

Residential Ventilation Systems Heat and Energy Recovery Ventilators (HRV/ERV)



Residential Energy Recovery Ventilators

ERVs









Model		ATMO 150E	ATMO 200E	ATMO 300E-EC	FIT 80E ²	FIT 80E-D ²	FIT 120E ²	FIT 120E-D ²	FIT 120E-D-EC ²	HERO 100E ³
Easy to specify BIM objects & CSI specs available on product page		Ano.	O ATHO. SE	Anno.	© farech	© tortech	e toron	© toron	C trans	HERO-
Airflow range (low-high)	cfm @ 0.4" wg.	60-150	60-200	130-300	36-78	36-78	40-127	40-127	40-129	40-102
Duct connection	inch	6	6	6	4	4	5	5	5	5
Voltage / Phase	V/~	120/1	120/1	120/1	120/1	120/1	120/1	120/1	120/1	120/1
Connection type		Round	Round	Round	Round	Round	Round	Round	Round	Round
Consumed power (Low / High speed)	W	52/168	52/168	31/200	42/52	42/52	55/104	55/104	23/74	42/91
Fan Efficacy @ 0°C/32°F	cfm/W	1.2	1.2	2.0	1.5	1.0	0.9	0.9	2.2	1.2
Adjusted Sensible Recovery Efficiency @ 0°C/32°F	%	81	81	80	75	75	81	81	80	88
Sensible Recovery Efficiency @ 0°C/32°F	%	75	75	77	70	70	74	74	77	82
Sensible Recovery Efficiency @-25°C/-13°F	%	60	60	63	55	55	61	61	61	60
Total Recovery Efficiency @ 35°C/95°F	%	60	65	68	50	50	64	64	70	70
Max current	А	1.4	1.4	6.4	0.6	0.6	1.4	1.4	2.3	1.0
Defrost Cycle		Fan Shutdown	Fan Shutdown	Fan Shutdown	Fan Shutdown	Fan Shutdown	Fan Shutdown	Fan Shutdown	Fan Shutdown	Recirculation
Certification		COULS CENTIFIED INTERSECTION	CENTIFIED CENTIFIED	CERTIFIED TOWNSTAN	CO US CERTIFIED	C US CERTIFIED	C US CERTIFIED	CENTIFIED	COUNTRIED CHARLES	CO US CERTIFIED CONTROL
Height	inch (mm)	21 7/16 (546)	21 7/16 (546)	21 7/16 (546)	20 5/8 (523)	20 5/8 (523)	23 5/32 (588)	23 5/32 (588)	23 5/32 (588)	24 1/4 (616)
Width	inch (mm)	23 7/8 (606)	23 7/8 (606)	23 7/8 (606)	21 5/8 (549)	21 7/8 (556)	24 5/8 (625)	25 1/16 (636)	25 1/16 (636)	23 1/4 (590)
Depth	inch (mm)	11 11/16 (297)	16 5/8 (423)	16 5/8 (423)	10 1/6 (255)	10 1/6 (255)	10 (254)	10 (254)	10 (254)	11 1/2 (291)
Weight	lbs (Kg)	51 (23)	57 (26)	60 (27)	29 (13)	30 (13)	34 (15)	35 (16)	35 (16)	47 (21)

¹ Performance at low speed.

³Top-port





 $^{^{\}rm 2}$ Standard has fresh air supply on the right side; Mirrored has fresh air supply on the left.

Residential Heat Recovery Ventilators

HRVs, Side-Port





Model		ATMO 150H	ATMO 200H		
Easy to specify BIM objects & CSI specs a on product page	vailable	ATMO.	Company of the second of the s		
Airflow range (low-high)	cfm @ 0.4" wg.	60-150	60-200		
Duct connection	inch	6	6		
Voltage / Phase	V/~	120/1	120/1		
Connection type		Round	Round		
Consumed power (Low / High speed)	W	54/168	50/168		
Fan Efficacy @ 0°C/32°F	cfm/W	1.1	1.3		
Adjusted Sensible Recovery @ 0°C/32°F	%	80	81		
Sensible Recovery Efficiency @ 0°C/32°F	%	74	75		
¹ Sensible Recovery Efficiency @-25°C/-13°F	%	60	60		
Total Recovery Efficiency @ 35°C/95°F	%	-	-		
Max current	А	1.4	1.4		
Certification		C CERTIFED	CO US CERTIFED CONTROL		
Defrost Cycle		Fan Shutdown	Fan Shutdown		
Height	inch (mm)	21 7/16 (546)	21 7/16 (546)		
Width	inch (mm)	23 7/8 (606)	23 7/8 (606)		
Depth	inch (mm)	11 11/16 (297)	16 5/8 (423)		
Weight	lbs (Kg)	42 (19)	46 (21)		

¹Performance at low speed.

Wall controls

Ideal for single and multi-family residential projects

Bathroom timers



RTS 4 Push-Button Timer, Wired

Activates the appliance at the highest speed for 20, 40 or 60 minutes.

Wall controls



EDF3 Multi-Function Controller

Runs your appliance with three mode options (Econo, 20 minutes/hour, continuous)

TVOC controls



ECO-Feel TVOC-Sensing Controller

Pre-programmed to run continuously on ECO Mode. Ideal for multi-family homes. Set it and Forget it!



RTS-W Wirless Timer, with Battery¹

Activates the appliance at the highest speed for 20, 40 or 60 minutes. Following the completion, it returns the appliance to predetermined setting preferences on the ECO-Touch® IAQ controller.



EDF8 Digital Multi-Function Controller

Controls appliance with four speed settings & three modes (Ventilation Mode, Recirculation Mode, Standby Mode)



Eco-Touch® IAQ Touchscreen

TVOC Sensing Controller Controls your appliance to its ideal setting using multiple sensing options.

Ideal for single-family homes

¹This timer can only be paired to a Fantech HRV/ ERV via the ECO-Touch IAQ wall control.





6 | Ventilation Solutions - IAQ Ventilation Solutions - IAQ | 7

Residential Heat Recovery Ventilators

HRVs, Top-Port



VHR Series FLEX



Model		VHR 70	VHR 70R ES	FLEX® 100H	HERO 120H	HERO 150H	HERO 200H	HERO 150H-EC	HERO 250H-EC
Easy to specify BIM objects & CSI specs available on product page			R	e word	HERO- R	HERO.	HERO- R	HERO-	HERO-
Airflow range (low-high)	cfm @ 0.4" wg.	27-57	33-70	49-104	53-112	36-150	76-203	28-172	31-252
Duct connection	inch	4	5	5	5	6	6	6	6
Voltage / Phase	V/ ~	120/1	120/1	120/1	120/1	120/1	120/1	120/1	120/1
Connection type		Round	Oval	Oval	Round	Round	Round	Round	Round
Consumed power (Low / High speed)	W	42/48	35/60	89/172	69/165	59/180	98/210	23/110	34/260
Fan Efficacy @ 0°C/32°F	cfm/W	1.5	1.2	0.6	1.2	1.2	0.8	3.0	2.5
Adjusted Sensible Recovery Efficiency	%	-	-	-	85	86	88	86	85
¹ Sensible Recovery Efficiency @ 0°C/32°F	%	63	65	60	80	80	80	84	82
¹ Sensible Recovery Efficiency @-25°C/-13°F	%	57	62	56	64	65	67	68	63
¹Total Recovery Efficiency @ 35°C/95°F	%	-	-	-	-	-	-	-	-
Max current	Α	0.4	1.1	1.6	1.2	1.4	2.0	3.0	6.4
Certification		CONTRIBED	CONTINUED CONTINUED CONTINUED	COUS CERTIFIED	CONTROL CENTRIED CENTRIED	CENTIFIED THE	COUS CERTIFIED CHIPTEN	©us ENTIRED ENTIRED	CO US CERTIFIC TRANSPORT
Defrost Cycle		Fan Shutdown	Recirculation	Recirculation	Recirculation	Recirculation	Recirculation	Recirculation	Recirculation
Height	inch (mm)	17 1/8 (435)	17 3/8 (448)	17 7/8 (454)	24 1/4 (616)	24 7/8 (626)	24 7/8 (626)	24 7/8 (626)	24 7/8 (626)
Width	inch (mm)	21 1/2 (546)	21 1/2 (546)	21 1/2 (546)	23 1/4 (591)	27 7/8 (707)	27 7/8 (707)	27 7/8 (707)	27 7/8 (707)
Depth	inch (mm)	10 1/4 (261)	10 1/4 (261)	14 1/2 (368)	11 1/2 (291)	13 3/8 (341)	15 3/8 (391)	13 3/8 (341)	15 3/8 (391)
Weight	lbs (Kg)	26 (12)	30 (14)	39 (18)	41 (19)	51 (23)	59 (26)	51 (23)	57 (26)

¹Performance at low speed. ²Top Ported ERV





8 | Ventilation Solutions - IAQ | 9

The Right Unit:

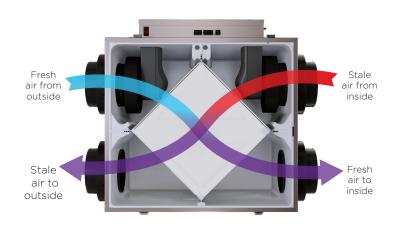
How does it work?

An HRV/ERV provides fresh air to the house and buildings by

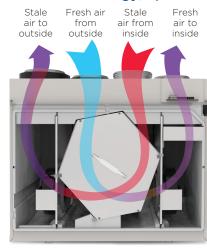
1) exhausting stale air from bathrooms, kitchen, basement and ot

1) exhausting stale air from bathrooms, kitchen, basement and other rooms where pollution is generated and 2) supplies fresh outdoor air directly to rooms where people spend their time (i.e. living and bed rooms).

Cross-flow technology, up to 75% SRE



Counter-flow technology, up to 84% SRE



What are the defrost cycles?

Fantech offers 2 different defrost mechanisms in order to prevent frost inside of the unit:

Supply fan shutdown



Advantages

• This is a simple and robust frost prevention system

Application note: For integration into a central air handling unit, Recirculation Defrost models (e.g., HERO) are recommended. These models have a mechanical backdraft damper that interlocks with the HRV/ERV, blocking outdoor air when not in use.

Appliances: VHR 70, ATMO 150E, ATMO 200E, ATMO 300E-EC, FIT 80E, FIT 80E-D, FIT 120E-D, FIT 120E-D-EC, ATMO 150H, and ATMO 200H

Recirculation defrost



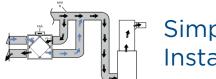
Advantages

- The most energy efficient frost prevention
- Ideal for higher humidity outdoor conditions or colder outdoor conditions
- For models with 5th duct connection, allows the designer to select from where recirculated air is taken
- Ideal to avoid stagnant air that may contribute to indoor condensation during the winter

Appliances: HERO 100E, HERO 120H, HERO 150H, HERO 200H, HERO 150H-EC, and HERO 250H-EC.

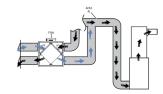
Note: VHR 70R-ES, and FLEX 100H (defrost not shown)

Balanced Ventilation Installation Options:



Simplified Installation

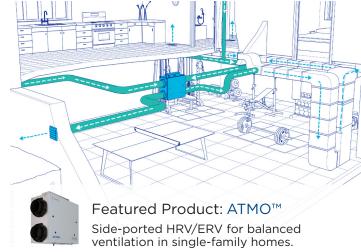
The HRV/ERV draws exhaust from the return duct and supplies fresh air a few feet downstream.

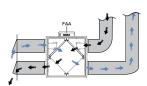


Partially Dedicated Installation

A partially dedicated system combines dedicated exhaust ducts with fresh air supplied through the return duct.

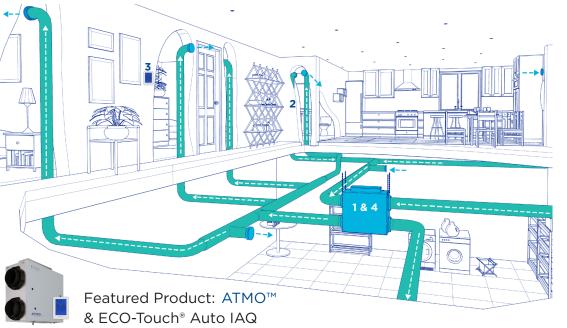






Fully Dedicated Installation

Dedicated ducts supply fresh air to living areas and remove stale air from bathrooms and the kitchen, separate from heating and cooling ducts. Fully ducted systems ensure precise air delivery and easier balancing.



- 1 HRV/ERV
 Brings in and
 tempers fresh
 outdoor air and
 removes stale air.
- 2 Bathroom Timer Runs HRV/ERV for 20/40/60 minutes as required
- 3 ECO-Touch® Auto IAQ Increases ventilation rate based on the total VOC levels.
- **4 Filter Upgrade**MERV 8 and MERV
 13 are available as an optional add-on











Portfolio of Case Studies

Balanced Ventilation in a Net-Zero Ready Home

Architect: Passive Design Solutions Location: Nova Scotia, Canada

The Bay View House, a waterfront home designed for retirees, blends energy efficiency, creativity, and budget-conscious design. Working with Passive Design Solutions, Carpentry Inc., and Engineering Ltd., the project focused on passive energy design and minimizing environmental impact. The home's layout and orientation maximize natural light and cross ventilation, while sustainable water management was achieved using the existing drainage.

A high-performance, ENERGY STAR®-certified HERO® heat recovery ventilator (HRV) was installed to provide continuous fresh air ventilation, supplying 175 cfm of filtered air and recovering 80% of heat from outgoing air. Net-zero-ready with solar rough-ins, the Bay View House ensures long-term energy savings and sustainability.

Breathing Easy: Increasing IAQ in a Modern Apartment Complex

Architect: Fathom Studio Location: Riverview, NB, Canada

Located in Riverview, New Brunswick, The Tides is a 5-story apartment complex featuring 74 units with breathtaking views of the Petitcodiac River. Conveniently situated near major highways and minutes from downtown Moncton, this complex embraces the natural beauty of the surrounding Acadian Forest.

To comply with the 2010 Canadian National Building Code, each apartment is equipped with Fantech's HERO 150H-EC units. These heat recovery ventilators (HRVs) effectively exhaust stale air from kitchens and bathrooms while supplying outdoor air, meeting ASHRAE 62 standards.

Mechanical engineer Eric Woodworth, familiar with the HERO® series, chose these units for their high Sensible Recovery Efficiency and MERV8 filtration options. "I chose the HERO HRV because of the high Sensible Recovery Efficiency and the option to integrate a MERV8 filter," he noted. This ensures clean, fresh air for residents while maximizing the area's natural air quality.

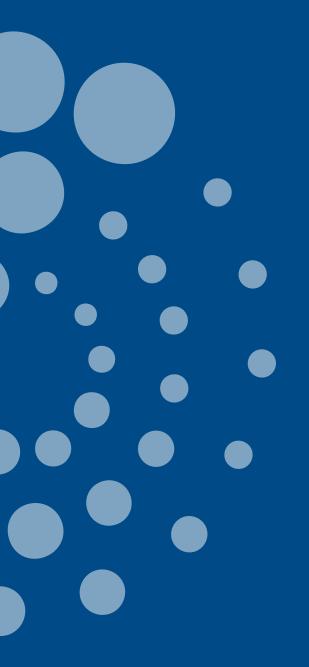
Enhancing a Modern Oasis on Prince Edward Island

Architect: Lyndon Lynch Architects Location: Charlottetown, PEI, Canada

West Royalty Suites is a modern 5-story apartment complex located minutes from downtown Charlottetown, surrounded by lush grasslands and forests. Featuring 97 stylish 1- and 2-bedroom units, residents enjoy stunning views and easy access to beaches, golf courses, and fine dining.

Constructed to the 2020 National Building Code of Canada, the complex emphasizes energy efficiency and sound suppression for a peaceful living experience. Each unit is equipped with large windows for natural light and contemporary amenities, including an underground heated parking garage and keyless entry.

To comply with stringent ventilation standards, HERO® HRVs were installed, providing tempered air and advanced filtration options, including HEPA filters. Additional features like RTS2 and RTS5 push-button controls and the ECO-Touch® AUTO IAQ controller allow residents to customize their ventilation for enhanced indoor air quality and comfort.



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