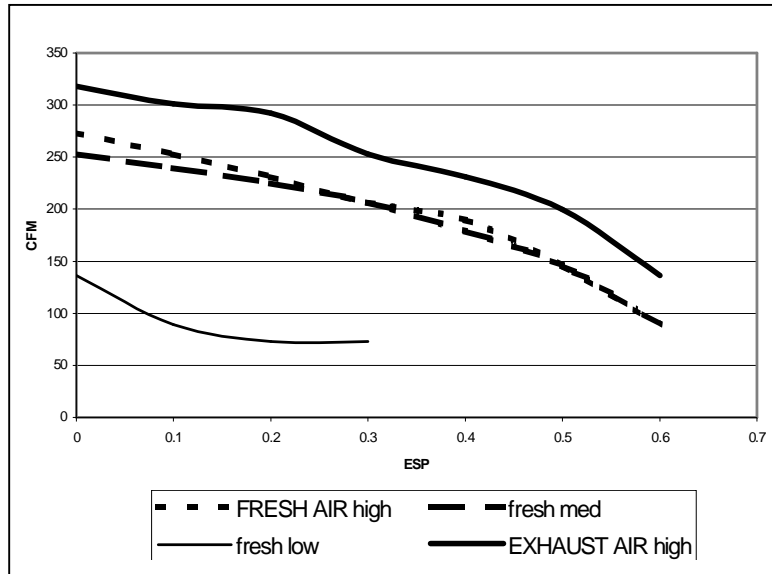


# NU305 HRV PRODUCT INFORMATION SHEET



## APPROVALS:

Conforms to UL Std  
1812 Certified to CSA  
Std C22.2 No. 113



**Intertek**

**CABINET:** The case is constructed of .050 prepainted white aluminum. The cabinet is fully insulated with 1" foil faced fiberglass insulation.

**HEAT EXCHANGER CORE:** The core is polypropylene.

**BLOWERS:** Two forward curve, dual inlet impellers using permanently sealed bearings.

## DEFROST OPTIONS

**Circulation Defrost:** When outdoor temperature is below -5° C (23° F), a defrost cycle is initiated for a fixed duration. The fresh air motor will run and the exhaust air motor will shut down. A damper will shut off the cold supply port, directing ambient air through the core for defrosting. The unit will resume normal operation for a fixed duration, then the processor will read outdoor temperature and initiate defrost as necessary. Defrost times and intervals will vary according to temperature below -5° C (23° F). **NOTE:** *In circulation defrost mode, this unit will not induce indoor negative pressure nor recycle exhaust air; rather it will redistribute ambient room air.*

**Timed fan shut down defrost** - The outside air before the core is monitored. When below freezing, a defrost cycle is activated. The supply fan shuts down while the exhaust fan continues to move warm air through the core. After a predefined temperature based time cycle, the HRV reverts to exchange mode.

## ADDITIONAL FEATURES:

- Fan interlock options: interlocks in Hi and Lo speeds or Hi speed only.
- Intelligent defrost adjusts to outdoor conditions below -5° C (23° F)
- Independent speed adjustment of either supply or exhaust motor in BOTH high and low speed
- 24V circuit protection with self-resetting fuse
- Drain, hanger kit, polyester air filters included 13.5"x14"x0.5"

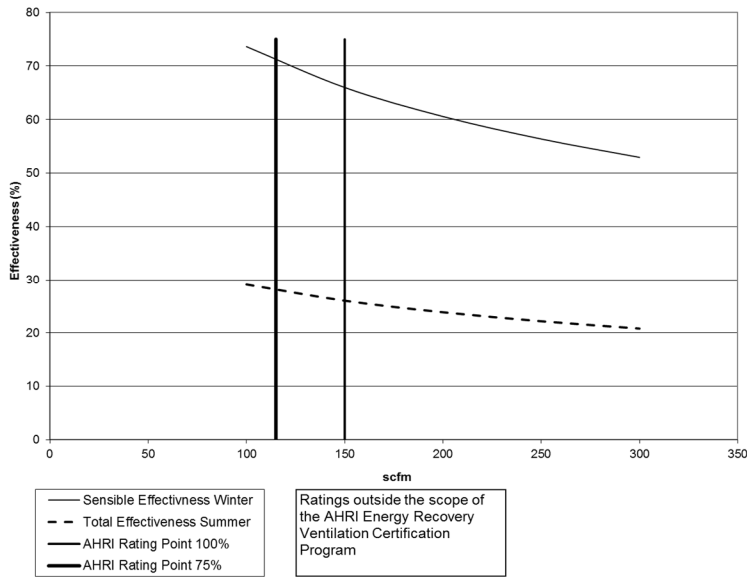
AIR FLOW	292 cfm @ 0.2 in. w.c. 137 l/s @ 100 Pa
DUCT SIZE	8 in. dia 203 mm
CORE SIZE (L x W x D)	14 x 14 x 14 in. 356 x 356 x 356 mm
CABINET SIZE (L x H x D)	36 x 23 x 17 in. 914 x 584 x 432 mm
WATTS	170
VOLTS	115
WEIGHT	50lb/23 kg

12 VDC **AND/OR** 24 V connection for remote control with mechanical switch or the following Nu-Air controls:

12 VDC controls available	24 V controls available
<b>Lumina</b> digital control with dehumidistat, timer functions and filter change indicator <b>ES-M1:</b> Off/ Stand-by / Lo/ Hi <b>ES-M2:</b> Off/ Stand-by / Lo/ 20 Lo-40 Standby <b>ES-M3:</b> Off/ Stand-by / Lo/ 20 Lo-40 Recirculation <b>ES-M4:</b> Off/Stand-by/Recirculation <b>ES-T1:</b> 20-40-60-minute timer	Any Dry Contact Switch <b>DSTAT-1:</b> Humidity control <b>Win-1:</b> Humidity control/ OFF/ STBY/ Continuous/ Intermittent/ Full-time high speed <b>WIN-20:</b> 20-minute timer (up to 6)

**WARRANTY:** Subject to applicable consumer protection legislation Nu-Air Ventilation Systems Inc. warrants that the unit will be free from defective materials and workmanship for a period of two (2) years provided installation is in accordance with the instructions, 15 year warranty on plastic cores.

# NU305 HRV EFFICIENCY



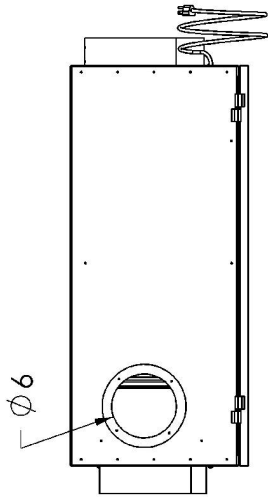
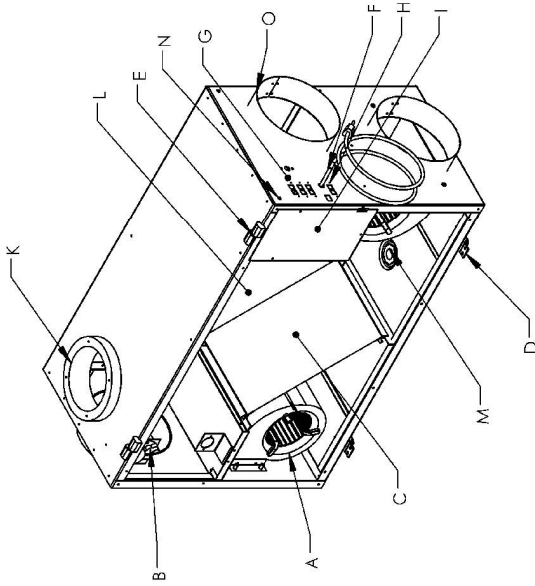
Energy recovery component is certified by AHRI to AHRI Standard 1060. Actual performance in packaged equipment may vary.

<b>Model no.</b>	<b>PC 14</b>
<b>Type</b>	<b>Plate</b>
<b>Nominal Air Flow (scfm)</b>	<b>150</b>
<b>Pressure drop (inches)</b>	<b>0.19</b>

Leakage Ratings	Diff. Pressure	EATR %	OACF
Test 1	-0.5	0.00	1.00
Test 2	0	0.00	1.00
Test 3	0.5	0.00	1.00

<b>Thermal Effectiveness Ratings at 0" Pressure Differential</b>			
	<b>Sensible</b>	<b>Latent</b>	<b>Total</b>
100% air Flow Heating	66	0	43
75% air Flow Heating	70	0	46
100% air Flow cooling	64	0	30
75% air Flow Cooling	69	0	31
	<b>Net Sensible</b>	<b>Net Latent</b>	<b>Net Total</b>
100% air Flow Heating	66	0	43
75% air Flow Heating	70	0	46
100% air Flow cooling	64	0	30
75% air Flow Cooling	69	0	31

A	FORWARD CURVE, DUAL INLET IMPELLER (2)
B	DEFROST SWITCH
C	HEAT EXCHANGER CORE - SENSIBLE OR TOTAL
D	LATCH (2)
E	HINGE (2)
F	ELECTRICAL CONNECTION - CORD
G	CONTROL TERMINALS
H	FURNACE INTERLOCK
I	ELECTRICAL BOX
J	
K	DEFROST AIR DAMPER AND COLLAR (6") -OPTIONAL
L	FILTERS (2)
M	5/8" DRAINS (2)
N	HANGER MOUNTS (4)
O	DUCT COLLARS 8"

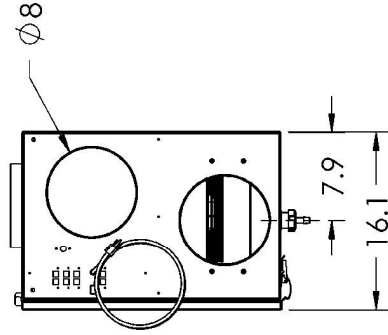
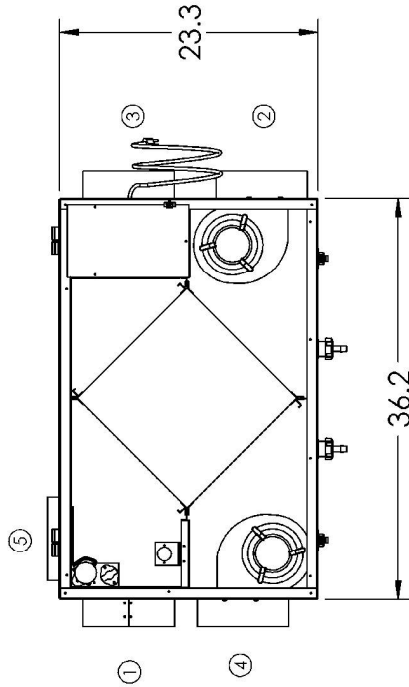


**DEFROST OPTIONS:**

F - FAN SHUT DOWN, EXHAUST ONLY, TEMPERATURE ACTIVATED, TIMED CYCLE. FOR MODERATE WINTER TEMPERATURES WHERE SOME NEGATIVE BUILDING PRESSURE IS ACCEPTABLE.

D - CIRCULATION DEFROST, NO EXHAUST, CIRCULATION OF ROOM AIR, TEMPERATURE ACTIVATED, TIMED CYCLE. FOR COLD WINTER TEMPERATURES AND/OR WHERE BUILDING PRESSURE MUST REMAIN NEUTRAL.

IN BOTH CASES THE TIME CYCLE IS PROPORTIONAL TO OUTSIDE AIR TEMPERATURE



1	OUTSIDE AIR / FRESH AIR FROM OUTSIDE
2	SUPPLY AIR / FRESH AIR TO SPACE
3	RETURN AIR / EXHAUST AIR FROM SPACE
4	EXHAUST AIR / EXHAUST AIR TO OUTSIDE
5	DEFROST AIR

PROPRIETARY AND CONFIDENTIAL  
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UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: ANGULAR: BEND ±1° TWO PLACE DECIMAL ±0.01 THREE PLACE DECIMAL ±0.001	NAME	DATE
MATERIAL	DRAWN	16/03/2012
PROJECT: NU305	MODEL INFORMATION: Model Name: NU 305 Damper Model Revision Level: AE	
DO NOT SCALE DRAWING		

**nu-air**  
Sustainability Through Innovation

TITLE: NU0103 SHOP DWG

SCALE: 1:12 WEIGHT: SHEET 1 OF 1

SIZE DWG. NO. 71500 REV AE