# BROAN®



VB0279

# Fresh Air Systems - 160 CFM

CAN BE USED TO COMPLY WITH
## TITLE 24
2019 PART 6

### HRV
Top ports:    B160H65RT
Side ports:   B160H65RS

35 to 159 CFM @ 0.2 in. w.g.
35 to 150 CFM @ 0.4 in. w.g.

HRAI MEMBER    UL    ENERGY STAR

5 YEAR WARRANTY · ANS DE GARANTIE
Parts/Motor

LIMITED WARRANTY · LIFETIME À VIE · GARANTIE LIMITÉE
HRV Core

Made in CANADA · Fabriqué au

2100 HVI CERTIFIED

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

Introducing 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 160 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
- Equipped with PMSM ECM motors for a very low power consumption
- Suspended installation (chains included)
  OR
- Wall-mount installation (universal brackets included)
  - installation with 2 brackets
  - installation with 4 brackets

## Unit Description

- SRE of 68% at 32°F and 60% at -13°F (64 CFM)
- Ports size: 6"
- Recirculation mode
- Recirculation defrost
- Painted door, corrosion resistant galvanized body
- 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)
- Integrated "snap-in" drain system installed in seconds with no additional parts (drain hose included)
- 6' power cord
- Unit electrical characteristics:
  120 volts, 60 Hz, 2.5 A, 163 W
- Sound: 73.2 dBA at 150 CFM @ 0.4 in. w.g.
          60.1 dBA at 64 CFM @ 0.2 in. w.g.

## Controls

| AUTOMATIC | SPEED SELECTOR | ADVANCED TOUCHSCREEN | 20-40-60 DELUXE |
|---|---|---|---|



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, impact resistant
  Dimensions: 12" x 12" x 9" (30.5 cm x 30.5 cm x 23 cm)
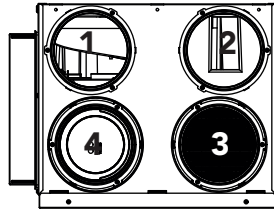
## Filters

- MERV 8 grade washable standard filter (included)
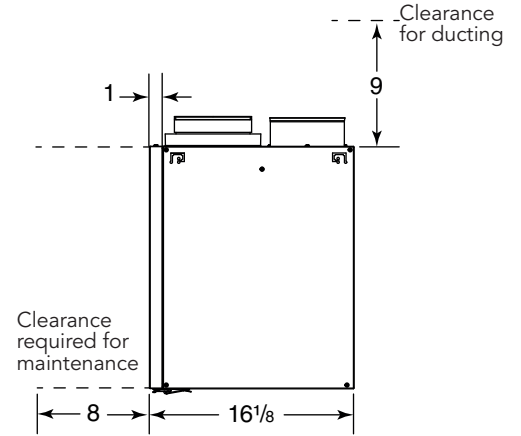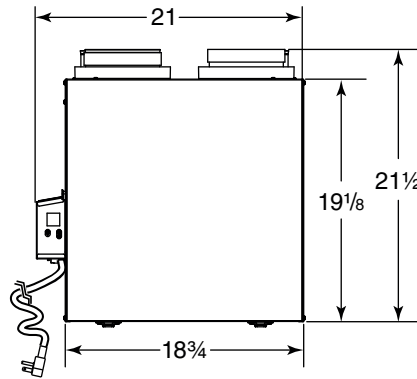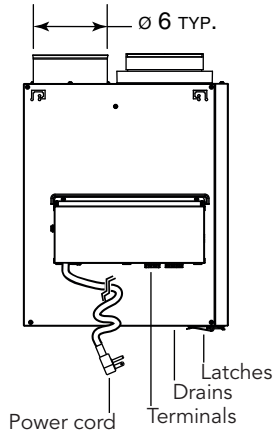- Optional MERV13 grade filter part no. V24285

## Options

- Complete line of registers and diffusers
- Compatible with the Tandem transition (part no. VTYIK1) (for units producing up to 130 CFM only)

PRODUCT SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

## 6" Ports Dimensions (Top Ports)

1 - Exhaust air from building
2 - Fresh air to building
3 - Exhaust air to outside
4 - Fresh air from outside

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

Ø 6 TYP.

21

21½

19⅛

18¾

Power cord
Drains
Terminals
Latches

Clearance for ducting

9

1

Clearance required for maintenance

8

16⅛

## 6" Ports Dimensions (Side Ports)

1 - Exhaust air from building
2 - Fresh air to building
3 - Exhaust air to outside
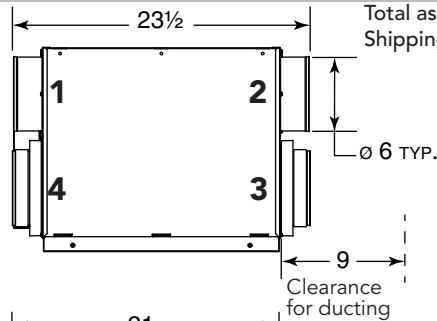4 - Fresh air from outside

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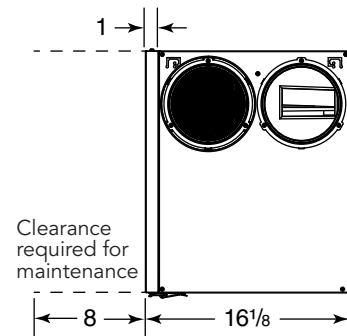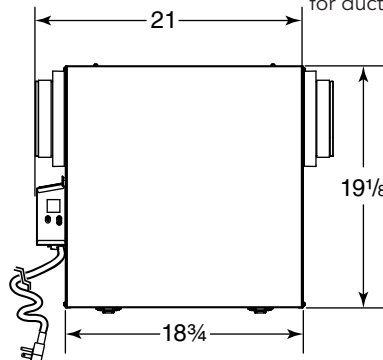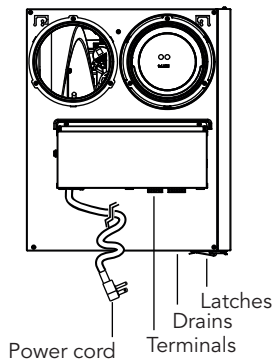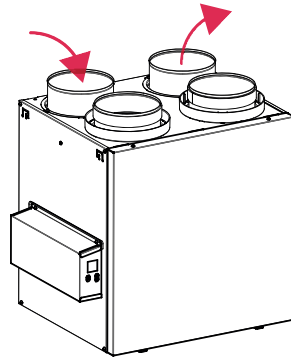Shipping weight: approx 42 lbs (19 kg)

23½

Ø 6 TYP.

9

Clearance for ducting

21

19⅛

18¾

Power cord
Drains
Terminals
Latches

1

Clearance required for maintenance

8

16⅛

VK0116

Dimensions shown in inches

# Defrost System

**Homeshield™ Defrosting 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.

| 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 | 32 | 7 | 25 | 7 | 20 | 10 |
| 60 to 90 | 50 | 7 | 35 | 7 | 25 | 10 |
| 91 and more | 22 | 7 | 18 | 7 | 16 | 10 |

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

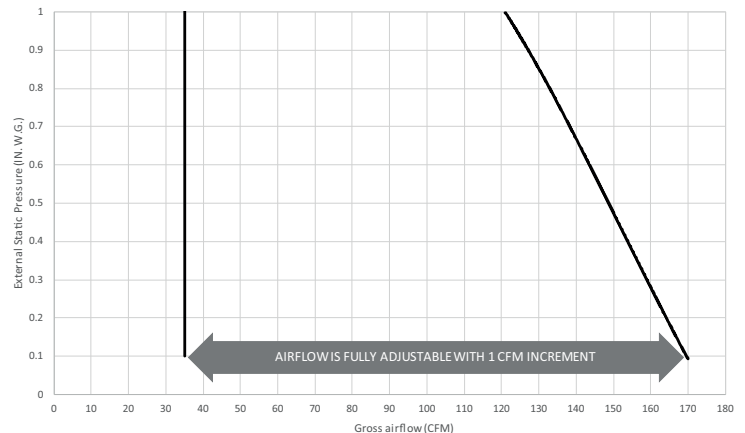| PLUS | OUTDOOR TEMPERATURE* | | | | | |
|---|---|---|---|---|---|---|
| | -5°C TO -15°C 23°F TO 5°F | | -15°C TO -27°C 5°F TO -17°F | | -27°C AND LESS -17°F AND LESS | |
| CFM | AIR EXCHANGE IN MINUTES | DEFROST IN MINUTES | AIR EXCHANGE IN MINUTES | DEFROST IN MINUTES | AIR EXCHANGE IN MINUTES | DEFROST IN MINUTES |
| 0 to 59 | 28 | 7 | 20 | 7 | 16 | 10 |
| 60 to 90 | 45 | 7 | 28 | 7 | 20 | 10 |
| 91 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™, 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 |



AIRFLOW IS FULLY ADJUSTABLE WITH 1 CFM INCREMENT

## Energy Performance

| Supply Temperature | | Net Airflow | | Power Consumed Watts | Sensible Recovery Efficiency | Adjusted Sensible Recovery Efficiency | Apparent Sensible Effectiveness* |
|---|---|---|---|---|---|---|---|
| °C | °F | L/s | CFM | | | | |
| Heating | | | | | | | |
| 0 | 32 | 30 | 64 | 33 | 68 | 71 | 72 |
| 0 | 32 | 43 | 90 | 47 | 63 | 66 | 68 |
| 0 | 32 | 52 | 110 | 69 | 58 | 62 | 64 |
| 0 | 32 | 62 | 131 | 94 | 55 | 61 | 63 |
| -25 | -13 | 30 | 64 | 33 | 60 | 62 | 72 |

*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

- Complies with ROHS 2015/863 directive
- Compliant with Prop 65
- This product earned the ENERGY STAR® by meeting strict energy efficiency guidelines set by Natural Resources Canada and the US EPA. This product meets ENERGY STAR requirements only when used in Canada.

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

**BROAN**®   ENERGY STAR PARTNER   HVI MEMBER