

# ERVXXSHB1145, ERVXXSVB1145

## Preferred™ Fresh Air Systems – 140 CFM



### Product Data



A200611

- 35 to 140 CFM @ 0.2 in. w.g.
- 35 to 133 CFM @ 0.4 in. w.g.

Introducing the industry's most advanced residential fresh air system, created to offer a universal platform specifically designed and improved to make the contractor's life easier and more profitable while delivering constant superior air quality.

- Thanks to new technology, the airflow calibration and auto-balancing are achieved quickly and maintained throughout the life of the product
- Select the desired CFM (from 35 to 140 CFM) using the very first integrated LCD screen. The airflow is then set up automatically
- Integrated electronic airflow measurement device with real time LCD
- Integrated diagnostic tool
- PMSM ECM motors for very low power consumption
- Suspended installation (chains included)  
OR
- Wall-mount installation (universal brackets included)
  - installation with 2 brackets
  - installation with 4 brackets

### CORE

- Polypropylene crossflow core with polymeric membrane and aluminum covers, impact resistant, non washable
- Dimensions: 12" x 12" x 9" (30.5 cm x 30.5 cm x 23 cm)

### FILTERS

- MERV 8 grade washable standard filter (included)
- Optional MERV13 grade filter part no. SV24285

### OPTIONS

- Complete line of registers and diffusers
- Compatible with the Tandem transition (part no. KVAAC0101HCO) (for units producing up to 110 CFM only)

### UNIT DESCRIPTION

- SRE of 75% at 0°C (65 CFM) and 63% at -25°C (66 CFM)
- Ports size: 6 in.
- Recirculation Mode and Recirculation Defrost
- Painted door, corrosion resistant galvanized body
- One-piece molded insulation shell, no air leakage (expanded polystyrene; UL 94 HF-1 certified)
- Constant airflow and auto-balancing device
- Motorized dampers (no additional backdraft dampers required)
- No drain required
- 120V, 60 Hz, 2.5 A, 163 W with 6 foot power cord



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### CONTROLS

**NOTE:** Do not connect the Evolution™ Connex™ Control directly to the ventilator, as that may cause damage. If you have an Evolution™ Connex™ Control use one of the optional Main Wall Controls.

If you want the Evolution™ System Control to control the ventilator, then you must use a NIM (Network Interface Module) P/N SYSTXBBNIM01 and a Translator Board P/N SYSTXXXTRB01 in order for the System Control to communicate properly. If using the Evolution™ Zoning Panel P/N SYSTXBB4ZC01 with the ventilators you must use the Translator Board to communicate between the Zoning Panel and the ventilator. See [Table 2](#) for NIM and TRB requirements for newest ERV and HRV models. See the Installation Manual for wiring diagrams.

Please do not connect the Network Interface Module (NIM) or the Evolution™ Zoning Panel to the two terminal blocks on the new ventilator. The new ventilator terminals do not match up to the NIM or Evolution™ Zoning Panel terminals. Connecting the two controls may cause damage.



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There are 4 optional main controls and 1 optional auxiliary control available. Refer to the applicable Wall Control specification sheet for more information.

**NOTE:** These controls are compatible only with the latest versions of ERV and HRV ventilators. Older controls will not work with the newest ventilators.

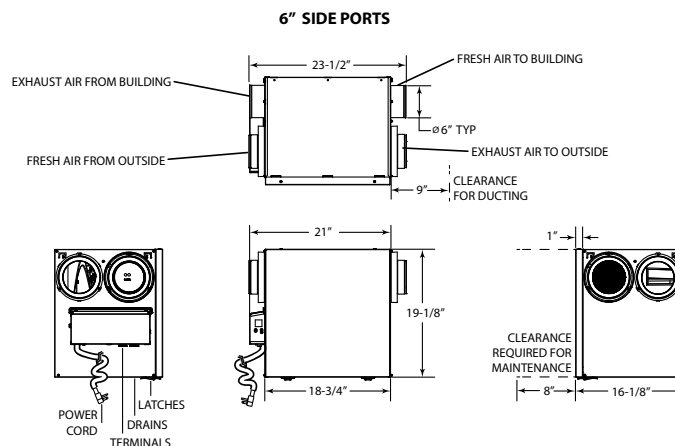
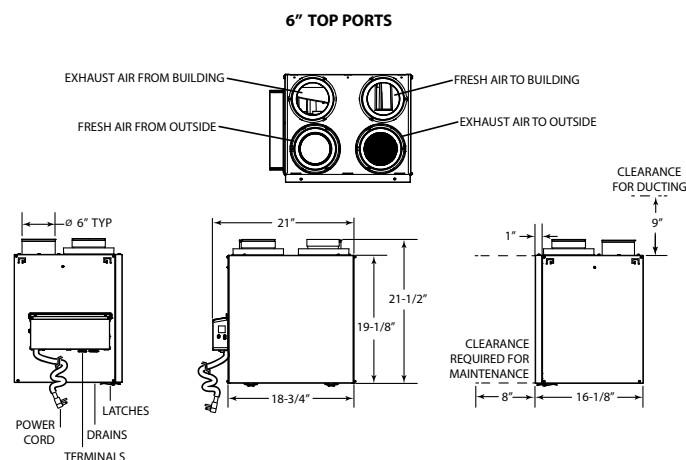
Table 1 – Controls

Control Name	Description of Modes	Model #
Premium	Touch Screen, Auto 2.0 Fully Configurable, Multiple Modes	KVACN0101BPC
Automatic	Auto 1.0, Filter Alert	KVACN0101BAC
Dehumidistat	Humidity Sensor / Selection	KVACN0101BDH
Speed Selector	5 Operating Time Periods	KVACN0101BSS
Auxiliary Bathroom Override	20 - 40 - 60 min. Settings	KVACN0101BBO

Table 2 – NIM and TRB Requirements for Newest ERV/HRV

Evolution® Connex™ Control	ERV Product	HRV Product	Network Interface Module SYSTXCCNIM01	Translator Board SYSTXXXTRB01
SYSTXBBECC01-B/C SYSTXBBWEC01-B SYSTXBBEFC01-B SYSTXBBWEC01-B	ERVXXSVA1130	HRVXXSVA1130	Required	Required
	ERVXXSHA1130	HRVXXSHA1130	Required	Required
	ERVXXSVB1145	HRVXXSVA1160	Required	Required
	ERVXXSHB1145	HRVXXSHA1160	Required	Required
	ERVXXSVA1150	HRVXXSVB1160	Required	Required
	ERVXXSHA1150	HRVXXSHB1160	Required	Required
	ERVCLHB1200	HRVCLHB1250	Required	Not Required
Evolution® Zone Panel	ERV Product	HRV Product	Network Interface Module SYSTXCCNIM01	Translator Board SYSTXXXTRB01
SYSTXBB4ZC01	ERVXXSVA1130	HRVXXSVA1130	Not Required	Required
	ERVXXSHA1130	HRVXXSHA1130	Not Required	Required
	ERVXXSVB1145	HRVXXSVA1160	Not Required	Required
	ERVXXSHB1145	HRVXXSHA1160	Not Required	Required
	ERVXXSVA1150	HRVXXSVB1160	Not Required	Required
	ERVXXSHA1150	HRVXXSHB1160	Not Required	Required
	ERVCLHB1200	HRVCLHB1250	Not Required	Not Required

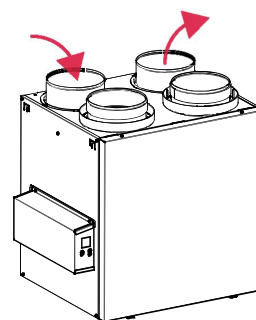
## DIMENSIONS



- Total assembled weight (core included) - approx 37 lb. (16.8 kg)  
Shipping weight - approx 44 lb. (20 kg)

## DEFROST SYSTEM

No negative pressure is created by air exhausted to the outdoors since the air is recirculated into the house, helping to prevent any backdraft.



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FACTORY SETTING		OUTDOOR TEMPERATURE*					
		-5°C TO -15°C 23°F TO 5°F		-15°C TO -27°C 5°F TO -17°F		-27°C AND LESS -17°F AND LESS	
CFM		AIR EXCHANGE IN MINUTES	DEFROST IN MINUTES	AIR EXCHANGE IN MINUTES	DEFROST IN MINUTES	AIR EXCHANGE IN MINUTES	DEFROST IN MINUTES
0 to 59		25	6	14	5	13	7
60 to 104		25	6	15	5	14	7
105 and more		15	6	10	5	9	7
PLUS		OUTDOOR TEMPERATURE*					
		-5°C TO -15°C 23°F TO 5°F		-15°C TO -27°C 5°F TO -17°F		-27°C AND LESS -17°F AND LESS	
CFM		AIR EXCHANGE IN MINUTES	DEFROST IN MINUTES	AIR EXCHANGE IN MINUTES	DEFROST IN MINUTES	AIR EXCHANGE IN MINUTES	DEFROST IN MINUTES
0 to 59		25	7	14	7	12	8
60 to 104		25	7	15	7	13	8
105 and more		15	7	10	7	9	8
*Outdoor temperature is read by a thermistor located inside the unit, next to fresh air from outdoor port.							

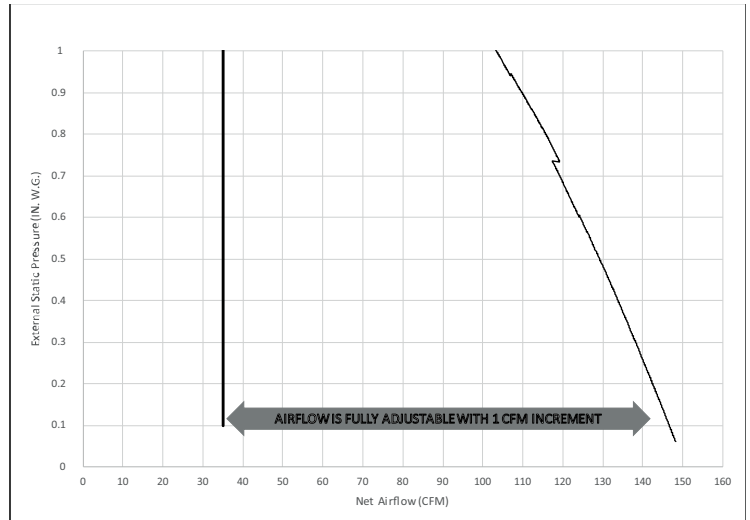
**NOTE:** There is a 10-minute additional defrost every 5 defrost cycles.

## FAN CURVES

Thanks to new technology, no need to balance the unit manually. Both PMSM motors are controlled by an artificial intelligence performing 120 readings per minute then processing this information to maintain the requested airflow.

For typical installation, the software will ensure a balanced ventilation at every selected speed regardless of the weather conditions, the type of connection, the variable speed furnace/AHU, the stack effect, the filter clogging and so on. This results in peace of mind for installers and users knowing that the unit will always remain balanced and that it will maintain its maximum heat/energy recovery efficiency.

STATIC PRESSURE (PA)	STATIC PRESSURE (IN. W.G.)	NET SUPPLY AIRFLOW (L/s)	NET SUPPLY AIRFLOW (CFM)	GROSS AIRFLOW SUPPLY (L/s)	GROSS AIRFLOW SUPPLY (CFM)	GROSS AIRFLOW EXHAUST (L/s)	GROSS AIRFLOW EXHAUST (CFM)
25	0.1	68	144	70	148	70	148
50	0.2	66	140	68	144	68	144
75	0.3	64	136	66	140	66	140
100	0.4	63	133	65	138	65	138
125	0.5	60	127	62	131	62	131
150	0.6	58	123	60	127	60	127
175	0.7	56	119	57	121	57	121
200	0.8	54	114	55	117	55	117
225	0.9	51	108	52	110	52	110
250	1.0	49	104	50	106	50	106



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## ENERGY PERFORMANCE

SUPPLY TEMPERATURE		NET AIR-FLOW		POWER CONSUMED WATTS	SENSIBLE RECOVERY EFFICIENCY	ADJUSTED SENSIBLE RECOVERY EFFICIENCY	APPARENT SENSIBLE EFFECTIVENESS*	TOTAL RECOVERY EFFICIENCY	ADJUSTED TOTAL RECOVERY EFFICIENCY	LATENT PERFORMANCE COEFFICIENT
°C	°F	L/S	CFM							
HEATING										
0	32	31	65	35	75	79	80	—	—	67
0	32	59	125	110	69	75	75	—	—	59
-25	-13	31	66	68	63	66	80	—	—	62
35	95	31	65	41	—	—	73	67	69	69
35	95	59	125	120	—	—	63	56	60	60

\*. Data not certified by HVI

## REQUIREMENTS AND STANDARDS

- UL 1812 compliant (safety)
- Could be installed in compliance with CSA F326
- Performance tested as per CSA C439 Standard
- Meets Novoclimat requirements when used in conjunction with Premium wall control
- Complies with ROHS 2015/863 directive
- Compliant with Prop 65