

vänee 90H-V ECM HRV

Part no. 43906

85 to 157* CFM 40 to 125* CFM

65 to 157* CFM 40 to 80* CFM

55 to 125* CFM **(Factory Set)**

*Maximum speed at 0.4 in. w.g.



VB0124

DISCOVER THE NEW GENERATION OF VÄNEE AIR EXCHANGERS: ULTRA-EFFICIENT AND ENVIRONMENTALLY-FRIENDLY

The 90H-V ECM HRV has been designed to be one of the most eco-friendly HRV air exchangers on the market. Its innovative design incorporates extremely high performance ECM* motors, which enable the 90 H-V ECM HRV to significantly lower energy costs without affecting its performance. Additional energy efficiency is achieved through its advanced heat recovery core, which can retain up to 80% of the home's heating. The 90H-V ECM HRV surpasses energy-saving standards while providing effective heat recovery, ventilation and quiet operation. All aspects have been designed to facilitate balancing of air flow and simplify uses and installation.

- High performance ECM* motors
- Faster and easier installation of insulated flexible ducts with practical straps
- Integrated balancing dampers
- Integrated electronic board on motors
- Homeshield™ defrosting system
- Heat recovery core with superior capacity
- Optimized drainage system
- ENERGY STAR® qualified

REPAIRS AND MAINTENANCE

The 90H-V ECM HRV high output ECM* motors are permanently lubricated. The electronic circuit board eliminates electromechanical parts, reducing repair time to a minimum.

WARRANTY

The 90H-V ECM HRV unit is protected by a complete 5-year warranty on all parts. The heat recovery core is covered by a limited lifetime warranty, with the original proof of purchase.

*Electronically Commutated Motor.

Available at:

HEAT RECOVERY VENTILATOR

Controls

- This unit is very simple to operate. Once the unit is installed, press on its push button, located under the unit, to activate it. Press once for low speed, once again for high speed, and once more to stop it.
- For more convenience, this unit can also be controlled by an optional main control. For a complete list of optional main and auxiliary controls available, refer to the **Wall Control Compatibility Chart** on last pages of wall controls specification sheet, available at www.vanee.ca.

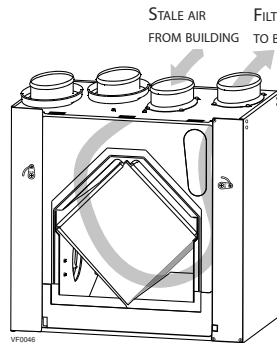
For more details about controls, refer to their specification sheet and to the **Main and auxiliary wall control user guide** at www.vanee.ca.

Options

- Complete line of registers and diffusers
- Electric duct heater

Homeshield™ Defrosting System

The 90H-V ECM HRV uses a unique defrosting method. No negative pressure is created by air exhausted to the outside, as the air is recirculated into the house, helping to prevent any backdraft.



| OUTSIDE TEMPERATURE | | DEFROST CYCLE MIN./ OPERATING MIN. |
|---------------------|----------------|---------------------------------------|
| °C | °F | |
| WARMER THAN -5 | WARMER THAN 23 | No DEFROST |
| -5 TO -15 | 23 TO 5 | 7/40 |
| -15 TO -27 | 5 TO -17 | 7/25 |
| -27 AND LESS | -17 AND LESS | 10/22 |

Heat Recovery Core

Dimensions: 10" x 10" x 14.25" (25.4 cm x 25.4 cm x 36.2 cm)

Exchange surface: 110 ft.² (10.2 m²)

Weight: 7.36 lb. (3.3 kg)

Material: Polypropylene

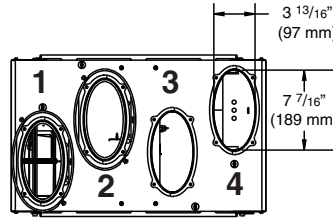
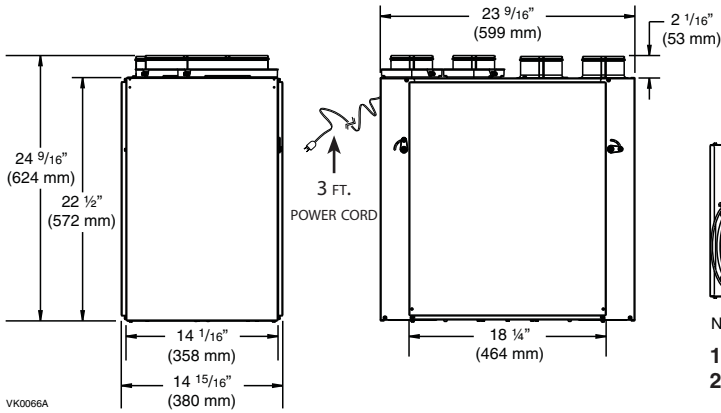
Type: Cross Flow

Warranty: Limited lifetime

Requirements and standards

- Complies with the UL 1812 requirements regulating the installation of Heat Recovery Ventilators
- Complies with the CSA C22.2 no. 113 Standard applicable to ventilators
- Complies with CSA C444 requirements regulating the installation of Heat Recovery Ventilators
- Technical data was obtained from published results of tests relating to CSA C439 Standards
- HVI certified and ENERGY STAR® qualified

DIMENSIONS: 90H-V ECM HRV



NOTE: ALL UNITS PORTS WERE CREATED TO BE CONNECTED TO DUCTS HAVING A MINIMUM OF 6" DIAMETER, BUT IF NEED BE, THEY CAN BE CONNECTED TO BIGGER SIZED DUCTS BY USING AN APPROPRIATE TRANSITION (E.G.: 6" DIAMETER TO 7" DIAMETER TRANSITION).

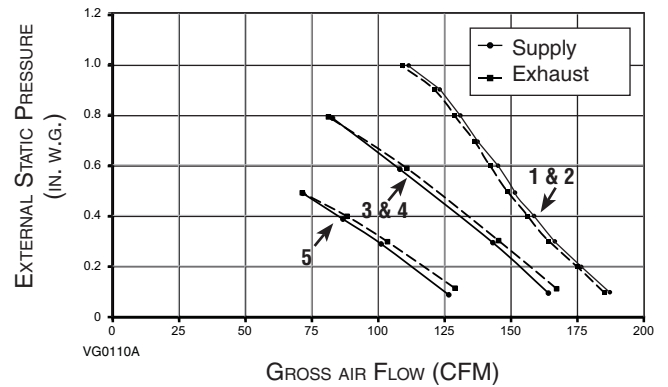
NOTE: Every port fits 6" round duct.

- 1: EXHAUST AIR TO OUTSIDE PORT
- 2: FRESH AIR FROM OUTSIDE PORT
- 3: EXHAUST AIR FROM BUILDING PORT
- 4: FRESH AIR TO BUILDING PORT

VENTILATION PERFORMANCE

| EXTERNAL STATIC PRESSURE | NET SUPPLY AIR FLOW | | GROSS AIR FLOW | | | | | | | | |
|--------------------------|---------------------|-----|----------------|-------------------|-----|---------|-------------------|-----|-----|-------------------|--|
| | | | SUPPLY | | | EXHAUST | | | | | |
| PA | IN. W.G. | L/S | CFM | M ³ /H | L/S | CFM | M ³ /H | L/S | CFM | M ³ /H | |
| 25 | 0.1 | 88 | 186 | 316 | 88 | 187 | 318 | 87 | 185 | 314 | |
| 50 | 0.2 | 83 | 176 | 299 | 83 | 176 | 299 | 83 | 175 | 297 | |
| 75 | 0.3 | 78 | 165 | 280 | 78 | 166 | 282 | 77 | 164 | 279 | |
| 100 | 0.4 | 74 | 157 | 267 | 74 | 158 | 268 | 74 | 156 | 265 | |
| 125 | 0.5 | 71 | 150 | 255 | 71 | 151 | 257 | 70 | 149 | 253 | |
| 150 | 0.6 | 68 | 144 | 245 | 68 | 145 | 246 | 67 | 142 | 241 | |
| 175 | 0.7 | 64 | 137 | 233 | 65 | 137 | 233 | 64 | 136 | 231 | |
| 200 | 0.8 | 61 | 130 | 221 | 62 | 131 | 223 | 61 | 128 | 217 | |
| 225 | 0.9 | 58 | 123 | 209 | 58 | 123 | 209 | 57 | 122 | 207 | |
| 250 | 1.0 | 54 | 115 | 195 | 55 | 116 | 197 | 54 | 114 | 194 | |

FAN CURVES ACCORDING TO SPEED



- SPEED RANGE 1: 85 TO 157* CFM
- SPEED RANGE 2: 65 TO 157* CFM
- SPEED RANGE 3: 55 TO 125* CFM (FACTORY SET)
- SPEED RANGE 4: 40 TO 125* CFM
- SPEED RANGE 5: 40 TO 80* CFM

*MAXIMUM SPEED AT 0.4 IN. W.G.

NOTE: All specifications are subject to change without notice.

ENERGY PERFORMANCE

| SUPPLY TEMPERATURE | | NET AIR FLOW | | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY SRE | APPARENT SENSIBLE RECOVERY EFFICIENCY ASRE | APPARENT SENSIBLE EFFECTIVENESS | LATENT RECOVERY/MOISTURE TRANSFER |
|--------------------|-----|--------------|-----|-------------------|----------------------|----------------------------------|--|---------------------------------|-----------------------------------|
| °C | °F | L/S | CFM | M ³ /H | | | | | |
| HEATING | | | | | | | | | |
| 0 | 32 | 23 | 49 | 83 | 22 | 76 | 80 | 83 | 0 |
| 0 | 32 | 30 | 64 | 109 | 25 | 75 | 78 | 81 | 0 |
| 0 | 32 | 39 | 82 | 139 | 32 | 73 | 76 | 78 | 0 |
| 0 | 32 | 55 | 117 | 199 | 50 | 68 | 71 | 72 | 0 |
| -25 | -13 | 30 | 64 | 109 | 40 | 64 | 67 | 82 | 0 |

SPECIFICATIONS

- Model: 90H-V ECM HRV
- Part Number: 43906
- Total Assembled Weight (including polypropylene core): 52.4 lb. (23.8 kg)
- Oval shaped ports; fit 6" round ducts
- Drains: 1/2" (1.2 cm) fittings with 10 ft (3 m) PVC drain
- Core Filters: 2 washable Merv 9 filters, 9.2" x 14.25" x 0.38" (23.4 cm x 36.2 cm x 1 cm)
- Insulation: Expanded polystyrene
- Mounting: Suspension by chains and springs
- Supply and Exhaust Blower Motors: 2 ECM motors
 - Protection type: Thermally protected
 - Insulation class: B
- Speed Control on Unit:
 - Low speed and high speed
 - Other modes available with Platinum or Deco-Touch main control
- Heat Recovery Core:
 - Heat Exchange Surface Area: 110 ft.² (10.2 m²)
 - Type: Crossflow
 - Material: Polypropylene
- Housing: Pre-painted steel
- Unit Electrical Characteristics:

| | | | |
|-------|-----------|------|-------|
| Volts | Frequency | Amps | Watts |
| 120 | 60 Hz | 1.3 | 98 |

| Project: | REMARKS |
|-----------------|---------|
| Location: | |
| Part no.: 43906 | |
| Qty.: | |
| Submitted by: | Date: |



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www.vanee.ca

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