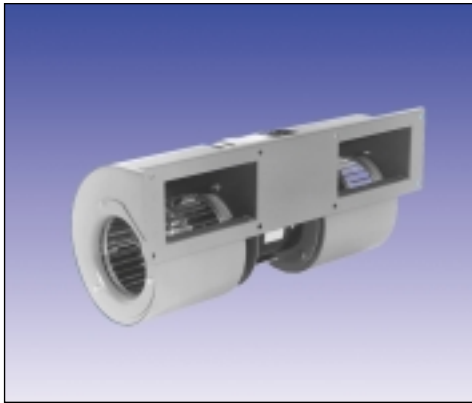


QUADRUPLEX CENTRIFUGAL BLOWERS



STANDARD FEATURES

- Baked Powder Finish
- Capacities: 320 to 920 CFM
- Extremely quiet, efficient operation
- Full performance in any mounting position
- Rugged construction
- UL/CSA precision ball-bearing motors
- 12" [304.8mm] (minimum) power and ground leads

ACCESSORIES AND OPTIONS*

- Airflow Switch
- Other voltages and frequencies
- Special external paint finishes
- Special line cord or connectors

*See opposite side for more information.

TECHNICAL DATA**

Model	CFM@ 0" S.P.	Cutoff S.P.	RPM Nominal
KBB430	320	1.00	2900
KBB435	550	1.60	3150
KBB443	920	2.30	3350
KBB451	800	3.00	3350

Model	Amps		Watts	Approximate Weight	
	Run	L.R.		Lbs.	[kg]
KBB430	1.8	2.5	140	9	4.1
KBB435	2.0	3.1	220	11	5.0
KBB443	5.6	18.1	630	22	10.0
KBB451	5.6	18.1	630	22	10.0

**115V, 60 Hz. operation

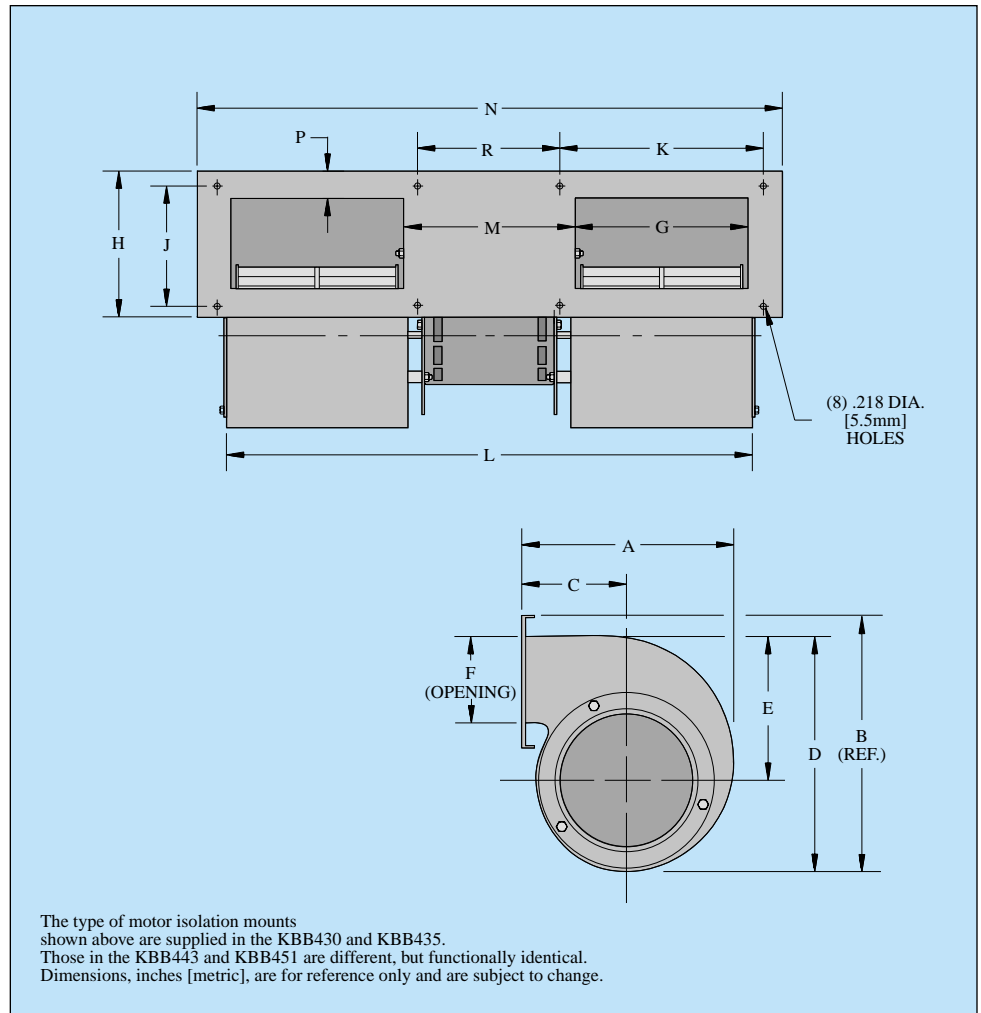
HOW TO ORDER

Specify model number. For 230 VAC operation, add a 2 after the K. Example: K2BB451.

For assistance in model selection, refer to the *Blower and Fan Selection Guides*, contact KOOLTRONIC, or use one of our design aid software programs, available FREE.

CALL 1-800-321-KOOL (5665)
or FAX 609-466-1114

**POPULAR MODELS ARE
STOCKED AND READY TO SHIP**



DIMENSIONS (inches [metric])

Model	A	B	C	D	E	F	G
KBB430	5.00 [127.0]	6.25 [158.8]	2.19 [55.6]	5.50 [139.7]	3.13 [79.5]	2.06 [52.3]	4.50 [114.3]
KBB435	6.50 [165.1]	7.44 [189.0]	3.13 [79.5]	6.81 [173.0]	3.88 [98.6]	2.50 [63.5]	4.75 [120.7]
KBB443*	7.38 [187.5]	7.94 [201.7]	3.50 [88.9]	7.63 [193.8]	4.38 [111.3]	3.25 [82.6]	4.75 [120.7]
KBB451	8.31 [211.1]	9.31 [236.5]	4.25 [108.0]	8.63 [219.2]	5.00 [127.0]	3.25 [82.6]	3.25 [82.6]

Model	H	J	K	L	M	N	P	R
KBB430	3.50 [88.9]	2.75 [69.9]	5.25 [133.4]	13.44 [341.4]	4.44 [112.8]	14.94 [379.5]	0.75 [19.1]	3.81 [96.8]
KBB435	3.88 [98.6]	3.13 [79.5]	5.50 [139.7]	14.13 [358.9]	4.69 [119.1]	16.00 [406.4]	0.69 [17.5]	4.38 [111.3]
KBB443*	6.75 [171.5]	6.00 [152.4]	5.38 [136.7]	15.88 [403.4]	6.25 [158.8]	17.00 [431.8]	0.38 [9.7]	5.63 [143.0]
KBB451	4.63 [117.6]	3.88 [98.6]	4.00 [101.6]	13.50 [342.9]	7.00 [177.8]	14.88 [378.0]	0.69 [17.5]	6.25 [158.8]

*Diagram does not depict oversized mounting plate on this model.

QUADRUPLEX CENTRIFUGAL BLOWERS PERFORMANCE CHARTS

Airflow vs. static pressure curves are shown for 60 Hz and 50 Hz (broken line) inputs. Static pressure is in inches of water.

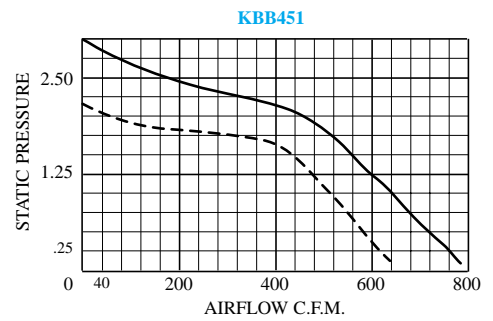
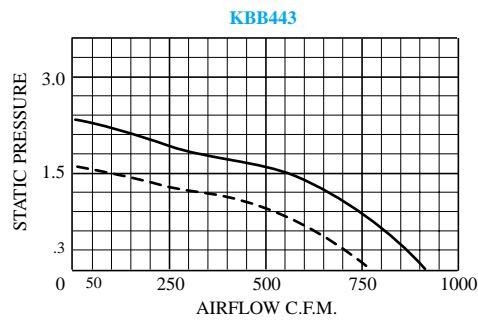
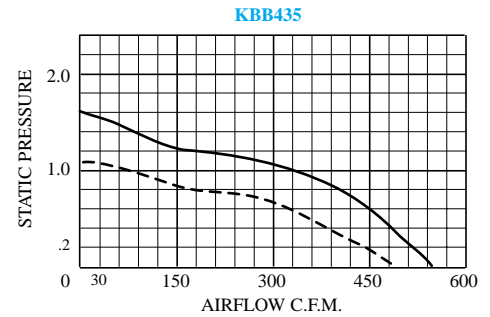
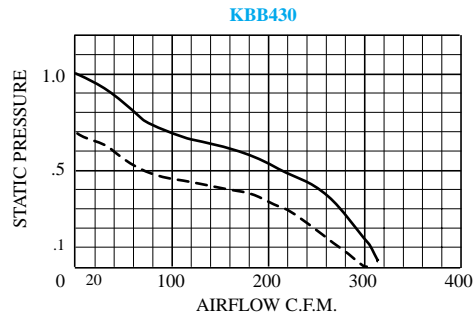
CONVERSION FACTORS

Multiply airflow in cubic feet per minute (CFM) by:

- 1.7 to obtain airflow in cubic meters per hour (m³/hr.)
- 0.47 to obtain airflow in liters per second (L/S)

Multiply static pressure in inches of water ("H₂O) by:

- 25.4 to obtain static pressure in millimeters of water (mm H₂O)
- 249 to obtain static pressure in Pascals (Pa)



DESCRIPTION

KOOLTRONIC *Quadruplex Centrifugal Blowers* move more air with less noise and greater efficiency than comparably sized double centrifugal blowers. The optimum wheel width-to-diameter ratio and the specially designed housings, which minimize inlet losses, also contribute to an exceptionally even distribution of airflow for maximum cooling.

A unique motor mount design isolates the drive motor and rotating components from the blower structure for smooth, quiet operation with minimum vibration. *Quadruplex Blowers* are suitable wherever wide-band air movement is required and are especially useful for applications such as cooling printed circuit cards and other components in densely packed electronics cabinets.

STANDARD FEATURES

RUGGED CONSTRUCTION: Precision-engineered heavy-gauge steel construction insures blowers stand up under tough applications.

BAKED POWDER FINISH: Durable, baked-on gray powder finish is standard. Other finishes are available.

PRECISION BALL-BEARING MOTORS: All motors, whether permanent split capacitor or shaded pole, are UL/CSA Recognized and include automatic-reset thermal overload protection. Designed for low temperature rise, KOOLTRONIC motors are also cooled by the blowers' intake air, for maximum motor life. All motors meet Federal Specification CC-M-1807A, and include double-sealed or double-shielded precision ball bearings, which meet Federal Specification FF-B-171A. Special permanent lubricants perform over a broad temperature range: -20°F (-28.9°C) to 250°F (121.1°C). Consult KOOLTRONIC for motors designed to meet military or extreme environmental specifications.

POWER: 115 VAC or 230 VAC, 50/60 Hz is standard. For multi-phase power, other voltages and frequencies or brushless DC applications, consult KOOLTRONIC.

LEADS: 12" [304.8mm] (minimum) power and ground leads. Special lengths and/or plugs available.

ACCESSORIES AND OPTIONS*

AIRFLOW SWITCH: See accompanying literature for more information.

OTHER VOLTAGES AND FREQUENCIES

SPECIAL EXTERNAL PAINT FINISHES

SPECIAL LINE CORD OR CONNECTORS

*Contact KOOLTRONIC for information.

KOOLTRONIC also designs and manufactures a variety of Blowers to meet *unique* specifications. We invite your inquiries about our modification and custom-design capabilities.

AIRFLOW SWITCH

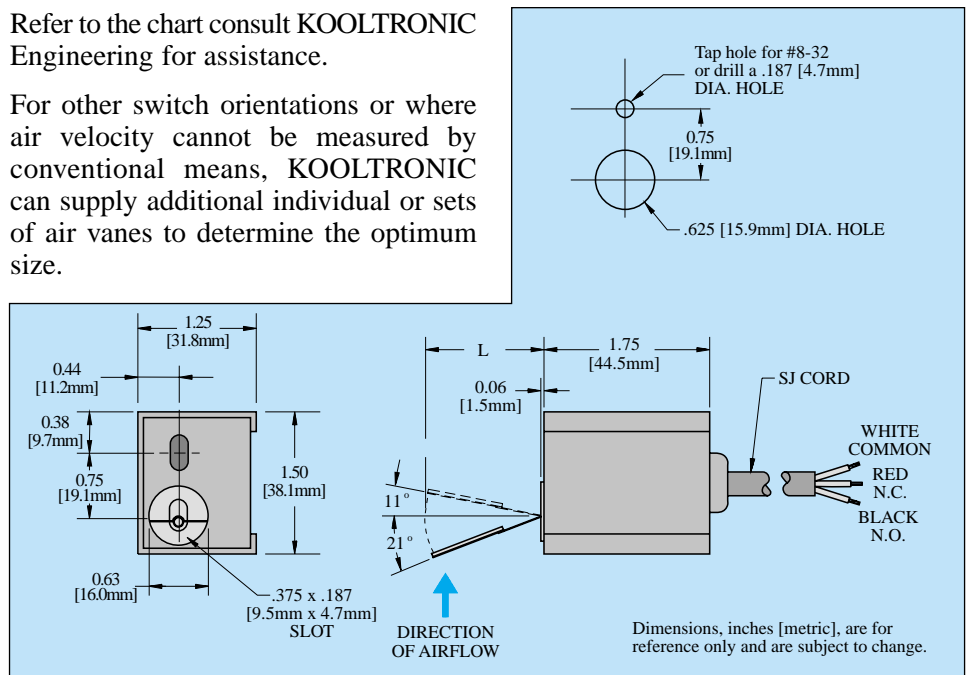
Protects equipment against damage caused by loss of cooling airflow, by activating an alarm or turning off power. The switch can be mounted on any suitable surface which allows the stainless steel air vane to be placed in the critical airstream. This switch is a single-pole double-throw type, with normally open and normally closed contacts.

The UL rating for the rotary snap action switch is 5 amps at 250 volts AC. A 36" [914.4mm], three wire SJT power cord is provided, allowing connection to normally open or normally closed circuits.

The choice of air vanes is determined by location and orientation in the airstream, and the normal operating air velocity at the point of installation.

Refer to the chart consult KOOLTRONIC Engineering for assistance.

For other switch orientations or where air velocity cannot be measured by conventional means, KOOLTRONIC can supply additional individual or sets of air vanes to determine the optimum size.



TECHNICAL DATA

Orientation of Airflow Switch

Model	Dim. "L" Max. Inches [metric]	Vane Length Inches [metric]	Orientation of Airflow Switch							
			Vertical Airstream				Horizontal Airstream			
			Airstream Up		Airstream Down		Arm Horizontal		Arm Vertical Vane Down	
			Increasing Air	Decreasing Air	Increasing Air	Decreasing Air	Increasing Air	Decreasing Air	Increasing Air	Decreasing Air
			Actuate ft/min	Deactuate ft/min	Actuate ft/min	Deactuate ft/min	Actuate ft/min	Deactuate ft/min	Actuate ft/min	Deactuate ft/min
KV-1	3.38 [85.9]	2.88 [73.2]	660	590	-	-	620	530	630	520
KV-2	2.75 [69.9]	2.25 [57.2]	840	750	-	-	790	670	800	660
KV-3	2.44 [62.0]	1.94 [49.3]	980	870	-	-	860	750	860	770
KV-4	2.19 [55.6]	1.69 [42.9]	1010	960	640	610	980	870	980	820
KV-5	1.94 [49.3]	1.44 [36.6]	1180	1130	880	720	1070	930	1050	960
KV-6	1.56 [39.6]	1.06 [26.9]	1520	1370	1210	1050	1370	1260	1410	1290
KV-7	1.44 [36.6]	0.94 [23.9]	1670	1520	1380	1290	1570	1430	1600	1430
KV-8	1.25 [31.8]	0.75 [19.1]	2020	1880	1940	1780	2010	1710	2080	1780
KV-9	1.13 [28.7]	0.63 [16.0]	2360	2180	2350	1930	2340	2060	2510	2150