Building Performance Equipment, Inc.™

Scientists and Engineers

ENERGY STAR PARTNER

Comparative Analysis

This analysis presents a comparison between the specifications and performance achieved through BPE and other standard 200 and 2000 cfm sized units. The calculations were done using the weather conditions given below. The end results show that the BPE XE-MIR-200 and 2000 units achieve a higher EER (Energy Efficiency Rating) by recovering more Btu's while using up less power. This is significant in that BPE energy recovery ventilators have less power consumption and are highly efficient compared to its competition.

Weather Conditions			
Summer		**Winter**	
95° F Outside Air	70° F Inside Air	10° F Outside Air	70° F Inside Air
78° F WB	45% RH	-	-

Unit*	**BPE XE-MIR-200**	**Other's 200 unit**	**Electric Resistive + AC**
Fan Power	38 watts	121 watts	660 watts
Voltage	120 VAC	120 VAC	120/208 VAC Nat. Gas/Oil
Hertz	60	60	60
Weight	35 lbs	65 lbs	485 lbs
Btu's Recovered			
(Summer)	2436	2201	6000
(Winter)	6201	5705	15552
Btu's/watt			
(Summer)	64.1 Btu's/watt	18.19 Btu's/watt	9 Btu's/watt
(Winter)	163.19 Btu's/watt	47.14 Btu's/watt	23.5 Btu's/watt
EER**	**64.1**	**18.19**	**9**

Unit***	**BPE XE-MIR-2000**	**Other's 2000 unit**	**Electric Resistive + AC**
Fan Power	990 watts	2,626 watts	3,600 watts
Voltage	120 VAC	120 VAC	220 VAC
Hertz	60	60	60
Weight	320 lbs	420 lbs	786 lbs
Btu's Recovered			
(Summer)	32,805	28,755	35,800
(Winter)	78,732	69,012	76,000
Btu's/watt			
(Summer)	33.13 Btu's/watt	10.95 Btu's/watt	10 Btu's/watt
(Winter)	79.52 Btu's/watt	26.28 Btu's/watt	3.14 Btu's/watt
EER**	**33.13**	**10.95**	**10**

* Using Balanced Air Flow (110 CFM for BPE and 124 CFM for other)
** Energy Efficiency Rating = Btu's/watts (at 95° F)
*** Using Balanced Air Flow (1500 CFM)

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