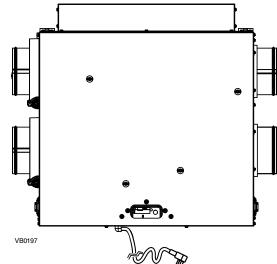


## Venmar AVS S10 ERVplus

### Part no. 41702

Low speed: 50 CFM (0.2 in. w.g.), selectable 65 CFM High speed: 100 CFM (0.4 in. w.g.), selectable 85 CFM



#### **CONSTRUCTION**

- 22 ga. galvanized steel housing
- 22 ga. pre-painted steel door
- One-piece molded insulation shell, (expanded polystyrene; UL 94 HF-1 certified)
- Galvanized steel 5" diameter ports\*
- Steel door hinges and latches
- · Cold side ports with plastic ring; allow vapor barrier sealing
- No drain required

\*All units ports were created to be connected to ducts having a minimum of 5" diameter, but if need be, they can be connected to bigger sized ducts by using an appropriate transition (e.g.: 5" diameter to 6" diameter transition).

#### **MOTORS**

- Two high reliability, external rotor PSC motors, totally enclosed and thermally protected
- Backward blowers, can support high static pressure environment

#### **FILTERS**

- Two washable 20 ppi reticulated polyester urethane foam filters, UL 900 class 2 certified
- Optional MERV 7 filter kit, part no.: 21030 (additional 0.1 in. w.g. static pressure to be considered) (sold separately)

#### ERV CORE

- Crossflow aluminum-polymerized paper core, UL723 certified
- Hydroscopic polymer exchange water by direct vapor transfer using molecular transport without the need of condensation
- Constructed of alternate layers of corrugated aluminum material and polymeric bactericide dessiccant impregnated media; will not promote growth of mold or bacteria
- Unique rectangular flute design to provide very low pressure drop values

## **ENERGY RECOVERY VENTILATOR**

## Controls

- See page 3 for available controls
- Removable terminal block included for quicker low voltage control connections
- · LED indicator shows error codes
- Unit must be permanently energized, no control should be installed on power supply of unit

## **Air Flow**

- Pressure taps and balancing chart to allow easier balancing of the unit
- Integrated balancing dampers in cold supply and cold exhaust ports
- Integrated motorized damper adjacent to the cold supply port
- · Integrated backdraft damper in cold exhaust port

## **Defrosting System**

- A switch on ERV unit allows 3 quick-access defrost modes, a LED shows which defrost mode has been chosen:
- Standard (factory set regular mode)
- Plus (extended defrost for colder areas)
- Discretion (keeps the same speed when performing defrost as performing ventilation)

DEFROST CYCLES							
OUTSIDE TE	MPERATURE*	DEFROST IN MINUTES / AIR EXCHANGE IN MINUTES					
°C	°F	STANDARD	PLUS	DISCRETION			
WARMER THAN -10	WARMER THAN 14	No defrost	No defrost	No defrost			
FROM -10 TO -15	FROM 14 TO 5	8/50	10/30	16/50			
FROM -15 TO -27	FROM 5 TO -17	8/25	10/20	16/25			
-27 AND LESS	-17 AND LESS	10/22	10/15	20/22			

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

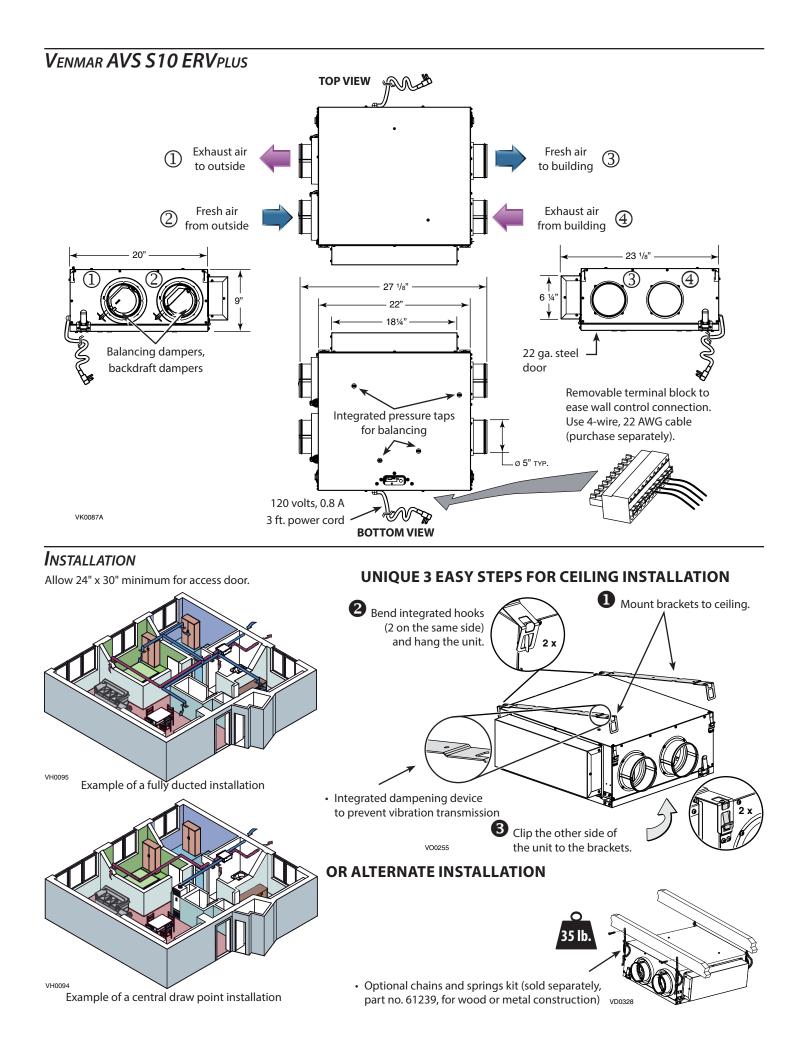
## Warranty

The Venmar AVS S10 ERVplus is protected by a 5-year warranty on parts only, with the original proof of purchase.

## **Requirements and standards**

- HVI certified
- ENERGY STAR<sup>®</sup> qualified
- Complies with the UL 1812 requirements regulating the installation of Energy Recovery Ventilators
- Complies with the CSA C22.2 no. 113 Standard applicable to ventilators
- Complies with CSA C444 requirements regulating the installation of Energy Recovery Ventilators





## Main Controls (not included)

(REF)

VC0148

(F)

MOI

R

Lite-Touch Constructo

part no. 40370

Min., Max., Intermittent

**Coldshield™ Protection** 

Altitude, part no. 40440

Min., Max., Recirculation, Intermittent, Programmable, Smart

۲

MODE

8

Simple-Touch Constructo,

part no. 40390

Min., Max., Recirculation

# **Auxiliary Controls (not included)** R **(**)

20/40/60 minute push button Part no. 03364

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60-minute mechanical timer Part no. 00910



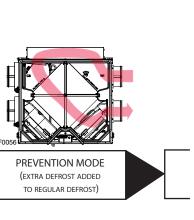
Part no. 11297

## ERV UNIT MODES BASED ON SUPPLIED AIR TEMPERATURE

· ERV unit is equipped with an electronic supplemental protection to stop air distribution in dwelling if air distribution temperature drops below freezing point, due to abnormal conditions.

VF005 PREVENTION MODE (EXTRA DEFROST ADDED TO REGULAR DEFROST)

VC008



VC0151

Deco-Touch, part no. 40395

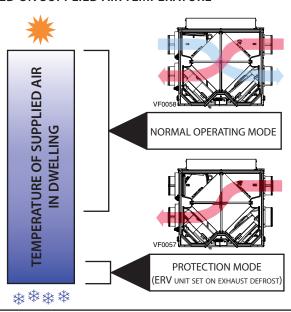
Min., Max., Recirculation,

Intermittent, Dehumidistat

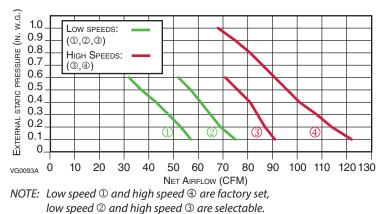
/Enmar

Constructo, part no. 40350

Min., Max., Dehumidistat



## VENTILATION PERFORMANCE



VM0003A

## **ENERGY PERFORMANCE**

	PPLY RATURE	NET AIR FLOW		Power consumed	Sensible recovery	Apparent sensible	LATENT RECOVERY/ MOISTURE	
°C	°F	L/S	CFM	м³/н	WATTS	EFFICIENCY	EFFECTIVENESS	TRANSFER
HEATING								
0	32	23	48	82	40	67	75	55
0	32	31	65	110	54	65	73	51
0	32	40	85	144	68	61	69	47
-25	-13	23	48	82	55	61	76	59
-25	-13	31	65	110	70	60	73	54
COOLING						TOTAL RECOVERY EFFICIENCY		CIENCY
35	95	23	48	82	40		54	

NOTE: All specifications are subject to change without notice.

## VENMAR AVS S10 ERV plus Architectural Specifications

## **AIRFLOW**

- High static pressure backward blowers shall perform a minimum of 68 CFM @ 1.0 in. w.g.
- Optional high speed: 85 CFM
- Optional low speed: 65 CFM

## **CONSTRUCTION**

- · Housing shall be made of 22 ga. galvanized steel
- Door shall be made of 22 ga. pre-painted steel
- Insulation shall be made of one-piece molded expanded polystyrene, UL 94 HF-1 certified
- 5" diameter ports shall be made of galvanized steel
- Door hinges and latches shall be made of steel
- Cold side ports shall have plastic ring to allow vapor barrier sealing
- Unit construction and components shall be UL and CSA certified
- Unit shall operate all year long without drain
- Weight shall not exceed 35 lb.
- Fresh air from outside and Exhaust air to outside ports shall be located on same side
- Backdraft damper shall be integrated in cold exhaust ports
- ERV unit shall be HVI certified and ENERGY STAR® qualified

## **MOTORS**

- Unit shall have two high reliability, external rotor PSC motors, totally enclosed and thermally protected
- The backward blowers shall support high static pressure environment
- The insulation class shall be B

## **FILTERS**

- ERV unit shall have two washable 20 ppi reticulated polyester urethane foam filters, UL 900 class 2 certified
- Optional MERV 7 filter kit shall be available

## ERV CORE

- The ERV core shall be a crossflow aluminum-polymerized paper core, UL723 certified
- Hydroscopic polymer exchange water by direct vapor transfershall use molecular transport without the need of condensation
- The ERV core shall be constructed of alternate layers of corrugated aluminum material and polymeric bactericide dessiccant impregnated media; and shall not promote growth of mold or bacteria
- The ERV core design shall be made of rectangular flutes to provide very low pressure drop values

## Controls

- Choice of low voltage main controls (not included) shall be energized by ERV unit
- Optional low voltage auxiliary controls (not included) shall be energized by ERV unit
- Removable terminal block shall be included for quicker low voltage control connections
- A LED indicator shall indicate defrost selected mode as well as error codes
- ERV unit shall be permanently energized, no control shall be installed on power supply of unit

## **Air Flow Balancing**

- Unit door shall be equipped with pressure taps as well as a balancing chart to allow verification of balancing of the ERV unit
- Balancing damper shall be integrated in cold supply and cold exhaust ports
- Motorized damper shall be integrated in ERV unit, adjacent to the cold supply port

## **Defrosting System**

- Unit shall allow 3 quick-access defrost modes:
  - Standard (factory set regular mode)
  - Plus (extended defrost for colder areas)
  - Discretion (keeps the same speed when performing defrost as performing ventilation)
- Unit shall be equipped with Coldshield<sup>™</sup> protection to stop air supply in dwelling if air supply temperature drops below freezing point, due to abnormal conditions.

## Warranty

Unit shall be protected by a 5-year warranty on parts only, with the original proof of purchase.

## **Requirements and standards**

- Shall be HVI certified as per CSA C439 Standards
- Shall be ENERGY STAR<sup>®</sup> qualified
- Shall comply with the UL 1812 requirements regulating the installation of Energy Recovery Ventilators
- Shall comply with the CSA C22.2 no. 113 Standard applicable to ventilators
- Shall comply with CSA C444 requirements regulating the installation of Energy Recovery Ventilators

Project:		REMARKS
Location:		
Part no.: 41702		
Qty.:		
Submitted by:	Date:	



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