

# AC Input/Compact Size MU Series

<Additional Information>

- Technical reference → Page H-1
- Regulations & Standards → Page I-2



● For detailed information about regulations and standards, please see the Oriental Motor website.



These compact AC axial flow fans are available in frame sizes ranging from □80 mm (□3.15 in.) to □119 mm (□4.69 in.) and conform to major safety standards.

Depending on the frame size, different speed types are available, from Low Speed, Middle Speed to Standard Speed.

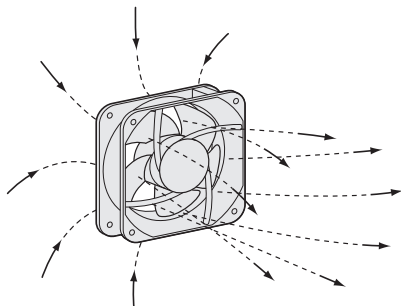


View Expanded Product Information, Specifications, CAD, Accessories & more online. Visit [www.orientalmotor.com/catalog](http://www.orientalmotor.com/catalog) or use the QR code and select "MU Series".

## Features

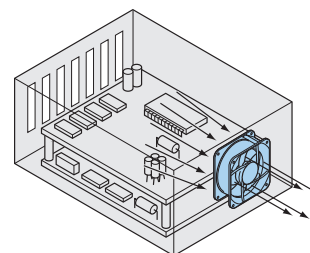
### Axial Flow Fans

Axial flow fans use a propeller to generate airflow in the direction of the axis of rotation. Capable of generating a large air flow, axial flow fans are suited for applications requiring ventilation cooling.



### Device Ventilation and Cooling

The large airflow of axial flow fans is suitable for ventilation and cooling inside electronic devices.

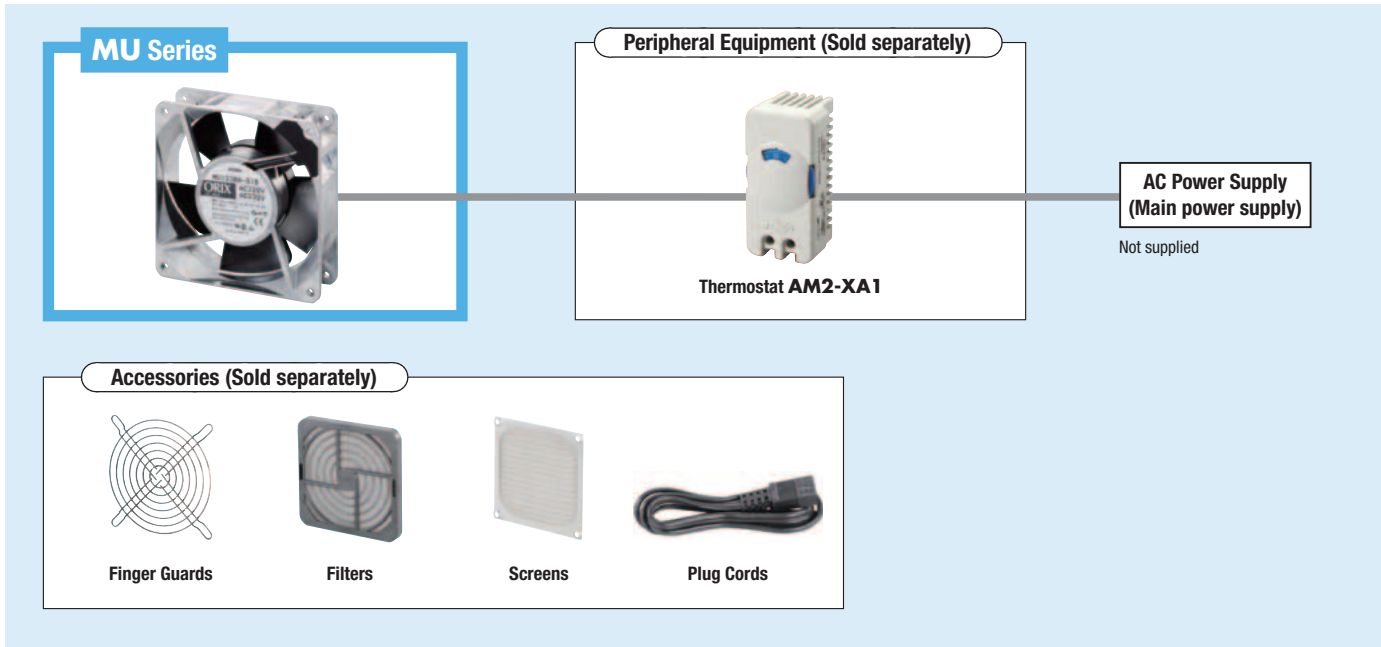


## Product Line

A product line of 4 fan sizes are available, with frame sizes from □80 mm (□3.15 in.) to □119 mm (□4.69 in.).

	<b>MU825</b>	<b>MU925</b>	<b>MU1225</b>	<b>MU1238</b>
Frame Size	□80 mm – 25 mm thick (□3.15 in. – 0.98 in. thick)	□92 mm – 25 mm thick (□3.62 in. – 0.98 in. thick)	□119 mm – 25 mm thick (□4.69 in. – 0.98 in. thick)	□119 mm – 38 mm thick (□4.69 in. – 1.50 in. thick)
Power Supply Voltage	115 VAC	●	●	●
	220/230 VAC	●	●	●
Speed Type	Standard Speed	●	●	●
	Middle Speed		●	●
	Low Speed			●

## System Configuration



### ● Example of System Configuration

Fan	Sold Separately		
	Thermostat	Finger Guard	Plug Cord [1 m (3.3 ft.)]
<b>MU1238A-21B</b> \$28.00	<b>AM2-XA1</b> \$35.00	<b>FG12D</b> \$6.00	<b>PCA2B</b> \$6.00

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

## Product Number

### ● Fan Only

**MU 12 38 A - 2 1 B**

① ② ③ ④ ⑤ ⑥ ⑦

① Series	<b>MU: MU Series</b>
② Frame Size	<b>8:</b> 80 mm (3.15 in.) <b>9:</b> 92 mm (3.62 in.) <b>12:</b> 119 mm (4.69 in.)
③ Frame Thickness	<b>25:</b> 25 mm (0.98 in.) <b>38:</b> 38 mm (1.50 in.)
④ Speed Type	<b>A, S:</b> Standard Speed <b>M, B:</b> Middle Speed <b>L:</b> Low Speed
⑤ Power Supply Voltage	<b>2:</b> Single-Phase 115 VAC <b>5:</b> Single-Phase 220/230 VAC
⑥ Power Connection	<b>1:</b> 2-Terminal <b>3:</b> Lead Wire Type
⑦ Reference Number	

### ● Fan Kit

**T - MU1238A-21B - GP**

① ② ③

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

Overview, Product Series

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

Accessories

Installation

## MU Series

80 mm – 25 mm Thick  
( 3.15 in. – 0.98 in. Thick)



Operating Voltage Range: ±10%  
Overheat Protection: Impedance Protected  
Color  
Frame: Unpainted (Aluminum)    Blades: Black  
Materials  
Frame: Die Cast Aluminum  
Blades: Polycarbonate (Flammability grade V-0)

80 mm  
( 3.15 in.)

92 mm  
( 3.62 in.)

119 mm  
( 4.69 in.)

140 mm  
( 5.51 in.)

160 mm  
( 6.30 in.)

180 mm  
( 7.09 in.)

200 mm  
( 7.87 in.)

250 mm  
( 9.84 in.)



### Specifications

Speed Type	Product Name	Voltage VAC	Frequency Hz	Current A	Input W	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB (A)
							m <sup>3</sup> /min	CFM	Pa	inH <sub>2</sub> O	
Standard Speed	<b>MU825S-23</b>	Single-Phase 115	50	0.11	9.5	2750	0.45	15.9	34	0.137	28
			60	0.09	8.0	3250	0.55	19.4	49	0.196	35
	<b>MU825S-53</b>	Single-Phase 220	50	0.06	8.5	2750	0.45	15.9	34	0.137	28
			50	0.07	10.5	2750	0.45	15.9	34	0.137	28
			60	0.06	8.0	3250	0.55	19.4	49	0.196	35

●Details of regulations and standards → Page I-2

### Product Line

#### ● Fan Only

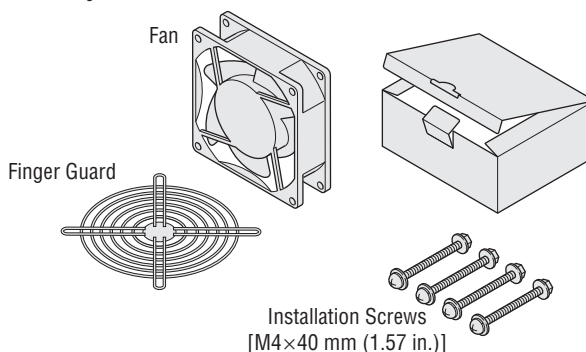
Product Name	List Price
<b>MU825S-23</b>	\$28.00
<b>MU825S-53</b>	\$29.00

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

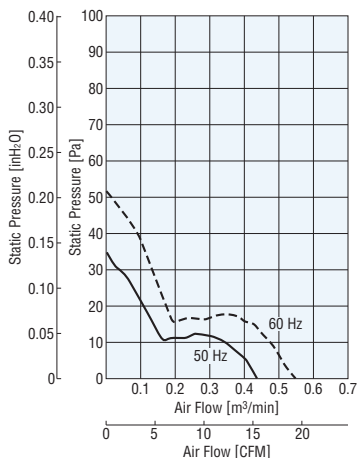
#### ● Fan Kit

Product Name	List Price
<b>T-MU825S-23-G</b>	\$33.00
<b>T-MU825S-53-G</b>	\$34.00

The following items are included in each kit.



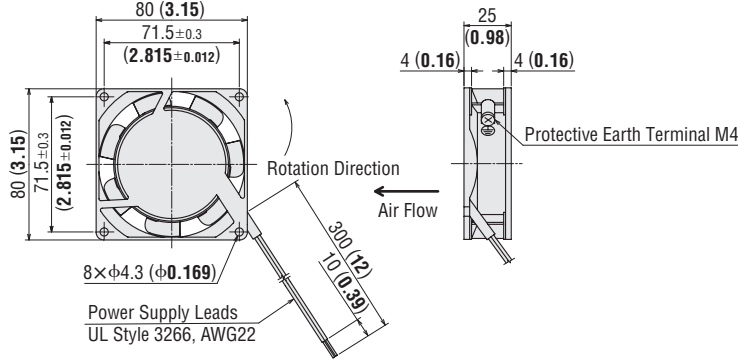
### Air Flow – Static Pressure Characteristics



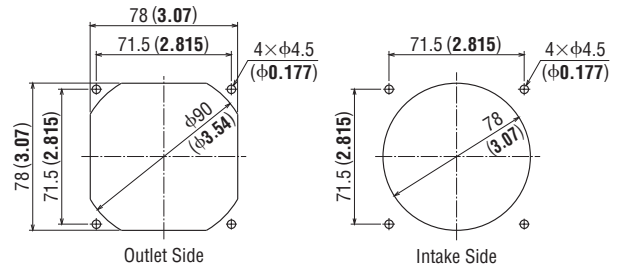
## ■ Dimensions Unit = mm (in.)

Mass: 0.25 kg (0.55 lb.)

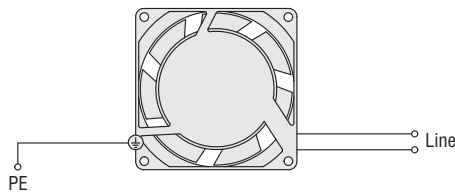
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## ■ Panel Cut-Out Unit = mm (in.)



## ■ Connection Diagram



## ■ Accessories

Product	Product Name	Page
Finger Guard	<b>FG8D</b>	G-108
Filter	<b>FL8</b>	G-110
Screen	<b>FS8S</b>	G-113

## ■ Thermostat

The thermostat automatically controls the operation of the fan in accordance with temperature fluctuations inside the equipment. This helps improve the equipment's "environmental" performance relative to energy savings, noise reduction, etc.



### Thermostat **AM2-XA1**

Number of Connectable Fans: 9

- Connect the power-supply lead wire by relaying to AWG 18~13.
- Page → G-104

Overview,  
Product  
Series

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

Accessories

Installation

# MU Series

92 mm – 25 mm Thick  
 3.62 in. – 0.98 in. Thick



Operating Voltage Range: ±10%  
Overheat Protection: Impedance Protected  
Color  
Frame: Unpainted (Aluminum)    Blades: Black  
Materials  
Frame: Die Cast Aluminum  
Blades: Polycarbonate (Flammability grade V-0)

80 mm  
 3.15 in.)

92 mm  
 3.62 in.)

119 mm  
 4.69 in.)

140 mm  
 5.51 in.)

160 mm  
 6.30 in.)

180 mm  
 7.09 in.)

200 mm  
 7.87 in.)

250 mm  
 9.84 in.)

## Specifications



Speed Type	Product Name	Voltage VAC	Frequency Hz	Current A	Input W	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB (A)
							m <sup>3</sup> /min	CFM	Pa	inH <sub>2</sub> O	
Standard Speed	<b>MU925S-21</b>	Single-Phase 115	50	0.11	9.5	2600	0.95	33.5	44	0.176	35
			60	0.10	8.0	3000	1.10	38.8	59	0.237	39
	<b>MU925S-51</b>	Single-Phase 220 Single-Phase 230	50	0.06	8.5	2600	0.95	33.5	44	0.176	35
			60	0.07	10.5	2600	0.95	33.5	44	0.176	35
Middle Speed	<b>MU925M-21</b>	Single-Phase 115	50	0.11	9.0	2300	0.85	30.0	34	0.137	31
			60	0.10	8.0	2700	1.00	35.8	44	0.176	36
	<b>MU925M-51</b>	Single-Phase 220 Single-Phase 230	50	0.06	8.5	2300	0.85	30.0	34	0.137	31
			60	0.06	9.5	2300	0.85	30.0	34	0.137	32
		Single-Phase 230	60	0.06	8.0	2700	1.00	35.8	44	0.176	36

●Details of regulations and standards → Page I-2

## Product Line

### ● Fan Only

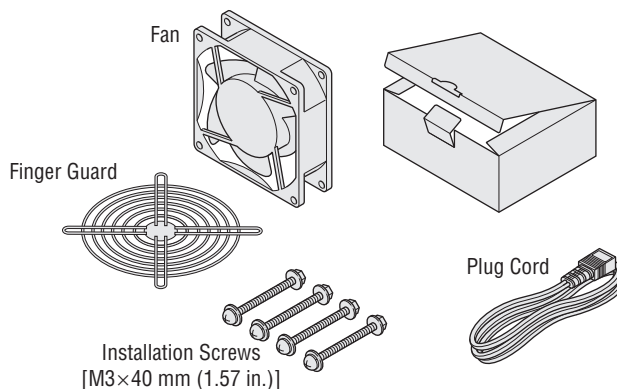
Product Name	List Price
<b>MU925S-21</b>	\$28.00
<b>MU925S-51</b>	\$29.00
<b>MU925M-21</b>	\$28.00
<b>MU925M-51</b>	\$29.00

### ● Fan Kit

Product Name	List Price
<b>T-MU925S-21-GP</b>	\$39.00
<b>T-MU925S-51-GP</b>	\$40.00
<b>T-MU925M-21-GP</b>	\$39.00
<b>T-MU925M-51-GP</b>	\$40.00

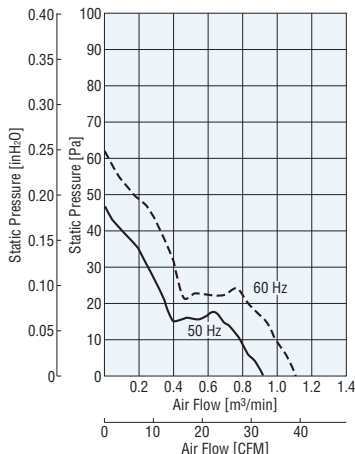
The following items are included with each product.  
Fan, Operating Manual

The following items are included in each kit.

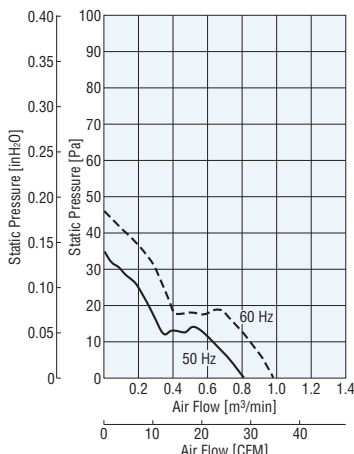


## Air Flow – Static Pressure Characteristics

### ● MU925S



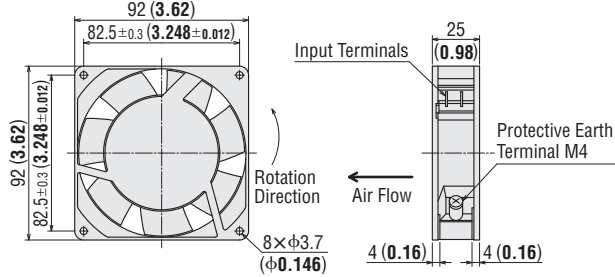
### ● MU925M



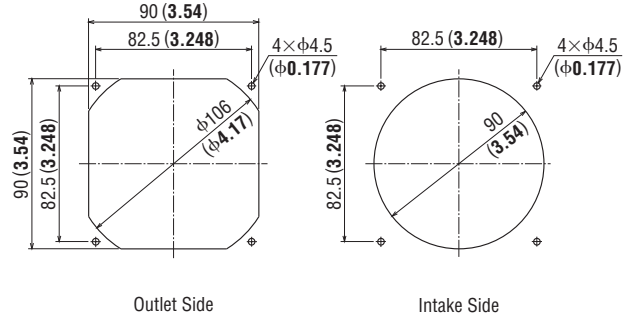
## ■ Dimensions Unit = mm (in.)

Mass: 0.27 kg (0.59 lb.)

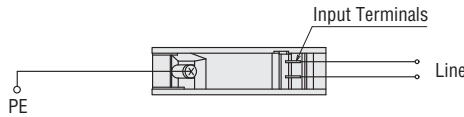
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## ■ Panel Cut-Out Unit = mm (in.)



## ■ Connection Diagram



## ■ Accessories

Product	Product Name	Page
Finger Guard	<b>FG9D</b>	G-108
Filter	<b>FL9</b>	G-111
Screen	<b>FS9S</b>	G-113
Plug Cord	<b>PCA2B</b> [1 m (3.3 ft.)]	G-114
	<b>PCA2B2</b> [2 m (6.6 ft.)]	

## ■ Thermostat

The thermostat automatically controls the operation of the fan in accordance with temperature fluctuations inside the equipment. This helps improve the equipment's "environmental" performance relative to energy savings, noise reduction, etc.



Thermostat **AM2-XA1**  
Number of Connectable Fans: 9  
● Page → G-104

## ■ Enclosure Fan Modules → G-96

This product integrates the **MU** Series fan with peripheral equipment such as the cover, filter media, frame and finger guard. Optimized cooling for control boxes.

- Dust and Water Resistant IP43-IP55 Type



→ G-101

Overview, Product Series

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

Accessories

Installation

# MU Series

119 mm – 25 mm Thick  
 4.69 in. – 0.98 in. Thick



Operating Voltage Range: ±10%  
Overheat Protection: Impedance Protected  
Color  
Frame: Unpainted (Aluminum)    Blades: Black  
Materials  
Frame: Die Cast Aluminum  
Blades: Polycarbonate (Flammability grade V-0)

80 mm  
 3.15 in.)

92 mm  
 3.62 in.)

119 mm  
 4.69 in.)

140 mm  
 5.51 in.)

160 mm  
 6.30 in.)

180 mm  
 7.09 in.)

200 mm  
 7.87 in.)

250 mm  
 9.84 in.)

## Specifications



Speed Type	Product Name	Voltage VAC	Frequency Hz	Current A	Input W	Speed r/min	Max. Air Flow m³/min	Max. Air Flow CFM	Max. Static Pressure Pa	Max. Static Pressure inH <sub>2</sub> O	Noise Level dB (A)
Standard Speed	<b>MU1225S-21</b>	Single-Phase 115	50	0.14	11.0	2500	1.6	56.5	49	0.196	36
			60	0.12	9.5	2950	1.9	67.1	44	0.176	40
	<b>MU1225S-51</b>	Single-Phase 220 Single-Phase 230 Single-Phase 230	50	0.07	10.5	2500	1.6	56.5	49	0.196	36
50			0.08	12.0	2500	1.6	56.5	49	0.196	36	
60			0.07	10.0	2950	1.9	67.1	44	0.176	40	
Middle Speed	<b>MU1225M-21</b>	Single-Phase 115	50	0.13	10.5	2250	1.4	49.4	32	0.129	33
			60	0.11	9.0	2600	1.7	60	31	0.125	37
	<b>MU1225M-51</b>	Single-Phase 220 Single-Phase 230 Single-Phase 230	50	0.07	10.0	2250	1.4	49.4	32	0.129	33
50			0.07	12.0	2250	1.4	49.4	32	0.129	33	
60			0.07	9.5	2600	1.7	60	31	0.125	37	

●Details of regulations and standards → Page I-2

## Product Line

### ● Fan Only

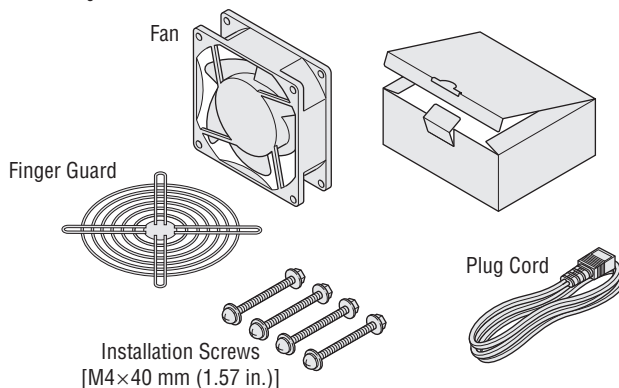
Product Name	List Price
<b>MU1225S-21</b>	\$28.00
<b>MU1225S-51</b>	\$29.00
<b>MU1225M-21</b>	\$28.00
<b>MU1225M-51</b>	\$29.00

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

### ● Fan Kit

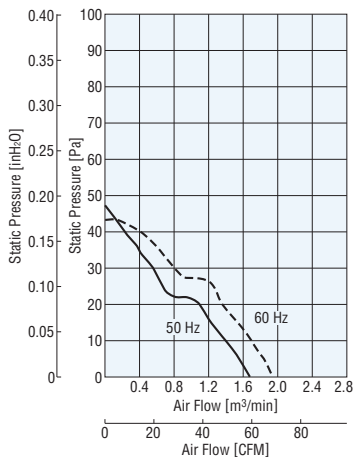
Product Name	List Price
<b>T-MU1225S-21-GP</b>	\$40.00
<b>T-MU1225S-51-GP</b>	\$41.00
<b>T-MU1225M-21-GP</b>	\$40.00
<b>T-MU1225M-51-GP</b>	\$41.00

The following items are included in each kit.

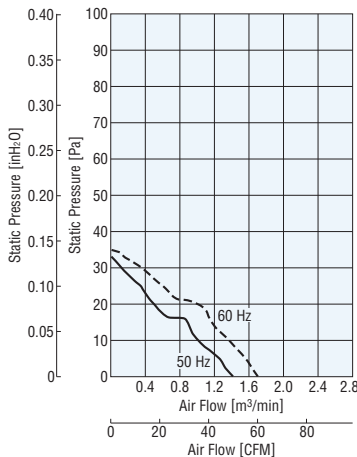


## Air Flow – Static Pressure Characteristics

### ● MU1225S



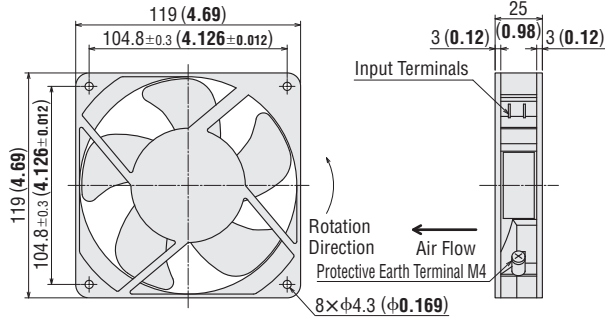
### ● MU1225M



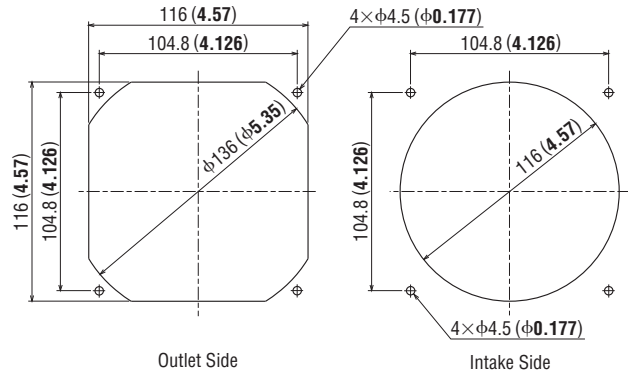
## Dimensions Unit = mm (in.)

Mass: 0.31 kg (0.68 lb.)

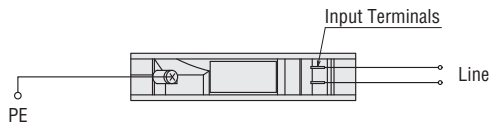
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## Panel Cut-Out Unit = mm (in.)



## Connection Diagram



## Accessories

Product	Product Name	Page
Finger Guard	<b>FG12D</b>	G-108
Filter	<b>FL12</b>	G-111
Screen	<b>FS12S</b>	G-113
Plug Cord	<b>PCA2B</b> [1 m (3.3 ft.)]	G-114
	<b>PCA2B2</b> [2 m (6.6 ft.)]	

## Thermostat

The thermostat automatically controls the operation of the fan in accordance with temperature fluctuations inside the equipment. This helps improve the equipment's "environmental" performance relative to energy savings, noise reduction, etc.



Thermostat **AM2-XA1**

Number of Connectable Fans: 9

● Page → G-104

## Enclosure Fan Modules → G-96

This product integrates the **MU** Series fan with peripheral equipment such as the cover, filter media, frame and finger guard. Optimized cooling for control boxes.

### ● Slit Metal Plate IP4X Type



→ G-101

Overview,  
Product  
Series

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

Accessories

Installation



# MU Series

**119 mm – 38 mm Thick**  
(**4.69 in. – 1.50 in. Thick**)



Operating Voltage Range:  $\pm 10\%$   
Overheat Protection: Impedance Protected  
Color  
Frame: Unpainted (Aluminum)    Blades: Black  
Materials  
Frame: Die Cast Aluminum  
Blades: Polycarbonate (Flammability grade V-0)

80 mm  
(3.15 in.)

92 mm  
(3.62 in.)

119 mm  
(4.69 in.)

140 mm  
(5.51 in.)

160 mm  
(6.30 in.)

180 mm  
(7.09 in.)

200 mm  
(7.87 in.)

250 mm  
(9.84 in.)

## Specifications



Speed Type	Product Name	Voltage VAC	Frequency Hz	Current A	Input W	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB (A)
							m <sup>3</sup> /min	CFM	Pa	inH <sub>2</sub> O	
Standard Speed	<b>MU1238A-21B</b>	Single-Phase 115	50	0.20	14.0	2800	2.7	95.3	81	0.325	43
			60	0.18	13.0	3250	3.0	106	81	0.325	46
	<b>MU1238A-51B</b>	Single-Phase 220 Single-Phase 230	50	0.10	13.5	2800	2.7	95.3	81	0.325	43
			50	0.11	16.0	2800	2.7	95.3	81	0.325	43
			60	0.10	13.5	3250	3.0	106	81	0.325	46
			60	0.10	13.5	3250	3.0	106	81	0.325	46
Middle Speed	<b>MU1238B-21B</b>	Single-Phase 115	50	0.16	12.5	2500	2.2	77.7	52	0.209	38
			60	0.15	11.5	2800	2.5	88.3	52	0.209	40
	<b>MU1238B-51B</b>	Single-Phase 220 Single-Phase 230	50	0.09	11.5	2500	2.2	77.7	52	0.209	38
			50	0.09	14.0	2500	2.3	81.2	59	0.237	39
			60	0.09	11.5	2800	2.5	88.3	52	0.209	40
			60	0.09	11.5	2800	2.5	88.3	52	0.209	40
Low Speed	<b>MU1238L-21B</b>	Single-Phase 115	50	0.10	8.0	2100	1.9	67.1	34	0.137	33
			60	0.09	7.5	2100	1.8	63.5	27	0.11	32
	<b>MU1238L-51B</b>	Single-Phase 220 Single-Phase 230	50	0.06	7.5	2100	1.85	65.3	34	0.137	33
			50	0.06	9.5	2100	1.9	67.1	34	0.137	34
			60	0.06	7.5	2200	1.9	67.1	29	0.118	33
			60	0.06	7.5	2200	1.9	67.1	29	0.118	33

● Details of regulations and standards → Page I-2

## Product Line

### Fan Only

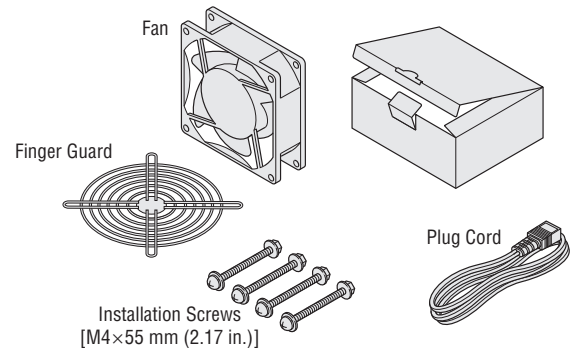
Product Name	List Price
<b>MU1238A-21B</b>	\$28.00
<b>MU1238A-51B</b>	\$29.00
<b>MU1238B-21B</b>	\$28.00
<b>MU1238B-51B</b>	\$29.00
<b>MU1238L-21B</b>	\$28.00
<b>MU1238L-51B</b>	\$29.00

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

### Fan Kit

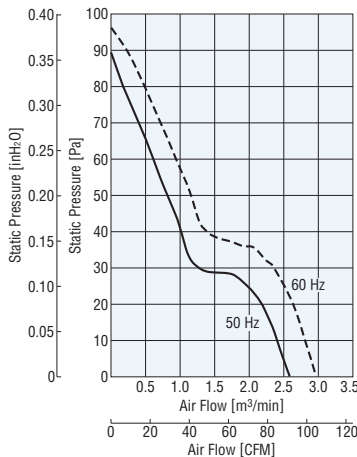
Product Name	List Price
<b>T-MU1238A-21-GP</b>	\$40.00
<b>T-MU1238A-51-GP</b>	\$41.00
<b>T-MU1238B-21-GP</b>	\$40.00
<b>T-MU1238B-51-GP</b>	\$41.00
<b>T-MU1238L-21-GP</b>	\$40.00
<b>T-MU1238L-51-GP</b>	\$41.00

The following items are included in each kit.

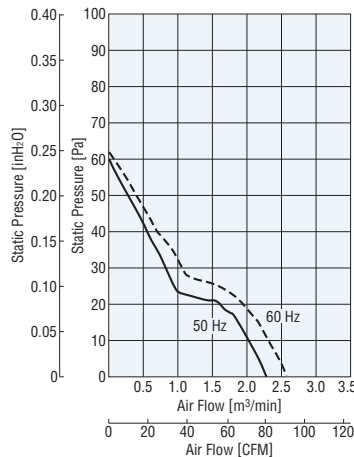


## Air Flow – Static Pressure Characteristics

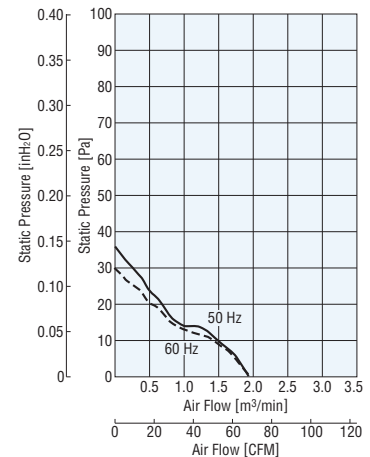
### MU1238A



### MU1238B



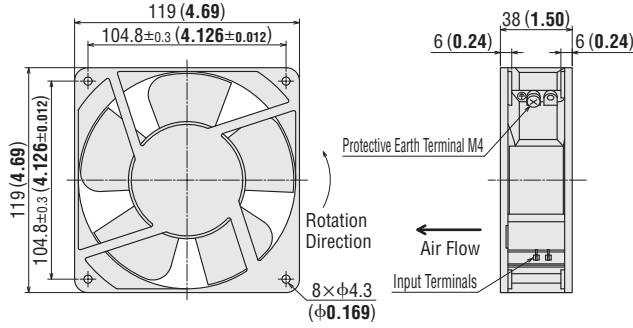
### MU1238L



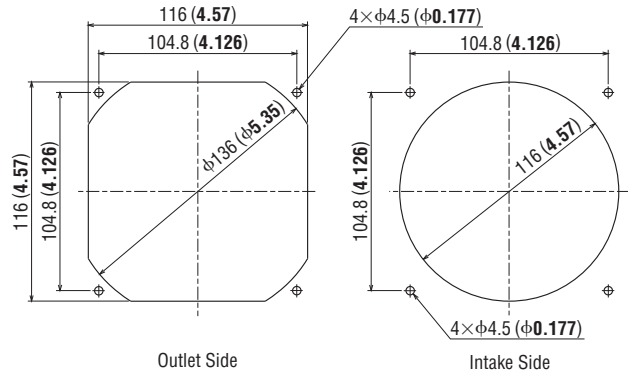
## Dimensions Unit = mm (in.)

Mass: 0.53 kg (1.2 lb.)

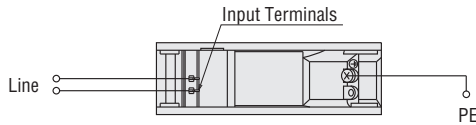
2D CAD E010 3D CAD



## Panel Cut-Out Unit = mm (in.)



## Connection Diagram



## Accessories

Product	Product Name	Page
Finger Guard	<b>FG12D</b>	G-108
Filter	<b>FL12</b>	G-111
Screen	<b>FS12S</b>	G-113
Plug Cord	<b>PCA2B</b> [1 m (3.3 ft.)]	G-114
	<b>PCA2B2</b> [2 m (6.6 ft.)]	

## Thermostat

The thermostat automatically controls the operation of the fan in accordance with temperature fluctuations inside the equipment. This helps improve the equipment's "environmental" performance relative to energy savings, noise reduction, etc.



Thermostat **AM2-XA1**

Number of Connectable Fans: 9

● Page → G-104

## Enclosure Fan Modules → G-96

This product integrates the **MU** Series fan with peripheral equipment such as the cover, filter media, frame and finger guard. Optimized cooling for control boxes.

### ● Finger Guard IP2X Type



→ G-100

### ● Slit Metal Plate IP4X Type



→ G-101

### ● Dust and Water Resistant IP43-IP55 Type



→ G-101