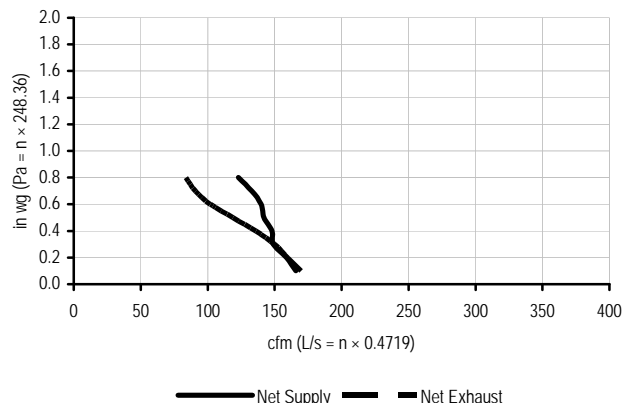
Section 3-66

NUTECH BRANDS, INC. (LIFEBREATH®)

Model: 155 ECM • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.11 @100 Pa/0.4 in. wg 0.13 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 6% Supply 8% Exhaust • Low Temp. Imbalance Factor: 0.92

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 77 | 164 | 78 | 166 | 80 | 170 |
| 50 | 0.2 | 74 | 157 | 75 | 159 | 76 | 160 |
| 75 | 0.3 | 69 | 147 | 70 | 149 | 71 | 150 |
| 100 | 0.4 | 69 | 146 | 70 | 148 | 64 | 136 |
| 125 | 0.5 | 66 | 140 | 67 | 142 | 56 | 119 |
| 150 | 0.6 | 65 | 138 | 66 | 140 | 48 | 102 |
| 175 | 0.7 | 62 | 131 | 63 | 133 | 43 | 91 |
| 200 | 0.8 | 57 | 121 | 58 | 123 | 40 | 84 |



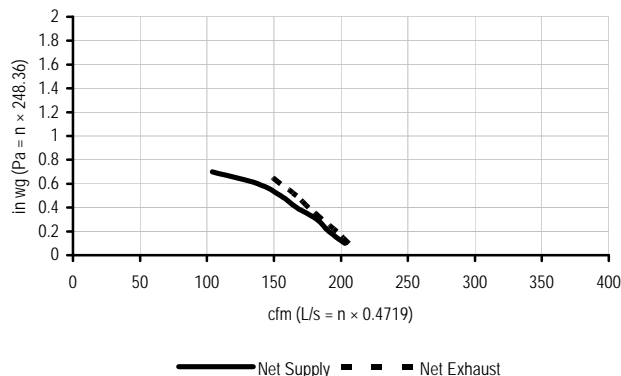
| ENERGY PERFORMANCE | | | | | | | | |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 66 | 33 | 66 | 72 | 0.00 |
| | 0 | +32 | 46 | 98 | 74 | 63 | 70 | 0.00 |
| | 0 | +32 | 55 | 118 | 67 | 64 | 69 | 0.00 |
| | -25 | -13 | 31 | 66 | 36 | 67 | 79 | 0.01 |
| COOLING | +35 | +95 | 31 | 66 | 33 | | 18 | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | | |

NUTECH BRANDS, INC. (LIFEBREATH®)

Model: 195DCS • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 1% Supply 3% Exhaust • Low Temp. Imbalance Factor: .98

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 96 | 203 | 98 | 208 | 97 | 206 |
| 50 | 0.2 | 90 | 191 | 92 | 195 | 93 | 197 |
| 75 | 0.3 | 86 | 182 | 87 | 185 | 88 | 186 |
| 100 | 0.4 | 79 | 167 | 81 | 172 | 83 | 176 |
| 125 | 0.5 | 73 | 155 | 74 | 157 | 79 | 167 |
| 150 | 0.6 | 65 | 138 | 66 | 140 | 73 | 155 |
| 175 | 0.7 | 49 | 104 | 50 | 106 | 68 | 144 |



| ENERGY PERFORMANCE | | | | | | | | |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 90 | 191 | 161 | 77 | 83 | -- |
| | 0 | +32 | 83 | 176 | 155 | 77 | 84 | -- |
| | 0 | +32 | 54 | 114 | 116 | 81 | 88 | -- |
| | 0 | +32 | 55 | 117 | 117 | 80 | -- | -- |
| | -25 | -13 | 56 | 119 | 125 | 77 | 87 | -- |
| | -25 | -13 | 55 | 117 | 123 | 77 | -- | -- |
| COOLING | +35 | +95 | 57 | 121 | 121 | | 24 | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | | |

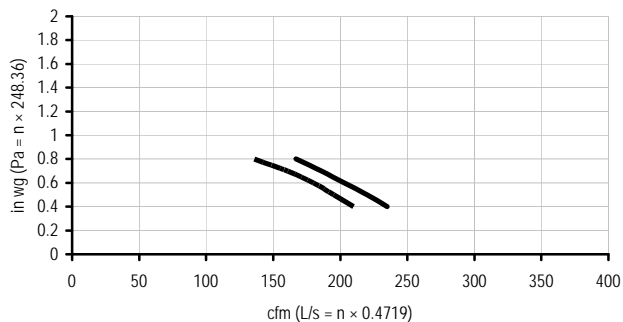
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-67

NUTECH BRANDS, INC. (LIFEBREATH®)

Model: 300DCS • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2.9
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 6% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.04

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-------------|------------|-------------|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY L/s | EXHAUST L/s | SUPPLY cfm | EXHAUST cfm |
| 100 | 0.4 | 111 | 235 | 113 | 239 | 99 | 210 |
| 125 | 0.5 | 104 | 220 | 106 | 225 | 92 | 195 |
| 150 | 0.6 | 96 | 203 | 98 | 208 | 85 | 180 |
| 175 | 0.7 | 88 | 186 | 90 | 191 | 76 | 161 |
| 200 | 0.8 | 79 | 167 | 80 | 170 | 64 | 136 |



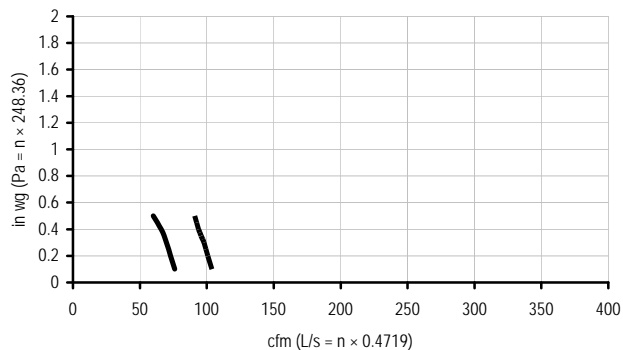
— Net Supply — Net Exhaust

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|---------------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 98 | 208 | 234 | 75 | 84 | -- |
| | 0 | +32 | 78 | 165 | 178 | 77 | 87 | -- |
| | 0 | +32 | 56 | 119 | 150 | 79 | 90 | -- |
| | -25 | -13 | 59 | 125 | 156 | 75 | 87 | -- |
| | -25 | -13 | 55 | 117 | -- | 75 | -- | -- |
| COOLING | +35 | +95 | 57 | 121 | 150 | | | |
| | TOTAL RECOVERY EFFICIENCY | | | | | | | 33 |

NUTECH BRANDS, INC. (LIFEBREATH®)

Model: 95MAX • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 0.90
 Exhaust Air Transfer Ratio: 0.10 @100 Pa/0.4 in. wg 0.08 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 15% Supply, 22% Exhaust Low • Temp. Imbalance Factor: 1.00

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-------------|------------|-------------|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY L/s | EXHAUST L/s | SUPPLY cfm | EXHAUST cfm |
| 25 | 0.1 | 36 | 76 | 40 | 84 | 49 | 104 |
| 50 | 0.2 | 34 | 73 | 38 | 81 | 48 | 101 |
| 75 | 0.3 | 33 | 70 | 37 | 78 | 46 | 98 |
| 100 | 0.4 | 31 | 66 | 34 | 73 | 44 | 94 |
| 125 | 0.5 | 29 | 60 | 32 | 67 | 43 | 91 |



— Net Supply — Net Exhaust

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 28 | 60 | 59 | 75 | 88 | -0.01 |
| | 0 | +32 | 33 | 71 | 58 | 73 | 86 | 0.03 |
| | 0 | +32 | 42 | 89 | 89 | 73 | 84 | 0.04 |
| | -25 | -13 | 29 | 61 | 76 | 68 | 86 | 0.02 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

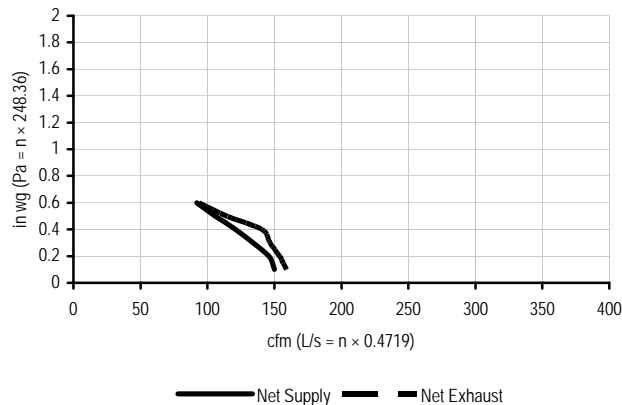
Section 3-68

NUTECH BRANDS, INC. (LIFEBREATH®)

Model: 155 MAX • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.05 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 3% Supply 11% Exhaust • Low Temp. Imbalance Factor: 1.02

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 71 | 150 | 74 | 157 | 75 | 159 |
| 50 | 0.2 | 69 | 146 | 72 | 152 | 73 | 154 |
| 75 | 0.3 | 63 | 134 | 66 | 140 | 69 | 147 |
| 100 | 0.4 | 57 | 121 | 59 | 126 | 67 | 141 |
| 125 | 0.5 | 50 | 106 | 52 | 111 | 54 | 115 |
| 150 | 0.6 | 43 | 92 | 45 | 96 | 44 | 94 |



ENERGY PERFORMANCE

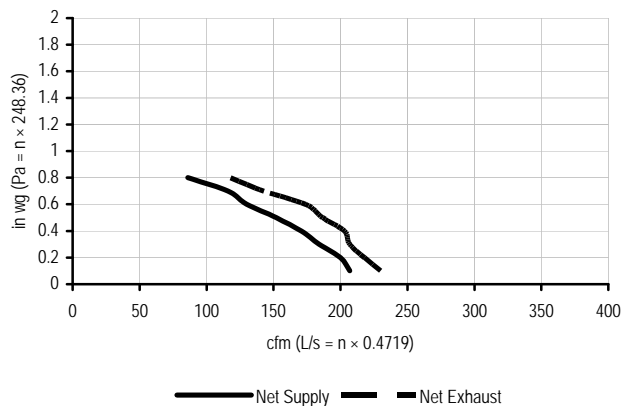
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 65 | 84 | 64 | 76 | 0.04 |
| | 0 | +32 | 40 | 84 | 97 | 64 | 74 | 0.02 |
| | 0 | +32 | 55 | 117 | 117 | 62 | 71 | 0.00 |
| | -25 | -13 | 32 | 68 | 93 | 66 | 78 | 0.01 |

NUTECH BRANDS, INC. (LIFEBREATH®)

Model: 200 MAX • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.04 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 2% Supply 11% Exhaust • Low Temp. Imbalance Factor: 1.03

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 97 | 207 | 100 | 214 | 108 | 230 |
| 50 | 0.2 | 94 | 200 | 97 | 206 | 103 | 218 |
| 75 | 0.3 | 87 | 184 | 90 | 191 | 97 | 207 |
| 100 | 0.4 | 80 | 171 | 84 | 179 | 96 | 203 |
| 125 | 0.5 | 71 | 152 | 76 | 161 | 88 | 187 |
| 150 | 0.6 | 61 | 130 | 66 | 140 | 82 | 174 |
| 175 | 0.7 | 55 | 116 | 60 | 129 | 67 | 143 |
| 200 | 0.8 | 40 | 86 | 46 | 98 | 56 | 118 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 66 | 81 | 64 | 74 | 0.06 |
| | 0 | +32 | 45 | 96 | 99 | 63 | 71 | 0.03 |
| | 0 | +32 | 55 | 117 | 113 | 61 | 69 | 0.03 |
| | -25 | -13 | 51 | 109 | 119 | 62 | 73 | 0.01 |

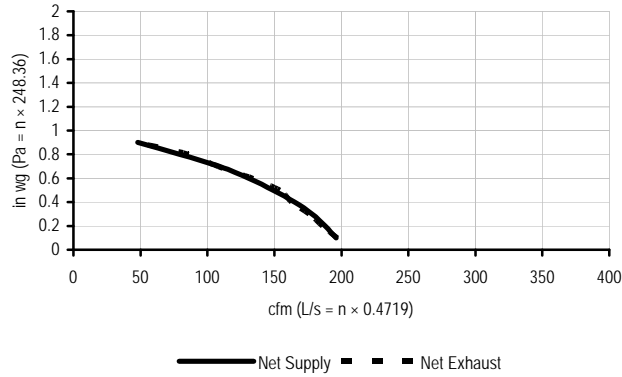
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-69

NUTECH BRANDS, INC. (LIFEBREATH®)

Model: MAXTOP • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 6% Supply 13% Exhaust • Low Temp. Imbalance Factor: 1.03

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 93 | 196 | 94 | 199 | 93 | 197 |
| 50 | 0.2 | 89 | 188 | 90 | 190 | 88 | 186 |
| 75 | 0.3 | 84 | 178 | 85 | 181 | 83 | 176 |
| 100 | 0.4 | 78 | 165 | 79 | 167 | 77 | 163 |
| 125 | 0.5 | 70 | 149 | 71 | 151 | 73 | 154 |
| 150 | 0.6 | 62 | 131 | 63 | 133 | 63 | 134 |
| 175 | 0.7 | 51 | 109 | 52 | 110 | 51 | 108 |
| 200 | 0.8 | 37 | 79 | 38 | 80 | 41 | 86 |
| 225 | 0.9 | 23 | 48 | 23 | 49 | 22 | 47 |

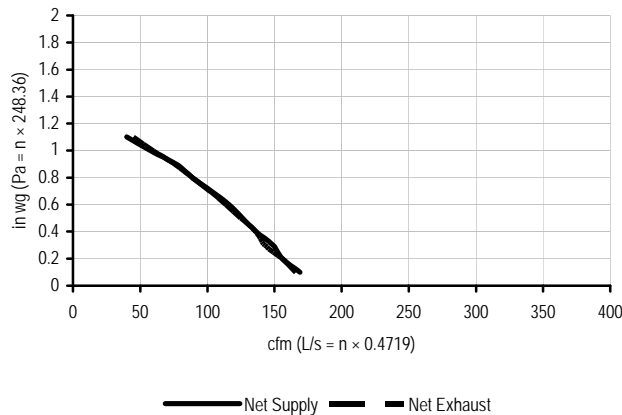


| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 31 | 65 | 74 | 69 | 80 | -0.01 |
| | 0 | +32 | 45 | 96 | 94 | 67 | 75 | -0.01 |
| | 0 | +32 | 55 | 117 | 105 | 64 | 72 | -0.01 |
| | -25 | -13 | 31 | 67 | 84 | 70 | 83 | 0.03 |
| COOLING | +35 | +95 | 30 | 64 | 72 | | TOTAL RECOVERY EFFICIENCY 22 | |

NUTECH BRANDS, INC. (LIFEBREATH®)

Model: RNC5-TPD • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.7
 Exhaust Air Transfer Ratio: 0.03 @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 3% Supply 11% Exhaust • Low Temp. Imbalance Factor: 0.92

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 80 | 169 | 82 | 174 | 78 | 166 |
| 50 | 0.2 | 73 | 156 | 76 | 161 | 74 | 156 |
| 75 | 0.3 | 70 | 149 | 72 | 153 | 67 | 143 |
| 100 | 0.4 | 64 | 136 | 66 | 140 | 64 | 136 |
| 125 | 0.5 | 59 | 126 | 61 | 129 | 59 | 125 |
| 150 | 0.6 | 54 | 116 | 56 | 119 | 54 | 114 |
| 175 | 0.7 | 48 | 103 | 50 | 106 | 48 | 102 |
| 200 | 0.8 | 42 | 89 | 43 | 91 | 42 | 89 |
| 225 | 0.9 | 36 | 77 | 37 | 79 | 36 | 76 |
| 250 | 1.0 | 27 | 58 | 28 | 60 | 28 | 60 |
| 275 | 1.1 | 19 | 40 | 19 | 41 | 21 | 45 |



| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 31 | 66 | 74 | 61 | 74 | 0.01 |
| | 0 | +32 | 40 | 85 | 86 | 61 | 73 | 0.01 |
| | 0 | +32 | 55 | 117 | 140 | 56 | 69 | 0.01 |
| | -25 | -13 | 36 | 76 | 96 | 63 | 78 | 0.04 |

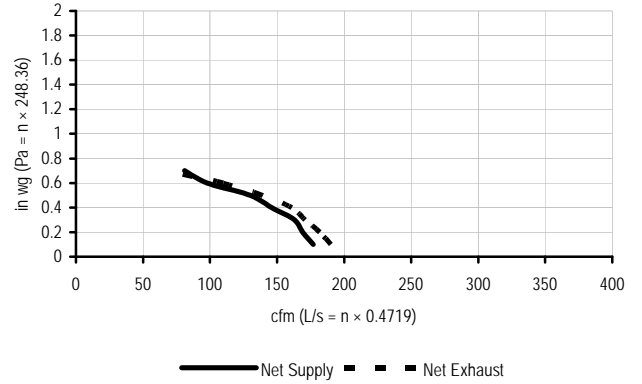
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-71

PARTNERS CHOICE

Model: HRV-150 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.05 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 9% Supply 22% Exhaust • Low Temp. Imbalance Factor: 1.0

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|-----|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 84 | 177 | 88 | 186 | 90 | 190 |
| 50 | 0.2 | 80 | 169 | 84 | 178 | 86 | 182 |
| 75 | 0.3 | 77 | 163 | 81 | 171 | 81 | 171 |
| 100 | 0.4 | 69 | 146 | 72 | 153 | 76 | 161 |
| 125 | 0.5 | 61 | 130 | 65 | 137 | 66 | 139 |
| 150 | 0.6 | 46 | 98 | 49 | 103 | 52 | 110 |
| 175 | 0.7 | 38 | 81 | 40 | 85 | 32 | 67 |



| | ENERGY PERFORMANCE | | | | | | | |
|---------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 30 | 64 | 54 | 75 | 83 | -0.03 |
| | 0 | +32 | 46 | 97 | 78 | 67 | 74 | 0.01 |
| | 0 | +32 | 65 | 138 | 124 | 64 | 72 | -0.02 |
| | -25 | -13 | 26 | 55 | 62 | 67 | 89 | 0.05 |

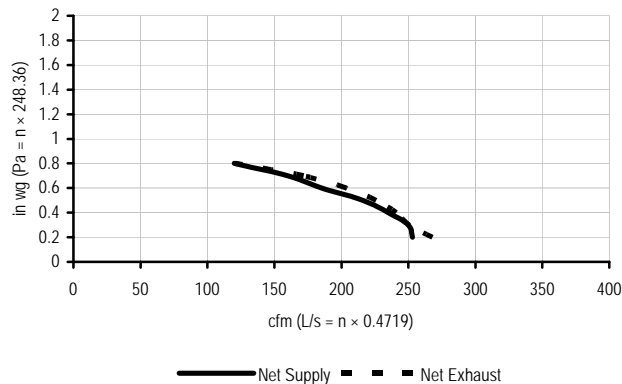
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-72

PARTNERS CHOICE

Model: HRV-210 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.9
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.04 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 23% Exhaust • Low Temp. Imbalance Factor: 1.0

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 50 | 0.2 | 119 | 253 | 125 | 264 | 126 | 268 |
| 75 | 0.3 | 118 | 250 | 124 | 262 | 118 | 251 |
| 100 | 0.4 | 111 | 235 | 116 | 245 | 114 | 241 |
| 125 | 0.5 | 102 | 216 | 106 | 224 | 107 | 226 |
| 150 | 0.6 | 87 | 185 | 91 | 193 | 96 | 204 |
| 175 | 0.7 | 76 | 160 | 79 | 167 | 81 | 172 |
| 200 | 0.8 | 57 | 120 | 59 | 124 | 57 | 121 |

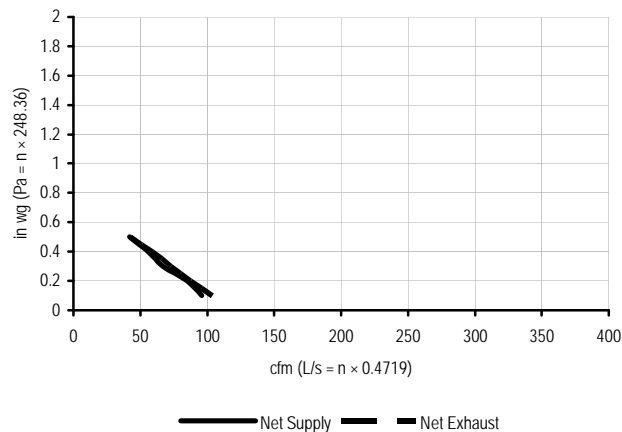


| ENERGY PERFORMANCE | | | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|--|--|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER | | |
| | °C | °F | L/S | CFM | | | | | | |
| HEATING | 0 | +32 | 26 | 55 | 36 | 57 | 67 | 0.02 | | |
| | 0 | +32 | 32 | 67 | 40 | 55 | 63 | 0.00 | | |
| | 0 | +32 | 39 | 84 | 40 | 54 | 60 | 0.00 | | |
| | -25 | -13 | 34 | 73 | 35 | 53 | 66 | 0.01 | | |

POWRMATIC OF CANADA, LTD. (DIRECT AIR)

Model: PHRV96 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 0.4
 Exhaust Air Transfer Ratio: 0.04 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 7% Supply 9% Exhaust • Low Temp. Imbalance Factor: 0.97

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 45 | 96 | 47 | 100 | 49 | 104 |
| 50 | 0.2 | 40 | 85 | 41 | 88 | 41 | 88 |
| 75 | 0.3 | 32 | 67 | 33 | 70 | 34 | 73 |
| 100 | 0.4 | 26 | 56 | 27 | 58 | 28 | 59 |
| 125 | 0.5 | 20 | 42 | 20 | 43 | 20 | 43 |



| ENERGY PERFORMANCE | | | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|--|--|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER | | |
| | °C | °F | L/S | CFM | | | | | | |
| HEATING | 0 | +32 | 26 | 55 | 36 | 57 | 67 | 0.02 | | |
| | 0 | +32 | 32 | 67 | 40 | 55 | 63 | 0.00 | | |
| | 0 | +32 | 39 | 84 | 40 | 54 | 60 | 0.00 | | |
| | -25 | -13 | 34 | 73 | 35 | 53 | 66 | 0.01 | | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

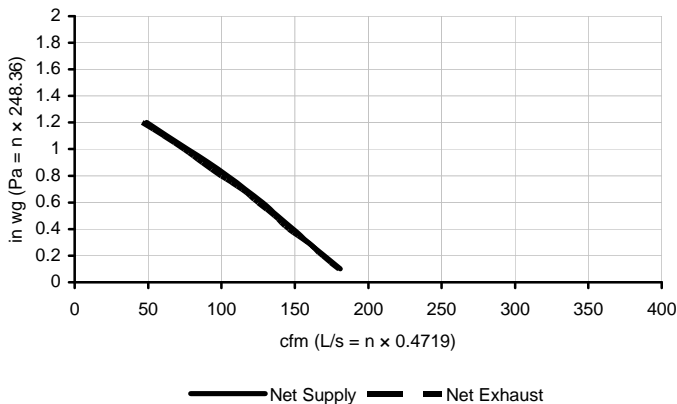
Section 3-73

POWRMATIC OF CANADA, LTD. (DIRECT AIR)

Model: PHRV 140 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.03 @ 100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 5% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.82

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 85 | 181 | 87 | 184 | 84 | 180 |
| 50 | 0.2 | 80 | 170 | 82 | 174 | 79 | 169 |
| 75 | 0.3 | 75 | 159 | 76 | 162 | 75 | 159 |
| 100 | 0.4 | 70 | 149 | 71 | 151 | 68 | 146 |
| 125 | 0.5 | 65 | 138 | 66 | 141 | 64 | 136 |
| 150 | 0.6 | 60 | 128 | 61 | 130 | 59 | 125 |
| 175 | 0.7 | 55 | 116 | 56 | 119 | 54 | 114 |
| 200 | 0.8 | 49 | 104 | 50 | 106 | 47 | 100 |
| 225 | 0.9 | 43 | 91 | 43 | 92 | 41 | 87 |
| 250 | 1.0 | 36 | 77 | 37 | 79 | 35 | 75 |
| 275 | 1.1 | 30 | 63 | 30 | 64 | 29 | 61 |
| 300 | 1.2 | 23 | 49 | 24 | 50 | 22 | 46 |



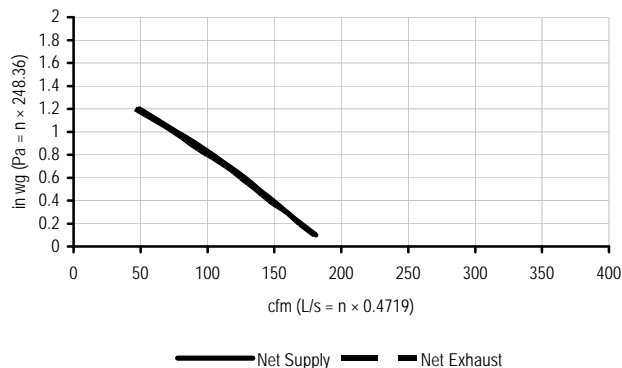
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 26 | 55 | 36 | 57 | 67 | 0.02 |
| | 0 | +32 | 32 | 67 | 40 | 55 | 63 | 0.00 |
| | 0 | +32 | 39 | 84 | 40 | 54 | 60 | 0.00 |
| | -25 | -13 | 34 | 73 | 35 | 53 | 66 | 0.01 |

POWRMATIC OF CANADA, LTD. (DIRECT AIR)

Model: PHRV 150 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.03 @ 100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 5% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.82

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 85 | 181 | 87 | 184 | 84 | 180 |
| 50 | 0.2 | 80 | 170 | 82 | 174 | 79 | 169 |
| 75 | 0.3 | 75 | 159 | 76 | 162 | 75 | 159 |
| 100 | 0.4 | 70 | 149 | 71 | 151 | 68 | 146 |
| 125 | 0.5 | 65 | 138 | 66 | 141 | 64 | 136 |
| 150 | 0.6 | 60 | 128 | 61 | 130 | 59 | 125 |
| 175 | 0.7 | 55 | 116 | 56 | 119 | 54 | 114 |
| 200 | 0.8 | 49 | 104 | 50 | 106 | 47 | 100 |
| 225 | 0.9 | 43 | 91 | 43 | 92 | 41 | 87 |
| 250 | 1.0 | 36 | 77 | 37 | 79 | 35 | 75 |
| 275 | 1.1 | 30 | 63 | 30 | 64 | 29 | 61 |
| 300 | 1.2 | 23 | 49 | 24 | 50 | 22 | 46 |



| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 31 | 67 | 72 | 60 | 73 | -0.11 |
| | 0 | +32 | 51 | 109 | 98 | 59 | 70 | 0.00 |
| | 0 | +32 | 76 | 161 | 144 | 55 | 63 | 0.00 |
| | -25 | -13 | 32 | 68 | 73 | 56 | 77 | -0.02 |

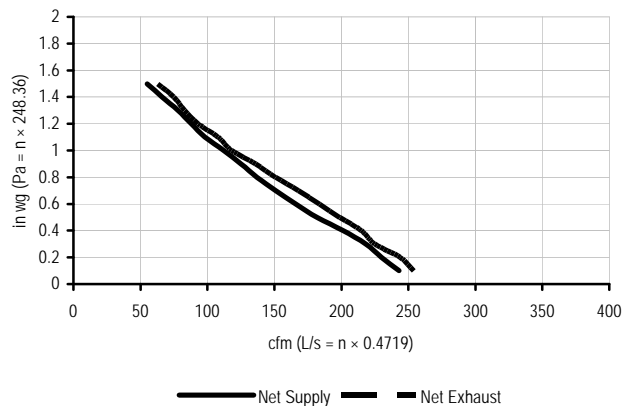
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-74

POWRMATIC OF CANADA, LTD. (DIRECT AIR)

Model: Powrmatic PHRV200 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2.1
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 8% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.81

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 114 | 243 | 116 | 246 | 120 | 254 |
| 50 | 0.2 | 109 | 230 | 110 | 233 | 115 | 244 |
| 75 | 0.3 | 103 | 218 | 104 | 221 | 106 | 225 |
| 100 | 0.4 | 95 | 201 | 96 | 204 | 101 | 215 |
| 125 | 0.5 | 86 | 182 | 87 | 185 | 94 | 199 |
| 150 | 0.6 | 78 | 166 | 79 | 168 | 87 | 184 |
| 175 | 0.7 | 71 | 151 | 72 | 154 | 79 | 168 |
| 200 | 0.8 | 65 | 137 | 66 | 139 | 71 | 151 |
| 225 | 0.9 | 59 | 125 | 60 | 127 | 64 | 136 |
| 250 | 1.0 | 53 | 112 | 53 | 113 | 56 | 118 |
| 275 | 1.1 | 46 | 98 | 47 | 99 | 51 | 108 |
| 300 | 1.2 | 42 | 88 | 42 | 90 | 44 | 93 |
| 325 | 1.3 | 37 | 78 | 37 | 79 | 39 | 83 |
| 350 | 1.4 | 31 | 66 | 32 | 67 | 35 | 75 |
| 375 | 1.5 | 26 | 55 | 26 | 54 | 28 | 60 |



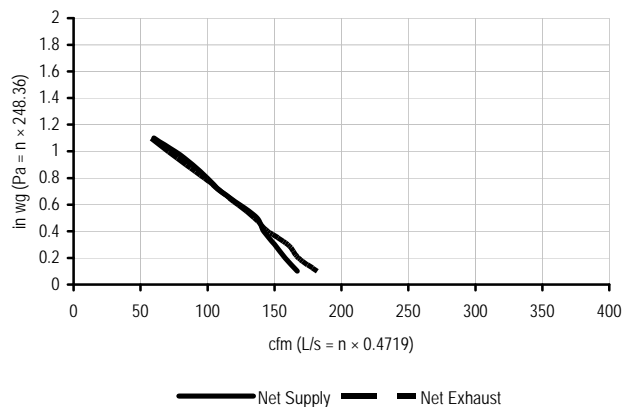
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 65 | 108 | 62 | 77 | 0.06 |
| | 0 | +32 | 55 | 117 | 154 | 62 | 74 | 0.07 |
| | 0 | +32 | 90 | 191 | 246 | 60 | 71 | 0.00 |
| | -25 | -13 | 61 | 129 | 154 | 59 | 79 | 0.00 |

POWRMATIC OF CANADA, LTD. (DIRECT AIR)

Model: Powrmatic PHRV155 • Options Installed: Damper
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 12% Supply 14% Exhaust • Low Temp. Imbalance Factor: 0.96

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 78 | 167 | 80 | 169 | 86 | 182 |
| 50 | 0.2 | 74 | 158 | 75 | 160 | 79 | 168 |
| 75 | 0.3 | 71 | 150 | 72 | 152 | 75 | 160 |
| 100 | 0.4 | 67 | 142 | 68 | 144 | 68 | 145 |
| 125 | 0.5 | 65 | 137 | 66 | 140 | 63 | 135 |
| 150 | 0.6 | 58 | 124 | 59 | 126 | 58 | 123 |
| 175 | 0.7 | 52 | 110 | 53 | 112 | 52 | 110 |
| 200 | 0.8 | 47 | 100 | 48 | 101 | 46 | 98 |
| 225 | 0.9 | 42 | 89 | 43 | 91 | 40 | 84 |
| 250 | 1.0 | 36 | 76 | 36 | 77 | 34 | 71 |
| 275 | 1.1 | 28 | 60 | 28 | 60 | 27 | 58 |



| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 65 | 72 | 59 | 73 | 0.01 |
| | 0 | +32 | 49 | 104 | 102 | 61 | 70 | 0.00 |
| | 0 | +32 | 76 | 161 | 148 | 58 | 66 | -0.01 |
| | -25 | -13 | 32 | 68 | 96 | 61 | 77 | 0.02 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

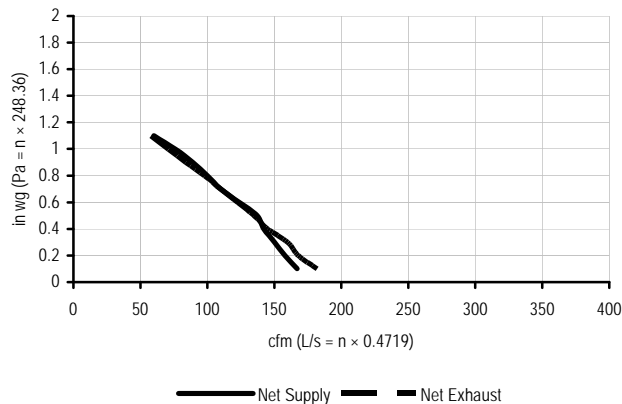
Section 3-75

POWRMATIC OF CANADA, LTD. (DIRECT AIR)

Model: Powrmatic PHRVR 160 • Options Installed: Damper
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 12% Supply 14% Exhaust • Low Temp. Imbalance Factor: 0.96

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 78 | 167 | 80 | 169 | 86 | 182 |
| 50 | 0.2 | 74 | 158 | 75 | 160 | 79 | 168 |
| 75 | 0.3 | 71 | 150 | 72 | 152 | 75 | 160 |
| 100 | 0.4 | 67 | 142 | 68 | 144 | 68 | 145 |
| 125 | 0.5 | 65 | 137 | 66 | 140 | 63 | 135 |
| 150 | 0.6 | 58 | 124 | 59 | 126 | 58 | 123 |
| 175 | 0.7 | 52 | 110 | 53 | 112 | 52 | 110 |
| 200 | 0.8 | 47 | 100 | 48 | 101 | 46 | 98 |
| 225 | 0.9 | 42 | 89 | 43 | 91 | 40 | 84 |
| 250 | 1.0 | 36 | 76 | 36 | 77 | 34 | 71 |
| 275 | 1.1 | 28 | 60 | 28 | 60 | 27 | 58 |



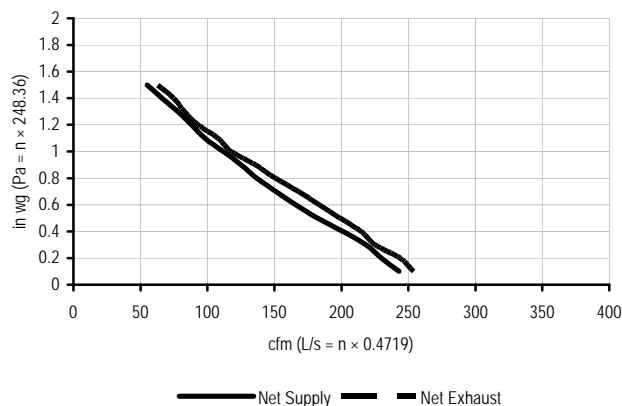
ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 31 | 65 | 72 | 59 | 73 | 0.01 |
| | 0 | +32 | 49 | 104 | 102 | 61 | 70 | 0.00 |
| | 0 | +32 | 76 | 161 | 148 | 58 | 66 | -0.01 |
| | -25 | -13 | 32 | 68 | 96 | 61 | 77 | 0.02 |

POWRMATIC OF CANADA, LTD. (DIRECT AIR)

Model: Powrmatic PHRVR 205 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2.1
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 8% Supply 18% Exhaust • Low Temp. Imbalance Factor: 1.09

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 114 | 243 | 116 | 246 | 120 | 254 |
| 50 | 0.2 | 109 | 230 | 110 | 233 | 115 | 244 |
| 75 | 0.3 | 103 | 218 | 104 | 221 | 106 | 225 |
| 100 | 0.4 | 95 | 201 | 96 | 204 | 101 | 215 |
| 125 | 0.5 | 86 | 182 | 87 | 185 | 94 | 199 |
| 150 | 0.6 | 78 | 166 | 79 | 168 | 87 | 184 |
| 175 | 0.7 | 71 | 151 | 72 | 154 | 79 | 168 |
| 200 | 0.8 | 65 | 137 | 66 | 139 | 71 | 151 |
| 225 | 0.9 | 59 | 125 | 60 | 127 | 64 | 136 |
| 250 | 1.0 | 53 | 112 | 53 | 113 | 56 | 118 |
| 275 | 1.1 | 46 | 98 | 47 | 99 | 51 | 108 |
| 300 | 1.2 | 42 | 88 | 42 | 90 | 44 | 93 |
| 325 | 1.3 | 37 | 78 | 37 | 79 | 39 | 83 |
| 350 | 1.4 | 31 | 66 | 32 | 67 | 35 | 75 |
| 375 | 1.5 | 26 | 55 | 26 | 56 | 30 | 63 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 31 | 65 | 108 | 62 | 77 | 0.06 |
| | 0 | +32 | 55 | 117 | 154 | 62 | 74 | 0.07 |
| | 0 | +32 | 90 | 191 | 246 | 60 | 71 | 0.00 |
| | -25 | -13 | 59 | 126 | 141 | 64 | 81 | 0.01 |

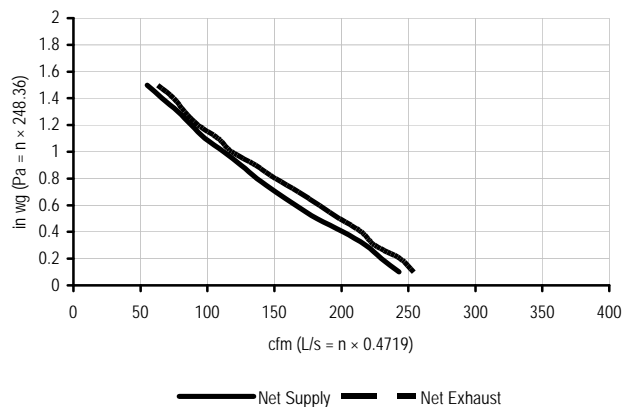
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-76

POWRMATIC OF CANADA, LTD. (DIRECT AIR)

Model: PHRVR210 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2.1
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 8% Supply 18% Exhaust • Low Temp. Imbalance Factor: 1.09

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 114 | 243 | 116 | 246 | 120 | 254 |
| 50 | 0.2 | 109 | 230 | 110 | 233 | 115 | 244 |
| 75 | 0.3 | 103 | 218 | 104 | 221 | 106 | 225 |
| 100 | 0.4 | 95 | 201 | 96 | 204 | 101 | 215 |
| 125 | 0.5 | 86 | 182 | 87 | 185 | 94 | 199 |
| 150 | 0.6 | 78 | 166 | 79 | 168 | 87 | 184 |
| 175 | 0.7 | 71 | 151 | 72 | 154 | 79 | 168 |
| 200 | 0.8 | 65 | 137 | 66 | 139 | 71 | 151 |
| 225 | 0.9 | 59 | 125 | 60 | 127 | 64 | 136 |
| 250 | 1.0 | 53 | 112 | 53 | 113 | 56 | 118 |
| 275 | 1.1 | 46 | 98 | 47 | 99 | 51 | 108 |
| 300 | 1.2 | 42 | 88 | 42 | 90 | 44 | 93 |
| 325 | 1.3 | 37 | 78 | 37 | 79 | 39 | 83 |
| 350 | 1.4 | 31 | 66 | 32 | 67 | 35 | 75 |
| 375 | 1.5 | 26 | 55 | 26 | 56 | 30 | 63 |

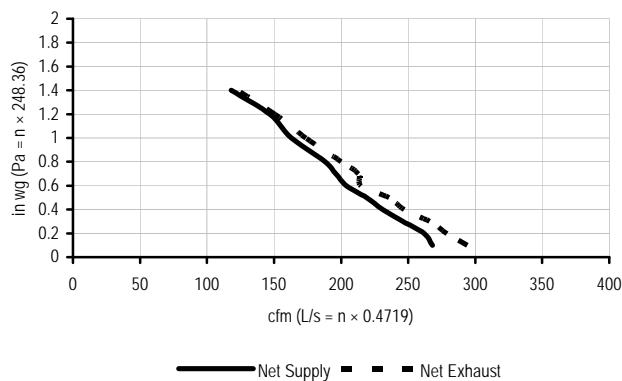


| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 31 | 65 | 108 | 62 | 77 | 0.06 |
| | 0 | +32 | 55 | 117 | 154 | 62 | 74 | 0.07 |
| | 0 | +32 | 90 | 191 | 246 | 60 | 71 | 0.00 |
| | -25 | -13 | 59 | 126 | 141 | 64 | 81 | 0.01 |

POWRMATIC OF CANADA, LTD. (DIRECT AIR)

Model: Powrmatic PHRVR 305 • Options Installed: None
 Electrical Requirements: Volts: 115 Amps: 2.7
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 7% Supply 9% Exhaust • Low Temp. Imbalance Factor: 0.96

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 126 | 268 | 131 | 277 | 139 | 294 |
| 50 | 0.2 | 124 | 262 | 127 | 270 | 132 | 279 |
| 75 | 0.3 | 116 | 246 | 119 | 253 | 126 | 266 |
| 100 | 0.4 | 109 | 231 | 112 | 238 | 117 | 247 |
| 125 | 0.5 | 103 | 219 | 107 | 226 | 111 | 236 |
| 150 | 0.6 | 96 | 204 | 100 | 211 | 101 | 215 |
| 175 | 0.7 | 93 | 196 | 95 | 202 | 101 | 213 |
| 200 | 0.8 | 89 | 188 | 92 | 194 | 94 | 200 |
| 250 | 1.0 | 77 | 163 | 79 | 168 | 82 | 174 |
| 300 | 1.2 | 69 | 147 | 71 | 151 | 71 | 151 |
| 350 | 1.4 | 56 | 118 | 57 | 121 | 58 | 123 |



| ENERGY PERFORMANCE | | | | | | | | |
|---------------------------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 30 | 64 | 126 | 76 | 91 | 0.02 |
| | 0 | +32 | 55 | 117 | 212 | 78 | 92 | 0.01 |
| | 0 | +32 | 74 | 157 | 262 | 78 | 91 | -0.09 |
| | -25 | -13 | 57 | 121 | 224 | 72 | 91 | 0.09 |
| | -25 | -13 | 55 | 117 | 220 | 72 | -- | -- |
| COOLING | +35 | +95 | 54 | 115 | 206 | | 18 | |
| | +35 | +95 | 74 | 159 | 260 | | 17 | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

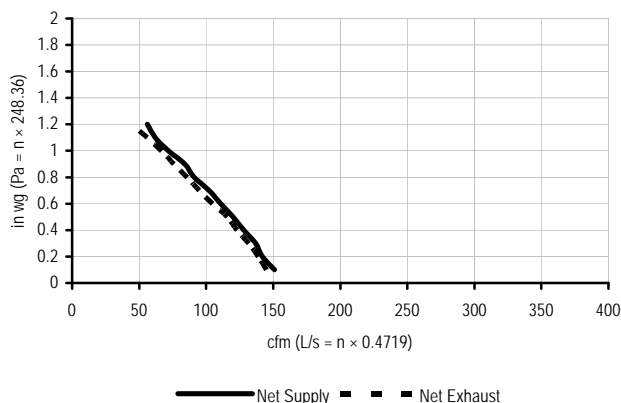
Section 3-77

POWRMATIC OF CANADA, LTD. (DIRECT AIR)

Model: Powrmatic PW150 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.6
 Exhaust Air Transfer Ratio: 0.10 @100 Pa/0.4 in. wg 0.10 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 12% Supply 2% Exhaust • Low Temp. Imbalance Factor: 0.88

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 71 | 151 | 72 | 153 | 68 | 145 |
| 50 | 0.2 | 67 | 142 | 68 | 144 | 66 | 139 |
| 75 | 0.3 | 65 | 137 | 65 | 138 | 62 | 132 |
| 100 | 0.4 | 60 | 128 | 61 | 130 | 58 | 123 |
| 125 | 0.5 | 57 | 120 | 57 | 121 | 55 | 116 |
| 150 | 0.6 | 52 | 111 | 53 | 112 | 50 | 105 |
| 175 | 0.7 | 48 | 102 | 49 | 103 | 45 | 95 |
| 200 | 0.8 | 43 | 91 | 43 | 92 | 41 | 86 |
| 225 | 0.9 | 40 | 84 | 40 | 85 | 36 | 76 |
| 250 | 1.0 | 34 | 72 | 34 | 72 | 32 | 67 |
| 275 | 1.1 | 29 | 62 | 30 | 63 | 26 | 56 |
| 300 | 1.2 | 26 | 56 | 27 | 57 | 21 | 44 |



ENERGY PERFORMANCE

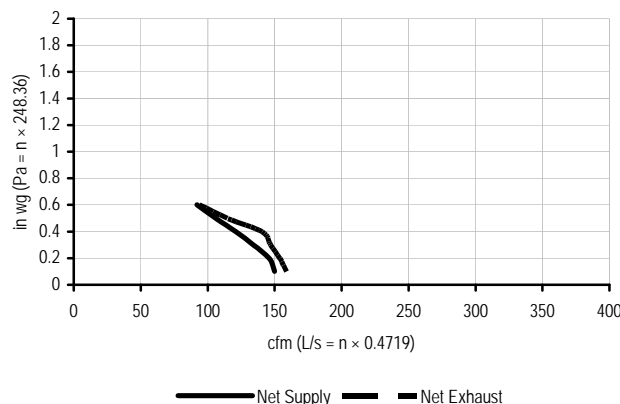
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|----------------------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 94 | 61 | 72 | 0.01 |
| | 0 | +32 | 39 | 83 | 121 | 59 | 70 | 0.02 |
| | 0 | +32 | 57 | 121 | 168 | 56 | 66 | 0.02 |
| | -25 | -13 | 41 | 87 | 119 | 56 | 69 | 0.05 |
| | -25 | -13 | 30 | 64 | 86 | 55 | --- | --- |
| | TOTAL RECOVERY EFFICIENCY | | | | | | | |
| COOLING | +35 | +95 | 30 | 64 | 96 | | 14 | |
| | +35 | +95 | 53 | 113 | 163 | | 12 | |

QUANTUM

Model: 155 Quantum • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.05 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 3% Supply 11% Exhaust • Low Temp. Imbalance Factor: 1.02

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 71 | 150 | 74 | 157 | 75 | 159 |
| 50 | 0.2 | 69 | 146 | 72 | 152 | 73 | 154 |
| 75 | 0.3 | 63 | 134 | 66 | 140 | 69 | 147 |
| 100 | 0.4 | 57 | 121 | 59 | 126 | 67 | 141 |
| 125 | 0.5 | 50 | 106 | 52 | 111 | 54 | 115 |
| 150 | 0.6 | 43 | 92 | 45 | 96 | 44 | 94 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 65 | 84 | 64 | 76 | 0.04 |
| | 0 | +32 | 40 | 84 | 97 | 64 | 74 | 0.02 |
| | 0 | +32 | 55 | 117 | 117 | 62 | 71 | 0.00 |
| | -25 | -13 | 32 | 68 | 93 | 66 | 78 | 0.01 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

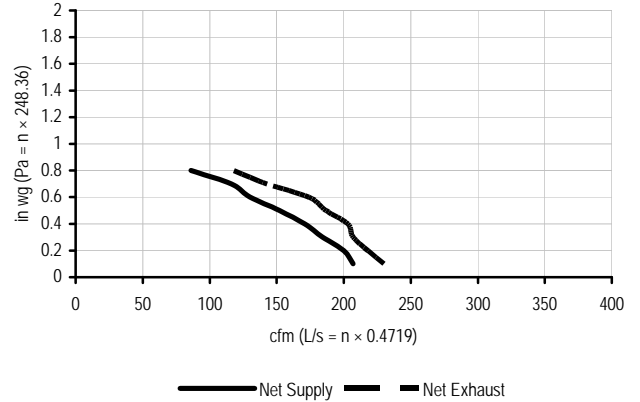
Section 3-78

QUANTUM

Model: 200 Quantum • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.04 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 2% Supply 11% Exhaust • Low Temp. Imbalance Factor: 1.03

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 97 | 207 | 100 | 214 | 108 | 230 |
| 50 | 0.2 | 94 | 200 | 97 | 206 | 103 | 218 |
| 75 | 0.3 | 87 | 184 | 90 | 191 | 97 | 207 |
| 100 | 0.4 | 80 | 171 | 84 | 179 | 96 | 203 |
| 125 | 0.5 | 71 | 152 | 76 | 161 | 88 | 187 |
| 150 | 0.6 | 61 | 130 | 66 | 140 | 82 | 174 |
| 175 | 0.7 | 55 | 116 | 60 | 129 | 67 | 143 |
| 200 | 0.8 | 40 | 86 | 46 | 98 | 56 | 118 |



ENERGY PERFORMANCE

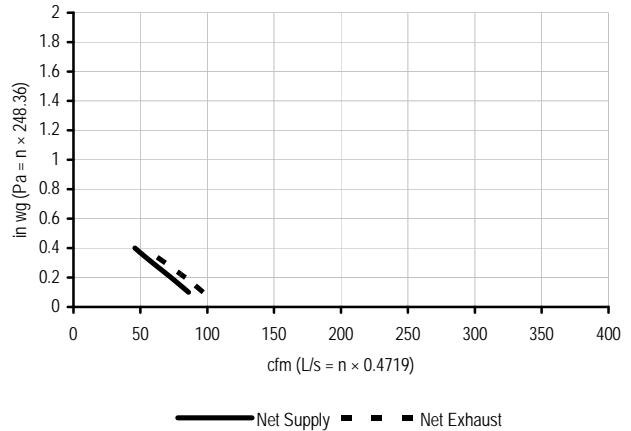
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 66 | 81 | 64 | 74 | 0.06 |
| | 0 | +32 | 45 | 96 | 99 | 63 | 71 | 0.03 |
| | 0 | +32 | 55 | 117 | 113 | 61 | 69 | 0.03 |
| | -25 | -13 | 51 | 109 | 119 | 62 | 73 | 0.01 |

RENEWAIRE LLC

Model Number: BR70 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.0
 Exhaust Air Transfer Ratio: 0.03 @ 100 Pa/0.4 in. wg 0.04 @ 50 Pa / 0.2 in wg

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 41 | 86 | 42 | 89 | 46 | 97 |
| 50 | 0.2 | 34 | 73 | 35 | 75 | 39 | 84 |
| 75 | 0.3 | 28 | 59 | 29 | 61 | 32 | 69 |
| 100 | 0.4 | 21 | 46 | 22 | 47 | 25 | 53 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 32 | 69 | 94 | 66 | 77 | 0.53 |
| COOLING | +35 | +95 | 30 | 64 | 94 | | 42 | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | | |

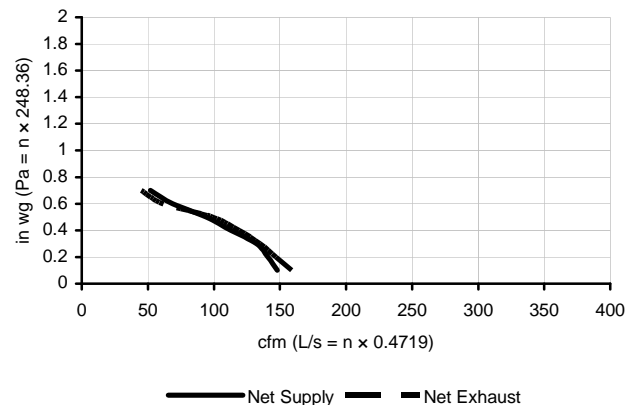
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-79

RENEWAIRE LLC

Model Number: BR130 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.02 @ 100 Pa/0.4 in. wg 0.02 @ 50 Pa/0.2 in. wg

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 70 | 148 | 71 | 151 | 75 | 159 |
| 50 | 0.2 | 66 | 141 | 67 | 143 | 69 | 147 |
| 75 | 0.3 | 62 | 132 | 63 | 134 | 64 | 135 |
| 100 | 0.4 | 53 | 113 | 54 | 115 | 56 | 119 |
| 125 | 0.5 | 44 | 94 | 45 | 96 | 47 | 99 |
| 150 | 0.6 | 32 | 69 | 33 | 70 | 29 | 62 |
| 175 | 0.7 | 24 | 52 | 25 | 53 | 21 | 45 |

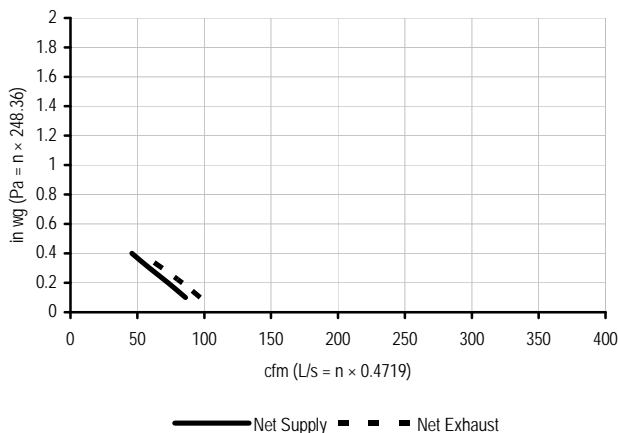


| ENERGY PERFORMANCE | | | | | | | | |
|---------------------------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 58 | 124 | 121 | 72 | 80 | 0.55 |
| COOLING | +35 | +95 | 59 | 126 | 121 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 46 | |

RENEWAIRE LLC

Model Number: EV70 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.0
 Exhaust Air Transfer Ratio: 0.03 @ 100 Pa/0.4 in. wg 0.04 @ 50 Pa / 0.2 in wg

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 41 | 86 | 42 | 89 | 46 | 97 |
| 50 | 0.2 | 34 | 73 | 35 | 75 | 39 | 84 |
| 75 | 0.3 | 28 | 59 | 29 | 61 | 32 | 69 |
| 100 | 0.4 | 21 | 46 | 22 | 47 | 25 | 53 |



| ENERGY PERFORMANCE | | | | | | | | |
|---------------------------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 32 | 69 | 94 | 66 | 77 | 0.53 |
| COOLING | +35 | +95 | 30 | 64 | 94 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 42 | |

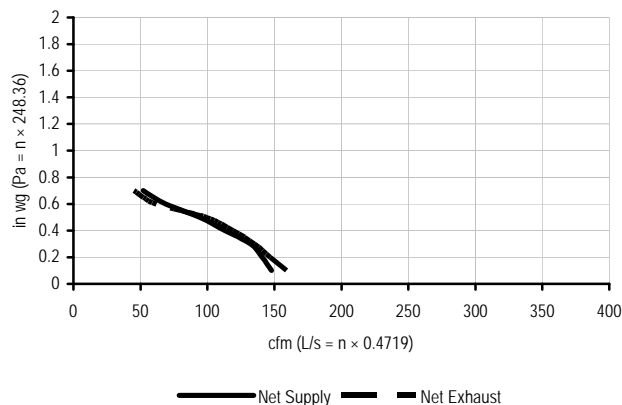
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-80

RENEWAIRE LLC

Model Number: EV130 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.02 @ 100 Pa/0.4 in. wg 0.02 @ 50 Pa/0.2 in. wg

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 70 | 148 | 71 | 151 | 75 | 159 |
| 50 | 0.2 | 66 | 141 | 67 | 143 | 69 | 147 |
| 75 | 0.3 | 62 | 132 | 63 | 134 | 64 | 135 |
| 100 | 0.4 | 53 | 113 | 54 | 115 | 56 | 119 |
| 125 | 0.5 | 44 | 94 | 45 | 96 | 47 | 99 |
| 150 | 0.6 | 32 | 69 | 33 | 70 | 29 | 62 |
| 175 | 0.7 | 24 | 52 | 25 | 53 | 21 | 45 |

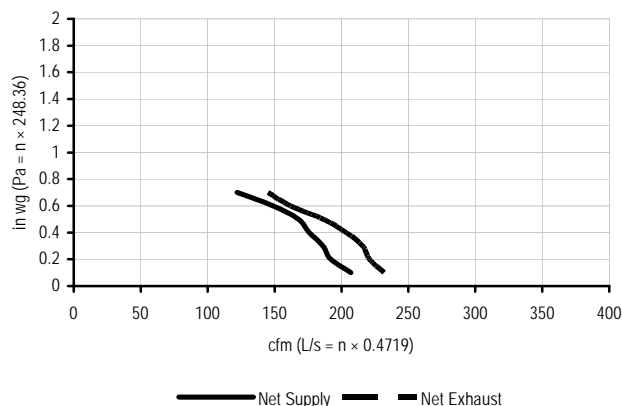


| ENERGY PERFORMANCE | | | | | | | | |
|---------------------------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 58 | 124 | 121 | 72 | 80 | 0.55 |
| COOLING | +35 | +95 | 59 | 126 | 121 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 46 | |

RENEWAIRE LLC

Model Number: EV200 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.03 @ 100 Pa /0.4 in. wg 0.03 @ 50 Pa/0.2 in. wg

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 97 | 207 | 100 | 213 | 109 | 232 |
| 50 | 0.2 | 90 | 192 | 93 | 199 | 104 | 221 |
| 75 | 0.3 | 88 | 186 | 90 | 192 | 101 | 216 |
| 100 | 0.4 | 83 | 176 | 85 | 181 | 96 | 204 |
| 125 | 0.5 | 79 | 168 | 81 | 173 | 88 | 187 |
| 150 | 0.6 | 70 | 149 | 72 | 154 | 76 | 162 |
| 175 | 0.7 | 57 | 122 | 59 | 126 | 68 | 145 |



| ENERGY PERFORMANCE | | | | | | | | |
|---------------------------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 85 | 181 | 157 | 78 | 85 | 0.62 |
| COOLING | +35 | +95 | 85 | 180 | 155 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 52 | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

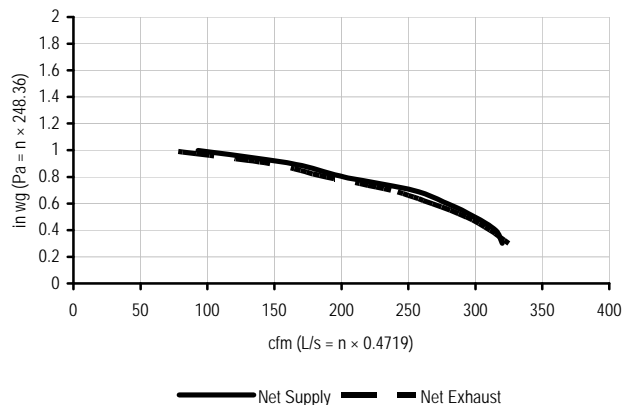
Section 3-81

RENEWAIRE LLC

Model Number: EV300 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 3.3
 Exhaust Air Transfer Ratio: 0.03 @ 100 Pa/0.4 in. wg --- @ 50 Pa/0.2 in. wg

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | | |
|----------------------|---------------------|-------|----------------|-----|---------|-----|-----|
| | AIR FLOW | | SUPPLY | | EXHAUST | | |
| | Pa | in wg | L/s | cfm | L/s | cfm | L/s |
| 75 | 0.3 | 150 | 320 | 155 | 330 | 153 | 325 |
| 100 | 0.4 | 148 | 315 | 153 | 325 | 146 | 311 |
| 125 | 0.5 | 141 | 299 | 145 | 309 | 138 | 293 |
| 150 | 0.6 | 131 | 279 | 135 | 287 | 126 | 268 |
| 175 | 0.7 | 119 | 253 | 123 | 261 | 111 | 237 |
| 200 | 0.8 | 95 | 202 | 98 | 209 | 89 | 189 |
| 225 | 0.9 | 77 | 163 | 79 | 169 | 69 | 147 |
| 250 | 1.0 | 44 | 93 | 45 | 96 | 34 | 72 |



ENERGY PERFORMANCE

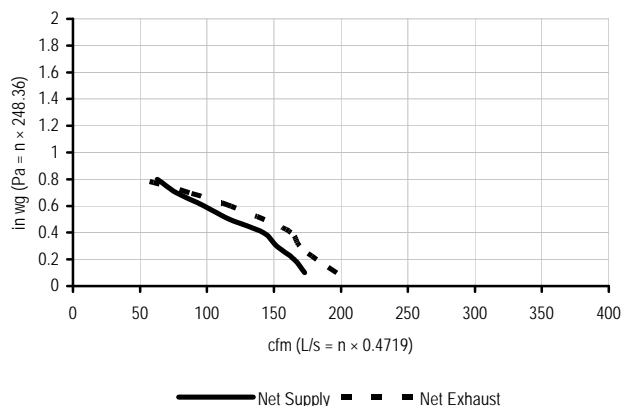
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 139 | 295 | 317 | 70 | 78 | 0.51 |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 43 | |
| COOLING | +35 | +95 | 134 | 285 | 311 | | | |

RHEEM

Model: 84-ERV-100 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: --- @ 100 Pa / 0.4 in. wg 0.06 @ 50 Pa/0.2 in. wg
 Low Temp. Vent Reduction Factor: 0 % Supply 0 % Exhaust • Low Temp. Imbalance Factor: 0.79

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | | |
|----------------------|---------------------|-------|----------------|-----|---------|-----|-----|
| | AIR FLOW | | SUPPLY | | EXHAUST | | |
| | Pa | in wg | L/s | cfm | L/s | cfm | L/s |
| 25 | 0.1 | 82 | 173 | 87 | 184 | 93 | 197 |
| 50 | 0.2 | 78 | 165 | 83 | 175 | 86 | 182 |
| 75 | 0.3 | 72 | 152 | 76 | 162 | 80 | 169 |
| 100 | 0.4 | 67 | 142 | 71 | 151 | 77 | 163 |
| 125 | 0.5 | 55 | 117 | 59 | 124 | 67 | 143 |
| 150 | 0.6 | 46 | 98 | 49 | 104 | 56 | 118 |
| 175 | 0.7 | 36 | 77 | 39 | 82 | 41 | 87 |
| 200 | 0.8 | 30 | 63 | 32 | 67 | 24 | 51 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | 32 | 29 | 60 | 56 | 71 | 79 | 0.52 |
| | 0 | 32 | 47 | 100 | 80 | 64 | 73 | 0.41 |
| | 0 | 32 | 65 | 137 | 126 | 60 | 68 | 0.36 |
| | -15 | -5 | 31 | 65 | 64 | 56 | 81 | 0.41 |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 45 | |
| COOLING | +35 | +95 | 28 | 59 | 52 | | | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

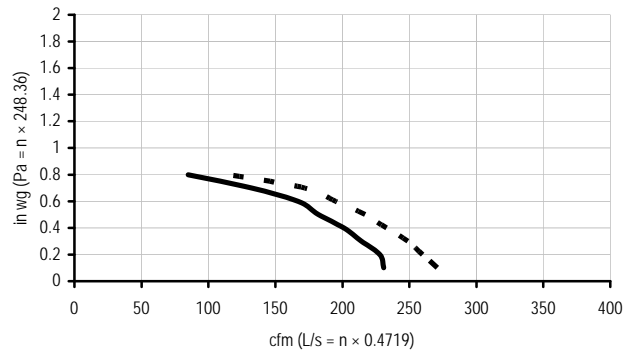
Section 3-82

RHEEM

Model: 84-ERV-200 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.9
 Exhaust Air Transfer Ratio: --- @ 100 Pa / 0.4 in. wg 0.06 @ 50 Pa/0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.84

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| | | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 109 | 231 | 116 | 245 | 128 | 271 |
| 50 | 0.2 | 108 | 228 | 114 | 241 | 123 | 260 |
| 75 | 0.3 | 101 | 214 | 107 | 227 | 118 | 249 |
| 100 | 0.4 | 95 | 201 | 101 | 213 | 110 | 233 |
| 125 | 0.5 | 86 | 182 | 91 | 193 | 102 | 217 |
| 150 | 0.6 | 79 | 167 | 84 | 177 | 92 | 195 |
| 175 | 0.7 | 62 | 132 | 66 | 140 | 81 | 172 |
| 200 | 0.8 | 40 | 85 | 42 | 90 | 55 | 116 |



— Net Supply - - - Net Exhaust

ENERGY PERFORMANCE

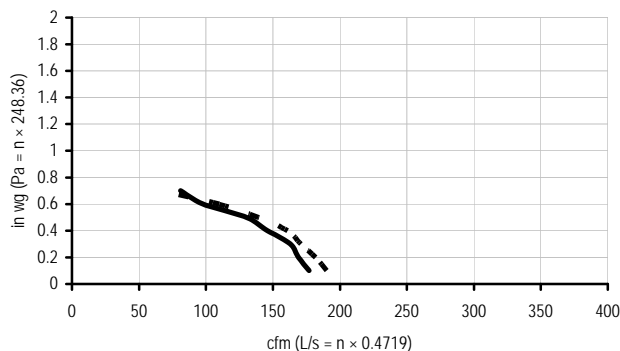
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 52 | 110 | 93 | 69 | 76 | 0.45 |
| | 0 | +32 | 74 | 157 | 130 | 64 | 71 | 0.38 |
| | -15 | +32 | 96 | 203 | 193 | 60 | 68 | 0.30 |
| | -25 | -5 | 52 | 110 | 122 | 55 | 76 | 0.26 |
| COOLING | +35 | +95 | 50 | 106 | 89 | TOTAL RECOVERY EFFICIENCY | | 41 |

RHEEM

Model: 84-HRV-100 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: --- @ 100 Pa/0.4 in. wg 0.05 @ 50 Pa/0.2 in. wg
 Low Temp. Vent Reduction Factor: 9% Supply 22% Exhaust • Low Temp. Imbalance Factor: 1.0

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| | | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 84 | 177 | 88 | 186 | 90 | 190 |
| 50 | 0.2 | 80 | 169 | 84 | 178 | 86 | 182 |
| 75 | 0.3 | 77 | 163 | 81 | 171 | 81 | 171 |
| 100 | 0.4 | 69 | 146 | 72 | 153 | 76 | 161 |
| 125 | 0.5 | 61 | 130 | 65 | 137 | 66 | 139 |
| 150 | 0.6 | 46 | 98 | 49 | 103 | 52 | 110 |
| 175 | 0.7 | 38 | 81 | 40 | 85 | 32 | 67 |



— Net Supply - - - Net Exhaust

ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 54 | 75 | 83 | -0.03 |
| | 0 | +32 | 46 | 97 | 78 | 67 | 74 | 0.01 |
| | 0 | +32 | 65 | 138 | 124 | 64 | 72 | -0.02 |
| | -25 | -13 | 26 | 55 | 62 | 67 | 89 | 0.05 |

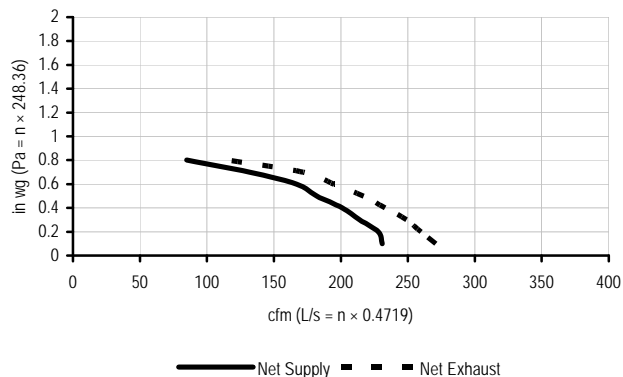
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-84

RUUD

Model: 84-ERV-200 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.9
 Exhaust Air Transfer Ratio: --- @ 100 Pa / 0.4 in. wg 0.06 @50 Pa/0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.84

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|-----|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 109 | 231 | 116 | 245 | 128 | 271 |
| 50 | 0.2 | 108 | 228 | 114 | 241 | 123 | 260 |
| 75 | 0.3 | 101 | 214 | 107 | 227 | 118 | 249 |
| 100 | 0.4 | 95 | 201 | 101 | 213 | 110 | 233 |
| 125 | 0.5 | 86 | 182 | 91 | 193 | 102 | 217 |
| 150 | 0.6 | 79 | 167 | 84 | 177 | 92 | 195 |
| 175 | 0.7 | 62 | 132 | 66 | 140 | 81 | 172 |
| 200 | 0.8 | 40 | 85 | 42 | 90 | 55 | 116 |

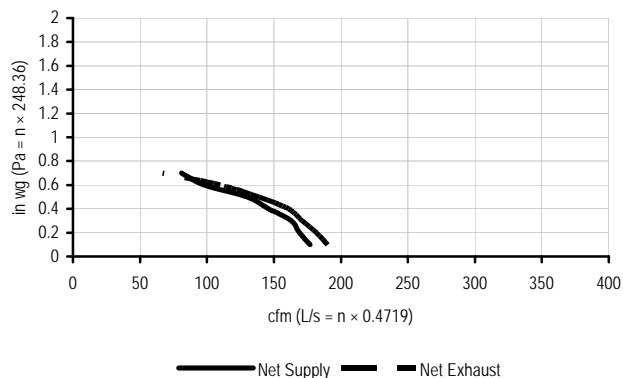


| ENERGY PERFORMANCE | | | | | | | | |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 52 | 110 | 93 | 69 | 76 | 0.45 |
| | 0 | +32 | 74 | 157 | 130 | 64 | 71 | 0.38 |
| | 0 | +32 | 96 | 203 | 193 | 60 | 68 | 0.30 |
| | -15 | -5 | 52 | 110 | 122 | 55 | 76 | 0.26 |
| COOLING | +35 | +95 | 50 | 106 | 89 | | 41 | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | | |

RUUD

Model: 84-HRV-100 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.05 @50 Pa/0.2 in. wg --- @ 100 Pa / 0.4 in. wg
 Low Temp. Vent Reduction Factor: 9% Supply 22% Exhaust • Low Temp. Imbalance Factor: 1.0

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|-----|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 84 | 177 | 88 | 186 | 90 | 190 |
| 50 | 0.2 | 80 | 169 | 84 | 178 | 86 | 182 |
| 75 | 0.3 | 77 | 163 | 81 | 171 | 81 | 171 |
| 100 | 0.4 | 69 | 146 | 72 | 153 | 76 | 161 |
| 125 | 0.5 | 61 | 130 | 65 | 137 | 66 | 139 |
| 150 | 0.6 | 46 | 98 | 49 | 103 | 52 | 110 |
| 175 | 0.7 | 38 | 81 | 40 | 85 | 32 | 67 |



| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 54 | 75 | 83 | -0.03 |
| | 0 | +32 | 46 | 97 | 78 | 67 | 74 | 0.01 |
| | 0 | +32 | 65 | 138 | 124 | 64 | 72 | -0.02 |
| | -25 | -13 | 26 | 55 | 62 | 67 | 89 | 0.05 |

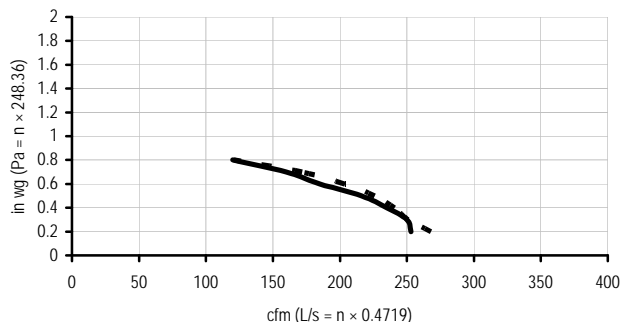
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-85

RUUD

Model: 84-HRV-200 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.9
 Exhaust Air Transfer Ratio: 0.04 @50 Pa/0.2 in. wg --- @ 100 Pa / 0.4 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 23% Exhaust • Low Temp. Imbalance Factor: 1.0

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 50 | 0.2 | 119 | 253 | 125 | 264 | 126 | 268 |
| 75 | 0.3 | 118 | 250 | 124 | 262 | 118 | 251 |
| 100 | 0.4 | 111 | 235 | 116 | 245 | 114 | 241 |
| 125 | 0.5 | 102 | 216 | 106 | 224 | 107 | 226 |
| 150 | 0.6 | 87 | 185 | 91 | 193 | 96 | 204 |
| 175 | 0.7 | 76 | 160 | 79 | 167 | 81 | 172 |
| 200 | 0.8 | 57 | 120 | 59 | 124 | 57 | 121 |



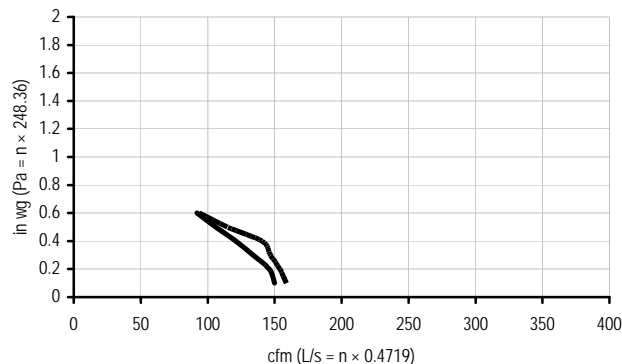
— Net Supply - - - Net Exhaust

| | ENERGY PERFORMANCE | | | | | | | |
|---------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 51 | 109 | 92 | 70 | 77 | -0.01 |
| | 0 | +32 | 73 | 155 | 128 | 65 | 72 | -0.02 |
| | 0 | +32 | 102 | 215 | 191 | 62 | 70 | -0.01 |
| | -25 | -13 | 52 | 110 | 104 | 60 | 94 | 0.05 |

SEARS INDOOR CLEAN AIR SERVICES

Model: 155 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.05 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 3% Supply 11% Exhaust • Low Temp. Imbalance Factor: 1.02

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 71 | 150 | 74 | 157 | 75 | 159 |
| 50 | 0.2 | 69 | 146 | 72 | 152 | 73 | 154 |
| 75 | 0.3 | 63 | 134 | 66 | 140 | 69 | 147 |
| 100 | 0.4 | 57 | 121 | 59 | 126 | 67 | 141 |
| 125 | 0.5 | 50 | 106 | 52 | 111 | 54 | 115 |
| 150 | 0.6 | 43 | 92 | 45 | 96 | 44 | 94 |



— Net Supply - - - Net Exhaust

| | ENERGY PERFORMANCE | | | | | | | |
|---------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 31 | 65 | 84 | 64 | 76 | 0.04 |
| | 0 | +32 | 40 | 84 | 97 | 64 | 74 | 0.02 |
| | 0 | +32 | 55 | 117 | 117 | 62 | 71 | 0.00 |
| | -25 | -13 | 32 | 68 | 93 | 66 | 78 | 0.01 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

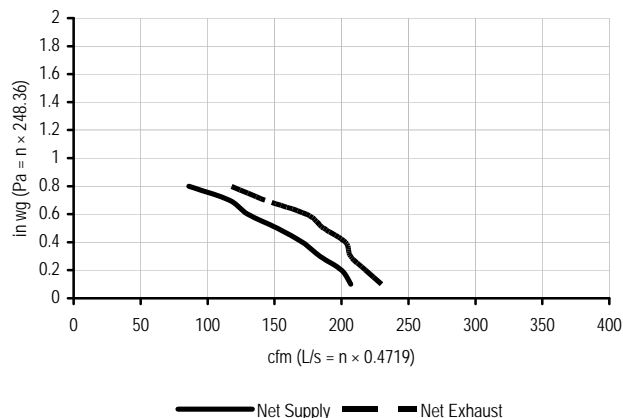
Section 3-86

SEARS INDOOR CLEAN AIR SERVICES

Model: Sears200 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.04 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 2% Supply 11% Exhaust • Low Temp. Imbalance Factor: 1.03

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 97 | 207 | 100 | 214 | 108 | 230 |
| 50 | 0.2 | 94 | 200 | 97 | 206 | 103 | 218 |
| 75 | 0.3 | 87 | 184 | 90 | 191 | 97 | 207 |
| 100 | 0.4 | 80 | 171 | 84 | 179 | 96 | 203 |
| 125 | 0.5 | 71 | 152 | 76 | 161 | 88 | 187 |
| 150 | 0.6 | 61 | 130 | 66 | 140 | 82 | 174 |
| 175 | 0.7 | 55 | 116 | 60 | 129 | 67 | 143 |
| 200 | 0.8 | 40 | 86 | 46 | 98 | 56 | 118 |



ENERGY PERFORMANCE

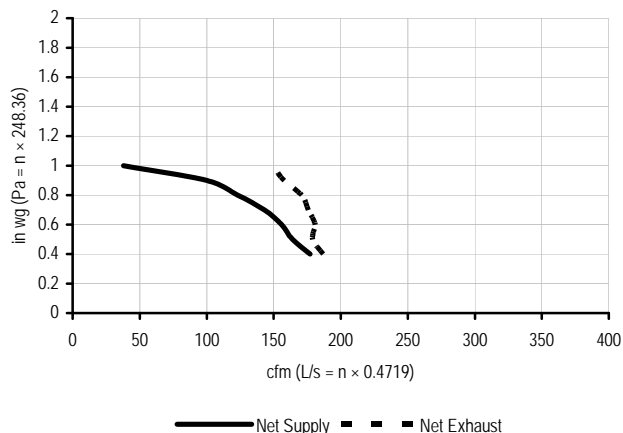
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 66 | 81 | 64 | 74 | 0.06 |
| | 0 | +32 | 45 | 96 | 99 | 63 | 71 | 0.03 |
| | 0 | +32 | 55 | 117 | 113 | 61 | 69 | 0.03 |
| | -25 | -13 | 51 | 109 | 119 | 62 | 73 | 0.01 |

STANDEX AIR DISTRIBUTION PRODUCTS

Model: ERV150SC • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 2% Supply 0% Exhaust • Low Temp. Imbalance Factor: n/a

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 83 | 177 | 83 | 177 | 88 | 187 |
| 50 | 0.2 | 77 | 164 | 77 | 164 | 84 | 179 |
| 75 | 0.3 | 73 | 156 | 73 | 156 | 85 | 181 |
| 100 | 0.4 | 67 | 143 | 67 | 143 | 83 | 176 |
| 125 | 0.5 | 58 | 123 | 58 | 123 | 81 | 171 |
| 150 | 0.6 | 47 | 100 | 47 | 100 | 74 | 158 |
| 175 | 0.7 | 18 | 38 | 18 | 38 | 70 | 149 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | 32 | 32 | 67 | 78 | 66 | 76 | -0.01 |
| | 0 | 32 | 44 | 94 | 95 | 64 | 72 | -0.20 |
| | 0 | 32 | 56 | 118 | 110 | 60 | 68 | -0.02 |
| | -25 | -13 | 32 | 68 | 82 | 60 | 78 | 0 |
| COOLING | 35 | 95 | 31 | 66 | 74 | | | 0.08 |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 20 | |

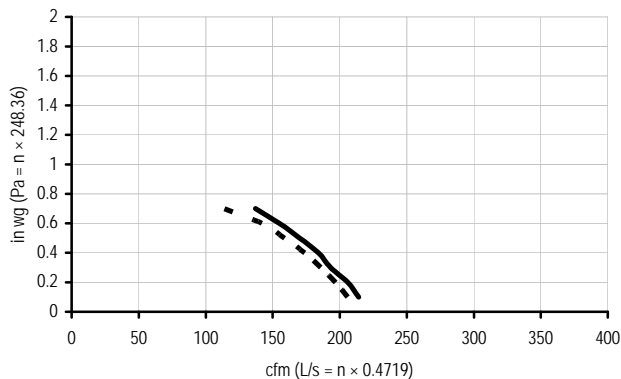
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-87

STANDEX AIR DISTRIBUTION PRODUCTS

Model: ERV200SC • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 1% Supply 2% Exhaust • Low Temp. Imbalance Factor: 0.967

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|-----|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | | L/s | cfm |
| 25 | 0.1 | 101 | 214 | 102 | 216 | 97 | 206 | | |
| 50 | 0.2 | 97 | 206 | 98 | 208 | 93 | 197 | | |
| 75 | 0.3 | 91 | 193 | 93 | 197 | 88 | 186 | | |
| 100 | 0.4 | 87 | 184 | 88 | 186 | 82 | 174 | | |
| 125 | 0.5 | 80 | 170 | 81 | 172 | 75 | 159 | | |
| 150 | 0.6 | 73 | 155 | 74 | 157 | 67 | 142 | | |
| 175 | 0.7 | 65 | 137 | 65 | 138 | 54 | 114 | | |



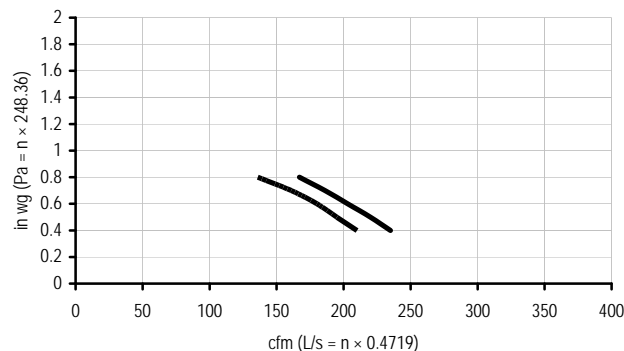
— Net Supply - - - Net Exhaust

| | | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|-----|--------------------|----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 68 | 144 | 114 | 114 | 59 | 66 | 0 |
| | 0 | +32 | 63 | 133 | 109 | 109 | 58 | 66 | 0 |
| | 0 | +32 | 56 | 119 | 100 | 100 | 60 | 67 | 0 |
| | -25 | -13 | 60 | 127 | 100 | 100 | 59 | 69 | 0 |
| | -25 | -13 | 55 | 117 | 100 | 100 | 60 | 69 | 0 |

STANDEX AIR DISTRIBUTION PRODUCTS

Model: ERV300DC • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2.9
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 6% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.04

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|-----|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | | L/s | cfm |
| 100 | 0.4 | 111 | 235 | 113 | 239 | 99 | 210 | | |
| 125 | 0.5 | 104 | 220 | 106 | 225 | 92 | 195 | | |
| 150 | 0.6 | 96 | 203 | 98 | 208 | 85 | 180 | | |
| 175 | 0.7 | 88 | 186 | 90 | 191 | 76 | 161 | | |
| 200 | 0.8 | 79 | 167 | 80 | 170 | 64 | 136 | | |



— Net Supply - - - Net Exhaust

| | | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|-----|--------------------|----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 98 | 208 | 234 | 234 | 75 | 84 | --- |
| | 0 | +32 | 78 | 165 | 178 | 178 | 77 | 87 | --- |
| | 0 | +32 | 56 | 119 | 150 | 150 | 79 | 90 | --- |
| | -25 | -13 | 59 | 125 | 156 | 156 | 75 | 87 | --- |
| | -25 | -13 | 55 | 117 | --- | --- | 75 | 87 | --- |
| COOLING | +35 | +95 | 57 | 121 | 150 | 150 | | | |

TOTAL RECOVERY EFFICIENCY
33

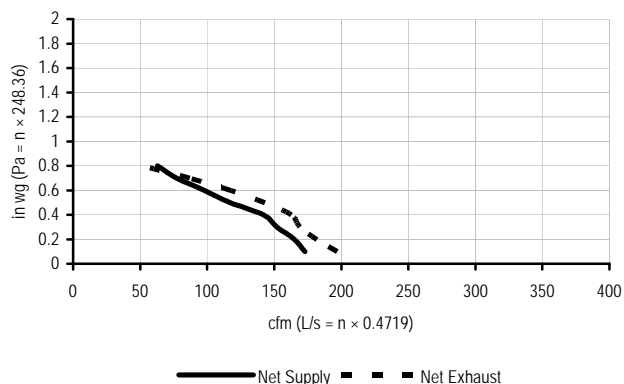
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-88

TAPPAN

Model: ERV-150 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.06 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.79

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|-----|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 82 | 173 | 87 | 184 | 93 | 197 |
| 50 | 0.2 | 78 | 165 | 83 | 175 | 86 | 182 |
| 75 | 0.3 | 72 | 152 | 76 | 162 | 80 | 169 |
| 100 | 0.4 | 67 | 142 | 71 | 151 | 77 | 163 |
| 125 | 0.5 | 55 | 117 | 59 | 124 | 67 | 143 |
| 150 | 0.6 | 46 | 98 | 49 | 104 | 56 | 118 |
| 175 | 0.7 | 36 | 77 | 39 | 82 | 41 | 87 |
| 200 | 0.8 | 30 | 63 | 32 | 67 | 24 | 51 |

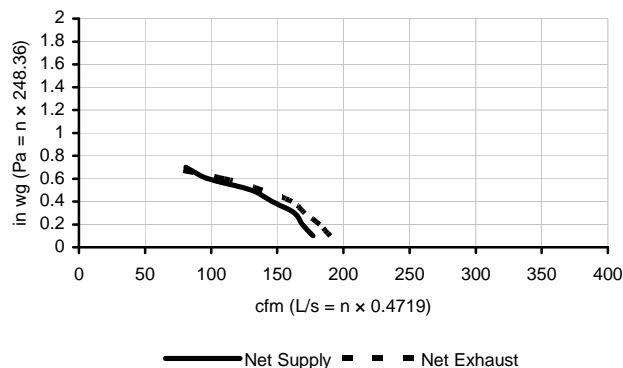


| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|----------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 29 | 60 | 56 | 71 | 79 | 0.52 |
| | 0 | +32 | 47 | 100 | 80 | 64 | 73 | 0.41 |
| | 0 | +32 | 65 | 137 | 126 | 60 | 68 | 0.36 |
| | -15 | -5 | 31 | 65 | 64 | 56 | 81 | 0.41 |
| COOLING | +35 | +95 | 28 | 59 | 52 | | TOTAL RECOVERY EFFICIENCY | |
| | | | | | | | 45 | |

TAPPAN

Model: HRV-150 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.05 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 9% Supply 22%Exhaust • Low Temp. Imbalance Factor: 1.0

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|-----|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 84 | 177 | 88 | 186 | 90 | 190 |
| 50 | 0.2 | 80 | 169 | 84 | 178 | 86 | 182 |
| 75 | 0.3 | 77 | 163 | 81 | 171 | 81 | 171 |
| 100 | 0.4 | 69 | 146 | 72 | 153 | 76 | 161 |
| 125 | 0.5 | 61 | 130 | 65 | 137 | 66 | 139 |
| 150 | 0.6 | 46 | 98 | 49 | 103 | 52 | 110 |
| 175 | 0.7 | 38 | 81 | 40 | 85 | 32 | 67 |



| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 54 | 75 | 83 | -0.03 |
| | 0 | +32 | 46 | 97 | 78 | 67 | 74 | 0.01 |
| | 0 | +32 | 65 | 138 | 124 | 64 | 72 | -0.02 |
| | -25 | -13 | 26 | 55 | 62 | 67 | 89 | 0.05 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

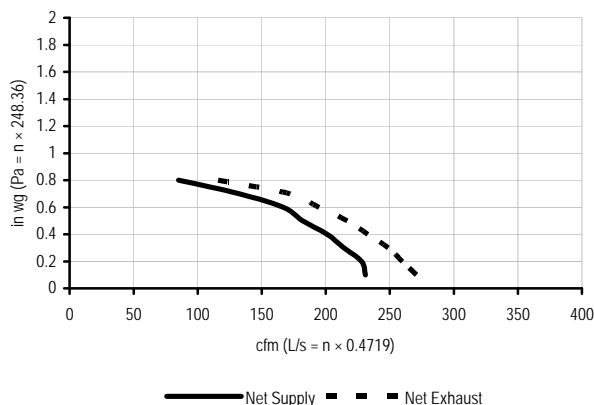
Section 3-89

TAPPAN

Model: ERV-210 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.9
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.06 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.84

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| | | | | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 109 | 231 | 116 | 245 | 128 | 271 |
| 50 | 0.2 | 108 | 228 | 114 | 241 | 123 | 260 |
| 75 | 0.3 | 101 | 214 | 107 | 227 | 118 | 249 |
| 100 | 0.4 | 95 | 201 | 101 | 213 | 110 | 233 |
| 125 | 0.5 | 86 | 182 | 91 | 193 | 102 | 217 |
| 150 | 0.6 | 79 | 167 | 84 | 177 | 92 | 195 |
| 175 | 0.7 | 62 | 132 | 66 | 140 | 81 | 172 |
| 200 | 0.8 | 40 | 85 | 42 | 90 | 55 | 116 |



ENERGY PERFORMANCE

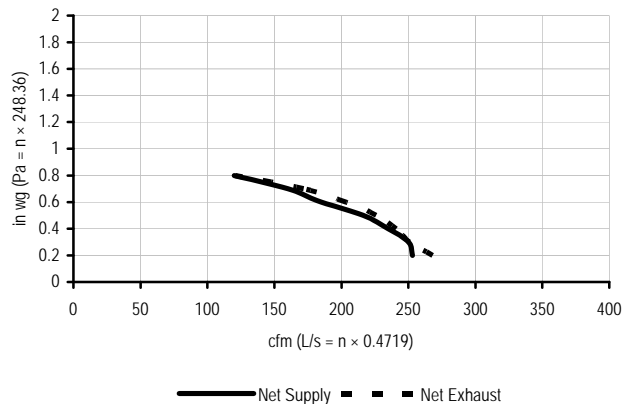
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|--|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 52 | 110 | 93 | 69 | 76 | 0.45 |
| | 0 | +32 | 74 | 157 | 130 | 64 | 71 | 0.38 |
| | 0 | +32 | 96 | 203 | 193 | 60 | 68 | 0.30 |
| | -15 | -5 | 52 | 110 | 122 | 55 | 76 | 0.26 |
| COOLING | +35 | +95 | 50 | 106 | 89 | | TOTAL RECOVERY EFFICIENCY 41 | |

TAPPAN

Model: HRV-210 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.9
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.04 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 23% Exhaust • Low Temp. Imbalance Factor: 1.0

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| | | | | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 50 | 0.2 | 119 | 253 | 125 | 264 | 126 | 268 |
| 75 | 0.3 | 118 | 250 | 124 | 262 | 118 | 251 |
| 100 | 0.4 | 111 | 235 | 116 | 245 | 114 | 241 |
| 125 | 0.5 | 102 | 216 | 106 | 224 | 107 | 226 |
| 150 | 0.6 | 87 | 185 | 91 | 193 | 96 | 204 |
| 175 | 0.7 | 76 | 160 | 79 | 167 | 81 | 172 |
| 200 | 0.8 | 57 | 120 | 59 | 124 | 57 | 121 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 51 | 109 | 92 | 70 | 77 | -0.01 |
| | 0 | +32 | 73 | 155 | 128 | 65 | 72 | -0.02 |
| | 0 | +32 | 102 | 215 | 191 | 62 | 70 | -0.01 |
| | -25 | -13 | 52 | 110 | 104 | 60 | 94 | 0.05 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

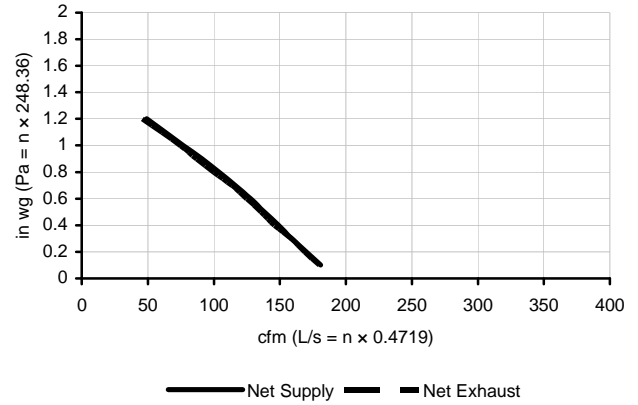
Section 3-90

TOTALINE (TOTALINE)

Model: P707-SHR1504 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.03 @ 100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 5% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.82

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 85 | 181 | 87 | 184 | 84 | 180 |
| 50 | 0.2 | 80 | 170 | 82 | 174 | 79 | 169 |
| 75 | 0.3 | 75 | 159 | 76 | 162 | 75 | 159 |
| 100 | 0.4 | 70 | 149 | 71 | 151 | 68 | 146 |
| 125 | 0.5 | 65 | 138 | 66 | 141 | 64 | 136 |
| 150 | 0.6 | 60 | 128 | 61 | 130 | 59 | 125 |
| 175 | 0.7 | 55 | 116 | 56 | 119 | 54 | 114 |
| 200 | 0.8 | 49 | 104 | 50 | 106 | 47 | 100 |
| 225 | 0.9 | 43 | 91 | 43 | 92 | 41 | 87 |
| 250 | 1.0 | 36 | 77 | 37 | 79 | 35 | 75 |
| 275 | 1.1 | 30 | 63 | 30 | 64 | 29 | 61 |
| 300 | 1.2 | 23 | 49 | 24 | 50 | 22 | 46 |

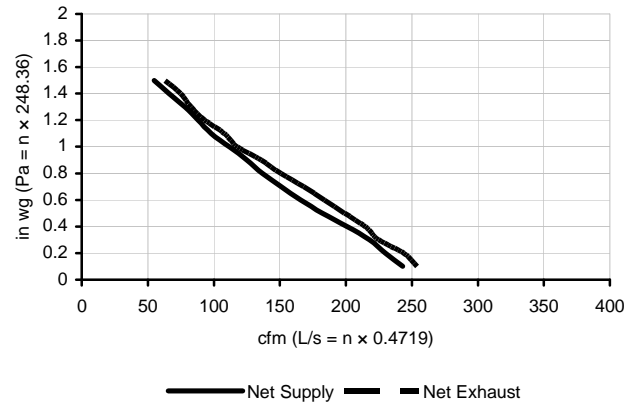


| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 67 | 72 | 60 | 73 | -0.11 |
| | 0 | +32 | 51 | 109 | 98 | 59 | 70 | 0.00 |
| | 0 | +32 | 76 | 161 | 144 | 55 | 63 | 0.00 |
| | -25 | -13 | 32 | 68 | 73 | 56 | 77 | -0.02 |

TOTALINE (TOTALINE)

Model: P707-SHR2004 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2.1
 Exhaust Air Transfer Ratio: 0.02 @ 100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 8% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.81

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 114 | 243 | 116 | 246 | 120 | 254 |
| 50 | 0.2 | 109 | 230 | 110 | 233 | 115 | 244 |
| 75 | 0.3 | 103 | 218 | 104 | 221 | 106 | 225 |
| 100 | 0.4 | 95 | 201 | 96 | 204 | 101 | 215 |
| 125 | 0.5 | 86 | 182 | 87 | 185 | 94 | 199 |
| 150 | 0.6 | 78 | 166 | 79 | 168 | 87 | 184 |
| 175 | 0.7 | 71 | 151 | 72 | 154 | 79 | 168 |
| 200 | 0.8 | 65 | 137 | 66 | 139 | 71 | 151 |
| 225 | 0.9 | 59 | 125 | 60 | 127 | 64 | 136 |
| 250 | 1.0 | 53 | 112 | 53 | 113 | 56 | 118 |
| 275 | 1.1 | 46 | 98 | 47 | 99 | 51 | 108 |
| 300 | 1.2 | 42 | 88 | 42 | 90 | 44 | 93 |
| 325 | 1.3 | 37 | 78 | 37 | 79 | 39 | 83 |
| 350 | 1.4 | 31 | 66 | 32 | 67 | 35 | 75 |
| 375 | 1.5 | 26 | 55 | 26 | 56 | 30 | 63 |



| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 65 | 108 | 62 | 77 | 0.06 |
| | 0 | +32 | 55 | 117 | 154 | 62 | 74 | 0.07 |
| | 0 | +32 | 90 | 191 | 246 | 60 | 71 | 0.00 |
| | -25 | -13 | 61 | 129 | 154 | 59 | 79 | 0.00 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

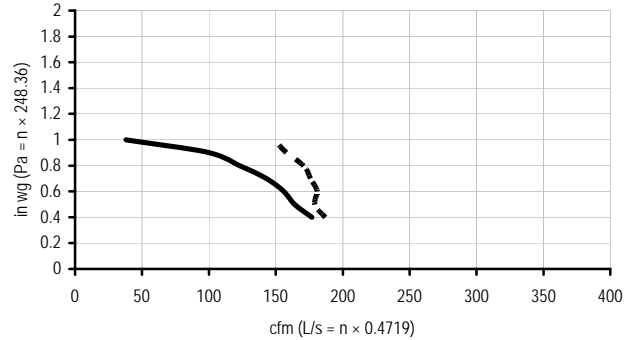
Section 3-91

TRADEWINDS

Model: RNC10 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 2% Supply 0% Exhaust • Low Temp. Imbalance Factor: n/a

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 83 | 177 | 83 | 177 | 88 | 187 |
| 50 | 0.2 | 77 | 164 | 77 | 164 | 84 | 179 |
| 75 | 0.3 | 73 | 156 | 73 | 156 | 85 | 181 |
| 100 | 0.4 | 67 | 143 | 67 | 143 | 83 | 176 |
| 125 | 0.5 | 58 | 123 | 58 | 123 | 81 | 171 |
| 150 | 0.6 | 47 | 100 | 47 | 100 | 74 | 158 |
| 175 | 0.7 | 18 | 38 | 18 | 38 | 70 | 149 |



— Net Supply - - Net Exhaust

ENERGY PERFORMANCE

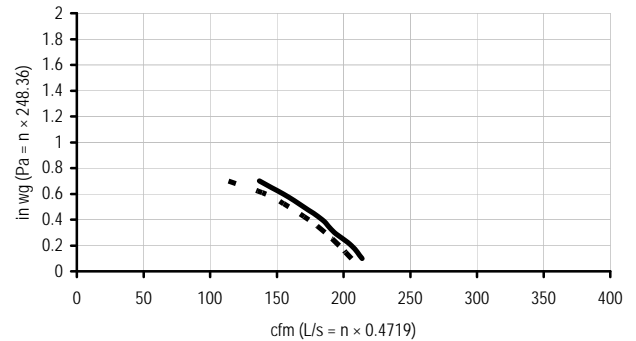
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | 32 | 32 | 67 | 78 | 66 | 76 | -0.01 |
| | 0 | 32 | 44 | 94 | 95 | 64 | 72 | -0.20 |
| | 0 | 32 | 56 | 118 | 110 | 60 | 68 | -0.02 |
| | -25 | -13 | 32 | 68 | 82 | 60 | 78 | 0.08 |
| COOLING | 35 | 95 | 31 | 66 | 74 | | | |
| | | | | | | | TOTAL RECOVERY EFFICIENCY | |
| | | | | | | | 20 | |

TRADEWINDS

Model: RNC20 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 1% Supply 2% Exhaust • Low Temp. Imbalance Factor: 0.967

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 101 | 214 | 102 | 216 | 97 | 206 |
| 50 | 0.2 | 97 | 206 | 98 | 208 | 93 | 197 |
| 75 | 0.3 | 91 | 193 | 93 | 197 | 88 | 186 |
| 100 | 0.4 | 87 | 184 | 88 | 186 | 82 | 174 |
| 125 | 0.5 | 80 | 170 | 81 | 172 | 75 | 159 |
| 150 | 0.6 | 73 | 155 | 74 | 157 | 67 | 142 |
| 175 | 0.7 | 65 | 137 | 65 | 138 | 54 | 114 |



— Net Supply - - Net Exhaust

ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 68 | 144 | 114 | 59 | 66 | 0 |
| | 0 | +32 | 63 | 133 | 109 | 58 | 66 | 0 |
| | 0 | +32 | 56 | 119 | 100 | 60 | 67 | 0 |
| | -25 | -13 | 60 | 127 | 100 | 59 | 69 | 0 |
| | -25 | -13 | 55 | 117 | | 60 | | |

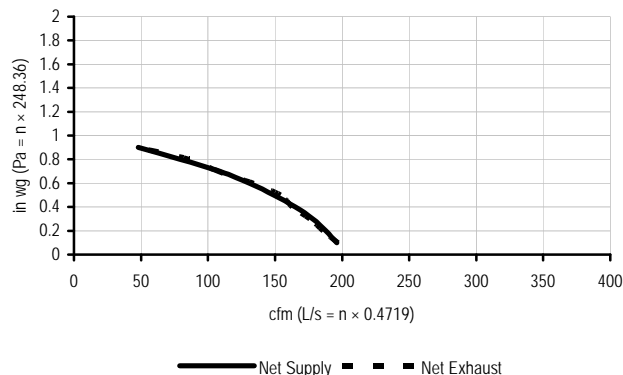
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-92

TRADEWINDS

Model: RNC30 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 6.0% Supply 13.0% Exhaust • Low Temp. Imbalance Factor: 1.03

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | GROSS AIR FLOW | | | |
|----------------------|-------|-------------------------|-----|--------|-----|----------------|-----|-----|-----|
| | | NET SUPPLY AIR FLOW | | SUPPLY | | EXHAUST | | | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 93 | 196 | 94 | 199 | 93 | 197 | | |
| 50 | 0.2 | 89 | 188 | 90 | 190 | 88 | 186 | | |
| 75 | 0.3 | 84 | 178 | 85 | 181 | 83 | 176 | | |
| 100 | 0.4 | 78 | 165 | 79 | 167 | 77 | 163 | | |
| 125 | 0.5 | 70 | 149 | 71 | 151 | 73 | 154 | | |
| 150 | 0.6 | 62 | 131 | 63 | 133 | 63 | 134 | | |
| 175 | 0.7 | 51 | 109 | 52 | 110 | 51 | 108 | | |
| 200 | 0.8 | 37 | 79 | 38 | 80 | 41 | 86 | | |
| 225 | 0.9 | 23 | 48 | 23 | 49 | 22 | 47 | | |

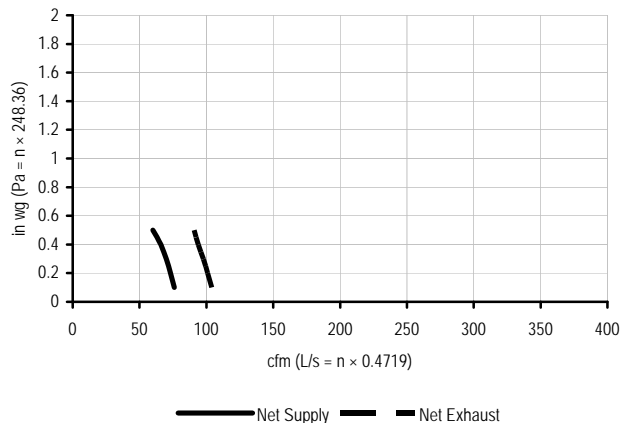


| | | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|-----|--------------------|----|--------------|-----|---------------------------|------------------------------|---------------------------------|-----------------------------------|
| | | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 31 | 65 | 74 | 69 | 80 | -0.01 | |
| | 0 | +32 | 45 | 96 | 94 | 67 | 75 | -0.01 | |
| | 0 | +32 | 55 | 117 | 105 | 64 | 72 | -0.01 | |
| | -25 | -13 | 31 | 67 | 84 | 70 | 83 | 0.03 | |
| COOLING | +35 | +95 | 30 | 64 | 72 | TOTAL RECOVERY EFFICIENCY | | | |
| | | | | | | | 22 | | |

TRADEWINDS

Model: RNC95 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 0.90
 Exhaust Air Transfer Ratio: 0.10 @100 Pa/0.4 in. wg 0.08 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 15% Supply, 22% Exhaust Low • Temp. Imbalance Factor: 1.00

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | GROSS AIR FLOW | | | |
|----------------------|-------|-------------------------|-----|--------|-----|----------------|-----|-----|-----|
| | | NET SUPPLY AIR FLOW | | SUPPLY | | EXHAUST | | | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 36 | 76 | 40 | 84 | 49 | 104 | | |
| 50 | 0.2 | 34 | 73 | 38 | 81 | 48 | 101 | | |
| 75 | 0.3 | 33 | 70 | 37 | 78 | 46 | 98 | | |
| 100 | 0.4 | 31 | 66 | 34 | 73 | 44 | 94 | | |
| 125 | 0.5 | 29 | 60 | 32 | 67 | 43 | 91 | | |



| | | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|-----|--------------------|----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 28 | 60 | 59 | 75 | 88 | -0.01 | |
| | 0 | +32 | 33 | 71 | 58 | 73 | 86 | 0.03 | |
| | 0 | +32 | 42 | 89 | 89 | 73 | 84 | 0.04 | |
| | -25 | -13 | 29 | 61 | 76 | 68 | 86 | 0.02 | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

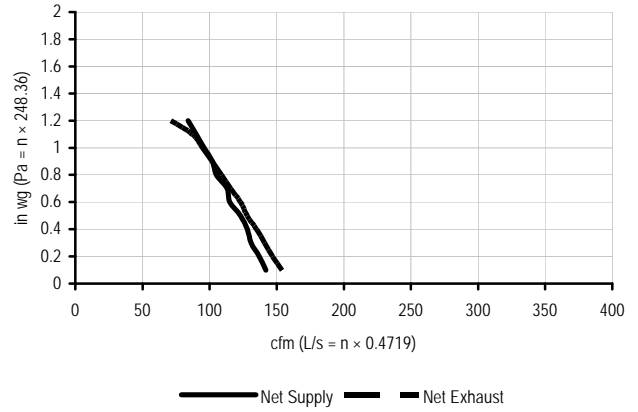
Section 3-93

TRADEWINDS

Model: RNC120D • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.10 @100 Pa/0.4 in. wg 0.11 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 3.0% Supply 15.0% Exhaust • Low Temp. Imbalance Factor: 1.01

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 67 | 142 | 68 | 144 | 72 | 154 |
| 50 | 0.2 | 64 | 137 | 65 | 138 | 69 | 147 |
| 75 | 0.3 | 62 | 131 | 62 | 133 | 66 | 141 |
| 100 | 0.4 | 60 | 128 | 61 | 129 | 64 | 135 |
| 125 | 0.5 | 58 | 123 | 58 | 124 | 60 | 128 |
| 150 | 0.6 | 54 | 115 | 55 | 116 | 58 | 123 |
| 175 | 0.7 | 53 | 113 | 54 | 114 | 55 | 116 |
| 200 | 0.8 | 49 | 105 | 50 | 106 | 51 | 109 |
| 225 | 0.9 | 48 | 102 | 48 | 103 | 48 | 102 |
| 250 | 1.0 | 45 | 96 | 46 | 97 | 45 | 95 |
| 275 | 1.1 | 42 | 90 | 43 | 91 | 41 | 87 |
| 300 | 1.2 | 39 | 84 | 40 | 85 | 33 | 71 |



ENERGY PERFORMANCE

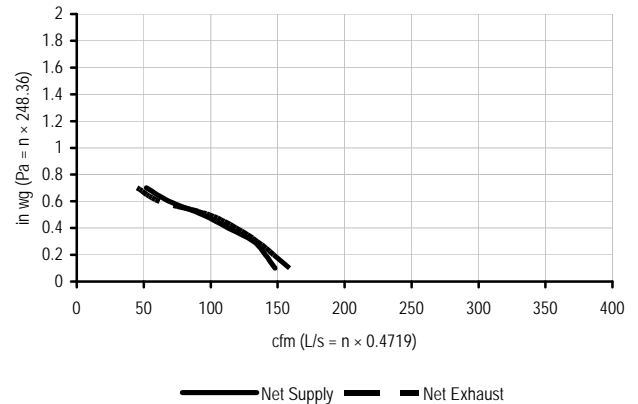
| HEATING | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| | 0 | 32 | 33 | 70 | 76 | 59 | 68 | 0.03 |
| | 0 | 32 | 42 | 89 | 94 | 57 | 67 | 0.03 |
| | 0 | 32 | 56 | 130 | 156 | 52 | 62 | 0.03 |
| | -25 | -13 | 32 | 67 | 109 | 56 | 72 | 0.01 |

TRANE

Model Number: TERVR100A9P00A • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.02 @ 100 Pa/0.4 in. wg 0.02 @ 50 Pa/0.2 in. wg

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 70 | 148 | 71 | 151 | 75 | 159 |
| 50 | 0.2 | 66 | 141 | 67 | 143 | 69 | 147 |
| 75 | 0.3 | 62 | 132 | 63 | 134 | 64 | 135 |
| 100 | 0.4 | 53 | 113 | 54 | 115 | 56 | 119 |
| 125 | 0.5 | 44 | 94 | 45 | 96 | 47 | 99 |
| 150 | 0.6 | 32 | 69 | 33 | 70 | 29 | 62 |
| 175 | 0.7 | 24 | 52 | 25 | 53 | 21 | 45 |



ENERGY PERFORMANCE

| HEATING | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|----------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| | 0 | +32 | 58 | 124 | 121 | 72 | 80 | 0.55 |
| COOLING | +35 | +95 | 59 | 126 | 121 | | 46 | |
| | | | | | | TOTAL RECOVERY EFFICIENCY | | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

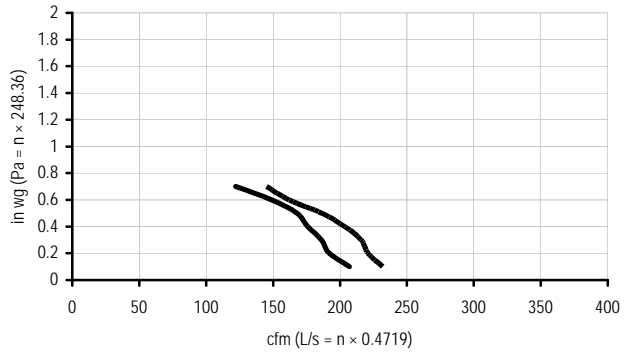
Section 3-94

TRANE

Model Number: TERVR200A9P00A • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.03 @ 100 Pa / 0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 97 | 207 | 100 | 213 | 109 | 232 |
| 50 | 0.2 | 90 | 192 | 93 | 199 | 104 | 221 |
| 75 | 0.3 | 88 | 186 | 90 | 192 | 101 | 216 |
| 100 | 0.4 | 83 | 176 | 85 | 181 | 96 | 204 |
| 125 | 0.5 | 79 | 168 | 81 | 173 | 88 | 187 |
| 150 | 0.6 | 70 | 149 | 72 | 154 | 76 | 162 |
| 175 | 0.7 | 57 | 122 | 59 | 126 | 68 | 145 |



— Net Supply — Net Exhaust

ENERGY PERFORMANCE

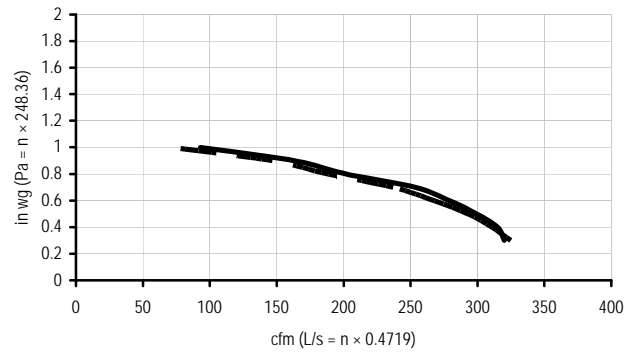
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 85 | 181 | 157 | 78 | 85 | 0.62 |
| COOLING | +35 | +95 | 85 | 180 | 155 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 52 | |

TRANE

Model Number: TERVR300A9P00A • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 3.3
 Exhaust Air Transfer Ratio: 0.03 @ 100 Pa / 0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 75 | 0.3 | 150 | 320 | 155 | 330 | 153 | 325 |
| 100 | 0.4 | 148 | 315 | 153 | 325 | 146 | 311 |
| 125 | 0.5 | 141 | 299 | 145 | 309 | 138 | 293 |
| 150 | 0.6 | 131 | 279 | 135 | 287 | 126 | 268 |
| 175 | 0.7 | 119 | 253 | 123 | 261 | 111 | 237 |
| 200 | 0.8 | 95 | 202 | 98 | 209 | 89 | 189 |
| 225 | 0.9 | 77 | 163 | 79 | 169 | 69 | 147 |
| 250 | 1.0 | 44 | 93 | 45 | 96 | 34 | 72 |



— Net Supply — Net Exhaust

ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 139 | 295 | 317 | 70 | 78 | 0.51 |
| COOLING | +35 | +95 | 134 | 285 | 311 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 43 | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

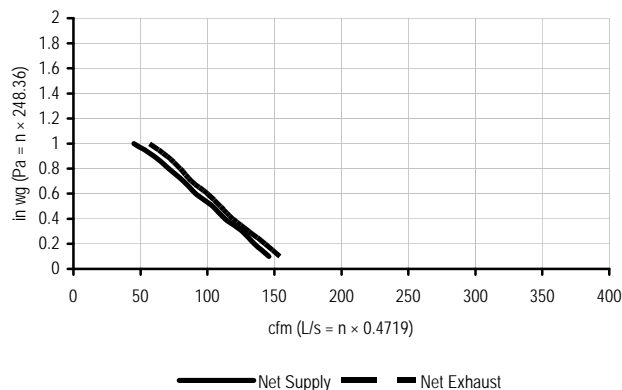
Section 3-95

TRENT METALS, LTD.

Model: Summaire SERV110RD • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.1
 Exhaust Air Transfer Ratio: 0.04 @100 Pa/0.4 in. wg 0.04 @ 50 Pa / 0.2 in. wg

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 69 | 146 | 72 | 152 | 73 | 154 |
| 50 | 0.2 | 63 | 135 | 66 | 140 | 67 | 143 |
| 75 | 0.3 | 59 | 126 | 61 | 131 | 62 | 131 |
| 100 | 0.4 | 53 | 113 | 55 | 117 | 56 | 119 |
| 125 | 0.5 | 49 | 104 | 51 | 108 | 52 | 110 |
| 150 | 0.6 | 43 | 91 | 44 | 94 | 47 | 100 |
| 175 | 0.7 | 39 | 82 | 40 | 85 | 42 | 88 |
| 200 | 0.8 | 33 | 71 | 35 | 74 | 38 | 80 |
| 225 | 0.9 | 28 | 60 | 29 | 62 | 33 | 70 |
| 250 | 1.0 | 21 | 45 | 22 | 46 | 27 | 57 |



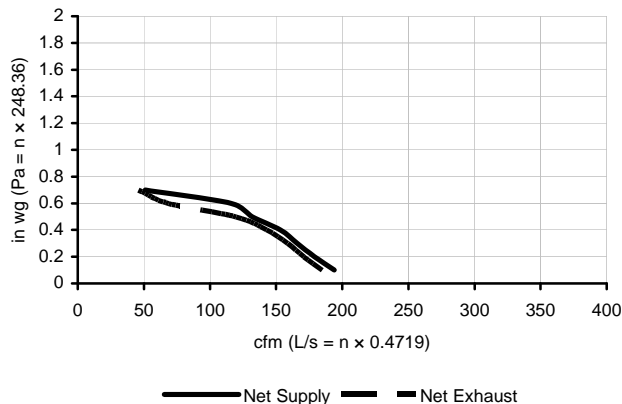
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 65 | 68 | 68 | 80 | 0.48 |
| | 0 | +32 | 45 | 97 | 92 | 66 | 76 | 0.40 |
| | 0 | +32 | 56 | 119 | 114 | 63 | 73 | 0.35 |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 45 | |
| COOLING | +35 | +95 | 31 | 66 | 70 | | | |

TRENT METALS, LTD.

Model: Summaire SERV130RD • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: --- @ 100 Pa/0.4 in. wg 0.05 @ 50 Pa / 0.2 in. wg

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 91 | 194 | 96 | 204 | 87 | 185 |
| 50 | 0.2 | 84 | 179 | 88 | 188 | 81 | 171 |
| 75 | 0.3 | 78 | 166 | 82 | 175 | 75 | 159 |
| 100 | 0.4 | 72 | 153 | 76 | 161 | 67 | 143 |
| 125 | 0.5 | 62 | 132 | 65 | 139 | 57 | 120 |
| 150 | 0.6 | 54 | 116 | 57 | 122 | 33 | 69 |
| 175 | 0.7 | 24 | 51 | 25 | 54 | 22 | 46 |



| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 65 | 60 | 68 | 77 | 0.44 |
| | 0 | +32 | 46 | 97 | 79 | 65 | 73 | 0.37 |
| | 0 | +32 | 60 | 128 | 92 | 63 | 70 | 0.39 |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 33 | |
| COOLING | +35 | +95 | 30 | 64 | 57 | | | |
| | +35 | +95 | 45 | 95 | 75 | | | |
| | +35 | +95 | 60 | 128 | 93 | | | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

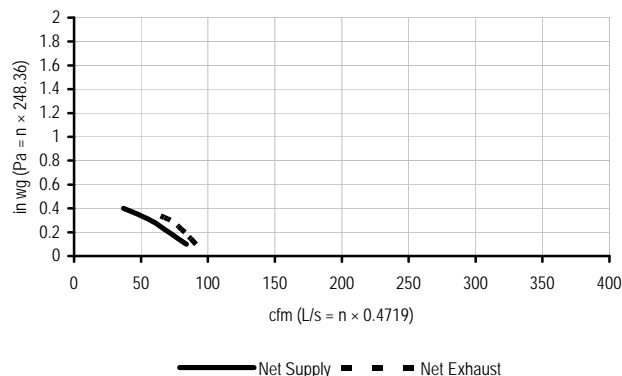
Section 3-96

TRENT METALS, LTD.

Model: Summeraire SHR40SD • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2
 Exhaust Air Transfer Ratio: 0.04 @100 Pa/0.4 in. wg 0.04 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 12% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.90

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 40 | 84 | 41 | 87 | 43 | 91 |
| 50 | 0.2 | 34 | 71 | 35 | 74 | 39 | 83 |
| 75 | 0.3 | 27 | 57 | 28 | 59 | 34 | 72 |
| 100 | 0.4 | 17 | 37 | 18 | 38 | 24 | 51 |



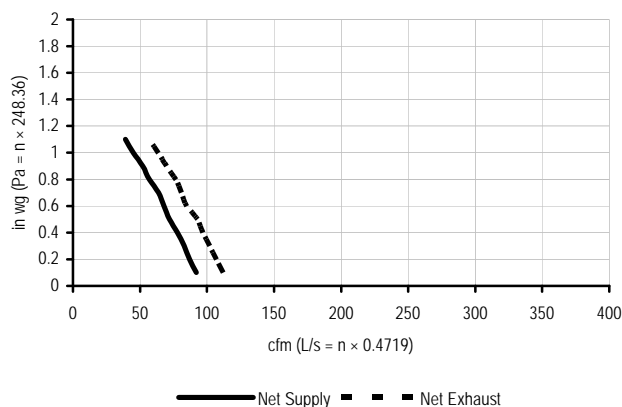
| ENERGY PERFORMANCE | | | | | | | | |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 17 | 36 | 58 | 69 | 93 | 0.05 |
| | 0 | +32 | 25 | 38 | 68 | 74 | 86 | 0.08 |
| | 0 | +32 | 32 | 68 | 117 | 72 | 85 | 0.08 |
| | -25 | -13 | 33 | 70 | 122 | 59 | 79 | 0.04 |
| COOLING | +35 | +95 | 35 | 95 | 118 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 19 | |

TRENT METALS, LTD.

Model: Summeraire SHR100T • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 20.8% Supply 13.5% Exhaust • Low Temp. Imbalance Factor: 0.83

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 43 | 92 | 44 | 93 | 53 | 112 |
| 50 | 0.2 | 41 | 87 | 42 | 88 | 50 | 107 |
| 75 | 0.3 | 39 | 83 | 40 | 85 | 48 | 102 |
| 100 | 0.4 | 37 | 78 | 37 | 80 | 46 | 97 |
| 125 | 0.5 | 34 | 72 | 35 | 74 | 44 | 93 |
| 150 | 0.6 | 32 | 68 | 33 | 69 | 40 | 85 |
| 175 | 0.7 | 30 | 64 | 31 | 65 | 38 | 81 |
| 200 | 0.8 | 27 | 57 | 27 | 58 | 36 | 77 |
| 225 | 0.9 | 25 | 52 | 25 | 53 | 33 | 70 |
| 250 | 1.0 | 21 | 45 | 22 | 46 | 30 | 64 |
| 275 | 1.1 | 18 | 39 | 19 | 40 | 27 | 57 |



| ENERGY PERFORMANCE | | | | | | | | |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 17 | 36 | 58 | 69 | 93 | 0.05 |
| | 0 | +32 | 25 | 38 | 68 | 74 | 86 | 0.08 |
| | 0 | +32 | 32 | 68 | 117 | 72 | 85 | 0.08 |
| | -25 | -13 | 33 | 70 | 122 | 59 | 79 | 0.04 |
| COOLING | +35 | +95 | 35 | 95 | 118 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 19 | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

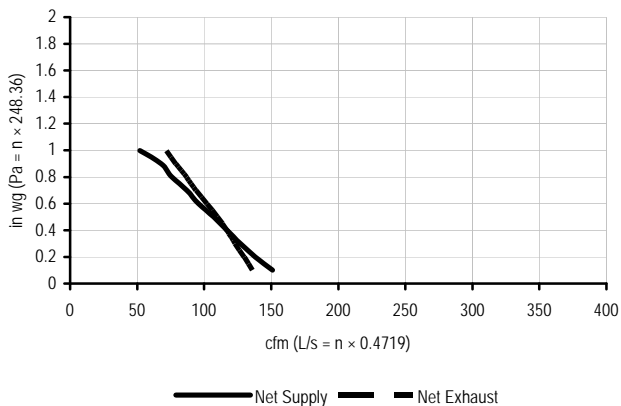
Section 3-97

TRENT METALS, LTD.

Model: Summeraire SHR115RD • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.2
 Exhaust Air Transfer Ratio: 0.05 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 17.8% Supply 13.8% Exhaust • Low Temp. Imbalance Factor: 0.86

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 71 | 151 | 74 | 157 | 64 | 136 |
| 50 | 0.2 | 65 | 138 | 68 | 144 | 61 | 130 |
| 75 | 0.3 | 60 | 127 | 62 | 133 | 58 | 123 |
| 100 | 0.4 | 55 | 117 | 57 | 122 | 55 | 117 |
| 125 | 0.5 | 50 | 107 | 52 | 111 | 52 | 110 |
| 150 | 0.6 | 45 | 96 | 47 | 100 | 48 | 102 |
| 175 | 0.7 | 41 | 87 | 43 | 90 | 44 | 94 |
| 200 | 0.8 | 36 | 76 | 37 | 79 | 41 | 87 |
| 225 | 0.9 | 32 | 68 | 33 | 70 | 37 | 79 |
| 250 | 1.0 | 24 | 52 | 26 | 54 | 34 | 72 |



ENERGY PERFORMANCE

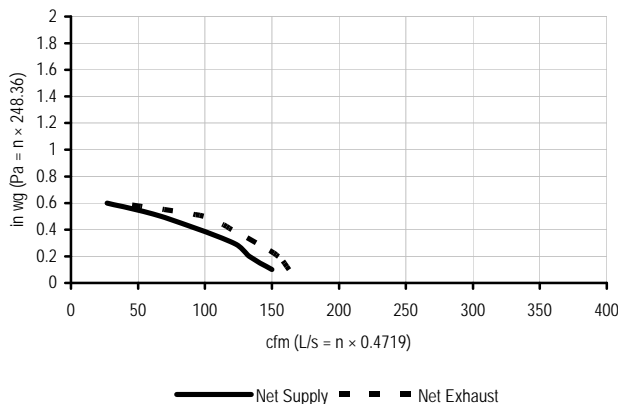
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 63 | 8058 | 68 | 82 | 0.01 |
| | 0 | +32 | 46 | 98 | 118 | 63 | 74 | 0.02 |
| | 0 | +32 | 55 | 118 | 136 | 61 | 71 | 0.02 |
| | -25 | -13 | 32 | 69 | 102 | 59 | 82 | 0.04 |

TRENT METALS, LTD.

Model: Summeraire SHR120ED • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2
 Exhaust Air Transfer Ratio: 0.03 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 18% Supply 11% Exhaust • Low Temp. Imbalance Factor: 0.92

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|------|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 70 | 150 | 73 | 155 | 77 | 163 |
| 50 | 0.2 | 62 | 133 | 67 | 142 | 73 | 155 |
| 75 | 0.3 | 57 | 121 | 60 | 129 | 65 | 138 |
| 100 | 0.4 | 49 | 105* | 52 | 111 | 57 | 120 |
| 125 | 0.5 | 31 | 67 | 33 | 71 | 47 | 99 |
| 150 | 0.6 | 12 | 27 | 13 | 29 | 16 | 35 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 55 | 117 | 100 | 54 | 63 | 0.02 |
| | 0 | +32 | 43 | 91 | 76 | 57 | 66 | 0.08 |
| | 0 | +32 | 31 | 66 | 65 | 62 | 74 | 0.08 |
| | -25 | -13 | 30 | 64 | 69 | 56 | 73 | 0.01 |
| COOLING | +35 | +95 | 45 | 95 | 94 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 11 | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

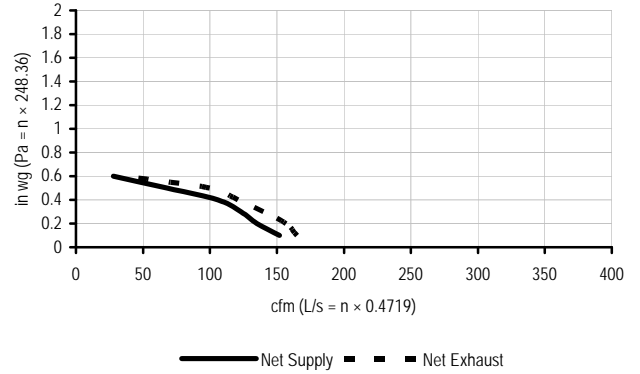
Section 3-98

TRENT METALS, LTD.

Model: Summeraire SHR125SD • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2.0
 Exhaust Air Transfer Ratio: 0.03 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 18% Supply 11% Exhaust • Low Temp. Imbalance Factor: 0.92

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 72 | 152 | 75 | 157 | 78 | 165 |
| 50 | 0.2 | 64 | 135 | 68 | 144 | 74 | 157 |
| 75 | 0.3 | 58 | 123 | 62 | 131 | 66 | 140 |
| 100 | 0.4 | 50 | 106 | 53 | 112 | 57 | 121 |
| 125 | 0.5 | 32 | 68 | 34 | 72 | 47 | 100 |
| 150 | 0.6 | 13 | 28 | 14 | 30 | 17 | 36 |



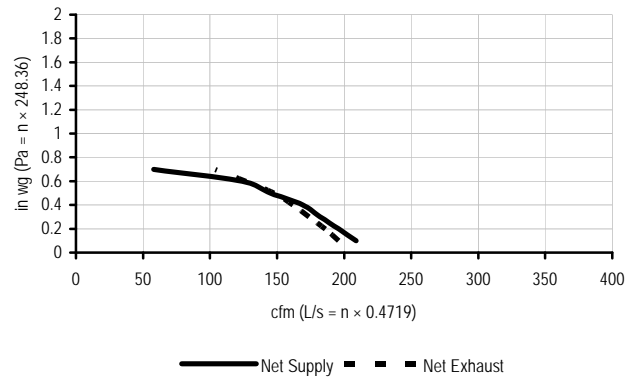
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|----------------------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 55 | 117 | 100 | 54 | 63 | 0.02 |
| | 0 | +32 | 43 | 91 | 76 | 57 | 66 | 0.08 |
| | 0 | +32 | 31 | 66 | 65 | 62 | 74 | 0.08 |
| | -25 | -13 | 30 | 64 | 69 | 56 | 73 | 0.01 |
| COOLING | +35 | +95 | 45 | 95 | 94 | | | |
| | TOTAL RECOVERY EFFICIENCY | | | | | | | 24 |

TRENT METALS, LTD.

Model: Summeraire SHR130RD • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 20.2% Supply 20.6% Exhaust • Low Temp. Imbalance Factor: 0.93

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 98 | 209 | 100 | 213 | 92 | 196 |
| 50 | 0.2 | 92 | 196 | 94 | 199 | 87 | 186 |
| 75 | 0.3 | 86 | 182 | 87 | 186 | 82 | 174 |
| 100 | 0.4 | 79 | 169 | 81 | 172 | 76 | 162 |
| 125 | 0.5 | 68 | 145 | 70 | 148 | 70 | 148 |
| 150 | 0.6 | 58 | 124 | 59 | 126 | 60 | 127 |
| 175 | 0.7 | 27 | 58 | 28 | 59 | 49 | 104 |



| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|----------------------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 83 | 71 | 82 | 0.01 |
| | 0 | +32 | 46 | 97 | 104 | 67 | 77 | 0.00 |
| | 0 | +32 | 61 | 129 | 117 | 66 | 73 | 0.00 |
| | -25 | -13 | 31 | 66 | 95 | 58 | 79 | 0.03 |
| COOLING | +35 | +95 | 31 | 65 | 83 | | | |
| | TOTAL RECOVERY EFFICIENCY | | | | | | | 18 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

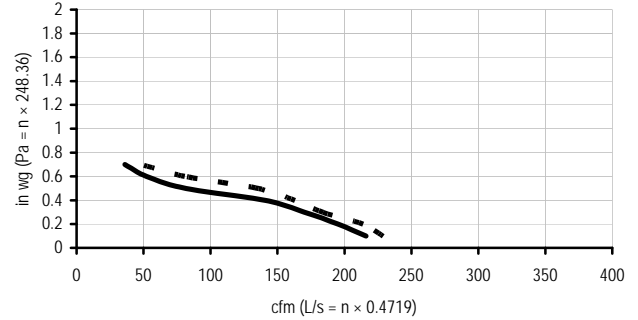
Section 3-99

TRENT METALS, LTD.

Model: Summaire SHRV175SD • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 14% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.86

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| | | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 102 | 216 | 103 | 218 | 108 | 229 |
| 50 | 0.2 | 92 | 195 | 93 | 197 | 101 | 214 |
| 75 | 0.3 | 80 | 170 | 81 | 172 | 87 | 184 |
| 100 | 0.4 | 67 | 141 | 67 | 142 | 77 | 163 |
| 125 | 0.5 | 39 | 82 | 39 | 83 | 64 | 136 |
| 150 | 0.6 | 25 | 52 | 25 | 53 | 38 | 81 |
| 175 | 0.7 | 17 | 36 | 17 | 36 | 23 | 49 |



— Net Supply - - - Net Exhaust

ENERGY PERFORMANCE

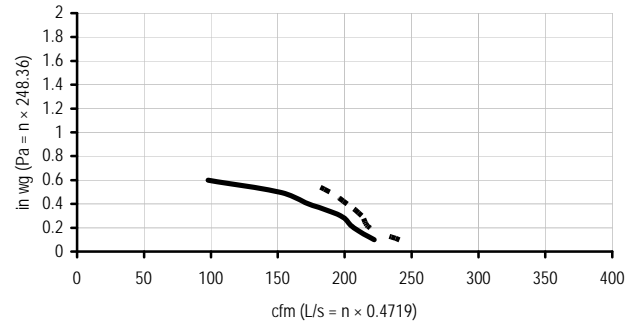
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|----------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 55 | 117 | 93 | 68 | 76 | 0.05 |
| | 0 | +32 | 62 | 132 | 98 | 66 | 74 | 0.10 |
| | 0 | +32 | 73 | 155 | 115 | 64 | 72 | 0.08 |
| | -25 | -13 | 58 | 123 | 98 | 60 | 77 | 0.02 |
| COOLING | +35 | +95 | 60 | 128 | 93 | | TOTAL RECOVERY EFFICIENCY | 18 |

TRENT METALS, LTD.

Model: Summaire SHRV180ED • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 14% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.90

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| | | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 104 | 222 | 106 | 226 | 113 | 241 |
| 50 | 0.2 | 97 | 207 | 99 | 211 | 103 | 219 |
| 75 | 0.3 | 92 | 197 | 94 | 200 | 100 | 213 |
| 100 | 0.4 | 80 | 173 | 82 | 177 | 95 | 202 |
| 125 | 0.5 | 71 | 151 | 73 | 155 | 89 | 189 |
| 150 | 0.6 | 46 | 98 | 47 | 100 | 80 | 171 |



— Net Supply - - - Net Exhaust

ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|----------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 57 | 121 | 100 | 72 | 81 | 0.00 |
| | 0 | +32 | 64 | 136 | 108 | 71 | 78 | 0.01 |
| | 0 | +32 | 80 | 170 | 128 | 67 | 74 | 0.00 |
| | -25 | -13 | 67 | 143 | 108 | 61 | 80 | 0.00 |
| COOLING | +35 | +95 | 62 | 132 | 104 | | TOTAL RECOVERY EFFICIENCY | 27 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

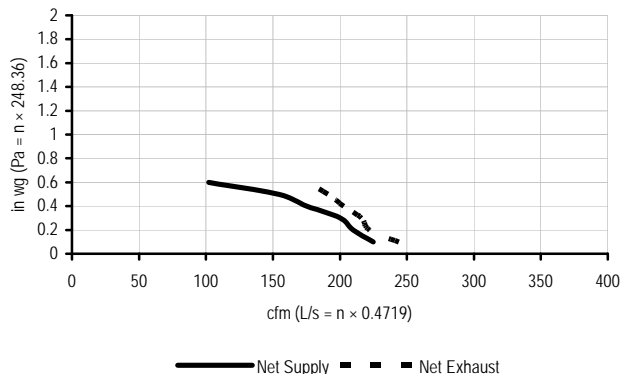
Section 3-100

TRENT METALS, LTD.

Model: Summeraire SHR185SD • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 14% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.90

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 106 | 225 | 108 | 229 | 115 | 244 |
| 50 | 0.2 | 99 | 210 | 101 | 214 | 105 | 222 |
| 75 | 0.3 | 94 | 200 | 96 | 203 | 102 | 216 |
| 100 | 0.4 | 82 | 175 | 84 | 178 | 96 | 203 |
| 125 | 0.5 | 73 | 154 | 74 | 157 | 90 | 191 |
| 150 | 0.6 | 48 | 102 | 49 | 104 | 83 | 176 |



ENERGY PERFORMANCE

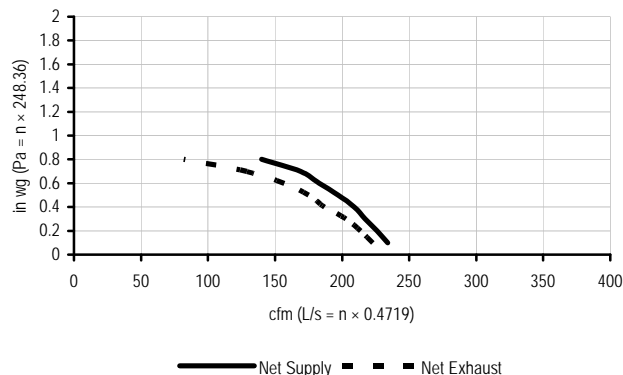
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER | |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|------|
| | °C | °F | L/S | CFM | | | | | |
| HEATING | 0 | +32 | 57 | 121 | 100 | 72 | 81 | 0.00 | |
| | 0 | +32 | 64 | 136 | 108 | 71 | 78 | 0.01 | |
| | 0 | +32 | 80 | 170 | 128 | 67 | 74 | 0.00 | |
| | | -25 | -13 | 67 | 143 | 108 | 61 | 80 | 0.00 |
| COOLING | +35 | +95 | 62 | 132 | 104 | | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 19 | | |

TRENT METALS, LTD.

Model: SHR190RD • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 15% Supply 16% Exhaust • Low Temp. Imbalance Factor: 0.95

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 110 | 234 | 112 | 237 | 105 | 223 |
| 50 | 0.2 | 106 | 226 | 108 | 229 | 100 | 214 |
| 75 | 0.3 | 102 | 217 | 103 | 220 | 95 | 203 |
| 100 | 0.4 | 98 | 209 | 100 | 212 | 88 | 187 |
| 125 | 0.5 | 92 | 197 | 94 | 200 | 82 | 175 |
| 150 | 0.6 | 86 | 183 | 87 | 185 | 74 | 157 |
| 175 | 0.7 | 79 | 169 | 81 | 171 | 61 | 129 |
| 200 | 0.8 | 66 | 140 | 67 | 142 | 39 | 82 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER | |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|------|
| | °C | °F | L/S | CFM | | | | | |
| HEATING | 0 | +32 | 40 | 84 | 103 | 68 | 77 | 0.01 | |
| | 0 | +32 | 66 | 140 | 132 | 62 | 68 | 0.00 | |
| | 0 | +32 | 86 | 182 | 158 | 58 | 64 | 0.00 | |
| | | -25 | -13 | 34 | 72 | 116 | 61 | 79 | 0.03 |
| COOLING | +35 | +95 | 42 | 89 | 104 | | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 29 | | |

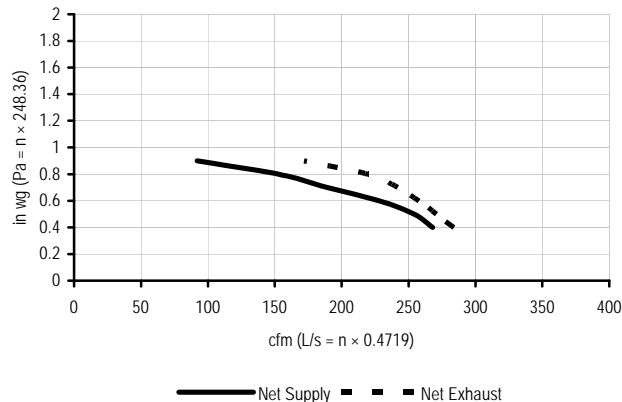
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-101

TRENT METALS, LTD.

Model: Summeraire SHR240SD • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 2
 Exhaust Air Transfer Ratio: 0.04 @100 Pa/0.4 in. wg 0.04 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 11% Exhaust • Low Temp. Imbalance Factor: 1.18

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|-----|-----|-----|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | | | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm | L/s | cfm |
| 100 | 0.4 | 126 | 268 | 132 | 280 | 134 | 284 | | |
| 125 | 0.5 | 120 | 254 | 125 | 265 | 128 | 271 | | |
| 150 | 0.6 | 108 | 228 | 112 | 237 | 122 | 258 | | |
| 175 | 0.7 | 89 | 189 | 93 | 197 | 114 | 242 | | |
| 200 | 0.8 | 72 | 153 | 75 | 159 | 104 | 220 | | |
| 225 | 0.9 | 43 | 92 | 45 | 95 | 81 | 172 | | |

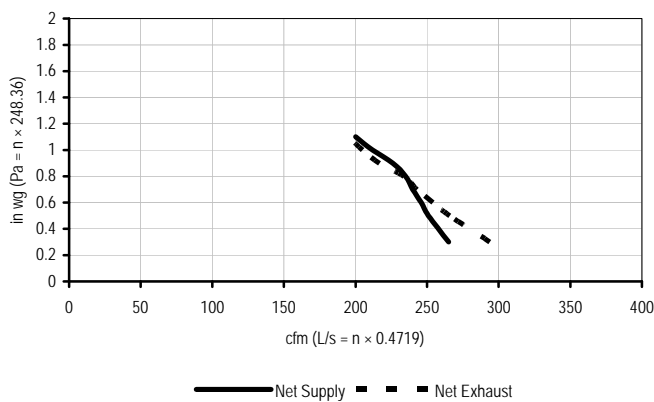


| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 61 | 129 | 146 | 71 | 83 | 0.01 |
| | 0 | +32 | 83 | 176 | 179 | 67 | 76 | 0.01 |
| | 0 | +32 | 107 | 227 | 216 | 62 | 72 | 0.01 |
| | -25 | -13 | 71 | 150 | 147 | 55 | 87 | 0.08 |
| COOLING | +35 | +95 | 60 | 127 | 142 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 25 | |

TRENT METALS, LTD.

Model: Summeraire SHR240RD • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 3.7
 Exhaust Air Transfer Ratio: 0.05 in 0.4 in.Wg (100 pa) 0.05 in 0.2 Wg (50 Pa)
 Low Temp. Vent Reduction Factor: 16% Supply 18% Exhaust • Low Temp. Imbalance Factor: 0.96

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|-----|-----|-----|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | | | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm | L/s | cfm |
| 75 | 0.3 | 125 | 265 | 133 | 283 | 138 | 294 | | |
| 100 | 0.4 | 121 | 257 | 129 | 274 | 131 | 279 | | |
| 125 | 0.5 | 118 | 251 | 126 | 268 | 125 | 266 | | |
| 150 | 0.6 | 116 | 246 | 123 | 262 | 119 | 254 | | |
| 175 | 0.7 | 113 | 240 | 120 | 256 | 114 | 243 | | |
| 200 | 0.8 | 110 | 235 | 118 | 251 | 110 | 234 | | |
| 225 | 0.9 | 106 | 226 | 114 | 241 | 102 | 217 | | |
| 250 | 1.0 | 100 | 212 | 106 | 226 | 96 | 205 | | |
| 275 | 1.1 | 94 | 200 | 101 | 214 | 92 | 196 | | |



| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 46 | 97 | 176 | 69 | 86 | 0.00 |
| | 0 | +32 | 67 | 141 | 222 | 70 | 84 | 0.01 |
| | 0 | +32 | 100 | 213 | 400 | 64 | 80 | 0.01 |
| | -25 | -13 | 41 | 88 | 213 | 66 | 87 | 0.03 |
| COOLING | +35 | +95 | | | | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | Not tested | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

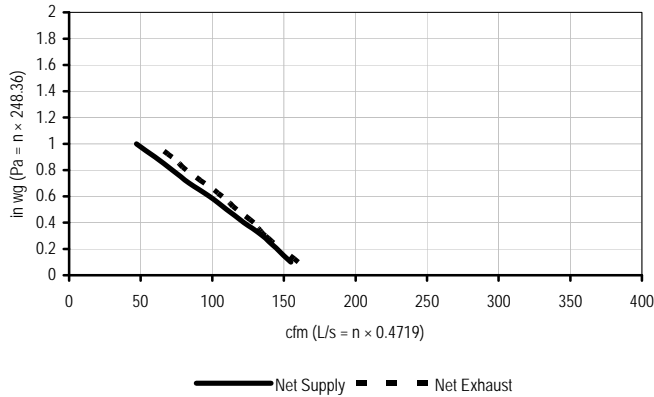
Section 3-102

TRENT METALS, LTD.

Model: Summeraire SHR124T • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.12
 Exhaust Air Transfer Ratio: 0.13 @ 50 pa/0.2 in. Wg 0.13 @ 100 pa/0.4 in. Wg
 Low Temp. Vent Reduction Factor: 19.0% Supply 29.9% Exhaust • Low Temp. Imbalance Factor: 1.12

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 73 | 155 | 74 | 157 | 75 | 160 |
| 50 | 0.2 | 69 | 146 | 70 | 148 | 70 | 149 |
| 75 | 0.3 | 64 | 135 | 65 | 137 | 64 | 137 |
| 100 | 0.4 | 57 | 122 | 58 | 124 | 60 | 129 |
| 125 | 0.5 | 52 | 110 | 52 | 111 | 55 | 117 |
| 150 | 0.6 | 46 | 98 | 47 | 100 | 50 | 107 |
| 175 | 0.7 | 39 | 84 | 40 | 85 | 45 | 95 |
| 200 | 0.8 | 34 | 72 | 34 | 73 | 38 | 82 |
| 225 | 0.9 | 28 | 60 | 29 | 61 | 34 | 72 |
| 250 | 1.0 | 22 | 47 | 23 | 48 | 28 | 59 |



ENERGY PERFORMANCE

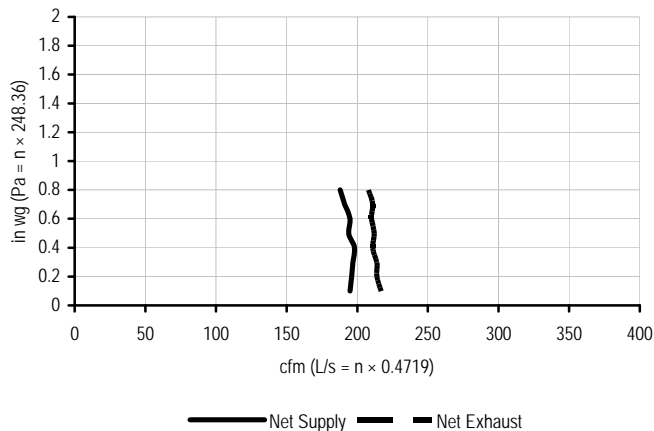
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 65 | 78 | 73 | 86 | 0.02 |
| | 0 | +32 | 45 | 96 | 98 | 72 | 83 | 0.00 |
| | 0 | +32 | 55 | 117 | 124 | 68 | 78 | 0.01 |
| | -25 | -13 | 32 | 68 | 101 | 64 | 91 | 0.04 |
| COOLING | +35 | +95 | | | | | TOTAL RECOVERY EFFICIENCY Not tested | |

Ultimate Air by Stirling Technology, Inc.

Model: RecoupAerator 200DX • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.096 @100 Pa/0.4 in. wg 0.097 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: N/A Supply N/A Exhaust • Low Temp. Imbalance Factor: N/A

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 92 | 195 | 102 | 216 | 102 | 217 |
| 50 | 0.2 | 92 | 196 | 102 | 217 | 100 | 214 |
| 75 | 0.3 | 93 | 197 | 103 | 218 | 100 | 214 |
| 100 | 0.4 | 93 | 198 | 103 | 219 | 99 | 211 |
| 125 | 0.5 | 91 | 194 | 101 | 215 | 100 | 212 |
| 150 | 0.6 | 92 | 195 | 102 | 216 | 99 | 210 |
| 175 | 0.7 | 90 | 191 | 99 | 211 | 99 | 211 |
| 200 | 0.8 | 88 | 188 | 98 | 208 | 98 | 208 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 65 | 48 | 83 | 96 | 0.69 |
| | 0 | +32 | 48 | 101 | 73 | 83 | 94 | 0.64 |
| | 0 | +32 | 97 | 205 | 260 | 81 | 93 | 0.55 |
| | | | | | | | TOTAL RECOVERY EFFICIENCY | |
| COOLING | +35 | +95 | 30 | 64 | 50 | | 53 | |
| | +35 | +95 | 63 | 134 | 121 | | 44 | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

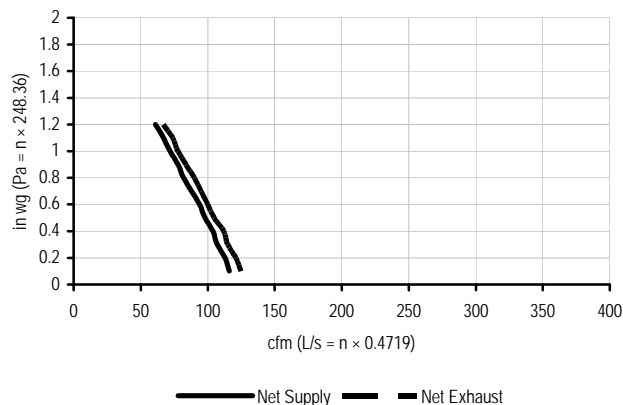
Section 3-103

vanEE

Model: ERV60H (SP) • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.03 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 27.9% Supply 30.2% Exhaust • Low Temp. Imbalance Factor: 1.13

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 55 | 116 | 56 | 119 | 59 | 125 |
| 50 | 0.2 | 53 | 113 | 55 | 116 | 57 | 121 |
| 75 | 0.3 | 50 | 107 | 52 | 111 | 54 | 115 |
| 100 | 0.4 | 49 | 104 | 50 | 107 | 53 | 112 |
| 125 | 0.5 | 46 | 98 | 48 | 101 | 50 | 105 |
| 150 | 0.6 | 44 | 94 | 46 | 97 | 47 | 100 |
| 175 | 0.7 | 42 | 88 | 43 | 91 | 45 | 95 |
| 200 | 0.8 | 39 | 82 | 40 | 84 | 42 | 90 |
| 225 | 0.9 | 37 | 78 | 38 | 81 | 40 | 84 |
| 250 | 1.0 | 34 | 72 | 35 | 75 | 37 | 78 |
| 275 | 1.1 | 32 | 67 | 33 | 69 | 35 | 74 |
| 300 | 1.2 | 29 | 61 | 30 | 63 | 32 | 67 |



ENERGY PERFORMANCE

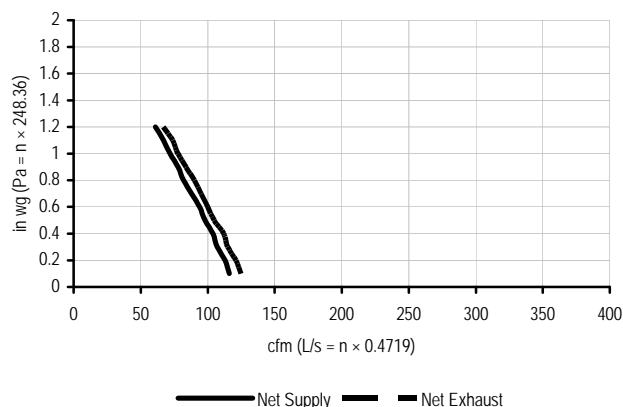
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|----------------------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 13 | 28 | 73 | 69 | 94 | 0.68 |
| | 0 | +32 | 45 | 96 | 137 | 62 | 74 | 0.48 |
| | -25 | -13 | 25 | 54 | 102 | 54 | 83 | 0.58 |
| COOLING | +35 | +95 | 14 | 29 | 70 | | | |
| | TOTAL RECOVERY EFFICIENCY | | | | | | | 54 |

vanEE

Model: ERV60H (SP) • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.03 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 27.9% Supply 30.2% Exhaust • Low Temp. Imbalance Factor: 1.13

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 55 | 116 | 56 | 119 | 59 | 125 |
| 50 | 0.2 | 53 | 113 | 55 | 116 | 57 | 121 |
| 75 | 0.3 | 50 | 107 | 52 | 111 | 54 | 115 |
| 100 | 0.4 | 49 | 104 | 50 | 107 | 53 | 112 |
| 125 | 0.5 | 46 | 98 | 48 | 101 | 50 | 105 |
| 150 | 0.6 | 44 | 94 | 46 | 97 | 47 | 100 |
| 175 | 0.7 | 42 | 88 | 43 | 91 | 45 | 95 |
| 200 | 0.8 | 39 | 82 | 40 | 84 | 42 | 90 |
| 225 | 0.9 | 37 | 78 | 38 | 81 | 40 | 84 |
| 250 | 1.0 | 34 | 72 | 35 | 75 | 37 | 78 |
| 275 | 1.1 | 32 | 67 | 33 | 69 | 35 | 74 |
| 300 | 1.2 | 29 | 61 | 30 | 63 | 32 | 67 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|----------------------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 13 | 28 | 73 | 69 | 94 | 0.68 |
| | 0 | +32 | 45 | 96 | 137 | 62 | 74 | 0.48 |
| | -25 | -13 | 25 | 54 | 102 | 54 | 83 | 0.58 |
| COOLING | +35 | +95 | 14 | 29 | 70 | | | |
| | TOTAL RECOVERY EFFICIENCY | | | | | | | 54 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

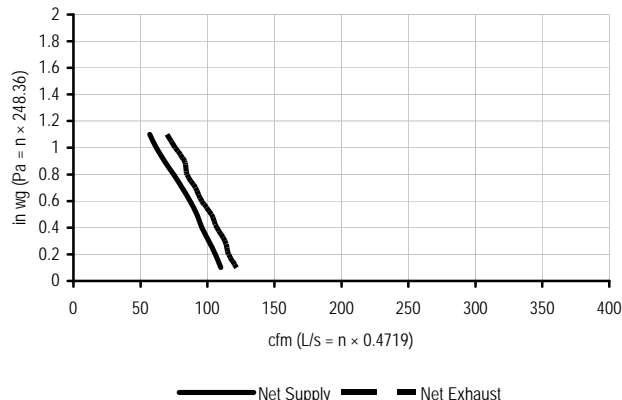
Section 3-104

vanEE

Model: HRV 60H (SP) • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.05 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 16.4% Supply 31.3% Exhaust • Low Temp. Imbalance Factor: 1.15

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 52 | 110 | 52 | 110 | 58 | 122 |
| 50 | 0.2 | 50 | 106 | 50 | 106 | 55 | 116 |
| 75 | 0.3 | 48 | 101 | 48 | 102 | 53 | 113 |
| 100 | 0.4 | 45 | 96 | 46 | 97 | 50 | 107 |
| 125 | 0.5 | 43 | 92 | 43 | 92 | 49 | 103 |
| 150 | 0.6 | 41 | 87 | 41 | 87 | 45 | 96 |
| 175 | 0.7 | 38 | 81 | 38 | 81 | 43 | 91 |
| 200 | 0.8 | 35 | 75 | 36 | 76 | 40 | 85 |
| 225 | 0.9 | 32 | 68 | 33 | 69 | 39 | 83 |
| 250 | 1.0 | 29 | 62 | 29 | 62 | 36 | 76 |
| 275 | 1.1 | 27 | 57 | 27 | 58 | 33 | 70 |



ENERGY PERFORMANCE

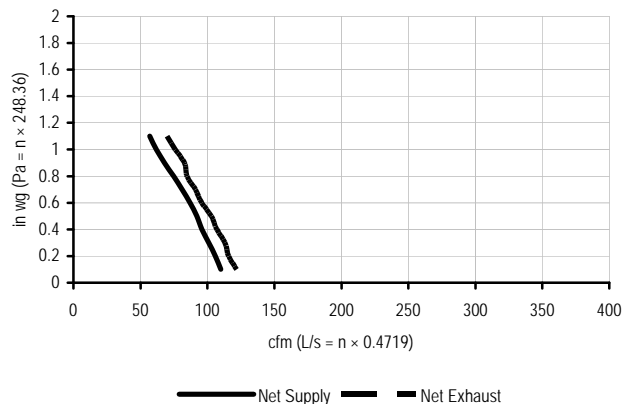
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 23 | 48 | 68 | 66 | 78 | 0.07 |
| | 0 | +32 | 30 | 63 | 82 | 65 | 76 | 0.04 |
| | 0 | +32 | 44 | 93 | 116 | 59 | 68 | 0.04 |
| | -25 | -13 | 30 | 63 | 110 | 55 | 81 | 0.08 |

vanEE

Model: HRV 60H (TP) • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.05 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 16.4% Supply 31.3% Exhaust • Low Temp. Imbalance Factor: 1.15

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 52 | 110 | 52 | 110 | 58 | 122 |
| 50 | 0.2 | 50 | 106 | 50 | 106 | 55 | 116 |
| 75 | 0.3 | 48 | 101 | 48 | 102 | 53 | 113 |
| 100 | 0.4 | 45 | 96 | 46 | 97 | 50 | 107 |
| 125 | 0.5 | 43 | 92 | 43 | 92 | 49 | 103 |
| 150 | 0.6 | 41 | 87 | 41 | 87 | 45 | 96 |
| 175 | 0.7 | 38 | 81 | 38 | 81 | 43 | 91 |
| 200 | 0.8 | 35 | 75 | 36 | 76 | 40 | 85 |
| 225 | 0.9 | 32 | 68 | 33 | 69 | 39 | 83 |
| 250 | 1.0 | 29 | 62 | 29 | 62 | 36 | 76 |
| 275 | 1.1 | 27 | 57 | 27 | 58 | 33 | 70 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 23 | 48 | 68 | 66 | 78 | 0.07 |
| | 0 | +32 | 30 | 63 | 82 | 65 | 76 | 0.04 |
| | 0 | +32 | 44 | 93 | 116 | 59 | 68 | 0.04 |
| | -25 | -13 | 30 | 63 | 110 | 55 | 81 | 0.08 |

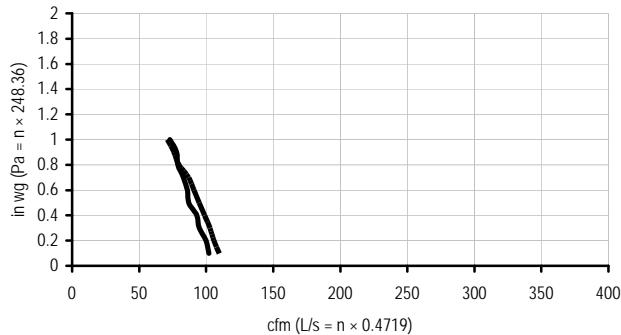
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-105

vanEE

Model: THH 1.0 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.6
 Exhaust Air Transfer Ratio: 0.05 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 3.6% Supply 4.2% Exhaust • Low Temp. Imbalance Factor: 1.20

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 48 | 102 | 51 | 107 | 52 | 110 |
| 50 | 0.2 | 47 | 100 | 50 | 105 | 50 | 106 |
| 75 | 0.3 | 45 | 95 | 47 | 99 | 48 | 103 |
| 100 | 0.4 | 44 | 93 | 46 | 98 | 46 | 99 |
| 125 | 0.5 | 41 | 87 | 43 | 92 | 45 | 95 |
| 150 | 0.6 | 41 | 86 | 42 | 90 | 43 | 91 |
| 175 | 0.7 | 39 | 83 | 41 | 88 | 41 | 87 |
| 200 | 0.8 | 37 | 79 | 39 | 83 | 38 | 80 |
| 225 | 0.9 | 37 | 78 | 38 | 81 | 36 | 76 |
| 250 | 1.0 | 34 | 73 | 36 | 76 | 33 | 71 |



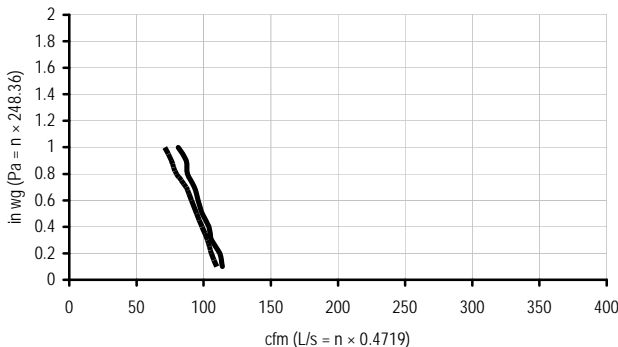
— Net Supply - - - Net Exhaust

| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 24 | 52 | 116 | 63 | 85 | 0.02 |
| | 0 | +32 | 35 | 74 | 147 | 59 | 75 | 0.05 |
| | 0 | +32 | 44 | 94 | 189 | 57 | 75 | 0.01 |
| | -25 | -13 | 16 | 35 | 114 | 58 | 95 | 0.01 |

vanEE

Model: THSF 104 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.6
 Exhaust Air Transfer Ratio: 0.05 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 3.6% Supply 4.2% Exhaust • Low Temp. Imbalance Factor: 1.20

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 53 | 114 | 56 | 119 | 52 | 110 |
| 50 | 0.2 | 53 | 112 | 55 | 117 | 50 | 106 |
| 75 | 0.3 | 50 | 106 | 52 | 111 | 48 | 103 |
| 100 | 0.4 | 49 | 104 | 51 | 109 | 46 | 99 |
| 125 | 0.5 | 46 | 99 | 49 | 103 | 45 | 95 |
| 150 | 0.6 | 45 | 96 | 48 | 101 | 43 | 91 |
| 175 | 0.7 | 44 | 93 | 46 | 98 | 41 | 87 |
| 200 | 0.8 | 42 | 88 | 44 | 93 | 38 | 80 |
| 225 | 0.9 | 41 | 87 | 43 | 91 | 36 | 76 |
| 250 | 1.0 | 38 | 81 | 40 | 85 | 33 | 71 |



— Net Supply - - - Net Exhaust

| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 24 | 52 | 116 | 63 | 85 | 0.02 |
| | 0 | +32 | 35 | 74 | 147 | 59 | 75 | 0.05 |
| | 0 | +32 | 44 | 94 | 189 | 57 | 75 | 0.01 |
| | -25 | -13 | 16 | 35 | 114 | 58 | 95 | 0.01 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

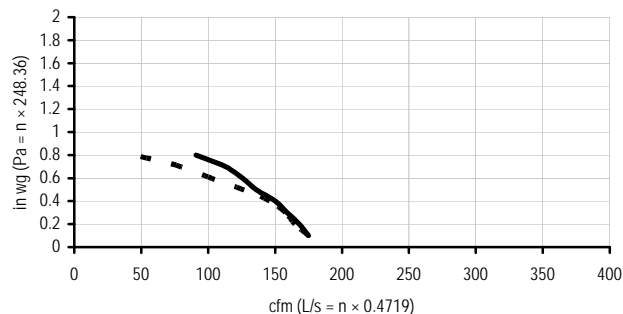
Section 3-106

vanEE

Model: 90H • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 10% Supply 13% Exhaust • Low Temp. Imbalance Factor: 0.90

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 83 | 175 | 83 | 176 | 83 | 175 |
| 50 | 0.2 | 79 | 168 | 80 | 169 | 78 | 165 |
| 75 | 0.3 | 75 | 159 | 75 | 159 | 75 | 158 |
| 100 | 0.4 | 71 | 150 | 71 | 151 | 69 | 146 |
| 125 | 0.5 | 64 | 136 | 64 | 136 | 60 | 127 |
| 150 | 0.6 | 59 | 126 | 60 | 127 | 49 | 103 |
| 175 | 0.7 | 53 | 113 | 53 | 113 | 38 | 80 |
| 200 | 0.8 | 43 | 91 | 43 | 91 | 21 | 45 |



— Net Supply - - - Net Exhaust

ENERGY PERFORMANCE

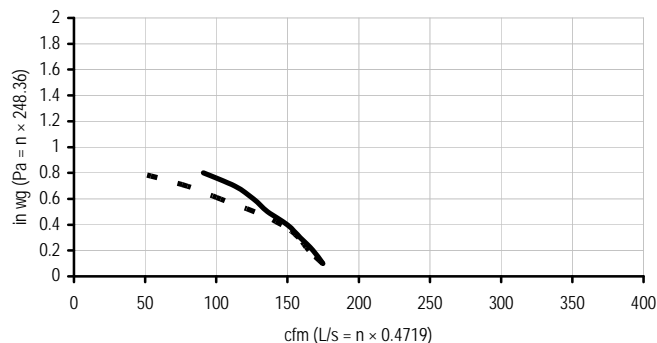
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 66 | 85 | 69 | 81 | -0.01 |
| | 0 | +32 | 56 | 119 | 124 | 60 | 70 | -0.01 |
| | -25 | -13 | 37 | 78 | 114 | 62 | 80 | 0.08 |

vanEE

Model: 90H NOVO+ • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 10% Supply 13% Exhaust • Low Temp. Imbalance Factor: 0.90

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 83 | 175 | 83 | 176 | 83 | 175 |
| 50 | 0.2 | 79 | 168 | 80 | 169 | 78 | 165 |
| 75 | 0.3 | 75 | 159 | 75 | 159 | 75 | 158 |
| 100 | 0.4 | 71 | 150 | 71 | 151 | 69 | 146 |
| 125 | 0.5 | 64 | 136 | 64 | 136 | 60 | 127 |
| 150 | 0.6 | 59 | 126 | 60 | 127 | 49 | 103 |
| 175 | 0.7 | 53 | 113 | 53 | 113 | 38 | 80 |
| 200 | 0.8 | 43 | 91 | 43 | 91 | 21 | 45 |



— Net Supply - - - Net Exhaust

ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 66 | 85 | 69 | 81 | -0.01 |
| | 0 | +32 | 56 | 119 | 124 | 60 | 70 | -0.01 |
| | -25 | -13 | 37 | 78 | 114 | 62 | 80 | 0.08 |

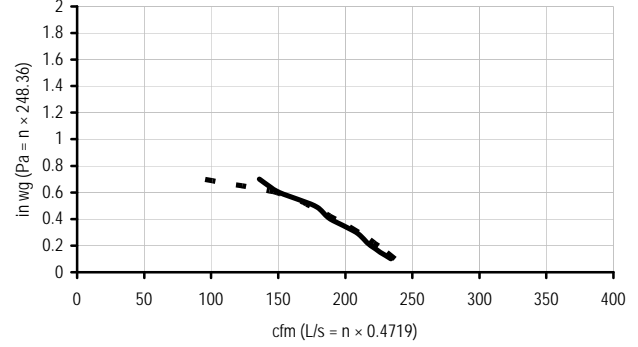
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-107

vanEE

Model: 190H • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 2.1
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 10% Supply 13% Exhaust • Low Temp. Imbalance Factor: 0.90

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| | | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 110 | 234 | 112 | 237 | 112 | 237 |
| 50 | 0.2 | 103 | 219 | 105 | 223 | 106 | 225 |
| 75 | 0.3 | 98 | 208 | 100 | 211 | 99 | 210 |
| 100 | 0.4 | 89 | 189 | 91 | 192 | 91 | 193 |
| 125 | 0.5 | 84 | 177 | 85 | 180 | 82 | 174 |
| 150 | 0.6 | 71 | 151 | 72 | 153 | 70 | 149 |
| 175 | 0.7 | 64 | 136 | 65 | 138 | 44 | 94 |



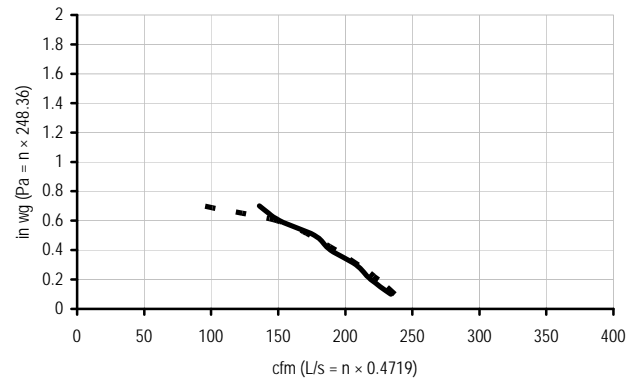
— Net Supply - - - Net Exhaust

| | ENERGY PERFORMANCE | | | | | | | |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 56 | 119 | 124 | 60 | 70 | -0.01 |
| | 0 | +32 | 86 | 182 | 197 | 53 | 62 | -0.01 |
| | -25 | -13 | 37 | 78 | 114 | 62 | 80 | 0.08 |

vanEE

Model: 190H NOVO+ • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 2.1
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 10% Supply 13% Exhaust • Low Temp. Imbalance Factor: 0.90

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| | | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 110 | 234 | 112 | 237 | 112 | 237 |
| 50 | 0.2 | 103 | 219 | 105 | 223 | 106 | 225 |
| 75 | 0.3 | 98 | 208 | 100 | 211 | 99 | 210 |
| 100 | 0.4 | 89 | 189 | 91 | 192 | 91 | 193 |
| 125 | 0.5 | 84 | 177 | 85 | 180 | 82 | 174 |
| 150 | 0.6 | 71 | 151 | 72 | 153 | 70 | 149 |
| 175 | 0.7 | 64 | 136 | 65 | 138 | 44 | 94 |



— Net Supply - - - Net Exhaust

| | ENERGY PERFORMANCE | | | | | | | |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 56 | 119 | 124 | 60 | 70 | -0.01 |
| | 0 | +32 | 86 | 182 | 197 | 53 | 62 | -0.01 |
| | -25 | -13 | 37 | 78 | 114 | 62 | 80 | 0.08 |

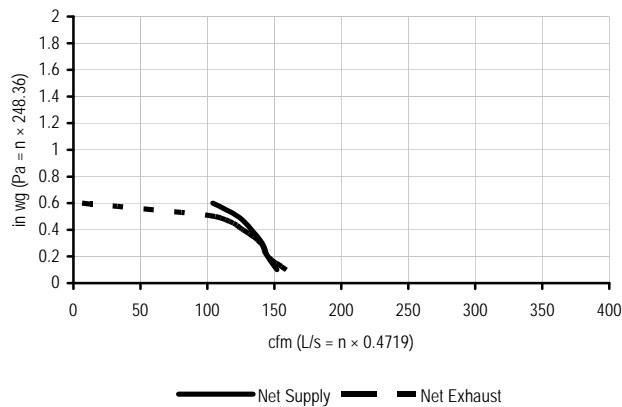
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-108

vanEE

Model: 1000HE • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.2
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 11% Supply 20% Exhaust • Low Temp. Imbalance Factor: 1.10

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|-----|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 72 | 152 | 73 | 155 | 75 | 159 |
| 50 | 0.2 | 68 | 145 | 70 | 148 | 68 | 145 |
| 75 | 0.3 | 67 | 141 | 68 | 144 | 66 | 140 |
| 100 | 0.4 | 63 | 133 | 64 | 136 | 60 | 127 |
| 125 | 0.5 | 58 | 123 | 59 | 125 | 50 | 106 |
| 150 | 0.6 | 49 | 104 | 50 | 106 | 3 | 6 |

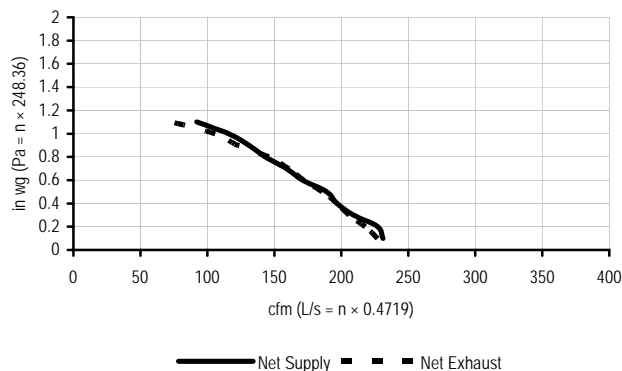


| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 103 | 81 | 92 | 0.02 |
| | 0 | +32 | 46 | 99 | 115 | 76 | 85 | 0.03 |
| | 0 | +32 | 54 | 106 | 117 | 72 | 80 | 0.02 |
| | -25 | -13 | 30 | 64 | 110 | 69 | 89 | 0.11 |
| COOLING | +35 | +95 | 34 | 72 | 105 | | | |
| | +35 | +95 | 50 | 106 | 109 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 23 | |
| | | | | | | | 26 | |

vanEE

Model: 2000HE • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 2.2
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.06 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 12.8% Supply 9.4% Exhaust • Low Temp. Imbalance Factor: 0.93

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|-----|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 109 | 231 | 116 | 246 | 107 | 227 |
| 50 | 0.2 | 107 | 227 | 114 | 242 | 103 | 218 |
| 75 | 0.3 | 99 | 209 | 105 | 222 | 97 | 206 |
| 100 | 0.4 | 93 | 197 | 99 | 210 | 93 | 197 |
| 125 | 0.5 | 89 | 189 | 95 | 201 | 88 | 186 |
| 150 | 0.6 | 81 | 171 | 86 | 182 | 81 | 172 |
| 175 | 0.7 | 75 | 159 | 80 | 169 | 76 | 161 |
| 200 | 0.8 | 67 | 143 | 72 | 153 | 69 | 146 |
| 225 | 0.9 | 62 | 131 | 66 | 140 | 58 | 123 |
| 250 | 1.0 | 55 | 116 | 58 | 123 | 50 | 106 |
| 27 | 1.1 | 43 | 92 | 46 | 97 | 35 | 74 |



| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 52 | 111 | 158 | 84 | 95 | 0.05 |
| | 0 | +32 | 55 | 117 | --- | 84 | --- | --- |
| | 0 | +32 | 71 | 151 | 184 | 79 | 90 | 0.03 |
| | 0 | +32 | 84 | 179 | 210 | 79 | 89 | 0.12 |
| | -25 | -13 | 57 | 121 | 176 | 72 | 88 | -0.04 |
| COOLING | +35 | +95 | 55 | 117 | 160 | | | |
| | +35 | +95 | 76 | 162 | 198 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 13 | |
| | | | | | | | 15 | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

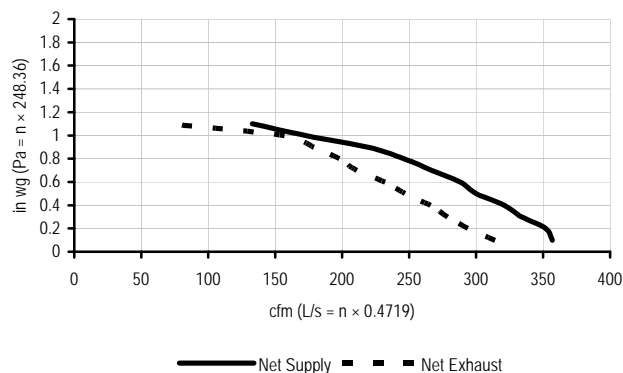
Section 3-109

vanEE

Model: 3000 HE • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 4.6
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.02 @ 55 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 13.3% Supply 15.8% Exhaust • Low Temp. Imbalance Factor: 0.99

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 168 | 357 | 172 | 364 | 148 | 314 |
| 50 | 0.2 | 166 | 352 | 170 | 360 | 139 | 294 |
| 75 | 0.3 | 158 | 334 | 160 | 340 | 132 | 279 |
| 100 | 0.4 | 151 | 321 | 155 | 328 | 126 | 266 |
| 125 | 0.5 | 142 | 300 | 144 | 306 | 117 | 247 |
| 150 | 0.6 | 136 | 288 | 139 | 294 | 109 | 232 |
| 175 | 0.7 | 126 | 267 | 128 | 272 | 100 | 211 |
| 200 | 0.8 | 116 | 246 | 118 | 251 | 93 | 198 |
| 225 | 0.9 | 103 | 219 | 105 | 223 | 84 | 179 |
| 250 | 1.0 | 82 | 173 | 84 | 177 | 74 | 157 |
| 275 | 1.1 | 63 | 133 | 64 | 136 | 33 | 70 |



ENERGY PERFORMANCE

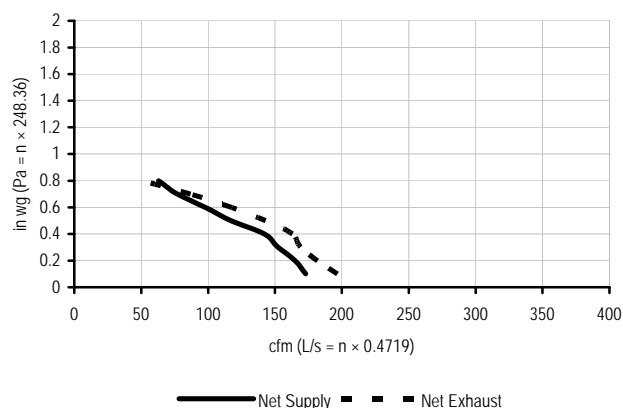
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 55 | 117 | 219 | 80 | 94 | -0.07 |
| | 0 | +32 | 86 | 183 | 290 | 74 | 86 | 0.02 |
| | 0 | +32 | 117 | 249 | 436 | 70 | 83 | -0.01 |
| | | -25 | -13 | 55 | 117 | 264 | 74 | 89 |
| COOLING | +35 | +95 | 85 | 181 | 286 | | 12 | |
| | +35 | +95 | 115 | 245 | 434 | | 9 | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | | |

vanEE

Model: 1001 ERV • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: ---- @100 Pa/0.4 in. wg 0.06 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.79

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 82 | 173 | 87 | 184 | 93 | 197 |
| 50 | 0.2 | 78 | 165 | 83 | 175 | 86 | 182 |
| 75 | 0.3 | 72 | 152 | 76 | 162 | 80 | 169 |
| 100 | 0.4 | 67 | 142 | 71 | 151 | 77 | 163 |
| 125 | 0.5 | 55 | 117 | 59 | 124 | 67 | 143 |
| 150 | 0.6 | 46 | 98 | 49 | 104 | 56 | 118 |
| 175 | 0.7 | 36 | 77 | 39 | 82 | 41 | 87 |
| 200 | 0.8 | 30 | 63 | 32 | 67 | 24 | 51 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 29 | 60 | 56 | 71 | 79 | 0.52 |
| | 0 | +32 | 47 | 100 | 80 | 64 | 73 | 0.41 |
| | 0 | +32 | 65 | 137 | 126 | 60 | 68 | 0.36 |
| | | -15 | -5 | 31 | 65 | 64 | 56 | 81 |
| COOLING | +35 | +95 | 28 | 59 | 52 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 45 | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

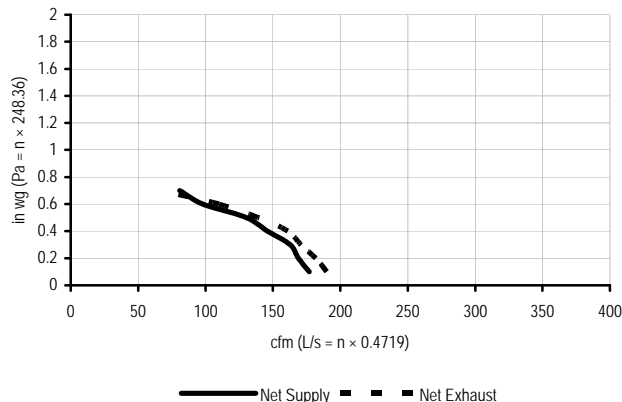
Section 3-110

vanEE

Model: 1001HRV • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.05 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 9% Supply 22%Exhaust • Low Temp. Imbalance Factor: 1.0

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 84 | 177 | 88 | 186 | 90 | 190 |
| 50 | 0.2 | 80 | 169 | 84 | 178 | 86 | 182 |
| 75 | 0.3 | 77 | 163 | 81 | 171 | 81 | 171 |
| 100 | 0.4 | 69 | 146 | 72 | 153 | 76 | 161 |
| 125 | 0.5 | 61 | 130 | 65 | 137 | 66 | 139 |
| 150 | 0.6 | 46 | 98 | 49 | 103 | 52 | 110 |
| 175 | 0.7 | 38 | 81 | 40 | 85 | 32 | 67 |



ENERGY PERFORMANCE

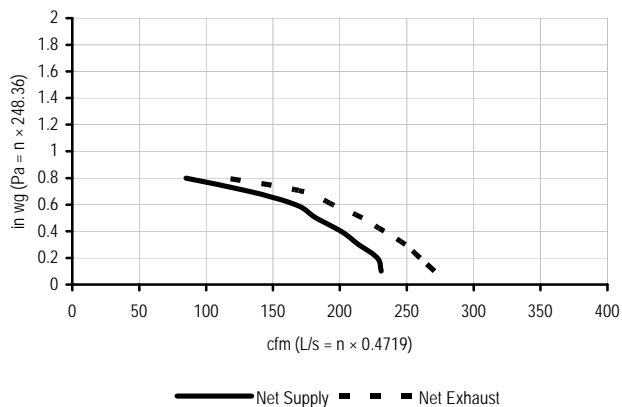
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 54 | 75 | 83 | -0.03 |
| | 0 | +32 | 46 | 97 | 78 | 67 | 74 | 0.01 |
| | 0 | +32 | 65 | 138 | 124 | 64 | 72 | -0.02 |
| | -25 | -13 | 26 | 55 | 62 | 67 | 89 | 0.05 |

vanEE

Model: 2001 ERV • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.9
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.06 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.84

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 109 | 231 | 116 | 245 | 128 | 271 |
| 50 | 0.2 | 108 | 228 | 114 | 241 | 123 | 260 |
| 75 | 0.3 | 101 | 214 | 107 | 227 | 118 | 249 |
| 100 | 0.4 | 95 | 201 | 101 | 213 | 110 | 233 |
| 125 | 0.5 | 86 | 182 | 91 | 193 | 102 | 217 |
| 150 | 0.6 | 79 | 167 | 84 | 177 | 92 | 195 |
| 175 | 0.7 | 62 | 132 | 66 | 140 | 81 | 172 |
| 200 | 0.8 | 40 | 85 | 42 | 90 | 55 | 116 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 52 | 110 | 93 | 69 | 76 | 0.45 |
| | 0 | +32 | 74 | 157 | 130 | 64 | 71 | 0.38 |
| | 0 | +32 | 96 | 203 | 193 | 60 | 68 | 0.30 |
| | -15 | -5 | 52 | 110 | 122 | 55 | 76 | 0.26 |
| COOLING | +35 | +95 | 50 | 106 | 89 | | 41 | |

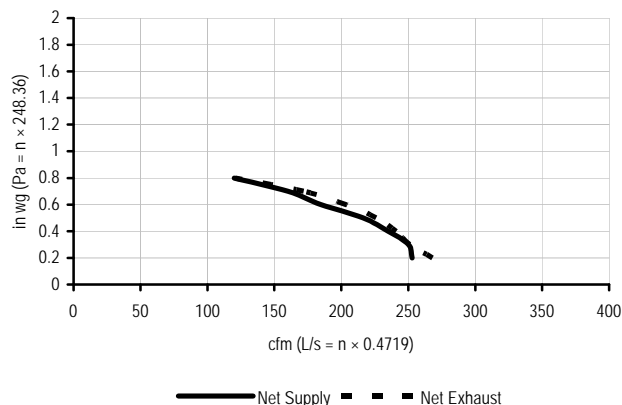
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-111

vanEE

Model: 2001 HRV • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.9
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.04 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 23% Exhaust • Low Temp. Imbalance Factor: 1.0

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 50 | 0.2 | 119 | 253 | 125 | 264 | 126 | 268 |
| 75 | 0.3 | 118 | 250 | 124 | 262 | 118 | 251 |
| 100 | 0.4 | 111 | 235 | 116 | 245 | 114 | 241 |
| 125 | 0.5 | 102 | 216 | 106 | 224 | 107 | 226 |
| 150 | 0.6 | 87 | 185 | 91 | 193 | 96 | 204 |
| 175 | 0.7 | 76 | 160 | 79 | 167 | 81 | 172 |
| 200 | 0.8 | 57 | 120 | 59 | 124 | 57 | 121 |

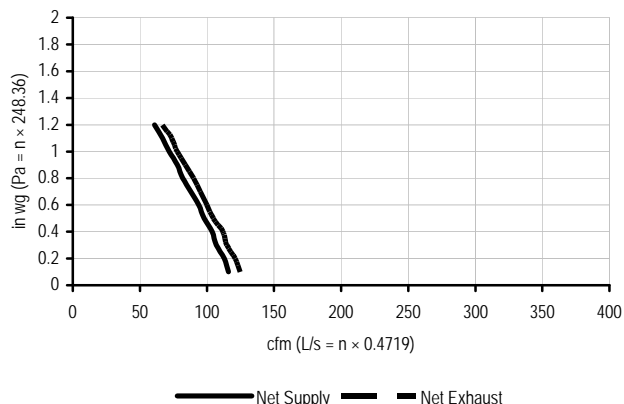


| | ENERGY PERFORMANCE | | | | | | | |
|---------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 51 | 109 | 92 | 70 | 77 | -0.01 |
| | 0 | +32 | 73 | 155 | 128 | 65 | 72 | -0.02 |
| | 0 | +32 | 102 | 215 | 191 | 62 | 70 | -0.01 |
| | -25 | -13 | 52 | 110 | 104 | 60 | 94 | 0.05 |

VENMAR VENTILATION, INC.

Model: AVS Constructo 1.0 ERV (SP) • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.03 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 27.9% Supply 30.2% Exhaust • Low Temp. Imbalance Factor: 1.13

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 55 | 116 | 56 | 119 | 59 | 125 |
| 50 | 0.2 | 53 | 113 | 55 | 116 | 57 | 121 |
| 75 | 0.3 | 50 | 107 | 52 | 111 | 54 | 115 |
| 100 | 0.4 | 49 | 104 | 50 | 107 | 53 | 112 |
| 125 | 0.5 | 46 | 98 | 48 | 101 | 50 | 105 |
| 150 | 0.6 | 44 | 94 | 46 | 97 | 47 | 100 |
| 175 | 0.7 | 42 | 88 | 43 | 91 | 45 | 95 |
| 200 | 0.8 | 39 | 82 | 40 | 84 | 42 | 90 |
| 225 | 0.9 | 37 | 78 | 38 | 81 | 40 | 84 |
| 250 | 1.0 | 34 | 72 | 35 | 75 | 37 | 78 |
| 275 | 1.1 | 32 | 67 | 33 | 69 | 35 | 74 |
| 300 | 1.2 | 29 | 61 | 30 | 63 | 32 | 67 |



| | ENERGY PERFORMANCE | | | | | | | |
|---------------------------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 13 | 28 | 73 | 69 | 94 | 0.68 |
| | 0 | +32 | 45 | 96 | 137 | 62 | 74 | 0.48 |
| | -25 | -13 | 25 | 54 | 102 | 54 | 83 | 0.58 |
| COOLING | +35 | +95 | 14 | 29 | 70 | | | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 54 | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

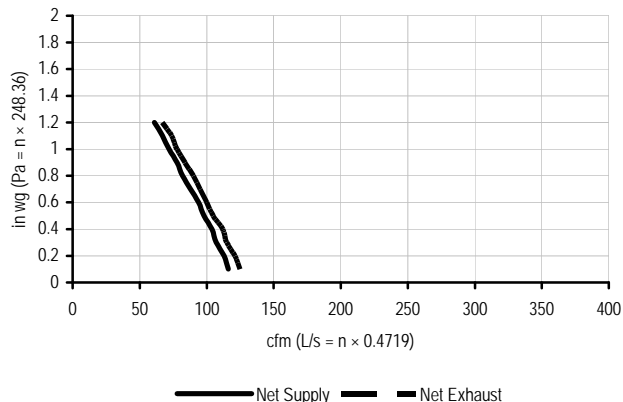
Section 3-112

VENMAR VENTILATION, INC.

Model: AVS Constructo 1.0 ERV (TP) • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.03 @100 Pa/0.4 in. wg 0.03 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 27.9% Supply 30.2% Exhaust • Low Temp. Imbalance Factor: 1.13

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | | |
|----------------------|---------------------|-------|----------------|-----|-----|-----|-----|
| | Pa | in wg | L/s | cfm | L/s | cfm | L/s |
| 25 | 0.1 | 55 | 116 | 56 | 119 | 59 | 125 |
| 50 | 0.2 | 53 | 113 | 55 | 116 | 57 | 121 |
| 75 | 0.3 | 50 | 107 | 52 | 111 | 54 | 115 |
| 100 | 0.4 | 49 | 104 | 50 | 107 | 53 | 112 |
| 125 | 0.5 | 46 | 98 | 48 | 101 | 50 | 105 |
| 150 | 0.6 | 44 | 94 | 46 | 97 | 47 | 100 |
| 175 | 0.7 | 42 | 88 | 43 | 91 | 45 | 95 |
| 200 | 0.8 | 39 | 82 | 40 | 84 | 42 | 90 |
| 225 | 0.9 | 37 | 78 | 38 | 81 | 40 | 84 |
| 250 | 1.0 | 34 | 72 | 35 | 75 | 37 | 78 |
| 275 | 1.1 | 32 | 67 | 33 | 69 | 35 | 74 |
| 300 | 1.2 | 29 | 61 | 30 | 63 | 32 | 67 |



Net Supply Net Exhaust

ENERGY PERFORMANCE

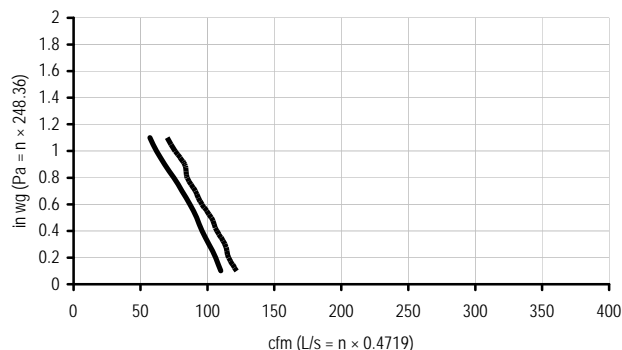
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 13 | 28 | 73 | 69 | 94 | 0.68 |
| | 0 | +32 | 45 | 96 | 137 | 62 | 74 | 0.48 |
| | -25 | -13 | 25 | 54 | 102 | 54 | 83 | 0.58 |
| COOLING | +35 | +95 | 14 | 29 | 70 | | 54 | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 54 | |

VENMAR VENTILATION, INC.

Model: AVS Constructo 1.0 HRV (SP) • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.05 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 16.4% Supply 31.3% Exhaust • Low Temp. Imbalance Factor: 1.15

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | | |
|----------------------|---------------------|-------|----------------|-----|-----|-----|-----|
| | Pa | in wg | L/s | cfm | L/s | cfm | L/s |
| 25 | 0.1 | 52 | 110 | 52 | 110 | 58 | 122 |
| 50 | 0.2 | 50 | 106 | 50 | 106 | 55 | 116 |
| 75 | 0.3 | 48 | 101 | 48 | 102 | 53 | 113 |
| 99 | 0.4 | 45 | 96 | 46 | 97 | 50 | 107 |
| 124 | 0.5 | 43 | 92 | 43 | 92 | 49 | 103 |
| 149 | 0.6 | 41 | 87 | 41 | 87 | 45 | 96 |
| 174 | 0.7 | 38 | 81 | 38 | 81 | 43 | 91 |
| 199 | 0.8 | 35 | 75 | 36 | 76 | 40 | 85 |
| 224 | 0.9 | 32 | 68 | 33 | 69 | 39 | 83 |
| 248 | 1.0 | 29 | 62 | 29 | 62 | 36 | 76 |
| 273 | 1.1 | 27 | 57 | 27 | 58 | 33 | 70 |



Net Supply Net Exhaust

ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 23 | 48 | 68 | 66 | 78 | 0.07 |
| | 0 | +32 | 30 | 63 | 82 | 65 | 76 | 0.04 |
| | 0 | +32 | 44 | 93 | 116 | 59 | 68 | 0.04 |
| | -25 | -13 | 30 | 63 | 110 | 55 | 81 | 0.08 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

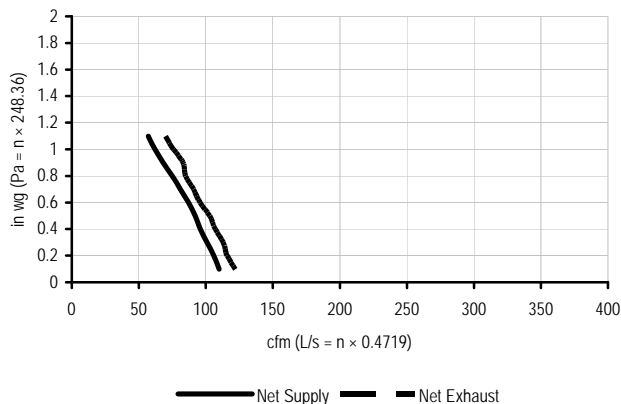
Section 3-113

VENMAR VENTILATION, INC.

Model: AVS Constructo 1.0 HRV (TP) • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.5
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg 0.05 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 16.4% Supply 31.3% Exhaust • Low Temp. Imbalance Factor: 1.15

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 52 | 110 | 52 | 110 | 58 | 122 |
| 50 | 0.2 | 50 | 106 | 50 | 106 | 55 | 116 |
| 75 | 0.3 | 48 | 101 | 48 | 102 | 53 | 113 |
| 99 | 0.4 | 45 | 96 | 46 | 97 | 50 | 107 |
| 124 | 0.5 | 43 | 92 | 43 | 92 | 49 | 103 |
| 149 | 0.6 | 41 | 87 | 41 | 87 | 45 | 96 |
| 174 | 0.7 | 38 | 81 | 38 | 81 | 43 | 91 |
| 199 | 0.8 | 35 | 75 | 36 | 76 | 40 | 85 |
| 224 | 0.9 | 32 | 68 | 33 | 69 | 39 | 83 |
| 248 | 1.0 | 29 | 62 | 29 | 62 | 36 | 76 |
| 273 | 1.1 | 27 | 57 | 27 | 58 | 33 | 70 |



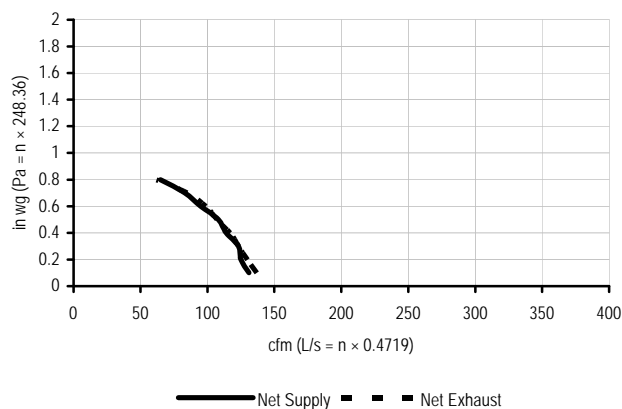
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 23 | 48 | 68 | 66 | 78 | 0.07 |
| | 0 | +32 | 30 | 63 | 82 | 65 | 76 | 0.04 |
| | 0 | +32 | 44 | 93 | 116 | 59 | 68 | 0.04 |
| | -25 | -13 | 30 | 63 | 110 | 55 | 81 | 0.08 |

VENMAR VENTILATION, INC.

Model: AVS Duo 1.2 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 10% Supply 16% Exhaust • Low Temp. Imbalance Factor: 0.86

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 62 | 131 | 63 | 133 | 65 | 137 |
| 50 | 0.2 | 59 | 125 | 60 | 127 | 61 | 130 |
| 75 | 0.3 | 58 | 123 | 59 | 124 | 58 | 123 |
| 100 | 0.4 | 54 | 114 | 55 | 116 | 55 | 117 |
| 125 | 0.5 | 51 | 108 | 52 | 110 | 50 | 107 |
| 150 | 0.6 | 45 | 95 | 45 | 96 | 47 | 99 |
| 175 | 0.7 | 39 | 83 | 40 | 84 | 40 | 85 |
| 200 | 0.8 | 31 | 65 | 31 | 66 | 29 | 62 |



| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 32 | 68 | 108 | 77 | 87 | 0.61 |
| | 0 | +32 | 56 | 119 | 156 | 71 | 81 | 0.56 |

COOLING +35 +95 31 66 103 TOTAL RECOVERY EFFICIENCY 75

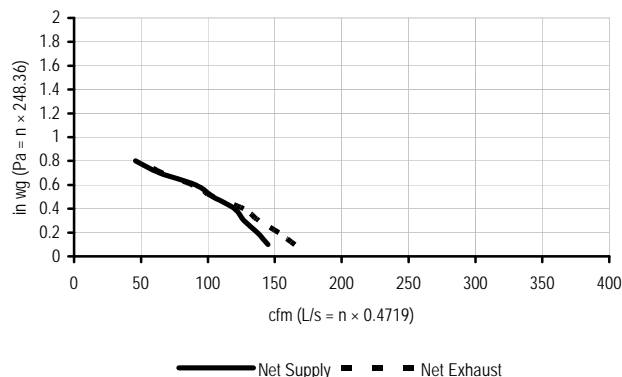
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-114

VENMAR VENTILATION, INC.

Model: AVS Duo 1.4 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.4
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 16% Supply 17% Exhaust • Low Temp. Imbalance Factor: 0.94

| EXT. STATIC PRESSURE | VENTILATION PERFORMANCE | | | | | | | |
|----------------------|-------------------------|-------|----------------|-----|------------|-----|-------------|-----|
| | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | | | |
| | Pa | in wg | L/s | cfm | SUPPLY L/s | cfm | EXHAUST L/s | cfm |
| 25 | 0.1 | 68 | 145 | 70 | 148 | 78 | 165 | |
| 50 | 0.2 | 65 | 137 | 66 | 140 | 72 | 153 | |
| 75 | 0.3 | 60 | 127 | 61 | 129 | 65 | 138 | |
| 100 | 0.4 | 57 | 120 | 58 | 123 | 60 | 127 | |
| 125 | 0.5 | 49 | 104 | 50 | 106 | 49 | 104 | |
| 150 | 0.6 | 43 | 91 | 44 | 93 | 42 | 89 | |
| 175 | 0.7 | 30 | 64 | 31 | 66 | 31 | 66 | |
| 200 | 0.8 | 22 | 46 | 22 | 47 | 23 | 49 | |

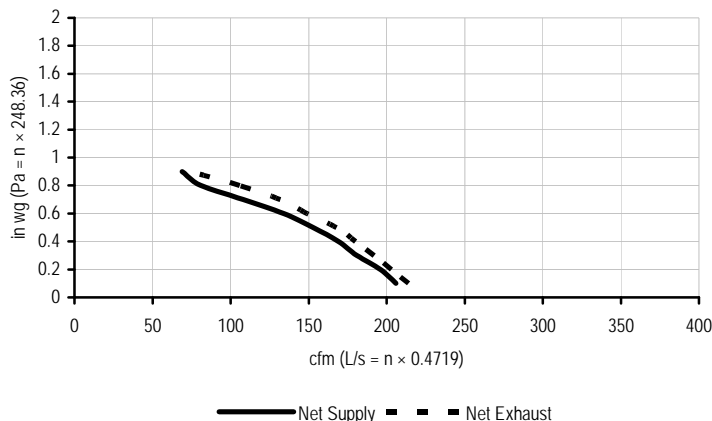


| | ENERGY PERFORMANCE | | | | | | | |
|---------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 32 | 68 | 110 | 70 | 80 | 0.79 |
| | 0 | +32 | 47 | 100 | 164 | 65 | 74 | 0.67 |
| | 0 | +32 | 57 | 121 | 172 | 64 | 72 | 0.60 |
| | -25 | -13 | 29 | 61 | 120 | 64 | 79 | 0.65 |
| COOLING | +35 | +95 | 31 | 66 | 104 | | 69 | |
| | +35 | +95 | 57 | 121 | 168 | | 61 | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | | |

VENMAR VENTILATION, INC.

Model: AVS Duo 1.9 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 2.2
 Exhaust Air Transfer Ratio: 0.02 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: Supply Exhaust • Low Temp. Imbalance Factor:

| EXT. STATIC PRESSURE | VENTILATION PERFORMANCE | | | | | | | |
|----------------------|-------------------------|-------|----------------|-----|------------|-----|-------------|-----|
| | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | | | |
| | Pa | in wg | L/s | cfm | SUPPLY L/s | cfm | EXHAUST L/s | cfm |
| 25 | 0.1 | 97 | 206 | 99 | 211 | 100 | 214 | |
| 50 | 0.2 | 92 | 196 | 95 | 201 | 95 | 203 | |
| 75 | 0.3 | 85 | 181 | 87 | 186 | 90 | 192 | |
| 100 | 0.4 | 79 | 169 | 81 | 173 | 85 | 180 | |
| 125 | 0.5 | 72 | 153 | 74 | 156 | 79 | 168 | |
| 150 | 0.6 | 63 | 134 | 65 | 138 | 70 | 149 | |
| 175 | 0.7 | 51 | 108 | 52 | 111 | 62 | 132 | |
| 200 | 0.8 | 38 | 81 | 39 | 83 | 50 | 106 | |
| 225 | 0.9 | 33 | 69 | 33 | 71 | 35 | 75 | |



| | ENERGY PERFORMANCE | | | | | | | |
|---------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| | 0 | +32 | 56 | 119 | 137 | 69 | 77 | 0.79 |
| | 0 | +32 | 83 | 177 | 201 | 64 | 71 | 0.75 |
| COOLING | +35 | +95 | 55 | 116 | 132 | | 70 | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | | |

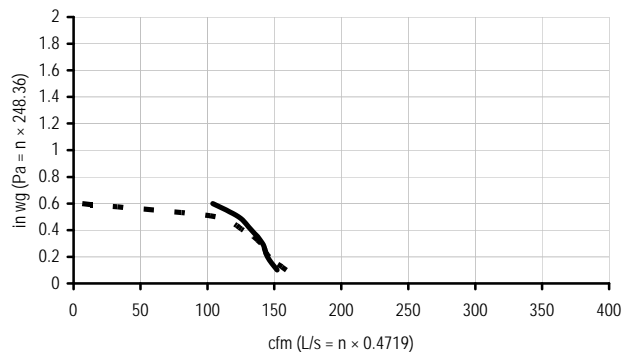
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-115

VENMAR VENTILATION, INC.

Model: AVS HE 1.3 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.2
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 11% Supply 20% Exhaust • Low Temp. Imbalance Factor: 1.10

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 72 | 152 | 73 | 155 | 75 | 159 |
| 50 | 0.2 | 68 | 145 | 70 | 148 | 69 | 146 |
| 75 | 0.3 | 67 | 141 | 68 | 144 | 66 | 140 |
| 100 | 0.4 | 63 | 133 | 64 | 136 | 60 | 127 |
| 125 | 0.5 | 58 | 123 | 59 | 125 | 50 | 106 |
| 150 | 0.6 | 49 | 104 | 50 | 106 | 3 | 6 |



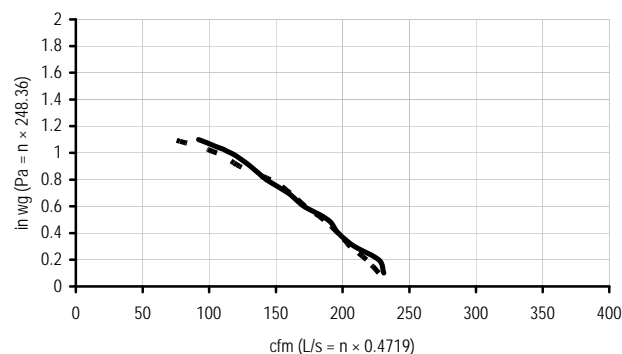
— Net Supply - - - Net Exhaust

| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|---------------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 103 | 81 | 92 | 0.02 |
| | 0 | +32 | 46 | 99 | 115 | 76 | 85 | 0.03 |
| | 0 | +32 | 54 | 106 | 117 | 72 | 80 | 0.02 |
| | -25 | -13 | 30 | 64 | 110 | 69 | 89 | 0.11 |
| COOLING | +35 | +95 | 34 | 72 | 105 | | | |
| | +35 | +95 | 50 | 106 | 109 | | | |
| | TOTAL RECOVERY EFFICIENCY | | | | | | | 23 |
| | | | | | | | 26 | |

VENMAR VENTILATION, INC.

Model: AVS HE 1.8 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 2.2
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.06 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 12.8% Supply 9.4% Exhaust • Low Temp. Imbalance Factor: 0.93

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 109 | 231 | 116 | 246 | 107 | 227 |
| 50 | 0.2 | 107 | 227 | 114 | 242 | 103 | 218 |
| 75 | 0.3 | 99 | 209 | 105 | 222 | 97 | 206 |
| 100 | 0.4 | 93 | 197 | 99 | 210 | 93 | 197 |
| 125 | 0.5 | 89 | 189 | 95 | 201 | 88 | 186 |
| 150 | 0.6 | 81 | 171 | 86 | 182 | 81 | 172 |
| 175 | 0.7 | 75 | 159 | 80 | 169 | 76 | 161 |
| 200 | 0.8 | 68 | 143 | 72 | 153 | 69 | 145 |
| 225 | 0.9 | 62 | 131 | 66 | 140 | 58 | 123 |
| 250 | 1.0 | 55 | 116 | 58 | 123 | 50 | 106 |
| 275 | 1.1 | 43 | 92 | 46 | 97 | 35 | 74 |



— Net Supply - - - Net Exhaust

| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|---------------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 52 | 111 | 158 | 84 | 95 | 0.05 |
| | 0 | +32 | 55 | 117 | --- | 84 | --- | --- |
| | 0 | +32 | 71 | 151 | 184 | 79 | 90 | 0.03 |
| | 0 | +32 | 84 | 179 | 210 | 79 | 89 | 0.12 |
| | -25 | -13 | 57 | 121 | 176 | 72 | 88 | -0.04 |
| COOLING | +35 | +95 | 55 | 117 | 160 | | | |
| | +35 | +95 | 76 | 162 | 198 | | | |
| | TOTAL RECOVERY EFFICIENCY | | | | | | | 13 |
| | | | | | | | 15 | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

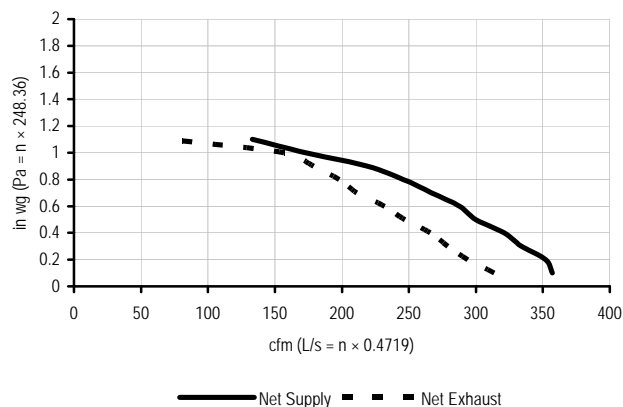
Section 3-116

VENMAR VENTILATION, INC.

Model: AVS HE 2.6 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 4.6
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.02 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 13.3% Supply 15.8% Exhaust • Low Temp. Imbalance Factor: 0.99

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| | | | | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 168 | 357 | 172 | 364 | 148 | 314 |
| 50 | 0.2 | 166 | 352 | 170 | 360 | 139 | 294 |
| 75 | 0.3 | 158 | 334 | 160 | 340 | 132 | 279 |
| 100 | 0.4 | 151 | 321 | 155 | 328 | 126 | 266 |
| 125 | 0.5 | 142 | 300 | 144 | 306 | 117 | 247 |
| 150 | 0.6 | 136 | 288 | 139 | 294 | 109 | 232 |
| 175 | 0.7 | 126 | 267 | 128 | 272 | 100 | 211 |
| 200 | 0.8 | 116 | 246 | 118 | 251 | 93 | 198 |
| 225 | 0.9 | 103 | 219 | 105 | 223 | 84 | 179 |
| 250 | 1.0 | 82 | 173 | 84 | 177 | 74 | 157 |
| 275 | 1.1 | 63 | 133 | 64 | 136 | 33 | 70 |



ENERGY PERFORMANCE

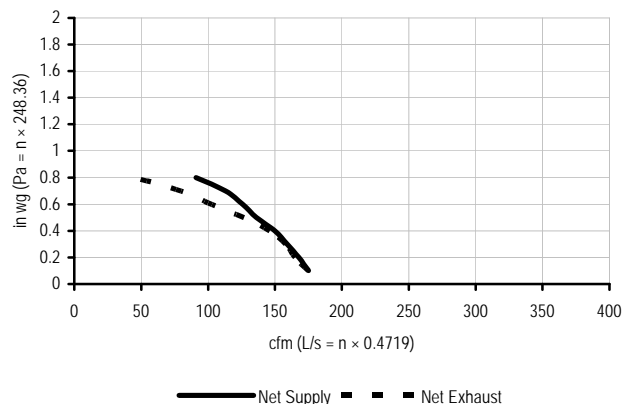
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 55 | 117 | 219 | 80 | 94 | -0.07 |
| | 0 | +32 | 86 | 183 | 290 | 74 | 86 | 0.02 |
| | 0 | +32 | 117 | 249 | 436 | 70 | 83 | -0.01 |
| | -25 | -13 | 55 | 117 | 264 | 74 | 89 | 0.07 |
| COOLING | +35 | +95 | 85 | 181 | 286 | | 12 | |
| | +35 | +95 | 115 | 245 | 434 | | 9 | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | | |

VENMAR VENTILATION, INC.

Model: AVS SOLO 1.5 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 10% Supply 13% Exhaust • Low Temp. Imbalance Factor: 0.90

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| | | | | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 83 | 175 | 83 | 176 | 83 | 175 |
| 50 | 0.2 | 79 | 168 | 80 | 169 | 78 | 165 |
| 75 | 0.3 | 75 | 159 | 75 | 159 | 75 | 158 |
| 100 | 0.4 | 71 | 150 | 71 | 151 | 69 | 146 |
| 125 | 0.5 | 64 | 136 | 64 | 136 | 60 | 127 |
| 150 | 0.6 | 59 | 126 | 60 | 127 | 49 | 103 |
| 175 | 0.7 | 53 | 113 | 53 | 113 | 38 | 80 |
| 200 | 0.8 | 43 | 91 | 43 | 91 | 21 | 45 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 66 | 85 | 69 | 81 | -0.1 |
| | 0 | +32 | 56 | 119 | 124 | 60 | 70 | -0.1 |
| | -25 | -13 | 37 | 78 | 114 | 62 | 80 | 0.08 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

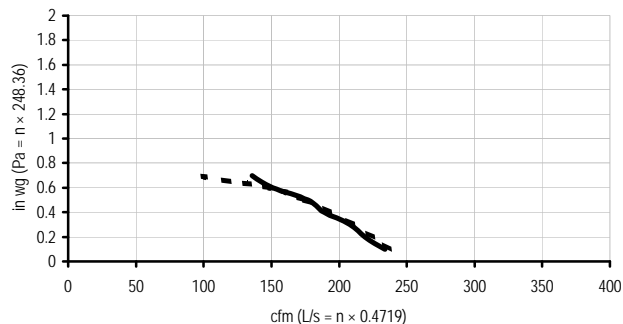
Section 3-117

VENMAR VENTILATION, INC.

Model: AVS Solo 2.0 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 2.1
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 10% Supply 13% Exhaust • Low Temp. Imbalance Factor: 0.90

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 110 | 234 | 112 | 237 | 112 | 237 |
| 50 | 0.2 | 103 | 219 | 105 | 223 | 106 | 225 |
| 75 | 0.3 | 98 | 208 | 100 | 211 | 99 | 210 |
| 100 | 0.4 | 89 | 189 | 91 | 192 | 91 | 193 |
| 125 | 0.5 | 84 | 177 | 85 | 180 | 82 | 174 |
| 150 | 0.6 | 71 | 151 | 72 | 153 | 70 | 149 |
| 175 | 0.7 | 64 | 136 | 65 | 138 | 44 | 94 |



— Net Supply - - Net Exhaust

ENERGY PERFORMANCE

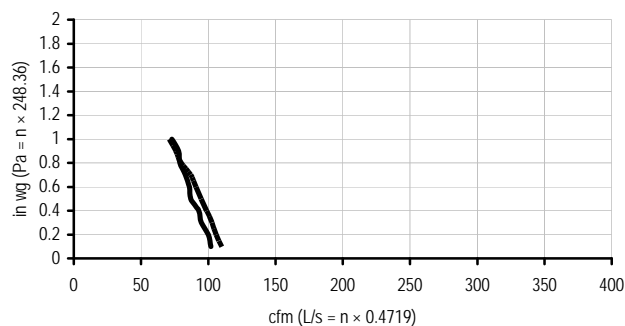
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 56 | 119 | 124 | 60 | 70 | -0.01 |
| | 0 | +32 | 86 | 182 | 197 | 53 | 62 | -0.1 |
| | -25 | -13 | 37 | 78 | 114 | 62 | 80 | .08 |

VENMAR VENTILATION, INC.

Model: AVS THH 1.0 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.6
 Exhaust Air Transfer Ratio: 0.05 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 3.6% Supply 4.2% Exhaust • Low Temp. Imbalance Factor: 1.20

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 48 | 102 | 51 | 107 | 52 | 110 |
| 50 | 0.2 | 47 | 100 | 50 | 105 | 50 | 106 |
| 75 | 0.3 | 45 | 95 | 47 | 99 | 48 | 103 |
| 100 | 0.4 | 44 | 93 | 46 | 98 | 46 | 99 |
| 125 | 0.5 | 41 | 87 | 43 | 92 | 45 | 95 |
| 150 | 0.6 | 41 | 86 | 42 | 90 | 43 | 91 |
| 175 | 0.7 | 39 | 83 | 41 | 88 | 41 | 87 |
| 200 | 0.8 | 37 | 79 | 39 | 83 | 38 | 80 |
| 225 | 0.9 | 37 | 78 | 38 | 81 | 36 | 76 |
| 250 | 1.0 | 34 | 73 | 36 | 76 | 33 | 71 |



— Net Supply - - Net Exhaust

ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 24 | 52 | 116 | 63 | 85 | 0.02 |
| | 0 | +32 | 35 | 74 | 147 | 59 | 75 | 0.05 |
| | 0 | +32 | 44 | 94 | 189 | 57 | 75 | 0.01 |
| | -25 | -13 | 16 | 35 | 114 | 58 | 95 | 0.01 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

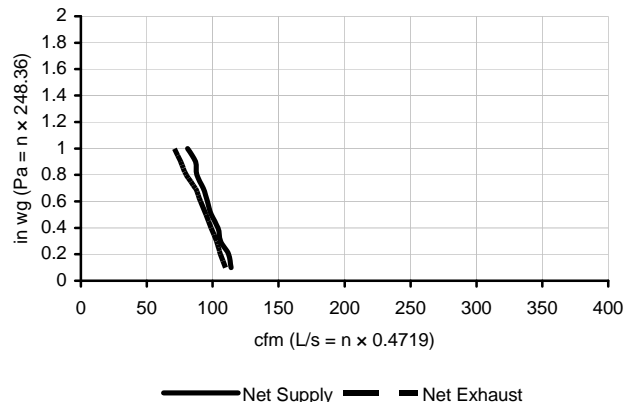
Section 3-118

VENMAR VENTILATION, INC.

Model: AVS THSF 104 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.6
 Exhaust Air Transfer Ratio: 0.05 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 3.6% Supply 4.2% Exhaust • Low Temp. Imbalance Factor: 1.20

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| | | | | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 53 | 114 | 56 | 119 | 52 | 110 |
| 50 | 0.2 | 53 | 112 | 55 | 117 | 50 | 106 |
| 75 | 0.3 | 50 | 106 | 52 | 111 | 48 | 103 |
| 100 | 0.4 | 49 | 104 | 51 | 109 | 46 | 99 |
| 125 | 0.5 | 46 | 99 | 49 | 103 | 45 | 95 |
| 150 | 0.6 | 45 | 96 | 48 | 101 | 43 | 91 |
| 175 | 0.7 | 44 | 93 | 46 | 98 | 41 | 87 |
| 200 | 0.8 | 42 | 88 | 44 | 93 | 38 | 80 |
| 225 | 0.9 | 41 | 87 | 43 | 91 | 36 | 76 |
| 250 | 1.0 | 38 | 81 | 40 | 85 | 33 | 71 |



ENERGY PERFORMANCE

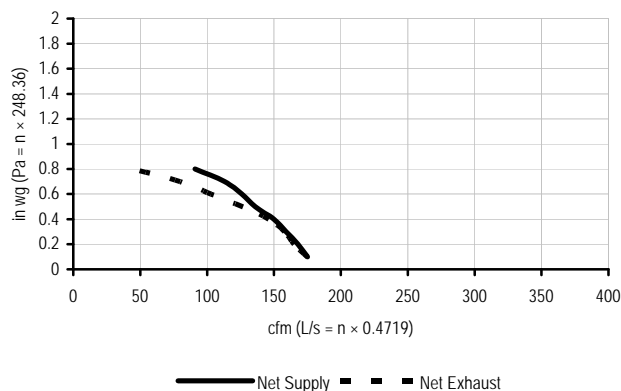
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 24 | 52 | 116 | 63 | 85 | 0.02 |
| | 0 | +32 | 35 | 74 | 147 | 59 | 75 | 0.05 |
| | 0 | +32 | 44 | 94 | 189 | 57 | 75 | 0.01 |
| | -25 | -13 | 16 | 35 | 114 | 58 | 95 | 0.01 |

VENMAR VENTILATION, INC.

Model: AVS 1.5 Constructo • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 10% Supply 13% Exhaust • Low Temp. Imbalance Factor: 0.90

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| | | | | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 83 | 175 | 83 | 176 | 83 | 175 |
| 50 | 0.2 | 79 | 168 | 80 | 169 | 78 | 165 |
| 75 | 0.3 | 75 | 159 | 75 | 159 | 75 | 158 |
| 100 | 0.4 | 71 | 150 | 71 | 151 | 69 | 146 |
| 125 | 0.5 | 64 | 136 | 64 | 136 | 60 | 127 |
| 150 | 0.6 | 59 | 126 | 60 | 127 | 49 | 103 |
| 175 | 0.7 | 53 | 113 | 53 | 113 | 38 | 80 |
| 200 | 0.8 | 43 | 91 | 43 | 91 | 21 | 45 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 66 | 85 | 69 | 81 | 0.01 |
| | 0 | +32 | 56 | 119 | 124 | 60 | 70 | 0.01 |
| | -25 | -13 | 37 | 78 | 114 | 62 | 80 | 0.08 |

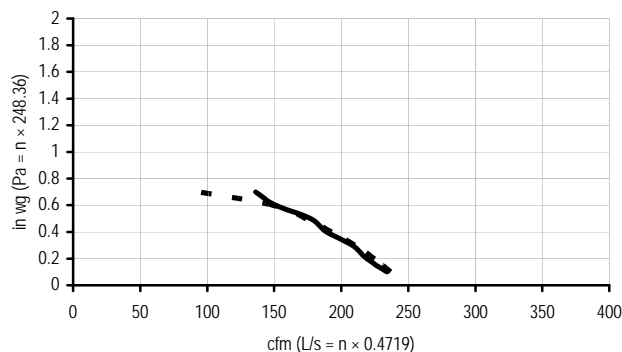
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-119

VENMAR VENTILATION, INC.

Model: AVS 2.0 Constructo • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 2.1
 Exhaust Air Transfer Ratio: 0.01 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 10% Supply 13% Exhaust • Low Temp. Imbalance Factor: 0.90

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 110 | 234 | 112 | 237 | 112 | 237 |
| 50 | 0.2 | 103 | 219 | 105 | 223 | 106 | 225 |
| 75 | 0.3 | 98 | 208 | 100 | 211 | 99 | 210 |
| 100 | 0.4 | 89 | 189 | 91 | 192 | 91 | 193 |
| 125 | 0.5 | 84 | 177 | 85 | 180 | 82 | 174 |
| 150 | 0.6 | 71 | 151 | 72 | 153 | 70 | 149 |
| 175 | 0.7 | 64 | 136 | 65 | 138 | 44 | 94 |



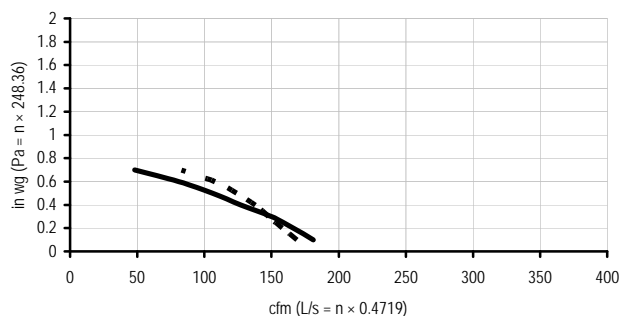
— Net Supply - - Net Exhaust

| ENERGY PERFORMANCE | | | | | | | |
|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| °C | °F | L/S | CFM | WATTS | | | |
| 0 | +32 | 56 | 119 | 124 | 60 | 70 | -.01 |
| 0 | +32 | 86 | 182 | 197 | 53 | 62 | -.01 |
| -25 | -13 | 37 | 78 | 114 | 62 | 80 | .08 |

VENMAR VENTILATION, INC.

Model: AVS 3055 COMPACT • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.2
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 6.5% Supply 16.3% Exhaust • Low Temp. Imbalance Factor: 1.08

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|---------|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | | | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 85 | 181 | 86 | 183 | 80 | 169 |
| 50 | 0.2 | 78 | 166 | 79 | 168 | 75 | 158 |
| 75 | 0.3 | 71 | 150 | 72 | 152 | 70 | 148 |
| 100 | 0.4 | 60 | 127 | 60 | 128 | 65 | 138 |
| 125 | 0.5 | 50 | 106 | 50 | 107 | 59 | 124 |
| 150 | 0.6 | 38 | 81 | 38 | 81 | 51 | 108 |
| 175 | 0.7 | 23 | 48 | 23 | 49 | 39 | 83 |



— Net Supply - - Net Exhaust

| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | WATTS | | | |
| HEATING | 0 | +32 | 30 | 64 | 65 | 69 | 76 | 0.00 |
| | 0 | +32 | 42 | 89 | 79 | 65 | 71 | -0.10 |
| | 0 | +32 | 54 | 115 | 97 | 61 | 66 | -0.07 |
| | -25 | -13 | 32 | 68 | 76 | 60 | 78 | -0.12 |
| | -25 | -13 | 30 | 64 | 74 | 60 | -- | -- |
| COOLING | +35 | +95 | 32 | 68 | 65 | | TOTAL RECOVERY EFFICIENCY | |
| | +35 | +95 | 51 | 109 | 94 | | 20 | 18 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

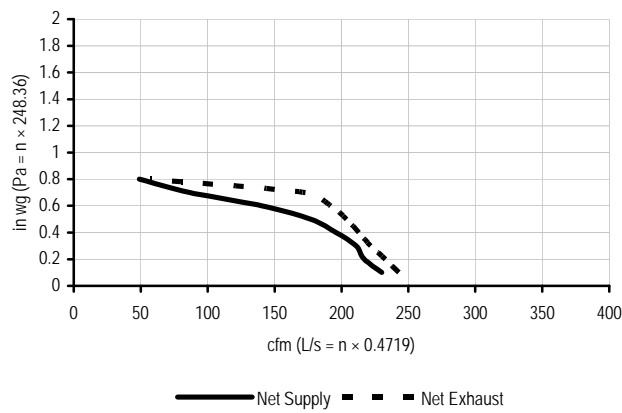
Section 3-120

VENMAR VENTILATION, INC.

Model: AVS 5585 COMPACT • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.75
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 13.5% Supply 19.7% Exhaust • Low Temp. Imbalance Factor: 1.04

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| | | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 109 | 230 | 109 | 231 | 115 | 243 |
| 50 | 0.2 | 102 | 217 | 103 | 219 | 110 | 233 |
| 75 | 0.3 | 100 | 211 | 100 | 212 | 105 | 222 |
| 100 | 0.4 | 93 | 196 | 93 | 196 | 101 | 213 |
| 125 | 0.5 | 84 | 177 | 84 | 177 | 96 | 204 |
| 150 | 0.6 | 66 | 140 | 67 | 142 | 91 | 192 |
| 175 | 0.7 | 41 | 87 | 42 | 88 | 82 | 173 |
| 200 | 0.8 | 23 | 49 | 23 | 49 | 27 | 57 |



ENERGY PERFORMANCE

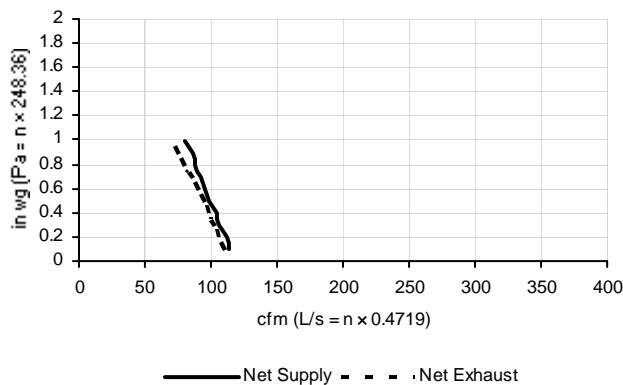
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 56 | 119 | 110 | 77 | 83 | -0.01 |
| | 0 | +32 | 75 | 160 | 135 | 73 | 78 | 0.00 |
| | 0 | +32 | 89 | 189 | 152 | 71 | 76 | -0.03 |
| | -25 | -13 | 56 | 119 | 131 | 67 | 81 | 0.20 |
| | -25 | -13 | 55 | 117 | 130 | 67 | --- | --- |
| COOLING | +35 | +95 | 56 | 119 | 108 | | 21 | |
| | +35 | +95 | 75 | 160 | 132 | | 21 | |
| TOTAL RECOVERY EFFICIENCY | | | | | | | | |

VENMAR VENTILATION, INC.

Model: HRV 2500 • Options Installed: None
 Electrical Requirements: Volts: 120 Amps: 1.6
 Exhaust Air Transfer Ratio: 0.05 @100 Pa/0.4 in. wg --- @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 3.6% Supply 4.2% Exhaust • Low Temp. Imbalance Factor: 1.20

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| | | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 53 | 114 | 56 | 119 | 52 | 110 |
| 50 | 0.2 | 53 | 112 | 55 | 117 | 50 | 106 |
| 75 | 0.3 | 50 | 106 | 52 | 111 | 48 | 103 |
| 100 | 0.4 | 49 | 104 | 51 | 109 | 46 | 99 |
| 125 | 0.5 | 46 | 99 | 49 | 103 | 45 | 95 |
| 150 | 0.6 | 45 | 96 | 48 | 101 | 43 | 91 |
| 175 | 0.7 | 44 | 93 | 46 | 98 | 41 | 87 |
| 200 | 0.8 | 42 | 88 | 44 | 93 | 38 | 80 |
| 225 | 0.9 | 41 | 87 | 43 | 91 | 36 | 76 |
| 250 | 1.0 | 38 | 81 | 40 | 85 | 33 | 71 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 24 | 52 | 116 | 63 | 85 | 0.02 |
| | 0 | +32 | 35 | 74 | 147 | 59 | 75 | 0.05 |
| | 0 | +32 | 44 | 94 | 189 | 57 | 75 | 0.01 |
| | -25 | -13 | 16 | 35 | 114 | 58 | 95 | 0.01 |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

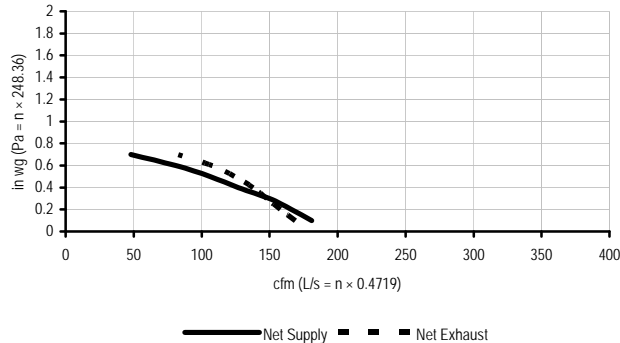
Section 3-121

VENMAR VENTILATION, INC.

Model: 40225 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.2
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 6.5% Supply 16.3% Exhaust • Low Temp. Imbalance Factor: 1.08

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 85 | 181 | 86 | 183 | 80 | 169 |
| 50 | 0.2 | 78 | 166 | 79 | 168 | 75 | 158 |
| 75 | 0.3 | 71 | 150 | 72 | 152 | 70 | 148 |
| 100 | 0.4 | 60 | 127 | 60 | 128 | 65 | 138 |
| 125 | 0.5 | 50 | 106 | 50 | 107 | 59 | 124 |
| 150 | 0.6 | 38 | 81 | 38 | 81 | 51 | 108 |
| 175 | 0.7 | 23 | 48 | 23 | 49 | 39 | 83 |



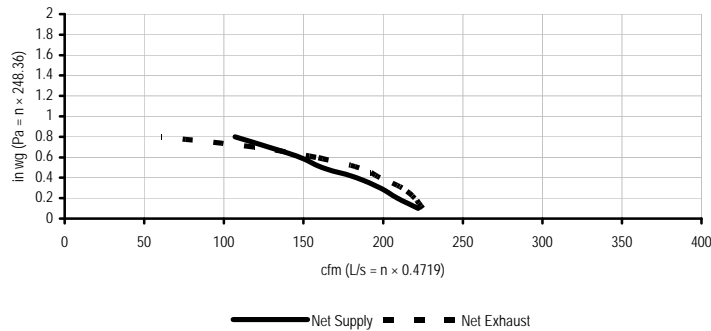
| ENERGY PERFORMANCE | | | | | | | | |
|----------------------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 65 | 69 | 76 | 0.00 |
| | 0 | +32 | 42 | 89 | 79 | 65 | 71 | -0.10 |
| | 0 | +32 | 54 | 115 | 97 | 61 | 66 | -0.07 |
| | -25 | -13 | 32 | 68 | 76 | 60 | 78 | 0.12 |
| | -25 | -13 | 30 | 64 | 74 | 60 | -- | -- |
| TOTAL RECOVERY EFFICIENCY | | | | | | | 20 | |
| COOLING | +35 | +95 | 32 | 68 | 65 | | 18 | |
| | +35 | +95 | 51 | 109 | 94 | | | |

VENMAR VENTILATION, INC.

Model: ERV Constructo 2.0 Quattro • Options Installed: none
 Electrical Requirements: Volts: 120 Amps: 2.1
 Exhaust Air Transfer Ratio: 0.01 @ 100 Pa/0.4 in. wg 0.01 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 24.8% Supply 43% Exhaust • Low Temp. Imbalance Factor: 1.28

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 105 | 222 | 106 | 225 | 106 | 225 |
| 50 | 0.2 | 99 | 209 | 100 | 212 | 104 | 220 |
| 75 | 0.3 | 93 | 198 | 94 | 200 | 100 | 212 |
| 100 | 0.4 | 86 | 183 | 88 | 186 | 93 | 198 |
| 125 | 0.5 | 76 | 162 | 78 | 165 | 87 | 185 |
| 150 | 0.6 | 70 | 148 | 71 | 150 | 75 | 158 |
| 175 | 0.7 | 60 | 128 | 61 | 130 | 56 | 119 |
| 200 | 0.8 | 50 | 107 | 51 | 108 | 29 | 61 |



| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|----------------------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 39 | 80 | 84 | 60 | 72 | 60 |
| | 0 | +32 | 54 | 114 | 113 | 58 | 69 | 53 |
| | 0 | +32 | 79 | 167 | 169 | 56 | 66 | 45 |
| | -25 | -13 | 31 | 65 | 116 | 41 | 86 | 47 |
| | TOTAL RECOVERY EFFICIENCY | | | | | | | 52 |
| COOLING | +35 | +95 | 39 | 82 | 81 | | | |
| | +35 | +95 | | | | | | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

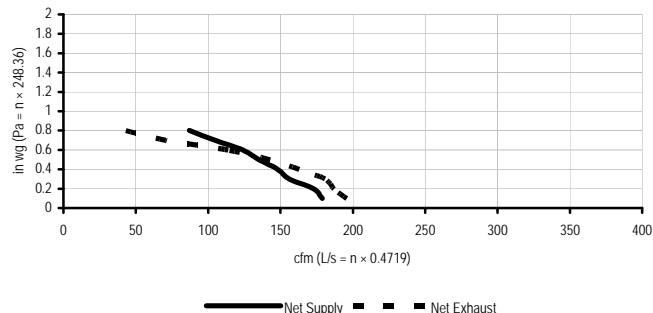
Section 3-122

VENMAR VENTILATION, INC.

Model: ERV Constructo 1.5 Quattro • Options Installed: none
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.02 @ 100 Pa/0.4 in. wg 0.04 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 28.6% Supply 29.5% Exhaust • Low Temp. Imbalance Factor: 1.05

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 84 | 179 | 85 | 181 | 92 | 196 |
| 50 | 0.2 | 82 | 173 | 83 | 175 | 88 | 187 |
| 75 | 0.3 | 74 | 156 | 75 | 158 | 85 | 181 |
| 100 | 0.4 | 70 | 148 | 71 | 151 | 77 | 163 |
| 125 | 0.5 | 64 | 135 | 65 | 137 | 67 | 143 |
| 150 | 0.6 | 58 | 124 | 59 | 125 | 54 | 114 |
| 175 | 0.7 | 50 | 105 | 50 | 106 | 33 | 71 |
| 200 | 0.8 | 41 | 87 | 42 | 88 | 20 | 43 |



ENERGY PERFORMANCE

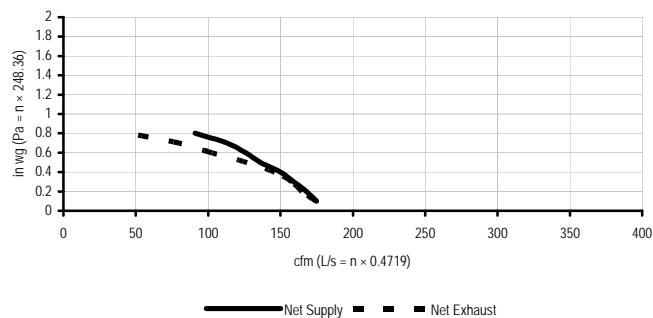
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|----------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 66 | 61 | 75 | 62 |
| | 0 | +32 | 46 | 97 | 77 | 60 | 71 | 58 |
| | 0 | +32 | 66 | 141 | 137 | 57 | 69 | 52 |
| | -25 | -13 | 22 | 47 | 92 | 49 | 80 | 56 |
| COOLING | +35 | +95 | 31 | 65 | 63 | | | |
| | +35 | +95 | | | | | | |
| | | | | | | | TOTAL RECOVERY EFFICIENCY | |
| | | | | | | 56 | | |

VENMAR VENTILATION, INC.

Model: NOVOFIT 1.5 • Options Installed:
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: 0.01 @ 100 Pa/0.4 in. wg - @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 10% Supply 13% Exhaust • Low Temp. Imbalance Factor: 0.90

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 83 | 175 | 83 | 176 | 83 | 175 |
| 50 | 0.2 | 79 | 168 | 80 | 169 | 78 | 165 |
| 75 | 0.3 | 75 | 159 | 75 | 159 | 75 | 158 |
| 100 | 0.4 | 71 | 150 | 71 | 151 | 69 | 146 |
| 125 | 0.5 | 64 | 136 | 64 | 136 | 60 | 127 |
| 150 | 0.6 | 59 | 126 | 60 | 127 | 49 | 103 |
| 175 | 0.7 | 53 | 113 | 53 | 113 | 38 | 80 |
| 200 | 0.8 | 43 | 91 | 43 | 91 | 21 | 45 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|----------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 31 | 66 | 85 | 69 | 81 | -0.01 |
| | 0 | +32 | 56 | 119 | 124 | 60 | 70 | -0.01 |
| | -25 | -13 | 37 | 78 | 114 | 62 | 80 | .08 |
| COOLING | +35 | +95 | | | | | | |
| | +35 | +95 | | | | | TOTAL RECOVERY EFFICIENCY | |
| | | | | | | Not tested | | |

CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

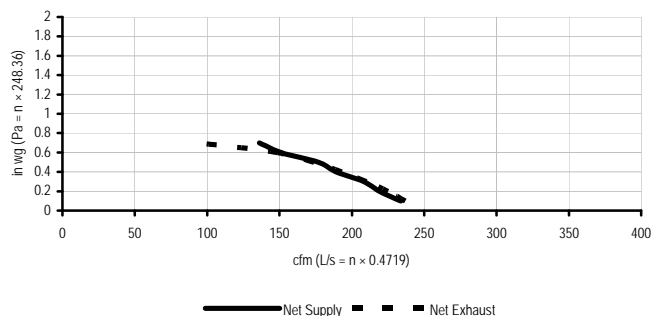
Section 3-123

VENMAR VENTILATION, INC.

Model: NOVOFIT 2.0 • Options Installed:
 Electrical Requirements: Volts: 120 Amps: 2.1
 Exhaust Air Transfer Ratio: 0.01 @ 100 Pa/0.4 in. wg @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 10% Supply 13% Exhaust • Low Temp. Imbalance Factor: 0.90

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 110 | 234 | 112 | 237 | 112 | 237 |
| 50 | 0.2 | 103 | 219 | 105 | 223 | 106 | 225 |
| 75 | 0.3 | 98 | 208 | 100 | 211 | 99 | 210 |
| 100 | 0.4 | 89 | 189 | 91 | 192 | 91 | 193 |
| 125 | 0.5 | 84 | 177 | 85 | 180 | 82 | 174 |
| 150 | 0.6 | 71 | 151 | 72 | 153 | 70 | 149 |
| 175 | 0.7 | 64 | 136 | 65 | 138 | 44 | 94 |



ENERGY PERFORMANCE

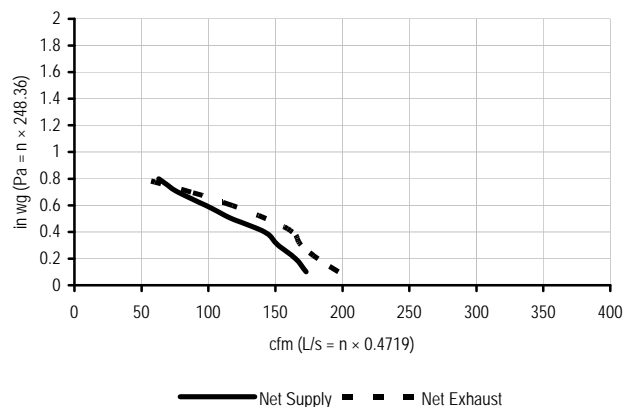
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 56 | 119 | 124 | 60 | 70 | -0.01 |
| | 0 | +32 | 86 | 182 | 197 | 53 | 62 | -0.01 |
| | -25 | -13 | 37 | 78 | 114 | 62 | 80 | .08 |
| COOLING | +35 | +95 | | | | | TOTAL RECOVERY EFFICIENCY Not tested | |
| | +35 | +95 | | | | | | |

WESTINGHOUSE

Model: ERV-150 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.06 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.79

VENTILATION PERFORMANCE

| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
|----------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 82 | 173 | 87 | 184 | 93 | 197 |
| 50 | 0.2 | 78 | 165 | 83 | 175 | 86 | 182 |
| 75 | 0.3 | 72 | 152 | 76 | 162 | 80 | 169 |
| 100 | 0.4 | 67 | 142 | 71 | 151 | 77 | 163 |
| 125 | 0.5 | 55 | 117 | 59 | 124 | 67 | 143 |
| 150 | 0.6 | 46 | 98 | 49 | 104 | 56 | 118 |
| 175 | 0.7 | 36 | 77 | 39 | 82 | 41 | 87 |
| 200 | 0.8 | 30 | 63 | 32 | 67 | 24 | 51 |



ENERGY PERFORMANCE

| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 30 | 64 | 54 | 75 | 83 | -0.03 |
| | 0 | +32 | 46 | 97 | 78 | 67 | 74 | 0.01 |
| | 0 | +32 | 65 | 138 | 124 | 64 | 72 | -0.02 |
| | -25 | -13 | 26 | 55 | 62 | 67 | 89 | 0.05 |

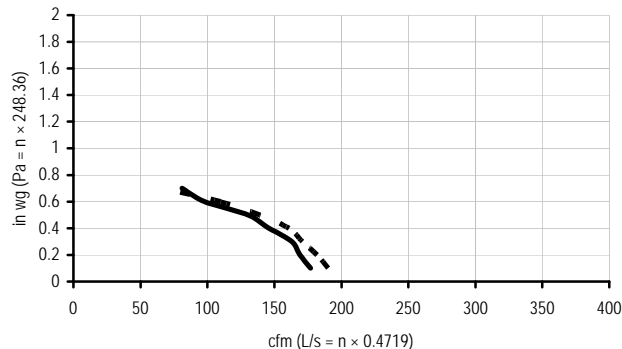
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-124

WESTINGHOUSE

Model: HRV-150 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.3
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.05 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 9% Supply 22%Exhaust • Low Temp. Imbalance Factor: 1.0

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 84 | 177 | 88 | 186 | 90 | 190 |
| 50 | 0.2 | 80 | 169 | 84 | 178 | 86 | 182 |
| 75 | 0.3 | 77 | 163 | 81 | 171 | 81 | 171 |
| 100 | 0.4 | 69 | 146 | 72 | 153 | 76 | 161 |
| 125 | 0.5 | 61 | 130 | 65 | 137 | 66 | 139 |
| 150 | 0.6 | 46 | 98 | 49 | 103 | 52 | 110 |
| 175 | 0.7 | 38 | 81 | 40 | 85 | 32 | 67 |

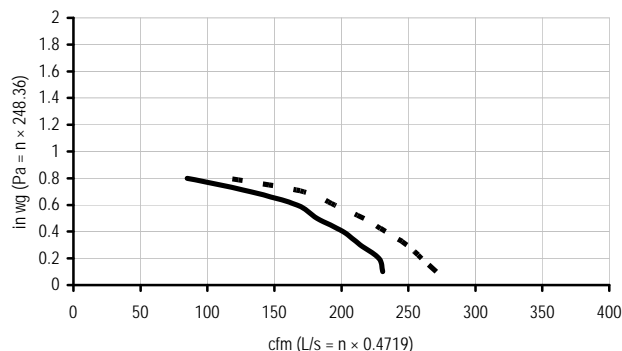


| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|--|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 29 | 60 | 56 | 71 | 79 | 0.52 |
| | 0 | +32 | 47 | 100 | 80 | 64 | 73 | 0.41 |
| | 0 | +32 | 65 | 137 | 126 | 60 | 68 | 0.36 |
| | -15 | -5 | 31 | 65 | 64 | 56 | 81 | 0.41 |
| COOLING | +35 | +95 | 28 | 59 | 52 | | TOTAL RECOVERY EFFICIENCY 45 | |

WESTINGHOUSE

Model: ERV-210 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.9
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.06 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 0% Exhaust • Low Temp. Imbalance Factor: 0.84

| VENTILATION PERFORMANCE | | | | | | | |
|-------------------------|-------|---------------------|-----|----------------|-----|---------|-----|
| EXT. STATIC PRESSURE | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | SUPPLY | | EXHAUST | |
| | | L/s | cfm | L/s | cfm | L/s | cfm |
| 25 | 0.1 | 109 | 231 | 116 | 245 | 128 | 271 |
| 50 | 0.2 | 108 | 228 | 114 | 241 | 123 | 260 |
| 75 | 0.3 | 101 | 214 | 107 | 227 | 118 | 249 |
| 100 | 0.4 | 95 | 201 | 101 | 213 | 110 | 233 |
| 125 | 0.5 | 86 | 182 | 91 | 193 | 102 | 217 |
| 150 | 0.6 | 79 | 167 | 84 | 177 | 92 | 195 |
| 175 | 0.7 | 62 | 132 | 66 | 140 | 81 | 172 |
| 200 | 0.8 | 40 | 85 | 42 | 90 | 55 | 116 |



| ENERGY PERFORMANCE | | | | | | | | |
|--------------------|--------------------|-----|--------------|-----|----------------------|------------------------------|--|-----------------------------------|
| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 52 | 110 | 93 | 69 | 76 | 0.45 |
| | 0 | +32 | 74 | 157 | 130 | 64 | 71 | 0.38 |
| | 0 | +32 | 96 | 203 | 193 | 60 | 68 | 0.30 |
| | -15 | -5 | 52 | 110 | 122 | 55 | 76 | 0.26 |
| COOLING | +35 | +95 | 50 | 106 | 89 | | TOTAL RECOVERY EFFICIENCY 41 | |

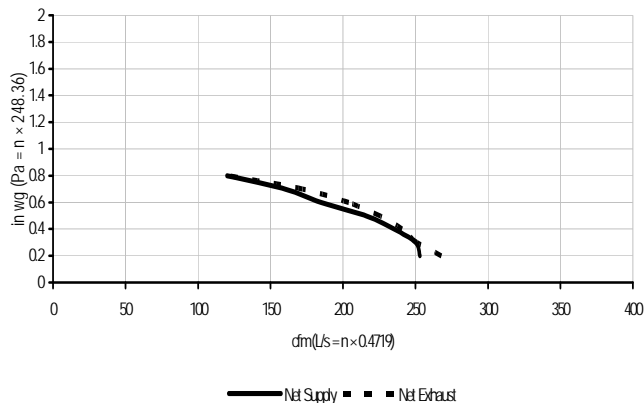
CERTIFIED HEAT – ENERGY RECOVERY VENTILATORS

Section 3-125

WESTINGHOUSE

Model: HRV-210 • Options Installed: Defrost
 Electrical Requirements: Volts: 120 Amps: 1.9
 Exhaust Air Transfer Ratio: --- @100 Pa/0.4 in. wg 0.04 @ 50 Pa / 0.2 in. wg
 Low Temp. Vent Reduction Factor: 0% Supply 23% Exhaust • Low Temp. Imbalance Factor: 1.0

| EXT. STATIC PRESSURE | | VENTILATION PERFORMANCE | | | | | |
|----------------------|-------|-------------------------|-----|----------------|-----|-----|-----|
| | | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | |
| Pa | in wg | L/s | cfm | L/s | cfm | L/s | cfm |
| 50 | 0.2 | 119 | 253 | 125 | 264 | 126 | 268 |
| 75 | 0.3 | 118 | 250 | 124 | 262 | 118 | 251 |
| 100 | 0.4 | 111 | 235 | 116 | 245 | 114 | 241 |
| 125 | 0.5 | 102 | 216 | 106 | 224 | 107 | 226 |
| 150 | 0.6 | 87 | 185 | 91 | 193 | 96 | 204 |
| 175 | 0.7 | 76 | 160 | 79 | 167 | 81 | 172 |
| 200 | 0.8 | 57 | 120 | 59 | 124 | 57 | 121 |



| | SUPPLY TEMPERATURE | | NET AIR FLOW | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|---------|--------------------|-----|--------------|-----|----------------------|------------------------------|---------------------------------|-----------------------------------|
| | °C | °F | L/S | CFM | | | | |
| HEATING | 0 | +32 | 51 | 109 | 92 | 70 | 77 | -0.01 |
| | 0 | +32 | 73 | 155 | 128 | 65 | 72 | -0.02 |
| | 0 | +32 | 102 | 215 | 191 | 62 | 70 | -0.01 |
| | -25 | -13 | 52 | 110 | 104 | 60 | 94 | 0.05 |

For More Information

Detailed information on proper ventilation is presented in Home Ventilating Institute literature. Subjects include selection of exhaust equipment, location, types of fans for whole house or various rooms and attic, proper mounting and ducting and accessories. Architects, builders, contractors, and others may obtain single copies free from the Home Ventilating Institute. Catalogs with product illustrations, descriptions and specifications are available from any of the sources listed in directory.

LOOK FOR THIS LABEL



Uniform Construction Index Classification
Assigned by the American Institute of
Architects:
11d Residential Equipment
HVI Publication 911, Rev. 11/01/07

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