

DC Input

# MDS Series, MD Series



The **MDS/MD** Series DC axial flow fans are compact axial flow fans offering good overall performance and value. Available in 8 frame sizes from □42 mm up to φ172 mm and depending on frame size are available with a stall alarm as a standard fan type. Also different speed types are available, from Low Speed, Middle Speed to Standard Speed.

## Features

### Product Line

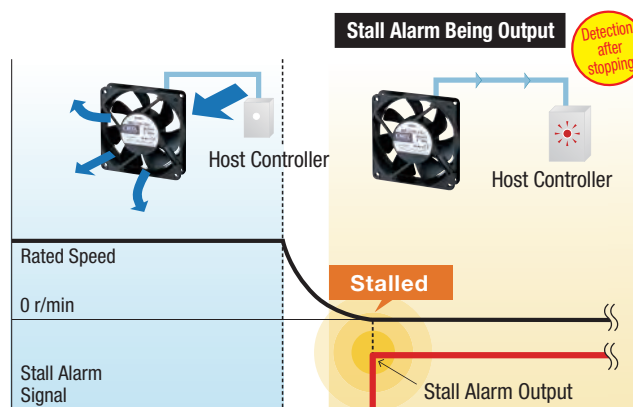
A product line of 8 fan sizes are available, with frame sizes from □42 mm to φ172 mm.

	MDS410	MDS510	MD625	MD825	MD925	MDS1225/ MD1225	MDS1451	MDS1751
Frame Size [mm]	□42	□52	□62	□80	□92	□119	□140	φ172
Frame Thickness [mm]	10	10	25	25	25	25	51	51
Speed Type	Standard Speed	●	●	●	●	●	●	●
	Middle Speed	—	●	●	●	—	—	—
	Low Speed	—	—	—	●	●	—	—
Alarm Type	Stall Alarm	Stall Alarm	Stall Alarm	Stall Alarm	Stall Alarm	—	—	—
Power Supply Voltage	5 VDC	—	—	—	—	—	—	—
	12 VDC	●	●	●	●	●	—	—
	24 VDC	—	—	●	●	●	●	●
	48 VDC	—	—	—	—	—	—	—

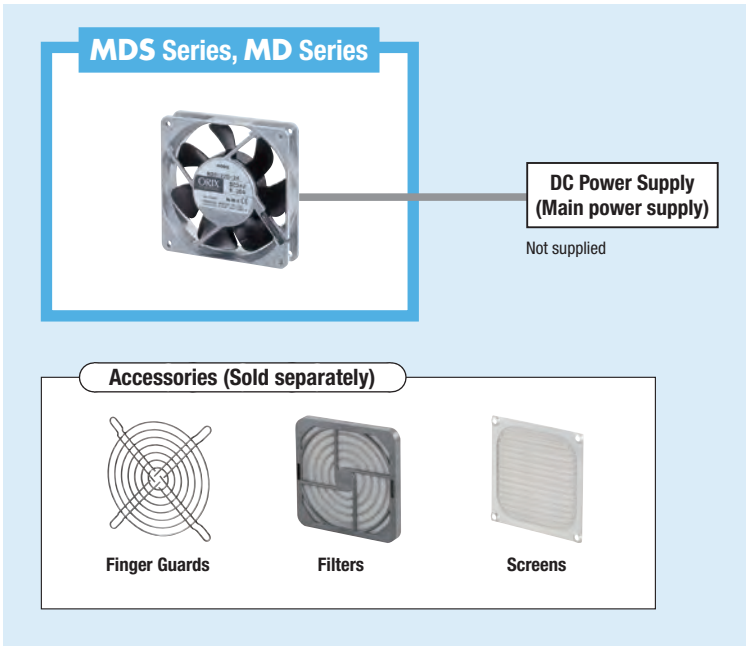
### Fans with Stall Alarm

Outputs an alarm when the cooling fan stops.

This allows for quick detection of a problem and replacement if needed.



## System Configuration



### ● Example of System Configuration



● The system configuration shown above is an example. Other combinations are also available.

## Product Number

### ● Fan Only

**MD 9 25 A - 12 L**

① ② ③ ④ ⑤ ⑥

①	Series	<b>MDS: MDS Series</b> <b>MD: MD Series</b>
②	Frame Size	<b>4:</b> 42 mm, <b>5:</b> 52 mm, <b>6:</b> 62 mm, <b>8:</b> 80 mm, <b>9:</b> 92 mm, <b>12:</b> 119 mm, <b>14:</b> 140 mm, <b>17:</b> φ172 mm
③	Frame Thickness	<b>10:</b> 10 mm, <b>25:</b> 25 mm, <b>51:</b> 51 mm
④	Speed Type	Blank, <b>A, B:</b> Standard Speed <b>M, AM, BM:</b> Middle Speed <b>AL, BL:</b> Low Speed
⑤	Power Supply Voltage	<b>5:</b> 5 VDC, <b>12:</b> 12 VDC, <b>24:</b> 24 VDC, <b>48:</b> 48 VDC
⑥	Additional Function	<b>L:</b> Stall Alarm, Electronic Alarm Type Blank: No additional functions

### ● Fan Kit

**T - MD925A - 12L - G**

① ② ③

①	Fan Kit Order Code
②	Fan Product Name
③	<b>G:</b> With finger guard and installation screws

Overview,  
Product  
Series

Axial  
Flow  
Fans

AC Input  
Energy Saving  
**EMU**

AC Input  
Energy Saving,  
Variable Flow  
**EMR**

AC Input  
Compact Size  
**MU**

AC Input  
Long-Life  
**MRE**

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

DC Input  
Alarm  
**MDA**

DC Input  
Long-Life  
**MDE**

Centrifugal  
Blowers

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

Cross Flow Fans

AC Input  
**MF**  
DC Input  
**MGD**

Accessories

Installation

MDS Series

42 mm – 10 mm Thick



With Stall Alarm

Operating Voltage Range: ±10%  
Overheat Protection: Built-in Overheat Protection Circuit  
Color  
Frame: Black    Blades: Black  
Materials  
Frame: Polycarbonate (Flammability grade V-0)  
Blades: PBT (Flammability grade V-0)

42 mm

52 mm

62 mm

80 mm

92 mm

119 mm

140 mm

φ172 mm

Specifications



Series	Speed Type	Function	Product Name	Voltage VDC	Current A	Speed r/min	Max. Air Flow m <sup>3</sup> /min	Max. Static Pressure Pa	Noise Level dB (A)
MDS Series	Standard Speed	Standard Type	MDS410-12	12	0.16	10000	0.18	86	34
		Stall Alarm, Electronic Alarm Type (Alarm specifications: ⑦)	MDS410-12L	12	0.16				

Product Line

Fan Only

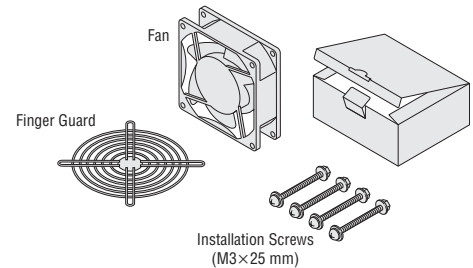
Product Name
MDS410-12
MDS410-12L

The following items are included with each product.  
Fan, Operating Manual

Fan Kit

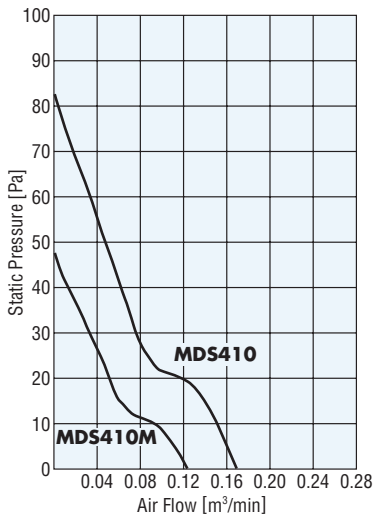
Product Name
T-MDS410-12-G
T-MDS410-12L-G

The following items are included in each kit.



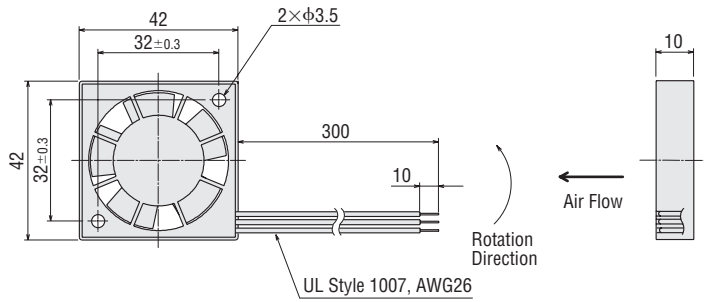
Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)

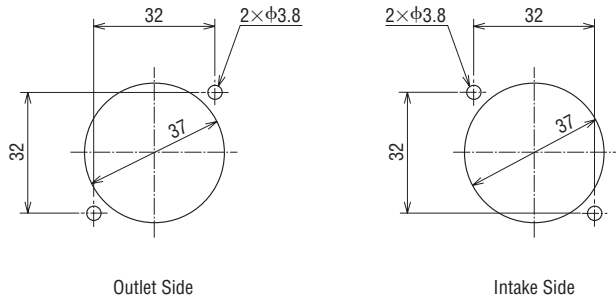


## Dimensions Unit: mm

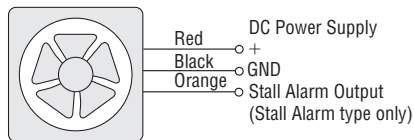
Mass: 25 g



## Panel Cut-Out Unit: mm



## Connection Diagrams



## Accessories

Product	Product Name
Finger Guard	<b>FG4D</b>

Overview,  
Product  
Series

Axial  
Flow  
Fans

AC Input  
Energy Saving  
**EMU**

AC Input  
Energy Saving,  
Variable Flow  
**EMR**

AC Input  
Compact Size  
**MU**

AC Input  
Long-Life  
**MRE**

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

DC Input  
Alarm  
**MDA**

DC Input  
Long-Life  
**MDE**

Centrifugal  
Blowers

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

Cross Flow Fans

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

Accessories

Installation

MDS Series

52 mm – 10 mm Thick



With Stall Alarm

Operating Voltage Range: ±10%  
Overheat Protection: Built-in Overheat Protection Circuit  
Color  
Frame: Black    Blades: Black  
Materials  
Frame: Polycarbonate (Flammability grade V-0)  
Blades: PBT (Flammability grade V-0)

42 mm

52 mm

62 mm

80 mm

92 mm

119 mm

140 mm

φ172 mm

Specifications



Series	Speed Type	Function	Product Name	Voltage VDC	Current A	Speed r/min	Max. Air Flow m <sup>3</sup> /min	Max. Static Pressure Pa	Noise Level dB(A)
MDS Series	Standard Speed	Standard Type	<b>MDS510-12</b>	12	0.14	7000	0.27	54	36
		Stall Alarm, Electronic Alarm Type (Alarm specifications: ⑦)	<b>MDS510-12L</b>	12	0.14				
	Middle Speed	Standard Type	<b>MDS510M-12</b>	12	0.12	5500	0.20	32	30

Product Line

Fan Only

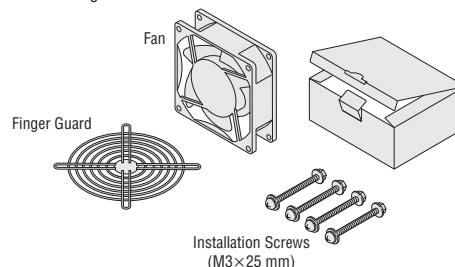
Product Name
<b>MDS510-12</b>
<b>MDS510-12L</b>
<b>MDS510M-12</b>

Fan Kit

Product Name
<b>T-MDS510-12-G</b>
<b>T-MDS510-12L-G</b>
<b>T-MDS510M-12-G</b>

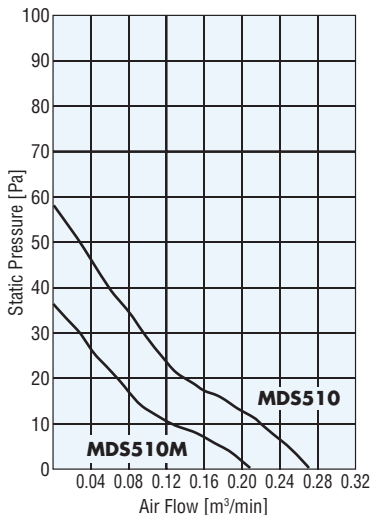
The following items are included with each product.  
Fan, Operating Manual

The following items are included in each kit.



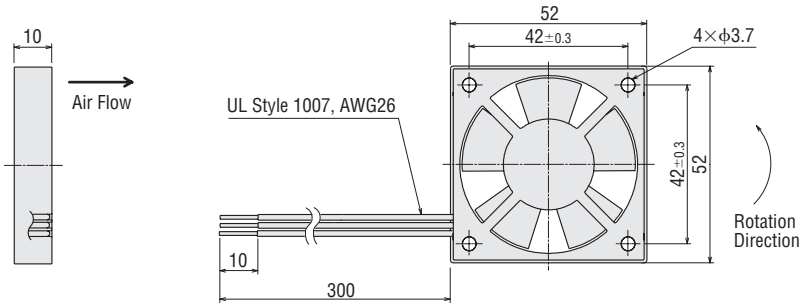
Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)

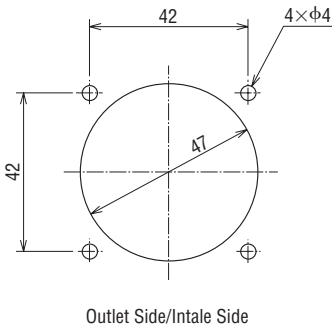


## Dimensions Unit: mm

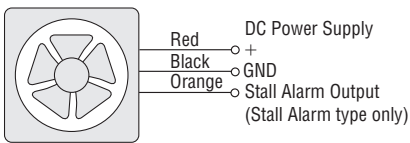
Mass: 30 g



## Panel Cut-Out Unit: mm



## Connection Diagrams



## Accessories

Product	Product Name
Finger Guard	<b>FG5D</b>

Overview,  
Product  
Series

Axial  
Flow  
Fans

AC Input  
Energy Saving  
**EMU**

AC Input  
Energy Saving,  
Variable Flow  
**EMR**

AC Input  
Compact Size  
**MU**

AC Input  
Long-Life  
**MRE**

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

DC Input  
Alarm  
**MDA**

DC Input  
Long-Life  
**MDE**

Centrifugal  
Blowers

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

Cross Flow Fans

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

Accessories

Installation

MD Series

62 mm – 25 mm Thick



With Stall Alarm

Operating Voltage Range: ±15%  
Overheat Protection: Built-in Overheat Protection Circuit  
Color  
Frame: Black    Blades: Black  
Materials  
Frame: Polycarbonate (Flammability grade V-0)  
Blades: Polycarbonate (Flammability grade V-0)

42 mm

52 mm

62 mm

80 mm

92 mm

119 mm

140 mm

φ172 mm

Specifications



Series	Speed Type	Function	Product Name	Voltage VDC	Current A	Speed r/min	Max. Air Flow m <sup>3</sup> /min	Max. Static Pressure Pa	Noise Level dB (A)
MD Series	Standard Speed	Standard Type	MD625B-12	12	0.16	4000	0.50	49	30
		Stall Alarm, Electronic Alarm Type (Alarm specifications: ⑦)	MD625B-12L	12	0.16				
	Middle Speed	Standard Type	MD625BM-12	12	0.1	3000	0.37	27	20
			MD625BM-24	24	0.07				

Product Line

Fan Only

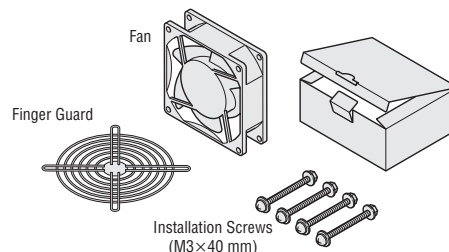
Product Name	
MD625B-12	—
MD625B-12L	—
MD625BM-12	MD625BM-24

The following items are included with each product.  
Fan, Operating Manual

Fan Kit

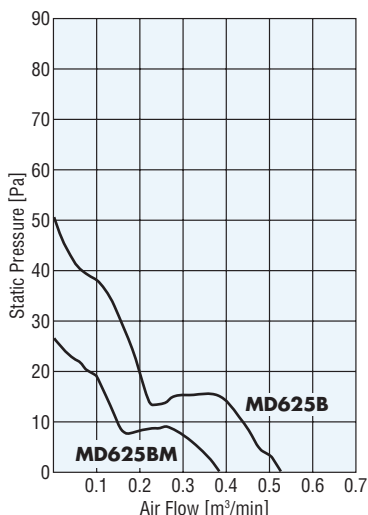
Product Name	
T-MD625B-12-G	—
T-MD625B-12L-G	—
T-MD625BM-12-G	T-MD625BM-24-G

The following items are included in each kit.



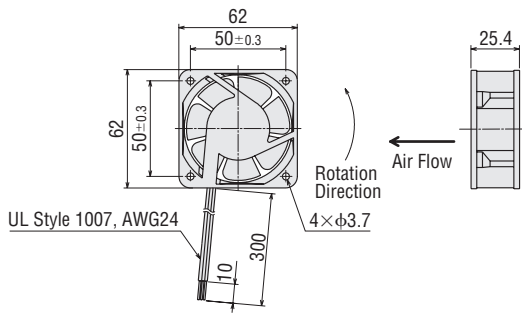
Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)

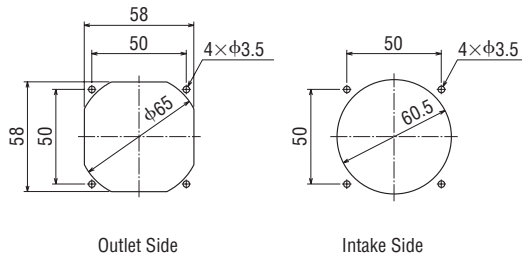


## Dimensions Unit: mm

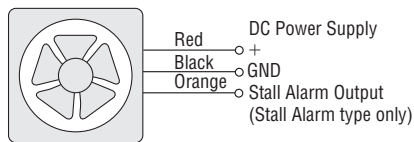
Mass: 0.1 kg



## Panel Cut-Out Unit: mm



## Connection Diagrams



## Accessories

Product	Product Name
Finger Guard	<b>FG6D</b>
Filter	<b>FL6</b>
Screen	<b>FS6S</b>

Overview,  
Product  
Series

Axial  
Flow  
Fans

AC Input  
Energy Saving  
**EMU**

AC Input  
Energy Saving,  
Variable Flow  
**EMR**

AC Input  
Compact Size  
**MU**

AC Input  
Long-Life  
**MRE**

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

DC Input  
Alarm  
**MDA**

DC Input  
Long-Life  
**MDE**

Centrifugal  
Blowers

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

Cross Flow Fans

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

Accessories

Installation



MD Series

80 mm – 25 mm Thick



With Stall Alarm

Operating Voltage Range: ±15%  
Overheat Protection: Built-in Overheat Protection Circuit  
Color  
Frame: Black    Blades: Black  
Materials  
Frame: Polycarbonate (Flammability grade V-0)  
Blades: Polycarbonate (Flammability grade V-0)

42 mm

52 mm

62 mm

80 mm

92 mm

119 mm

140 mm

φ172 mm

Specifications



Series	Speed Type	Function	Product Name	Voltage VDC	Current A	Speed r/min	Max. Air Flow m <sup>3</sup> /min	Max. Static Pressure Pa	Noise Level dB (A)
MD Series	Standard Speed	Standard Type	MD825B-12	12	0.25	3800	1.00	49	35
		Stall Alarm, Electronic Alarm Type (Alarm specifications: ⑦)	MD825B-12L	12	0.25				
	Middle Speed	Standard Type	MD825BM-12	12	0.15	2800	0.73	29	26
			MD825BM-24	24	0.09				
	Low Speed	Standard Type	MD825BL-12	12	0.07	2100	0.55	16	18

Product Line

Fan Only

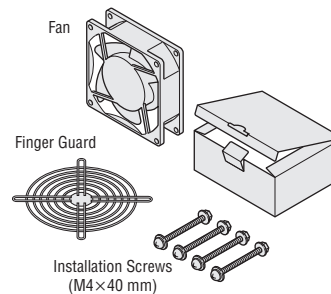
Product Name	
MD825B-12	–
MD825B-12L	–
MD825BM-12	MD825BM-24
MD825BL-12	–

The following items are included with each product.  
Fan, Operating Manual

Fan Kit

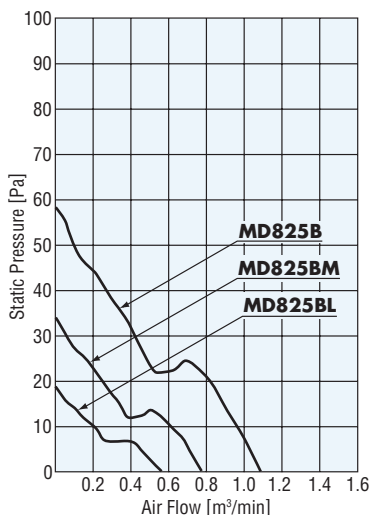
Product Name	
T-MD825B-12-G	–
T-MD825B-12L-G	–
T-MD825BM-12-G	T-MD825BM-24-G
T-MD825BL-12-G	–

The following items are included in each kit.



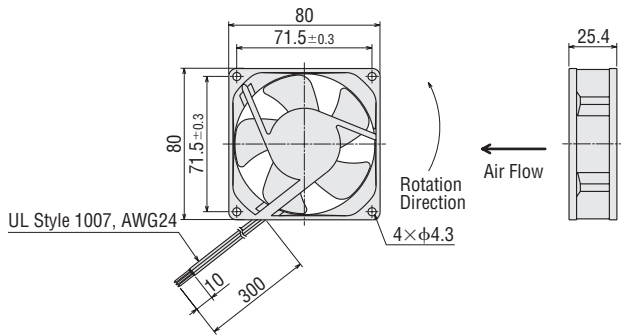
Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)

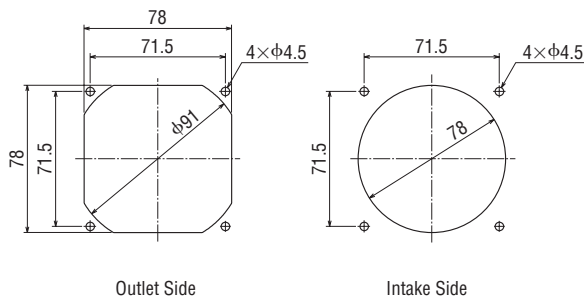


## Dimensions Unit: mm

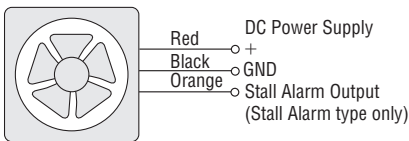
Mass: 0.11 kg



## Panel Cut-Out Unit: mm



## Connection Diagrams



## Accessories

Product	Product Name
Finger Guard	<b>FG8D</b>
Stainless Steel Finger Guard	<b>FG8S</b>
Filter	<b>FL8</b>
Screen	<b>FS8S</b>

Overview,  
Product  
Series

Axial  
Flow  
Fans

AC Input  
Energy Saving  
**EMU**

AC Input  
Energy Saving,  
Variable Flow  
**EMR**

AC Input  
Compact Size  
**MU**

AC Input  
Long-Life  
**MRE**

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

DC Input  
Alarm  
**MDA**

DC Input  
Long-Life  
**MDE**

Centrifugal  
Blowers

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

Cross Flow Fans

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

Accessories

Installation

## MD Series

**92 mm – 25 mm Thick**
**With Stall Alarm**Operating Voltage Range:  $\pm 15\%$ 

Overheat Protection: Built-in Overheat Protection Circuit

Color

Frame: Black      Blades: Black

Materials

Frame: Polycarbonate (Flammability grade V-0)

Blades: Polycarbonate (Flammability grade V-0)

□42 mm

□52 mm

□62 mm

□80 mm

□92 mm

□119 mm

□140 mm

φ172 mm

Specifications



Series	Speed Type	Function	Product Name	Voltage VDC	Current A	Speed r/min	Max. Air Flow m <sup>3</sup> /min	Max. Static Pressure Pa	Noise Level dB(A)	
MD Series	Standard Speed	Standard Type	<b>MD925A-12</b>	12	0.24	3400	1.30	49	36	
		Stall Alarm, Electronic Alarm Type (Alarm specifications: ⑦)	<b>MD925A-12L</b>	12	0.24					
	Middle Speed	Standard Type	<b>MD925AM-12</b>	12	0.15	2800	1.1	34	31	
			<b>MD925AM-24</b>	24	0.09					
	Low Speed	Standard Type		<b>MD925AL-12</b>	12	0.1	2200	0.90	22	25
				<b>MD925AL-24</b>	24	0.07				

Product Line

## ● Fan Only

Product Name	
<b>MD925A-12</b>	—
<b>MD925A-12L</b>	—
<b>MD925AM-12</b>	<b>MD925AM-24</b>
<b>MD925AL-12</b>	<b>MD925AL-24</b>

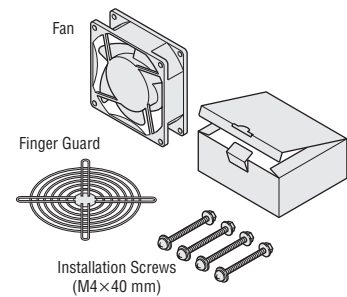
The following items are included with each product.

Fan, Operating Manual

## ● Fan Kit

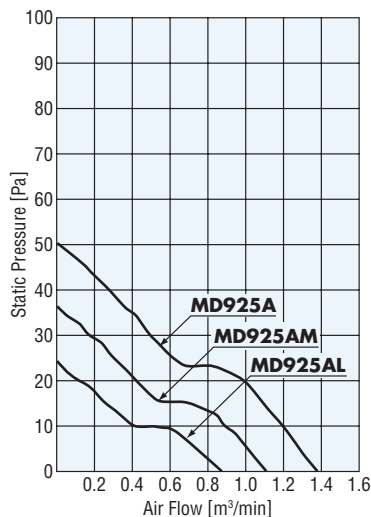
Product Name	
<b>T-MD925A-12-G</b>	—
<b>T-MD925A-12L-G</b>	—
<b>T-MD925AM-12-G</b>	<b>T-MD925AM-24-G</b>
<b>T-MD925AL-12-G</b>	<b>T-MD925AL-24-G</b>

The following items are included in each kit.



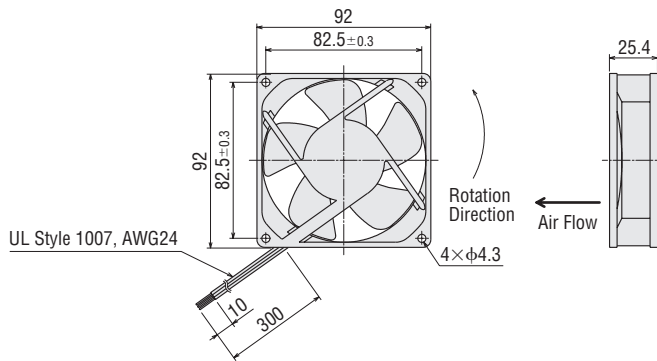
Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)

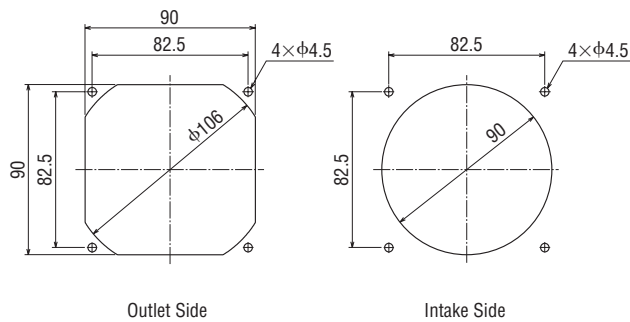


## Dimensions Unit: mm

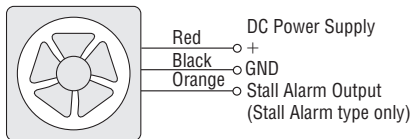
Mass: 0.12 kg



## Panel Cut-Out Unit: mm



## Connection Diagrams



## Accessories

Product	Product Name
Finger Guard	<b>FG9D</b>
Stainless Steel Finger Guard	<b>FG9S</b>
Filter	<b>FL9</b>
Screen	<b>FS9S</b>

● Use M3 screws to install the **FL9** filter to the fan frame.

Overview,  
Product  
Series

Axial  
Flow  
Fans

AC Input  
Energy Saving  
**EMU**

AC Input  
Energy Saving,  
Variable Flow  
**EMR**

AC Input  
Compact Size  
**MU**

AC Input  
Long-Life  
**MRE**

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

DC Input  
Alarm  
**MDA**

DC Input  
Long-Life  
**MDE**

Centrifugal  
Blowers

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

Cross Flow Fans

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

Accessories

Installation

MDS • MD Series

119 mm – 25 mm Thick



Operating Voltage Range: ±15%  
Overheat Protection: Built-in Overheat Protection Circuit  
Color  
Frame: Unpainted (Aluminum)    Blades: Black  
Materials  
Frame: Die Cast Aluminum  
Blades: Polycarbonate (Flammability grade V-0)

42 mm

52 mm

Specifications



Series	Speed Type	Function	Product Name	Voltage VDC	Current A	Speed r/min	Max. Air Flow m <sup>3</sup> /min	Max. Static Pressure Pa	Noise Level dB(A)
MDS Series	Standard Speed	Standard Type	<b>MDS1225-12</b>	12	0.58	3000	2.7	70	46
MD Series	Standard Speed	Standard Type	<b>MD1225-12</b>	12	0.47	3100	2.5	43	45

62 mm

80 mm

92 mm

Product Line

Fan Only

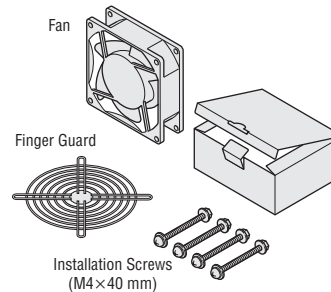
Product Name
<b>MDS1225-12</b>
<b>MD1225-12</b>

The following items are included with each product.  
Fan, Operating Manual

Fan Kit

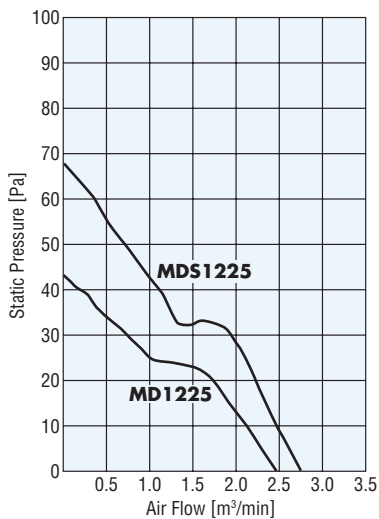
Product Name
<b>T-MDS1225-12-G</b>
<b>T-MD1225-12-G</b>

The following items are included in each kit.



Air Flow – Static Pressure Characteristics

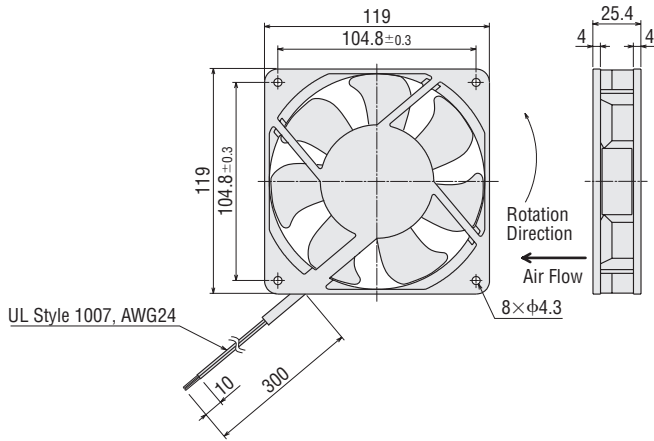
(The characteristics are applicable for the fan only.)



## Dimensions Unit: mm

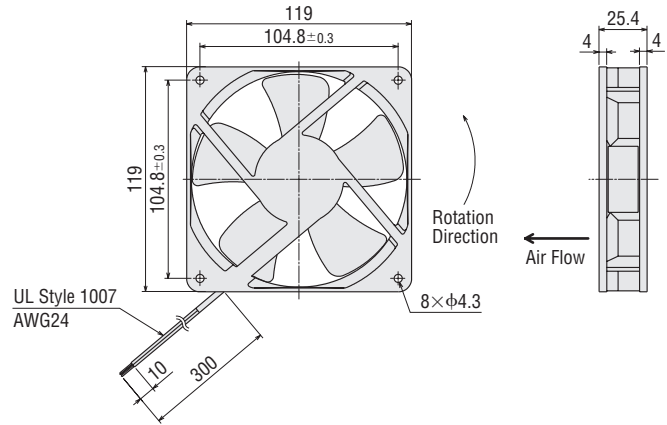
### ● MDS Series

Mass: 0.3 kg

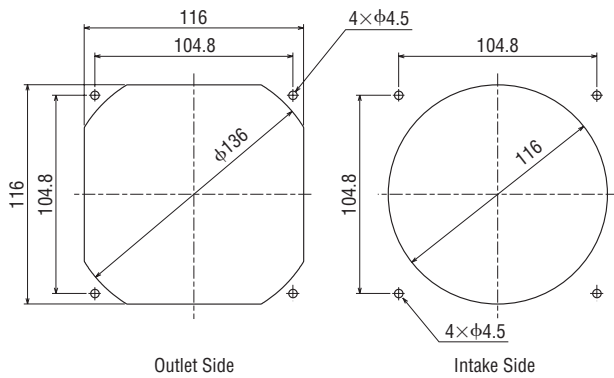


### ● MD Series

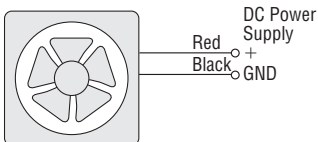
Mass: 0.19 kg



## Panel Cut-Out Unit: mm



## Connection Diagrams



## Accessories

Product	Product Name
Finger Guard	<b>FG12D</b>
Stainless Steel Finger Guard	<b>FG12S</b>
Filter	<b>FL12</b>
Metallic Filter	<b>FLW12</b>
Screen	<b>FS12S</b>

Overview,  
Product  
Series

Axial  
Flow  
Fans

AC Input  
Energy Saving  
**EMU**

AC Input  
Energy Saving,  
Variable Flow  
**EMR**

AC Input  
Compact Size  
**MU**

AC Input  
Long-Life  
**MRE**

DC Input  
MDS  
**MD**

DC Input  
Alarm  
**MDA**

DC Input  
Long-Life  
**MDE**

Centrifugal  
Blowers

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

Cross Flow Fans

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

Accessories

Installation

MDS Series

140 mm – 51 mm Thick



With Stall Alarm

Operating Voltage Range: ±15%  
Overheat Protection: Built-in Overheat Protection Circuit  
Color  
Frame: Unpainted (Aluminum) Blades: Black  
Materials  
Frame: Die Cast Aluminum  
Blades: Polycarbonate (Flammability grade V-0)

42 mm

52 mm

62 mm

80 mm

92 mm

119 mm

140 mm

φ172 mm

Specifications



Series	Speed Type	Function	Product Name	Voltage VDC	Current A	Speed r/min	Max. Air Flow m <sup>3</sup> /min	Max. Static Pressure Pa	Noise Level dB (A)
MDS Series	Standard Speed	Standard Type	MDS1451-24	24	0.7	3150	5.8	130	49

Product Line

Fan Only

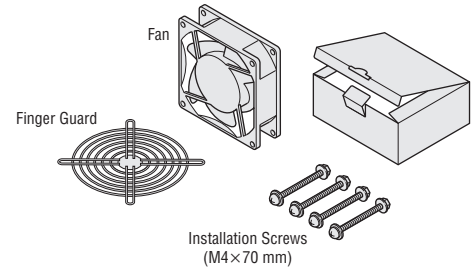
Product Name
MDS1451-24

The following items are included with each product.  
Fan, Operating Manual

Fan Kit

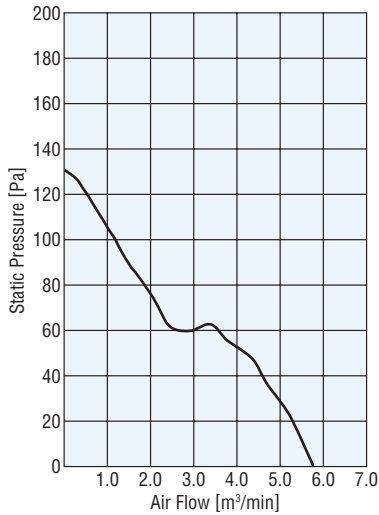
Product Name
T-MDS1451-24-G

The following items are included in each kit.



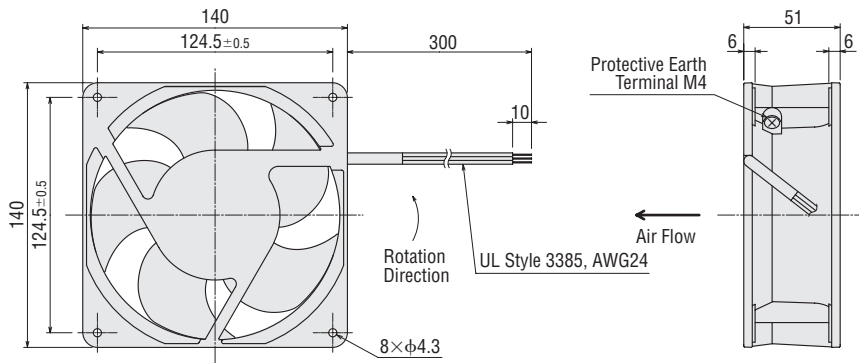
Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)

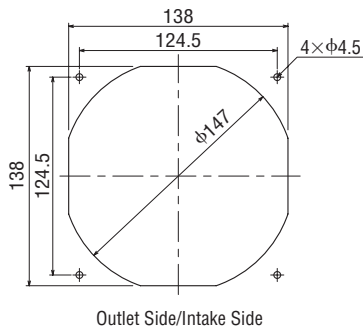


## Dimensions Unit: mm

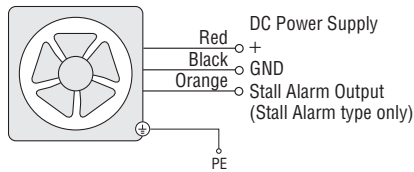
Mass: 0.65 kg



## Panel Cut-Out Unit: mm



## Connection Diagrams



## Accessories

Product	Product Name
Finger Guard	<b>FG14D</b>
Stainless Steel Finger Guard	<b>FG14S</b>
Filter	<b>FL14</b>
Metallic Filter	<b>FLW14</b>

Overview,  
Product  
Series

Axial  
Flow  
Fans

AC Input  
Energy Saving  
**EMU**

AC Input  
Energy Saving,  
Variable Flow  
**EMR**

AC Input  
Compact Size  
**MU**

AC Input  
Long-Life  
**MRE**

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

DC Input  
Alarm  
**MDA**

DC Input  
Long-Life  
**MDE**

Centrifugal  
Blowers

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

Cross Flow Fans

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

Accessories

Installation



MDS Series

φ172 mm – 51 mm Thick



Operating Voltage Range: ±15%  
Overheat Protection: Built-in Overheat Protection Circuit  
Color: Frame: Unpainted (Aluminum) Blades: Black  
Materials: Frame: Die Cast Aluminum  
Blades: Polycarbonate (Flammability grade V-0)

□42 mm

□52 mm

□62 mm

□80 mm

□92 mm

□119 mm

□140 mm

φ172 mm

Specifications



Series	Speed Type	Product Name	Voltage VDC	Current A	Speed r/min	Max. Air Flow m <sup>3</sup> /min	Max. Static Pressure Pa	Noise Level dB (A)
MDS Series	Standard Speed Type	MDS1751-24	24	0.7	3200	6	137	47

● Only MDS1751-24 lead wire model is DEMKO certified.

Product Line

Fan Only

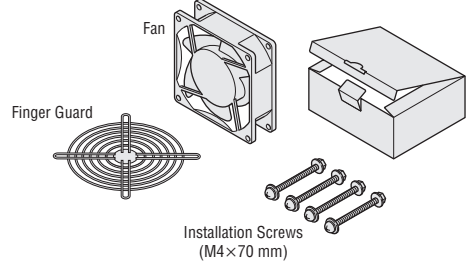
Product Name
MDS1751-24

The following items are included with each product.  
Fan, Operating Manual

Fan Kit

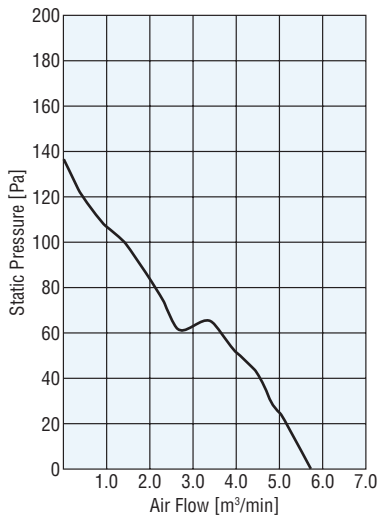
Product Name
T-MDS1751-24-G

The following items are included in each kit.



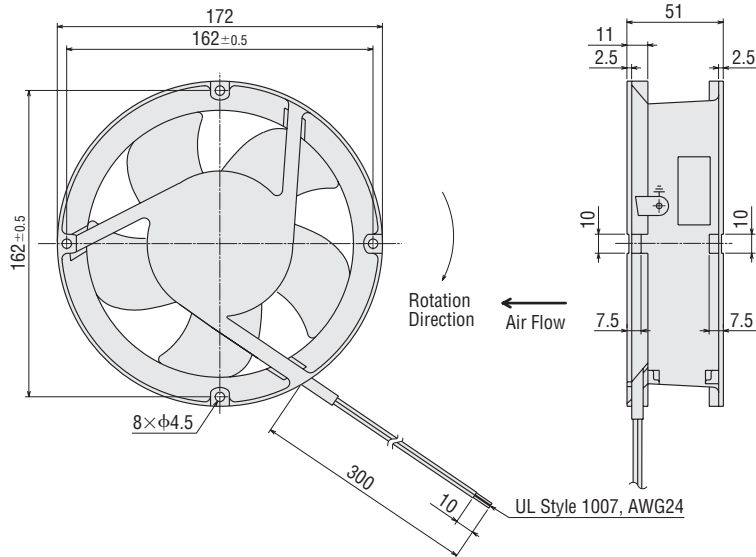
Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)

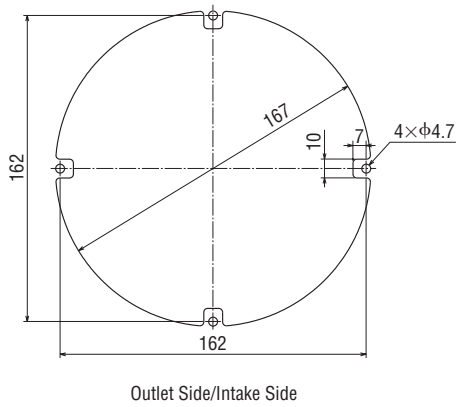


## Dimensions Unit: mm

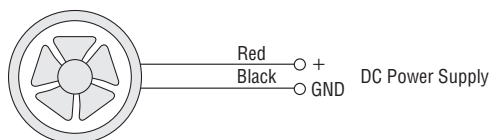
Mass: 0.9 kg



## Panel Cut-Out Unit: mm



## Connection Diagrams



## Accessories

Product	Product Name
Finger Guard	<b>FG17D</b>

Overview,  
Product  
Series

Axial  
Flow  
Fans

AC Input  
Energy Saving  
**EMU**

AC Input  
Energy Saving,  
Variable Flow  
**EMR**

AC Input  
Compact Size  
**MU**

AC Input  
Long-Life  
**MRE**

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

DC Input  
Alarm  
**MDA**

DC Input  
Long-Life  
**MDE**

Centrifugal  
Blowers

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

Cross Flow Fans

AC Input  
**MF**  
DC Input  
**MGD**

Accessories

Installation

Cooling Fans

# Accessories

	Page
Finger Guards.....	G-100
Filters.....	G-103
Screens .....	G-106
Plug Cords for Connection to Power Supply .....	G-107
Power Supply Cables .....	G-107
External Speed Potentiometer .....	G-108

Overview,  
Product  
Series

Axial  
Flow  
Fans

AC Input  
Energy Saving  
**EMU**

AC Input  
Energy Saving,  
Variable Flow  
**EMR**

AC Input  
Compact Size  
**MU**

AC Input  
Long-Life  
**MRE**

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

DC Input  
Alarm  
**MDA**

DC Input  
Long-Life  
**MDE**

Centrifugal  
Blowers

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

Cross Flow Fans

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

Accessories

Accessories

Installation

# Finger Guards

## Stainless Steel Finger Guards

It is very dangerous to touch fan blades when the fan is operating. Finger guards prevent fingers or foreign objects from entering the device. Finger guards are mounted to the fan frame using bolts.

● Finger Guards

Material: Steel wire Finish: Chrome plating

● Stainless Steel Finger Guards

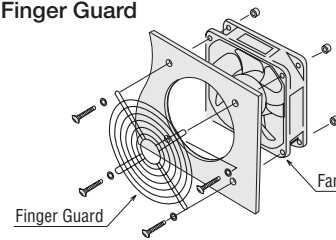
Material: Stainless steel Finish: Electropolish

● For the **EMU** Series, **MU** Series, **MDS** Series, **MD** Series, **MDA** Series and **MDE** Series, if the installation screws included in the fan kit product are used, finger guards can be installed on both sides of the fan. (When the installation panel thickness is 2 mm or less)



For Axial Flow Fans

### Installing the Finger Guard

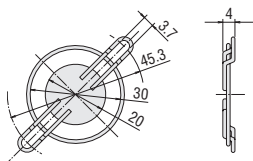


### Dimensions Unit: mm

● Finger Guards for Axial Flow Fans

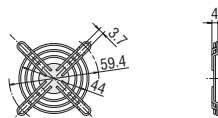
**FG4D**..... for **MDS410**

Mass: 4.2 g



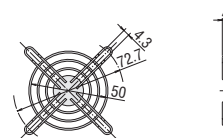
**FG5D**..... for **MDS510**

Mass: 7.7 g



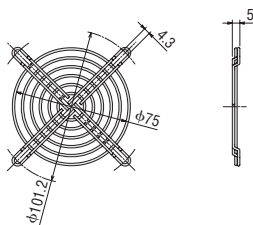
**FG6D**..... for **MD625** and **MDA625**

Mass: 8.3 g



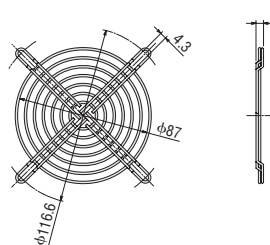
**FG8D**..... for **MU825**, **MD825** and **MDA825**

Mass: 23 g



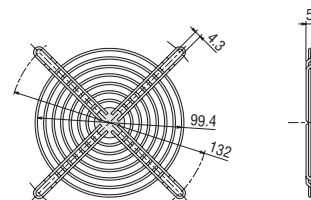
**FG9D**..... for **MU925**, **MD925** and **MDA925**

Mass: 28 g



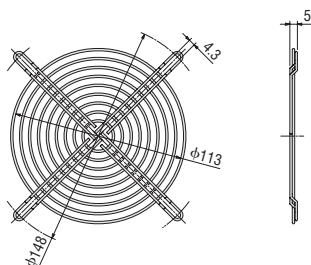
**FG10D**..... for **MU1025**

Mass: 34 g



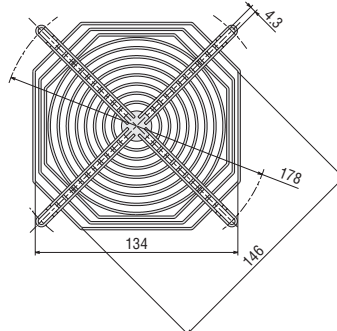
**FG12D**..... for **EMU1238**, **MU1225**, **MU1238**, **MD1225**, **MDS1225**, **MDA1225** and **MDE1225**

Mass: 42 g



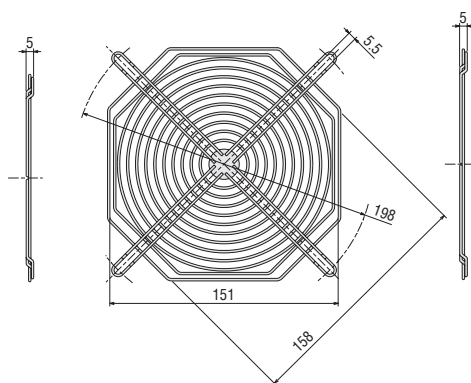
**FG14D**..... for **MU1428**, **MDS1451**, **MDA1451** and **MDE1451**

Mass: 64 g

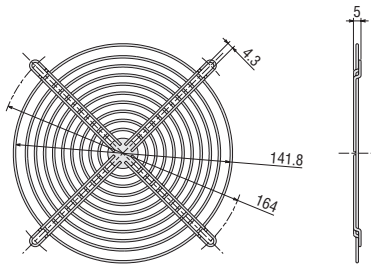


**FG16D**..... for **MRE16**

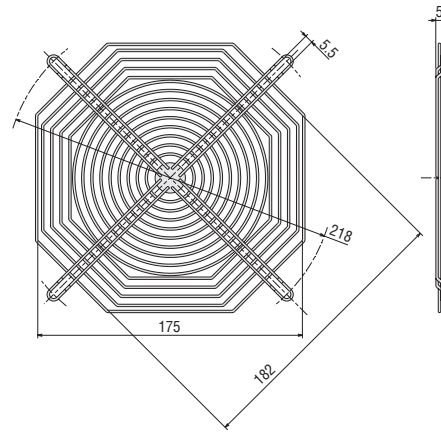
Mass: 75 g



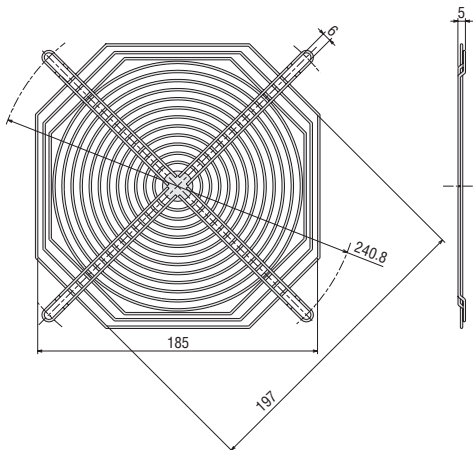
**FG17D**..... for **MDS1751** and **MDA1751**  
Mass: 57 g



**FG18D**..... for **MRE18**  
Mass: 95 g



**FG20D**..... for **MRE20**  
Mass: 105 g



Overview,  
Product  
Series

Axial  
Flow  
Fans

AC Input  
Energy Saving  
**EMU**

AC Input  
Energy Saving,  
Variable Flow  
**EMR**

AC Input  
Compact Size  
**MU**

AC Input  
Long-Life  
**MRE**

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

DC Input  
Alarm  
**MDA**

DC Input  
Long-Life  
**MDE**

Centrifugal  
Blowers

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

Cross Flow Fans

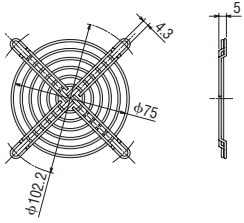
AC Input  
**MF**  
DC Input  
**MFD**

Accessories

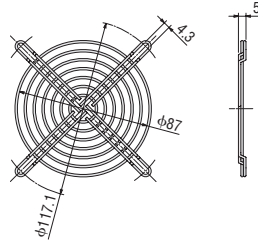
Installation

● Stainless Steel Finger Guards for Axial Flow Fans

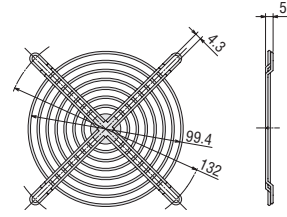
**FG85**..... for **MU825, MD825** and **MDA825**  
Mass: 22 g



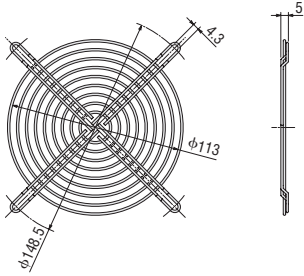
**FG95**..... for **MU925, MD925** and **MDA925**  
Mass: 27 g



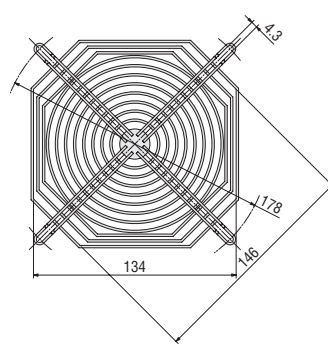
**FG105**..... for **MU1025**  
Mass: 33 g



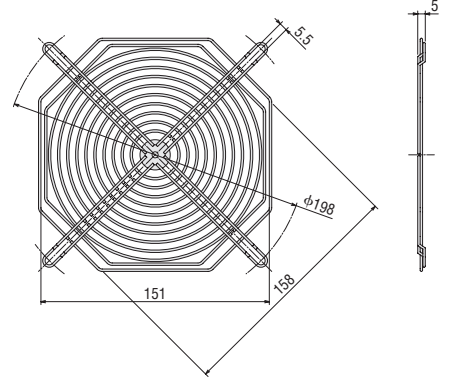
**FG125**..... for **EMU1238, MU1225, MU1238, MD1225, MDS1225, MDA1225** and **MDE1225**  
Mass: 41 g



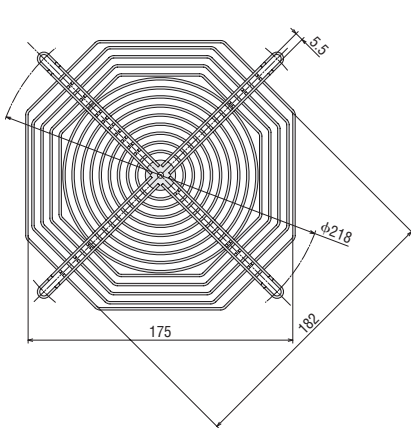
**FG145**..... for **MU1428, MDS1451, MDA1451** and **MDE1451**  
Mass: 64 g



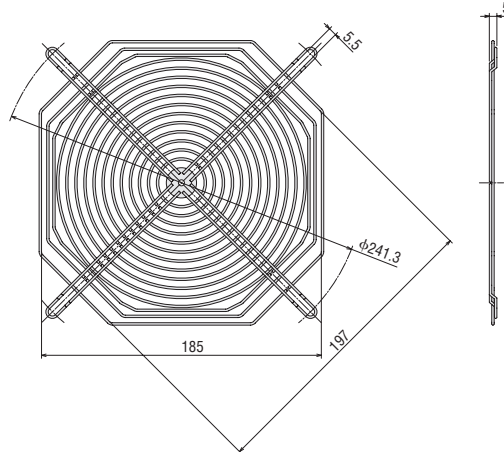
**FG165**..... for **MRE16**  
Mass: 73 g



**FG185**..... for **MRE18**  
Mass: 92 g



**FG205**..... for **MRE20**  
Mass: 103 g



# Filters

## Metallic Filters

When using a fan to cool machinery, dust may accumulate inside the machinery after long periods of operation. Depending on the parts involved, this could cause a malfunction.

These filters prevent dust from entering the device, keeping the air inside the machinery dust free.

Additionally, because the material of the metallic filter is stainless metal, there is no worry of rust or corrosion and it is possible to remove deposits by washing or vacuuming with a vacuum cleaner.

The filter and metal filter consist of the following three parts:

### ● Filter

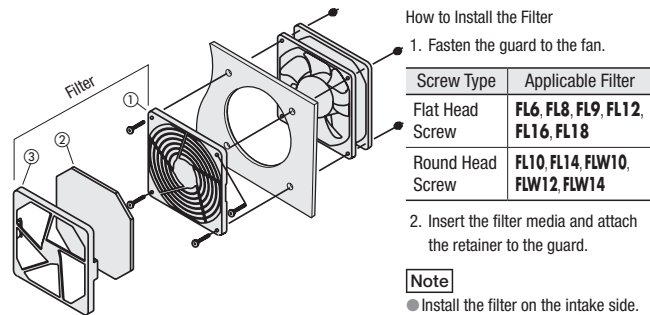
- ① Guard : Plastic finger guard  
Flammability grade: V-0
- ② Filter Media: Polyurethane air-cleaning filter media 20 to 45 PPI  
(PPI: The number of air bubbles per inch)
- ③ Retainer : Plastic retainer for filtering material  
Flammability grade: V-0

### ● Metallic Filter

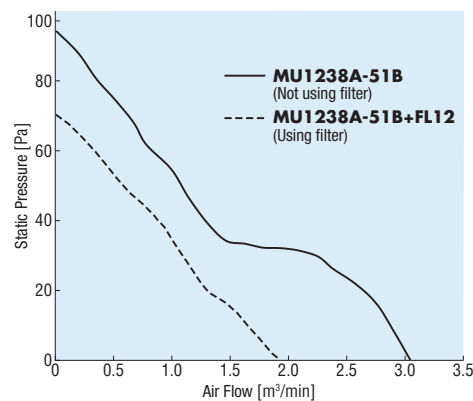
- ① Guard : Nylon resin finger guard  
Flammability grade: V-0
  - ② Filter Media: Stainless media 30 mesh  
(Mesh: Number of square holes per 1 inch)
  - ③ Retainer : Nylon resin retainer for filtering material  
Flammability grade: V-0
- The filter media and the retainer of the filter and metallic filter can be attached and detached very easily for washing or other kinds of maintenance.



Installing the Filter



### Example of Air Flow – Static Pressure Characteristics When Using a Filter

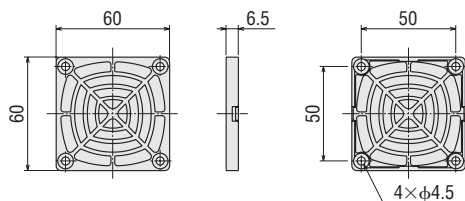


### Dimensions Unit: mm

#### ● Filters for Axial Flow Fans

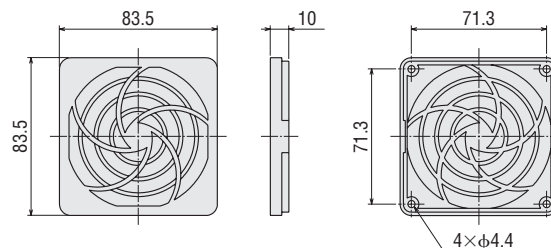
##### FL6..... for MD625 and MDA625

Mass: 11 g (Filter media: 45 PPI)



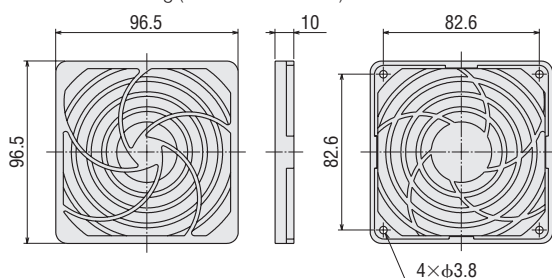
##### FL8..... for MU825, MD825 and MDA825

Mass: 19 g (Filter media: 20 PPI)



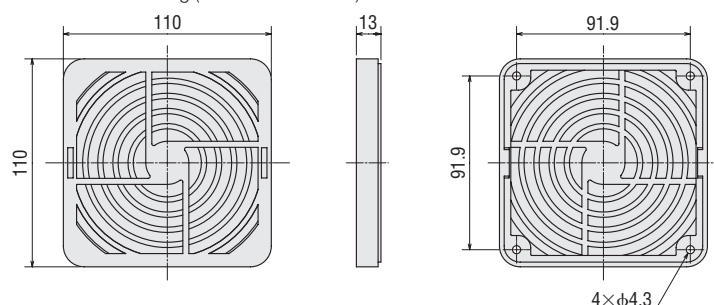
##### FL9..... for MU925, MD925 and MDA925

Mass: 26 g (Filter media: 20 PPI)



##### FL10..... for MU1025

Mass: 63 g (Filter media: 30 PPI)



Overview,  
Product  
Series

Axial  
Flow  
Fans

AC Input  
Energy Saving  
EMU

AC Input  
Energy Saving,  
Variable Flow  
EMR

AC Input  
Compact Size  
MU

AC Input  
Long-Life  
MRE

DC Input  
MDS  
MD

DC Input  
Alarm  
MDA

DC Input  
Long-Life  
MDE

Centrifugal  
Blowers

AC Input  
MB  
DC Input  
MBD

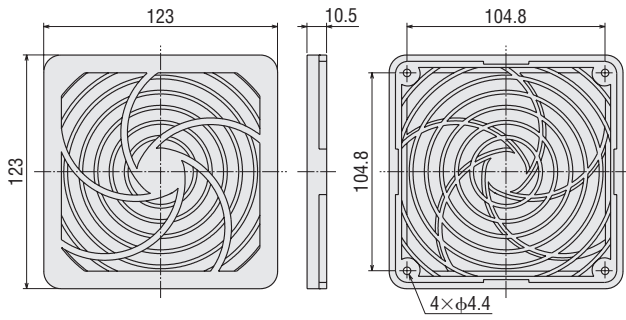
Cross Flow Fans

AC Input  
MF  
DC Input  
MFD

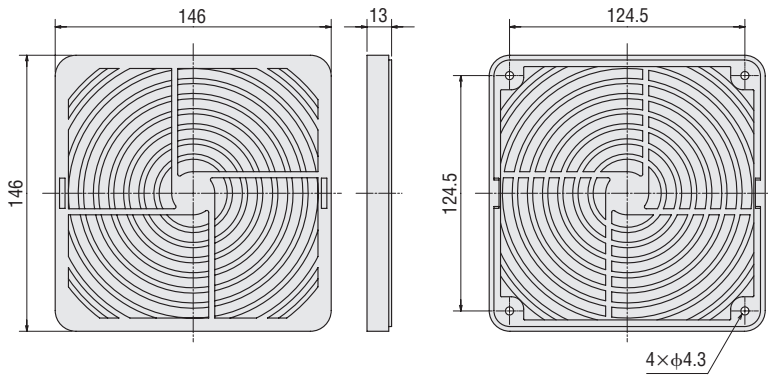
Accessories

Installation

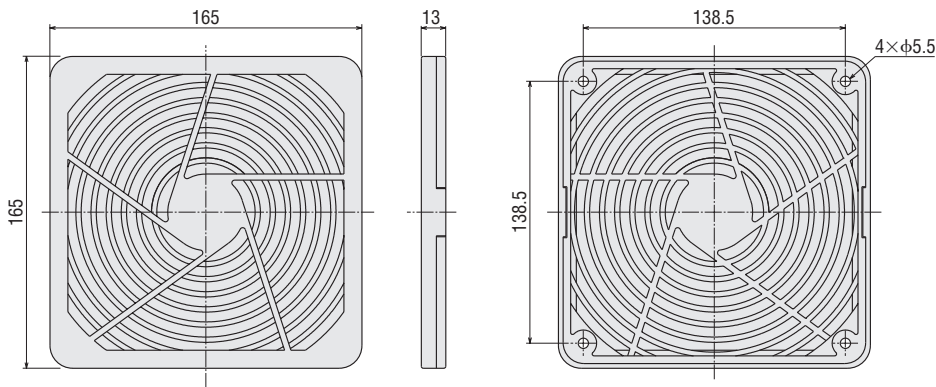
**FL12**..... for **EMU1238, MU1225, MU1238, MDS1225, MD1225, MDA1225** and **MDE1225**  
 Mass: 46 g (Filter media: 20 PPI)



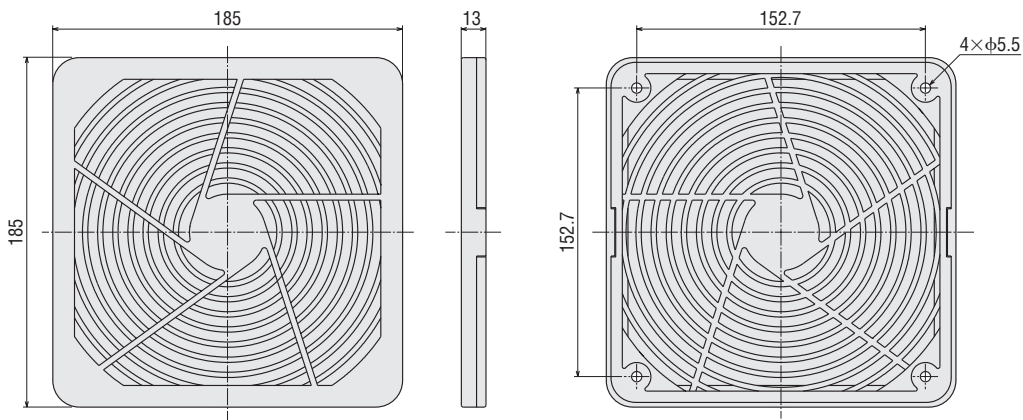
**FL14**..... for **MU1428, MDS1451, MDA1451** and **MDE1451**  
 Mass: 92 g (Filter media: 30 PPI)



**FL16**..... for **MRE16**  
 Mass: 126 g (Filter media: 30 PPI)



**FL18**..... for **MRE18**  
 Mass: 165 g (Filter media: 30 PPI)

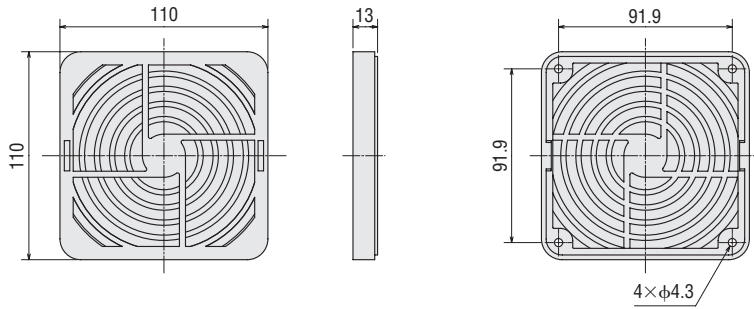




## ● Metallic Filters for Axial Flow Fans

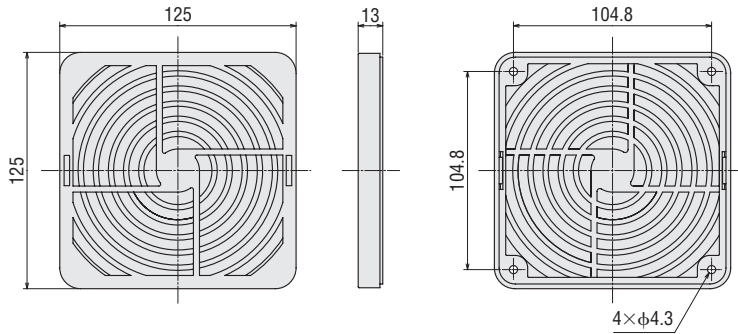
### FLW10..... for MU1025

Mass: 86 g (Filter media: 30 mesh)



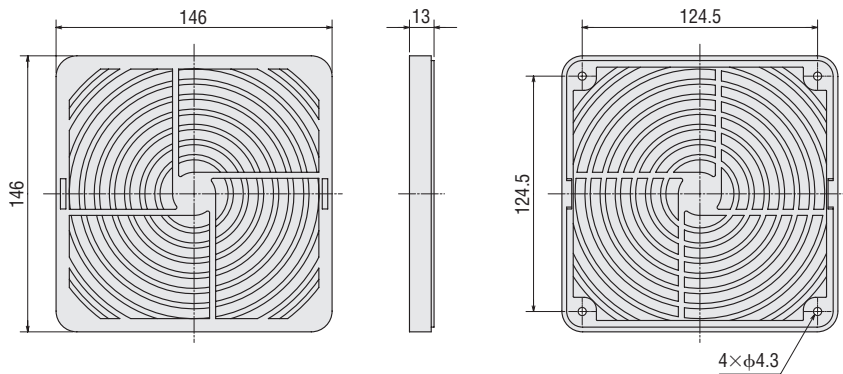
### FLW12..... for EMU1238, MU1225, MU1238, MDS1225, MD1225, MDA1225 and MDE1225

Mass: 104 g (Filter media: 30 mesh)



### FLW14..... for MU1428, MDS1451, MDA1451 and MDE1451

Mass: 130 g (Filter media: 30 mesh)



## ■ Replacement Filter Media

### ● Filter Medias for Filters

Product Name	Applicable Filter
<b>FLM6</b>	<b>FL6</b>
<b>FLM8</b>	<b>FL8</b>
<b>FLM9</b>	<b>FL9</b>
<b>FLM10</b>	<b>FL10</b>
<b>FLM12</b>	<b>FL12</b>
<b>FLM14</b>	<b>FL14</b>
<b>FLM16</b>	<b>FL16</b>
<b>FLM18</b>	<b>FL18</b>

### ● Filter Medias for Metallic Filters

Product Name	Applicable Filter
<b>FLWM10</b>	<b>FLW10</b>
<b>FLWM12</b>	<b>FLW12</b>
<b>FLWM14</b>	<b>FLW14</b>

#### Note

- One package contains five filter media for filters.
- One package contains one filter media for metallic filters.
- When ordering, please specify the quantity by the number of packages.
- List price indicates the price with one package.

Overview,  
Product  
Series

Axial  
Flow  
Fans

AC Input  
Energy Saving  
**EMU**

AC Input  
Energy Saving,  
Variable Flow  
**EMR**

AC Input  
Compact Size  
**MU**

AC Input  
Long-Life  
**MRE**

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

DC Input  
Alarm  
**MDA**

DC Input  
Long-Life  
**MDE**

Centrifugal  
Blowers

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

Cross Flow Fans

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

Accessories

Installation

# Screens

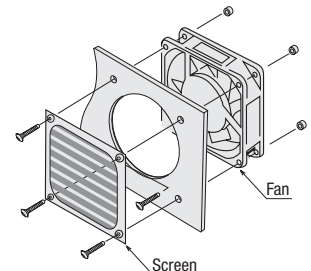
Fans are used to cool or ventilate electronic devices that may generate electromagnetic waves. These waves can escape from the fan cooling holes, causing interference to computers and measuring instruments.

The screens allow the passage of air, but block electromagnetic waves.

The screen is a durable magnetic shield using a stainless mesh fixed to an aluminum frame. Screens are easily attached to the fan using screws.

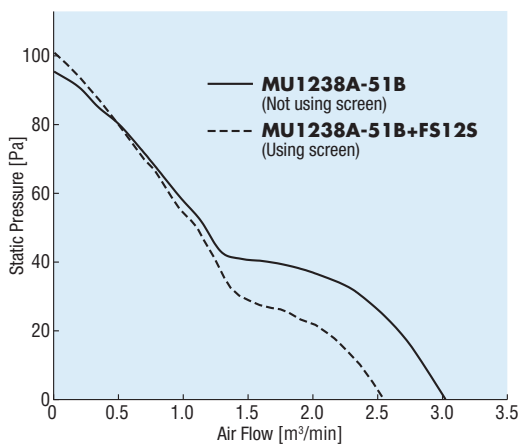


Installing the Screen



- Install from the flat side of the fan.
- To shut out electromagnetic waves, it is necessary to install such that there is no gap between the screen edges and the enclosure.

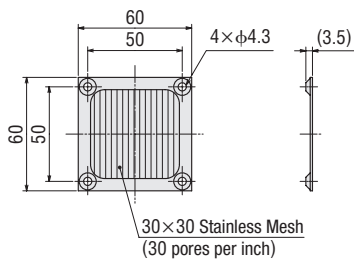
## Example of Air Flow – Static Pressure Characteristics When Using a Screen



### Dimensions Unit: mm

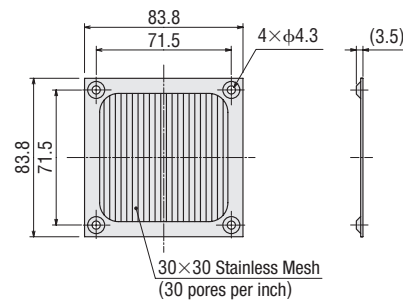
#### FS6S ..... for MD625 and MDA625

Mass: 7 g



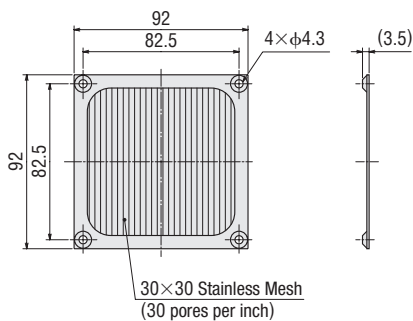
#### FS8S ..... for MU825, MD825 and MDA825

Mass: 15 g



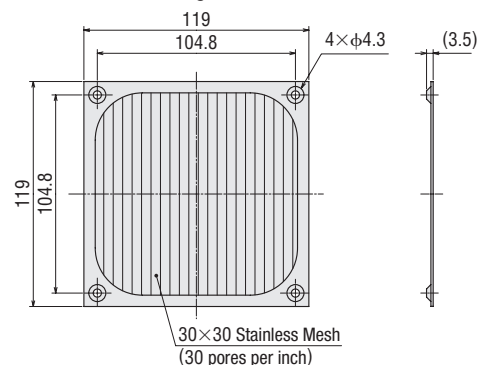
#### FS9S ..... for MU925, MD925 and MDA925

Mass: 16 g



#### FS12S ..... for EMU1238, MU1225, MU1238, MDS1225, MD1225, MDA1225 and MDE1225

Mass: 24 g



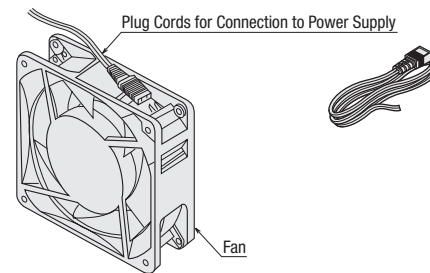
# Plug Cords for Connection to Power Supply

This plug cord is for use with the **EMU** Series and **MU** Series fans, providing terminals for connection to the power supply.

Regulations & Standards: UL Standards, CSA Standards, Electrical Appliance and Material Safety Law

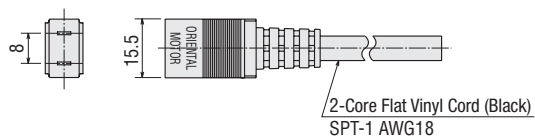
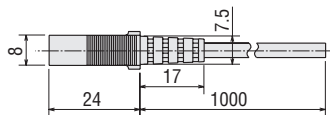


Connecting the Plug Cord

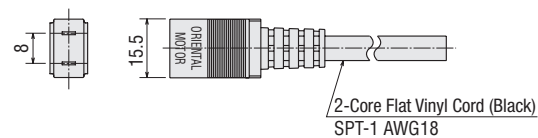
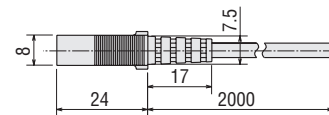


## Dimensions Unit: mm

**PCA2B**..... 1 m



**PCA2B2**..... 2 m



# Power Supply Cables

These cables are used to connect the **EMR** Series fans and the power supply.

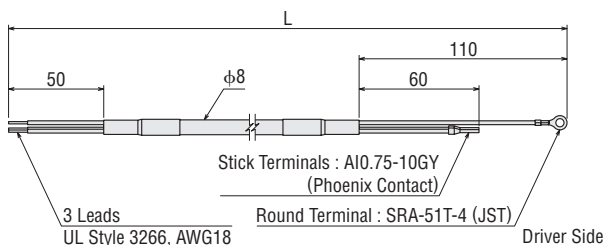
## Product Line

Product Name	Power Supply Voltage	Length L [m]
<b>CC01AC03N</b>	Single-Phase 100-240 VAC	1
<b>CC02AC03N</b>		2
<b>CC03AC03N</b>		3
<b>CC01AC04N</b>	Three-Phase 200-240 VAC	1
<b>CC02AC04N</b>		2
<b>CC03AC04N</b>		3

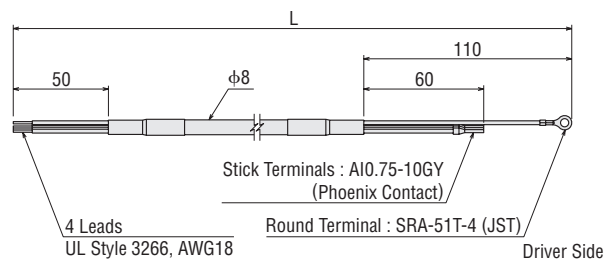


## Dimensions Unit: mm

● For Single-Phase



● For Three-Phase



Overview,  
Product  
Series

Axial  
Flow  
Fans

AC Input  
Energy Saving  
**EMU**

AC Input  
Energy Saving,  
Variable Flow  
**EMR**

AC Input  
Compact Size  
**MU**

AC Input  
Long-Life  
**MRE**

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

DC Input  
Alarm  
**MDA**

DC Input  
Long-Life  
**MDE**

Centrifugal  
Blowers

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

Cross Flow Fans

AC Input  
**MF**  
DC Input  
**MGD**

Accessories

Installation

# External Speed Potentiometer

This is a potentiometer used for setting the speed of the **EMR** Series fan.

## Product Line

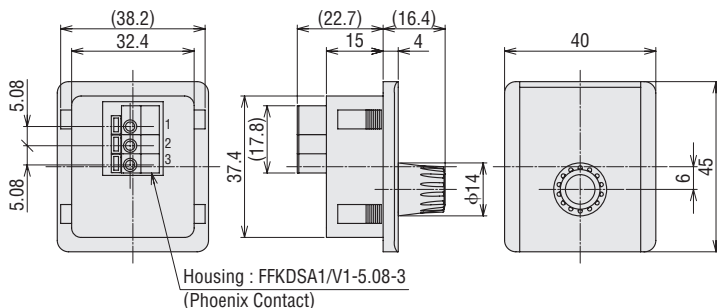
(0-20 k $\Omega$  0.05 W, with a linear resistance vs. angle curve)

Product Name	Applicable Products
<b>PAVR2-20K</b>	<b>EMR Series</b>



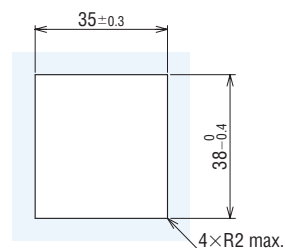
## Dimensions Unit: mm

Mass: 25 g



## Panel Cut-Out

Thickness of the mounting plate: 1.5 to 3 mm



# Orientalmotor

These products are manufactured at plants certified with the international standards **ISO 9001** (for quality assurance) and **ISO 14001** for systems of environmental management.

Specifications are subject to change without notice. This catalogue was published in January 2024.

### ORIENTAL MOTOR (EUROPA) GmbH

#### European Headquarters

Schießstraße 44  
40549 Düsseldorf, Germany  
Tel: 0211 5206700 Fax: 0211 52067099

#### Spanish Office

C/Caléndula 93 - Ed. E - Miniparc III  
28109 El Soto de La Moraleja,  
Alcobendas (Madrid), Spain  
Tel: +34 918 266 565

### ORIENTAL MOTOR (UK) LTD.

#### UK Headquarters

Unit 5, Faraday Office Park,  
Rankine Road, Basingstoke,  
Hampshire RG24 8AH, U.K.  
Tel: +44 1256 347090 Fax: +44 1256 347099

### ORIENTAL MOTOR SWITZERLAND AG

#### Switzerland Headquarters

Badenerstrasse 13  
5200 Brugg AG, Switzerland  
Tel: +41 56 560 50 45 Fax: +41 56 560 50 47

### ORIENTAL MOTOR ITALIA s.r.l.

#### Italy Headquarters

Via XXV Aprile 5  
20016 Pero (MI), Italy  
Tel: +39 2 93906346 Fax: +39 2 93906348

### ORIENTAL MOTOR (FRANCE) SARL

#### France Headquarters

56, Rue des Hautes Pâtures  
92000 Nanterre, France  
Tel: +33 1 47 86 97 50 Fax: +33 1 47 82 45 16

### Customer Service Center

(Support in German & English)

00800 22 55 66 22\*

Mon - Thu: 08:00 - 16:30 CET  
Friday: 08:00 - 15:00 CET

\*Free Call Europe

info@orientalmotor.de

WWW.ORIENTALMOTOR.EU

EN | DE | UK | IT | FR | ES