

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

Project Number: 19400
 Test Date: June 20, 2019

Heat Recovery Ventilator:

Make- *Better Air*
 Model- *BA-HRV-50 (intake)*
 Type- *Commercial HRV unit*
 Orifice dia.- *9.8"*

Motor:

Make- *Ziehl-Abegg*
 Model- *Part 114877*
 Hp- *3.0 kW*
 RPM- *2590*
 Volts- *200-240*
 Amps- *9.0-7.6*
 Hz- *50 / 60*
 Phase- *3*
 S. F.- *-*

Housing:

Material- *galvanized steel*
 Intake area- *24" x 30"*
 Discharge- *24" x 30"*
 Depth- *65"*

Blade/Wheel:

Number- *7*
 Shape- *back inclined centrifugal*
 Material- *fiber reinforced*
 diameter- *350 mm*
 clearance- *-*

Guards:

Description- *none*
 Spacing- *-*
 Location- *-*

Notes:

Test Conditions:

T(wb): 66 Barometric pressure, recorded 29.1
 T(db): 76.5 Barometric Pressure, corrected 28.97

Corrected to Standard Air (0.075lb/ft³)

Static Pressure (in.H2O)	Airflow (cfm)	Watts	Test Speed rpm
Full speed -100%			
0.00	4939	2188	2582
0.25	4856	2278	2582
0.50	4762	2362	2581
0.75	4666	2445	2581
1.00	4559	2517	2581
1.25	4469	2589	2582
1.50	4367	2650	2582
1.75	4262	2715	2581
2.00	4144	2783	2582
2.25	4024	2831	2582
2.50	3909	2903	2582
2.75	3803	2958	2581
3.00	3695	3013	2582
3.25	3571	3062	2582
3.50	3429	3097	2582
3.75	3295	3126	2582
4.00	3126	3141	2582
90 % setting			
0.00	4569	1716	2383
0.50	4356	1876	2383
1.00	4144	2006	2383
1.50	3932	2119	2383
2.00	3707	2230	2384
50% setting			
0.00	2414	284	1266
0.50	2016	341	1266
1.00	1533	378	1266
100% 1 opening			
0.00	4837	2275	2570

