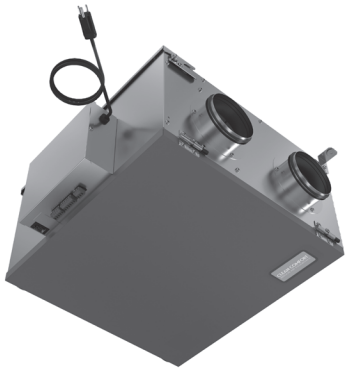
VE40120SFS

Slim Side Port ERV (40-120 CFM)

CLEAN COMFORT™
INDOOR AIR ESSENTIALS

Clean Comfort VE40120SFS is an Energy Recovery Ventilator designed for multi-family applications, brings a continuous supply of fresh air into the premises while exhausting an equal amount of contaminated air out. As such, the energy recovery core transfers both heat and moisture from the outgoing exhaust air to the incoming fresh air, reducing the energy required to condition it.



Features

- Compact design
- No drain required
- Mechanical shutoff damper
- Easy to install on ceiling or wall with mounting bracket included
- Energy recovery core
- Electrostatic filters (washable)
- Removable screw terminal for easy connection with external access
- Multiple speed operation
- Lightweight

Optional Controls

- STS 2.0 – Programmable touch screen wall control
- VHP-DC15P – Electronic multi-function dehumidistat
- VHP-TC10P – Multi-function controller
- VHP-T3P – Pushbutton timer 20/40/60 minutes
- VHP-RD1 – Dehumidistat

Specifications

- Duct size – 5 in. (125 mm) round
- Voltage/Phase – 120/1
- Rated power – 120 W
- Running amperag – 1.0 A
- CSA rated amperage – 1.4 A
- Average airflow – 127 cfm (60 L/s) @ 0.4 in. wg (100 Pa)
- Weight – 35lbs (16kg) including core

Fans

Two (2) factory-balanced fans with backward curved blades. Motors come with permanently lubricated, sealed ball-bearings to guarantee long life and maintenance-free operation.

Mechanical Shutoff Damper

To avoid drawing outside air directly into the air handling unit when the unit is not operating, this unit is equipped with a mechanical shut-off damper. Constructed of polymer material, the damper is activated by a non fail-safe actuator.

Energy Recovery Core

Energy recovery core made from water vapor transport durable polymer membrane that is highly permeable to humidity. The ERV core is freeze tolerant, water washable, and is resistant to mold and bacteria. Core dimensions are 12 in. x 12 in. (305 x 305mm) with a 8.15 in. (207mm) depth.

Frost Prevention

A preset frost prevention sequence is activated at an outdoor air temperature of 14°F (-10°C) and lower. During the sequence, the supply blower shuts down, the mechanical shutoff damper closes & the exhaust blower switches into high speed to maximize the effectiveness of the frost prevention strategy. The unit then returns to normal operation, and continues the cycle.

Serviceability

Core, filters, fans and electronic panel can be accessed easily. Core conveniently slides out with only 8.5 in. (216mm) clearance.

Duct Connections

5 in. (125mm) round metal duct connections with rubberized seal

Case

22 gauge galvanized steel cabinet with a pre-painted steel corrosion resistant door.

Insulation

Insulated with 3/4 in. (20 mm) high density expanded polystyrene.

Filters

Two (2) washable electrostatic panel type air filters 11.3 in. (287mm) x 8.15 in. (207mm) x 0.125 in. (3mm).

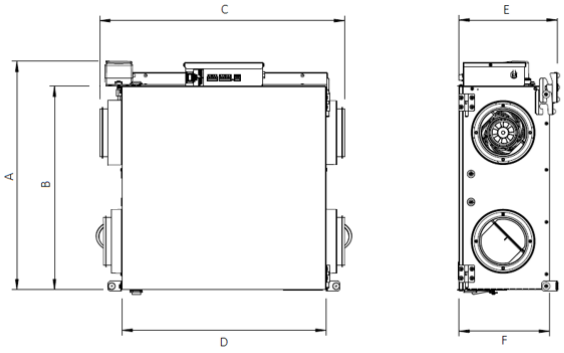
Installation

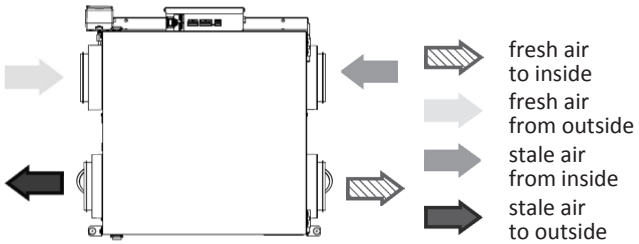
Unit is typically hung by using ceiling bracket supplied with unit. Optional chain kit available.

Limited Warranty

5-Year on energy recovery core, 5 years on motors, and 5-Year on parts.

Dimensions & Airflow



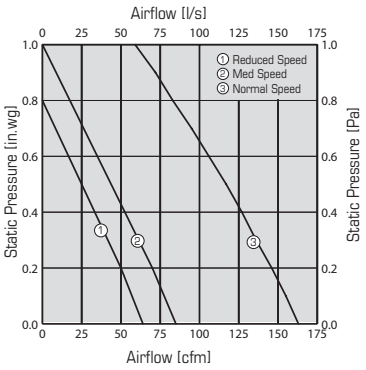


Model	A		B		C		D		E		F	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
VE40120SFS	23 5/8	600	20 3/4	527	25	634	20 7/8	529	10	254	9 1/4	235

Clearance of 17" (432 mm) in front of the unit is recommended for removal of core. All units feature three foot plug-in power cord with 3-prong plug.

Ventilation Performance

in.wg. (Pa)	0.1 (25)	0.2 (50)	0.3 (75)	0.4 (100)	0.5 (125)	0.6 (150)	0.7 (175)	0.8 (200)
	cfm (L/s)	cfm (L/s)	cfm (L/s)	cfm (L/s)	cfm (L/s)	cfm (L/s)	cfm (L/s)	cfm (L/s)
Net supply airflow	155 (73)	146 (69)	136 (64)	127 (60)	117 (55)	106 (50)	95 (45)	83 (39)
Gross supply airflow	159 (75)	150 (71)	140 (66)	129 (61)	119 (56)	108 (51)	97 (46)	87 (41)
Gross exhaust airflow	163 (77)	153 (72)	142 (67)	131 (62)	123 (58)	112 (53)	100 (47)	89 (42)



Energy performance

Heating	Supply temperature		Net airflow		Consumed power	Fan efficiency	Sensible recovery efficiency	Adjusted sensible recovery efficiency	Latent recovery / moisture transfer
	°F	°C	cfm	L/s	W	cfm/W	%	%	
	32	0	51	24	55	0.9	74	81	0.76
	32	0	68	32	63	1.0	69	75	0.71
	32	0	131	62	104	1.2	64	69	0.60
	-13	-25	51	24	55	0.9	61	63	0.54

Cooling	Supply temperature		Net airflow		Consumed power	Fan efficiency	Sensible recovery efficiency	Adjusted sensible recovery efficiency	Latent recovery / moisture transfer
	°F	°C	cfm	L/s	W	cfm/W	%	%	
	95	35	51	24	55	0.9	64	68	0.68

Requirements and standards

- Complies with the UL 1812 requirements regulating the construction and installation of Heat Recovery Ventilators
- Complies with the CSA C22.2 no. 113 Standard applicable to ventilators
- Complies with the CSA F326 requirements regulating the installation of Heat Recovery Ventilators
- Technical data was obtained from published results of test relating to CSA C439 Standards
- HVI certified