



Venmar AVS X24HRV ECM

Part no. X24HRVE

50 to 226 CFM (0.4 in. w.g.)



THE FUTURE OF FRESH AIR

Venmar AVS introduces its X Series which surpasses industry standards by bringing together the best performance and the best energy efficiency. Its high airflow, high heat recovery, low power consumption and superior filtration make it one of the most efficient and sophisticated platforms.

The X24HRV ECM is the perfect solution for mid to large size homes in need for the most energy-efficient ventilation solution. It is also possible to use it in some light commercial applications due to its high fresh air supply.

- Up to 226 CFM at 0.4 in. w.g.
- High efficiency heat recovery core with a sensible recovery efficiency of 81% at 0°C (32°F) and 73% at -25°C (-13°F)
- ECM* motors
- Minimal power consumption of 19 W and 3.4 CFM/Watt at 64 CFM
- Merv 6 grade filters and optional HEPA filtration
- Electronic balancing and no balancing dampers
- Included wall mounting bracket

*Electronically Commutated Motor.

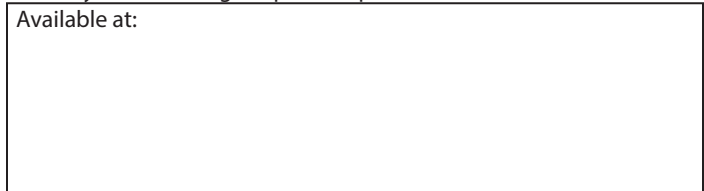
REPAIRS AND MAINTENANCE

The X24HRV ECM high output ECM motors are permanently lubricated. The electronic circuit board eliminates electromechanical parts, reducing repair time to a minimum.

WARRANTY

The X24HRV ECM is protected by a 5-year warranty on parts only, except for the heat recovery core, which is covered by a limited lifetime warranty, with the original proof of purchase.

Available at:



HEAT RECOVERY VENTILATOR

Controls

The exclusive X-Touch wall control is the only compatible wall control with the X Series. At installation, the inside control panel features electronic balancing and no balancing dampers. The balancing is performed with the help of the X-Touch wall control.

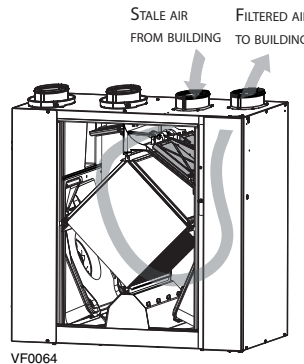
For more details about the control, refer to the User Guide - Main and auxiliary wall controls available at www.venmar.ca.

Option

HEPA Filter 21996

Additional 0.3 in. w.g. static pressure at highest speed to be considered. Refer to the HEPA filter instructions for more details.

Homeshield™ Defrosting System



The X24HRV ECM uses a unique defrosting method. No negative pressure is created by air exhausted to the outdoors, as the air is recirculated into the house or building, helping to prevent any backdraft.

With the help of the X-Touch wall control, this unit allows 3 defrost modes:

- Standard (factory set regular mode)
- Plus (extended defrost for colder areas)
- Discretion (keeps the same speed when performing defrost as performing ventilation)

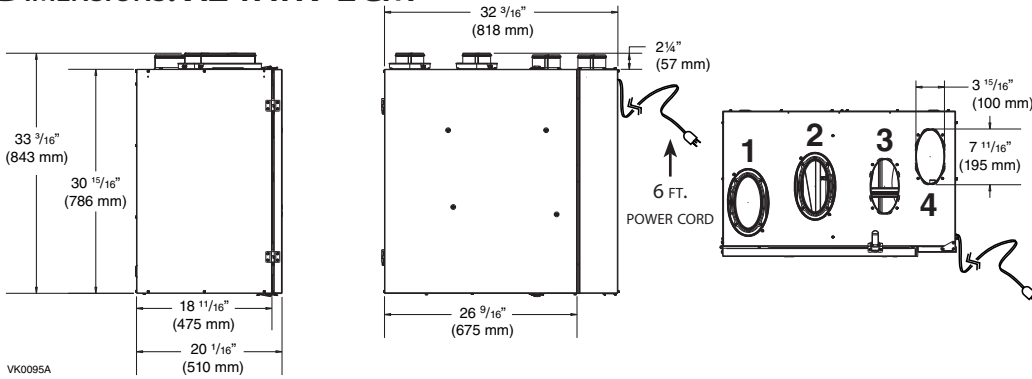
| OUTDOOR TEMPERATURE* | | DEFROST IN MINUTES / AIR EXCHANGE IN MINUTES | | | | | |
|----------------------|----------------|--|----------------|-----------------|----------------|-----------------|----------------|
| | | STANDARD | | DISCRETION | | PLUS | |
| °C | °F | CONTINUOUS MODE | TURBO FUNCTION | CONTINUOUS MODE | TURBO FUNCTION | CONTINUOUS MODE | TURBO FUNCTION |
| -27 and less | -17 and less | 8/20 | 8/15 | 15/20 | 15/17 | 12/15 | 12/12 |
| -20 to -27 | -4 to -17 | 6/28 | 6/23 | 12/28 | 12/23 | 10/20 | 10/15 |
| -15 to -20 | 5 to -4 | 6/35 | 6/32 | 12/35 | 12/30 | 8/25 | 8/20 |
| -10 to -15 | 14 to 5 | 6/40 | 6/35 | 12/40 | 12/35 | 8/30 | 8/25 |
| -5 to -10 | 23 to 14 | 6/50 | 6/45 | 12/50 | 12/45 | 8/40 | 8/30 |
| WARMER THAN -5 | WARMER THAN 23 | No DEFROST | | | | | |

*Outdoor temperature is read by a thermistor located inside the unit, next to fresh air from outside port.

Requirements and standards

- Complies with the CSA C22.2 no. 113 Standard applicable to ventilators
- Complies with CSA F326 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: X24HRV ECM



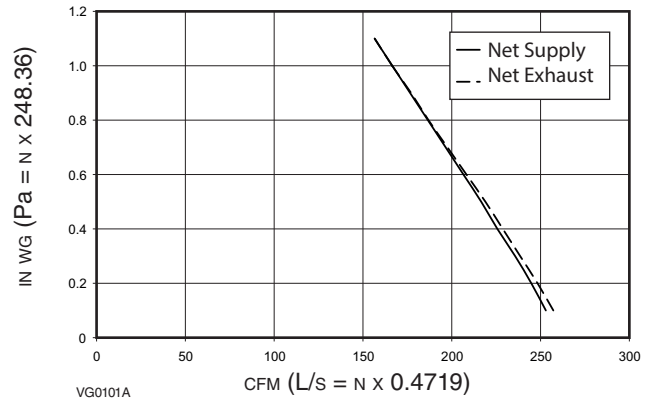
NOTE: ALL UNITS PORTS WERE CREATED TO BE CONNECTED TO DUCTS HAVING A MINIMUM OF 6" DIAMETER, BUT IF NEED BE, THEY CAN BE CONNECTED TO BIGGER SIZED DUCTS BY USING AN APPROPRIATE TRANSITION (E.G.: 6" DIAMETER TO 7" DIAMETER TRANSITION).

- 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 | 119 | 252 | 430 | 120 | 254 | 433 | 121 | 256 | 437 | |
| 50 | 0.2 | 116 | 246 | 416 | 116 | 246 | 418 | 117 | 248 | 421 | |
| 75 | 0.3 | 111 | 235 | 401 | 112 | 237 | 403 | 113 | 239 | 406 | |
| 100 | 0.4 | 107 | 227 | 384 | 107 | 227 | 387 | 108 | 229 | 389 | |
| 125 | 0.5 | 102 | 216 | 369 | 103 | 218 | 369 | 103 | 218 | 372 | |
| 150 | 0.6 | 97 | 206 | 352 | 98 | 208 | 352 | 98 | 208 | 353 | |
| 175 | 0.7 | 93 | 197 | 335 | 93 | 197 | 335 | 93 | 197 | 336 | |
| 200 | 0.8 | 88 | 186 | 318 | 88 | 186 | 318 | 88 | 186 | 318 | |
| 225 | 0.9 | 83 | 176 | 301 | 84 | 178 | 301 | 84 | 178 | 301 | |
| 250 | 1.0 | 79 | 167 | 284 | 79 | 167 | 284 | 79 | 167 | 282 | |
| 275 | 1.1 | 74 | 157 | 267 | 74 | 157 | 267 | 74 | 157 | 267 | |

FAN CURVE ACCORDING TO SPEED



FULLY ADJUSTABLE SPEED RANGE FROM 50 CFM TO MAXIMUM SPEED.

ENERGY PERFORMANCE

| SUPPLY TEMPERATURE | | NET AIR FLOW | | | POWER CONSUMED WATTS | SENSIBLE RECOVERY EFFICIENCY | ADJUSTED SENSIBLE RECOVERY EFFICIENCY | APPARENT SENSIBLE EFFECTIVENESS* | LATENT RECOVERY/MOISTURE TRANSFER |
|--------------------|-----|--------------|-----|-------------------|----------------------|------------------------------|---------------------------------------|----------------------------------|-----------------------------------|
| °C | °F | L/S | CFM | M ³ /H | | | | | |
| HEATING | | | | | | | | | |
| 0 | 32 | 30 | 64 | 109 | 19 | 81 | 82 | 85 | 0 |
| 0 | 32 | 47 | 100 | 170 | 28 | 75 | 77 | 80 | 0 |
| 0 | 32 | 66 | 140 | 238 | 47 | 70 | 72 | 75 | 0 |
| -25 | -13 | 30 | 64 | 109 | 32 | 73 | 74 | 88 | 0 |
| -25 | -13 | 46 | 97 | 167 | 42 | 68 | 69 | 83 | 0 |

*Data not certified by HVI.

NOTE: All specifications are subject to change without notice.

SPECIFICATIONS

- Model: X24HRV ECM
- Part Number: X24HRVE
- Total Assembled Weight (including polypropylene core): 94 lb. (43 kg)
- Oval shaped ports; fit 6" round ducts
- Drains: 1/2" (1.2 cm) fittings with 10 ft. (3m) PVC drain
- Core Filters: 2 washable Merv 6 filters
- Housing: Pre-painted steel
- Optional HEPA Filter
- Insulation: Expanded polystyrene
- Mounting: Suspension by chains and springs or wall bracket system
- Supply and Exhaust Blower Motors:
 - Two ECM motors
 - Protection type: Thermally protected
- X-Touch wall control offering 5 manual modes: Recirculation, 20 MIN/H, Continuous Smart and Turbo
- Heat Recovery Core:
 - Dimensions: 12" x 12" x 16.6" (30.5 cm x 30.5 cm x 42.2 cm)
 - Exchange surface: 175 ft.² (16.3 m²)
 - Weight: 12 lb. (5.5 kg)
 - Type: Crossflow
 - Material: Polypropylene
 - Warranty: Limited lifetime
- Unit Electrical Characteristics:

| Volts | Frequency | Amps | Watts |
|-------|-----------|------|-------|
| 120 | 60 Hz | 2.2 | 135 |

| | |
|---------------------------------|---------|
| Project: | REMARKS |
| Location: | |
| Part no.: X24HRVE | |
| Qty.: | |
| Submitted by: _____ Date: _____ | |



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X24HRVECMd2203