

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"> • Less than -25°C = 10 min/hr • -25°C to -7°C = 20 min/hr • 10°C to 25°C = MIN speed • 25°C to 28°C = 30 min/hr • 28°C to 33°C = 20 min/hr • Above 33°C = 10 min/hr 	<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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Fresh Air Systems - 110 CFM

HRV

Top ports: B110H65RT

Side ports: B110H65RS

35 to 112 CFM @ 0.2 in. w.g.

35 to 100 CFM @ 0.4 in. w.g.



VB0277



Parts/Motor

HRV Core

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 110 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: 5"
- 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, 90 W
- Sound: 66.8 dBA at 92 CFM @ 0.4 in. w.g.
60.1 dBA at 64 CFM @ 0.2 in. w.g.

Controls



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

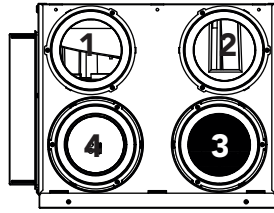
- MERV 8 grade washable standard filter (included)
- Optional MERV13 grade filter part no. V24285

Options

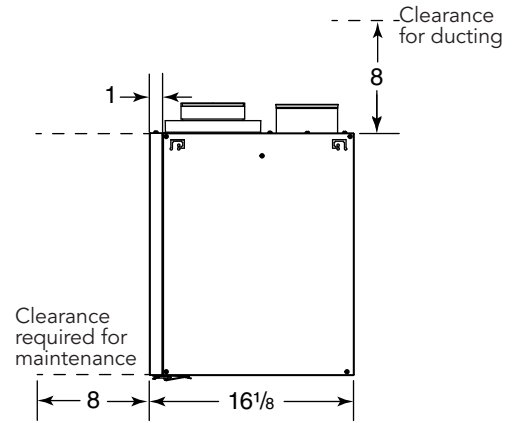
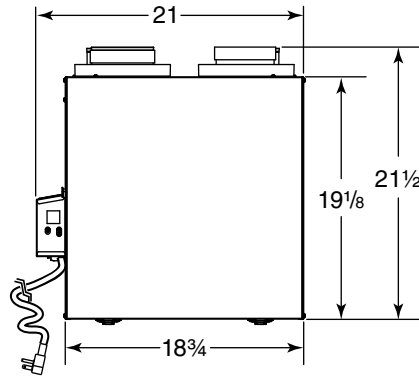
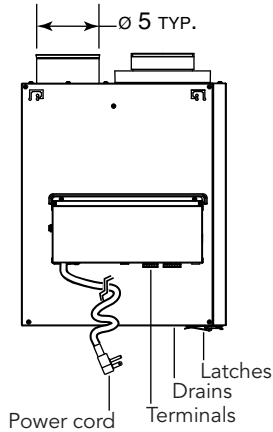
- Complete line of registers and diffusers
- Compatible with the Tandem transition (part no. VTYIK1) (for units producing up to 110 CFM only)

5" Ports Dimensions (Top Ports)

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

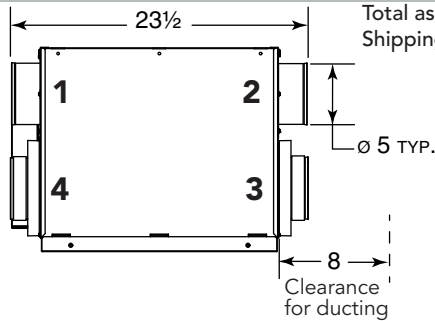


Total assembled weight: approx 35 lbs (15.9 kg) (core included)
Shipping weight: approx 42 lbs (19 kg)

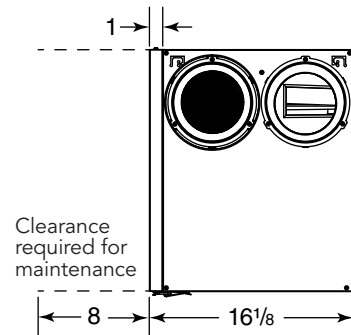
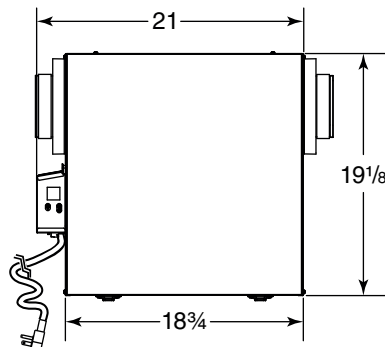
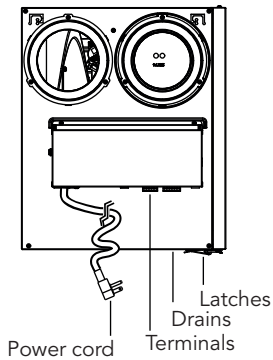


5" Ports Dimensions (Side Ports)

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



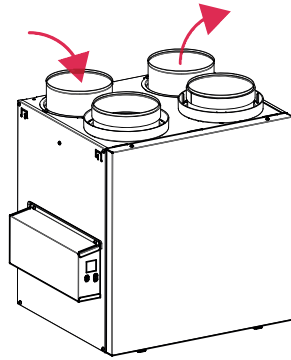
Total assembled weight: approx 35 lbs (15.9 kg) (core included)
Shipping weight: approx 42 lbs (19 kg)



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

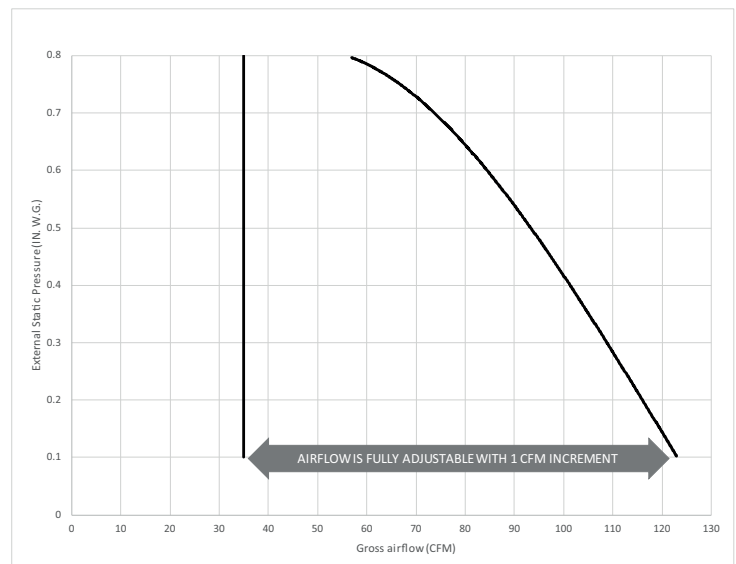
*Outdoor temperature is read by a thermistor located inside the unit, next to fresh air from outdoor port.

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	56	119	58	123	58	123
50	0.2	53	112	55	117	55	117
75	0.3	49	104	50	106	50	106
100	0.4	47	100	48	102	48	102
125	0.5	44	93	45	95	45	95
150	0.6	39	83	40	85	40	85
175	0.7	33	70	34	72	34	72
200	0.8	26	55	27	57	27	57



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
-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