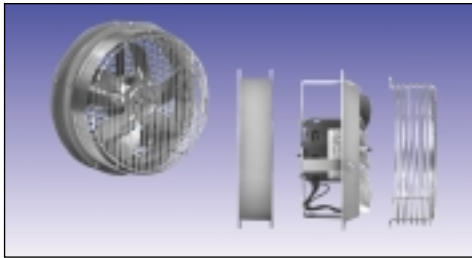
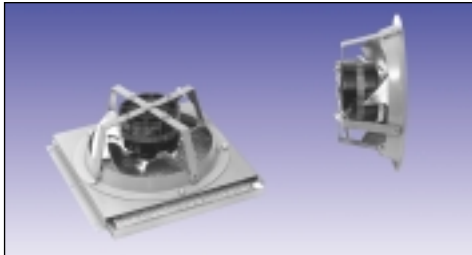


# THIN FANS



B Series Thin Fan with front Guard, rear Grille and Mounting Sleeve



S Series Thin Fan with Filter Holder and Filter

## STANDARD FEATURES

- Baked Powder Finish
- Capacities: 210 to 1275 CFM
- Versatile mounting configurations
- UL/CSA precision ball-bearing motors
- Extremely compact
- Rugged construction
- 12" [304.8mm] (minimum) power and ground leads

## ACCESSORIES AND OPTIONS\*

- Filters for replacement
- Filter Holders
- Filter Recoating Adhesive
- Grille
- Guard
- Mounting Sleeve
- Special external paint finishes
- Special line cord or connectors

\*See opposite side for more information.

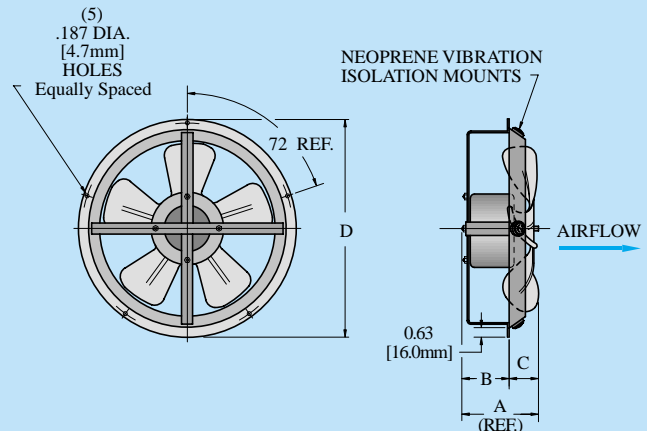
## TECHNICAL DATA\*\*

Model (B&S)	CFM@ 0" S.P.	RPM Nominal
KB650	210	1600
KB651	350	3100
KB800	400	1500
KB802	840	3100
KB805	800	3350
KB900	560	1600
KB1000	750	1550
KB1200	1275	1650

Model (B&S)	Amps		Watts	Approximate Weight	
	Run	L.R.		Lbs.	[kg]
KB650	0.35	0.4	30	4	1.8
KB651	1.00	1.2	74	5	2.3
KB800	0.70	2.3	55	4	1.8
KB802	1.90	3.1	225	7	3.2
KB805	1.60	3.1	180	7	3.2
KB900	1.60	2.3	100	6	2.7
KB1000	1.50	2.3	105	7	3.2
KB1200	1.60	2.6	160	8	3.6

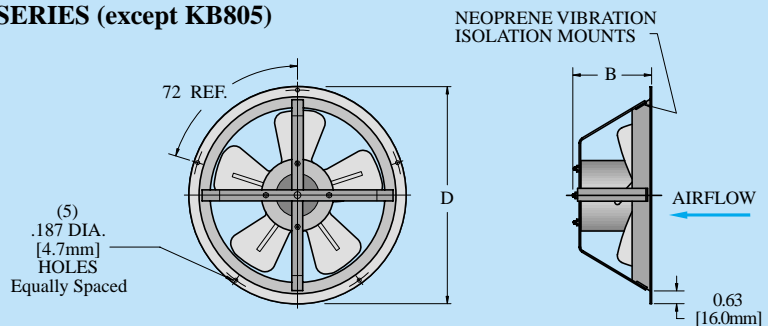
\*\*115V, 60 Hz. operation

## B SERIES (except KB805)

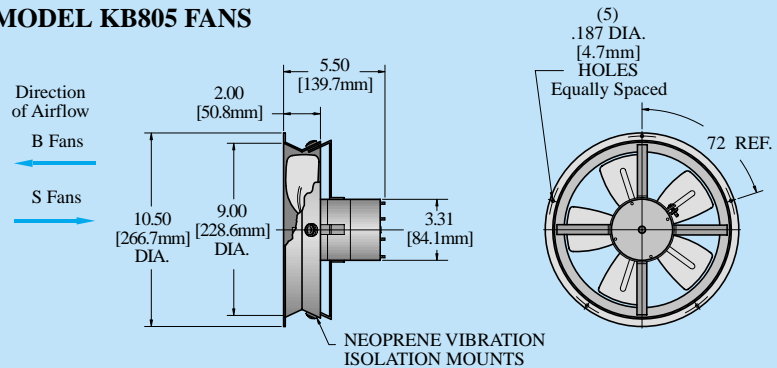


KB802 and KB1000 Fans: Motor mounting configuration is different, but falls within dimensional envelope.

## S SERIES (except KB805)



## MODEL KB805 FANS



KB802 and KB805 Fans: Capacitor boot and bracket are shipped loose, for user mounting.

Dimensions, inches [metric], are for reference only and are subject to change.

For Illustration and mounting orientations, see Typical Accessory Combination and Mounting Orientations diagram, see reverse side.

## DIMENSIONS (inches [metric])

Model	B				Mounting				Blade Dia.
	A	B Fans	S Fans	C	D	Cutout	B.C.		
KB650	3.63 [92.2]	2.00 [50.8]	3.50 [88.9]	1.63 [41.4]	8.50 [215.9]	7.38 [187.5]	8.00 [203.2]	6.50 [165.1]	
KB651	3.88 [98.6]	2.38 [60.5]	4.13 [104.9]	1.50 [38.1]	8.50 [215.9]	7.38 [187.5]	8.00 [203.2]	6.50 [165.1]	
KB800	3.38 [85.9]	1.75 [44.5]	3.38 [85.9]	1.63 [41.4]	10.50 [266.7]	9.38 [238.3]	10.00 [254.0]	8.00 [203.2]	
KB802	5.38 [136.7]	3.13 [79.5]	5.38 [136.7]	2.25 [57.2]	10.50 [266.7]	9.38 [238.3]	10.00 [254.0]	8.00 [203.2]	
KB805	See above.					9.38 [238.3]	10.00 [254.0]	8.00 [203.2]	
KB900	4.50 [114.3]	2.25 [57.2]	4.25 [108.0]	2.25 [57.2]	11.50 [292.1]	10.38 [263.7]	11.00 [279.4]	9.00 [228.6]	
KB1000	4.75 [120.7]	2.50 [63.5]	4.63 [117.6]	2.25 [57.2]	12.50 [317.5]	11.38 [289.1]	12.00 [304.8]	10.00 [254.0]	
KB1200	5.63 [143.0]	4.38 [111.3]	7.00 [177.8]	1.50 [38.1]	15.38 [390.7]	14.25 [362.0]	14.88 [378.0]	12.88 [327.2]	

## DESCRIPTION

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These uniquely compact and versatile fans are designed specifically for cooling electronics and are unsurpassed for their economy of space. Delivering from 210 to 1275 CFM, these powerful fans provide a large volume of air to ensure a broad distribution of the cooling effect throughout an enclosure. Complementing these fans is a complete line of accessories.

KOOLTRONIC *Thin Fans* are designed for mounting in virtually any position, internally or externally. With or without accessories, these fans usually can be mounted directly to a panel or door of the electronics enclosure. Often they can be located in the base or top of the enclosure, leaving side walls and all or most of the panel space free.

Each fan, whether a B Series or an S Series, can be used to either pressurize or exhaust the enclosure by simply reversing its orientation. (See Typical Accessory Combination and Mounting Orientations diagram on opposite side.) After selecting the basic model of fan for the performance required, the final choice will be determined by the differences in their configurations and dimensions, the preferred location for mounting and whether the need is to pressurize or exhaust the enclosure. Because of the numerous combinations of choices available, virtually any requirement can be met.

## STANDARD FEATURES

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**RUGGED CONSTRUCTION:** Precision-engineered heavy-gauge steel construction insures fans 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 fans' 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.

## ACCESSORIES AND OPTIONS\*

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**FILTERS FOR REPLACEMENT:** All KOOLTRONIC filters consist of a multi-layer grid of sturdy corrugated aluminum, securely held in a one-piece aluminum frame. Filters are required wherever air is drawn into an electronics enclosure. A non-drying adhesive coating traps a high percentage of particulate matter. These washable, reusable filters are designed to last the life of the cooling unit. Replacements are available for those which become damaged or otherwise non-serviceable.

KB650B/KB650S, KB651B/KB651S Part No. 650F (8.38" x 8.38" [212.9mm x 212.9mm])

KB800B/KB800S, KB802B/KB802S, KB805B/KB805S Part No. 800F (10.38" x 10.38" [263.7mm x 263.7mm])

KB900B/KB900S Part No. 900F (11.38" x 11.38" [289.1mm x 289.1mm])

KB1000B/KB1000S Part No. 1000F (12.38" x 12.38" [314.5mm x 314.5mm])

KB1200B/KB1200S Part No. 1200F (15.25" x 15.25" [387.4mm x 387.4mm])



### FILTER HOLDERS:

Separate models are available for easy internal or external filter mounting.

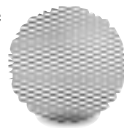


**FILTER RECOATING ADHESIVE:** This compound is a superior product for recoating all permanent filters after washing. The adhesives penetrate dirt layers to keep the filter surface tacky for longer effective performance between washings.

Part No. A-16 - one pint container.

### GRILLE:

Designed to provide flush-mounted, protective guarding. These painted, expanded metal grilles fit neatly over the blade side of S Series and model KB805B fans, without adding depth. Used with mounting sleeves, they can provide an alternative to wire guards.



### GUARD:

Made of heavy-gauge corrosion-protected wire, these guards comply with OSHA and UL safety standards. Individual guards fully protect both blade and motor sides of all B Series fans, except models KB802B and KB805B. In order to adequately protect the motor side of these and all S Series fans, a mounting sleeve is needed with the guard to accommodate the fans' greater depth.



**MOUNTING SLEEVE:** Extends the fan's mounting flange, as needed for some installations, such as mounting the B Series fans on the outside of the cabinet. May also be used for guard attachment (see Guard), or with a grille to provide guarding. Made of sturdy formed and welded steel and painted to match the fan.



### SPECIAL EXTERNAL PAINT FINISHES

### SPECIAL LINE CORD OR CONNECTORS

\*Contact KOOLTRONIC for information.

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

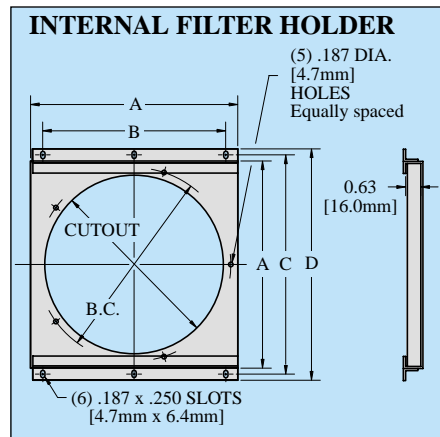
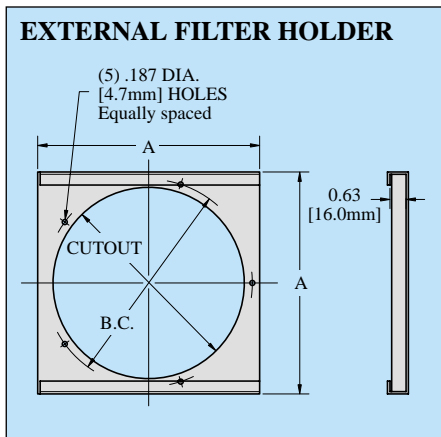
# MODEL NUMBER AND DIMENSIONS FOR THIN FAN ACCESSORIES



ACCESSORY	FAN MODEL (B or S):	KB650/651	KB800/802/805	KB900	KB1000	KB1200
<b>Replacement Filter</b>		<b>650F</b>	<b>800F</b>	<b>900F</b>	<b>1000F</b>	<b>1200F</b>
Size (0.50" [12.7mm] thick)		8.38 x 8.38 [212.9mm x 212.9mm]	10.38 x 10.38 [263.7mm x 263.7mm]	11.38 x 11.38 [289.1mm x 289.1mm]	12.38 x 12.38 [314.5mm x 314.5mm]	15.25 x 15.25 [387.4mm x 387.4mm]
<b>External Filter Holder</b>		<b>650H</b>	<b>800H</b>	<b>900H</b>	<b>1000H</b>	<b>1200H</b>
(See dimensions below)						
<b>Internal Filter Holder</b>		<b>650HF</b>	<b>800HF</b>	<b>900HF</b>	<b>1000HF</b>	<b>1200HF</b>
(See dimensions below)						
<b>Grille</b>		<b>650X</b>	<b>800X</b>	<b>900X</b>	<b>1000X</b>	<b>1200X</b>
Diameter		8.50 [215.9mm]	10.50 [266.7mm]	11.50 [292.1mm]	12.50 [317.5mm]	15.38 [390.7mm]
<b>Guard</b>		<b>655G</b>	<b>805G</b>	<b>905G</b>	<b>1005G</b>	<b>1205G</b>
Diameter x Depth		7.56 x 2.63 [192.0mm x 66.8mm]	9.63 x 2.31 [244.6mm x 58.7mm]	10.69 x 2.63 [271.5mm x 66.8mm]	11.63 x 2.63 [295.4mm x 66.8mm]	14.38 x 2.31 [365.3mm x 58.7mm]
<b>Mounting Sleeve</b>		<b>650M</b>	<b>800M</b>	<b>900M</b>	<b>1000M</b>	<b>1200M</b>
(See dimensions below)						

All B Series fans, except KB805, using the filter holder, filter and grille combination must use mounting sleeve.

Dimensions, inches [metric], are for reference only and are subject to change.



## HOW TO ORDER

Specify model number.

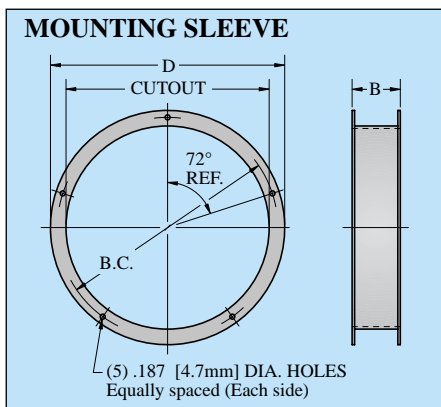
**POPULAR MODELS ARE STOCKED AND READY TO SHIP**

### DIMENSIONS (inches [metric])

Model	Mounting		
	A	Cutout	B.C.
650H	8.56 [217.4]	7.38 [187.5]	8.00 [203.2]
800H	10.56 [268.2]	9.38 [238.3]	10.00 [254.0]
900H	11.56 [293.6]	10.38 [263.7]	11.00 [279.4]
1000H	12.56 [319.0]	11.38 [289.1]	12.00 [304.8]
1200H	15.44 [392.2]	14.00 [355.6]	14.88 [378.0]

### DIMENSIONS (inches [metric])

Model	Mounting						
	A	B	C	D	Cutout	B.C.	
650HF	8.56 [217.4]	7.56 [192.0]	9.19 [233.4]	9.56 [242.8]	7.38 [187.5]	8.00 [203.2]	
800HF	10.56 [268.2]	9.56 [242.8]	11.19 [284.2]	11.56 [293.6]	9.38 [238.3]	10.00 [254.0]	
900HF	11.56 [293.6]	10.56 [268.2]	12.19 [309.6]	12.56 [319.0]	10.38 [263.7]	11.00 [279.4]	
1000HF	12.56 [319.0]	11.56 [293.6]	13.19 [335.0]	13.56 [344.4]	11.38 [289.1]	12.00 [304.8]	
1200HF	15.44 [392.2]	14.44 [366.8]	16.06 [407.9]	16.44 [417.6]	14.00 [355.6]	14.88 [378.0]	



### DIMENSIONS (inches [metric])

Model	Mounting			
	B	D	Cutout	B.C.
650M	1.75 [44.5]	8.50 [215.9]	7.38 [187.5]	8.00 [203.2]
800M	1.75 [44.5]	10.50 [266.7]	9.38 [238.3]	10.00 [254.0]
900M	2.38 [60.5]	11.50 [292.1]	10.25 [260.4]	11.00 [279.4]
1000M	2.38 [60.5]	12.50 [317.5]	11.38 [289.1]	12.00 [304.8]
1200M	2.50 [63.5]	15.38 [390.7]	14.00 [355.6]	14.88 [378.0]

# THIN FANS 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.

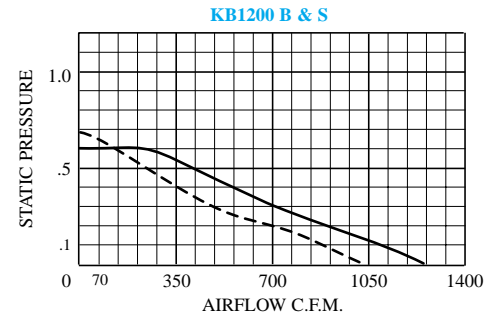
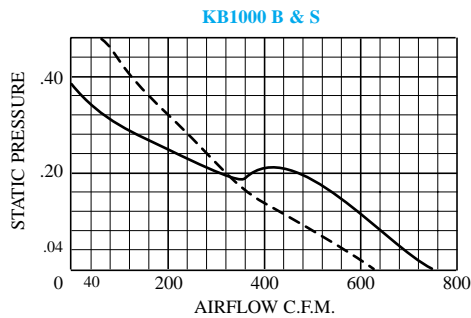
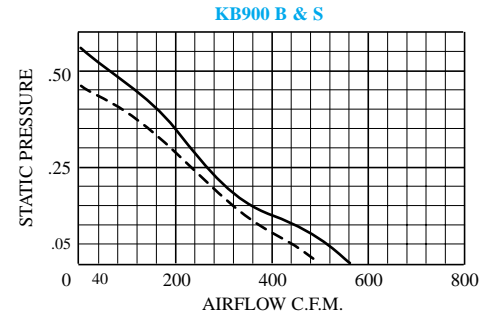
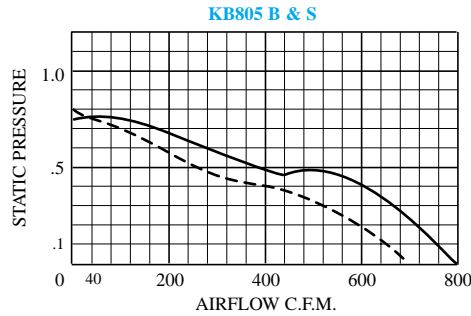
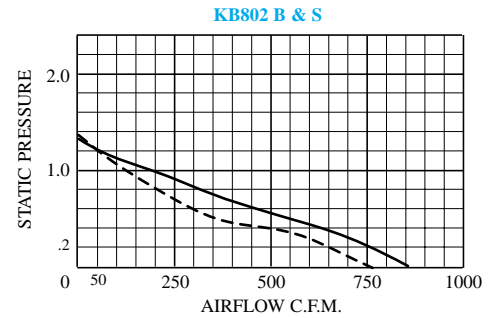
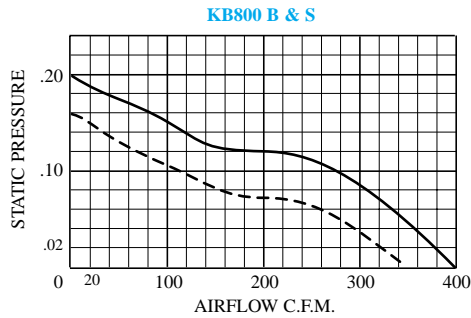
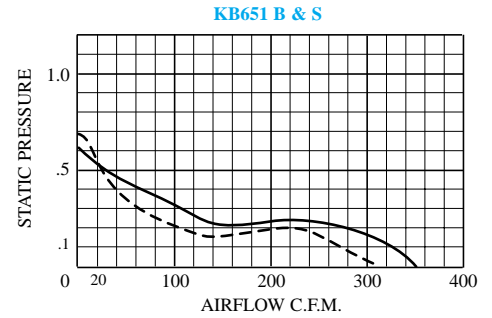
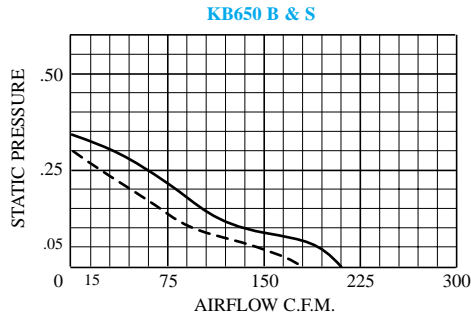
## CONVERSION FACTORS

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

- 1.7 to obtain airflow in cubic meters per hour (m<sup>3</sup>/hr.)
- 0.47 to obtain airflow in liters per second (L/S)

Multiply static pressure in inches of water ("H<sub>2</sub>O) by:

- 25.4 to obtain static pressure in millimeters of water (mm H<sub>2</sub>O)
- 249 to obtain static pressure in Pascals (Pa)



**CAUTION:** We strongly recommend proper guarding of fans to prevent serious injury.

## HOW TO ORDER

**FANS:** Specify model number, adding suffix B or S. Example: KB650S. For 230 VAC operation, add a 2 after the K. Example: K2B650S.

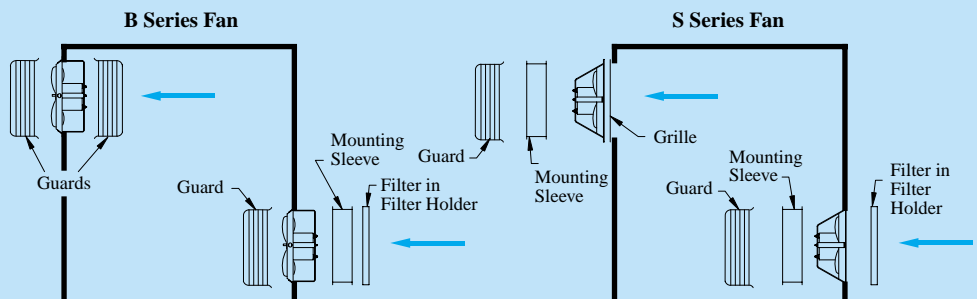
For assistance in model selection, refer to the *Blower and Fan Selection Guides*, contact **KOOLTRONIC**, or use one of our design aid software programs, available **FREE**.

CALL 1-800-321-KOOL (6556)  
or FAX 609-466-1114

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

## TYPICAL ACCESSORY COMBINATIONS AND MOUNTING ORIENTATIONS

Arrows show direction of Airflow. Boxes represent electronic / electrical enclosures, side view.



Upper fans exhaust cabinet. Lower fans pressurize cabinet. (Note that intake air is filtered.)