



# LIGHT COMMERCIAL

Heat and Energy Recovery Ventilators



# No stress

Broan's robust energy and heat recovery ventilators are designed to provide year-round comfort with virtually no cross leakage. With several thousands of units sold in North America, our ERVs and HRVs have an outstanding track record for trouble-free performance and come with a minimum 2-year warranty.

# Enhanced health and comfort

Broan ERVs and HRVs provide ventilation, boosting energy efficiency and enhancing comfort while at the same time fighting odors and helping keep germs and indoor air pollutants at bay.



# The best way to enhance indoor air quality

Effective ventilation with high CFM air flow is a must for small business owners who want to optimize indoor air quality at their premises. Not only do Broan energy and heat recovery ventilators decrease odors, reduce the risk of virus transmission, and evacuate toxic vapors from cleaning and chemical products, they increase all-around air quality in any setting.



## Office spaces

- Improves comfort and productivity
- Reduces irritant vapors from equipment like printers
- Reduces risk of health issues related to poor air quality

## Indoor pools/highly contaminated areas

- Helps to control excess humidity
- Reduces odors from pool maintenance products
- Provides fresh outdoor air for occupants

## Fitness centers

- Enhances air quality for better breathing recovery during exercise
- Reduces particulates and chemicals from fitness equipment

## Daycare centers

- Reduces chemicals, toxins, and germs
- Ensures the best air quality for children

## Doctor's/dentist's/veterinarian's office

- Reduces mercury and chemical cleaning product vapors
- Reduces fine particulates and microbes as well as particles of airborne metal, porcelain and ceramic

## Beauty/nail salon

- Reduces toxic vapors from peroxide, acetone and other chemical products
- Reduces risk of respiratory ailments and other health issues

# HRV or ERV?

## Which solution is best for you?

**Heat recovery ventilators (HRVs)** are the solution of choice in spaces where excess moisture can accumulate in indoor air due to heating or business operations, especially in colder climates. HRVs reduce moisture, making them ideal for fitness centers, beauty salons, spas, bars, swimming pool complexes, and more.

**Energy recovery ventilators (ERVs)** are recommended in two situations: 1) air-conditioned spaces where exterior humidity is high, and 2) heated spaces where interior humidity is low. In warm climates with high humidity, ERVs improve comfort and save energy by limiting the amount of moisture entering a building along with exterior air. In a heated space where humidity is low in winter, the ERV system limits the amount of moisture expelled with indoor air. Offices, medical centers and daycare centers can all benefit from an ERV.



## HRV and ERV

PLATFORM	CONTINUOUS AIR FLOW (CFM AT 0.4 W.G.)	DIMENSIONS (H x W x D)		LIMITED WARRANTY	HRV EFFICIENCY	ERV EFFICIENCY
B6LC	560-690 (min.-max.)	<b>Exhaust Defrost</b> 25 in. x 34 in. x 28 in. 149 to 170 lb.	<b>Recirculation Defrost</b> 25 in. x 49.55 in. x 28 in. 197 to 231 lb.	2 years on parts 15 years on HRV core 5 years on ERV core	Up to 66%	Up to 66%
B12LC	890-1170 (min.-max.)	<b>Exhaust Defrost</b> 25 in. x 34 in. x 42 in. 186 to 231 lb.	<b>Recirculation Defrost</b> 25 in. x 49.55 in. x 42 in. 247 to 269 lb.		Up to 60%	Up to 66%

## Unit for high humidity environments

PLATFORM	CONTINUOUS AIR FLOW (CFM AT 0.4 W.G.)	DIMENSIONS (H x W x D)	LIMITED WARRANTY	HRV EFFICIENCY
B1600705	400-700 (min.-max.)	37 in. x 47 in. x 21 in. 210 lb.	2 years on parts 15 years on HRV core	Up to 78%

# How to choose your unit

All of our light commercial HRVs and ERVs can be easily sized, selected and configured using the ASHRAE chart and your local building code. You can quickly and accurately select the Broan solution optimized for your application and your performance and budget goals.

**TABLE 6-1 MINIMUM VENTILATION RATES IN BREATHING ZONE**  
(USE THIS TABLE IN CONJUNCTION WITH THE ACCOMPANYING NOTES. REFER TO THE ASHRAE 62.1.)

OCCUPANCY CATEGORY	OCCUPANT DENSITY #/1,000 sq. ft. or #/100 m <sup>2</sup>	COMBINED OUTDOOR CFM/PERSON
Daycare (through age 4)	25	17
Restaurant dining room	70	10
Beauty or nail salon	25	25
Office space	5	17
Pet shop (animal area)	10	26
Fitness center (aerobics room)	40	22

Ventilation rates vary by application, amount of moisture (potential moisture) and IAQ (or potential IAQ issues) in the building.

## TIPS: HOW TO CALCULATE YOUR VENTILATION RATE

**STEP 1** Calculate building volume  
(square footage × average ceiling height)

Example:

$$35 \text{ ft.} \times 50 \text{ ft.} = (1,750 \text{ sq. ft.}) \times 16 \text{ ft.} = 28,000 \text{ cu. ft.}$$

**STEP 2** Calculate air changes per hour (ACH)  
Convert the cubic feet of air/hour to cubic feet/minute

35 ft. × 50 ft. building example:

$$.50 \text{ ACH } (28,000 \text{ cu. ft.}) / (60) \times (.50) = 233 \text{ CFM}$$

$$1.0 \text{ ACH } (28,000 \text{ cu. ft.}) / (60) = 466 \text{ CFM}$$

$$2.0 \text{ ACH } (28,000 \text{ cu. ft.}) / (60) \times (2.0) = 933 \text{ CFM}$$

# Wall control compatibility



## VT1W

The VENTA wall control features two operating modes (minimum and maximum) and a dehumidistat switch.



## VT10W

The VT10W wall control includes a dehumidistat. It is offered with three modes of operation and a maintenance light indicator. This control is to be used with the B1600705 unit.

# Certification

All Broan light commercial HRVs and ERVs have been tested and approved by the Air-Conditioning, Heating, and Refrigeration Institute (AHRI) and are certified to meet AHRI performance requirements.



# Build your own unit

1	2	3	4	5	6
<b>B6LC</b>				<b>N</b>	
<b>B12LC</b>				<b>N</b>	

## 1 BASE UNIT

B6LC HRV and ERV

B12LC HRV and ERV

## 2 FROST CONTROL

D Recirculation defrost  
 For applications where defrost cycle does not create negative indoor air pressure  
(WHEN ORDERED, THE RECIRCULATION DEFROST DAMPER MODULE IS FACTORY INSTALLED)

E Exhaust defrost  
 Defrost within pressure  
(PERFECT FOR ZONING INSTALLATION APPLICATIONS)

## 3 CORE MATERIAL

P Polypropylene

A Aluminum

H Polymerized paper ERV HM  
NOT FOR ALL CONFIGURATIONS; PLEASE CONTACT A SALES REPRESENTATIVE FOR MORE DETAILS

ACCORDING TO PREFERENCE

## 4 ACCESS DOOR

S Standard

R Reversed (right hand flow)

ACCORDING TO THE POSITION OF YOUR DUCT CONNECTION, YOU SELECT THE OPTION YOU NEED FOR GREATER INSTALLATION FLEXIBILITY

## 5 LOW SPEED

N Normal low speed

## 6 PACKAGE

C Corrosion resistant

For large indoor swimming pools or high humidity applications  
(NOT RECOMMENDED WITH ALUMINUM CORE OR ERV)

W White prepaint

# A guarantee of quality

For more than 85 years, with several million homeowners and business owners among its customers, Broan® has been one of North America's leading manufacturers of innovative indoor air quality (IAQ) products.

Broan is America's leading brand of ventilation products including range hoods, ventilation and whole-house fans, heater/fan/light combination units, IAQ systems, built-in heaters, electric and solar-powered attic ventilators and trash compactors. Our products are recognized as the industry standard for quality, styling, reliability, and an optimally healthy indoor air environment.

AUTHORIZED DEALER



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