



FRIGATE

Heat and Energy recovery ventilators





VENTS-US is a North American division of the VENTS company, the manufacturer of ventilation solutions for residential and commercial applications that provides an outstanding range of ventilation products.

VENTS-US provides complete sales service for all markets, including retail and professional.

The branch office and warehouse facilities are located in Cincinnati, Ohio. Products are distributed through wholesalers, retailers, HVAC distributors and contractors throughout the United States and Canada.

VENTS-US is a member of HVI and HARDI Association.
The products are UL, CSA and HVI certified for USA and Canada.



WHY DO WE NEED VENTILATION?

1770 gallons is the average amount of air a human body consumes during the day



WHY DO WE NEED VENTILATION?

Without ventilation, 1320 gallons of room air will be filled with contaminants such as:

- Dust
- Pollen and other allergens
- Excessive moisture
- Volatile organic compounds from building materials and office equipment
- Excess CO₂
- Volatile organic compounds (VOC)

This entails the following:

- General discomfort
- Weakness
- Headache
- Impaired concentration
- Exacerbation of chronic diseases
- Poor sleep

PROBLEM

SOLUTION



Cross ventilation

- ✗ No air flow control
- ✗ No filtration
- ✗ High heat loss (in winter)
- ✗ Increased load on air conditioners (in summer)
- ✗ Depends on external weather conditions

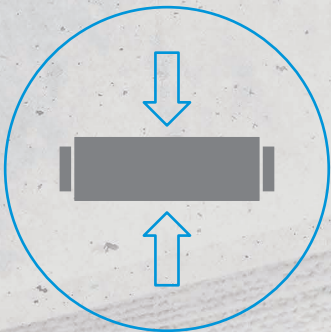


Supply and exhaust ventilation with heat recovery

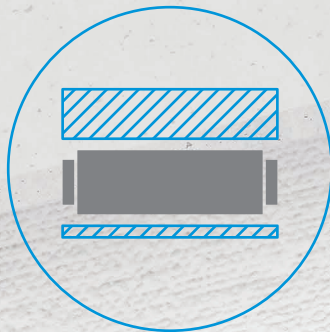
- ✓ Controlled air flow
- ✓ Air is filtered
- ✓ Low costs for heating up supply air
- ✓ Low air conditioning costs
- ✓ Does not depend on external weather conditions



9"



Super slim steel casing -
only 9" thick!



Perfect solution for
in-ceiling installation.



Corrosion-resistant alloy
with high-quality multilayer
aluminium and zinc.

FRIGATE

Heat and Energy recovery ventilators

are complete whole-house ventilation systems designed to bring a continuous supply of fresh air into a house while exhausting and equal amount of stale air.



MAIN FEATURES



Fast and easy mounting due to bracket system.



Automatic recirculation damper for pressure neutral frost protection.



No drain needed (enthalpy core)

up to 189 CFM

Effective ventilation overcoming high pressure in condo tower duct systems.

up to 79%

Sensible Recovery Efficiency.

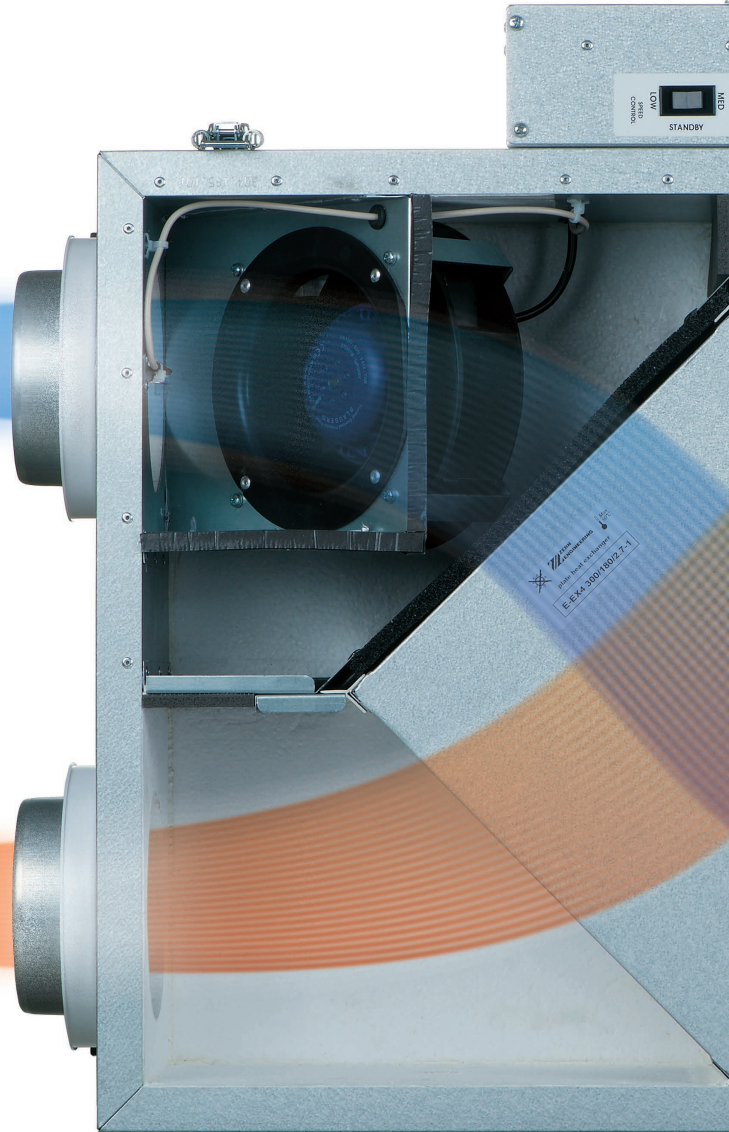
0 to 100%

Built-in control board enables supply and exhaust fan independent speed adjustment from 0 to 100% right at the installation site.

FEATURES

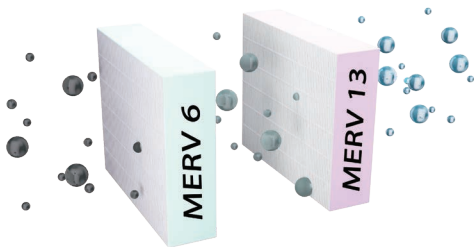
FRESH AIR FROM OUTSIDE

UTILIZED EXHAUST AIR



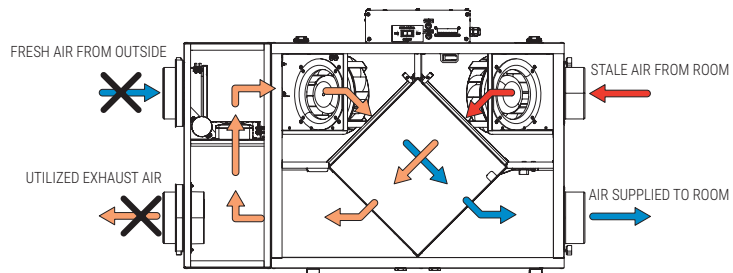
FILTER

- Washable MERV6 air filters in exhaust and supply air streams.
- Optional supply: MERV 13 Supply Filter.

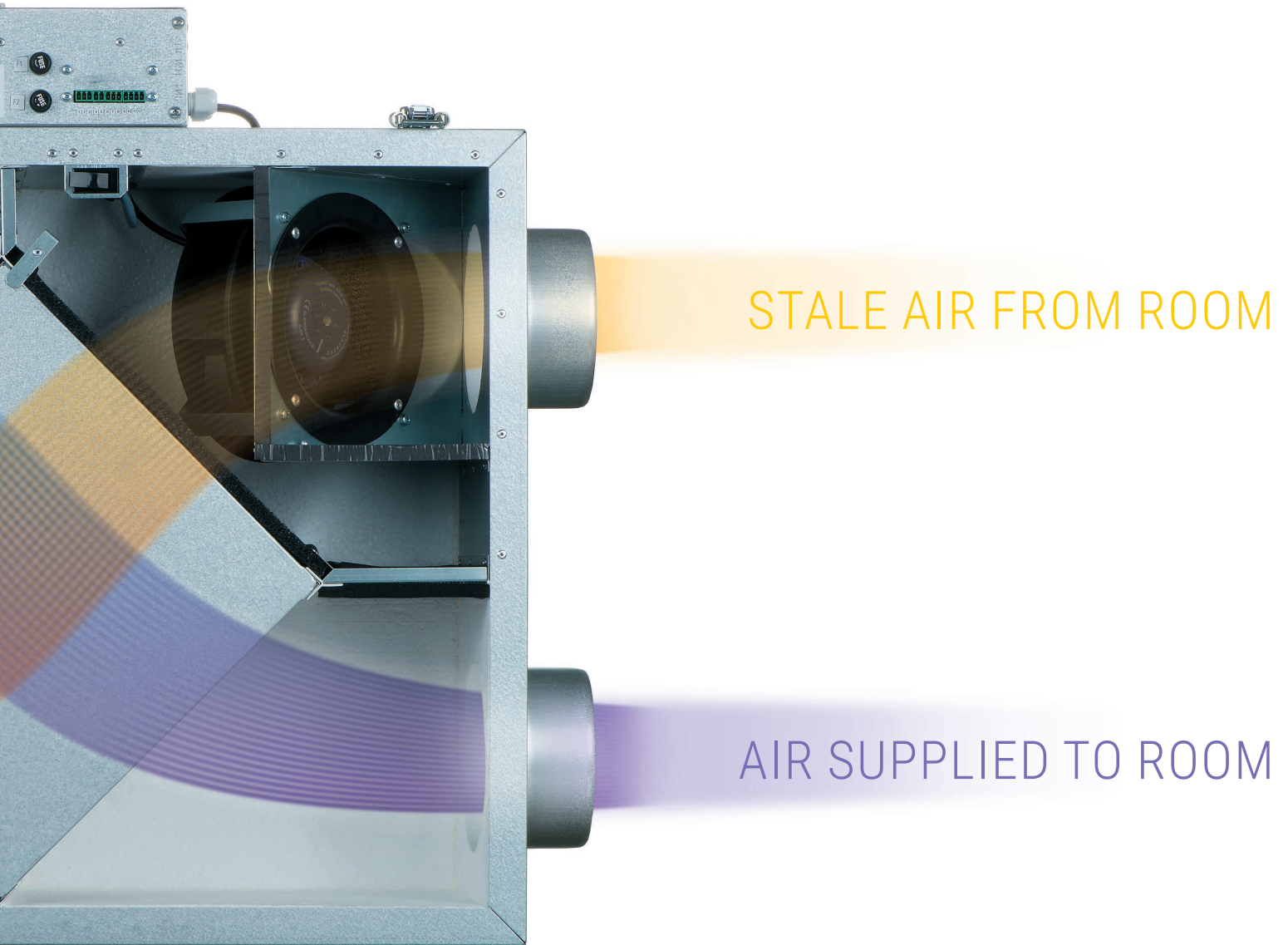


DEFROST SYSTEM

- Energy efficient frost prevention by pressure-neutral recirculation mode. Defrost system is activated when the outdoor temperature falls below 23° F (-5° C). Recirculation defrost (R option).



- Fan stop defrost (standard option)



FEATURES

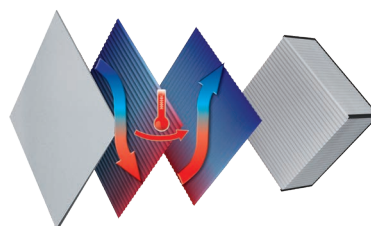
CONTROL

The unit incorporates an integrated automation and control system with following functions:

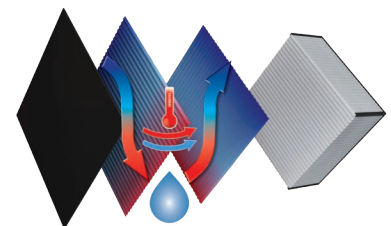
- Operation mode switch.
- Air flow balancing enabled by supply and exhaust fan independent speed adjustment from 0 to 100% (percentage is displayed on built-in screen).
- Automatic recovery core frost protection.

HEAT/ENERGY RECOVERY CORE

Polystyrene cross-flow core (for heat recovery units) ensures efficient heat recovery.



Enthalpy core (for energy recovery units) provides both heat & humidity recovery. No drain required for enthalpy core.



FANS

The Frigate ERV/HRV 80/150 EC units are equipped with high-efficiency electronically commutated motors with an external rotor and impeller with backward curved blades. The EC motors are featured with high performance and total speed controllable range. The electric motors and impellers are dynamically balanced.



The Frigate ERV/HRV 80/150 units are equipped with supply and exhaust centrifugal fans with backward curved blades and build-in thermal overheating protection with automatic restart. The electric motors and impellers are dynamically balanced.



The Frigate ERV/HRV 120 EC units are equipped with high-efficiency electronically commutated motors with an rotor and impeller with forward curved blades. The EC motors are featured with high performance and total speed controllable range. The electric motors and impellers are dynamically balanced.

The Frigate ERV/HRV 120 units are equipped with supply and exhaust centrifugal fans with forward curved blades and build-in thermal overheating protection with automatic restart. The electric motors and impellers are dynamically balanced.

CONSTANT FLOW (CF OPTION)

Frigate recovery ventilators' constant air-flow control function keeps the air-flow in supply and exhaust air ducts constant even in case of variable air resistance.

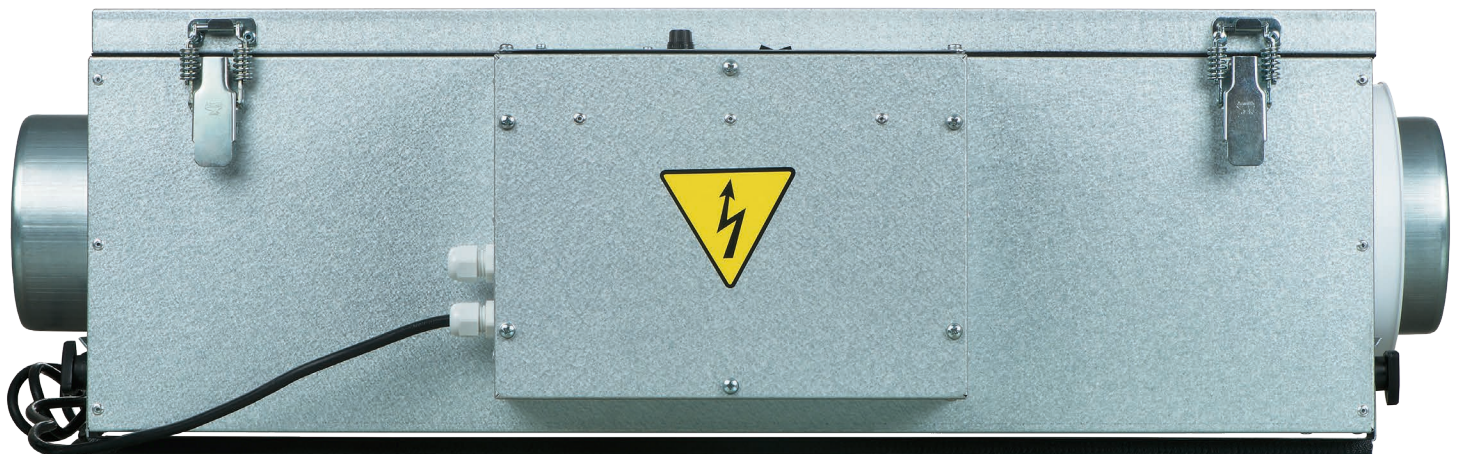
No manual balancing needed!

This function is provided with the integrated air flow control units. The electronic sensors convert the actual air flow to the analogue signal that is proportional to the air flow in the air duct. These signals are transmitted to the controller that controls the rotation speed of a respective fan in such a way that the actual rotation speed is equal to the set value.



BALANCING

Manual balancing is a standard balancing system. Fan speed manually adjusted via the built-in control panel with independent fan speed adjustment 0-100%.



MODIFICATIONS

FRIGATE 80

	Motor type	HVI status	Defrost	Balancing
Frigate ERV 80	AC	Tested at 32 °F (0 °C)		
Frigate ERV 80 R	AC	Tested at -13 °F (-25 °C)	- fan defrost	- manual balancing
Frigate ERV 80 EC	EC	-	R - recirculation	CF - ConstantFlow option
Frigate ERV 80 R EC	EC	-		



FRIGATE 120

	Motor type	HVI status	Defrost	Balancing
Frigate ERV 120	AC	Tested at 32 °F (0 °C)		
Frigate ERV 120 R	AC	Tested at -13 °F (-25 °C)	- fan defrost	- manual balancing
Frigate ERV 120 EC	EC	Tested at 32 °F (0 °C)	R - recirculation	CF - ConstantFlow option
Frigate ERV 120 R EC	EC	Tested at -13 °F (-25 °C)		

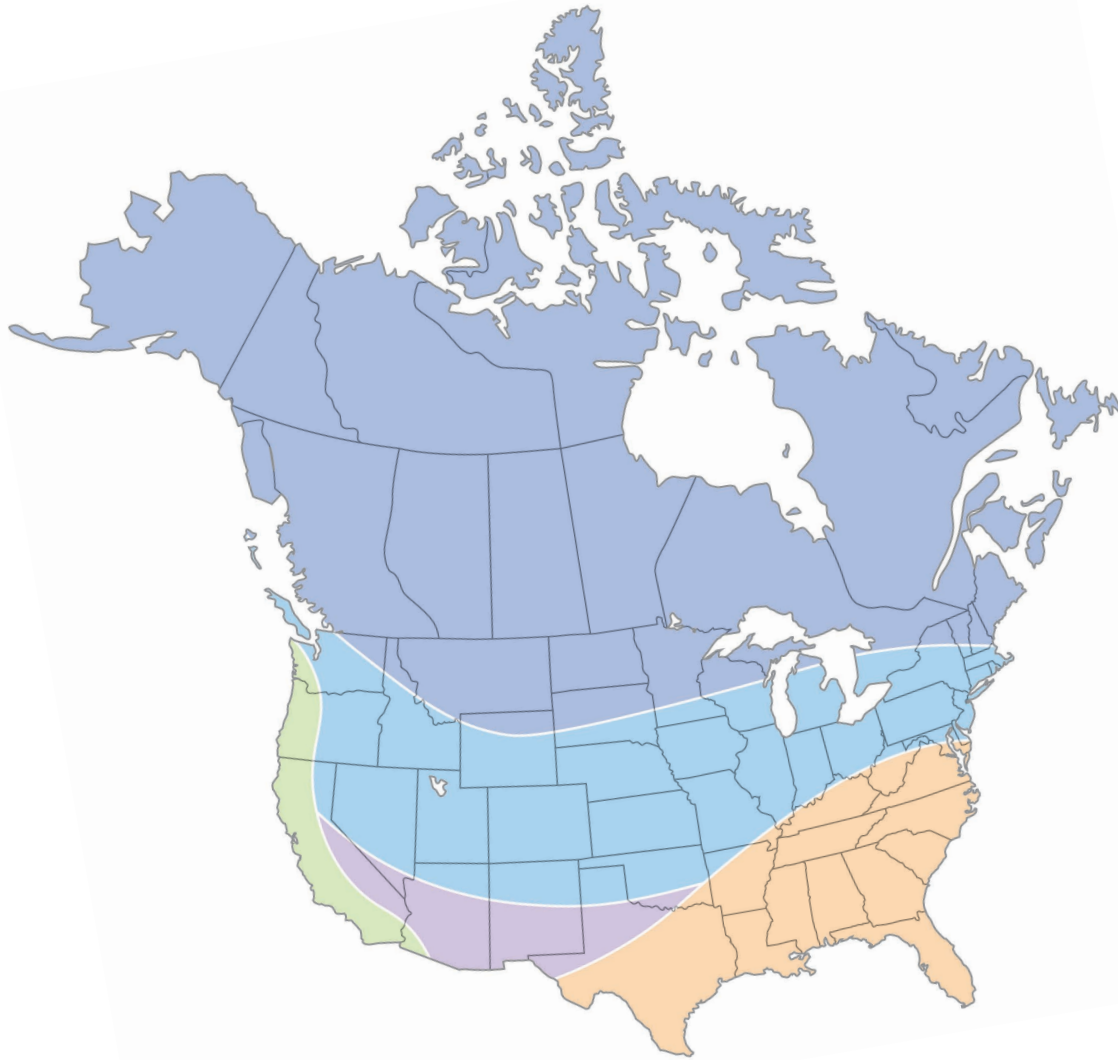


FRIGATE 150

	Motor type	HVI status	Defrost	Balancing
Frigate ERV 150	AC	Tested at 32° F (0 °C)		
Frigate ERV 150 R	AC	-	- fan defrost	- manual balancing
Frigate ERV 150 EC	EC	-	R - recirculation	CF - ConstantFlow option
Frigate ERV 150 R EC	EC	-		



CHOOSING BETWEEN HRV AND ERV



RECOMMENDED CLIMATE ZONES

COLD & DRY	MODERATE	MARINE	HOT & DRY	HOT & HUMID
<ul style="list-style-type: none"> • Frigate ERV series • Frigate ERV EC series 	<ul style="list-style-type: none"> • Frigate ERV series • Frigate ERV EC series • Frigate HRV series • Frigate HRV EC series 	<ul style="list-style-type: none"> • Frigate ERV series • Frigate ERV EC series • Frigate HRV series • Frigate HRV EC series 	<ul style="list-style-type: none"> • Frigate HRV series • Frigate HRV EC series 	<ul style="list-style-type: none"> • Frigate ERV series • Frigate ERV EC series



VALLEYMEDE TOWERS
Richmond Hill, ON

Frigate ERV 80 R
Quantity: 57
Frigate ERV 100 R
Quantity: 251
A50 (Push Button Timer)
Quantity: 308



CAP WEST
North Vancouver, BC

Frigate ERV 80
Quantity: 240
Frigate ERV 120
Quantity: 227



LOUGHEED HEIGHTS
Coquitlam, BC

Frigate ERV 80 EC
Quantity: 412
Frigate ERV 100
Quantity: 199



1708 ONTARIO
Vancouver, BC

Frigate ERV 120 EC
Quantity: 144



THE LINK
Vancouver, BC

Frigate ERV 80
Quantity: 134



RIVER DISTRICT
Vancouver, BC

Frigate ERV 100
Quantity: 156



LYNN VALLEY PH 2
North Vancouver, BC

Frigate ERV 120 EC CF
Quantity: 245



ENGLISH BAY RESIDENCES
Vancouver, BC

Frigate ERV 100
Quantity: 157
A50 (Push Button Timer)
Quantity: 157

REFERENCE OBJECTS



ELENORE ON FIFTH
Vancouver, BC

Frigate ERV 80
Quantity: 30
Frigate ERV 120
Quantity: 29
TwinFresh Expert RA1-50-2 24
Quantity: 298



THE BEVERLY
Vancouver, BC

Frigate ERV 80
Quantity: 70
Frigate ERV 100
Quantity: 80



MANTYLA
Vancouver, BC

Frigate ERV 100
Quantity: 128
A50 (Push Button Timer)
Quantity: 128



FULTON
Burnaby, BC

Frigate ERV 100 DS
Quantity: 98
Frigate ERV 120 S
Quantity: 208



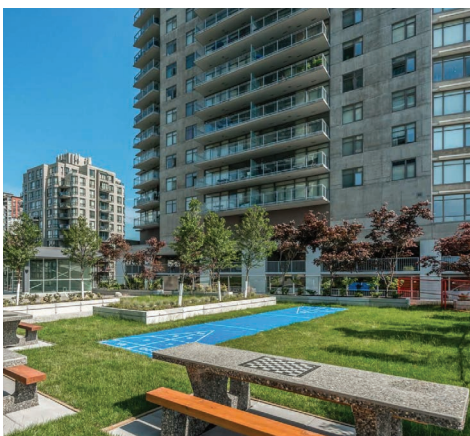
STANTON
Vancouver, BC

Frigate ERV 120 EC
Quantity: 17
Frigate ERV 120 EC CF
Quantity: 245



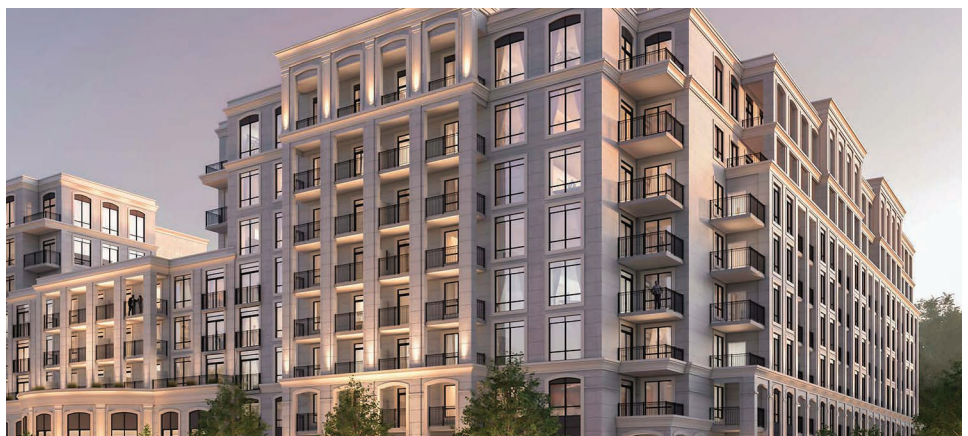
BRENTWOOD 3
Burnaby, BC

Frigate ERV 80 EC
Quantity: 221
Frigate ERV 120
Quantity: 302



PLAZA 88
New Westminster, BC

Frigate ERV 120 S
Quantity: 488



WYVIEW LOWRISE UNIONVILLE GARDENS CONDO
Unionville, ON

Frigate ERV 100
Quantity: 7
Frigate ERV 150
Quantity: 395

REFERENCE OBJECTS

FRIGATE Specification										
	FRIGATE ERV 80	FRIGATE ERV 80 R	FRIGATE HRV 120	FRIGATE HRV 120 R	FRIGATE ERV 120	FRIGATE ERV 120 R	FRIGATE HRV 150	FRIGATE HRV 150 R	FRIGATE ERV 150	FRIGATE ERV 150 R
Maximum continuous air flow capacity (at 0.1 in. w.g.)	85 CFM	93 CFM	142 CFM		127 CFM	136 CFM	161 CFM		178 CFM	
Sensible recovery efficiency at 32°F (0°C)	64%	65%	60%		67%	68%	64%		66%	
Apparent Sensible Effectiveness at 32°F (0°C)	70%	72%	70%		75%	76%	79%		76%	
MERV6 supply/exhaust filters	✓		✓		✓		✓		✓	
Sound level	1.4 Sones		1.9 Sones		1.5 Sones		2.1 Sones		1.9 Sones	
Power consumption	72 W	69 W	158 W		139 W	143 W	192 W		189 W	
Recovery core	Enthalpy		Polystyrene cross-flow		Enthalpy		Polystyrene cross-flow		Enthalpy	
Duct diameters	5 in									
Slim casing	9 1/8"		9 5/8"							
Dimensions (H x W x D)	9 1/8" x 20 1/8" x 21 1/8"		9 5/8" x 23 7/8" x 26 1/2"				9 5/8" x 25 1/8" x 27 3/4"			
Defrost system	Fan defrost	✓	✓		✓		✓		✓	
	Recirculation		✓	✓		✓		✓		✓
	✓	✓	-	-	✓	✓	-	-	✓	-
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Wall controls



Timer A50



Control panel P3-1-300



Control panel AC208EM2+LP

Accessories compatibility



Optional Supply MERV 13 filter



Backdraft dampers KOM U 125



Air disk valve A 125 VRF



Air disk valve AM 125 VRF



Doors DMZ 610x610



Doors DMZ1 762x762



Clamps CZ 125

Warranty

5 years

FRIGATE Specification	 ERV 80 EC ERV 80 R EC		 HRV 120 EC HRV 120 R EC		 ERV 120 EC ERV 120 R EC		 HRV 150 EC HRV 150 R EC		 ERV 150 EC ERV 150 R EC	
	Maximum continuous air flow capacity (at 0.1 in. w.g.)	81 CFM		189 CFM		161 CFM	150 CFM	186 CFM		181 CFM
Sensible recovery efficiency at 32°F (0°C)	73%		62%		71%	72%	69%		73%	
Apparent Sensible Effectiveness at 32°F (0°C)	82%		69%		73%	74%	78%		82%	
MERV6 supply/exhaust filters	✓		✓		✓		✓		✓	
Sound level	1.4 Sones		1.9 Sones		1.5 Sones		2.1 Sones		1.9 Sones	
Fan efficacy	1.72 CFM/W		2.86 CFM/W		2.78 CFM/W	2.83 CFM/W	2.56 CFM/W			
Power consumption	61 W		204 W		175 W		186 W		186 W	
Recovery core	Enthalpy		Polystyrene cross-flow		Enthalpy		Polystyrene cross-flow		Enthalpy	
Duct diameters	5 in									
Slim casing	9 1/8"		9 5/8"							
Dimensions (H x W x D)	9 1/8" x 20 1/8" x 21 1/8"		9 5/8" x 23 7/8" x 26 1/2"				9 5/8" x 25 1/8" x 27 3/4"			
Defrost system	Fan defrost	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Recirculation		✓	✓	✓	✓	✓	✓	✓	✓
	-	-	-	-	✓	✓	-	-	-	-
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Wall controls

Timer A50

Control panel P3-1-300

Control panel AC208EM2+LP

Accessories compatibility

Optional Supply MERV 13 filter

Backdraft dampers KOM U 125

Air disk valve A 125 VRF

Air disk valve AM 125 VRF

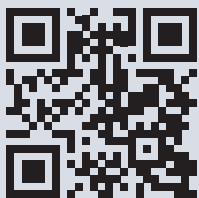
Doors DMZ 610x610

Doors DMZ1 762x762

Clamps CZ 125

Warranty 2 years

SPECIFICATIONS



VENTS-US reserves the rights to modify any of its products' features, designs, components and specifications at any time and without notice to maintain the development and quality of manufactured goods.