

University of Illinois Department of Agricultural and Biological Engineering
 Bioenvironmental and Structural Systems Lab
 Final Report

Project Number: 19393
 Test Date: June 19, 2019

Heat Recovery Ventilator:	Motor:	Housing:
Make- <i>Better Air</i>	Make- <i>Ziehl-Abegg</i>	Material- <i>galvanized steel</i>
Model- <i>BA-HRV-50 (exhaust)</i>	Model- <i>Part 114877</i>	Intake area- <i>24" x 30"</i>
Type- <i>Commercial HRV unit</i>	Hp- <i>3.0 kW</i>	Discharge- <i>24" x 30"</i>
Orifice dia.- <i>9.8"</i>	RPM- <i>2590</i>	Depth- <i>65"</i>
Blade/Wheel:	Volts- <i>200-240</i>	Guards:
Number- <i>7</i>	Amps- <i>9.0-7.6</i>	Description- <i>none</i>
Shape- <i>back inclined centrifugal</i>	Hz- <i>50 / 60</i>	Spacing- <i>-</i>
Material- <i>fiber reinforced</i>	Phase- <i>3</i>	Location- <i>-</i>
diameter- <i>400 mm</i>	S. F.- <i>-</i>	
clearance- <i>-</i>		

Notes:

Test Conditions:

T(wb): 66.5	Barometric pressure, recorded	29.14
T(db): 77	Barometric Pressure, corrected	29.01

Corrected to Standard Air (0.075lb/ft³)

Static Pressure (in.H2O)	Airflow (cfm)	Watts	Test Speed rpm
Full speed -100%			
0.00	5073	2157	2595
0.25	5002	2234	-
0.50	4929	2298	-
0.75	4846	2377	-
1.00	4743	2453	-
1.25	4647	2510	-
1.50	4548	2580	-
1.75	4387	2628	-
2.00	4283	2689	-
2.25	4154	2738	-
2.50	4011	2797	-
2.75	3815	2836	-
3.00	3658	2870	-
3.25	3442	2897	-
3.50	3281	2911	-
3.75	3098	2974	-
4.00	2855	2978	-
90 % setting			
0.00	4656	1708	2395
0.50	4489	1840	-
1.00	4262	1964	-
1.50	4033	2062	-
2.00	3719	2148	-
50% setting			
0.00	2439	287	1271
0.50	2084	342	-
1.00	1555	378	-

