

# H



## Cooling Fans

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Overview

Axial Flow Fans

AC Input Low-Power Consumption  
**EMU**

AC Input Compact Size  
**MU**

AC Input Large Size, Large Air Flow  
**MRS**

AC Input Long-Life  
**MRE**

DC Input  
**MDS MD**

DC Input Alarm  
**MDA**

DC Input Variable Flow  
**MDV**

DC Input Long-Life  
**MDE**

DC Input Splash proof  
**MDP**

Centrifugal Blowers

AC Input  
**MB**  
DC Input  
**MBD**

Cross Flow Fans

AC Input  
**MF**  
DC Input  
**MFD**

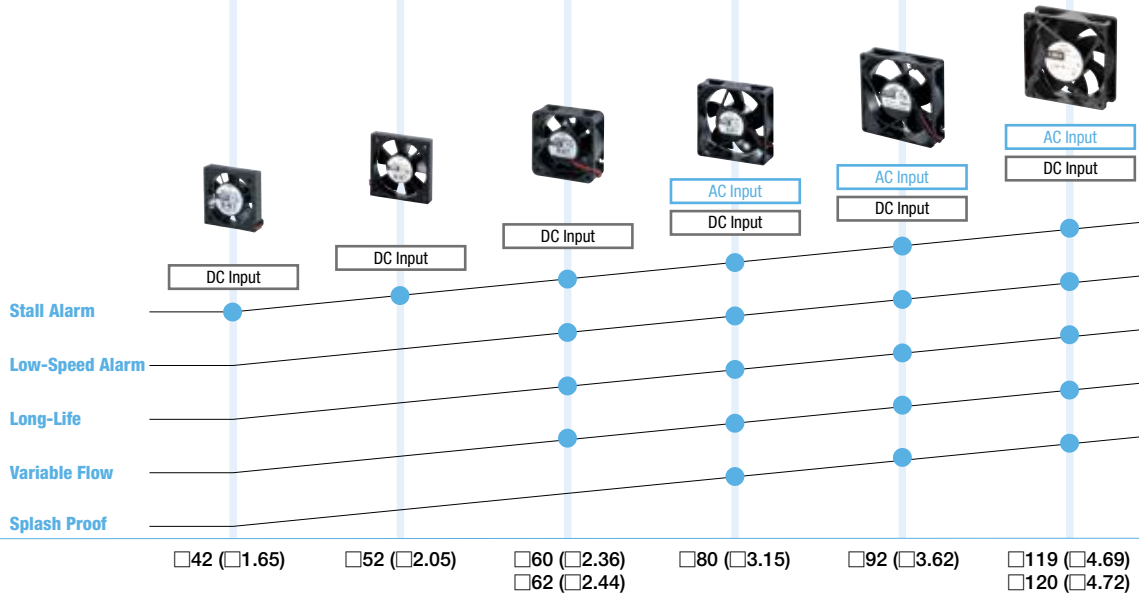
Enclosure Fan Modules

Thermostat

# Product Line of Cooling Fans

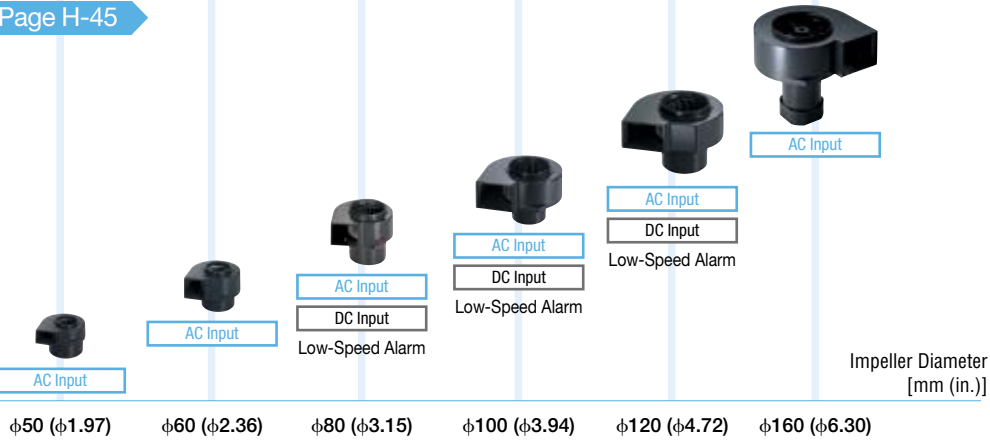
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Axial Flow Fans



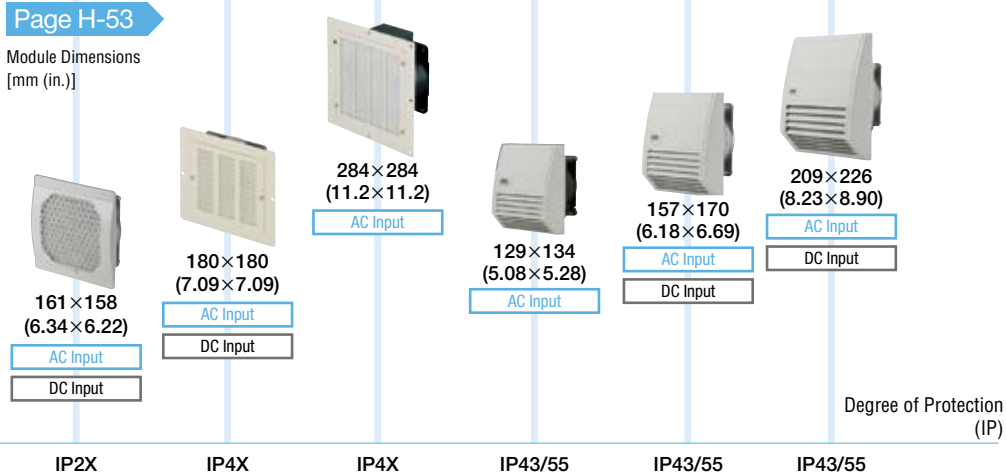
Page H-45

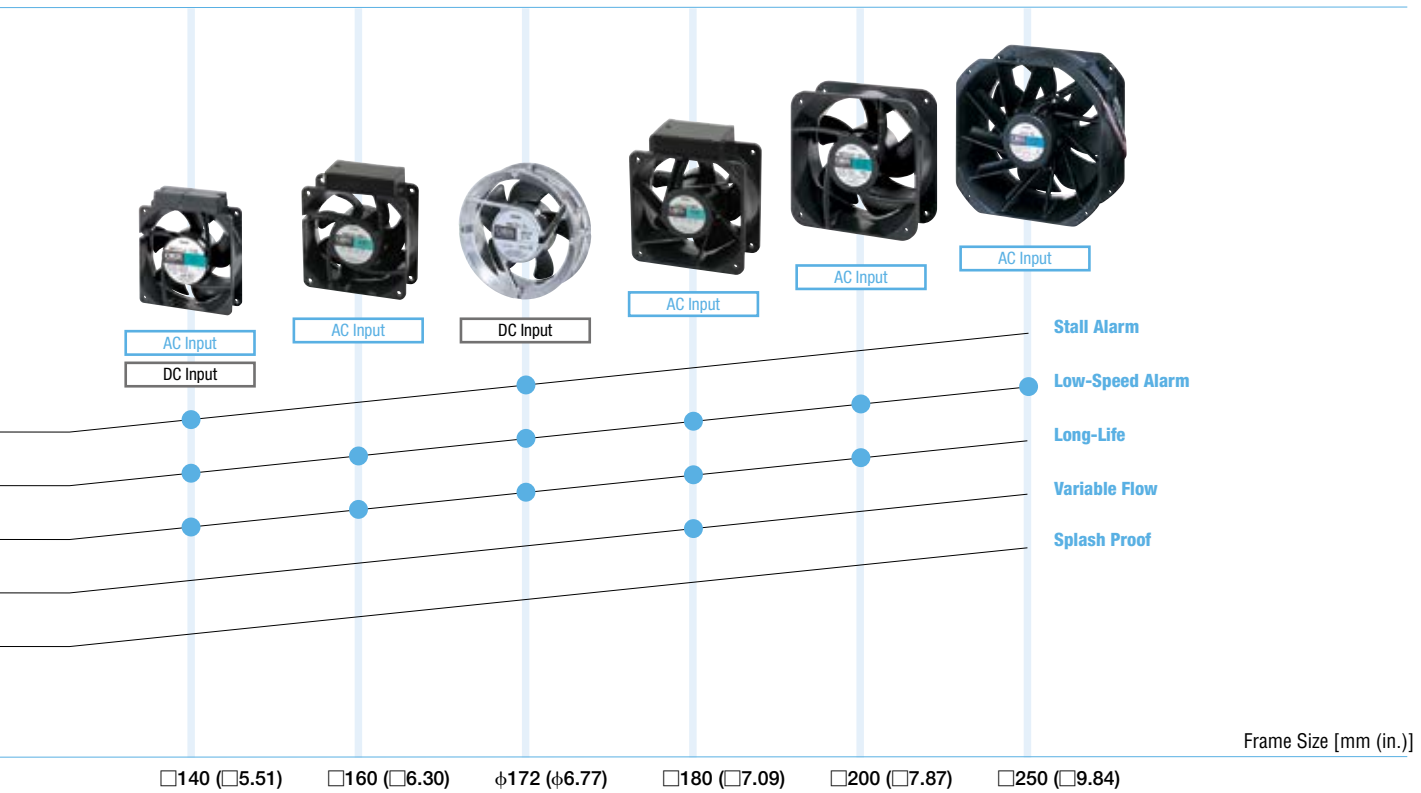
Centrifugal Blowers



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Enclosure Fan Modules





Overview

Axial Flow Fans

AC Input  
Low-Power Consumption  
**EMU**

AC Input  
Compact Size  
**MU**

AC Input  
Large Size, Large Air Flow  
**MRS**

AC Input  
Long-Life  
**MRE**

DC Input  
**MDS**  
**MD**

DC Input  
Alarm  
**MDA**

DC Input  
Variable Flow  
**MDV**

DC Input  
Long-Life  
**MDE**

DC Input  
Splash proof  
**MDP**

Centrifugal Blowers

AC Input  
**MB**  
DC Input  
**MBD**

Cross Flow Fans

AC Input  
**MF**  
DC Input  
**MFD**

Enclosure Fan Modules

Thermostat

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**Cross Flow Fans**

AC Input  
DC Input  
Low-Speed Alarm

150 (5.91)

AC Input  
DC Input  
Low-Speed Alarm

Impeller Length [mm (in.)]

300 (11.81)

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**Thermostat**

Fan Thermostat

Website

**Accessories**

Finger Guards

Filters

Screens

Plug Cords

# Overview of Cooling Fans

## About Fans and Thermal Management

Today's comfortable life and society is supported by advanced control systems, which may present many heat sources. To operate these devices 24 hours a day, 365 days a year, the devices require appropriate heat designs and heat measures. Oriental Motor offers a wide range of cooling fan products centered on thermal management to meet these requirements.

## Applications and Classifications

### Ventilation, Cooling, Drying, and Suction

#### Axial Flow Fans

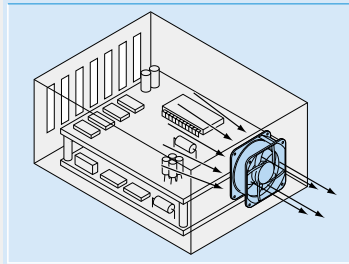
A large air flow is feature of axial flow fans.

→ Page H-13



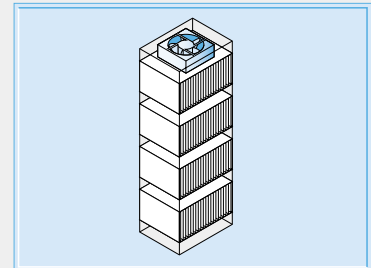
#### ● Device Ventilation and Cooling

The large air flow of axial flow fans is suitable for ventilation and cooling inside electronic device.



#### ● Cooling Densely Mounted Devices

Enables energy-saving and less wiring compared to using multiple small fans.



#### Centrifugal Blowers

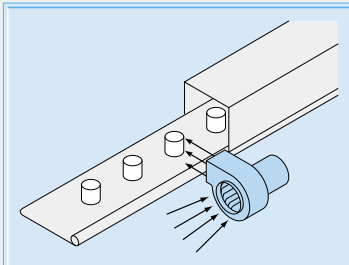
A large static pressure and concentrated air flow are features of centrifugal blowers.

→ Page H-45



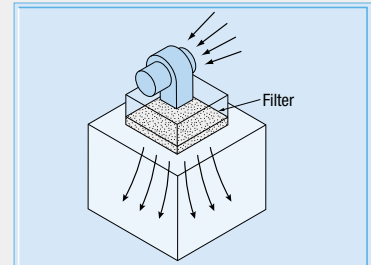
#### ● Air-Blow Cooling or Drying

Centrifugal blowers offering high static pressures are suitable for the air-blow cooling of work pieces following heat treatment.



#### ● Cooling with High Static Pressure

The high static pressure of centrifugal blowers makes them suitable for cooling used together with thick filters that are subject to significant pressure losses.



#### Cross Flow Fans

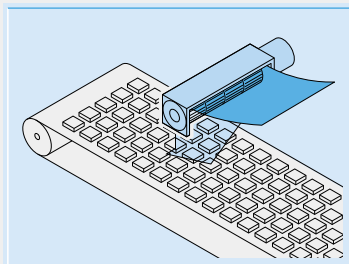
A wide, uniform air flow is a feature of cross flow fans.

→ Page H-49



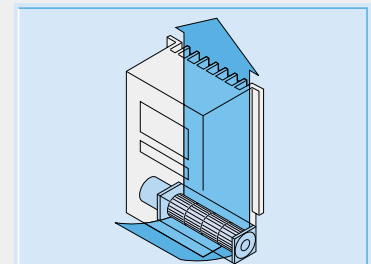
#### ● Uniform Cooling or Drying

Cross flow fans are suitable for the air-blow cooling of wide areas.



#### ● Cooling of Long and Thin Space

Suitable for air-blow cooling of long and thin spaces, such as where electronic devices are installed.



## Measures for Preventing Water Droplets and Dust from Entering

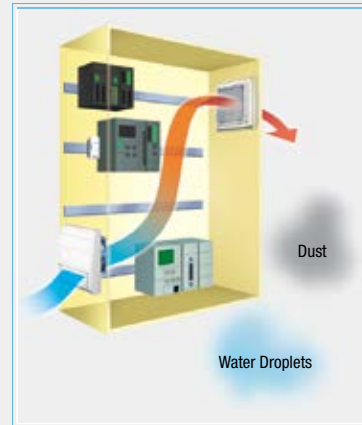
### Enclosure Fan Modules

→ Page H-53



#### ● Ventilation and Cooling Inside Control Box

Suitable for ventilation and cooling inside an enclosure in an environment where powdery dust is mixed in with the air. Improves the reliability of the entire enclosure cabinet.



## Automatically Turning the Cooling Fan ON/OFF

### Thermostat

→ Page H-61

● Fan Thermostat



#### ● Automatically Turning it ON/OFF with a Set Temperature

The cooling fan is automatically turned ON or OFF when the temperature inside the equipment reaches the temperature switch setting.



Product Line

Axial Flow Fans

AC Input

Low-Power Consumption

**EMU Series**

Frame Size [mm (in.)] □120 (□4.72)  
 Service Life: 60,000 hours  
 Single-Phase 100-240 VAC (50/60 Hz)  
 Lightweight  
 → Page H-18



Compact Size

**MU Series**

Frame Size [mm (in.)] □80 (□3.15), □92 (□3.62), □119 (□4.69)  
 → Page H-20



Large Size, Large Air Flow

**MRS Series**

Low-Speed Alarm

Frame Size [mm (in.)] □140 (□5.51), □160 (□6.30), □180 (□7.09),  
 □200 (□7.87), □250 (□9.84)  
 → Page H-22



Long-Life

**MRE Series**

Long-Life Low-Speed Alarm

Frame Size [mm (in.)] □160 (□6.30), □180 (□7.09), □200 (□7.87)  
 Long-Life fans have an expected life of 100,000 hours.  
 → Page H-26



DC Input

**MDS Series, MD Series**

Stall Alarm

Frame Size [mm (in.)] □42 (□1.65), □52 (□2.05), □60 (□2.36),  
 □62 (□2.44), □80 (□3.15), □92 (□3.62),  
 □119 (□4.69), □120 (□4.72), □140 (□5.51),  
 φ172 (φ6.77)  
 → Page H-30



Low Speed Alarm

**MDA Series**

Low-Speed Alarm

Frame Size [mm (in.)] □62 (□2.44), □80 (□3.15), □92 (□3.62),  
 □119 (□4.69), □140 (□5.51), φ172 (φ6.77)  
 → Page H-34



Variable Flow

**MDV Series**

Variable Flow Pulse Sensor

Frame Size [mm (in.)] □60 (□2.36), □80 (□3.15), □92 (□3.62),  
 □120 (□4.72)

Air flow and static pressure can be adjusted via PWM control.  
 → Page H-38



Long-Life

**MDE Series**

Long-Life Stall Alarm

Frame Size [mm (in.)] □60 (□2.36), □80 (□3.15), □92 (□3.62),  
 □119 (□4.69), □140 (□5.51), φ172 (φ6.77)

Long-Life fans have an expected life of 100,000 hours.  
 → Page H-40



Splash Proof

**MDP Series**

Stall Alarm

Frame Size [mm (in.)] □80 (□3.15), □92 (□3.62), □119 (□4.69)

Conforms to the IEC Standards IP68 rating and can be used in locations that are splashed with water.  
 → Page H-42



**Low-Speed Alarm**: Low-Speed Alarm Type **Stall Alarm**: Stall Alarm Type **Pulse Sensor**: Pulse Sensor Type  
**Long Life**: Long Life Type **Variable Flow**: Variable Flow Type

→ For details about each function, refer to the Description of Functions on H-8.

## Centrifugal Blowers

### AC Input

#### MB Series

Impeller Diameter [mm (in.)]  $\phi 50$  ( $\phi 1.97$ )  $\phi 60$  ( $\phi 2.36$ )  $\phi 80$  ( $\phi 3.15$ )  
 $\phi 100$  ( $\phi 3.94$ )  $\phi 120$  ( $\phi 4.72$ )  $\phi 160$  ( $\phi 6.30$ )

→ Page H-46



### DC Input

#### MBD Series

Low-Speed Alarm

Impeller Diameter [mm (in.)]  $\phi 80$  ( $\phi 3.15$ )  $\phi 100$  ( $\phi 3.94$ )  $\phi 120$  ( $\phi 4.72$ )

→ Page H-46



## Cross Flow Fans

### AC Input

#### MF Series

Impeller Length [mm (in.)] 150 (5.91) 300 (11.81)

→ Page H-50



### DC Input

#### MFD Series

Low-Speed Alarm

Impeller Length [mm (in.)] 150 (5.91) 300 (11.81)

→ Page H-50



## Enclosure Fan Modules

Degree of Protection IP43 IP55

Modular products that include guards and filters to prevent foreign objects, dust, and water droplets from reaching the cooling fan.

→ Page H-53



Finger Guard  
IP2X Type



Slit Metal Plate  
IP4X Type



Dust and Water Resistant  
IP43-IP55 Type

## Thermostat

Switches that detect the ambient temperature and automatically turn the cooling fan ON/OFF.

The fans can be operated only when necessary for energy-saving control.

→ Page H-61



Fan Thermostat  
**AM2-XA1**  
**AM2-WA1**

## Accessories

The following accessories that can be used with each cooling fan are available.

- Finger Guards
  - Filters
  - Screens
  - Plug Cords
- Website



### Overview

#### Axial Flow Fans

AC Input Low-Power Consumption  
**EMU**

AC Input Compact Size  
**MU**

AC Input Large Size, Large Air Flow  
**MRS**

AC Input Long-Life  
**MRE**

DC Input  
**MDS**  
**MD**

DC Input Alarm  
**MDA**

DC Input Variable Flow  
**MDV**

DC Input Long-Life  
**MDE**

DC Input Splash proof  
**MDP**

#### Centrifugal Blowers

AC Input  
**MB**  
DC Input  
**MBD**

#### Cross Flow Fans

AC Input  
**MF**  
DC Input  
**MFD**

#### Enclosure Fan Modules

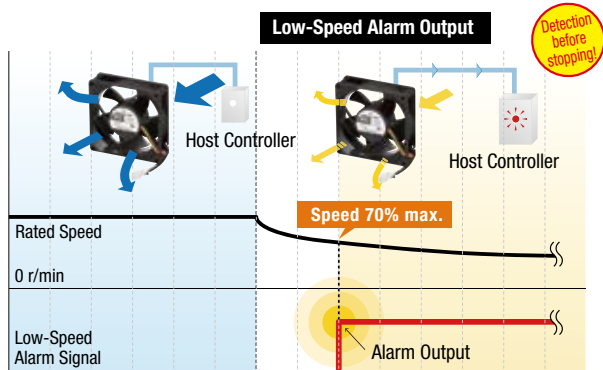
#### Thermostat



## Description of Functions

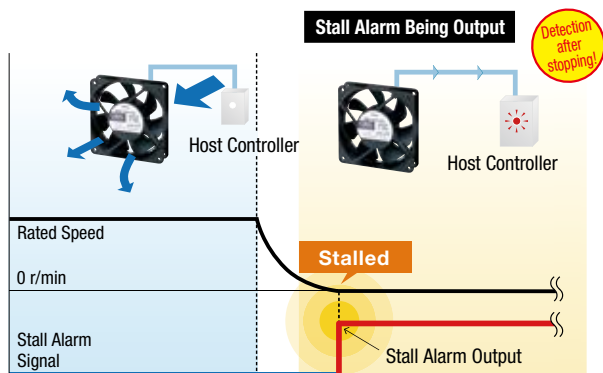
### Fans with Low-Speed Alarms

An alarm is output when the fan speed drops due to the service life of the fan or the ingress of foreign objects. This makes it possible to order and replace the fan with a new one before it stops. If multiple cooling fans are being used, it is possible to only replace the cooling fan with decreased cooling capacity thus minimizing the effect on the equipment.



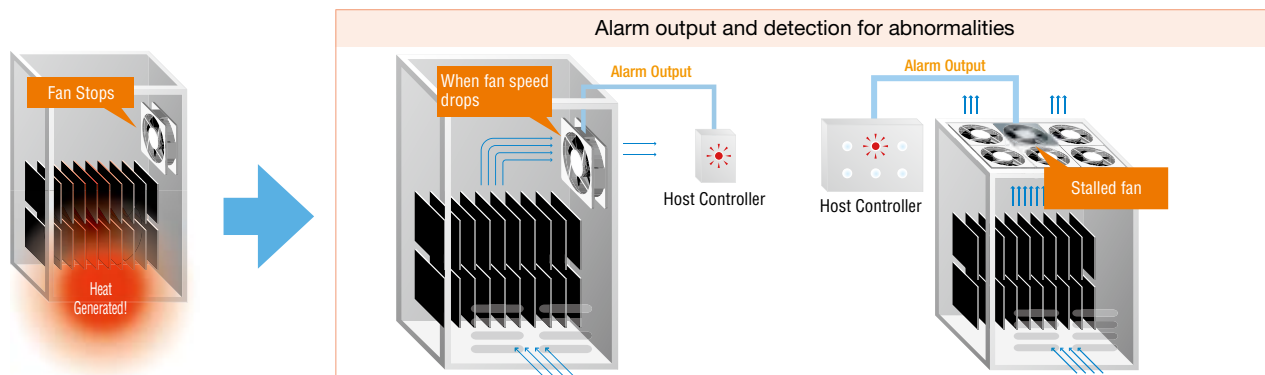
### Fans with Stall Alarm

Outputs an alarm when the cooling fan stops. Quickly detects defective stops to allow the cooling fan to be replaced.



#### ◇ Application Example

If a cooling fan is left stopped or at low speed, the internal temperature increases which has an effect on the equipment. By using a low-speed alarm type cooling fan or stall alarm type cooling fan, cooling problems are detected early to allow for maintenance.



## Long-Life

A long-life axial flow fan has an expected service life of 100,000 hours (Approx. 11 years).

In addition to the reduction of the temperature rise of the bearings, grease deterioration is suppressed. Furthermore, vibration resistance and shock resistance have been improved by using larger bearings. Measures have been taken for longer service life of circuit/coupling and reduction of failure rate. The products are designed to avoid not only initial failure but also random failure and abrasion failure, so that continuous operation of 100,000 hours or more (retention rate of 90% or more) is achieved.

### Expected Service Life

The expected service life indicates that at least 90% of the fans will satisfy the following criteria when the acceleration test is performed at an ambient temperature of 60°C (140°F).

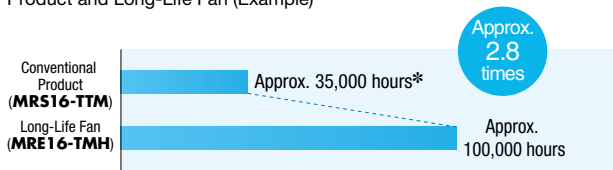
#### Criteria

- Speed (at rated voltage): 70% or more of rated value
- Input current (at rated voltage): 130% or less of rated value

#### ◇ Lower Maintenance Costs and Overall Costs

A long-life axial flow fan has an expected service life of 100,000 hours. Compared to conventional products, they require fewer replacements, resulting in reduction of the overall costs.

▼ Service Life Comparison between Conventional Product and Long-Life Fan (Example)



\*Estimated life is 35,000 hours when the ambient temperature is 60°C (140°F). The estimated life is an estimated value calculated using the formula for the life of the bearing grease. The estimated life varies depending on the product.

#### Overview

#### Axial Flow Fans

AC Input  
Low-Power Consumption  
**EMU**

AC Input  
Compact Size  
**MU**

AC Input  
Large Size, Large Air Flow  
**MRS**

AC Input  
Long-Life  
**MRE**

DC Input  
**MDS**  
**MD**

DC Input  
Alarm  
**MDA**

DC Input  
Variable Flow  
**MDV**

DC Input  
Long-Life  
**MDE**

DC Input  
Splash proof  
**MDP**

#### Centrifugal Blowers

AC Input  
**MB**  
DC Input  
**MBD**

#### Cross Flow Fans

AC Input  
**MF**  
DC Input  
**MFD**

#### Enclosure Fan Modules

#### Thermostat

# Maximum Air Flow and Maximum Static Pressure

The maximum air flow and maximum static pressure vary depending on the series and size of cooling fans. Select the cooling fan offering the characteristics that best suit the specifications of your equipment.

## Maximum Air Flow

	Max. Air Flow [m <sup>3</sup> /min (CFM)] For 60 Hz	Frame Size [mm (in.)]	Thickness [mm (in.)]	Type	Page
AC Axial Flow Fans	0.55 (19.4)	□80 (□3.15)	25 (0.98)	<b>MU825</b>	H-20
	1.10 (38.8)	□92 (□3.62)	25 (0.98)	<b>MU925</b>	H-20
	1.9 (67.1)	□119 (□4.69)	25 (0.98)	<b>MU1225</b>	H-20
	3.0 (106)	□119 (□4.69)	38 (1.50)	<b>MU1238</b>	H-20
	3.0 (106)	□120 (□4.72)	38 (1.50)	<b>EMU1238</b>	H-18
	5.0 (177)	□140 (□5.51)	47 (1.85)	<b>MRS14</b>	H-22
	7.3 (258)	□160 (□6.30)	62 (2.44)	<b>MRS16</b>	H-22
				<b>MRE16</b>	H-26
	12.8 (452)	□180 (□7.09)	90 (3.54)	<b>MRS18</b>	H-22
				<b>MRE18</b>	H-26
	15.5 (547)	□200 (□7.87)	90 (3.54)	<b>MRS20</b>	H-22
				<b>MRE20</b>	H-26
	25 (883)	□250 (□9.84)	120 (4.72)	<b>MRS25</b>	H-22
	0.18 (6.35)	□42 (□1.65)	10 (0.39)	<b>MDS410</b>	H-30
<b>MDS510</b>				H-30	
0.27 (9.53)	□52 (□2.05)	10 (0.39)	<b>MD625</b>	H-30	
			<b>MDA625</b>	H-34	
0.50 (17.7)	□62 (□2.44)	25.4 (1.00)	<b>MDE625</b>	H-40	
0.53 (18.7)	□60 (□2.36)	25 (0.98)	<b>MD825</b>	H-30	
1.00 (35.3)	□80 (□3.15)	25.4 (1.00)	<b>MDA825</b>	H-34	
			<b>MDP825</b>	H-42	
1.03 (36.4)	□80 (□3.15)	25 (0.98)	<b>MDS625</b>	H-30	
1.06 (37.1)	□80 (□3.15)	25 (0.98)	<b>MDE825</b>	H-40	
			<b>MDV625</b>	H-38	
1.21 (42.7)	□60 (□2.36)	25 (0.98)	<b>MD925</b>	H-30	
1.30 (45.9)	□92 (□3.62)	25.4 (1.00)	<b>MDA925</b>	H-34	
			<b>MDE925</b>	H-40	
1.38 (48.7)	□92 (□3.62)	25 (0.98)	<b>MDP925</b>	H-42	
1.45 (51.2)	□92 (□3.62)	25 (0.98)	<b>MDS825</b>	H-30	
1.5 (53.0)	□80 (□3.15)	25 (0.98)	<b>MDS925</b>	H-30	
1.93 (68.2)	□92 (□3.62)	25.2 (0.99)	<b>MDV825</b>	H-38	
2.12 (74.9)	□80 (□3.15)	25.2 (0.99)	<b>MDV925</b>	H-38	
2.20 (77.7)	□92 (□3.62)	25.2 (0.99)	<b>MD1225</b>	H-30	
2.5 (88.3)	□119 (□4.69)	25.4 (1.00)	<b>MDS1225</b>	H-30	
2.7 (95.3)	□119 (□4.69)	25.4 (1.00)	<b>MDA1225</b>	H-34	
			<b>MDE1225</b>	H-40	
2.8 (98.9)	□119 (□4.69)	38 (1.50)	<b>MDP1238</b>	H-42	
3.88 (137)	□119 (□4.69)	38 (1.50)	<b>MDS1238</b>	H-30	
			<b>MDA1238</b>	H-34	
5.8 (205)	□140 (□5.51)	51 (2.01)	<b>MDE1238</b>	H-40	
			<b>MDS1451</b>	H-30	
6.0 (212)	φ172 (φ6.77)	51 (2.01)	<b>MDA1451</b>	H-34	
			<b>MDE1451</b>	H-40	
6.4 (226)	□120 (□4.72)	38 (1.50)	<b>MDS1751</b>	H-30	
			<b>MDA1751</b>	H-34	
9.9 (350)	φ172 (φ6.77)	51 (2.01)	<b>MDS1238H</b>	H-30	
			<b>MDV1238</b>	H-38	
9.9 (350)	φ172 (φ6.77)	51 (2.01)	<b>MDE1751(F)</b>	H-40	
			<b>MDS1751(FH)</b>	H-30	
DC Axial Flow Fans					

Overview

Axial Flow Fans

AC Input Low-Power Consumption **EMU**

AC Input Compact Size **MU**

AC Input Large Size, Large Air Flow **MRS**

AC Input Long-Life **MRE**

DC Input **MDS MD**

DC Input Alarm **MDA**

DC Input Variable Flow **MDV**

DC Input Long-Life **MDE**

DC Input Splash proof **MDP**

Centrifugal Blowers

AC Input **MB**  
DC Input **MBD**

Cross Flow Fans

AC Input **MF**  
DC Input **MFD**

Enclosure Fan Modules

Thermostat

	Max. Air Flow [m <sup>3</sup> /min (CFM)] For 60 Hz	Impeller Diameter [mm (in.)]	Power Supply	Type	Page
Centrifugal Blowers	<b>0.25 (8.83)</b>	φ50 (φ1.97)	AC Input	<b>MB520</b>	H-46
	<b>0.49 (17.3)</b>	φ60 (φ2.36)		<b>MB630</b>	
	<b>1.8 (63.5)</b>	φ80 (φ3.15)		<b>MB840</b>	
	<b>2.6 (91.8)</b>	φ100 (φ3.94)		<b>MB1040</b>	
	<b>5.1 (180)</b>	φ120 (φ4.72)		<b>MB1255</b>	
	<b>9.0 (318)</b>	φ160 (φ6.30)		<b>MB1665</b>	
	DC Input	<b>1.45 (51.2)</b>	φ80 (φ3.15)	<b>MBD8</b>	
		<b>1.95 (68.8)</b>	φ100 (φ3.94)	<b>MBD10</b>	
<b>3.0 (106)</b>		φ120 (φ4.72)	<b>MBD12</b>		
	Max. Air Flow [m <sup>3</sup> /min (CFM)] For 60 Hz	Impeller Length [mm (in.)]	Power Supply	Type	Page
Cross Flow Fans	<b>4.1 (145)</b>	150 (5.91)	AC Input	<b>MF915</b>	H-50
	<b>6.8 (240)</b>	300 (11.81)		<b>MF930</b>	
	DC Input	<b>3.0 (106)</b>	150 (5.91)	<b>MFD915</b>	
		<b>5.2 (184)</b>	300 (11.81)	<b>MFD930</b>	

## Maximum Static Pressure

	Max. Static Pressure [Pa (inH <sub>2</sub> O)] For 60 Hz	Frame Size [mm (in.)]	Thickness [mm (in.)]	Type	Page
AC Axial Flow Fans	<b>49 (0.196)</b>	□80 (□3.15)	25 (0.98)	<b>MU825</b>	H-20
	<b>59 (0.237)</b>	□92 (□3.62)	25 (0.98)	<b>MU925</b>	H-20
	<b>44 (0.176)</b>	□119 (□4.69)	25 (0.98)	<b>MU1225</b>	H-20
	<b>81 (0.325)</b>	□119 (□4.69)	38 (1.50)	<b>MU1238</b>	H-20
	<b>84 (0.337)</b>	□120 (□4.72)	38 (1.50)	<b>EMU1238</b>	H-18
	<b>109 (0.437)</b>	□140 (□5.51)	47 (1.85)	<b>MRS14</b>	H-22
				<b>MRS16</b>	H-22
	<b>157 (0.63)</b>	□160 (□6.30)	62 (2.44)	<b>MRE16</b>	H-26
				<b>MRS18</b>	H-22
	<b>245 (0.982)</b>	□180 (□7.09)	90 (3.54)	<b>MRE18</b>	H-26
				<b>MRS20</b>	H-22
	<b>265 (1.06)</b>	□200 (□7.87)	90 (3.54)	<b>MRE20</b>	H-26
<b>MRS25</b>				H-22	
<b>410 (1.65)</b>	□250 (□9.84)	120 (4.72)	<b>MRS25</b>	H-22	

		Max. Static Pressure [Pa (inH <sub>2</sub> O)] For 60 Hz	Frame Size [mm (in.)]	Thickness [mm (in.)]	Type	Page	
DC Axial Flow Fans		35.3 (0.141)	□80 (□3.15)	25 (0.98)	<b>MDP825</b>	H-42	
		39.2 (0.157)	□80 (□3.15)	25 (0.98)	<b>MDE825</b>	H-40	
		40.2 (0.161)	□60 (□2.36)	25 (0.98)	<b>MDE625</b>	H-40	
		43 (0.172)	□119 (□4.69)	25.4 (1.00)	<b>MD1225</b>	H-30	
		44 (0.176)	□92 (□3.62)	25 (0.98)	<b>MDP925</b>	H-42	
		45.1 (0.181)	□92 (□3.62)	25 (0.98)	<b>MDE925</b>	H-40	
		49 (0.196)	□62 (□2.44)	25.4 (1.00)	<b>MD625</b>	H-30	
					<b>MDA625</b>	H-34	
		49 (0.196)	□80 (□3.15)	25.4 (1.00)	<b>MD825</b>	H-30	
					<b>MDA825</b>	H-34	
		49 (0.196)	□92 (□3.62)	25.4 (1.00)	<b>MD925</b>	H-30	
					<b>MDA925</b>	H-34	
		54 (0.217)	□52 (□2.05)	10 (0.39)	<b>MDS510</b>	H-30	
					<b>MDS1225</b>	H-30	
		70 (0.281)	□119 (□4.69)	25.4 (1.00)	<b>MDA1225</b>	H-34	
					<b>MDE1225</b>	H-40	
					<b>MDP1238</b>	H-42	
		80.4 (0.323)	□80 (□3.15)	25 (0.98)	<b>MDS825</b>	H-30	
		81 (0.330)	□92 (□3.62)	25.2 (0.99)	<b>MDS925</b>	H-30	
		86 (0.345)	□42 (□1.65)	10 (0.39)	<b>MDS410</b>	H-30	
		105 (0.421)	□92 (□3.62)	25.2 (0.99)	<b>MDV925</b>	H-38	
		120.8 (0.484)	□119 (□4.69)	38 (1.50)	<b>MDE1238</b>	H-40	
	<b>MDS1451</b>				H-30		
	130 (0.521)	□140 (□5.51)	51 (2.01)	<b>MDA1451</b>	H-34		
				<b>MDE1451</b>	H-40		
	135 (0.542)	□119 (□4.69)	38 (1.50)	<b>MDS1238</b>	H-30		
				<b>MDA1238</b>	H-34		
	137 (0.549)	φ172 (φ6.77)	51 (2.01)	<b>MDA1751</b>	H-34		
				<b>MDE1751(F)</b>	H-40		
	155 (0.622)	□60 (□2.36)	25 (0.98)	<b>MDS625</b>	H-30		
	173 (0.694)	□80 (□3.15)	25.2 (0.99)	<b>MDV825</b>	H-38		
	224 (0.899)	□60 (□2.36)	25 (0.98)	<b>MDV625</b>	H-38		
	308 (1.237)	φ172 (φ6.77)	51 (2.01)	<b>MDS1751(F)H</b>	H-30		
	360 (1.450)	□120 (□4.72)	38 (1.50)	<b>MDS1238H</b>	H-30		
				<b>MDV1238</b>	H-38		
		Max. Static Pressure [Pa (inH <sub>2</sub> O)] For 60 Hz	Impeller Diameter [mm (in.)]	Power Supply	Type	Page	
Centrifugal Blowers		55 (0.221)	φ50 (φ1.97)	AC Input	<b>MB520</b>	H-46	
		79 (0.317)	φ60 (φ2.36)		<b>MB630</b>		
		226 (0.906)	φ80 (φ3.15)		<b>MB840</b>		
		284 (1.14)	φ100 (φ3.94)		<b>MB1040</b>		
		441 (1.77)	φ120 (φ4.72)		<b>MB1255</b>		
		686 (2.75)	φ160 (φ6.30)		<b>MB1665</b>		
		196 (0.786)	φ80 (φ3.15)		DC Input		<b>MBD8</b>
		294 (1.18)	φ100 (φ3.94)				<b>MBD10</b>
	372 (1.49)	φ120 (φ4.72)	<b>MBD12</b>				
		Max. Static Pressure [Pa (inH <sub>2</sub> O)] For 60 Hz	Impeller Length [mm (in.)]	Power Supply	Type	Page	
Cross Flow Fans		106 (0.425)	300 (11.81)	AC Input	<b>MF930</b>	H-50	
		132 (0.529)	150 (5.91)		<b>MF915</b>		
		83 (0.333)	300 (11.81)	DC Input	<b>MFD930</b>		
		98 (0.393)	150 (5.91)		<b>MFD915</b>		