## **DOMEX** Centrifugal Roof Exhausters

### PRODUCT GUIDE



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## **INTRODUCTION**

### **Domex Centrifugal Fans**

Domex fans are ideal for general purpose exhaust applications including: bathrooms, garages, general kitchen areas, offices, churches, dormitories, factories, large warehouses, and other relatively clean air applications.

They feature a weather-resistant, seamless spun aluminum housing which works in conjunction with a patented wheel design and deeply spun inlets to provide smooth quiet airflow through the ventilator. The centrifugal wheels are aluminum, nonoverloading, backward inclined, robotically welded, and dynamically balanced. The optional high wind construction makes Domex fans particularly suited for high wind hurricane zones.



Belt Drive Domex

Direct Drive Domex

#### Standard Duty Belt Drive Units Model: DX (B)

- Static pressure up to 1.5" wg.
- Flow capacity up to 19,442 CFM
- High wind construction (-HW) option available.

#### Direct Drive Units Model: DX (V/S/R/Q/Q1/Q2)

- Static pressure up to 1.25" wg.
- Flow capacity up to 4,561 CFM.
- High wind construction (-HW) option available.

#### High Capacity Belt Drive Units Model: KB, JB, MB

- Static pressure up to 1.5" wg.
- Flow capacity up to 39,169 CFM

## **CERTIFICATIONS & LISTINGS**



#### **AMCA Certification**

PennBarry certifies that the Domex direct drive and belt drive models 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. DX27B is not AMCA Certified.



PennBarry certifies that the Domex high capacity models shown herein on pages 37 - 42 are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA publication 211 and comply with the requirements of the AMCA Certified Ratings Program.



### **cULus** Certification

Domex fans carry the UL label, UL705, (ZACT / ZACT7), file #E28413.



### High Velocity Hurricane Zone (HVHZ)

Miami-Dade NOA # 17-0112.06 Florida Product Approval #21559



To fulfill our obligations towards Article 33, in accordance to European REACH Regulation No 1907/2006 EC, we hereby inform you that this article contains the following Substances of Very High Concern mentioned on the Candidate list:

• Lead

## FEATURES & BENEFITS

#### **Motor Selection**

Both direct drive and belt drive models are available with a wide range of voltages and enclosures (see Motor Selection for a complete listing). Standard belt drive Open Drip Proof (ODP) ball bearing motors are selected using a conservative portion of the NEMA service factor. Standard direct drive ODP motors have Class B insulation and internal thermal overload protection. Each size is carefully engineered to match the motor to the wheel capacity.

#### **Sound Performance**

Units deliver outstanding air performance with minimal noise.

#### Curb Caps (Base)

Curb caps for direct drive and standard duty belt drive models are available in galvanized steel (standard) or aluminum (optional). Curb caps for high capacity belt drive models are available only in aluminum. All curb caps have fully welded corners and are pre-punched to ensure both a leak-tight and easy installation.

#### **Forced Motor Cooling**

Breather slots between the motor dome and discharge apron enable fresh air to be drawn into the motor housing during fan operation. This positive cooling promotes longer life for motor and drive components.

#### **Easy Maintenance Access**

After removing the fasteners, the motor dome lifts off for complete access to all the drive train components.

#### **Structural Integrity**

Durable housings of spun aluminum have a high strength-to-weight ratio and incorporate a rolled bead for additional strength. There are no welds to break or seams to leak. The heavy-gauge motor mounting platform provides positive rigidity between all components of the power train assembly.

#### Solid Steel Shafts

Sized so the first critical speed is a minimum of 200% of the maximum cataloged operating speed, shafts are precision ground and polished.

#### **Internal Bracing**

Tri-Strut<sup>™</sup> supports transfer the weight of the motor mounting platform directly to the curb mounting surface. The aluminum spun housing, therefore, is not used to support any weight.

#### **Self-Aligning Bearings**

Heavy-duty bearings are sized for a minimum L50 life in excess of 200,000 hours of operation. One hundred percent factory tested, they are designed for air handling applications.

#### **Drives and Belts**

Pulleys are pre-set to the specified RPM. Cast iron variable pitch pulleys are adjustable, allowing for field balancing based on actual field conditions. All pulleys are sized for at least 150% of the driven horsepower.

#### **Vibration Isolators**

Multidirectional, rubber-in-shear vibration isolators are used to mitigate residual vibration transmission from the motor and bearings support unit to the building.

#### Conduit

Both direct and belt drive units include a large 1" nominal conduit chase for easy installation of wiring from the motor dome to below the curb cap.

## FEATURES & BENEFITS

#### **Reverse Venturi**

The reverse venturi reduces turbulence and improves distribution of the air as it enters the wheel inlet and is "captured" by the blades.



Domex fans offer patented wheel designs. Carefully matched, highly-tooled venturis enhance the performance of these backward inclined and non-overloading centrifugal wheels. Made of advanced alloys, the various wheel components provide superior strength and durability.



#### Silent Wheel (Direct Drive)

- The blade's highly curved leading edge provides unsurpassed low sound numbers with excellent air performance.
- Backplate and inlet are punched for consistency; plus dynamic balancing ensures smooth, vibration-free operation.
- Riveted and/or welded constructions ensure superior dependability over other wheel designs.

#### Standard Duty, All Welded Wheel

(Standard Duty Belt Drive)

- Blades are curved for improved air performance, simultaneously increasing their strength and rigidity.
- Backplate and inlet are stamped for consistency. They include a perimeter rim which enhances strength and improves balancing.
- Wheel assembly is robotically welded to provide extremely durable and consistent performance.
- Wheel is dynamically balanced. Balancing weights are mechanically attached to the inside of the rims of both the backplate and wheel inlet. This allows a precise placement of the weights anywhere within a full 360° range on two separate planes, without the possibility of detachment.

#### **Enhanced Direct Drives**

These enhanced units have Gplus<sup>™</sup> motor selection up to 2 HP (available on single phase and three phase) and are available up to size 24. Design enhancements to Direct Drive Domex models significantly improve air performance, while Gplus<sup>™</sup> EC motors offer higher efficiency and quieter, more reliable operation. Combined with PennBarry's patented, backward inclined, centrifugal wheel, these fan units deliver low noise and high efficiency performance.

#### **Internal Wiring**

All direct drive models with ODP motors feature a polarized disconnect plug between the motor and junction box. This provides a positive method of electric shut-off. Belt drive units with ODP motors are factory-wired between the motor and junction box. For either direct drive or belt drive models, an electric service switch is available. In addition, weather resistant NEMA 3R internal wiring is available for selection.

#### 0-10 output potentiometer

Potentiometers are always paired with Green Plus motors. With the potentiometer, the Green Plus motors can be turned down to as low as 80% the max operating speed while maintaining 90% efficiency through the operating range. Additionally, the Green Plus 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.

#### iQ Controllers

There are two types of iQ controllers available:

- iQ-IPCM (Intelligent Pressure Control Module) with Duct Sentry<sup>™</sup> 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.

#### **Extend Lube Lines**

Preloaded at the factory, lube lines allow bearing maintenance when easy access to the bearings is unavailable.

#### **Stainless Steel Hardware**

If another material is desired for the unit's hardware, stainless steel hardware is available for selection.

#### 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. The VSC and VSA are ideal for both new and retrofit fan applications. Shipped loose and separately.

#### Transformers

To meet local requirements, 277V transformers are available for all direct drive units. The transformers are step-down and will step the voltage down to 120V. All transformers shipped loose for field installation.

#### **Stainless Steel Shaft**

If another material is desired for the motor shaft, stainless steel shafts are available for selection.

#### **Spare Belt**

One or two extra sets of spare belts are available for selection.

#### **Finishes**

Coatings such as Polyester Powder Coat, Epoxy Powder Coat, Phenolic Epoxy Powder Coat, and others are available. See the coatings brochure for details.

#### **Mounting Pedestal**

The 12" high mounting pedestal, available in aluminum or galvanized steel, incorporates a removable access panel for easy inspection and service of motor operated backdraft dampers. It provides solid ventilator support and a weather resistant seal that does not injure or disturb flashing.

#### Hinged Sub-Base

Hinged sub-bases provide access to the curb well for damper service cleaning. Constructed with a rust proof hinge arrangement and low height (3 ½"), the assembly is easily manipulated and reduces the impact on overall installation height. This accessory is available for use with most models for either factory built or existing roof curbs.

### **Floating Hinge Kit**

A floating hinge kit is available for field installation. This assembly connects the exhauster directly to the roof curb and provides the same level of access as the hinged sub-base.

### **Aluminum Bird and Insect Screen**

Bird screens are available for all direct and belt drive models. An aluminum insect screen with a smaller mesh than the standard bird screen is also available.

#### **Backdraft Dampers**

Backdraft dampers are available for either gravity or motorized operation (motor kit optional). Dampers feature square galvanized steel frames and multi-leaf, roll formed aluminum blades with nylon bearings.

#### Safety Service Switch

Safety service switches are available to allow positive electrical shut-off and safety. NEMA 1 and 3R switches are factory mounted when factory wiring is requested; others will be shipped loose. Wiring is only run from the motor to the junction box. (Factory wiring of explosion proof applications is not available.) A wide range of NEMA rated enclosures with service switches are available for indoor, outdoor, and explosion proof installations. Service switches are to be field wired by a licensed electrician.

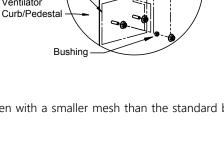
#### **Firestat Switch**

Firestat switch automatically disconnects the unit when the temperature of the air being exhausted exceeds a preset rating.

#### **Time-Delay Switch**

(Selected direct drive models only.) The Airminder Model AM12 switch is a UL recognized and CSA certified time-delay relay that operates both the fan and room light to ventilate an area even after the occupants depart. In the "On" position, the Airminder turns the light and fan on immediately. In the "Off" position, the light goes off immediately, and the fan is in operation for a period of time as preset from 1 to 60 minutes. Suitable only for 1/3 HP maximum at 120/1/60





Domex Base

Floating Hinge Plate

Back Plate (Inside Curb/Pedestal)

Ventilator

### **Speed Controllers**

The Lek-Trol<sup>™</sup> controller allows adjustment in speed to a maximum of 50% reduction, which results in a very cost effective means for system balancing. The device can be located under the fan dome to prevent unauthorized tampering or on the wall for ease of operation by the building occupants.

Remember that Lek-Trol<sup>™</sup> controllers are currently only available for direct drive motors including all standard Open Drip Proof (ODP) 60 Hz motors. Not all totally enclosed motors are currently available with variable speed control. Inverter rated motors suitable for use with variable frequency drives can be supplied for belt drive models. Contact your local PennBarry representative for availability.



### Available Lek-Trol<sup>™</sup> Speed Controls

		·	60 Hz	50 Hz				
Model	ODP		Totally I		Totally Enclosed			
	115V	115V	200V	208V	230V	110V	220V	240V
DX06R	LT25	-	-	-	-	-	-	-
DX08V	-	-	-	-	-	-	-	-
DX08S	-	-	-	-	-	-	-	-
DX08R	LT25	-	-	-	-	-	-	-
DX08Q	-	-	-	-	-	-	-	-
DX10V	-	-	-	-	-	-	-	-
DX10S	-	-	-	-	-	-	-	-
DX10R	LT30	LT30	LT35	LT35	LT35	LT30	LT35	LT35
DX10Q	-	-	-	-	-	-	-	-
DX11V	-	-	-	-	-	-	-	-
DX11S	-	-	-	-	-	-	-	-
DX11R	LT30	-	-	-	-	-	-	-
DX11Q	LT50	-	-	-	-	-	-	-
DX13V	LT55	-	-	-	-	-	-	-
DX13S	LT30	-	-	-	-	-	-	-
DX13R	LT30	LT30	LT35	LT35	LT35	LT50	LT35	LT35
DX13Q	LT45	LT50	LT35	LT35	LT35	LT50	LT35	LT35
DX16V	LT55	-	-	-	-	-	-	-
DX16S	LT50	-	-	-	-	-	-	-
DX16R	LT50	-	-	-	-	-	-	-
DX16Q1	LT40	-	-	-	-	-	-	-
DX16Q2	LT75	-	-	-	-	-	-	-
DX18V	LT60	-	-	-	-	-	-	-

#### **Automatic Belt Tensioner**

The factory mounted Automatic Belt Tensioner accessory eliminates the need for re-tensioning the belt after start-up. It is constructed from 10 gauge galvanized steel and incorporates five torsion springs to automatically position the motor and maintain proper belt tension. Additional benefits include reduced belt and pulley wear and simplified belt replacement without tools. The Automatic Belt Tensioner is available for Domex models DX11B, DX12B, and DX14B with 1/4, 1/2, 3/4 and 1 HP ODP motors. It can also be used with 1.5 HP, 3-phase ODP motors.



### **Internal Wiring**

NEMA 3R wiring is available for both direct and belt drive models.

#### **Spark Resistant Construction**

AMCA 'B' construction is available on both direct and belt drive units. If required, an explosion proof motor and service switch may be selected as options.

#### **Prefabricated Curb**

A variety of sizes of prefabricated roof curbs are available. Galvanized steel unibeam curbs are the most popular. For a complete listing of all curb types and sizes available, please consult the latest PennBarry Curb brochure.

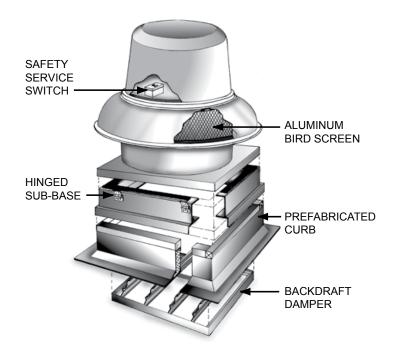
#### **High Wind Construction**

High wind construction Domex fans are specifically designed for high velocity hurricane zones (HVHZ). The Domex models are designed to withstand 150 MPH winds in accordance with Miami-Dade and Florida Building Code standards. The units are 3rd party tested and certified through a 3rd party Professional Engineer (PE.) to meet these strict standards. Installation details are provided, and since there are no tie downs or external braces required for attaching the unit to the roof or curb, this makes installation simple and easy. A wide range is offered to meet all of your ventilation needs which includes all belt and direct drive sizes 36 and under.

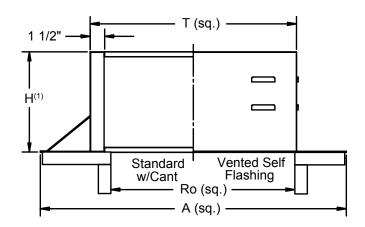
#### **Product Certifications:**

- Miami-Dade NOA # 14-0311.03
- Florida Product Approval #12339
- Texas Department of Insurance #RV-48

#### **Domex Exploded View**



### **Domex Curb Dimensions**



Model	E <sup>(4)</sup> SQ	T <sup>(2)</sup> SQ	A SQ	Ro <sup>(3)</sup> SQ	Damper Size SQ	Galv. Steel Gauge
DX06R	18.5	17	25	9	8.75	18
DX08V/S/R/Q	18.5	17	25	9	8.75	18
DX10V/S/R/Q	18.5	17	25	11.5	11.25	18
DX11V/S/R/Q	18.5	17	25	11.5	11.25	18
DX13V/S/R/Q	18.5	17	25	11.5	11.25	18
DX16V/S/R/Q1/Q2	20.5	19	27	16	15.75	18
DX18V	28.5	27	35	20	19.75	18
DX06B/DX08B	18.5	17	25	11.5	11.25	18
DX11B	20.5	19	27	16	15.75	18
DX12B/DX14B	24.75	23.25	31.25	16	15.75	18
DX16B/DX18B	28.5	27	35	20	19.75	18
DX24B	33.5	32	40	25	24.75	18
DX27B/DX30B	36.5	35	43	28	27.75	18
DX36B	44.5	43	51	36	35.5	18
KB420	52.5	51	59	44	43.5	18
JB48	59	57.5	65.5	50	49.5	18
MB542	63.5	62	70	55	54.5	18

All dimensions in inches.

(1) Standard heights "H" are 8", 12", and 18" including wood nailer.
(2) "T" dimension of curb is 1 1/2" less than the dimension of inside base of fan ("E").

(3) "Ro" refers to Roof Opening.

(4) "E" dimension is inside base of fan.

## MOTOR AVAILABILITY



Belt Drive Domex Cutaway



Direct Drive Domex Cutaway

#### **Green Plus Electronically Commutated Motor**

The Green Plus (GP) option utilizes EC motors to provide significantly greater efficiency, flexibility, and controllability over standard direct drive permanent split capacitor (PSC) motors. Using the included potentiometer, the Green Plus motors can be turned down to as low as 80% the max operating speed while maintaining 90% efficiency through the operating range. Additionally, the Green Plus 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. All Green Plus motors come in open enclosure or totally enclosed for usage with 115V-208V/230V or 460V, single phase, 50/60 Hz applications.



		1-Phase				
Model	НР	ODP 110-120V	TE 110-120V	TE 208-460V		
DX08VGP	1/6	-	Х	Х		
DX08S/RGP	1/6	-	Х	Х		
DX08QGP	1/6	-	Х	Х		
DX10VGP	1/6	-	Х	Х		
DX10S/RGP	1/6	-	Х	Х		
DX10QGP	1/6	-	Х	Х		
DX11V/S/RGP	1/6	-	Х	Х		
DX11QGP	1/4	-	Х	Х		
DX13V/S/RGP	1/6	-	Х	Х		
DX13QGP	1/4	-	Х	Х		
DX16VGP	1/6	-	Х	Х		
DX16S/RGP	1/3	Х	Х	Х		
DX16Q1GP	1/2	Х	Х	Х		
DX16Q2GP	3/4	Х	-	Х		
DX18VGP	3/4	Х	-	Х		

## MOTOR AVAILABILITY

### **Belt Drive Motor Availability**

The chart below lists horsepowers, voltages, and enclosure types. After selecting a model and horsepower that meets performance requirements, an engineer should verify that the desired voltage and enclosure are the same (or smaller) as the maximum NEMA motor frame shown for each model.

			1 Phase	3 P	3 Phase (200V, 230V, 460V, or 575V)			
HP	C	)DP	Totally Enclosed	Fundacian Duraf	000		Fundacian Drasf	
	115V	230V	115V/230V	Explosion Proof	ODP	Totally Enclosed	Explosion Proof	
1/4	48	48	48	48/56	48	48	48	
1/3	48/56	48/56	56	56	56	56	56	
1/2	48/56	48/56	56	56	56	56	56	
3/4	56	56	56	56	56	56	56	
1	56	56	56	56	145T	145T	145T	
1 1/2	56	56	145T	184T	145T	145T	145T	
2	145T	145T	182T	182T	145T	145T	145T	
3	184T	184T	184T	215T	145T	182T	182T	
5	-	-	-	-	184T	184T	184T	
7 1/2	-	-	-	-	213T	213T	213T	
10	-	-	-	-	215T	215T	215T	
15	-	-	-	-	254T	254T	254T	

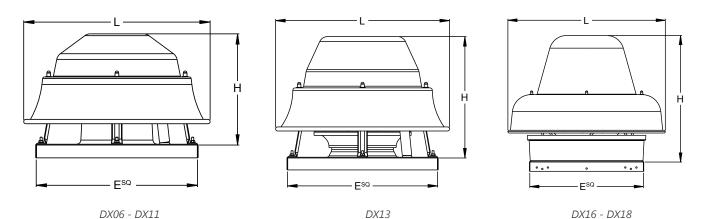
On horsepowers less than 1 1/2, motor frame sizes may change due to variations in voltage, special features and motor manufacturer. Motors shown are ball bearing, continuous duty and 1750 RPM or 1750/1140 RPM for two speed - two winding motors.

## DIRECT DRIVE DIMENSIONS

### **Direct Drive Overview**

Domex direct drive models are available with single and multi-speed motors. Multi-speed motors are designated V (1050 RPM), S (1300 RPM), and R (1550 RPM). DX06R and DX18V are exceptions being single speed motors. Q, Q1, Q2 (1725/1760 RPM) are single speed motors. A single Domex fan may be made suitable for several requirements by a simple wiring change. Domex direct drive models are available in seven sizes (6, 8, 10, 11, 13, 16 and 18). Capacities range from below 150 CFM to above 4500 CFM, with static pressures beyond 11/4".

Performances in 50 Hz applications will be less than shown below; consult with local PennBarry representative.



### Direct Drive Dimensions

Madal	Material Gages				Dimensions					
Model	Alum. Base	Galv. Base	Hood/ Apron	L (Dia.)	н	E*	Ro	Est. Ship Wt.		
DX06R	0.064"	16 ga.	0.050"	18 7⁄8	12 5%	18 ½ x 18 ½	9 x 9	22 lbs		
DX08V/S/R/Q	0.064"	16 ga.	0.064"	20 7/8	13 ¾	18 ½ x 18 ½	9 x 9	26 lbs		
DX10V/S/R/Q	0.064"	16 ga.	0.064"	20 7/8	13 ¾	18 ½ x 18 ½	11 ½ x 11 ½	29 lbs		
DX11V/S/R	0.064"	16 ga.	0.064"	20 7/8	13 ¾	18 ½ x 18 ½	11 ½ x 11 ½	38 lbs		
DX11Q	0.064"	16 ga.	0.064"	20 7/8	13 ¾	18 ½ x 18 ½	11 ½ x 11 ½	40 lbs		
DX13V/S/R	0.064"	16 ga.	0.064"	21 7/16	14 3⁄4	18 ½ x 18 ½	11 ½ x11 ½	36 lbs		
DX13Q	0.064"	16 ga.	0.064"	21 7/16	14 3⁄4	18 ½ x 18 ½	11 ½ x11 ½	43 lbs		
DX16V/S/R/Q1/Q2	0.064"	16 ga.	0.064"	28 1⁄2	22 ½	20 ½ x 20 ½	16 x 16	56 lbs		
DX18V	0.080"	14 ga.	0.064"	39	31	28 ½ x 28 ½	20 x 20	78 lbs		

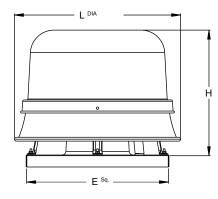
All dimensions are in inches. \*Outside dimension of curb should be 1 1/2" less than "E" dimension

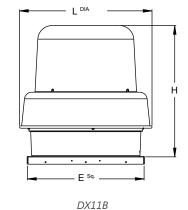
### **Enhanced Direct Drive**

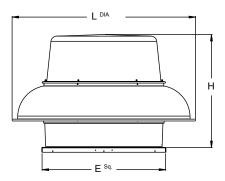
Model	L DIA	н	E <sup>Sq.</sup>	Ro <sup>sq.</sup>	Damper Size	Max Motor Frame Size	Galv. Steel Base	Discharge Apron	Hood Thick- ness	Est. Ship Weight (lbs.)
DX061	21 1/2	18 13/16	18 1/2	11 1/2	11 1/4	42	16 gage	0.05	0.064	35
DX081	21 1/2	18 4/5	18 1/2	11 1/2	11 1/4	42	16 gage	0.05	0.064	35
DX111	28 1/2	25 7/16	20 1/2	16	15 3/4	56	16 gage	0.08	0.08	55
DX121	33 1/2	29	24 3/4	16	15 3/4	56	16 gage	0.09	0.09	98
DX141	33 1/2	29	24 3/4	16	15 3/4	56	16 gage	0.09	0.09	98
DX161	39	31	28 1/2	20	19 3/4	145T	14 gage	0.064	0.08	131
DX181	39	31	28 1/2	20	19 3/4	145T	14 gage	0.064	0.08	132
DX241	46	33	33 1/2	25	24 3/4	184T	14 gage	0.064	0.08	183

All dimensions are in inches.

# **BELT DRIVE | DIMENSIONS**







DX06B - DX08B

DX12B- MB542

### **Belt Drive Dimensions**

Model	L DIA	н	E Sq.	Ro Sq.	Damper Size	Max Motor Frame Size	Aluminum Base	Galv. Steel Base	Discharge Apron	Hood Thickness	Est. Ship Weight (lbs.)
DX06B	21 1/2	18 13/16	18 1/2	11 1/2	11 1/4	42	0.064	16 gage	0.05	0.064	35
DX08B	21 1/2	18 4/5	18 1/2	11 1/2	11 1/4	42	0.064	16 gage	0.05	0.064	35
DX11B	28 1/2	25 7/16	20 1/2	16	15 3/4	56	0.064	16 gage	0.08	0.08	55
DX12B	33 1/2	29	24 3/4	16	15 3/4	56	0.064	16 gage	0.09	0.09	98
DX14B	33 1/2	29	24 3/4	16	15 3/4	56	0.064	16 gage	0.09	0.09	98
DX16B	39	31	28 1/2	20	19 3/4	145T	0.08	14 gage	0.064	0.08	131
DX18B	39	31	28 1/2	20	19 3/4	145T	0.08	14 gage	0.064	0.08	132
DX24B	46	33	33 1/2	25	24 3/4	184T	0.08	14 gage	0.064	0.08	183
DX27B	53 1/2	35	36 1/2	28	27 3/4	184T	0.102	14 gage	0.08	0.08	210
DX30B	53 1/2	35	36 1/2	28	27 3/4	184T	0.102	14 gage	0.08	0.08	210
DX36X	66	41	44 1/2	36	35 1/2	213T	0.102	12 gage	0.08	0.08	420
KB420B	63	38	52 1/2	44	43 1/2	213T	0.125	-	0.09	0.08	600
JB48B	73	48 1/4	59	50	49 1/2	215T	0.125	-	0.102	0.08	775
MB542B	46	33	68 1/2	55	54 1/2	254T	0.125	-	0.15	0.125	1500

## FAN SELECTIONS

#### Model

DX = Downblast Roof Exhauster KB = Downblast Roof Exhauster JB = Downblast Roof Exhauster MB = Downblast Roof Exhauster

### Construction

Application	Application Static Pressure (inwg)	Fan RPM
E = Exhaust / Relief	<enter value=""></enter>	<####>
S = Supply / Intake	Drive Type	
		Unit Size
Application Flow (CFM)	B = Belt	06, 061, 08, 081, 10, 11, 111, 12, 121, 13, 14,
<enter value=""></enter>	D = Direct	141, 16, 161, 18, 181, 24, 241, 27, 30, 36, 420,
	T = Belt w/Tensioner	48, 542

### Motor

Efficiency	25.00 = 25	Voltage/Phase/Cycle
G = Green Plus (ECM)	X = Special	1 = 380V/1PH/50HZ
P = Premium		2 = 400 V / 1 P H / 50 H Z
S = Standard	Motors and Drives	3 = 415V/1PH/50HZ
	F = Factory mounted	4 = 460 V / 1 P H / 60 H Z
Horsepower	L = Less motor and drive	$B = 110V/1PH/50HZ^*$
0.010 = 1/100	M = Less motor less drive	C = 115V/1PH/60HZ
0.020 = 1/50		D=120V/1PH/60HZ*
0.033 = 1/30	Motor Enclosure	F = 208V/1PH/60HZ
0.050 = 1/20	0 = None	G = 208V/3PH/60HZ
0.040 = 1/25	1 = TE w/Overload	$H = 220V/1PH/50HZ^*$
0.083 = 1/12	2 = TE w/o Overload	$J = 220V/3PH/50HZ^*$
0.091 = 1/11	3 = ODP w/Overload	K = 230V/1PH/60HZ
0.143 = 1/7	4 = ODP w/o Overload	L = 230V/3PH/60HZ
0.167 = 1/6	5 = EXP C2D1	$M = 240V/1PH/50HZ^*$
0.200 = 1/5	X = Special	N = 240V/3PH/50HZ*
0.250 = 1/4		$P = 277V/1PH/60HZ^{*}$
0.333 = 1/3	Motor Tap	Q = 380V/3PH/50HZ* R = 380V/3PH/60HZ*
0.500 = 1/2	0 = None	S = 400V/3PH/50HZ*
0.750 = 3/4	K= 1650 RPM (Q1)	T = 415V/3PH/50HZ*
01.00 = 1	L = 500  RPM	$U = 440V/3PH/50HZ^*$
01.50 = 11/2	M = 690  RPM	V = 460V/3PH/60HZ
02.00 = 2	Q = 1725  RPM (Q2)	$W = 480V/3PH/60HZ^*$
03.00 = 3 05.00 = 5	R = 1550 RPM	X = Special/PH/HZ
05.00 = 3 07.50 = 7 1/2	S = 1300 RPM	Y = 575V/3PH/60HZ
10.00 = 10	V = 1050  RPM	* Non-standard offering subject to longer
15.00 = 15	W = 860 RPM (W1,W2,W3)	lead times and price adjustment
20.00 = 20		# 277V applications require a transformer

## FAN SELECTIONS

### **Electrical Accessories**

#### Controllers

- 0 = None
- A = 0-10V output potentiometer
- 1 = Lek-Trol-SCR speed controller (mounted)
- 2 = Lek-Trol-SCR speed controller (loose)
- 3= Multi speed controller, iQ-MS (ECM only)
- 4 = iQ-IPCM-no power supply (ECM only)
- 5 = iQ-IPCM with 115V/230V power supply (ECM only)
- 6 = iQ-IPCM with 277V power supply (ECM only)

#### **Options and Accessories**

#### **Construction Accessories**

- 0 = None
- A = Aluminum curb cap (standard)
- F = Floating hinge kit (aluminum base)
- G = Floating hinge kit (steel base)
- H = Hinged sub-base (aluminum base)
- J = Hinged sub-base (steel base)
- S = Steel curb cap

#### Curb

- 0 = None
- C = Curb

#### Damper

- 00 = None
- D = Damper
- X = Special

#### Extended Lube Lines

- 0 = None
- L = Extended lube lines

#### Guard/Screen

- 0 = None
- B = Bird screen (standard)
- C = Insect/bird screen

#### Paint/Coating

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- 0 = None
- F = Epoxy powder coat (light gray)

7 = Provided by others V = VFD (belt drive only)

#### Service Switches and ITW\*

- 0 = None
- 1 = NEMA 1 ITW only
- 3 = NEMA 3R ITW only
- A = NEMA 1 loose
- C = NEMA 1 mounted and wired
- D = NEMA 3R loose
- F = NEMA 3R mounted and wired
- G = NEMA 4 loose
- N = NEMA 7 loose
- Q = NEMA 9 loose
- X = Special
- G = Epoxy powder coat with UV protection (gray)
- J = Non-stick powder coat (clear)
- K = Phenolic epoxy powder coat (gray)
- L = Phenolic epoxy powder coat with UV protection (gray)
- N = Polyester powder coat\*
- X = Special
- \* Colors only available in Polyester
- Powder Coat
- \*\*MB542 not available with coating

#### Paint Color\*

- 00 = None
- 50 = Chrome green
- 55 = Pale green
- 56 = Dove gray (PPC standard)
- 61 = White
- 63 = Oxford beige
- 65 = Dover white
- 66 = Desert tan
- 70 = Black
- 73 = Smoke gray
- 77 = Brick red
- 79 = Peppercorn
- 81 = Pale brown
- 83 = Chocolate brown
- 85 = Timeless bronze
- 94 = Charcoal
- X = Special
- \* Colors only available for polyester

\* ITW - Internal wiring not provided on explosion proof motors

#### Switches / Sensors

- 0 = None
- A = Airminder switch (time delay)
- B = Airminder+firestat
- F = Firestat switch

#### Transformer

- 0 = None
- B = 277Vx115V
- X = Special

#### powder coat

#### Pedestal

- 0 = None
- A = Galvanized pedestal
- C = Aluminum pedestal

#### Spare Belt

- 0 = None
- 1 = 1 spare set
- 2 = 2 spare set

#### **Special Construction**

0 = None

Stainless Steel

H = Hardware

X = Special

S = 304SS Shaft

0 = None

B = Spark resistance (AMCA B) C = Spark resistance (AMCA C)

wind (Miami-Dade)

wind (Miami-Dade)

H = High wind (Miami-Dade)

B = Hardware and shaft

D = Spark resistance (AMCA C) + high

E = Spark resistance (AMCA B) + high

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## PENNBARRY PRODUCT SOLUTIONS

### Commercial

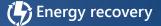
Roof & wall exhaust centrifugal fans Ceiling, wall, & inline centrifugal fans Roof supply centrifugal fans Square & round centrifugal fans Wall mounted axial fans Hooded roof axial fans Upblast roof axial fans Gravity ventilators Roof curbs

### 🔀 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



Make-up air units Exhaust fans



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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