



Centrifugal Blowers

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Centrifugal Blowers

Centrifugal blowers maximize static pressure to provide concentrated airflow in one defined direction. These blowers can be used in a fixed position or mounted on moving parts, and are optimal for local cooling and airflow through ducts.



Safety Standards and CE Marking

Model	Standards	Certification Body	Standards File No.	CE Marking
MB Series	UL507	UL	E58377	Low Voltage Directives
	CSA C22.2 No.113			
	EN60950	VDE	6755	
		DEMKO	135714	

- [Details of Safety Standard](#) → Page G-2
- [List of Safety Standard Approved Products](#) → Page G-24

System Configuration

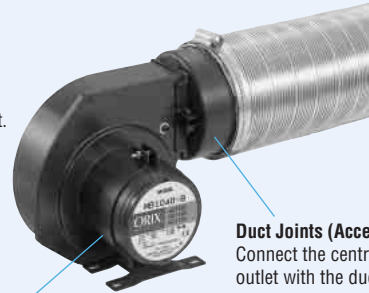
Finger Guards (Accessories)

Protect against the hazards posed by rotating fan blades.
(→Page E-102)



Filters (Accessories)

Prevent dust from entering the fan, eliminating particulate contamination of the equipment.
(→Page E-105)

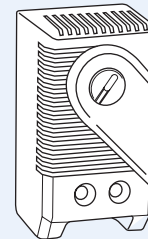


Mounting Brackets (Accessories)

Used to mount centrifugal blowers.
(→Page E-109)

Duct Joints (Accessories)

Connect the centrifugal blower outlet with the duct.
(→Page E-110)



Thermostats

Thermostats make it possible for fans to operate only when cooling is necessary, thereby conserving energy.
(→Page E-97)

Product Number Codes

MB 12 55 - B

Voltage

B: Single-Phase 100/110/115 VAC
D: Single-Phase 200/220/230 VAC
T: Three-Phase 200/220/230 VAC
24: 24 VDC
24A: 24 VDC Low-speed alarm type
24S: 24 VDC Pulse sensor type
48: 48 VDC
48S: 48 VDC Pulse sensor type

Thickness of Impeller

65: 2.56 in. (65 mm)
55: 2.17 in. (55 mm)
40: 1.57 in. (40 mm)
30: 1.18 in. (30 mm)
20: 0.79 in. (20 mm)

Impeller Diameter

5: ϕ 1.97 in. (ϕ 50 mm)
6: ϕ 2.36 in. (ϕ 60 mm)
8: ϕ 3.15 in. (ϕ 80 mm)
10: ϕ 3.94 in. (ϕ 100 mm)
12: ϕ 4.72 in. (ϕ 120 mm)
16: ϕ 6.30 in. (ϕ 160 mm)

Series

MB: AC Centrifugal Blowers
MBD: DC Centrifugal Blowers

Types of Centrifugal Blowers

Impeller Diameter in.	Model					Page	
	Single-Phase	Single-Phase	Three-Phase	24 VDC	48 VDC	AC	DC
	100/110/115 VAC	200/220/230 VAC	200/220/230 VAC				
6.30	MB1665-B	MB1665-D	MB1665-T			E-66	—
4.72	MB1255-B	MB1255-D	MB1255-T	MBD12-24		E-68	E-78
3.94	MB1040-B	MB1040-D		MBD10-24, 24A, 24S	MBD10-48, 48S	E-70	E-80
3.15	MB840-B	MB840-D	MB840-T	MBD8-24, 24A, 24S	MBD8-48, 48S	E-72	E-82
2.36	MB630-B	MB630-D				E-74	—
1.97	MB520-B	MB520-D				E-76	—

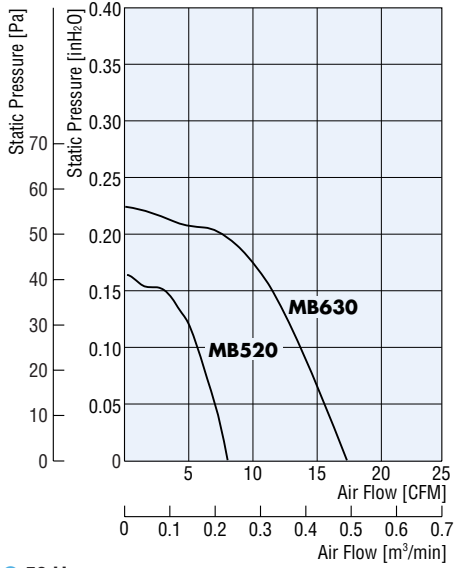
General Specifications

Item	Specifications
Insulation Resistance	100 M Ω or more when 500 VDC is applied between the windings and the frame under normal ambient temperature and humidity. (MBD Series: 10 M Ω or more, 250 VDC)
Dielectric Strength	Sufficient to withstand 1.5 kV at 50 Hz applied between the windings and the frame for 1 minute under normal ambient temperature and humidity. (MBD Series: 500 V at 50 Hz, 1 minute)
Temperature Rise	81°F (45°C) or less, measured by the thermometer method after the temperature of the coil has stabilized under normal operation at the rated voltage and frequency. (MBD Series: 27°F (15°C) or less)
Operating Voltage Range	AC Centrifugal Blowers: \pm 10% of the rated voltage DC Centrifugal Blowers: \pm 10% of the rated voltage
Insulation Class	Class E (248°F [120°C]) [Recognized as Class A (221°F [105°C]) by UL and CSA standards.]
Overheat Protection	MB1665, MB1255, MB1040, MB840 types have built-in thermal protectors (automatic return type) Operating temperature. Open: 248°F \pm 9°F (120°C \pm 5°C) Close: 170.6°F \pm 27°F (77°C \pm 15°C) MB630, MB520 types have impedance protection MBD Series has an overheat protection function installed.
Ambient Temperature	14°F~122°F (–10°C~+50°C) [MB520, MB630, MBD Series: 14°F~140°F (–10°C~+60°C)]
Ambient Humidity	0~85% (noncondensing)
Color	Dark gray

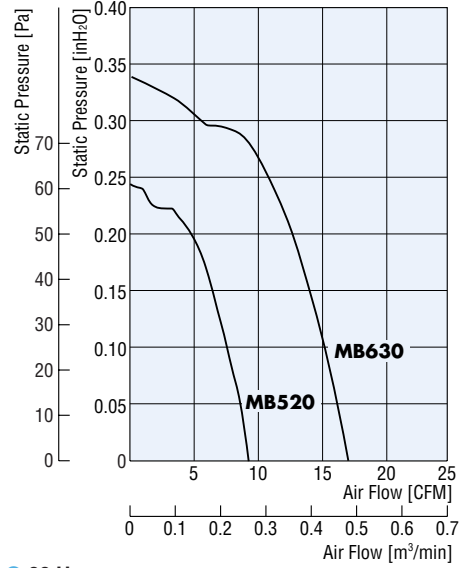
Comparisons of Characteristics

◆ MB Series

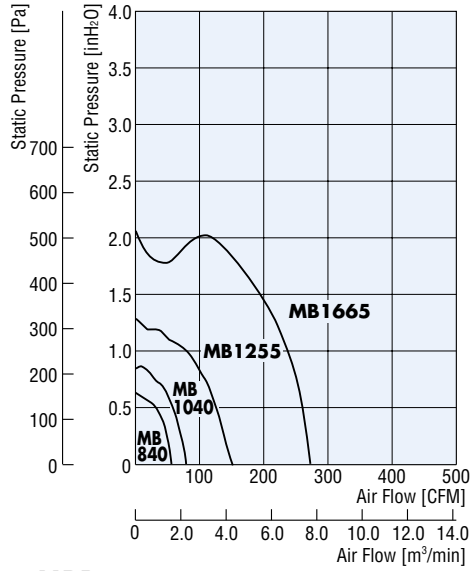
● 50 Hz



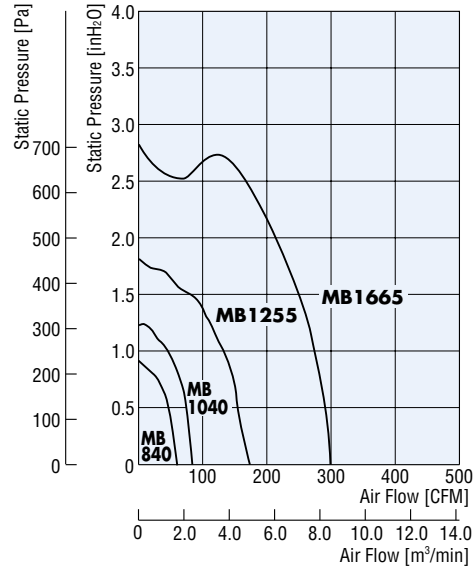
● 60 Hz



● 50 Hz

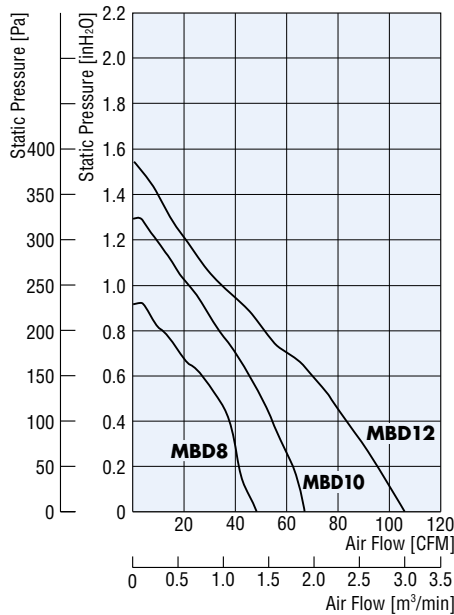


● 60 Hz



◆ MBD Series

● DC Centrifugal Blowers



Introduction

Axial Flow Fans				Centrifugal Blowers		Cross Flow Fans		Thermostats	Accessories	Before Using a Fan
MRS	AC Input Variable Flow	MU	Long Life MDE	MDS · MD	MB	MBD	MF			