



ZEPHYR | Model: Z
Ceiling Fan

MOVING YOUR WAY

› Zephyr

Model: Z3 - Z12

- Static pressure up to 0.75 in. wg.
- Flow capacity up to 1566 CFM



Model: Z3 - Z12 (TDA)

- Static pressure up to 1.5 in. wg.
- Flow capacity up to 1519 CFM



Model: Z14 & Z15

- Static pressure up to 1 in. wg.
- Flow capacity up to 3290 CFM



Model: Zephyrette & Zephyr Jr. (ZT & ZJ1)

- Static pressure up to 0.75 in. wg.
- Flow capacity up to 160 CFM



Model: Transfan (TF-8)

- Static pressure up to 0.20 in. wg.
- Flow capacity up to 255 CFM



Model: Z1

- Static pressure up to 0.5 in. wg.
- Flow capacity up to 56 CFM



Model: ZL1 & ZL2

- Static pressure up to 0.5 in. wg.
- Flow capacity up to 97 CFM



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Limited Warranty IBC

› AMCA Certification

PennBarry certifies that the Zephyr models shown on pages 8, 13, and 19 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.



PennBarry certifies that the Zephyr models shown on pages 10, 11, and 12 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.



› UL and CSA Certification

Zephyr fans carry the UL labels, UL705, (ZACT), File # E28413 & UL507, (GPWV), File # E255450. The Z1, ZL1, & ZL2 are not UL705 certified. The Z15 is not UL507 certified.



Zephyrs are also certified by the Canadian Standard Association (File #LR13309).



PennBarry reserves the right to make changes at any time, without notice, to models, construction, specifications, options, availability, etc. This bulletin illustrates the appearance of PennBarry products at the time of publication. To view the latest updates, visit PennBarry at www.pennbarry.com.

General Information

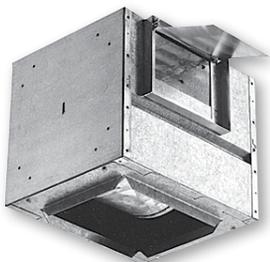
Ceiling Exhaust Fans



Zephyr



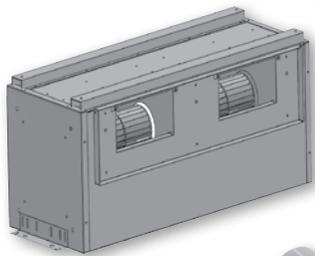
Zephyr
Transfan



Zephyr TDA



Zephyr Z1



Zephyr Z14 & Z15



Zephyr
ZL1 & ZL2



Zephyrette
& Zephyr Jr.

Z
e
p
h
y
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› Zephyr Z & Z-TDA Models

The Zephyrs, model Z are quiet operating ceiling exhaust fans. Some selections are available with sound ratings below 1 sone. There are 15 models that cover a wide range of performance. The units are easily field convertible to change the discharge orientation from right angle to top discharge. They are also easily field convertible from ceiling (model Z) to inline (model Z-TDA) installations. There are multiple sizes that utilize 2 speed motors that allow these units to cover an even greater range. All motors are equipped with thermal overload protection as standard. The units utilize quick access wiring to make them easy to install. Many of the units are offered with variable speed motor control which will allow for easy balancing. All models are AMCA Air and Sound rated and UL705 and UL507 listed.

› Large Capacity Zephyr Fans

PennBarrY Zephyr fan models Z14 and Z15, are designed to produce high volumes of air at low noise levels. Fans can be used for general ventilation and exhaust applications. These larger capacity fans will accommodate single or multi-room ventilation and can be installed above the ceiling. The units are AMCA Air certified and UL705 listed. The Z14 is also UL507 listed.

› Zephyrette & Zephyr Jr.

The Zephyrette ZT and Zephyr Junior ZJ1 are quiet operating low profile Zephyrs. They can be installed into very shallow ceilings where other units will not fit. A speed controller is available for both models for precise system balancing and energy conservation. The units come standard with thermally protected motors, AMCA Air rated and UL705, UL507, and CSA listed.

› Zephyr Transfan

The Transfan is a room-to-room transferfan. It has an adjustable wall sleeve for varying wall thicknesses and fits easily between wall studs or ceiling joists. It is supplied with a built in variable speed motor control. It is AMCA Air rated and UL705, UL507, and CSA listed.

› Zephyr Ceiling Fan

The Zephyr Z1 is for very low flow requirements. The unit comes with a white polymeric grille and utilizes a quiet centrifugal blower wheel. The housing is made from rugged steel and has built in mounting brackets. The exhaust connection is a 4" polymeric round duct connector that has a durable damper that eliminates backdrafts and produces no metallic clatter. The Z1 is UL507 listed for use over bathtubs and showers when connected to a GFCI protected branch circuit. The Z1 is AMCA licensed for Sound and Air performance.

› Zephyr Ceiling Fans with Light

The Zephyr Light models ZL1 and ZL2 come with a maximum of 100 watt incandescent lighting (bulb not included). The units are supplied with a totally enclosed motor that utilizes sealed bearings. The units come with a white polymeric grille that has an unbreakable light lens. They utilize quiet centrifugal blower wheels with plug in receptacles for the fan and light. The housing is made from rugged steel and has built in mounting brackets. The exhaust connection is a 4" polymeric round duct connector that has a durable damper that eliminates backdrafts and produces no metallic clatter. The models are UL507 listed for use over bathtubs and showers when connected to a GFCI protected branch circuit. The units are AMCA licensed for Sound and Air performance.

› Low Sound

For sound critical applications, the Zephyr S series delivers the lowest sound ratings. All Zephyrs feature acoustically insulated housings, custom designed blower and motor pairings, motors mounted on vibration isolators, and for all but the smallest Zephyr—Z3H, dual inlet blowers.

› High Static Pressures

When higher static pressures are encountered, the Zephyr H series fans excel. Faster RPM allow these fans to better sustain airflow as static pressure increases. This makes them well suited for inline applications.

› Housings

Housings are fabricated of galvanized steel. Acoustical insulation is used to minimize sound.

› EasyTap Speed Selection

Selected Zephyrs (Z6S/H, Z8S/H, and Z10S/H) are provided with dual speed motors designed to run at nominal speeds of 1050 and 1550 RPM. By simply changing one wire tap, a fan's speed can be switched. This ability to alter speed and air flow allows on the spot adjustments to deal with unforeseen circumstances. Systems deficiencies can be accommodated in the field quickly and without the added cost of replacing a fan.

› Motors

All units have permanently lubricated motors manufactured to PennBarry's exacting specifications. Motors feature built in overload protection and plug in disconnects.

› Grilles

Constructed of attractive molded white plastic, aerodynamically designed grilles feature an 85% free area. To make for easy removal and cleaning, the grilles are held in place with spring clips. An optional metal face grille with a white finish is available.

› Wheels

Wheels are dynamically balanced and performance matched with the motor. On models Z5H and larger, dual inlet blowers are employed to minimize sound levels.

› Quick Access Wiring

Access to the motor leads is through a panel in the side of the unit; there is no need to remove the power pack. However, if the need to remove the power pack ever arises, a quick connect plug makes the process simple and easy.

› Field Conversion

The Zephyr cabinet is designed for quick transition from right angle discharge to top discharge or into an inline configuration. Simply remove two (or four depending upon model) sheet metal screws, switch positions of the access panel and top panel, re-attach screws, and a right angle discharge becomes a top discharge fan.

There is no need to remove the power pack. The blower remains oriented in one position while the panels change places. The transformation to an inline fan is accomplished by the replacement of the grille with an access panel. Again, only two (or four) screws are involved in the process.

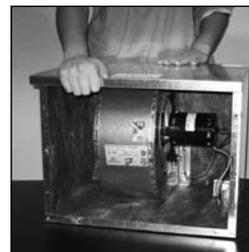
› Changing from Right Angle to Top Discharge



1. Remove screws.



2. Remove access panel.



3. Rotate access panel 90°.



4. Re-install screws.

› Changing from Ceiling Mount to In line Configuration



1. Discard grille and remove access panel screws.



2. Remove access panel.



3. Install optional TDA panel and four screws.

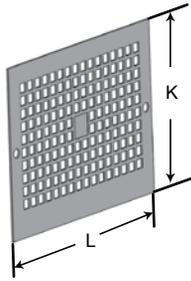


4. Re-install access panel and screws.

Installation

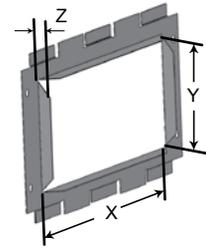
› Optional Steel Grille

When the design calls for a more architecturally appealing grille, an optional steel grille is available. It features an attractive perforated steel design with overall white finish. (Not available for Z1, ZL1 & ZL2).



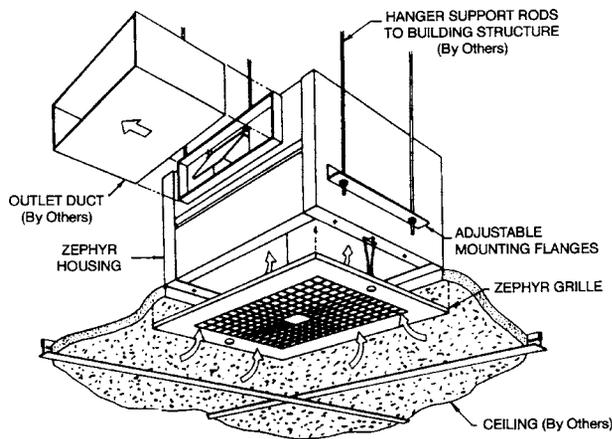
› Inline Conversion (TDA) Kit

Adapter panel with integral duct flange allows conversion from ceiling fan (RA/TD) to inline fan (TDA). Adapter can be installed to provide for straight through (Inline) or 90° (Right Angle Inline) application. Use of the fan in Right Angle configuration allows the fan to replace an elbow in the duct system. This eliminates the pressure loss of the elbow and simplifies the installation for the contractor.

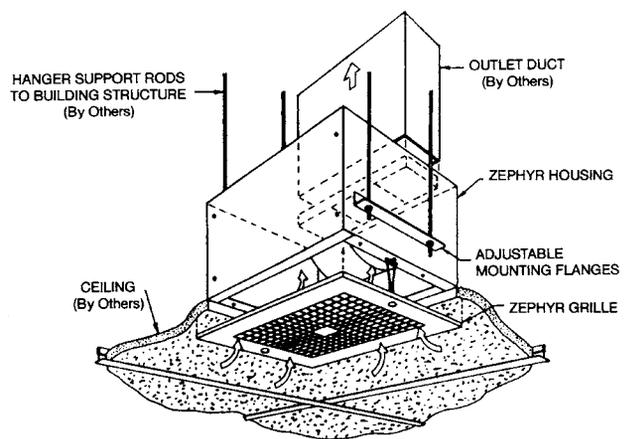


Model	Grille		TDA Panel		
	K	L	X	Y	Z
Z3,5,6	11"	13 3/4"	10"	6"	1 5/8"
Z8,81	13 1/4"	14 7/8"	10"	8"	1 9/16"
Z10	15 1/2"	19 3/8"	14"	10"	2"
Z12, 101, 102, 121	15 1/2"	25"	20"	10"	2"

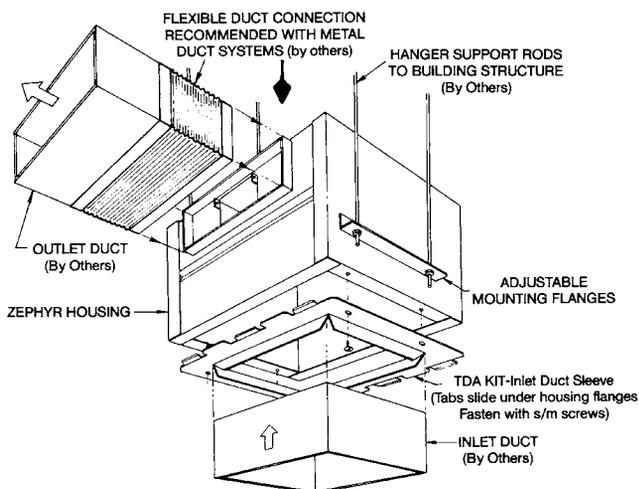
› RA (Right Angle) Installation



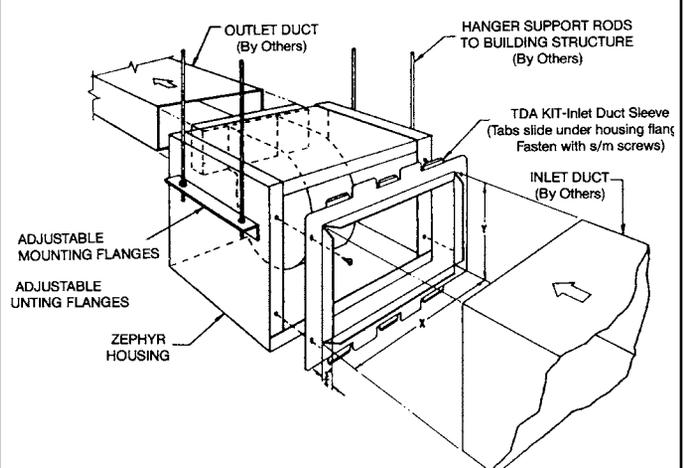
› TD (Top Discharge) Installation



› TDA-RA (In-Line) Installation



› TDA (In-Line) Installation



› Roof Caps

These spun aluminum, rustproof, seamless vents provide a discharge cap for flat roof mounting. Unobtrusive and furnished with integral bird screen, they are designed for simple, safe flashing directly to the roof. Mounting flanges are also available turned down as cap flashing when installation on roof curbs is desired. See the PennBarry Weathercap Bulletin for more information.

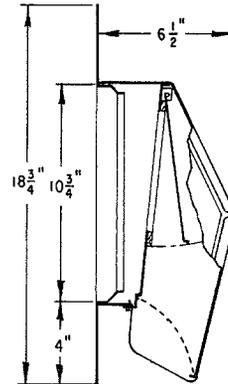
› Sloped Roof Caps

Caps are available for sloped roof applications. Minimum height model SL20 is durable and has a backdraft damper. Models WCF/WCC10, 12, 14, 20 are suitable for mounting on sloped roof 4" in 12" pitch or less.

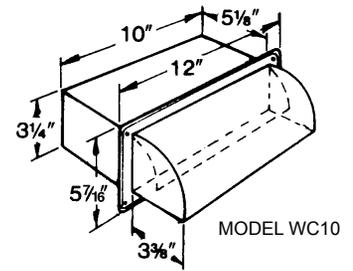


› Wall Caps

Inconspicuous but efficient wall outlets for the Zephyr fans are provided through the use of the Wall Cap. Architectural values are not diminished by this tastefully designed accessory. When properly installed, it is both watertight and effective.

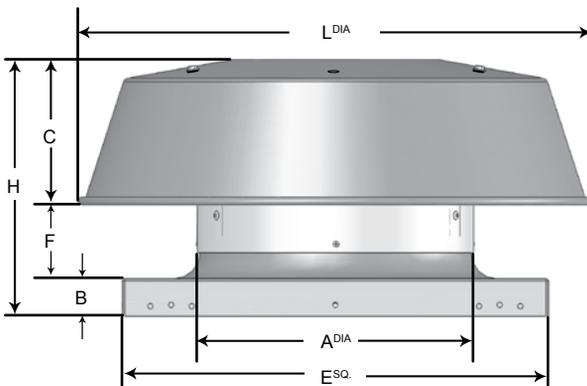


MODEL SL20

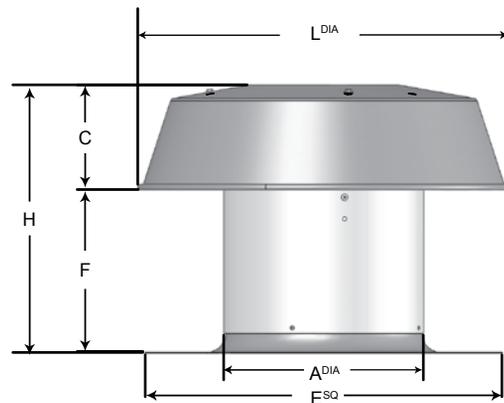


MODEL WC10

› WCC Roof Cap (Curb Mounted)



› WCF Roof Cap (Self Flashing)



› Roof Cap Dimensional Data

For Use With	Model	A(Throat) Dia	B	C	E SQ	F	H	L-Dia	Damper SQ
Z1, ZL1, ZL2, ZT, ZJ1, Z3H, Z5H, Z6S/H	WCF06	7"	N/A	3 1/2"	16 7/8"	8"	11 1/2"	12"	NA
Z8S/H, Z81S, Z10S/H	WCF08	9"	N/A	5 1/2"	21 1/4"	8"	13 1/2"	18 1/2"	NA
Z101S, Z102S	WCF10	11"	N/A	5 1/2"	21 1/4"	10"	15 1/2"	21"	NA
Z12S, Z121S	WCF12	13"	N/A	7"	24"	10"	17"	25"	NA
Z102H, Z12H	WCF14	15"	N/A	7"	28"	10"	17"	28"	NA
Z14, Z15	WCF20	21"	N/A	10 1/2"	32"	12"	22 1/2"	37"	NA
Z1, ZL1, ZL2, ZT, ZJ1, Z3H, Z5H, Z6S/H	WCC06	7"	1	3 1/2"	15"	4"	8 1/2"	12"	8 3/4"
Z8S/H, Z81S, Z10S/H	WCC08	9"	1-1/2	5 1/2"	18 1/2"	4"	11"	18 1/2"	11 1/4"
Z101S, Z102S	WCC10	11"	1 1/2	5 1/2"	18 1/2"	4"	11"	21"	11 1/4"
Z12S, Z121S	WCC12	13"	2	7"	20 1/2"	4"	13"	25"	15 3/4"
Z102H, Z12H	WCC14	15"	2	7"	24 3/4"	4"	13"	28"	15 3/4"
Z14, Z15	WCC20	21"	2	10 1/2"	28 1/2"	5 1/2"	18"	37"	19 3/4"

Introduction

Zephyr



Ceiling Exhaust Fans

Accessories

› Lek-Trol™ Speed Controllers

Lek-Trol™ Speed Controllers permit unlimited air control. They use solid state “quadrac” circuitry and insure not only complete speed range control and extra long life reliability but also a savings in the cost of electricity. Lek-Trols™ can be installed and connected within the fan casing, permitting precise system balancing.



› 277 Volt Transformer

To meet local requirements 277V transformers are available for all Zephyrs. The transformers are step-down and will step the voltage down to 120V. Shipped loose for field installation.

› Motion Sensor

For applications where automated operation of the fan is required, a motion detector can be used to turn the fan on or off. The sensor features full scanning capabilities and can be placed anywhere within the room. The sensor also offers adjustable shutoff feature with delays of up to 15 minutes.

› Pilot Light

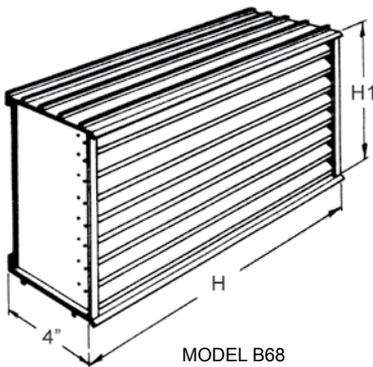
This amber colored light easily snaps into any opening in the Zephyr grille. The light will indicate when the fan is in operation and is ideal when fan is not interlocked with lights.

› Two Speed Switch

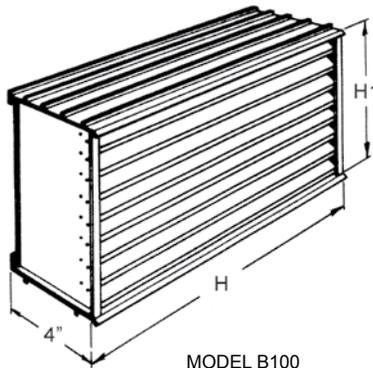
A PennBarry Exclusive. The decorator, three position center off, two speed switch is designed to work with PennBarry’s EasyTap Dual Speed Motors (models Z6S/H, Z8S/H & Z10S/H). Adjust from low (S) to high (H) with the flick of a switch. Manually adjust for changes in room and static pressure conditions.

› Brick Vents

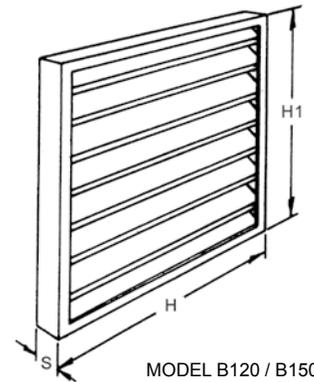
Sized to replace multiples of standard size brick or concrete block. Made of extruded aluminum with insect screens, storm proof features and a protective finish, they are superior vents and ideal for installation in masonry walls.



MODEL B68



MODEL B100



MODEL B120 / B150

› Brick Vent Model Recommendations

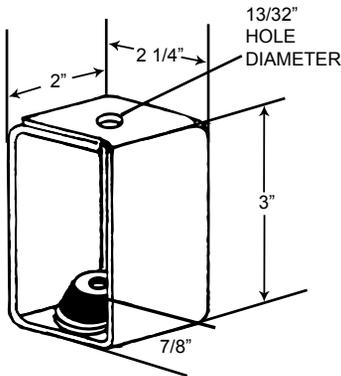
Brick Vent Model	Recommended Zephyr Model	H	H1	S
B120	Z101, Z12, Z121, Z102, Z14	24"	24"	2"
B150	Z15	30"	30"	2"
B68	Z3, Z5, Z6, Z8, Z81	16 1/2"	4 3/4"	4"
B100	Z100	16 1/2"	7 3/4"	4"

Zephyr

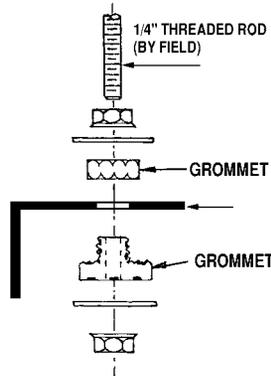
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› Vibration Hanger

Hanger vibration eliminators feature rubber-in-shear type and are available for use with all units.



AVAILABLE WITH MODELS
Z14 & Z15



AVAILABLE WITH MODELS
Z3 - Z12

› Square to Round Transition

Designed to make the installation of flex duct quick and easy. Available to accommodate the most common flex duct sizes.

Duct Transition	Part No.	Units	Round Dia.
ZT, ZJ1, Z3, Z5, Z6	56337-0	3 1/4" x 10"	6"
Z8, Z81, Z10	56340-0	6" x 8"	8"
Z12, Z101, Z102, Z121*	56385-0	6" x 8"	8"

* Includes two pieces.

› Accessories Matrix

Model	Roof Caps			Wall Cap	Brick Vent	Switches		Radiation ‡ Damper	Metal Face Grille
	Flat	Curb Mount	Slope			Speed Controller	Time Delay		
Z3H	WCF06	WCC06	SL20+	WC10	B68	LT30	AM12	DDA3	MFG6
Z5H	WCF06	WCC06	SL20+	WC10	B68	LT30	AM12	DDA3	MFG6
Z6S/H	WCF06	WCC06	SL20+	WC10	B68	LT30**	AM12	DDA3	MFG6
Z8S/H	WCF08	WCC08	SL20+	WC10	B68	LT30	AM12	DDA8	MFG8
Z81S	WCF08	WCC08	SL20+	WC10	B68	LT30	AM12	DDA8	MFG8
Z10S/H	WCF08	WCC08	SL20+	SL20+	B100	LT50	AM12	DDA10	MFG10
Z101S	WCF10	WCC10	WCF10†	***	B120	LT30	AM12	DDA12	MFG12
Z102S	WCF10	WCC10	WCF10†	***	B120	LT50	AM12	DDA12	MFG12
Z12S	WCF12	WCC12	WCF12†	***	B120	LT50	AM12	DDA12	MFG12
Z121S	WCF12	WCC12	WCF12†	***	B120	LT40	AM12	DDA12	MFG12
Z102H	WCF14	WCC14	WCF14†	***	B120	LT40	AM12	DDA12	MFG12
Z12H	WCF14	WCC14	WCF14†	***	B120	LT40	AM12	DDA12	MFG12
Z14	WCF20	WCC20	CF	***	B120	LT40	AM12	--	MFG14*
Z15	WCF20	WCC20	CF	***	B150	LT35	--	--	MFG15*

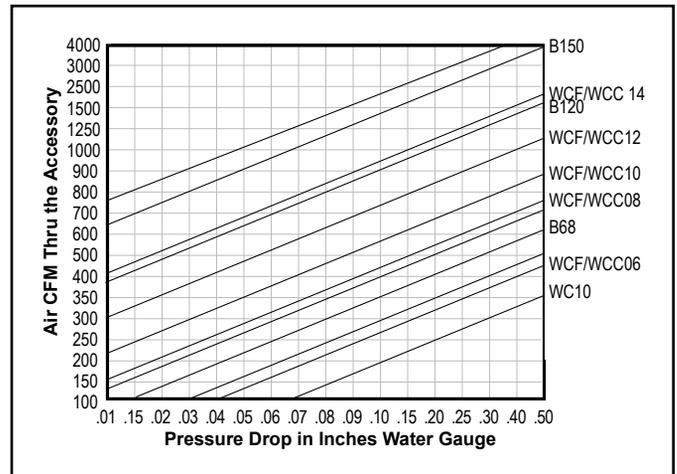
+ Manufactured of galvanized steel. All other accessories manufactured of aluminum.
* Specify MFG (perforated metal) or MCG (aluminum core).

‡ Kit is field installed, shipped separate from fan.
** Z6H unit only. ***Use brick vent. †4 in 12 max. pitch.

› Ceiling Radiation Damper

For areas where local codes require fire dampers for compliance with National Fire Protection Standard 90A, PennBarry offers a UL approved damper. The dampers are rated for 3 hours and are activated at 165°F. Compact in design, the dampers add only 7" in height when mounted between the fan and the grille. Static pressure created by the damper is negligible.

› Static Pressure Drop Chart for Accessories



Dimensional Information & Performance Data

Zephyr

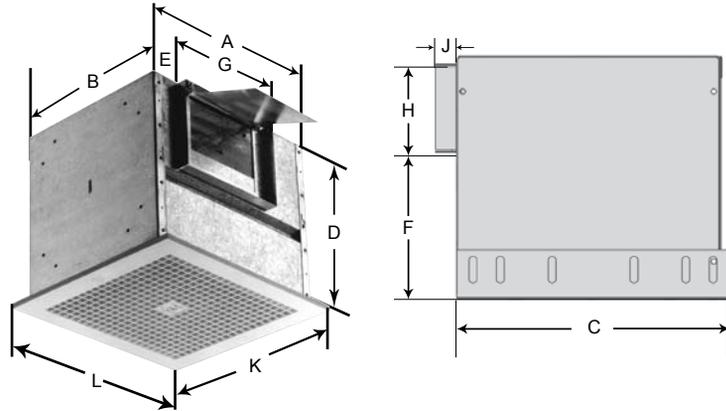


Z3 - Z12

Ceiling Exhaust Fans

Zephyr Features & Dimensional Data

- Some Selections Below One Sone
- AMCA Air & Sound Certified
- UL Listed for UL705 and UL507
- All Motors with Thermal Overload Protection
- Quick Access Wiring
- Easy to Balance via Variable Speed Control (Lektrol)
- Field Convertible Discharge Orientation
- Field Convertible from Ceiling to Inline Installation
- Popular Models with Multi-Speed Motor (Wide Performance Range)



Zephyr Dimensional References

Model	Housing							Outlet Duct			Grille	
	A	B	C	D	E	E'	F	G	H	J	K	L
Z3,5,6	12 1/2"	9 1/8"	16"	9 1/8"	1 1/4"	1 1/4"	5 3/8"	10"	3 1/4"	3/4"	11"	13 3/4"
Z8,81	13 7/8"	11 3/8"	17 3/8"	11 3/8"	1 7/8"	4"	5 1/4"	8"	6"	3/4"	13 1/4"	14 7/8"
Z10	18"	14 1/8"	21 1/2"	14 1/8"	3 5/8"	6 3/8"	8"	8"	6"	3/4"	15 1/2"	19 3/8"
Z12, 101, 102, 121	24"	14 1/8"	27 1/2"	14 1/8"	1"	1"	8"	22"	6"	3/4"	15 1/2"	25"

Zephyr Performance Data

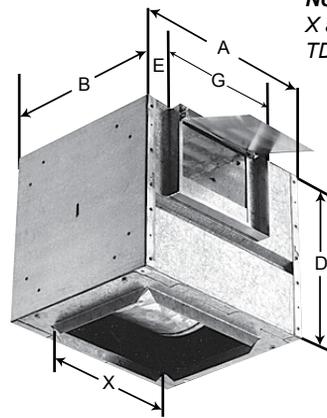
Model	MAX. WATT	Amps	RPM	SP	0.000"	0.125"	0.250"	0.375"	0.500"	0.625"	0.750"
Z3H	39	0.5	1550	CFM	109	83	-	-	-	-	-
				SONES ²	1.7	2.3	-	-	-	-	-
Z5H	79	1	1550	CFM	192	163	128	93	-	-	-
				SONES ²	3.4	3.3	3.3	3.4	-	-	-
Z6S ⁵	47	0.6	1050	CFM	123	101	82	-	-	-	-
				SONES ²	0.9	1.4	1.8	-	-	-	-
Z6H ⁵	108	1.4	1550	CFM	230	196	166	122	-	-	-
				SONES ²	3.3	3	3	3.1	-	-	-
Z8S ⁶	77	1	1050	CFM	272	247	231	217	199	-	-
				SONES ²	2.1	2.4	2.9	3.3	3.6	-	-
Z81S	77	0.9	1050	CFM	310	273	239	213	182	136	73
				SONES ²	2.5	2.7	2.9	3.3	3.7	4.2	4.3
Z8H ⁶	130	1.6	1550	CFM	426	401	377	357	341	328	304
				SONES ²	4.5	4.7	4.7	5.1	5.6	5.8	5.8
Z10S ⁷	243	2.5	1050	CFM	469	441	423	403	387	367	347
				SONES ²	4.5	4.8	5.1	5.4	5.6	5.8	6
Z101S	153	1.6	1050	CFM	612	537	467	405	222	116	-
				SONES ²	3.9	3.6	3.9	4.6	5.5	6	-
Z10H ⁷	390	3.6	1550	CFM	728	694	664	638	613	591	565
				SONES ²	8.6	8.6	8.6	8.7	8.6	8.8	8.8
Z102S	269	4.5	1050	CFM	816	747	691	602	335	-	-
				SONES ²	5.8	5.8	5.4	5	4.9	-	-
Z12S	260	2.9	1050	CFM	901	855	812	755	683	552	-
				SONES ²	5.8	5.9	6.3	6.5	6.5	6	-
Z121S	370	3.6	1050	CFM	1083	1062	1024	949	838	686	270
				SONES ²	7	6.9	6.6	6.1	5.7	5.3	4.6
Z102H	812 (BHP 0.53)	7.5	1550	CFM	1435	1385	1338	1294	1247	1203	1163
				SONES ²	11.8	11.7	11.9	11.9	11.7	11.3	11
Z12H	851 (BHP 0.65)	7.9	1550	CFM	1566	1511	1464	1417	1364	1307	1251
				SONES ²	13.5	13.3	12.9	12.7	12.3	12	11.7

1. Speed (RPM) shown is nominal. Performance is based on actual speed of test. 2. Performance shown is for installation type B - Free Inlet, Ducted Outlet. Performance ratings include the effects of an inlet grille and backdraft damper in the airstream. 3. The sound ratings shown are loudness values in fan sones at 5ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. 4. Specify discharge configuration. Standard types are RA, TD, TDA and TDA-RA. 5. Z6S and Z6H is the same unit shipped with EASYTAP dual speed motor. Wired on S (low) speed. 6. Z8S and Z8H is the same unit shipped with EASYTAP dual speed motor. Wired on S (low) speed. 7. Z10S and Z10H is the same unit shipped with EASYTAP dual speed motor. Wired on S (low) speed.

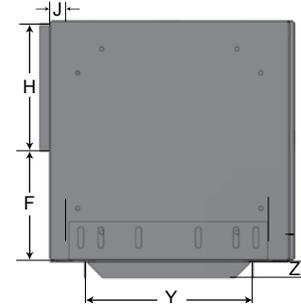
PENNBARRY 2019

› Zephyr (with TDA Option) Features & Dimensional Data

- Some Selections Below One Sone
- AMCA Air & Sound Certified
- UL Listed for UL507 & UL705
- All Motors with Thermal Overload Protection
- Quick Access Wiring
- Easy to Balance via Variable Speed Control (Lektrol)
- Field Convertible Discharge Orientation
- Field Convertible from Ceiling to Inline Installation
- Popular Models with Multi-Speed Motor (Wide Performance Range)



Note: The TDA-RA configuration is shown. X and Y dimensions will remain the same for TDA-Inline configuration.



› Zephyr (with TDA Option) Dimensional References

Model	Housing							Outlet Duct			TDA Panel		
	A	B	C	D	E	E'	F	G	H	J	X	Y	Z
Z3,5,6	12 1/2"	9 1/8"	16"	9 1/8"	1 1/4"	1 1/4"	5 3/8"	10"	3 1/4"	3/4"	10"	6"	1 5/8"
Z8,81	13 7/8"	11 3/8"	17 3/8"	11 3/8"	1 7/8"	4"	5 1/4"	8"	6"	3/4"	10"	8"	1 9/16"
Z10	18"	14 1/8"	21 1/2"	14 1/8"	3 5/8"	6 3/8"	8"	8"	6"	3/4"	14"	10"	2"
Z12, 101, 102, 121	24"	14 1/8"	27 1/2"	14 1/8"	1"	1"	8"	22"	6"	3/4"	20"	10"	2"

› Zephyr (with TDA Option) Performance Data

Zephyr Model	MAX. WATT	Amps	RPM	SP	0.000"	0.125"	0.250"	0.375"	0.500"	0.625"	0.750"	1.000"	1.250"	1.500"
Z3H (TDA)	42	0.5	1550	CFM	107	81	-	-	-	-	-	-	-	-
				SONES ²	1.7	1.9	-	-	-	-	-	-	-	-
Z5H (TDA)	83	1	1550	CFM	199	171	143	104	-	-	-	-	-	-
				SONES ²	1.9	2	2.1	2.1	-	-	-	-	-	-
Z6S (TDA)⁵	46	0.6	1050	CFM	127	93	66	-	-	-	-	-	-	-
				SONES ²	0.9	1.2	1.6	-	-	-	-	-	-	-
Z6H (TDA)⁵	108	1.4	1550	CFM	227	192	157	113	-	-	-	-	-	-
				SONES ²	2.7	2.7	2.8	2.9	-	-	-	-	-	-
Z8S (TDA)⁶	75	1	1050	CFM	255	228	208	190	165	139	110	-	-	-
				SONES ²	1.8	1.9	2.4	2.8	3.3	3.6	3.7	-	-	-
Z81S (TDA)	84	0.9	1050	CFM	307	274	252	228	198	152	95	-	-	-
				SONES ²	2.2	2.2	2.5	2.9	3.1	3.3	3.5	-	-	-
Z8H (TDA)⁶	132	1.6	1550	CFM	402	376	350	335	318	301	277	-	-	-
				SONES ²	4.1	3.9	3.9	4.2	4.4	4.6	4.9	-	-	-
Z10S (TDA)⁷	234	2.5	1050	CFM	456	423	391	367	350	337	320	268	128	-
				SONES ²	4.1	4.5	4.7	4.9	5.2	5.4	5.7	6.2	6.4	-
Z101S (TDA)	152	1.6	1050	CFM	609	521	438	373	272	130	-	-	-	-
				SONES ²	3.2	3.4	4.3	4.6	5.2	5.6	-	-	-	-
Z10H (TDA)⁷	372	3.6	1550	CFM	700	661	626	593	558	528	504	455	368	-
				SONES ²	8	8	7.9	7.9	8	8.2	8.1	8	7.8	-
Z102S (TDA)	273	4.5	1050	CFM	780	720	660	592	336	-	-	-	-	-
				SONES ²	4.6	5.7	5.6	4.8	4.7	-	-	-	-	-
Z12S (TDA)	263	2.9	1050	CFM	886	829	786	735	660	526	180	-	-	-
				SONES ²	5.5	5.7	5.6	5.8	5.7	5.3	4.7	-	-	-
Z121S (TDA)	344	3.6	1050	CFM	1089	1043	981	899	802	672	404	-	-	-
				SONES ²	6.5	6.5	6.3	6	5.7	5.3	4.4	-	-	-
Z102H (TDA)	810 (BHP 0.53)	7.5	1550	CFM	1397	1348	1301	1253	1206	1162	1121	1034	916	611
				SONES ²	10.7	10.5	10.7	10.6	10.4	10.1	9.9	9.6	9.4	9
Z12H (TDA)	810 (BHP 0.53)	7.9	1550	CFM	1519	1475	1430	1386	1343	1300	1254	1146	1017	697
				SONES ²	12.7	12.4	12.2	11.7	11.5	11.2	10.9	10.5	10.2	9.6

1. Speed (RPM) shown is nominal. Performance is based on actual speed of test. 2. Performance shown is for installation type D - Ducted inlet, Ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. 3. The sound ratings shown are loudness values in fan sones at 5ft. (1.5m) from the test inlet duct in a hemispherical free field calculated per AMCA Standard 301. Values shown are for installations Type D: ducted inlet ducted outlet. Ratings do not include the effect of duct end correction. 4. Specify discharge configuration. Standard types are RA, TD, TDA and TDA-RA. 5. Z6S and Z6H is the same unit shipped with EASYTAP dual speed motor. Wired on S (low) speed. 6. Z8S and Z8H is the same unit shipped with EASYTAP dual speed motor. Wired on S (low) speed. 7. Z10S and Z10H is the same unit shipped with EASYTAP dual speed motor. Wired on S (low) speed.

Dimensional Information & Performance Data

Zephyr | Large Capacity Fans

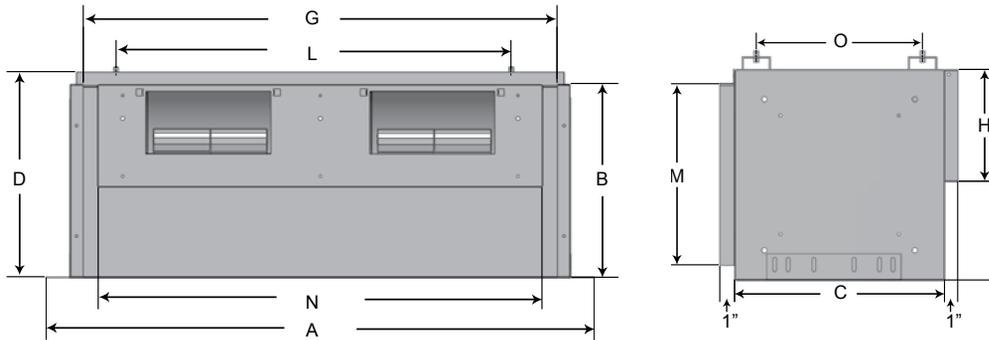
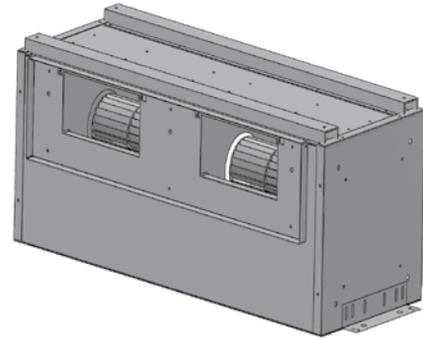


Ceiling Exhaust Fans

Z14 & Z15

› Zephyr (Z14 & Z15 Large Capacity) Features & Dimensional Data

- Quiet Design with Insulated Housing
- Produces High Volumes of Air at Low Noise Levels
- Versatile Discharge Orientations
- Easy Installation in Confined Spaces
- AMCA Air Certified
- UL Listed for UL705; Z14 UL507 Listed



› Zephyr (Z14 & Z15 Large Capacity) Dimensional References

Model	A	B	C	D	L	O	Outlet		Inlet	
							G	H	M	N
Z14	38"	14 1/2"	14 1/2"	15 1/2"	26 1/2"	7 5/8"	33 3/4"	7 3/4"	12 1/2"	36"
Z15	45 1/2"	16 1/2"	16 1/2"	17 1/2"	31 3/4"	10"	41 1/4"	9 3/4"	14 1/2"	43 1/2"

› Zephyr (Z14 & Z15 Large Capacity) Performance Data

Model	RPM	Inlet Area	Outlet Area	Wheel Dia	Wheel Circ.	SP	0.100"	0.125"	0.250"	0.375"	0.500"	0.625"	0.750"	0.875"	1.00"
							CFM	SONES	BHP	CFM	SONES	BHP	CFM	SONES	BHP
Z14 115/1/60 1/2 HP	1150	0.5	1550	8"	2.09'	CFM	2200	2195	2050	1870	1685	1425	880	285	-
						SONES	7.9	7.9	7.6	7.1	6.8	6.7	6.6	6.4	-
						BHP	0.56	0.56	0.54	0.49	0.45	0.39	0.26	0.15	-
	1060	1	1550	8"	2.09'	CFM	2025	2015	1835	1645	1400	880	-	-	-
						SONES	7.2	7.2	6.9	6.4	6.3	6	-	-	-
						BHP	0.44	0.43	0.4	0.36	0.33	0.22	-	-	-
	980	0.6	1050	8"	2.09'	CFM	1865	1845	1630	1410	1015	280	-	-	-
						SONES	6.6	6.6	6.2	5.8	5.7	5.3	-	-	-
						BHP	0.34	0.34	0.31	0.28	0.2	0.1	-	-	-
	880	1.4	1550	8"	2.09'	CFM	1660	1605	1375	1055	255	-	-	-	-
						SONES	5.8	5.8	5.4	4.8	4.6	-	-	-	
						BHP	0.25	0.24	0.21	0.17	0.07	-	-	-	
Z15 230/1/60 1 HP	1030	0.9	1050	9"	2.36'	CFM	3290	3260	3100	2920	2720	2510	2260	1930	1140
						SONES	9.5	9.5	9.4	9	8.7	8.6	8.3	8.2	8.1
						BHP	1.1	1.1	1.05	1	0.96	0.91	0.85	0.75	0.52
	1000	1.6	1550	9"	2.36'	CFM	3185	3155	2990	2800	2590	2365	2085	1625	-
						SONES	9.4	9.4	9.2	8.7	8.4	8.3	8	7.7	-
						BHP	1	1	0.95	0.91	0.86	0.81	0.73	0.61	-
	950	2.5	1050	9"	2.36'	CFM	3015	2980	2805	2600	2375	2115	1755	-	-
						SONES	8.8	8.8	8.6	8.2	7.8	7.6	7.4	-	-
						BHP	0.86	0.85	0.81	0.77	0.72	0.66	0.56	-	-
	880	1.6	1050	9"	2.36'	CFM	2775	2735	2535	2305	2045	1715	-	-	-
						SONES	8	7.9	7.8	7.4	7.1	6.9	-	-	-
						BHP	0.68	0.68	0.63	0.59	0.54	0.46	-	-	-

Speed (RPM) shown is nominal. Performance is based on actual speed of test. Other speeds listed are obtainable by using Lek-Trol™ model LT40 for fan model Z14 and Lek-Trol™ LT35 for fan model Z15. Some ratings are in accordance with AMCA Bulletin 301-90. Performances shown is for installation type B - Free inlet, Ducted outlet. The AMCA Certified Ratings Seal applies to air capacities only. Performance ratings do not include the effects of appurtenances in the airstream.

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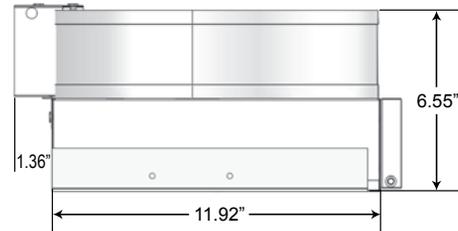
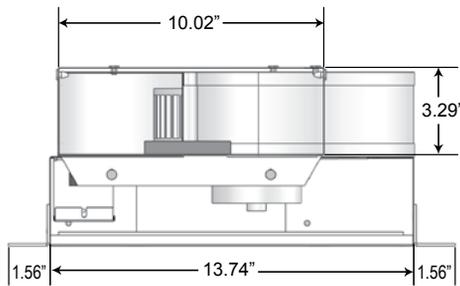
Zephyr

› Zephyr (ZT & ZJ1) Features & Dimensional Data

- Quiet Operation: Low Sone Level, Non-Overloading Low Power Consumption Design
- Thermal Overload Protection Integral with Motor
- Rust Resistant, Durable Housing of Galvanized Steel
- UL Listed for UL705 and UL507
- AMCA Air Certified
- Lek-Trol™: Variable Speed Controller Can be Built into Fan Housing for Precise System Balancing and Energy Conservation



Ceiling Exhaust Fans



› Zephyr (ZT & ZJ1) Dimensional References and Performance Data

Model Number	Max Watts	Motor 60Hz AC	Motor RPM	Shipping Weight (lbs.)	SP	0.0"	.10"	.125"	.250"	.375"	.500"	.625"	.750"
ZT	48	115/1	1200	19	CFM	91	88	88	85	75	49	–	–
					SONES	1.8	2.2	2.3	2.8	3.0	3.2	–	–
					RPM	840	930	970	1110	1280	1460	–	–
ZJ1	125	115/1	1200	19	CFM	149	156	157	158	160	153	138	117
					SONES	2.0	2.3	2.4	3.0	3.4	3.4	3.6	3.5
					RPM	760	1000	1020	1150	1240	1360	1450	1520

Performance shown is for installation type A - Free inlet, Free outlet. Performance ratings include the effects of inlet grille and backdraft damper in the airstream. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are loudness values in fan sones at 5' (1.5m) in a hemispherical free field calculated per AMCA std. 301. Values shown are for installation Type A: free inlet fan sone levels. The AMCA Certified Ratings Seal applies to air performance ratings only.

Dimensional Information & Performance Data

Zephyr | Room-to-Room Fan

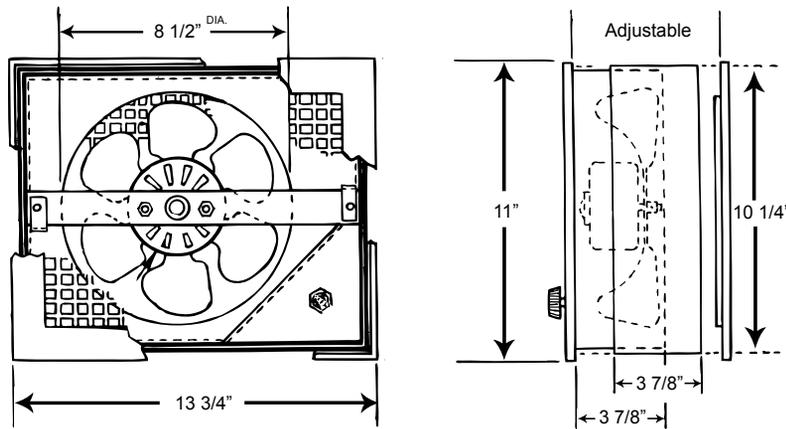


Ceiling Exhaust Fans

Transfan

› Zephyr (Transfan) Features & Dimensional Data

- Fits Easily between Wall Studs or Ceiling Joists
- Variable Speed Controller is Built-in for Individual Comfort Adjustment
- Attractive Face Grilles Diffuse Air Evenly
- Moves Up to 255 Cubic Feet of Air Every Minute
- Installs in Walls 3 3/4" to 5" Thick with an Adjustable Sleeve
- Runs Quietly, Even at Top Speed
- 490 RPM Fan Speed; 115 Volts Single Phase; 60/50 Hz
- 255 CFM Air Capacity at 0" S.P.; 2.3 Sones Quiet Operation
- UL Listed for UL705 and UL507
- 9.5 lbs. Shipping Weight



› Effect of Speed Control on CFM Capacity

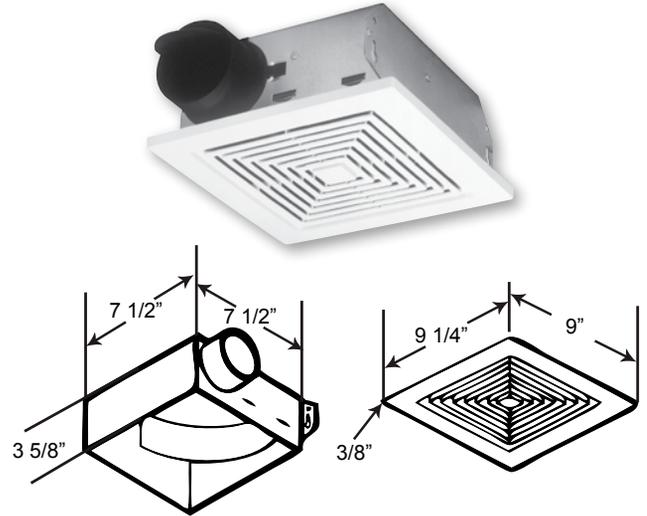
Model Number	Max Watts	Motor 50/60 Hz AC	Motor RPM	Shipping Weight (lbs.)	Fan Capacity - CFM				
					SP	0.050	0.100	0.200	
TF8	60	115/1	1250	9.5	CFM	255	231	178	132
					SONES	2.3	2.2	1.9	1.8

Z
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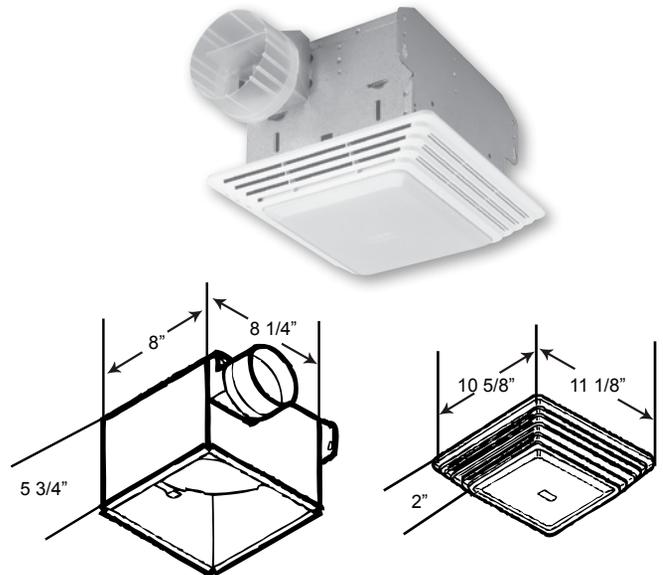
› Zephyr (Z1) Features & Dimensional Data

- 56 CFM, 3.4 Sones @ 0.0" Ps.
- Quiet-Designed Durable Blower Wheels
- Torsion Spring Grille Mounting; No Tools Needed
- Compact Housings Fit Easily between Wall Studs
- Double Strength Steel Mounting Flanges with Keyhole Lots for Fast, Sturdy Installation
- UL507 Listed for Use Over Bathtubs and Showers When Connected to a GFCI Protected Branch Circuit
- AMCA Air and Sound Certified



› Zephyr (ZL1 & ZL2) Features & Dimensional Data

- 62 CFM, 1.9 Sones @ 0.0" Ps – Model ZL1
- 97 CFM, 4.0 Sones @ 0.0" Ps – Model ZL2
- 100 watt Lighting (Bulb Not Included)
- Totally Enclosed Low RPM Motor with Sealed Bearings
- Centrifugal Blower Wheel
- White Molded Polymeric Grille with Unbreakable Light Lens
- Plug-In Receptacles for Fan and Light
- Rugged Steel Housing with Built-In Mounting Brackets
- 4" Polymeric Duct Connector
- Durable Damper Eliminates Backdrafts; No Metallic Clatter
- UL507 Listed for Use Over Bathtubs and Showers when Connected to a GFCI Protected Branch Circuit
- AMCA Air and Sound Certified



› Zephyr (Z1, ZL1 & ZL2) Performance Data

Model No.	SONES at 0.0" Ps	CFM at Static Pressure (Ps - Inches of H2O)						Volts	Watts	Nominal RPM	Duct Dia.
		0.000	.100	.125	.250	.375	.500				
Z1	3.4	56	51	50	46	41	32	120	55	1700	3"
ZL1	1.9	62	51	49	32	9	-	120	30	1070	4"
ZL2	4	97	87	84	69	50	19	120	50	1380	4"

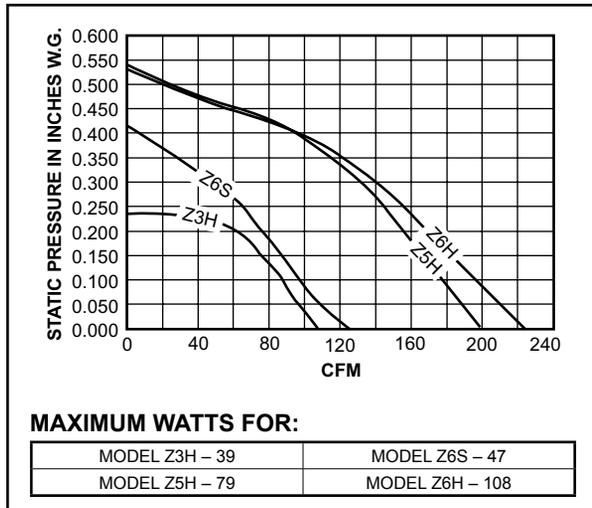
Performance shown is for installation type B - Free inlet, ducted outlet. Performance ratings include the effects of inlet grille and backdraft damper in the airstream. Speed (RPM) shown is nominal. Performance is based on actual speed of test. The sound ratings shown are loudness values in fan sones at 5' (1.5m) in a hemispherical free field calculated per AMCA std. 301. Values shown are for installation Type B: free inlet fan sone levels.

Zephyr Fan Curves

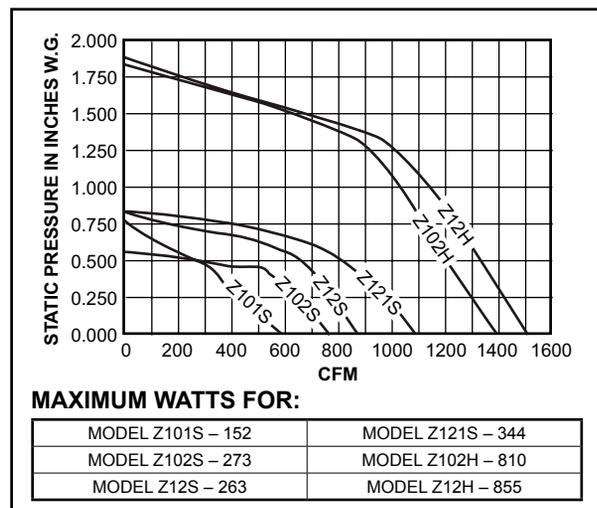
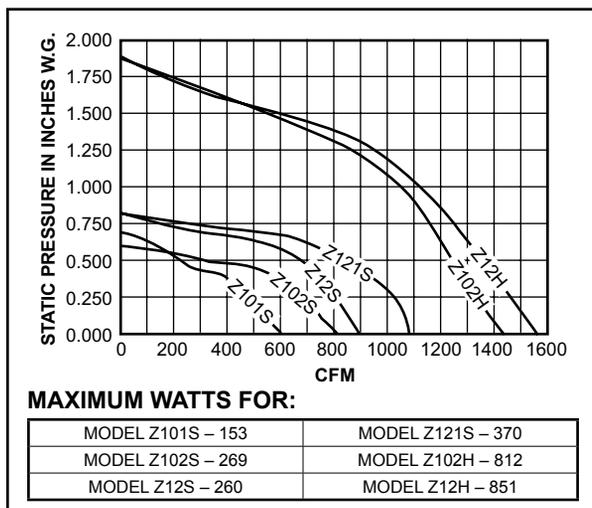
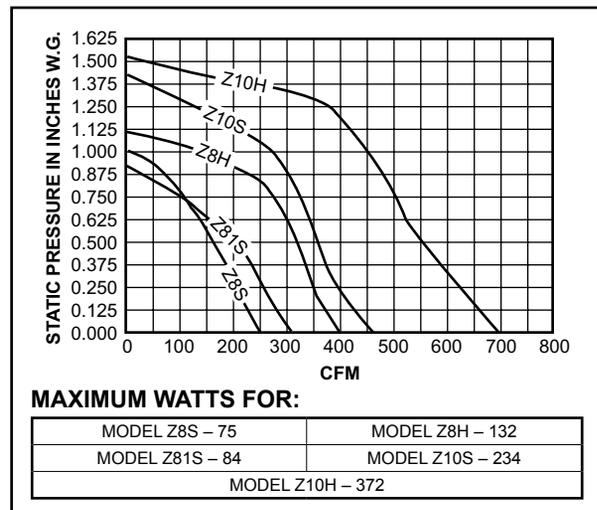
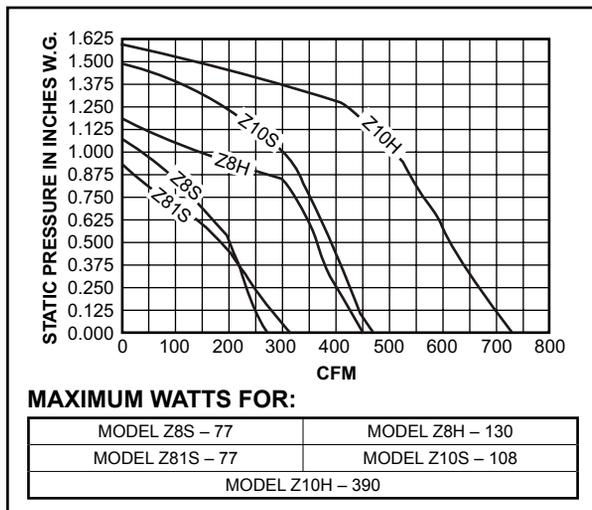
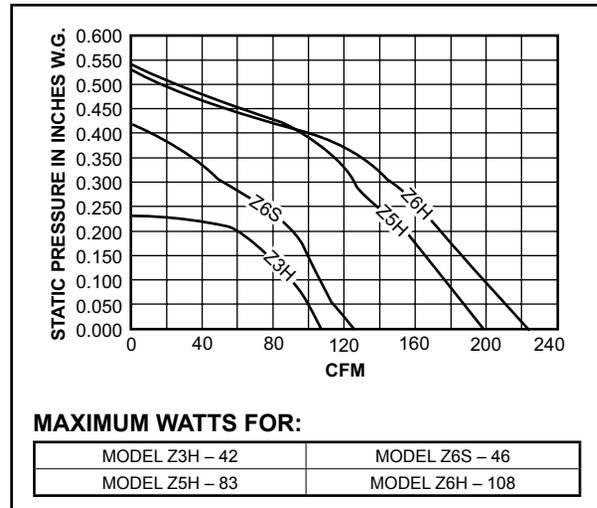
> Zephyr Fan Curves

All Zephyr fan curves are based on laboratory tests conducted in accordance with AMCA standards. The curves shown below summarize the sizes and speeds of units available.

> RA Models



> TDA Models



Engineering Specifications & Configurations

› Model

Z

› Unit Size

3	8	101	121
5	81	102	14
6	10	12	15

› Motor Tap

S = Slow Speed
H = High Speed

› Enclosure

O = Open Drip Proof
E = Explosion Proof

› Voltage

A = 110V	G = 230V	N = 440V
B = 115V	H = 240V	P = 460V
C = 120V	J = 277V	Q = 480V
D = 200V	K = 380V	R = 575V
E = 208V	L = 400V	S = 600V
F = 220V	M = 415V	

› Cycle

5 = 50 Hz 6 = 60 Hz

› Discharge Orientation

R = Right Angle
T = Top Discharge / Inline

› Damper

0 = None
D = Ceiling Radiation Damper

› Curb Cap

C = Curb Mounted
F = Flat Roof
S = Sloped Roof
W = Wall Mount
0 = None

› Brick Vent

0 = None
B = Brick Vent

› Steel Grille

0 = None
G = Steel Grille

› Square to Round Transition

0 = None
T = Square to Round Transition

› Top Discharge

0 = None
T = TDA Kit Factory Installed
F = TDA Field Mount

› Vibration Isolation

0 = None
RH = Rubber Hanger

› Transformer*

0 = None
T = Transformer

› Speed Controller

0 = None
L = Loose
M = Mounted

› Thermostat

0 = None

› Air Minder Switch

0 = None
D = Air Minder Time Delay Switch

› Motion Sensor

0 = None
M = Motion Sensor

› Pilot Light

0 = None
P = Pilot Light

› 2 Speed Switch

0 = None

* Does not apply to models Z1, ZL1, ZL2

› Zephyr (Z3 - Z15)

Direct drive ceiling and cabinet fan shall be Zephyr Z, manufactured by PennBarry, Richardson, Texas 75081.

Fan housings shall be acoustically insulated, galvanized steel, and include integral backdraft damper (except Z1, ZL1, ZL2) which shall be chatter proof. Grille face shall be of aerodynamic white egg crate design and provide 85% free area. Fans shall be provided with cord, plug, and receptacle inside the housing. Entire fan, motor and wheel assembly shall be removable. Fans shall be available with TDA panel (except Z1, ZL1, ZL2) for inline orientation. Units shall be field convertible from right angle to top discharge. Fans shall have forward curved centrifugal wheel(s). Fan motors shall be multi-speed (for applicable models), positively cooled, have thermal overload protection, be suitably grounded, and mounted on vibration isolators.

Each fan shall bear the AMCA Licensed Rating Seal for Air and Sound Performance (Z) or Air Performance (Z14/15), and shall be UL Listed for UL705 and UL507, and shall be CSA Listed. The Z15 is not UL507 certified.

Engineering Specifications & Configurations

Ceiling Exhaust Fans

› Model

Z1 ZL1 ZL2 ZJ1 ZT

› Unit Size

0 = None

› Drive Type

D = Direct Drive B = Belt Drive

› Motor Tap

0 = None

› Enclosure

O = Open Drip Proof

› Voltage

A = 115V

› Cycle

6 = 60 Hz

› Discharge Orientation

R = Right Angle

› Damper*

0 = None

BDD = Backdraft Damper

› Curb Cap

C = Curb Mounted F = Flat Roof

S = Sloped Roof W = Wall Mount

› Brick Vent

0 = None

B = Brick Vent

› Steel Grille*

0 = None

G = Steel Grille

› Square to Round Transition*

0 = None

T = Square to Round Transition

› Top Discharge*

0 = None

T = TDA Kit Factory Installed

F = TDA Field Mount

› Vibration Isolation

0 = None

RH = Rubber Hanger

› Transformer*

0 = None

T = Transformer

› Speed Controller

0 = None

L = Loose

M = Mounted

› Thermostat

0 = None

› Air Minder Switch

0 = None

D = Air Minder Time Delay Switch

› Motion Sensor

0 = None

M = Motion Sensor

› Pilot Light

0 = None

P = Pilot Light

* Does not apply to models Z1, ZL1, ZL2

› Zephyrette & Zephyr Jr.

All ceiling and/or wall mounted fans indicated on the plans and schedule shall be Zephyr Jr., or Zephyrette models by PennBarry, 1401 North Plano Road, Richardson, TX 75081.

Air deliveries and maximum sone levels shall be as indicated on the plans. Fans shall be listed with Underwriters Laboratories. Fans shall feature true steel centrifugal wheels and the galvanized steel fan casing shall incorporate an integral backdraft damper. Motor speed shall not exceed listed RPM. Grille shall be of white egg-crate shape design, comply with OSHA requirements and provide 85% free open area. Terminal box shall be provided with cord, plug and receptacle. Entire fan, motor and wheel assembly shall be removable without disturbing the housing.

Each fan shall be UL705 and UL507 Listed and CSA Listed.

› Zephyr Transfan

Direct drive axial room-to-room fan shall be Transfan TF, manufactured by PennBarry, Richardson, Texas 75081.

Fan housing shall be galvanized steel and shall include an adjustable sleeve to accommodate various wall thicknesses. Two-faced grilles shall be of aerodynamic white egg crate design and provide 85% free area. Entire fan, motor and propeller assembly shall be removable. Propellers shall be die formed aluminum. Fan motor shall be permanently lubricated, positively cooled, & have thermal overload protection. Fans shall be provided with cord, plug, speed controller and receptacle factory installed inside the housing.

Each fan shall bear the AMCA Licensed Ratings Seal for Air Performance, & shall be UL705 and UL507 and CSA Listed.

› Zephyr Z1, ZL1, & ZL2

Direct drive ceiling and cabinet fan shall be Zephyr, Z1 or Zephyr Light, ZL and supplied by PennBarry, Richardson, Texas 75081.

Fan housings shall be painted steel and include integral backdraft damper which shall be chatter proof. Face grille shall be of aerodynamic design and include an unbreakable lens for use with a 100 watt (max) bulb (except Z1). Fans shall be provided with cord, plug and receptacle inside the housing. Entire fan, motor and wheel assembly shall be removable. Fans shall have a forward curved centrifugal wheel. Fan motors shall be positively cooled, have thermal overload protection, be suitably grounded and mounted on vibration isolators.

Each fan shall bear the AMCA Licensed Rating Seal for Air and Sound Performance and shall be UL507 and CSA Listed.

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1-Year Limited Manufacturer Warranty

› Products Covered

PennBarry Fans and Ventilators (each, a “PennBarry Product”)

› One Year Limited Warranty For PennBarry Products

PennBarry warrants to the original commercial purchaser that the PennBarry Products will be free from defects in material and workmanship for a period of one (1) year from the date of shipment.

› Exclusive Remedy

PennBarry will, at its option, repair or replace (without removal or installation) the affected components of any defective PennBarry Product; repair or replace (without removal or installation) the entire defective PennBarry Product; or refund the invoice price of the PennBarry Product. In all cases, a reasonable time period must be allowed for warranty repairs to be completed.

› What You Must Do

In order to make a claim under these warranties:

- You must be the original commercial purchaser of the PennBarry Product.
- You must promptly notify us, within the warranty period, of any defect and provide us with any substantiation that we may reasonably request.
- The PennBarry Product must have been installed and maintained in accordance with good industry practice and any specific PennBarry recommendations.

› Exclusions

These warranties do not cover defects caused by:

- Improper design or operation of the system into which the PennBarry Product is incorporated.
- Improper installation.
- Accident, abuse or misuse.
- Unreasonable use (including any use for non-commercial purposes, failure to provide reasonable and necessary maintenance as specified by PennBarry, misapplication and operation in excess of stated performance characteristics).
- Components not manufactured by PennBarry.

› Limitations

- In all cases, PennBarry reserves the right to fully satisfy its obligations under the Limited Warranties by refunding the invoice price of the defective PennBarry Product (or, if the PennBarry Product has been discontinued, of the most nearly comparable current product).
- PennBarry reserves the right to furnish a substitute or replacement component or product in the event a PennBarry Product or any component of the product is discontinued or otherwise unavailable.
- PennBarry’s only obligation with respect to components not manufactured by PennBarry shall be to pass through the warranty made by the manufacturer of the defective component.

› General

The foregoing warranties are exclusive and in lieu of all other warranties except that of title, whether written, oral or implied, in fact or in law (including any warranty of merchantability or fitness for a particular purpose).

PennBarry hereby disclaims any liability for special, punitive, indirect, incidental or consequential damages, including without limitation lost profits or revenues, loss of use of equipment, cost of capital, cost of substitute products, facilities or services, downtime, shutdown or slowdown costs.

The remedies of the original commercial purchaser set forth herein are exclusive and the liability of PennBarry with respect to the PennBarry Products, whether in contract, tort, warranty, strict liability or other legal theory shall not exceed the invoice price charged by PennBarry to its customer for the affected PennBarry Product at the time the claim is made.

Inquiries regarding these warranties should be sent to: PennBarry, 1401 North Plano Road, Richardson, TX 75081

Other PennBarry Products

Centrifugal Products



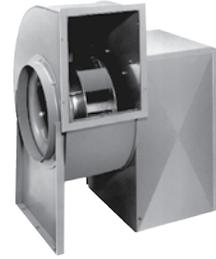
› **Domex**
Centrifugal
Roof Exhausters



› **Fumex Fatrap**
Kitchen Hood Centrifugal
Roof Exhausters



› **Zephyr**
Ceiling and Inline Fans



› **Dynamo**
Centrifugal Blowers



› **Centrex Inliner**
Centrifugal Inline Fan



› **LC Dynafan**
Low Contour Centrifugal
Roof Exhausters



› **ESI**
Efficient Silent
Inline Fan



› **Fume Exhaust**
Curb Mounted
Centrifugal Fans

Axial / Gravity Products



› **Breezeway**
Propeller Wall Fan



› **Hi-Ex**
Power Roof Ventilator



› **Tubeaxial**
Inline Fans



› **Vaneaxial**
Inline Fans



› **Powered Airette**
Axial Roof Ventilators



› **Airette**
Gravity Intake/Relief Hood



› **Domex Axial**
Axial Roof Ventilators



› **Axcentrix**
Bifurcator Fan

