ENERVEX®
BEF 315x BOX VENTILATOR

Use
The BEFx is designed to provide movement of air in exhaust and air supply systems. Suitable uses include comfort ventilation, make-up air for laundry and mechanical rooms, and exhaust and air supply in kitchens/bathrooms/laundries in multi-story, multi-family buildings. It can be installed indoors as well as outdoors

Description
The BEFx box ventilator is a high performing exhaust fan with a no-scroll housing design with inlet outlet connections on the same centerline. The design of the inlet and discharge areas assure minimum lint build-up.

The housing's double-wall design completely insulates against fire, noise, condensation and heat with 2" fiberglass insulation. The motor and impeller are mounted on a hinged door to provide easy access for service and cleaning.

The housing design allows the ventilator to be oriented in multiple positions, curb-mountable, inline, standing on a flat surface or suspended from a ceiling.

The fan is designed to exhaust lint-laden air from single or multiple Type I and Type II residential and commercial clothes dryers. The ventilator cannot be used for transport of large particles.

The box ventilator can operate with exhaust temperatures within 10°F (-12°C) and 400°F (200°C), and at ambient temperatures within -20°F (-30°C) and 120°F (50°C).

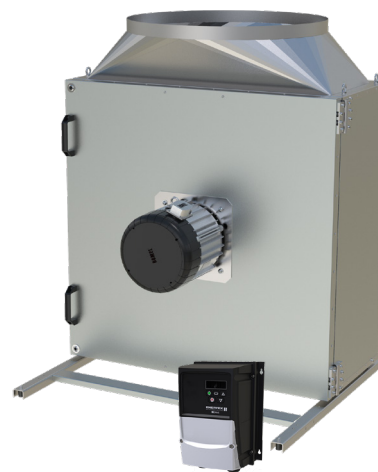Meets US Department of Energy 2016 Motor Efficiency Requirements.

Material
The ventilator housing is galvanized steel while the impeller is welded aluminum. The aluminum impeller is statically and dynamically balanced with permanently attached balancing weights.

Motor
The IE5 rated motor is a TEFC, maintenance-free variable speed permanent magnet motor with pre-lubricated and sealed ball bearings and a Class H temperature rating. The motor with controller is rated at 92% efficiency and able to operate as low as 50 RPM. It has integrated protection against overloading, blocking over and under voltage and over-heating. The motor shaft in internally isolated to eliminate the need for external shaft grounding. It is rated for outdoor installation.

The included EDrive motor control (NEMA4X) is factory programmed by ENERVEX for optimal operation of the ventilator.

Standard Equipment
• Support legs with vibration dampers

• 4" x 4" Junction box with cover and conduit

• EDrive E3 Motor Controller (NEMA4X)

• **Optional Accessories**
• MEC 24 Modulating Exhaust Control

• EBC 24 Modulating Pressure Controller

• EBC 30/31 Modulating Pressure Controller

Listings & Certifications
The BEF 315x Box Ventilator is UL Listed in the U.S. and certified for Canada under Underwriters Laboratories Inc. file no. E479840:

• UL 705 Standard for Power Ventilators, Edition 6 - Revision Date 2013/12/17. With special consideration for venting lint-laden air from single or multiple dryers

• CSA C22.2 NO. 113-12 Fans and Ventilators Edition 9 - Revision Date 2012/10/01

BEF 315x is tested and certified in accordance with ANSI/AMCA standard 211 and AMCA Standard 301.

Complies with and meets Type B, Spark Resistant Construction per AMCA standard 99-0401 classifications of Spark Resistant Construction.

Warranty
2-Year Factory Warranty. Complete warranty conditions are available from ENERVEX Inc.

LISTED
UL File E479840

ENERVEX certifies that the BEF 315x shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 AMCA Publication 301 and comply with the requirements of the AMCA Certified Ratings Program.

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Product Information

Specifications

Model	BEF 315x		
Fan Type	Centrifugal Impeller (BC-Wheel)		
Motor Type	ECM, Permanent Magnet		
Voltage Configuration	1x120 VAC	3x208-240 VAC	3x380-480 VAC
EDrive Model	321.2208.1200	321.2208.2200	321.2208.4200
EDrive Ratings:			
NEMA / IP Rating	4X / IP66	4X / IP66	4X / IP66
Supply Voltage - VAC	1 x 120	3 x 208-240	3 x 380-480
Power - kW	0.75	0.75	0.75
Max Input Current - Amp	15.8	5.6	6.0
Max Output Current - Amp	4.3	4.3	2.2
Max Over-Current - %	175	175	175
Min Operating Temp. - °F / °C	14 / -10	14 / -10	14 / -10
Max Operating Temp. - °F / °C	122 / 50	122 / 50	122 / 50
Motor Rating			
Motor Efficiency Class	IE 5	IE 5	IE 5
Temperature Class	H	H	H
NEMA / IP Rating	3S / IP54	3S / IP54	3S / IP54
Max Current - Amp	3.3	3.3	1.6
Max Speed - RPM	3100	3100	2700
Power - kW / HP	0.8 / 1.1	0.8 / 1.1	0.7 / 0.9
Torque - Nm	3.0	3.0	3.0
Motor Operating Settings			
Fan Speed - RPM	2100	2100	2100
Max Power - kW / HP	0.44 / 0.59	0.44 / 0.59	0.44 / 0.59
Max Torque - Nm	1.8	1.8	1.8
Weight			
BEF - lbs / kg	84 / 38	84 / 38	84 / 38
EDrive - lbs /kg	7 / 3	7 / 3	7 / 3

Dimensions
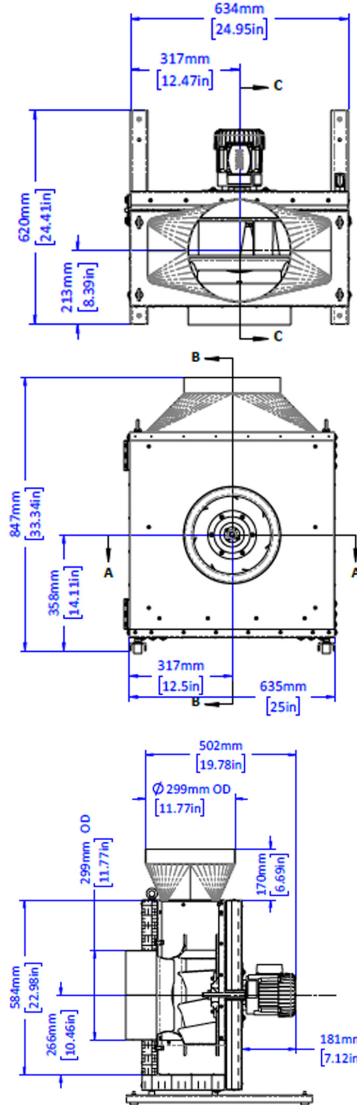
Capacity
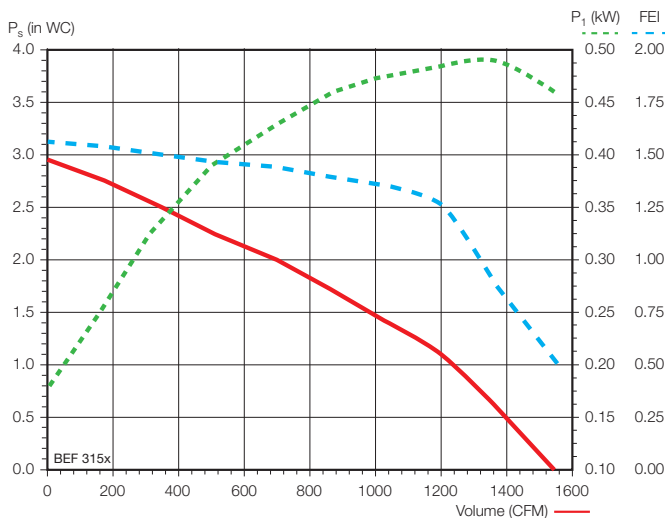
Performance certified is for installation type C – Ducted inlet, Free outlet. Speed (RPM) shown is nominal. Performance is based on actual speed of test. Performance ratings do not include the effects of appurtenances (accessories).

Sound Table

SP	Sound Power re 10^{-12} Watts								Sones	L$_{wo}$A
	Octave Bands									
	1	2	3	4	5	6	7	8		
0.035	77	80	89	80	81	78	73	68	23	86
0.506	77	79	89	79	81	77	72	67	23	86
1.015	76	79	83	75	77	73	68	63	17.3	81
1.689	76	78	80	73	74	70	66	61	15.1	79

Values shown are for outlet L$_{wo}$A sound power levels for Installation Type C: ducted inlet, free outlet. The sound power level ratings shown are in decibels, referred to 10-12 watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. The sound ratings shown are loudness values in fan sones at a distance of 1.5 m (5 ft) in a hemispherical free field calculated per AMCA International Standard 301. Values shown are for free outlet hemispherical sone levels. dBA levels are not licensed by AMCA International.

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