HEAT RECOVERY VENTILATOR/ ENERGY RECOVERY VENTILATOR

BROAN B12LC
Part no. B12LC
767 to 1026 cfm (0.4 in. w.g.)

VB0240

FOR LIGHT COMMERCIAL APPLICATIONS

High CFM ventilation for small business owners concerned about indoor air quality (excess moisture, smoke, odors and cleanliness).

Suitable for installation above a suspended ceiling, mechanical room or suspended from a ceiling, this model delivers year-round comfort and sensible heat recovery with virtually no cross leakage. On this unit, the heat exchange efficiency can reach up to 60%.

- Only 24.5" high for false ceiling installation
- Defrost system
- Two-speed control
- Low voltage remote switch

REPAIRS AND MAINTENANCE

All parts of the B12LC such as the large access door and the entire motor sub-assembly can be removed for ease of maintenance.

Furthermore, the electronic circuit board reduces electro-mechanical parts, minimizing repair time to a minimum.

ORDERING EXAMPLE

FROST CONTROL	
D	Recirculation defrost[1]
E	Exhaust only

PACKAGE	
C	Corrosion resistant[2 3]
W	White prepaint

B12LC ☐ ☐ ☐ **N** ☐

CORE MATERIAL	
P	Polypropylene core
A	Aluminum core
H	Polymerised paper ERV HM[4]

LOW SPEED	
N	Normal low speed

ACCESS DOOR	
S	Standard
R	Reversed (right hand flow)

[1] When ordered, the recirculation defrost damper module is factory installed.

[2] Not recommended with aluminum cores.

[3] Not recommended for ERV.

[4] Not for all configurations; please contact a sales representative for more details.

Control

- Built-in electronic circuit board ready to receive the VT1W main wall control.

Heat recovery cores/Energy recovery cores

Dimensions: 12" x 12" x 13.125"

Exchange surface: 200 ft²

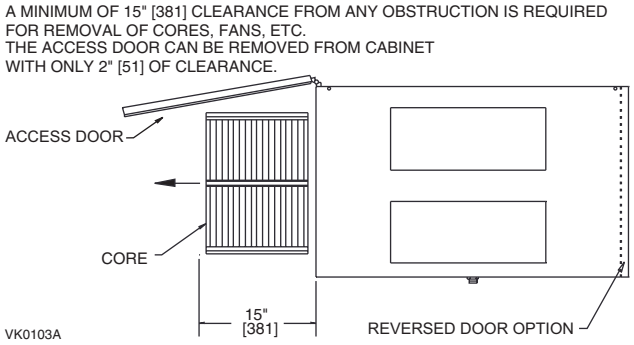
Weight: HRV Polypropylene: 9.2 lb.; Aluminum 13.9 lb.
ERV Polymerised paper: 11.2 lb.

Type: plate to plate core

Quantity: 3

Material: HRV polypropylene or aluminum
ERV polymerised paper

Warranty: HRV 15 years; ERV 5 years



Options

- Medium efficiency air supply filters

Recirculation or exhaust defrost

Outdoor Temperature		Defrost cycle (in minutes)
°C	°F	Defrost/Operation
Warmer than -5	Warmer than 23	No defrost
-5 to -15	23 to 5	12/60
-15 to -30	5 to -21	12/24
-30 & less	-21 & less	12/12

Requirements and Standards

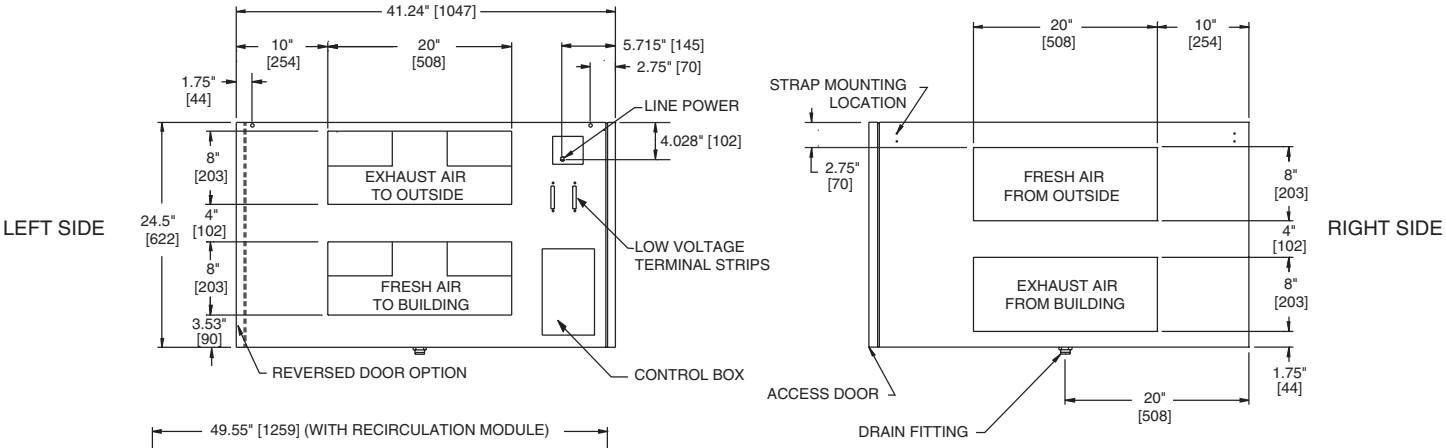
- Complies with the CSA C22.2, no. 113 Standard applicable to ventilators
- Complies with UL Standard 1812 - ducted Heat Recovery Ventilators and Energy Recovery Ventilators

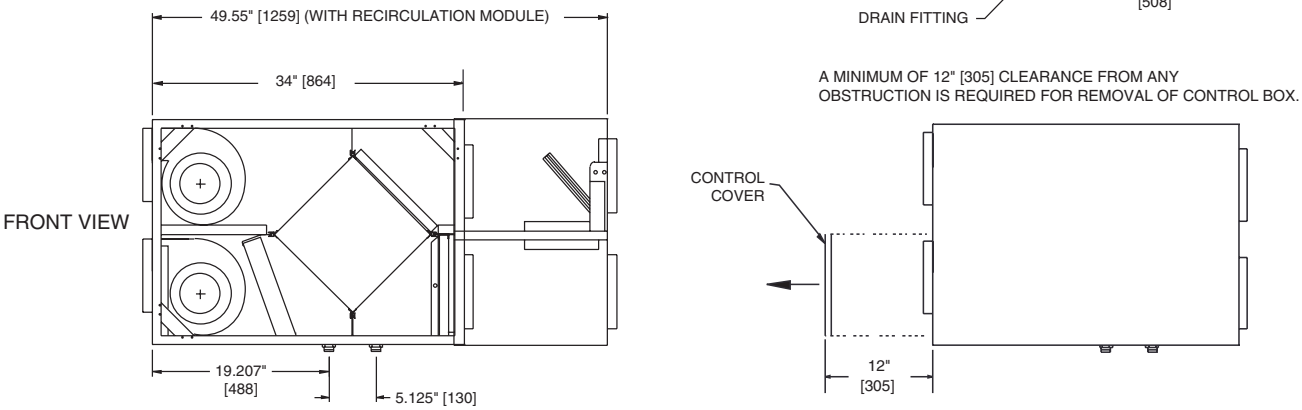
Warranty

The B12LC unit is fully protected by a 2-year warranty on parts, the best in the industry, and the heat recovery cores are covered by a 15-year warranty and the energy recovery cores are protected by a 5-year warranty.

Available at:

Dimensions and Service Clearances: B12LC





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NOTE: FOR UNITS WITH THE REVERSE DOOR OPTION, INTERIOR COMPONENTS WILL APPEAR AS A MIRROR IMAGE OF THE ABOVE DIAGRAM.

NOTE: Dimensions in brackets are in millimeters.

Weight

B12LC Exhaust Defrost

Core Types	Total Assembled Weight
Polypropylene	186 lb.
Aluminum	208 lb.
Polymerized paper	199 lb.

B12LC Recirculation Defrost

Core Types	Total Assembled Weight
Polypropylene	247 lb.
Aluminum	269 lb.
Polymerized paper	260 lb.

Performances

							HRV and ERV			
External Static Pressure		Power consumed Watt	HRV High Speed		ERV High Speed		Medium Speed		Low Speed	
in. w.g.	Pascal		cfm	L/s	cfm	L/s	cfm	L/s	cfm	L/s
0.1	25	1361	1138	537	1108	523	1000	472	776	366
0.2	50	1328	1104	521	1074	507	965	455	767	362
0.3	75	1290	1067	503	1037	489	930	439	756	357
0.4	100	1247	1026	484	996	470	894	422	743	350
0.5	125	1199	981	463	950	448	856	404	728	343
0.6	150	1146	929	438	899	424	817	385	707	333
0.7	175	1087	870	410	840	396	774	365	675	318
0.8	200	1024	800	377	770	363	723	341	628	296
0.9	225	955	714	337	685	323	657	310	571	269
1.0	250	881	614	290	582	275				

Energy Performance

Polypropylene Core				Effectiveness		
Supply Temperature		Net Air Flow		Sensible	Latent	Total
°F	°C	cfm	L/s	%	%	%
Heating						
35	1.7	600	283	57	0	38
35	1.7	450	212	63	0	42
Cooling						
95	35	600	283	55	0	21
95	35	450	212	60	0	23

Aluminum Core				Effectiveness		
Supply Temperature		Net Air Flow		Sensible	Latent	Total
°F	°C	cfm	L/s	%	%	%
Heating						
35	1.7	600	283	54	0	36
35	1.7	450	212	57	0	38
Cooling						
95	35	600	283	52	0	20
95	35	450	212	56	0	21

Polymerized Paper Core (HM)				Effectiveness		
Supply Temperature		Net Air Flow		Sensible	Latent	Total
°F	°C	cfm	L/s	%	%	%
Heating						
35	1.7	600	283	60	47	56
35	1.7	450	212	65	53	61
Cooling						
95	35	600	283	60	38	46
95	35	450	212	63	45	52

Effectiveness

Unit Performance, Sensible Effectiveness				
Heating Supply Temperature 35°F / 1.7°C	Airflow (cfm)			
	450	700	950	1200
Polypropylene	70	61	54	51
Aluminum	63	57	63	50
Polymerized Paper (HM)	75	70	67	64

Unit Performance, Total Effectiveness				
Cooling Supply Temperature 95°F / 35°C	Airflow (cfm)			
	450	700	950	1200
Polymerized Paper (HM)	47	41	37	35

NOTE: All specifications are subject to change without notice.

Accoustic Noise Power Chart (dBA) at unit ports

Airflow	Fresh air to building port	Exhaust air from building port
1026 CFM at 0.4 in. w.g.	74.8 dBA	58.5 dBA
767 CFM at 0.2 in. w.g.	71.5 dBA	56.3 dBA

The data shown on left chart come from measurement performed according to ISO 5136 Standard. These data represent the sound power directly measured at the fresh air distribution port and exhaust air from building port. To get the actual noise level in the room, consider noise attenuation resulting from total ductwork installation.

Specifications

- Models: 12LC and V12LC
- All duct connections: 20" x 8"
- Housing: 20 ga. pre-painted steel
- Mounting: Reinforced rubber straps
- Drains: 3/4" threaded fittings

- Filters: 6 reticulated washable foam filters (20 ppi)
  3 disposable MERV 8 filters (optional) part no. SV63342
- Mounting: Reinforced rubber straps
- Insulation: 1" foil faced and 1" acoustic fiberglass wool

- Supply and exhaust blower motors:
  - Motor type: PSC motors with sealed sleeved bearings
  3 speeds (2 available to customer)
  - R.P.M.: 1625 - H.P.: 1/3
  - Fan type: direct drive centrifugal blower 7 1/8" x 6"
  - Housing: galvanised steel

- Fans speed control:
  - Low, medium and high speeds
  - 2 speeds available to user
  - Low or medium speed is selected at the time of installation
- Unit electrical characteristics:

Volts	MCA	MOP	Watts
120	14.3	20.0	1275

Project:	REMARKS
Location:	
Model No.: B12LC	
Quantity:	
Submitted by: Date:	

BROAN

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Intertek

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