

ENERVEX®

TDF 160 POWER VENTER

020.1090.0621 06.21

Product Information

Use

The TDF Power Venter is a true in-line power venter. It is specifically designed for applications where reliable and efficient operation, low noise level, low energy consumption, variable speed and compact design are of utmost importance.

Typical applications are: mechanical venting of gas-fired or oil-fired boilers and water heaters. For indoor or outdoor installation.

Description

The TDF Power Venter is an efficient, high-temperature ventilator with backward-inclined impeller. It can be installed horizontally or vertically in a chimney system.

The fan housing is made of stainless steel and equipped with an energy-efficient, totally enclosed, variable speed motor, which is mounted outside the air stream.

The complete drive unit (motor, impeller and mounting plates) can be removed from the fan without the need for removing the housing from the stack system.

The TDF is for use with condensing and non-condensing appliances operating where flue gas temperatures do not exceed 1400°F (760°C).

The TDF model is a component in the CASI, Chimney Automation System.

Material

The housing is made of 316L stainless steel and has flanged connection. The impeller is of the backward inclined type made of 316L stainless steel.

Motor

The motor is a TEFC air cooled, 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 is 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.

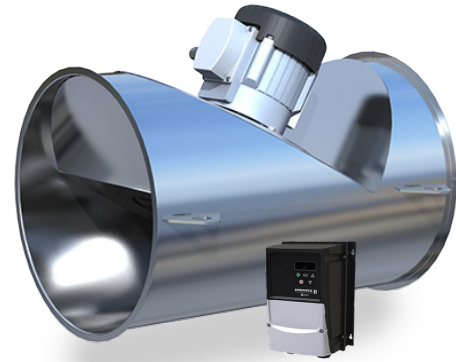
Standard Equipment

- EDrive Motor Control
- V-Bands (where used)



UL File E467733

Specifications are subject to change without notice.



Optional Accessories

- EBC 30/31 Modulating Pressure Controller
- EBC 35 Modulating Pressure Controller
- EBC 24 Modulating Pressure Controller
- BDC 8 Modulating Pressure Controller
- Adapter Transitions

Listings

UL Listing under Category M CQX and ZACT under File No. E467733 and reference to the following standards:

- UL 378 Standard for Draft Equipment Edition 4 - Revision Date 2013/09/17
- UL 705 Standard for Power Ventilators Edition 6 - Revision Date 2013/12/17
- CSA C22.2 No. 113-12 Fans and Ventilators Edition 9 - Revision Date 2012/10/01
- CSA3-B255-M81 Standard for Mechanical Flue Gas Exhauster

Warranty

- 2-Year Factory Warranty
- 10-Year Warranty Against Corrosion Perforation

Complete warranty conditions are available from ENERVEX Inc.

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ENERVEX®
VENTING DESIGN SOLUTIONS

A stylized red graphic element consisting of three vertical bars of varying heights, resembling a flame or a vent stack, positioned to the right of the company name.

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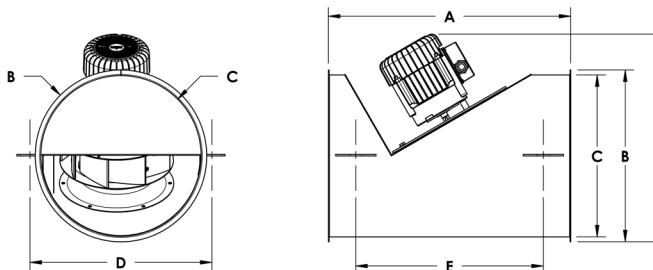
Product Information

Specifications

Model	TDF 160	
Fan Type	Centrifugal Impeller (BC-Wheel)	
Motor Type	ECM, Permanent Magnet	
Voltage Configuration	1x220 VAC	3x208-240 VAC
EDrive Model	321.0902.1200	321.0902.2200
EDrive Ratings:		
NEMA / IP Rating	4x / IP66	
Supply Voltage - VAC	1 x 120	3 x 208-240
Power - kW	0.37	0.37
Max Input Current - Amp	7.8	3.4
Max Output Current - Amp	2.3	2.3
Max Over-Current - %	175	
Min Operating Temp. - °F / °C	-4 / -20	
Max Operating Temp. - °F / °C	104 / 40	
Motor Ratings:		
Motor Efficiency Class	IE 5	
Temperature Class	H	
NEMA / IP Rating	3S / IP55	
Max Current - Amp	3.3	
Max Speed - RPM	3100	
Power - kW / HP	0.81 / 1.1	
Torque - Nm	3	
Motor Operating Settings:		
Fan Speed - RPM	2000	
Max Power - kW / ~ HP	Not Available	
Max Torque - Nm	Not Available	
Weight:		
TDF - lbs / kg	38 / 17	
EDrive - lbs / kg	5.5 / 2.5	

Note: Use EDrive Ratings Data for Circuit Sizing

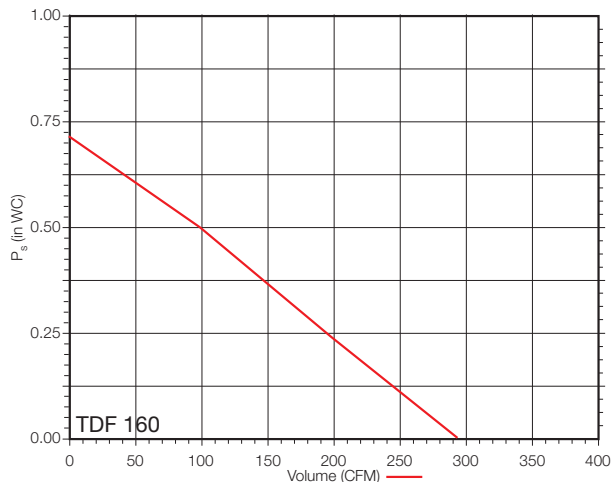
Dimensions



Model	TDF 160	
Duct Connection	½" flange	
Dimensions	A in / mm	18.0 / 457
	B in / mm	13.0 / 330
	C in / mm	12.0 / 305
	D in / mm	13.8 / 349
	E in / mm	13.3 / 337
	F in / mm	16.8 / 425
Flange Bolt Center Diameter	in / mm	- / -
Temp Rating *	°F / °C	1400 / 760

* Maximum Intermittent Temperature Rating

Capacity



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