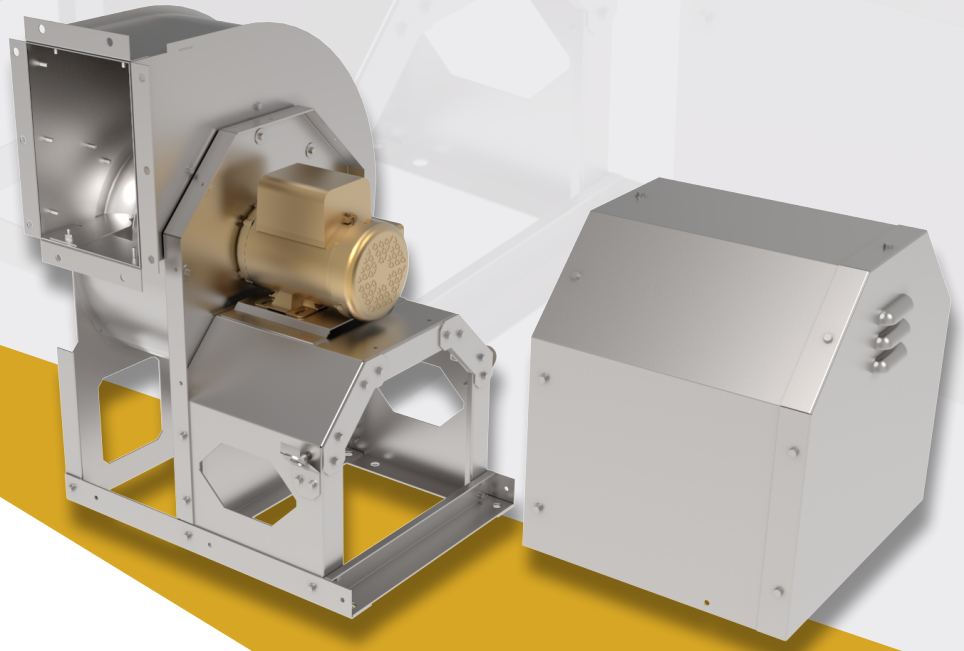
UVS
Utility Vent Set

PRODUCT GUIDE



PENNBARRY™

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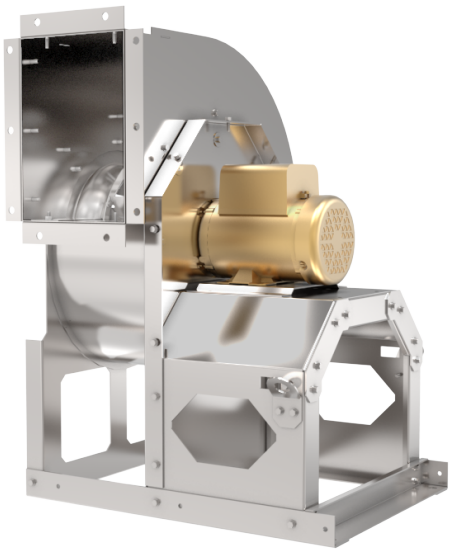
INTRODUCTION

UVS

The Utility Vent Set (UVS) Housed Centrifugal Fans are SWSI, Class 0, Arrangement 10 and Arrangement 4 general purpose air moving devices. They are used for supply or exhaust applications in commercial, institutional, and industrial HVAC systems. At the heart of the UVS is a computer designed, aluminum backward inclined, centrifugal wheel. This heavy duty non-overloading aluminum wheel assures low noise and high efficiency performance. The fan wheel, venturi inlet, housing, and frame are engineered to provide maximum performance and reliability. Fan housings utilize coated heavy-gauge materials employing welded/lock seam construction. Motors and all drive components have been carefully engineered and tested for durability and performance. The drive frame on all sizes of the UVS Class is standard with heavy guage, corrosion resistant, galvanized. A wide range of accessories are available to meet various application requirements. UVS Centrifugal Blowers are designed and built to provide the end user with a highly efficient and extremely reliable air moving unit. These units offer many features as standard equipment that other manufacturers consider options. Each UVS is fully assembled, factory set at the specified RPM, and test run prior to shipment.

UVS Direct Drive Series (Sizes 060-270)

- Static Pressure up to 3.5 in. w.g.
- Direct Drive flow capacity up to 13,800 CFM.



UVS Belt Drive Series (Sizes 060-542)

- Static pressure up to 3.5" in. w.g.
- Belt drive - flow capacity up to 41,300 CFM

CERTIFICATIONS & LISTINGS

AMCA Certification

PennBarry certifies that the UVS Fans shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

UL and cUL Certification

Standard UVS fans carry the UL Label, UL705 (ZACT/ZACT7), file E28413

FEATURES AND BENEFITS

Bearings L10-100K standard

Bearings are sized for a minimum L10 life exceeding 100,000 hours of operation. They require no maintenance other than periodic lubrication. Standard Zerk lube fittings allow for ease of lubrication.

Solid Steel Shafts

Sized to withstand a minimum of 125% of maximum catalogued operating speed, shafts are precision ground, polished, and treated for rust resistance.

Durable Welded Housing

Dynamo blowers are manufactured of welded coated mild steel for strength and durability.

Versatile Operation

All unit sizes are field rotatable to any of six discharge positions. Both clockwise and counter-clockwise rotations are available.

Motors and Drives

Preset at factory. Drives set to at least 150% of driven HP. Available in Direct and Belt Drive. Offering ECM (up to 0.75-hp, single phase), Permanent Magnet (up to 30-hp), and Induction Motors (up to 30-hp). ECMs are available with ODP enclosures, Permanent Magnet Motors are available in TENV (up to 2-hp) and TEFC (3-hp and above), and Induction motors are available with ODP and TEFC enclosures.

Integral Lifting Lugs

All units have lift lugs integral to identify proper lifting points.

Heavy Duty Support Frame

The heavy duty support frame provides a strong structural foundation for the motor and drive assembly, as well as rigidity to support the housing.

Standard Gasketed Access Door

The standard gasketed access door enables easy maintenance of internal components.

Spark Resistant Aluminum Wheels

UVS ventilators use PennBarry's computer designed aluminum wheel. They are backward inclined and non-overloading, using heavy gauge aluminum to provide spark resistant construction. Standard construction of the UVS satisfies AMCA "B" construction. This wheel design provides a high level of static efficiency while reducing start-up torque, thus extending drive component life. All wheels are statically and dynamically balanced for quieter operation.

Slip fit Inlet and Outlet

Some applications for Housed Centrifugal Fans call for the use of flexible connectors. The UVS is supplied with a slip fit inlet and outlet as standard. This reduces the total fan length and the cost for slip connections.

OPTIONS & ACCESSORIES

Bearings

Option for L10-200K bearings.

Coatings

The fan housing is available with Air Dry Enamel (Standard on the UVS), with options for Air Dry Epoxy, Air Dry Phenolic Epoxy, Air Dry Epoxy with UV Topcoat, and Air Dry Phenolic Epoxy with UV Topcoat. All coating options are Standard Grey Color.

Dampers

Aluminum Backdraft Dampers, Galvanized Control Dampers, Galvanized Low Leakage Control Dampers. Actuators for Control Dampers only are available with 24V (AC/DC), 120V, 230V, and 460V (ship loose NEMA3R Transformer, installation and wiring by others). End Switch is integral to Damper Actuators.

Disconnect Safety Switches

NEMA1 and NEMA3R. Switches in housings are available to turn fans on and off for service only. Switches are non-fused rotary type. Field wiring is required.

Internal Wiring

NEMA1 and NEMA3R for internal wiring of electrical components.

Stainless Steel Shafts

Available on belt drive units as option for corrosion resistant shafts.

Drain Connections

3/4 inch NPT connection always at the lowest point of the housing.

Extended Lube Lines

Preloaded at the factory, lube lines allow bearing maintenance when a weather cover is installed or when easy access to the bearings is unavailable.

Motor Options

EC Motors available up to 0.75-hp, single phase 115V/230V/277V, Direct Drive units up to size 245, ODP Enclosure. The EC Motor is available with a motor mounted potentiometer as a standard feature.

PM available up to 30-hp, available on direct and belt drive units, run with on board VFDs.

Induction Motors up to 30-hp, available on direct and belt drive units, available with VFDs.

0-10 VDC Remote Output Potentiometer (ECM Motors)

A potentiometers can be paired with ECM motors which can be mounted away from the fan, if needed. Potentiometers allow the ECM to be turned down to as low as 80% of the max operating speed while maintaining 90% efficiency through the operating range. Additionally, the ECM can accept 0-10V input to tie to building management systems, not only allowing for savings in direct fan energy consumption but reducing the exhaust of conditioned air during off peak hours as well.

OPTIONS & ACCESSORIES

iQ Controllers (ECM Motors)

There are two types of iQ controllers available: - iQ-IPCM * (Intelligent Pressure Control Module) with Duct Sentry™ technology is designed to maintain constant pressure 24/7 within a duct system by controlling fan motor speed - iQ-MS (Multi-Speed Controller)* with dual set-point interface allows the user to set and remotely switch among two different motor speeds. Both of them provide motor control signal output of 0-10 VDC for seamless integration with today's advanced motor technologies, providing substantial energy savings and peace of mind.

- *-will ship loose, mounting and wiring by others. Also, requires a 24 V power source (can select options for no transformer (24V is provided at jobsite), 120V to 24V transformer, 240V to 24V transformer, and 277V to 24V transformer)
- **-will ship loose, requires a 24 Volt Power Source (by others), and is recommended to be mounted in an appropriate electrical enclosure, by others.

0-10 VDC BMS Wire Harness

When the unit will require an ECM be controlled by a Building Maintenance System a wiring harness is available as an option to accept the 0-10VDC.

Variable Frequency Drives

Variable frequency drives (VFDs) are designed to meet performance requirements while increasing efficiency. By varying the fan motor input frequency and voltage, the VFD controls the motor speed and torque, helping to improve productivity and lower energy consumption. Available Mounted (indoor applications only), or shipped loose and separately.

Shaft Grounding

When Premium Efficient (Totally Enclosed and Open Drip Proof) motors are used with VFDs Shaft Grounding can be added to the motor so to help protect the bearings against shaft currents.

Height Saving Isolation Rails

Constructed of high strength steel and used with Rubber-In-Shear Floor, Free Standing Spring, Housed, or Restrained Isolators.

Vibration Isolators

Floor Mounted Rubber In Sheer – used for higher operating speeds (FRPM > 1500), indoors, on a flat surface, for fans with smaller wheels (< 30 inch diameter), and no adjustment needed.

Spring Floor Mounted – Typically used on 400 FRPM to 1500 FRPM, indoors, on flat surface, fans with larger wheels (≥ 30 inch diameter). Below 400 FRPM, 2 inch deflection is recommended.

Housed Spring Floor Mounted – Similar to Spring Floor applications, but reducing lateral force effects.

Spring Restrained Isolators – Similar to Spring Floor application, but for use in outdoor applications especially where wind loading is a concern.

Spark Resistant Construction

AMCA Spark B Construction as standard.

Spark B information - The fan shall have a non-ferrous impeller and non-ferrous ring about the opening through which the shaft passes. Ferrous hubs, shafts and hardware are allowed provided construction is such that a shift in impeller or shaft will not permit two ferrous parts of the fan to rub or strike. Steps must also be taken to ensure that the impeller, bearings and shaft are adequately attached and/or restrained to prevent a lateral or axial shift in these components.

Notes:

1. *No bearings, drive components or electrical components shall be placed in the air or gas stream unless they are constructed or enclosed in such a manner that failure of that component cannot ignite the surrounding gas stream.*
2. *The user shall electrically ground on all fan parts.*
3. *For this standard, non-ferrous material shall be material with less than 5% iron or any other material with demonstrated ability to be spark-resistant.*
4. *The use of aluminum or aluminum alloys in the presence of steel which has been allowed to rust required special consideration. Research by the U.S. Bureau of Mines and others has shown that aluminum impellers rubbing on rusty steel may cause high-intensity sparking.*

OPTIONS & ACCESSORIES

The use of the above standard in no way implies a guarantee of safety for any level of spark resistance. Spark-resistant construction does not protect against ignition of explosive gases caused by catastrophic failure or from any airstream material that may be present in a system.

Inlet/Outlet Guards

Inlet and Outlet Guards provide safety in non-ducted installations. Guards are constructed of heavy gauge steel wire. They are easily removed by maintenance personnel for cleaning or inspection.

Flexible Duct Connectors

Used as an alternative to rigid connections, these duct connectors are highly recommended since they reduce vibration transmission through the duct work. Available for both indoor and outdoor installations. Outdoor connectors contain UV protection suitable for that environment.

Weather/Motor Cover

The weather cover protects the shaft, bearings, motor and drive components from weather and other detrimental conditions. Galvanized steel covers are easily removed and reinstalled with typical mechanical fasteners. Weather covers also act as drive guards to protect personnel and drive assemblies.

Shaft Guard

Galvanized steel cover over the shaft to prevent access to the shaft while the fan is running.

Belt Guard

Galvanized steel cover over the belts and pulleys to prevent access while the fan is running.

Flanges

Flanges are available in Inlet/Outlet (Unpunched/Punched), Companion Flanges (Unpunched/Punched).

Flanges facilitate the connection of duct work and discharge dampers. Companion flanges are also available when the UVS is connected to duct work by a transition section. The companion flange fits the fan to the transition and allowing for proper sizing.

Hinged Access Doors

The bolted and gasketed access door is standard a hinged access door with quick release handle is available as an option.

Shaft Seal

Neoprene and Ceramic shaft seals are available where the shaft penetrates the fan housing.

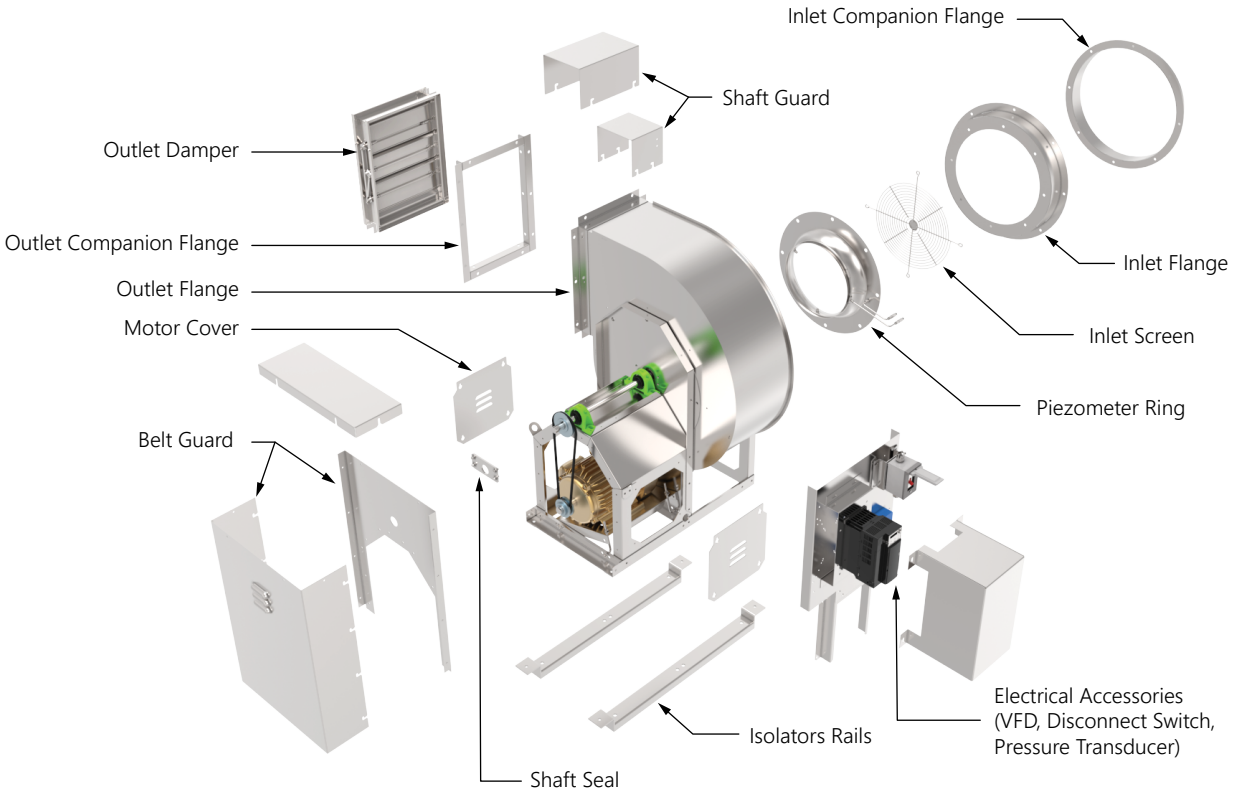
Automatic Belt Tensioner

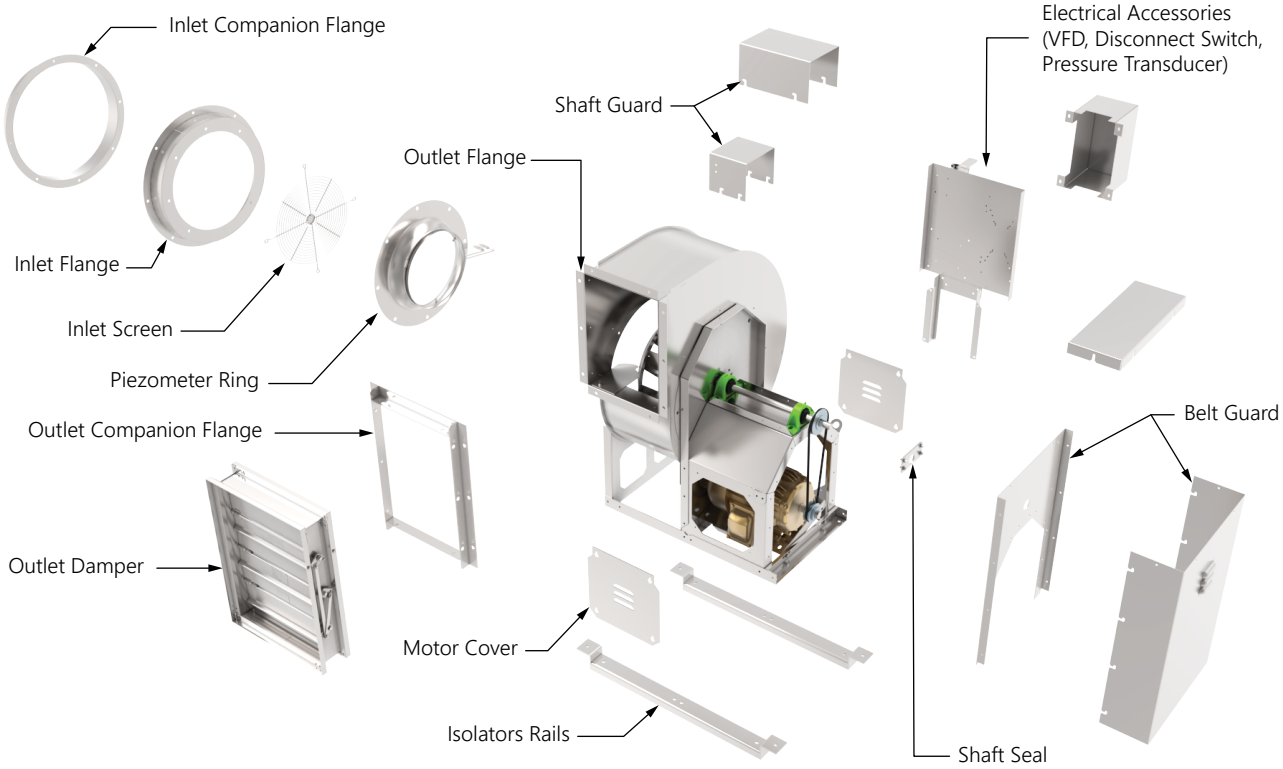
The belt tensioner removes the need for manual maintenance to tension belts while also reducing the risk improperly tensioning the belts. *-tensioners are available up to 10-hp motors and are not available on Life Safety applications.

Piezometer Ring

Piezometer Ring measures the pressure differential across the fan inlet which can be converted to an airflow measurement. An optional transducer (w/readout) is available, along with the option to mount the transducer and transformer to power (24V) transducer.

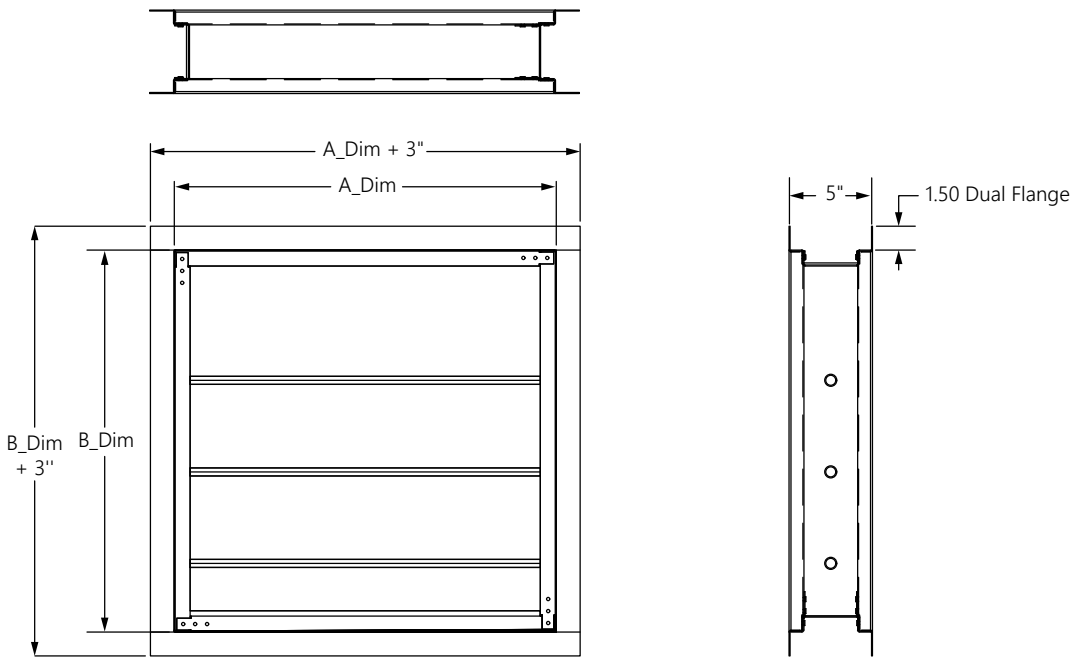
OPTIONS & ACCESSORIES





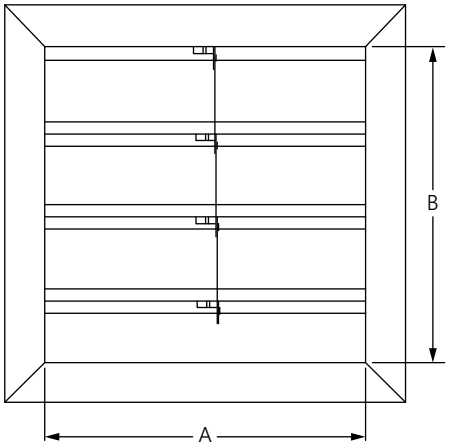
DISCHARGE DAMPER DIMENSIONS

Galvanized Control Dampers

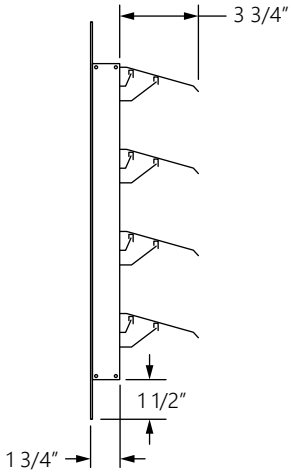


DISCHARGE DAMPER DIMENSIONS

Aluminum Backdraft Damper



Back View
(Blades Open)



Side View
(Blades Open)

Unit Size	Dim A (inches)	Dim B (inches)
060	7.06	10.00
070	7.06	10.00
080	7.06	10.00
100	7.06	10.00
122	8.63	12.25
135	9.50	13.50
150	10.56	15.00
165	11.63	16.50
182	12.88	18.25
200	14.13	20.00

Unit Size	Dim A (inches)	Dim B (inches)
222	15.69	22.25
245	17.25	24.50
270	19.06	27.00
300	21.19	30.00
330	23.25	33.00
365	25.75	36.50
402	28.39	40.25
445	31.39	44.50
490	34.50	49.00
542	38.25	54.25

Damper Type	Unit Material		Actuator		Actuator Voltage				End Switch	Blade Action		Max Velocity
	Galvanized	Aluminum	Electric	Gravity	24V	120V	240V	277/460V*		Parallel	Opposed	Feet/Min
Backdraft Damper (1)		X		X						X		4000
Standard Duty Control Damper (1)	X		X		X	X	X	X	X	X	X	2000
Low Leakage Control Damper (1)	X		X		X	X	X	X	X	X	X	6000

*227/460V Actuators will be 24/120/240V with a ship loose Outdoor Rated Transformer. Wiring and instalation of the transformer is by others.

(1) - All Dampers ship loose and are field mounted and wired by others.

Control Dampers are available in Parallel and Opposed Blade. Control Dampers require actuators (24V, 120V, 230V, 460V*) and will come standard with End Switches. Standard Control Dampers are available up to 2000 feet/min. outlet velocity. Low Leakage Control Dampers are available for outlet velocities exceeding 2000 feet/min, up to 6000 feet/min.

*-460V Actuators will be 24/120/240V with a ship loose NEMA 3R Transformer. Wiring and installation of the transformer is by others.

Dampers will ship loose and are field mounted, by others.

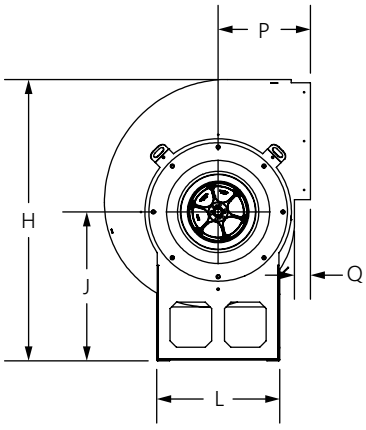
MOTOR AND VFD AVAILABILITY*

Unit Size	Max HP	Max FRPM	ECM		PM Motor		Induction Motor			
			Motor HP Range - 1/6 hp to 3/4 hp		Motor HP Range - 1/2 hp to 30 hp		HP 1/4 hp to 30 hp			
			Motor RPM Range - 400 to 1750		Motor RPM Range - 350 to 2160		Motor RPM Range 870 to 3600,1450 (50 Hz)			
			Motor Enclosure - OPAO, Voltages 115V/230V/277V, Phase - 1-ph, Frequency 60/50 Hz		Motor Enlosure - TENV ≤ 2 hp > TEFC, Voltages 230V/240V/(380V-480V), Phase - 3-phase, Frequency - 50/60 Hz		Motor Enclosure - ODP, TEFC Voltages 115-120V/230-240V, Phase - 1-phase, Frequency 50/60 Hz, Voltages 220V-240V/380V-480V, Phase - 3-phase, Frequency 50/60 Hz			
			Direct Drive	Belt Drive	Direct Drive - PM Motor w/On board Mtr. Spd. Cntrl	Belt Drive - PM Motor w/On board Mtr. Spd. Cntrl	Direct Drive w/VFD	Direct Drive w/o VFD	Belt Drive w/VFD	Belt Drive w/o VFD
060	1/2 HP	2680	X	N/A	X	X	X	X	X	X
070	1/2 HP	2680	X	N/A	X	X	X	X	X	X
080	1/2 HP	2680	X	N/A	X	X	X	X	X	X
100	3/4 HP	2680	X	N/A	X	X	X	X	X	X
122	1.5 HP	2600	X	N/A	X	X	X	X	X	X
135	2 HP	2332	X	N/A	X	X	X	X	X	X
150	3 HP	2099	X	N/A	X	X	X	X	X	X
165	3 HP	2000	X	N/A	X	X	X	X	X	X
182	3 HP	1670	X	N/A	X	X	X	X	X	X
200	3 HP	1434	X	N/A	X	X	X	X	X	X
222	5 HP	1429	X	N/A	X	X	X	X	X	X
245	7.5 HP	1388	X	N/A	X	X	X	X	X	X
270	7.5 HP	1138	N/A	N/A	N/A	X	X	X	X	X
300	7.5 HP	1024	N/A	N/A	N/A	X	X	X	X	X
330	15 HP	962	N/A	N/A	N/A	X	X	X	X	X
365	15 HP	786	N/A	N/A	N/A	X	X	X	X	X
402	15 HP	683	N/A	N/A	N/A	X	X	X	X	X
445	15 HP	636	N/A	N/A	N/A	X	X	X	X	X
490	15 HP	542	N/A	N/A	N/A	X	X	X	X	X
542	15 HP	418	N/A	N/A	N/A	X	X	X	X	X

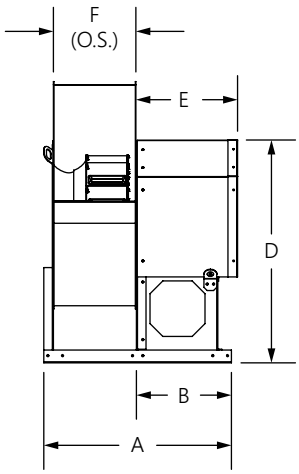
*-If VFD will be used with a fan mounted outdoors, the VFD will be ship loose only and it is recommended VFD be installed indoors (by others), or a weather resistant enclosure (enclosure and mounting, by others.)

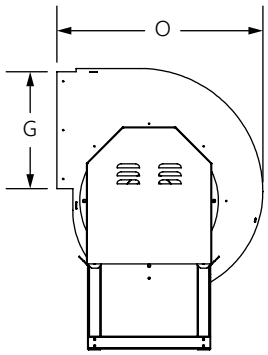
DIRECT DRIVE FAN DIMENSIONAL DATA

UVS Direct Drive Sizes 060 – 270. Max Airstream Operating Temperatures, 180 F with Permanent Magnet and Induction Motors and 104 F with EC Motors.

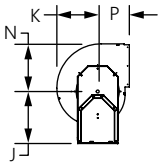


INLET VIEW





DRIVE SIDE VIEW



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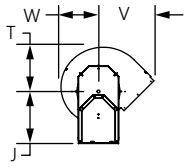

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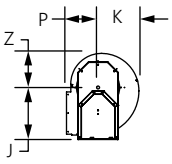

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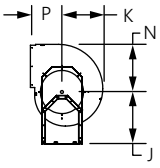

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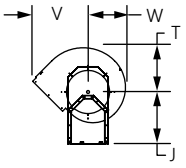

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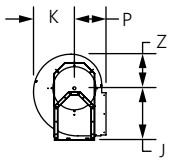

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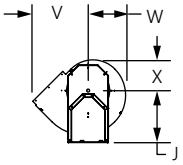

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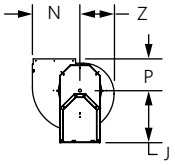

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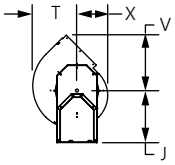

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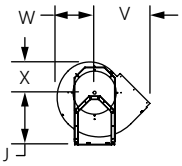

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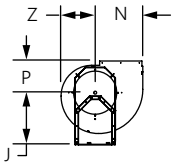

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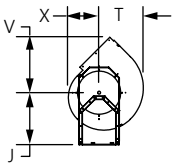


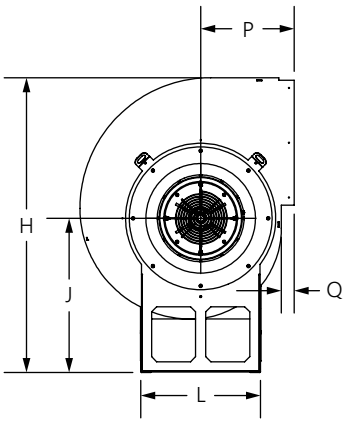
CCW-TAU

DISCHARGE POSITIONS

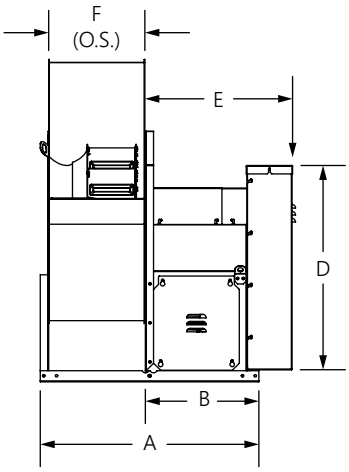
Size	A	B	D	E	F	G	H	J	L	Q	O	P	K	N	V	W	T	X	Z
60	22 3/4	14 1/8	25 1/4	14 7/8	7 1/16	10	29 11/16	18 1/18	15 3/4	5	21 11/16	11 3/4	9 15/16	11 9/16	16 1/8	9 3/16	10 3/4	7 3/4	8 3/8
70	22 3/4	14 1/8	25 1/4	14 7/8	7 1/16	10	29 11/16	18 1/18	15 3/4	5	21 11/16	11 3/4	9 15/16	11 9/16	16 1/8	9 3/16	10 3/4	7 3/4	8 3/8
80	22 3/4	14 1/8	25 1/4	15 5/8	7 1/16	10	29 11/16	18 1/18	15 3/4	5	21 11/16	11 3/4	9 15/16	11 9/16	16 1/8	9 3/16	10 3/4	7 3/4	8 3/8
100	22 3/4	14 1/8	25 1/4	15 5/8	7 1/16	10	29 11/16	18 1/18	15 3/4	5	21 11/16	11 3/4	9 15/16	11 9/16	16 1/8	9 3/16	10 3/4	7 3/4	8 3/8
122	24 5/16	14 1/8	26 3/8	15 5/8	8 5/8	12 1/4	32 3/16	18 1/18	17 3/4	5	25 1/4	13 3/16	12 1/16	14 1/16	18 7/8	11 1/8	13 1/16	9 1/8	10 1/8
135	25 15/16	14 3/4	27	15 5/8	9 1/2	13 1/2	33 9/16	18 1/18	19 1/4	5	27 3/16	13 15/16	13 1/4	15 7/16	20 7/16	12 3/16	14 5/16	10	11 1/8
150	27	14 3/4	29 3/8	15 5/8	10 9/16	15	36 13/16	19 3/4	19 1/4	4 1/2	29 1/16	14 3/8	14 11/16	17 1/16	21 7/8	13 1/2	15 7/8	11 1/16	12 1/4
165	28 1/16	14 3/4	32 1/16	15 5/8	11 5/8	16 1/2	40 1/8	21 3/8	19 1/4	3 1/2	30 7/16	14 5/16	16 1/8	18 3/4	23	14 3/4	17 7/16	12 1/8	13 7/16
182	29 5/16	14 3/4	34 3/4	15 5/8	12 7/8	18 1/4	43 15/16	23 1/4	19 1/4	2 1/2	32 3/16	14 7/16	17 3/4	20 11/16	24 7/16	16 5/16	19 1/4	13 3/8	14 13/16
200	30 9/16	14 3/4	37 5/8	15 5/8	14 1/8	20	47 3/4	25 1/4	20 1/2	2 1/2	34 15/16	15 1/2	19 7/16	22 5/8	26 5/8	17 13/16	21	14 5/8	16 3/16
222	33 5/8	16 5/16	41 9/16	17 1/8	15 11/16	22 1/4	52 3/4	27 3/4	22 3/4	2 1/2	38 7/16	16 15/16	21 9/16	25 1/8	29 3/8	19 3/4	23 5/16	16 3/16	18
245	35 3/16	16 5/16	45 1/16	17 1/8	17 1/4	24 1/2	57 13/16	30 1/4	23 1/2	2 1/2	42	18 5/16	23 11/16	27 9/16	32 1/8	21 11/16	25 5/8	17 13/16	19 3/4
270	37	16 5/16	49 1/16	17 1/8	19 1/16	27	63 3/8	33	25	2 1/2	45 15/16	19 7/8	26	30 3/8	35 3/16	23 7/8	28 3/16	19 9/16	21 11/16

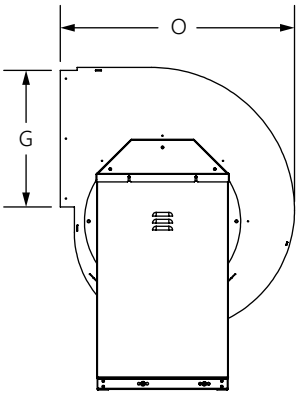
BELT DRIVE FAN DIMENSIONAL DATA

UVS Belt Drive Sizes 060 – 542. Max Airstream Operating Temperatures, 200 F.

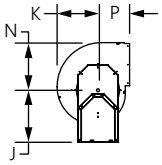


INLET VIEW

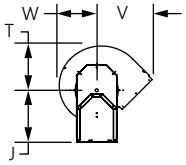




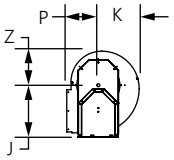
DRIVE SIDE VIEW



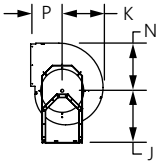
CW-TH



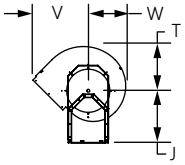
CW-TAD



CW-BH



CCW-TH



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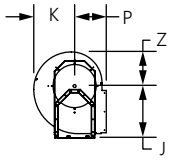
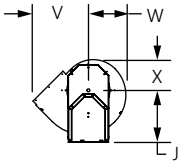
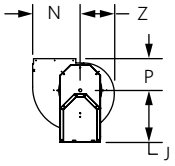


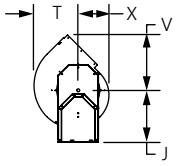
CCW-BH



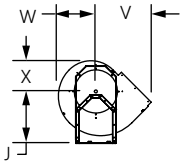
CW-BAU



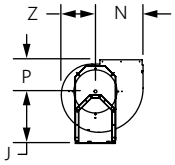
CW-UB



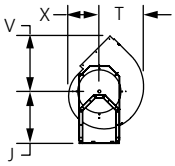
CW-TAU



CCW-BAU



CCW-UB



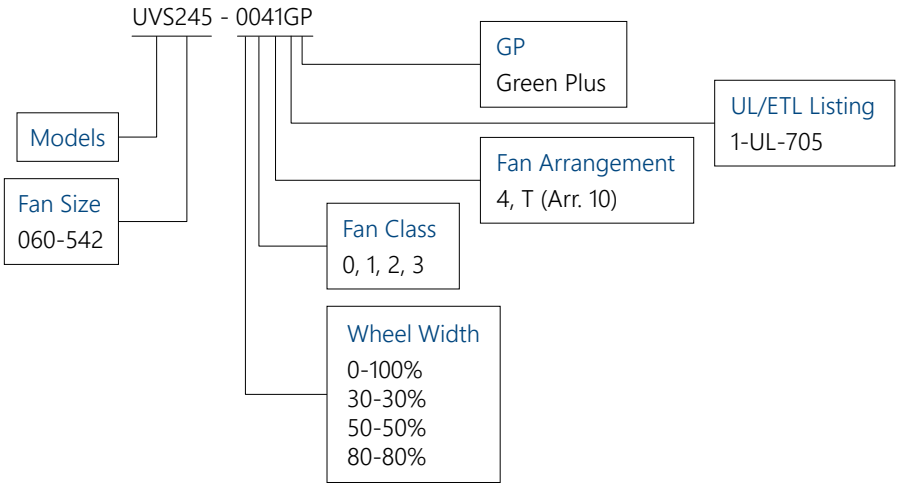
CCW-TAU

DISCHARGE POSITIONS

Size	A	B	D	E	F	G	H	J	L	Q	O	P	K	N	V	W	T	X	Z
60	24	15 3/8	22 15/16	19 1/4	7 1/16	10	29 11/16	18 1/18	15 11/16	5	21 11/16	11 3/4	9 15/16	11 9/16	16 1/8	9 3/16	10 3/4	7 3/4	8 3/8
70	24	15 3/8	22 15/16	19 1/4	7 1/16	10	29 11/16	18 1/18	15 11/16	5	21 11/16	11 3/4	9 15/16	11 9/16	16 1/8	9 3/16	10 3/4	7 3/4	8 3/8
80	24	15 3/8	22 15/16	19 1/4	7 1/16	10	29 11/16	18 1/18	15 11/16	5	21 11/16	11 3/4	9 15/16	11 9/16	16 1/8	9 3/16	10 3/4	7 3/4	8 3/8
100	24	15 3/8	22 15/16	19 1/4	7 1/16	10	29 11/16	18 1/18	15 11/16	5	21 11/16	11 3/4	9 15/16	11 9/16	16 1/8	9 3/16	10 3/4	7 3/4	8 3/8
122	25 9/16	15 3/8	22 15/16	19 3/16	8 5/8	12 1/4	32 3/16	18 1/18	17 11/16	5	25 1/4	13 3/16	12 1/16	14 1/16	18 7/8	11 1/8	13 1/16	9 1/8	10 1/8
135	26 7/16	15 3/8	22 15/16	19 1/4	9 1/2	13 1/2	33 9/16	18 1/18	19 3/16	5	27 3/16	13 15/16	13 1/4	15 7/16	20 7/16	12 3/16	14 5/16	10	11 1/8
150	29 1/2	17 3/8	24 9/16	22 1/4	10 9/16	15	36 13/16	19 3/4	19 3/16	4 1/2	29 1/16	14 3/8	14 11/16	17 1/16	21 7/8	13 1/2	15 7/8	11 1/16	12 1/4
165	30 9/16	17 3/8	26 3/16	22 1/4	11 5/8	16 1/2	40 1/8	21 3/8	19 3/16	3 1/2	30 7/16	14 5/16	16 1/8	18 3/4	23	14 3/4	17 7/16	12 1/8	13 7/16
182	31 13/16	17 3/8	28 1/16	22 1/4	12 7/8	18 1/4	43 15/16	23 1/4	19 3/16	2 1/2	32 3/16	14 7/16	17 3/4	20 11/16	24 7/16	16 5/16	19 1/4	13 3/8	14 13/16
200	33 1/16	17 3/8	30	22 1/4	14 1/8	20	47 3/4	25 1/4	20 7/16	2 1/2	34 15/16	15 1/2	19 7/16	22 5/8	26 5/8	17 13/16	21	14 5/8	16 3/16
222	37 5/8	20 3/8	34 1/8	26 1/2	15 11/16	22 1/4	52 3/4	27 3/4	22 11/16	2 1/2	38 7/16	16 15/16	21 9/16	25 1/8	29 3/8	19 3/4	23 5/16	16 3/16	18
245	39 3/16	20 3/8	36 5/8	26 1/2	17 1/4	24 1/2	57 13/16	30 1/4	23 7/16	2 1/2	42	18 5/16	23 11/16	27 9/16	32 1/8	21 11/16	25 5/8	17 13/16	19 3/4
270	44	23 3/8	39 3/8	29 1/2	19 1/16	27	63 3/8	33	24 15/16	2 1/2	45 15/16	19 7/8	26	30 3/8	35 3/16	23 7/8	28 3/16	19 9/16	21 11/16
300	48 3/8	25 1/8	44 1/16	31 1/4	21 3/16	30	70 9/16	36 7/8	27 1/4	2 1/2	50 5/8	21 3/4	28 7/8	33 11/16	38 13/16	26 1/2	31 1/4	21 11/16	24 1/16
330	52 13/16	27 1/2	48 15/16	36 1/8	23 1/4	33	77 1/8	40 1/8	30 1/4	2 1/2	55 3/8	23 5/8	31 11/16	37	42 1/2	29 1/16	34 5/16	23 3/4	26 7/16
365	55 5/16	27 1/2	52 13/16	36 1/8	25 3/4	36 1/2	84 7/8	44	32 1/4	2 1/2	60 7/8	25 13/16	35	40 7/8	46 13/16	32 1/16	37 15/16	26 1/4	29 3/16
402	57 15/16	27 1/2	56 15/16	36 1/8	28 7/16	40 1/4	93 1/8	48 1/8	36 1/4	2 1/2	66 3/4	28 3/16	38 9/16	45	51 3/8	35 5/16	41 3/4	28 7/8	32 1/8

FAN SELECTIONS

Model



Construction

Application Flow (CFM)
<enter value>

Application Static Pressure (in. wg)
<enter value>

Temperature (°F)
<enter value>

Altitude
<enter value>

Unit size
060
070
080
100
122
135
150
165
182
200
222
245
270
300
330
365
402
445
490
542

Drive Type
B = Belt
D = Direct

Fan Speed
<####>

Fan Arrangement
4 = Arr. 4
T = Arr. 10

Impeller Type
B = Backward Inclined

Fan Class
0 = Class 0 Default Value

Wheel Width
00 = Standard
80 = 80 Percent Width
50 = 50 Percent Width
30 = 30 Percent Width

Rotation/Discharge
B = CCW BAU
C = CCW BH
E = CCW TAD
F = CCW TAU
G = CCW TH
H = CCW UB
K = CW BAU
L = CW BH
N = CW TAD
P = CW TAU
Q = CW TH
R = CW UB

Unit Material/Housing Material
H = Mild Steel

Paint/Coating
0 = None
A = Standard Enamel
B = Airdry Epoxy
D = Airdry Phenolic Epoxy with UV protection (gray)
M = Airdry Phenolic Epoxy
X = Special
Z = Air Dry Epoxy with UV topcoat

Paint Color
0 = None
A = Standard color (gray)
X = Special

UL / ETL Listing
1 = UL 705

FAN SELECTIONS

Motor

Motor Position
S = Standard
Motors and Drives
F = Factory supplied
L = Less motor, less drive
N = Customer supplied motor, factory mounted*

V-Belt Drive Kit
0 = None
A = Adjustable drive kit
B = Adjustable drive kit 2.0 service factor
C = Constant drive kit
E = Constant drive kit 2.0 service factor
L = Life safety

Bearing Life
0 = None
C = L10 100K Hours
E = L10 200K Hours

Shaft Material
0 = None
H = Mild Steel
S = 304 Stainaless Steel
X = Special

Motor Horsepower
0.167 = 1/6
0.250 = 1/4
0.333 = 1/3
0.500 = 1/2
0.750 = 3/4
01.00 = 1
01.50 = 1 1/2
02.00 = 2
03.00 = 3
05.00 = 5
07.50 = 7 1/2
10.00 = 10
15.00 = 15
20.00 = 20
25.00 = 25
30.00 = 30
X = Special

Motor Enclosure
0 = None
1 = TEFC
2 = TENV
5 = ODP
X = Special

Motor Efficiency
G = Gplus (ECM)
P = Premium
S = Standard
M = Gplus (Permanent Magnet)

Voltage
A = 115V
B = 208V
C = 230V
D= 277V
F = 460V
G = 575V
H = 220V
J = 380V
K = 400V
L = 200V
M = 415V

Phase
1 = 1 Phase
3 = 3 Phase

Frequency
5 = 50 Hz
6 = 60 Hz

Motor Speed
0 = None
A = 900 RPM
B = 1200 RPM
C = 1800 RPM
D = 3600 RPM
F = 1000 RPM
G = 1500 RPM
H = 3000 RPM
I = 500 RPM
J = 600 RPM
K = 690 RPM
L = 860 RPM
M = 1050 RPM
N = 1140 RPM
P = 1300 RPM
Q = 1550 RPM
R = 1650 RPM
S = 1725 RPM
T = 870 RPM
U = 1750 RPM

Shaft Grounding Ring
0 = None
S = Shaft Grounding Ring

Thermal Overload Protection
0 = None

Drive and Starters
0 = None
S = Starter
M = On board motor speed controller // IP22 or less
N = On board motor speed controller // IP52 or better
P = On board motor speed controller (IP52 or better) with disconnect switch
R = On board Motor Speed Controller (NEMA 1) with Disconnect
V = VFD
F = Field Provided VFD

Controllers
0 = None / Provided by others
A = 0-10V output potentiometer
3= Multi speed controller, iQ-MS (ECM only)
4 = iQ-IPCM no power supply (ECM only)
5 = iQ-IPCM w/ 115V/230V power supply (ECM only)
6 = iQ-IPCM w/ 277V power supply (ECM only)
7 = Provided by others
8= 0-10 BMS wiring only (ECM only)

FAN SELECTIONS

Options and Accessories

Motor, Shaft and Belt Guards
0 = None
C = Weather/Motor Cover
B = Belt Guard
S = Shaft Guard
T = Shaft guard w/ Belt Guard

Spare Belts
0 = None
1 = 1 spare set
2 = 2 spare set

Service Switches
0 = None
A = NEMA 1 - loose
C = NEMA 1 - mounted
D = NEMA 3R - loose
F = NEMA 3R - mounted

Internal Wiring
0 = None
1 = NEMA 1
3 = NEMA 3R

Spark Resistant Construction
B = AMCA B Spark Resistance

Access Doors
1 = Access door bolted
T = Access doors hinged

Inlet and Outlet Guards / Screens
0 = None
N = Inlet guard
U = Outlet guard
T = Inlet and outlet guard

Inlet Flange
0 = None (Open Inlet)
A = Punched inlet flange
G = Punched companion inlet flange kit

Outlet Flange
0 = None
B = Punched outlet flange
H = Punched companion outlet flange kit

Shaft Seal
0 = None
N = Neoprene
C = Ceramic

Unitary Bases
T = Height Saving Isolation Rails

Vibration Isolators
0 = None
1 = Rubber in shear floor
3 = Floor flex pads
A = Unhoused Spring Floor, 1"
B = Unhoused Spring Floor, 2"
C = Housed Spring Floor, 1"
D = Housed Spring Floor, 2"
E = Restrained Spring Floor, 1"
F = Restrained Spring Floor, 2"

Extended Lube Lines
0 = None
L = Extended polyamide lube lines

Drain
0 = None
9 = Drain 3/4" NPT w/ plug

Piezometer Ring
0 = None
R = Piezometer Ring
T = Piezometer Ring w/ Pressure Transducer
U = Piezometer Ring w/Pressure Transducer Mounted
V = Piezometer Ring w/Pressure Transducer Mounted with Transformer

Crating Option
0 = Standard
1 = Premium 1
2 = Premium 2

Damper
0 = None
D = Damper

Belt Tensioner
0 = None
Y = Auto Belt Tensioner

Flex Duct Connector
0 = None
A = Outdoor single connector
B = Outdoor double connector
C = Indoor single connector
D = Indoor double connector

Marketing Program
0 = Standard Lead time
3 = 3-day
5 = 5-day
10 = 10-day

PENNBARRY PRODUCT SOLUTIONS

Commercial

- Roof & wall exhaust centrifugal fans
- Ceiling, wall, & inline centrifugal fans
- Roof supply centrifugal fans
- Square & round centrifugal fans
- Wall mounted axial fans
- Hooded roof axial fans
- Upblast roof axial fans
- Gravity ventilators
- Roof curbs

Industrial

- Freestanding centrifugal fans
- Industrial & material handling fans
- Tubular centrifugal inline fans
- Mixed flow centrifugal fans
- Plug & plenum fans
- Wall mounted propeller fans
- Tube axial fans
- Vane axial fans
- Bifurcator fans
- Lab exhaust

Kitchen ventilation

- Make-up air units
- Exhaust fans

Energy recovery

- Outdoor units
- Indoor units

PennBarry is proud to be your preferred manufacturer of commercial and industrial fans and blowers. Learn how PennBarry can assist you in your next application by contacting your PennBarry Representative or visiting us on the web at www.pennbarry.com

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