

# The Fastest Installation in Its Category

**AI Series**  
FRESH AIR SYSTEMS

**INTRODUCING  
VIRTUO AIR TECHNOLOGY**



**BROAN®**



# Installing fresh air systems has never been so simple.

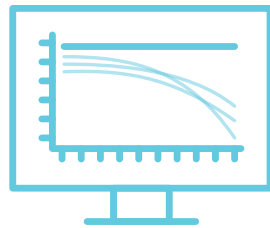
Forty years in the industry has taught us a few things, like the details that can make all the difference to an installer. This is why we turned our classic fresh air ventilation line into a single and versatile platform: the **AI series**. A platform specifically designed and improved to make your life easier and more profitable, in addition to offering superior air quality to your customers.



## Quicker Setup

SAVES YOU UP TO 20 MINUTES PER UNIT

Our new **VIRTUO technology** does the airflow verification and balancing for you, eliminating two complex parts of the installation process. All of the settings have been simplified while the straightforward system makes it fast and easy to train the homeowner.



## Consistent Results

NO UNEXPECTED SURPRISES

Simpler installation results in greater consistency in the installer's work.

**Auto-balancing** sets a reliable initial configuration in all dwelling types, and self-adjustment ensures the unit operates at optimal performance levels throughout its lifetime.



## Satisfied Users

EASE OF OPERATION

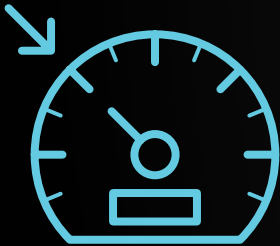
High-quality installation brings **peace of mind** for homeowners. User-friendly operation and additional automatic options and features allow users to easily draw maximum benefits from the units.



# Your Smart Built-In Assistant

**Making your life easier. Saving you time and money.**

Introducing the most advanced artificial intelligence technology that allows a ventilation system to do an airflow verification and auto-balance in all dwelling configurations and to self-adjust to changing indoor and outdoor conditions.



## Stay on Duty, Even After You Leave

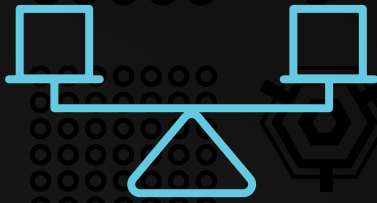
### CONTINUOUS SELF-ADJUSTMENT

With VIRTUO, you can rely on a monitoring system designed to preserve the quality of your work. When a pressure change occurs, VIRTUO detects it and instantly adjusts the unit operation to consistently deliver the right CFM value. 100% BALANCED. Always. At all times.

Unlike older generations of ventilation systems, VIRTUO continuously self-adjusts and takes account of variations to stay balanced 100% of the time, which maximizes the heat recovery of your HRV/ERV and optimizes air quality. This provides the homeowner with maximum savings and comfort.

### END USER PEACE OF MIND MEANS FEWER CALLBACKS

VIRTUO only has one thing on its mind: the homeowner's comfort. It maintains optimal indoor air quality and comfort without any action required from the homeowner. In addition, by ensuring continuous balancing, VIRTUO doesn't create positive or negative pressure and maintains the property integrity and value.



## A Key Member of Your Installation Team

### **AUTOMATIC AIRFLOW VERIFICATION AND AUTO-BALANCING**

VIRTUO performs a complex part of the installation work for you. Thanks to its smart auto-balancing system, the AI series analyzes and communicates the maximum achievable air flow for both exhaust and supply flows through its LCD screen. The calibration is achieved quickly and maintained throughout the life of the product, with superior accuracy.

### **ELIMINATE STEPS IN THE INSTALLATION PROCESS**

No need to adjust or fine-tune balancing dampers, pressure taps or pressure gauges, thanks to VIRTUO Air Technology.

# 24/7

## Trained to Only Make the Right Decisions

### **A TESTED ALGORITHM THAT ENSURES HIGH PRECISION**

VIRTUO's intelligence was thought out, programed and tested to maximize the full potential of the state-of-the-art components assembled into every AI series unit. It uses fine motor speed adjustment capabilities to adjust ventilation with utmost precision. Its dynamic data analysis ensures fluid interaction between sensors and motors.

### **ENERGY SAVINGS AND INDOOR AIR QUALITY, 24/7**

VIRTUO is nimble. It makes quick decisions based on a series of indoor and outdoor factors such as temperature and humidity. With real-time detection, it generates quick adjustments and automatically optimizes air quality around the clock. This quick action also minimizes energy consumption for the homeowner.

# Making Your Day Productive

No detail is too small. Our ultra-compact, **universal platform** design fits everywhere, gives you all the features you need and is quick to install, easy to get up and running and simple to use.



## Giving Users Full Control

When things are simple,  
everything is so much  
easier.



Advanced Touchscreen Control  
VTTTOUCHW

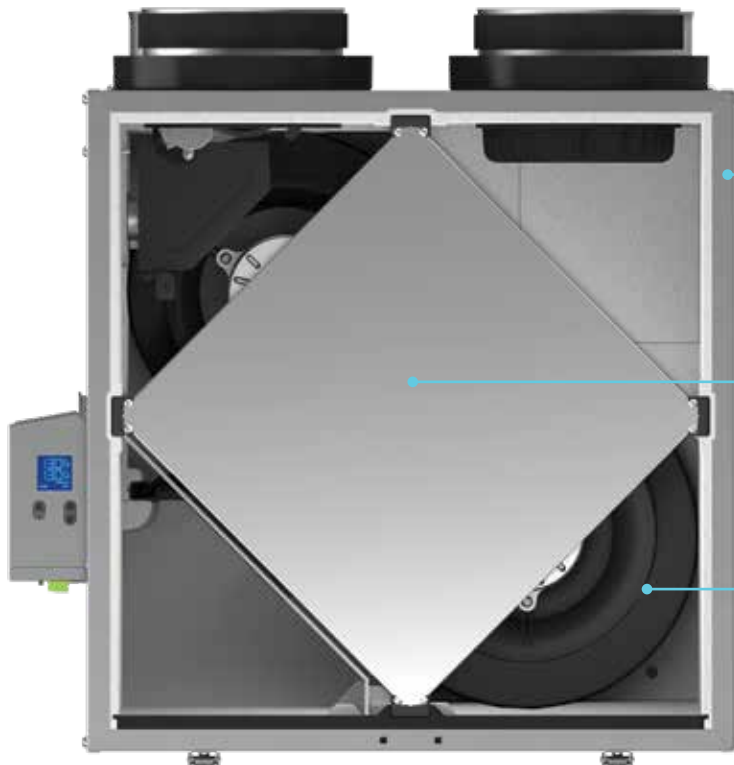
### User-Friendly Design

#### EASIER FOR HOMEOWNERS

Touchscreen technology provides advanced support and information for a greatly enhanced user experience

#### EASIER FOR INSTALLERS

Advanced control used to determine the air flow makes setup faster and easier, and time-saving preconfigured setup program



### Well-Thought Design

COMPACT DESIGN AND STANDARDIZED SIZE AND SHAPE TO FIT ALL APPLICATIONS  
SIMPLIFIED SERVICING AND MAINTENANCE

### Proven Core Durability and Performance

UP TO 75% SRE, TESTED UNDER EXTREME CONDITIONS (-31°F)  
AVAILABLE WITH HRV/ERV CORE

### Small but Powerful

160 CFM IN AN ULTRA-COMPACT DESIGN



### Superior Air Filtration

HIGHER FILTRATION PERFORMANCE TO ANSWER GROWING CONSUMER AND CODE REQUIREMENTS

COME STANDARD WITH MERV 8 FILTERS: CAPTURE MOLD SPORES AND FINE DUST, FOR CLEAN AIR

MERV 13 FILTERS AVAILABLE AS AN OPTION: CAPTURE MOLD SPORES, FINE DUST, BACTERIA AND SMOKE, FOR CLEANER AIR



### Premium ECM PMSM Motors with Built-In Smart Technology

COME WITH PMSM ECM MOTORS, THE MOST EFFICIENT AND RELIABLE ON THE MARKET

PROVIDE UP TO 60% ENERGY SAVINGS  
ULTRA-QUIET PERFORMANCE



### Versatile Installation Options

UNIVERSAL BRACKETS ALLOW FOR CHAIN, HORIZONTAL OR VERTICAL WALL-MOUNT INSTALLATION

### Main Controls



**Automatic Control**  
VAUTOW

**Dehumidistat Control**  
VTDEHUMW

**Speed Selector Control**  
VTSPEEDW

### Override Controls



**20-40-60 Deluxe Control**  
VBATHBTW

**20-40-60 Control**  
VBATHW

### Looks Great with Any Home Decor Style

#### REVAMPED ESTHETICS

New, modern design that blends with the most contemporary decors like never before

#### WIRELESS FUNCTION

The new Deluxe 20-40-60 control can be easily installed by synchronizing with the Advanced Touchscreen control.



### New, In-Demand Features

#### THE RIGHT CONTROLS FOR THE RIGHT USERS

Range of flexible options and automatic modes to meet specific needs and make user's life easier

#### INTELLIGENT FEEDBACK

Clear feedback reduces repeated service calls, and filter replacement and maintenance alerts come standard

# Technical Features

SPECIFICATIONS		B110H65RS B110H65RT	B130H65RS B130H65RT B130E65RS B130E65RT	B160H65RS B160H65RT B160E65RS B160E65RT	B150H75NS B150H75NT B150E75NS B150E75NT	B160H75RS B160H75RT B160E75RS B160E75RT
RECOVERY TYPE		HRV	HRV/ERV	HRV/ERV	HRV/ERV	HRV/ERV
CFM AT 0.2 IN. W.G		112 CFM	131 CFM	HRV: 160 CFM ERV: 150 CFM	HRV: 150 CFM ERV: 136 CFM	HRV: 160 CFM ERV: 140 CFM
CFM AT 0.4 IN. W.G.		100 CFM	119 CFM	HRV: 150 CFM ERV: 140 CFM	HRV: 140 CFM ERV: 127 CFM	HRV: 150 CFM ERV: 133 CFM
SRE AT 32°F		68%	HRV: 68% ERV: 67%	HRV: 68% ERV: 67%	75%	75%
SRE AT 14°F		N/A*	N/A*	N/A*	HRV: N/A* ERV: 60%	N/A*
SRE AT -13°F		60%	HRV: 60% ERV: 56%	HRV: 60% ERV: 56%	HRV: 60% ERV: N/A*	HRV: 65% ERV: 63%
ASE AT 32°F*		72%	72%	72%	80%	80%
LATENT RECOVERY / MOISTURE TRANSFER AT 32°F		HRV: N/A	HRV: N/A ERV: 65%	HRV: N/A ERV: 65%	HRV: N/A ERV: 67%	HRV: N/A ERV: 67%
VIRTUO AIR TECHNOLOGY	AIRFLOW VERIFICATION	Yes	Yes	Yes	Yes	Yes
	AUTO-BALANCING	Yes	Yes	Yes	Yes	Yes
	SETTINGS VIA LCD	Yes	Yes	Yes	Yes	Yes
	CONSTANT AIRFLOW	Yes	Yes	Yes	Yes	Yes
	SMART ALGORITHM	Yes	Yes	Yes	Yes	Yes
MOTOR	ECM PMSM					
FILTRATION	MERV 8 (included), optional MERV 13 (part number V24285)					
DIMENSIONS (H x W x D)	Side ports: 19-1/8 x 23-1/2 x 16-1/8 in.   Top ports: 21-1/2 x 21 x 16-1/8 in.					
PORTS CONFIGURATION	Round, top or side 5 in.	Round, top or side 5 in.	Round, top or side 6 in.	Round, top or side 5 in.	Round, top or side 6 in.	
RECIRCULATION	Yes	Yes	Yes	No	Yes	
HARDWARE INCLUDED	Drain hose with integrated "snap-in" (HRV only), universal brackets, chains and screws					
WARRANTY	Parts: 5 years   HRV core: limited lifetime   ERV core: 5 years					

All energy performance ratings are obtained at 65 CFM (+/- 1).

\* Data are not HVI certified.







AI SERIES

# Fresh Air Systems



Today's homes are better insulated and sealed than ever before—trapping moisture, stale air, and dust inside the house.

For almost 90 years, Broan has been the leader in indoor air quality. Thanks to our air exchangers, stale and polluted air is removed from homes. Get the ultimate in fresh air and energy efficiency with our **AI series**, featuring our exclusive **VIRTUO™ Air Technology**. VIRTUO only has one thing on its mind: the homeowner's comfort.



## Self-Adjusting Smart Technology

VIRTUO is the first artificial intelligence technology designed exclusively for ventilation systems. It offers optimal energy efficiency and superior air quality in all weather conditions, all year round. VIRTUO ensures your comfort in your home by constantly self-adjusting to changing indoor and outdoor conditions. When it detects a change, it automatically adjusts the operation mode of the unit to deliver the proper amount of fresh air with minimal energy consumption.



### Superior Air Filtration

AI series units surpass any other on the market with their standard-issue high-grade MERV 8 filters, which capture lint, dust, pollen, dust mites, debris and spores for superior air quality and comfort. Even more powerful filtration is available with an optional MERV 13 filter upgrade.



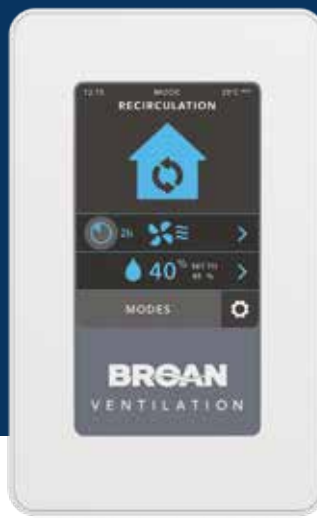
### Energy-Efficient Motors

Powerful, reliable and quiet motors ensure peace of mind while offering performance and durability. PMSM ECM motors also provide up to 60% energy savings compared to other units on the market.

**VIRTUO provides you with optimal energy recovery and maximum savings and comfort, while maintaining your property's integrity and value.**

## Controls

When things are simple, everything is so much easier. Take full control of your AI series air exchanger with simple, easy-to-navigate controls. These stylish and user-friendly controls are designed to blend with most contemporary decors. Available in a range of options, the new controls have the right options to meet your needs.



VITOUCHW



Automatic Control

VAUTOW

Dehumidistat Control

VTDEHUMW

Speed Selector Control

VTSPEEDW

20-40-60 Deluxe Control

VBATHBTW

20-40-60 Control

VBATHW



### Advanced Touchscreen Control

- Advanced support and information for a greatly enhanced user experience
- Revamped design that blends with contemporary decors like never before
- Variety of font options to change the appearance of the wall control
- Range of flexible options and automatic modes to meet specific needs
- Wireless synchronization with the Deluxe 20-40-60 control for easy installation

## Technical Features

SPECIFICATIONS	B110H65RS B110H65RT	B130H65RS B130H65RT B130E65RS B130E65RT	B160H65RS B160H65RT B160E65RS B160E65RT	B150H75NS B150H75NT B150E75NS B150E75NT	B160H75RS B160H75RT B160E75RS B160E75RT
RECOVERY TYPE	HRV	HRV/ERV	HRV/ERV	HRV/ERV	HRV/ERV
CFM AT 0.2 IN. W.G.	112 CFM	131 CFM	HRV: 160 CFM ERV: 150 CFM	HRV: 150 CFM ERV: 136 CFM	HRV: 160 CFM ERV: 140 CFM
CFM AT 0.4 IN. W.G.	100 CFM	119 CFM	HRV: 150 CFM ERV: 140 CFM	HRV: 140 CFM ERV: 127 CFM	HRV: 150 CFM ERV: 133 CFM
SRE AT 32°F	68%	HRV: 68% ERV: 67%	HRV: 68% ERV: 67%	75%	75%
SRE AT 14°F	N/A*	N/A*	N/A*	HRV: N/A* ERV: 60%	N/A*
SRE AT -13°F	60%	HRV: 60% ERV: 56%	HRV: 60% ERV: 56%	HRV: 60% ERV: N/A*	HRV: 65% ERV: 63%
ASE AT 32°F*	72%	72%	72%	80%	80%
LATENT RECOVERY / MOISTURE TRANSFER AT 32°F	HRV: N/A	HRV: N/A ERV: 65%	HRV: N/A ERV: 65%	HRV: N/A ERV: 67%	HRV: N/A ERV: 67%
VIRTUO AIR TECHNOLOGY	Yes	Yes	Yes	Yes	Yes
MOTOR	ECM PMSM				
FILTRATION	MERV 8 (included), optional MERV 13 (part number V24285)				
DIMENSIONS (H x W x D)	Side ports: 19-1/8 x 23-1/2 x 16-1/8 in.   Top ports: 21-1/2 x 21 x 16-1/8 in.				
PORTS CONFIGURATION	Round, top or side 5 in.	Round, top or side 5 in.	Round, top or side 6 in.	Round, top or side 5 in.	Round, top or side 6 in.
RECIRCULATION	Yes	Yes	Yes	No	Yes
HARDWARE INCLUDED	Drain hose with integrated "snap-in" (HRV only), universal brackets, chains and screws				
WARRANTY	Parts: 5 years   HRV core: limited lifetime   ERV core: 5 years				

All energy performance ratings are obtained at 65 CFM (+/- 1).

\* Data are not HVI certified.

**BROAN**  
**NuTone**  
COME HOME TO FRESH AIR

The Broan AI series wall controls line-up is modern, stylish and user-friendly. It has been designed to please both homeowners and installers. The line-up offers various controls that have been created to meet specific needs and different applications. This line-up is compatible exclusively with the AI series. Only the 20-40-60 control is compatible with previous series.

From the basic wall control to the most advanced fresh air system wall control ever put on the market, there is a wall control to suit your needs.

## Main Controls









Part no. VTTOUCHW

### ADVANCED TOUCHSCREEN



VC0189

It is the most advanced wall control thanks to Virtuo Air Technology™. It features intuitive, fully configurable modes via the touch screen. It is the perfect wall control for those who love technology. It offers bidirectional communication between the unit and the wall control to get detailed maintenance information. All unit settings are easy to program. The pairing with auxiliary control(s) is simple. The installer can also save a program to reuse it for a similar dwelling.

-  **SMART:** The system will operate according to outdoor temperature and indoor temperature/humidity.
-  **CONT:** MIN, MED or MAX speed continuous exchange ventilation.
-  **INT:** Alternate between continuous exchange mode and standby or recirculation (if available) modes as per selected configuration. Speed and time are adjustable.
-  **RECIRC (if available):** Recirculate air inside the house at the selected speed.
-  **TURBO:** 4-hour MAX speed exchange ventilation then comes back to its previous mode.
-  **DEHUM/HUMIDISTAT:** The wall control includes a programmable dehumidistat/humidistat. The dehumidistat will deactivate if outside temperature exceeds 75°F (24°C).
-  **SCHEDULING:** It is possible to schedule the ventilation system operating modes for a week.
-  The indicator lights up when filter maintenance is required and there is a detailed system error log for easier maintenance.
- AWAY** When you are not home, the system provides minimum ventilation of your house.
- STB** Standby mode

**NOTE:** The temperature displayed on ADVANCED TOUCHSCREEN wall control may vary by 9°F (more or less) compared to the outside temperature since the temperature sensor is located inside the unit to ensure a reading that optimizes Virtuo Air Technology™ algorithms.

## Main Controls (Cont'd)

Part no. VTDEHUMW

### DEHUMIDISTAT



VC0191

It is the perfect wall control to manage the humidity percentage in the house. It features an integrated humidity sensor to support the humidity level selected, which allows continuous comfort even in the changing seasons.



DEHUM: Select from 30% to 55% RH. If the set point is exceeded, the system will operate in MAX speed until the set point is reached. The dehumidistat will deactivate if outside temperature exceeds 75°F (24°C).



CONT: MIN speed (light LED indicator) continuous exchange ventilation.  
MAX speed (dark LED indicator) continuous exchange ventilation.



INT: 20 min in MIN speed continuous exchange ventilation and 40 min in standby or recirculation (if available) modes as per selected configuration.



The indicator lights up when filter maintenance is required and the indicator flashes when a system error is detected.

STB Standby mode

Part no. VAUTOW

### AUTOMATIC



VC0184

It is designed to make customer's life easier. All basic features as well as the most popular modes are included with this wall control.



AUTO: The system will operate according to outdoor temperature.



CONT: MIN, MED or MAX speed continuous exchange ventilation.



INT: 20 min in MIN speed continuous exchange ventilation and 40 min in standby or recirculation (if available) modes as per selected configuration.



RECIRC (if available): Recirculate air inside the house at MAX speed.



TURBO: 4-hour MAX speed exchange ventilation then comes back to its previous mode.



The indicator lights up when filter maintenance is required and the indicator flashes when a system error is detected.

STB Standby mode

# Main Controls (Cont'd)

Part no. VTSPEEDW

## SPEED SELECTOR



VC0187

Thanks to the PMSM motors, it features various speed levels for continuous or intermittent ventilation. It offers a controlled sound environment without change of state.



**CONT:** Select from 30% to 100% speed for continuous exchange ventilation.



**INT:** 20 min in selected speed continuous exchange ventilation and 40 min in standby or recirculation (if available) modes as per selected configuration.



**TURBO:** 4-hour MAX speed exchange ventilation then comes back to its previous mode.



The indicator lights up when filter maintenance is required and the indicator flashes when a system error is detected.

STB Standby mode

## DIFFERENCE BETWEEN AUTOMATIC MODE AND SMART MODE

AUTOMATIC MODE	SMART MODE
<p>In AUTOMATIC mode, the system operates according to outdoor temperature. The system operates as follows:</p> <ul style="list-style-type: none"> <li>• Less than -25°C = 10 min/hr</li> <li>• -25°C to -7°C = 20 min/hr</li> <li>• 10°C to 25°C = MIN speed</li> <li>• 25°C to 28°C = 30 min/hr</li> <li>• 28°C to 33°C = 20 min/hr</li> <li>• Above 33°C = 10 min/hr</li> </ul>	<p>The SMART mode uses indoor relative humidity level and outdoor temperature to manage the air exchange with the outdoors, in order to enhance comfort in the house. See graph below.</p>

## Auxiliary Controls

Part no. VBATHW

### 20-40-60



VC0190

For installation in a bathroom, a laundry room or a workshop. This wall control can be installed with any main control of the AI series.



CONT: MAX speed exchange ventilation for 20, 40 or 60 minutes.

Part no. VBATHBTW

### 20-40-60 DELUXE



VC0188

It is designed to make installers and customers life easier with its wireless and automatic RH detection. For installation in a bathroom, a laundry room or a workshop. **Bluetooth® wireless pairing with the ADVANCED TOUCHSCREEN main control (part no. VTTOUCHW).**



CONT: MAX speed exchange ventilation for 20, 40 or 60 minutes.



Integrated sensor detects humidity rise and sets MAX speed for 20 minutes or as per selected configuration.



Wireless pairing with the ADVANCED TOUCHSCREEN main control.



Low batteries indicator - requires 2 AAA 1.5 V batteries.

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