



vänEE ERV 90H-V ECM

Part no. 43915

84 to 140 CFM (0.4 in. w.g.) 53 to 105 CFM (0.4 in. w.g.)
 67 to 120 CFM (0.4 in. w.g.) 40 to 80 CFM (0.4 in. w.g.)



VB0137

A NEW ERA BEGINS WITH THE VÄNEE 90H-V ECM ULTRA-EFFICIENT AND ENVIRONMENTALLY-FRIENDLY ENERGY RECOVERY VENTILATOR.

The ERV 90H-V ECM has been designed to be one of the most energy-efficient ERV air exchangers available on the market. Its innovative design incorporates high performance ECM* motors which consume significantly less electricity. ERVs are ideal for LEED®-certified residential projects as well as other energy-efficient homes because they recover the heat or coolness of the indoor air while helping to maintain comfortable moisture levels inside the home.

- Perfect for drier homes using humidifiers in heating season and air conditioning during cooling season
- Compact footprint allows an easy fit in restricted spaces
- No drain required**
- State-of-the-art ECM motors provide significant electrical consumption savings
- 6" metal ports located on top of unit to simplify installation and provide a cleaner appearance
- Integrated pressure taps and balancing dampers to quickly measure and balance the air-flow
- Faster and easier installation of insulated flexible ducts with practical straps
- Homeshield™ defrosting system (no negative pressure)
- ENERGY STAR® qualified: Ideal for high performance small to mid-size homes

*Electronically Commutated Motor

**For most climate zones

REPAIRS AND MAINTENANCE

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

WARRANTY

The ERV 90H-V ECM unit is protected by a 5-year warranty on all parts, including the energy recovery core.

Available at:

ENERGY RECOVERY VENTILATOR

Controls

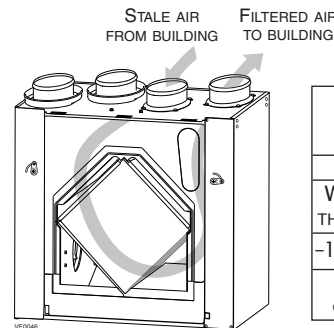
- This unit is very simple to operate. Once it is installed, press on its push button, located under the unit, to activate it. Press once for low speed, once again for high speed, and once more to stop it.
- The included Platinum main control (no. 40460) allows you to manage your ventilation with a programmable mode. Also included, our fully automated optimizer mode called the Smart mode.
- Also, 1 to 5 of the following optional controls can be added:
 - 20/40/60-min. Push-Button Timer no. 03701
 - 60-min. Mechanical Timer no. 00910

Options

- Complete line of registers and diffusers
- Electric duct heater

Homeshield™ Defrosting System

The ERV 90H-V ECM 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 DEFROSTING MIN./ OPERATING MIN. |
|---------------------|----------------|---|
| °C | °F | |
| WARMER THAN -10 | WARMER THAN 14 | NO DEFROST |
| -10 TO -27 | 14 TO -17 | 7/25 |
| -27 & LESS | -17 & LESS | 10/22 |

Energy Recovery Core

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

Exchange surface: 110 ft² (10.2 m²)

Weight: 20 lb (9.1 kg)

Material: Polymerized paper

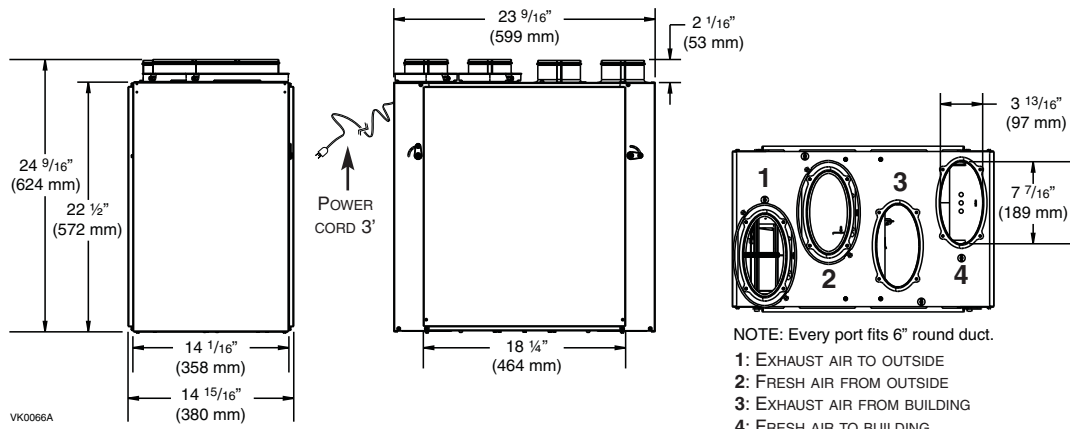
Type: Cross flow

Warranty: 5 years

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 and Service Clearances: vänEE ERV 90H-V ECM



NOTE: Every port fits 6" round duct.
 1: EXHAUST AIR TO OUTSIDE
 2: FRESH AIR FROM OUTSIDE
 3: EXHAUST AIR FROM BUILDING
 4: FRESH AIR TO BUILDING

Ventilation Performance

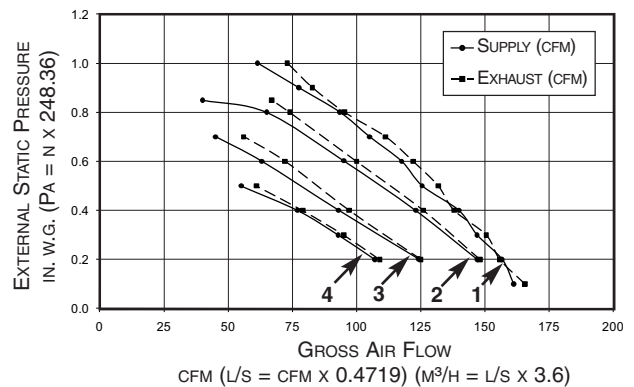
| EXT. STATIC PRESSURE | NET SUPPLY AIR FLOW | | | | | GROSS AIR FLOW | | | | |
|----------------------|---------------------|----------|-----|-----|-------------------|----------------|-----|---------|-----|-----|
| | Pa | in. w.g. | l/s | cfm | m ³ /h | SUPPLY | | EXHAUST | | |
| 25 | 0.1 | 76 | 161 | 274 | 77 | 163 | 277 | 78 | 166 | 282 |
| 50 | 0.2 | 74 | 157 | 267 | 75 | 158 | 268 | 74 | 156 | 265 |
| 75 | 0.3 | 69 | 147 | 250 | 70 | 149 | 253 | 71 | 150 | 255 |
| 100 | 0.4 | 66 | 140 | 238 | 67 | 142 | 241 | 65 | 138 | 234 |
| 125 | 0.5 | 59 | 125 | 212 | 60 | 127 | 216 | 62 | 132 | 224 |
| 150 | 0.6 | 55 | 117 | 199 | 56 | 119 | 202 | 58 | 122 | 207 |
| 175 | 0.7 | 50 | 105 | 178 | 50 | 107 | 182 | 53 | 111 | 189 |
| 200 | 0.8 | 44 | 93 | 158 | 45 | 95 | 161 | 45 | 95 | 161 |
| 225 | 0.9 | 37 | 77 | 131 | 37 | 79 | 134 | 39 | 83 | 141 |
| 250 | 1.0 | 29 | 61 | 104 | 29 | 62 | 105 | 34 | 73 | 124 |

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 | 24 | 67 | 73 | 0.59 |
| 0 | 32 | 31 | 65 | 30 | 67 | 72 | 0.55 |
| 0 | 32 | 39 | 83 | 36 | 65 | 71 | 0.52 |
| 0 | 32 | 57 | 122 | 60 | 62 | 67 | 0.46 |
| -25 | -13 | 33 | 70 | 39 | 60 | 75 | 0.61 |
| 35 | 95 | 24 | 51 | 24 | 52* | 71 | 0.51 |

*Total recovery efficiency

Fan Curve according to Speed



CFM (L/S = CFM x 0.4719) (M³/H = L/S x 3.6)

- SPEED RANGE 1: 84 TO 140 CFM
- SPEED RANGE 2: 67 TO 120 CFM
- SPEED RANGE 3: 53 TO 105 CFM
- SPEED RANGE 4: 40 TO 80 CFM

NOTE: All specifications are subject to change without notice.

Specifications and Ratings

- Model: ERV 90H-V ECM
- Part Number: 43915
- Total assembled weight including polymerized paper core: 65 lb (29.5 kg)
- Oval shaped ports: Fit 6" round ducts
- Drains: Optional
- Core filters: 2 washable Merv 7 9.2" x 14.25" x 3.8" (23.4 cm x 36.2 cm x 9.6 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 and High speed.
 - Other modes available with Platinum main control
- Cabinet: Pre-painted steel
- Energy recovery core:
 - Heat exchange surface area: 110 ft² (10.2 m²)
 - Type: Cross flow
 - Material: Polymerized paper
- Unit electrical characteristics:

| Volts | Frequency | Amperes | Watts |
|-------|-----------|---------|-------|
| 120 | 60 Hz | 1.3 | 90 |

| PROJECT: | REMARKS |
|---------------|---------|
| LOCATION: | |
| MODEL NO.: | |
| QTY.: | |
| SUBMITTED BY: | DATE: |



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www.vanee-ventilation.com

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