

## vänEE HRV 90H-V ECM

Part no. 43905

80 to 157 CFM (0.4 in. w.g.) 53 to 106 CFM (0.4 in. w.g.)  
 66 to 132 CFM (0.4 in. w.g.) 40 to 80 CFM (0.4 in. w.g.)



VB0124

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

The HRV 90H-V ECM 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 90H-V ECM to significantly lower energy costs without affecting its performance. Additional energy efficiency is found through its advanced heat recovery core, which can retain up to 80% of home's heating. 90H-V ECM 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.

- Small-sized housing
- Faster and easier installation of insulated flexible ducts with practical straps
- Integrated balancing dampers designed to facilitate balancing of air flow
- Easy access to components and electronics
- Homeshield™ defrosting system (no negative pressure)
- Heat recovery core offers greater comfort
- Two ECM\* high performance blowers
- Integrated draining system with an antimicrobial coating
- ENERGY STAR® qualified

#### REPAIRS AND MAINTENANCE

The HRV 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 HRV 90H-V ECM 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

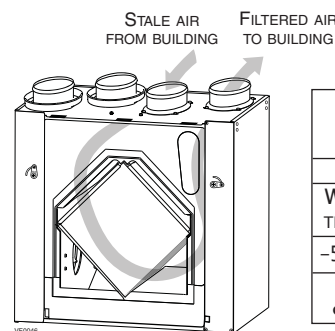
- This unit is very simple to operate. Once it is installed, press on its push button, located under the unit, to activate it. Press once for low speed, once again for high speed, and once more to stop it.
- The included Platinum main control (no. 40460) allows you to manage your ventilation with a programmable 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 HRV 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 -5	WARMER THAN 23	No DEFROST
-5 TO -27	23 TO -17	7/25
-27 & LESS	-17 & LESS	10/22

### Heat Recovery Core

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

Exchange surface: 110 ft<sup>2</sup> (10.2 m<sup>2</sup>)

Weight: 7.36 lb (3.3 kg)

Material: Polypropylene

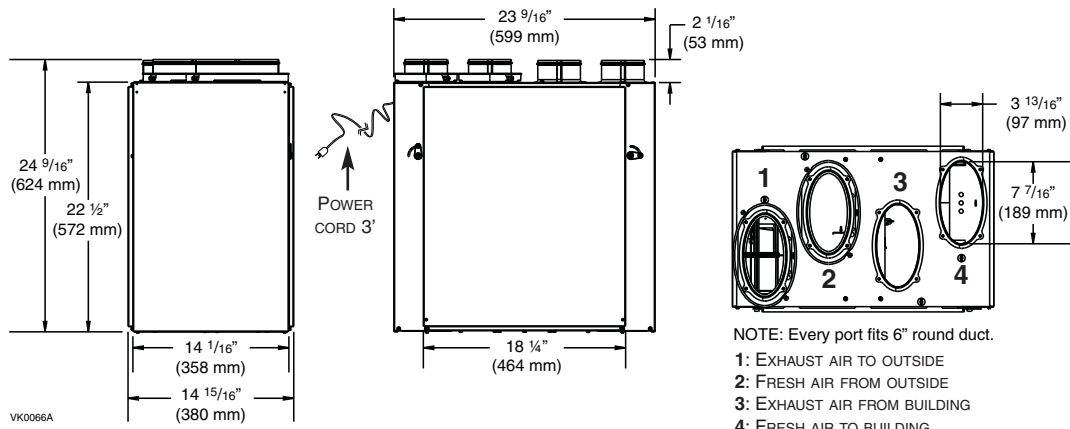
Type: Cross flow

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

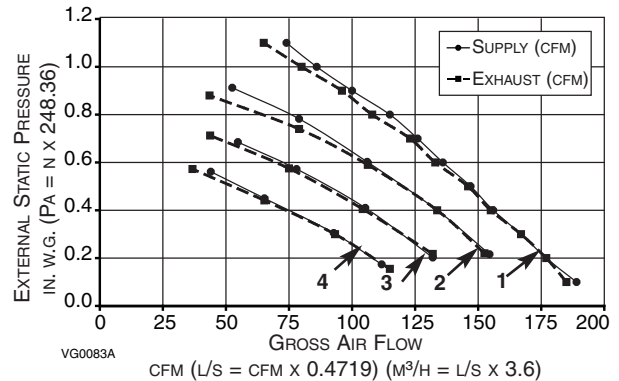
# Dimensions and Service Clearances: vänEE HRV 90H-V ECM



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					
					SUPPLY			EXHAUST		
Pa	in. w.g.	l/s	cfm	m <sup>3</sup> /h	l/s	cfm	m <sup>3</sup> /h	l/s	cfm	m <sup>3</sup> /h
25	0.1	89	189	320	89	190	320	87	185	313
50	0.2	83	177	299	84	179	302	83	177	299
75	0.3	79	167	284	79	169	284	79	167	284
100	0.4	74	156	266	74	158	266	73	155	263
125	0.5	69	147	248	69	148	248	68	146	245
150	0.6	64	136	230	64	137	230	63	133	227
175	0.7	59	126	212	60	127	216	58	123	209
200	0.8	54	115	194	54	116	194	51	108	184
225	0.9	47	100	169	47	101	169	45	96	162
250	1.0	40	86	144	41	87	148	38	80	137
275	1.1	35	74	126	35	75	126	31	65	112



SPEED RANGE\* 1: 80 TO 157 CFM  
 SPEED RANGE\* 2: 66 TO 132 CFM  
 SPEED RANGE\* 3: 53 TO 106 CFM  
 SPEED RANGE\* 4: 40 TO 80 CFM  
 \* At 0.4 in. w.g.

## 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	49	24	75	83	0.01
0	32	30	64	26	74	80	0.01
0	32	38	81	32	73	78	0.01
0	32	57	122	54	67	72	0.01
-25	-13	29	61	40	64	89	0.02

NOTE: All specifications are subject to change without notice.

## Specifications and Ratings

- Model: HRV 90H-V ECM
- Part Number: 43905
- 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 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
- Heat recovery core:
  - Heat exchange surface area: 110 ft<sup>2</sup> (10.2 m<sup>2</sup>)
  - Type: Cross flow
  - Material: Polypropylene
- Unit electrical characteristics:
 

Volts	Frequency	Amperes	Watts
120	60 Hz	1.3	98

PROJECT:	REMARKS
LOCATION:	
MODEL NO.:	
QTY.:	
SUBMITTED BY: _____ DATE: _____	



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www.vanee-ventilation.com 11/01 PRODUCT SHEET NO. 91417