

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.

VIRTUO

- Thanks to the Virtuo Air Technology<sup>™</sup>, the airflow calibration and auto-balancing are achieved quickly and maintained throughout the life of the product
- Select the desired CFM (from 35 to 160 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 •

### Controls



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

Visit Broan-NuTone.com for complete warranty text.

# **Unit Description**

- SRE of 68% at 32°F (64 CFM) and 60% at -13°F (68 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 reauired)
- Integrated "snap-in" drain system installed in seconds with no additional parts (drain hose included)
- 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

#### Core

• Polypropylene crossflow core, impact resistant 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<sup>1</sup>

#### Options

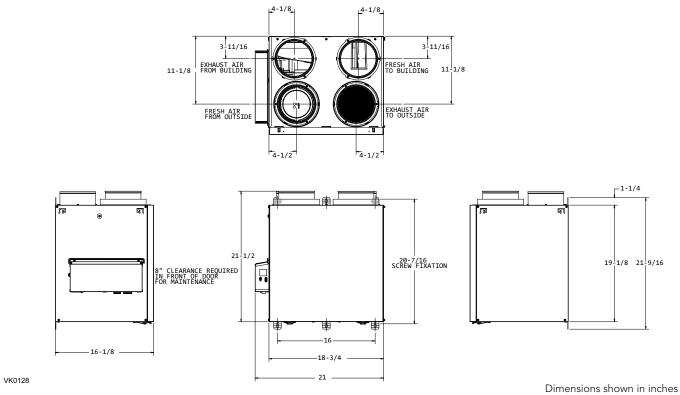
• Compatible with Tandem Terminations (part no. VTYIK1 and V14695) (CFM output must meet application requirements)

<sup>1</sup>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.

35 to 150 CFM @ 0.4 in. w.g.

# **6" Ports Dimensions (Top Ports)**

Total assembled weight: approx 35 lbs (15.9 kg) (core included) Shipping weight: approx 42 lbs (19 kg)



# **6" Ports Dimensions (Side Ports)**

3-11/16

EXHAUST AIR 11-1/8 FROM BUILDING FRESH AIR TO BUILDING 11-1/8 FRESH AIR FROM OUTSIDE EXHAUST AIR TO OUTSIDE 23-3/8 18-3/4 □\_1-1/4 ¢. (d) ¢ 4-3/16 4-3/16 4-3/16 20-7/16 19-1/8 21-9/16 8" CLEARANCE REQUIRED IN FRONT OF DOOR FOR MAINTENANCE ₩. 16 -16-1/8 21

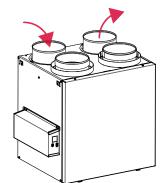
3-11/16

Total assembled weight: approx 35 lbs (15.9 kg) (core included) Shipping weight: approx 42 lbs (19 kg)

#### **Defrost System**

#### Homeshield<sup>™</sup> 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°С то -15°С 23°F то 5°F		-15°С то -27°С 5°F то -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	32	7	25	7	20	10
60 to 90	50	7	35	7	25	10
91 and more	more 22 7			7	16	10
*Outdoor temperature is read by a thermistor located inside the unit, next to fresh air from outdoor port.						

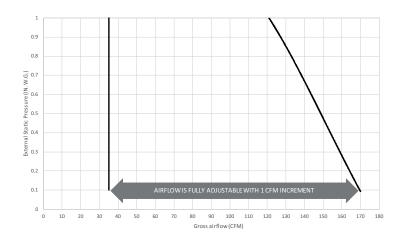
Plus	Outdoor Temperature*					
	-5°С то -15°С 23°F то 5°F		-15°С то -27°С 5°F то -17°F		-27°C and less -17°F and less	
CFM	AIR EXCHANGE IN MINUTES	DEFROST IN MINUTES	AIR EXCHANGE IN MINUTES	Defrost in minutes	AIR EXCHANGE IN MINUTES	Defrost IN MINUTES
0 to 59	28	7	20	7	16	10
60 to 90	45	7	28	7	20	10
91 and more	1 and more 18 7 14 7 12 10					
*Outdoor temperature is read by a thermistor located inside the unit, next to fresh air from outdoor port.						

#### Fan Curves with Virtuo

Thanks to Virtuo Air Technology<sup>™</sup>, 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	78	165	80	170	80	170
50	0.2	75	159	77	163	77	163
75	0.3	73	155	75	159	75	159
100	0.4	71	150	73	155	73	155
125	0.5	68	144	70	148	70	148
150	0.6	66	140	68	144	68	144
175	0.7	63	133	65	138	65	138
200	0.8	61	129	63	133	63	133
225	0.9	58	123	60	127	60	127
250	1.0	55	117	57	121	57	121



# **Energy Performance**

SUPPLY	( RATURE	Net A	RFLOW	Power Consumed	Sensible Recovery	Adjusted Sensible	Apparent Sensible	
°C	°F	L/S	CFM	WATTS	EFFICIENCY	Recovery Efficiency	EFFECTIVENESS*	
HEATIN	NG							
0	32	30	64	26	68%	71%	72%	
0	32	62	131	94	55%	61%	63%	
-25	-13	32	68	34	60%	62%	72%	

\*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:	



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