BROAN®

Fresh Air Systems - 140 CFM

ERV

Top ports:	B160E75RT
Side ports:	B160E75RS

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

HRAI MEMBER

UL

5-YEAR WARRANTY / ANS DE GARANTIE
Parts/Motor/ERV Core

Made in CANADA / Fabriqué au

® 2100 HVI CERTIFIED

Visit www.broan-nutone.com for complete warranty text.

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

- Thanks to the Virtuo Air 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 proven integrated LCD screen
- Integrated electronic airflow measurement device with real time LCD
- Integrated diagnostic tool
- Equipped with PMSM ECM motors for energy efficient operation
- Suspended installation (chains included)
  OR
- Wall-mount installation (universal brackets included)
  - installation with 2 brackets
  - installation with 4 brackets

Unit Description

- SRE of 75% at 32°F (65 CFM) and 63% at -13°F (66 CFM)
- Ports size: 6"
- Recirculation defrost
- Corrosion resistant galvanized steel door and cabinet
- One-piece molded insulation shell, no air leakage (expanded polystyrene; UL 94 HF-1 certified)
- Virtuo constant airflow and auto-balancing device (patent pending)
- Motorized dampers (no additional backdraft dampers required)
- No drain required
- Recirculate air within the dwelling with recirculation mode using a main wall control
- 6' power cord
- Unit electrical characteristics:
  120 volts, 60 Hz, 2.4 A, 163 W

Controls

AUTOMATIC

SPEED SELECTOR

ADVANCED TOUCHSCREEN

BOOST OVERRIDE

VC0184   VC0187   VC0189   VC0188

There are 4 optional main controls and 2 optional auxiliary controls available. Refer to Wall Control specification sheet for more information.

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)
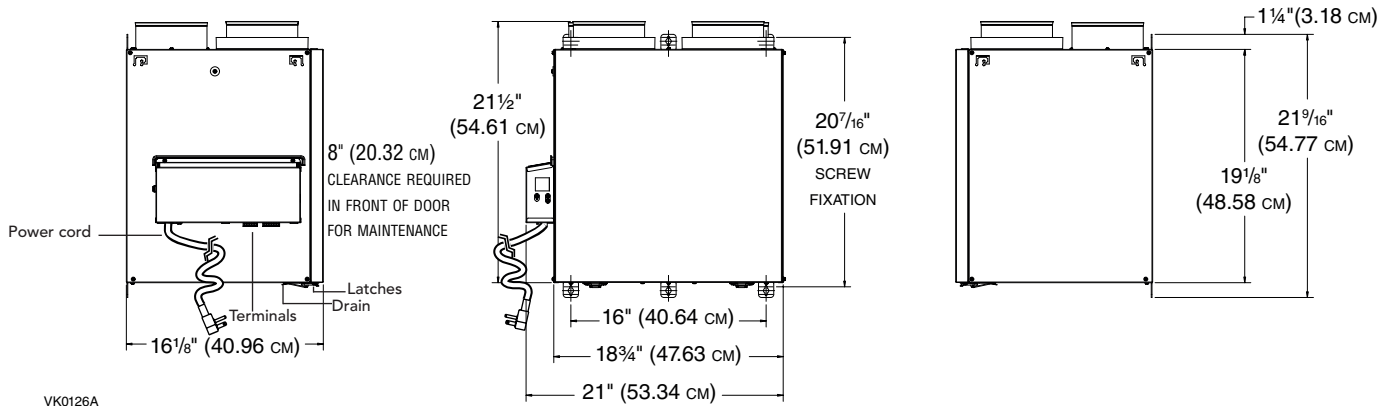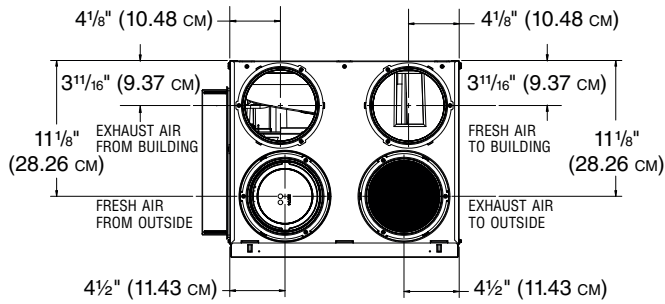- Optional MERV 13 grade filter part no. V24285[1]

Options

- Compatible with the Tandem transition (part no. VTYIK1) (recommended for installations producing up to 110 CFM only)

[1]Airflow performances associated with MERV 13 optional filter are not HVI certified. However, from tests performed by the manufacturer, such performances are not affected by the use of this filter.
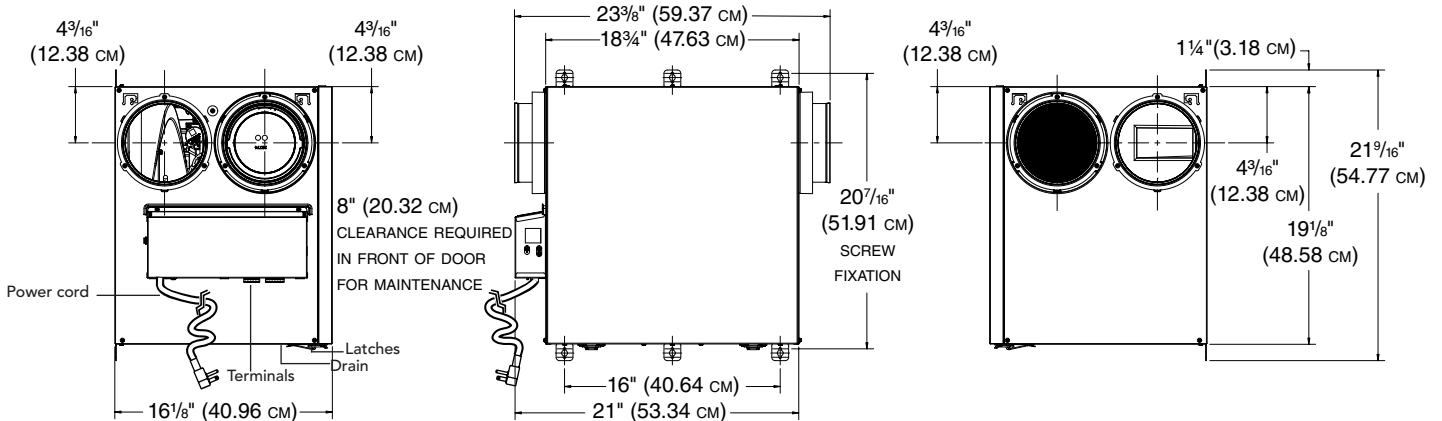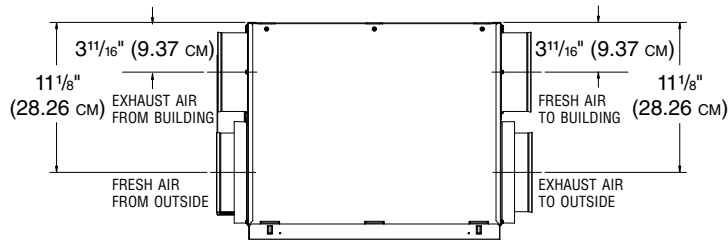
PRODUCT SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

6" Ports Dimensions (Top Ports)

Total assembled weight: approx 37 lbs (16.8 kg) (core included)
Shipping weight: approx 44 lbs (20 kg)

4⅛" (10.48 CM)   4⅛" (10.48 CM)

3¹¹⁄₁₆" (9.37 CM)   EXHAUST AIR FROM BUILDING   FRESH AIR TO BUILDING   3¹¹⁄₁₆" (9.37 CM)

11⅛" (28.26 CM)   FRESH AIR FROM OUTSIDE   EXHAUST AIR TO OUTSIDE   11⅛" (28.26 CM)

4½" (11.43 CM)   4½" (11.43 CM)

21½" (54.61 CM)

8" (20.32 CM) CLEARANCE REQUIRED IN FRONT OF DOOR FOR MAINTENANCE

Power cord

Terminals   Latches   Drain

16⅛" (40.96 CM)

20⁷⁄₁₆" (51.91 CM) SCREW FIXATION

16" (40.64 CM)
18¾" (47.63 CM)
21" (53.34 CM)

1¼" (3.18 CM)

21⁹⁄₁₆" (54.77 CM)

19⅛" (48.58 CM)

VK0126A

6" Ports Dimensions (Side Ports)

Total assembled weight: approx 37 lbs (16.8 kg) (core included)
Shipping weight: approx 44 lbs (20 kg)

3¹¹⁄₁₆" (9.37 CM)   3¹¹⁄₁₆" (9.37 CM)

11⅛" (28.26 CM)   EXHAUST AIR FROM BUILDING   FRESH AIR TO BUILDING   11⅛" (28.26 CM)

FRESH AIR FROM OUTSIDE   EXHAUST AIR TO OUTSIDE

4³⁄₁₆" (12.38 CM)   4³⁄₁₆" (12.38 CM)

8" (20.32 CM) CLEARANCE REQUIRED IN FRONT OF DOOR FOR MAINTENANCE

Power cord

Terminals   Latches   Drain

16⅛" (40.96 CM)

23⅜" (59.37 CM)
18¾" (47.63 CM)

20⁷⁄₁₆" (51.91 CM) SCREW FIXATION

16" (40.64 CM)
21" (53.34 CM)

4³⁄₁₆" (12.38 CM)   1¼" (3.18 CM)

4³⁄₁₆" (12.38 CM)

21⁹⁄₁₆" (54.77 CM)

19⅛" (48.58 CM)

VK0125A

Defrost System

Homeshield™ Defrosting System
Defrost is activated at a temperature of 23°F and lower as specified within the table. No negative pressure is created by air exhausted to the outdoors since the air is recirculated into the house, helping to prevent any backdraft.
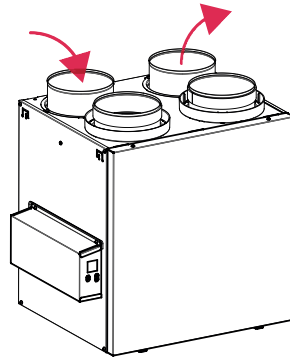
DISCRETION (Factory setting)	OUTDOOR TEMPERATURE*					
	-5°C TO -15°C 23°F TO 5°F		-15°C TO -27°C 5°F TO -17°F		-27°C AND LESS -17°F AND LESS	
CFM	AIR EXCHANGE IN MINUTES	DEFROST IN MINUTES	AIR EXCHANGE IN MINUTES	DEFROST IN MINUTES	AIR EXCHANGE IN MINUTES	DEFROST IN MINUTES
0 to 59	25	6	14	5	13	7
60 to 104	25	6	15	5	14	7
105 and more	15	6	10	5	9	7

*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.

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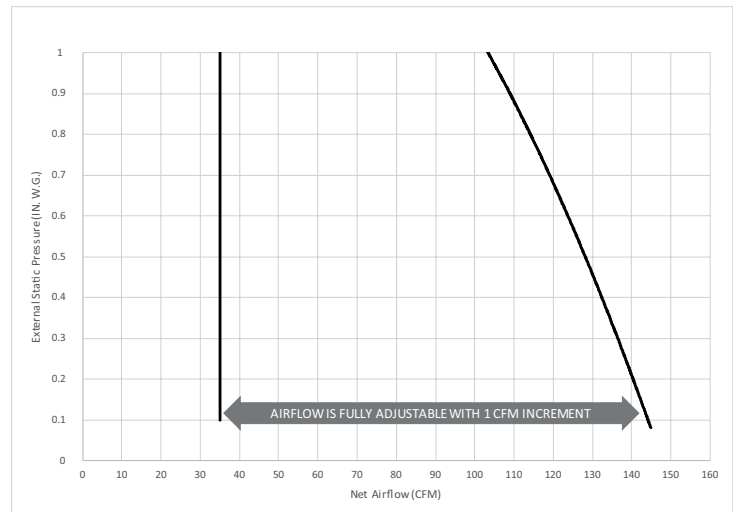
NOTE: There is a 10-minute additional defrost every 5 defrost cycles.

Fan Curves with Virtuo

Thanks to Virtuo Air 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, Virtuo 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

AIRFLOW IS FULLY ADJUSTABLE WITH 1 CFM INCREMENT

Fan curve not certified by HVI.

Energy Performance

Supply Temperature		Net Airflow		Power Consumed Watts	Sensible Recovery Efficiency	Adjusted Sensible Recovery Efficiency	Apparent Sensible Effectiveness*	Latent Recovery / Moisture Transfer
°C	°F	L/s	CFM					
Heating								
0	32	17	36	18	81%	84%	88%	0.74
0	32	31	66	30	78%	81%	84%	0.68
0	32	59	125	105	72%	78%	79%	0.59
-25	-13	31	66	68	63%	66%	81%	0.63
35	95	17	36	21	-	-	77%	0.77
35	95	31	66	36	-	-	73%	0.69
35	95	59	125	112	-	-	63%	0.60

* Data not certified by HVI.

Requirements and Standards

- UL 1812 compliant (safety)
- Performance tested in accordance with CSA C439 Standard
- Compliant with Prop 65
- Can be used to comply with California Title 24 2019 Part 6 Fault Indicator Display Requirements
- Can be used to earn WA energy code credits

Project:	Remarks
Location:	
Part no.:	
Qty.:	
Submitted by: Date:	