

# MODEL ERV100HC ENERGY RECOVERY VENTILATOR

### FEATURES

#### BLOWER:

- Fresh and stale air streams are isolated from each other to prevent mixing of stale air with fresh air
- High pressure, centrifugal blower accommodates many ducting configurations
- Balanced centrifugal blower wheels for quiet operation and long motor life
- Built-in dampers for balancing air streams and adjusting air flow
- Permanently lubricated, 120 VAC, 60 Hz, Permanent Split Capacitor (PSC) motor designed for continuous operation
- HVI certified to assure consistent operating performance
- UL listed and CSA certified

#### HOUSING:

- Rugged steel housing with corrosion-resistant finish
- Installed suspended from ceiling joists
- Built-in defrost mechanism prevents freeze-ups
- Every part is removable in less than five minutes
- 6" round inlets and outlets for easy duct connections
- Flanges on outdoor air stream connections allow for taping insulated ductwork
- All inside surfaces covered with foil-faced thermal/acoustic insulation
- Easily removable, washable air filters
- Built-in 3 foot power cord (2- wire plus ground, NEMA type 15)
- Suspension chains with springs provided to ensure quiet operation
- Built-in drain tube connection

#### CONTROLS:

- Must use one of the Broan low voltage central controls – Basic (VT1W), Electro (VT2W), or Detector (VT3W)
- Provisions for 24 volt low voltage remote boost switches

#### CORE:

- Enthalpic core transfers energy and moisture vapor between incoming and outgoing airstreams for energy recovery and effective humidity control
- Easily removable for cleaning and replacement - no tools required
- Material is U.L. flammability classified 94 HB.

### TYPICAL SPECIFICATIONS

The Energy Recovery Ventilator shall be Broan-NuTone Model ERV100HC.

Rated air flow shall be 130 cfm at 0.4 in. wg.

Unit to include easily-removable total energy recovery core - no tools should be required to remove.

Fresh air and stale air streams to be isolated from each other to prevent mixing of stale air with fresh air.

Built-in dampers to be provided for balancing air streams and adjusting air flow.

Built-in defrost mechanism to be provided to prevent freeze-ups.

Provisions for mounting the unit to the ceiling joists to be provided.

Every part shall be removable in less than five minutes.

All interior surfaces to be covered with foil-faced thermal/acoustic insulation.

Unit shall include easily removable, washable air filters. No tools are to be required for filter cleaning/replacement.

Unit to include a 3 foot built-in power cord.

The unit shall be controlled by a central control and include provisions for low voltage remote boost switches.

Unit to accommodate 6" round, insulated duct. Taping flanges on outdoor air stream connections shall be provided.

Blower shall be designed for continuous operation using a plug-in, permanently lubricated, PSC (Permanent Split Capacitor) motor and balanced centrifugal blower wheels.

Unit to be UL listed, CSA certified, and HVI certified.



Broan-NuTone LLC, A Nortek Company, Hartford, Wisconsin 53027

REFERENCE	QTY.	REMARKS	Project
			Location
			Architect
			Engineer
			Contractor
			Submitted by
			Date

# PERFORMANCE RATINGS

## MODEL ERV100HC ENERGY RECOVERY VENTILATOR

Option Installed: Defrost

Electrical Requirements:

120 Volts 1.3 Amps

Exhaust Air Transfer Ratio:

0.06 @ 50 Pa/0.2 in. wg

Low Temp. Vent Reduction Factor:

0% Supply 0% Exhaust

Low Temp. Imbalance Factor: 1.0

VENTILATION PERFORMANCE							
External Static Pressure		Net Supply Air Flow		Gross Air Flow			
				Supply		Exhaust	
Pa	in. wg	L/s	cfm	L/s	cfm	L/s	cfm
25	0.1	74	158	80	169	85	180
50	0.2	71	151	76	160	79	167
75	0.3	66	139	70	148	73	155
100	0.4	61	130	65	138	71	149
125	0.5	50	107	54	114	61	131
150	0.6	42	90	45	95	51	108
175	0.7	33	71	36	75	38	80
200	0.8	27	58	29	61	22	47

ENERGY PERFORMANCE								
	Supply Temperature		Net Air Flow		Power Consumed (Watts)	Sensible Recovery Efficiency (%)	Apparent Sensible Effectiveness (%)	Latent Recovery Moisture Transfer
	°C	°F	L/s	cfm				
	0	32	29	60	56	71	79	0.52
Heating	0	32	47	100	80	64	73	0.41
	0	32	65	137	126	60	68	0.36
	-15	5	31	65	64	56	81	0.41
						<b>TOTAL RECOVERY EFFICIENCY</b>		
Cooling	35	95	28	59	52	45		

