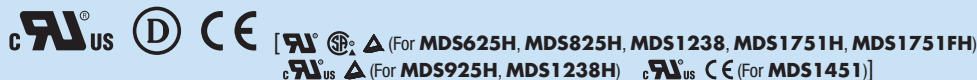


DC Input

MDS Series, MD 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.



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 (□1.65 in.) up to φ172 mm (φ6.77 in.) 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.

Lead wire or connector type products are also available for easy and simple installation.



View Expanded Product Information, Specifications, CAD, Accessories & more online. Visit www.orientalmotor.com/catalog or use the QR code and select "MDS/MD Series".

Features

Product Line

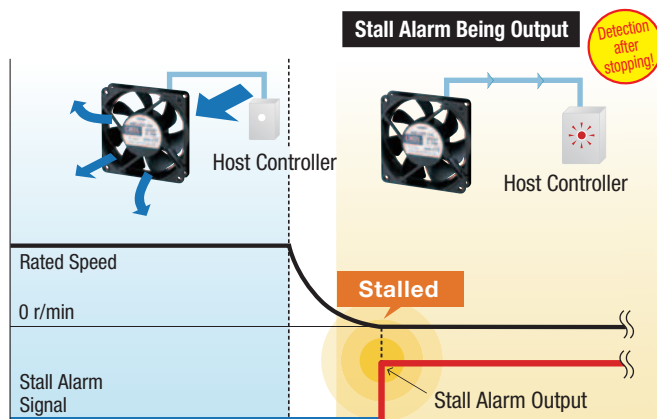
A product line of 9 fan sizes are available, with frame sizes from □42 mm (□1.65 in.) to φ172 mm (φ6.77 in.).

	MDS410	MDS510	MDS625/ MD625	MDS825/ MD825	MDS925/ MD925	MDS1225/ MD1225	MDS1238	MDS1451	MDS1751*
Frame Size [mm (in.)]	□42 (□1.65)	□52 (□2.05)	□60/62 (□2.36/2.44)	□80 (□3.15)	□92 (□3.62)	□119 (□4.69)	□119/120 (□4.69/4.72)	□140 (□5.51)	φ172 (φ6.77)
Frame Thickness [mm (in.)]	10 (0.39)	10 (0.39)	25/25.4 (0.99/1.00)	25/25.4 (0.99/1.00)	25.2/25.4 (0.99/1.00)	25.4 (1.00)	38 (1.50)	51 (2.01)	51 (2.01)
Speed Type	High Speed	—	●	●	●	—	●	—	●
	Standard Speed	●	●	●	●	●	●	●	●
	Middle Speed	●	●	●	●	●	—	—	—
	Low Speed	—	—	—	●	●	—	—	—
Alarm Type	Stall Alarm	Stall Alarm	Stall Alarm	Stall Alarm	Stall Alarm	—	Stall Alarm	Stall Alarm	—
Power Supply Voltage	5 VDC	●	●	—	—	—	—	—	—
	12 VDC	●	●	●	●	●	●	●	●
	24 VDC	●	●	●	●	●	●	●	●
	48 VDC	—	—	—	—	—	—	●	—

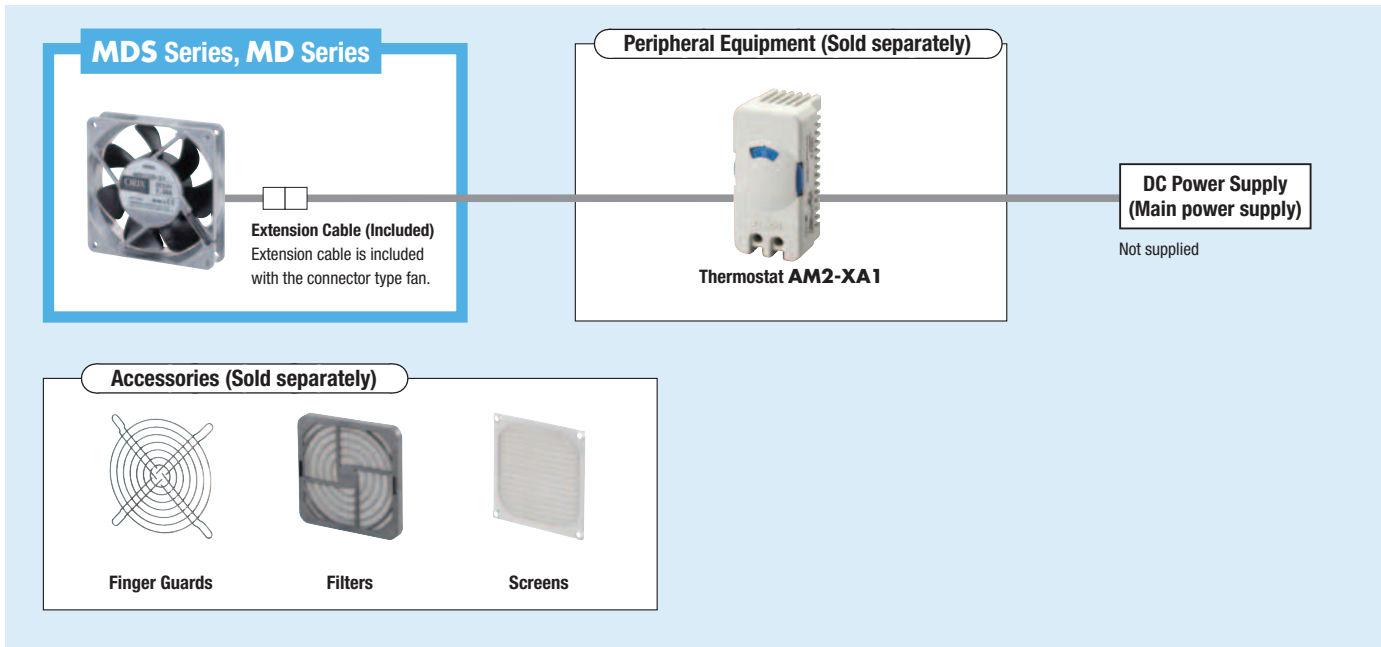
*Side cut type is also available.

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

Fan	Sold Separately	
	Thermostat	Finger Guard
MDS1225-24H	AM2-XA1	FG12D
\$48.00	\$35.00	\$6.00

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

Product Number

● Fan Only

MDS 17 51 F H - 24

① ② ③ ④ ⑤ ⑥

MD 9 25 A - 12 L H

① ② ③ ⑤ ⑥ ⑦ ⑧

①	Series	MDS: MDS Series MD: MD Series
②	Frame Size	4: 42 mm (1.65 in.), 5: 52mm (2.05 in.), 6: 60 mm (2.36 in.) or 62 mm (2.44 in.), 8: 80 mm (3.15 in.), 9: 92 mm (3.62 in.), 12: 119 mm (4.69 in.) or 120 mm (4.72 in.), 14: 140 mm (5.51 in.), 17: ϕ 172 mm (ϕ 6.77 in.)
③	Frame Thickness	10: 10 mm (0.39 in.), 25: 25 mm (0.99 in.), 25.2 mm (0.99 in.) or 25.4 mm (1.00 in.), 38: 38 mm (1.50 in.), 51: 51 mm (2.01 in.)
④	Frame Shape	F: Side-cut
⑤	Speed Type	H: High Speed Blank, A, B: Standard Speed AM, BM: Middle Speed AL, BL: Low Speed
⑥	Power Supply Voltage	5: 5 VDC, 12: 12 VDC, 24: 24 VDC, 48: 48 VDC
⑦	Additional Function	L: Stall Alarm, Electronic Alarm Type Blank: No additional functions
⑧	Connection Type	Blank: Lead Wire Type H: Connector Type

● Fan Kit

T - MDS1751FH-24 G

① ② ③

①	Fan Kit Order Code
②	Fan Product Name
③	G, -G: With finger guard 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

MDS Series

42 mm – 10 mm Thick
(1.65 in. – 0.39 in. 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
(1.65 in.)

52 mm
(2.05 in.)

62/60 mm
(2.44/2.36 in.)

80 mm
(3.15 in.)

92 mm
(3.62 in.)

119 mm
(4.69 in.)

140 mm
(5.51 in.)

φ172 mm
(φ6.77 in.)



Specifications

Series	Speed Type	Function	Product Name		Voltage VDC	Current A	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB (A)
			Lead Wire Type	Connector Type				m ³ /min	CFM	Pa	inH ₂ O	
MDS Series	Standard Speed	Standard Type	MDS410-12	MDS410-12H	12	0.16	10000	0.18	6.35	86	0.345	34
			MDS410-24	MDS410-24H	24	0.09						
	Stall Alarm, Electronic Alarm Type (Alarm specifications: ⑤)	MDS410-12L	MDS410-12LH	12	0.16							
		MDS410-24L	MDS410-24LH	24	0.09							
Middle Speed	Standard Type	MDS410M-5	MDS410M-5H	5	0.20	7500	0.13	4.59	47	0.188	25	

- Only lead wire type is DEMKO certified.
- Alarm specifications ⑤ → Page G-15
- Regulations & Standards → Page I-2

Product Line

● Fan Only

◇ Lead Wire Type

Product Name		List Price
MDS410-12	MDS410-24	\$23.00
MDS410-12L	MDS410-24L	\$26.00
MDS410M-5	—	\$23.00

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

◇ Connector Type

Product Name		List Price
MDS410-12H	MDS410-24H	\$29.00
MDS410-12LH	MDS410-24LH	\$33.00
MDS410M-5H	—	\$29.00

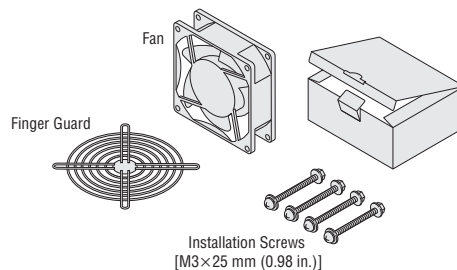
The following items are included with each product.
Fan, Cable with Connector, Operating Manual

● Fan Kit

◇ Lead Wire Type

Product Name		List Price
T-MDS410-12-G	T-MDS410-24-G	\$26.00
T-MDS410-12L-G	T-MDS410-24L-G	\$29.00
T-MDS410M-5-G	—	\$26.00

The following items are included in each kit.

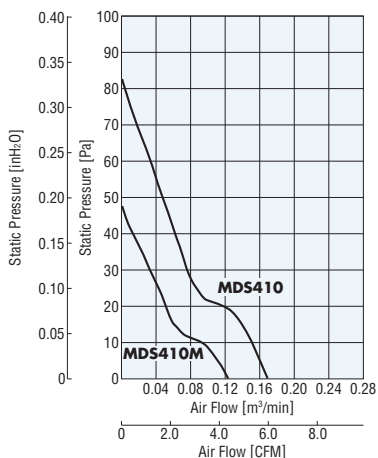


◇ Connector Type

Product Name		List Price
T-MDS410-12HG	T-MDS410-24HG	\$32.00
T-MDS410-12LHG	T-MDS410-24LHG	\$36.00
T-MDS410M-5HG	—	\$32.00

Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)

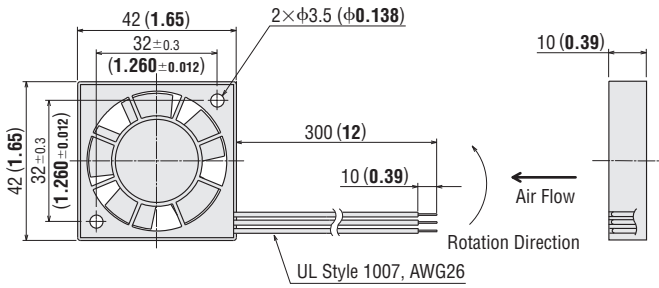


Dimensions Unit = mm (in.)

Lead Wire Type

Mass: 25 g (0.88 oz.)

2D CAD E019 3D CAD

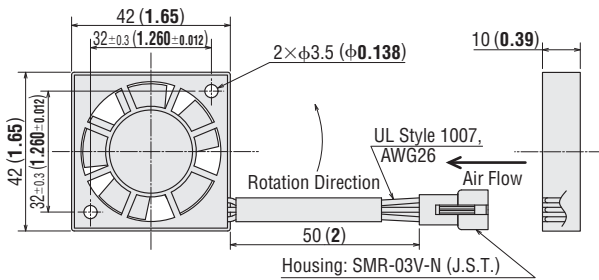


Connector Type

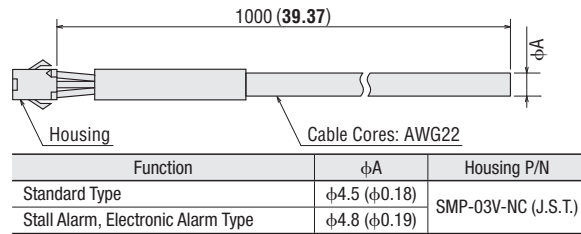
◇ Fan

Mass: 25 g (0.88 oz.)

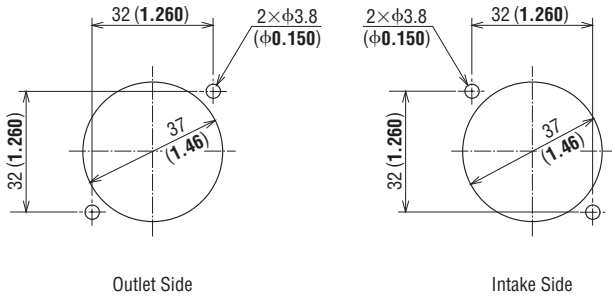
2D CAD E125 3D CAD



◇ Cable with Connector (Included)

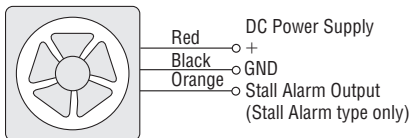


Panel Cut-Out Unit = mm (in.)

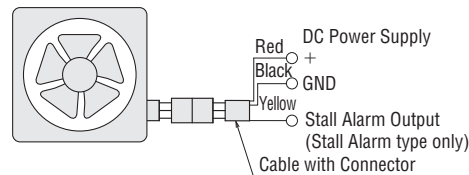


Connection Diagrams

Lead Wire Type



Connector Type



Accessories

Product	Product Name	Page
Finger Guard	FG4D	G-108

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
MF D

Enclosure Fan
Modules

Thermostat

Accessories

Installation

MDS Series

52 mm – 10 mm Thick
(2.05 in. – 0.39 in. Thick)



With Stall Alarm

Operating Voltage Range: $\pm 10\%$
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
(1.65 in.)

52 mm
(2.05 in.)

62/60 mm
(2.44/2.36 in.)

80 mm
(3.15 in.)

92 mm
(3.62 in.)

119 mm
(4.69 in.)

140 mm
(5.51 in.)

$\phi 172$ mm
($\phi 6.77$ in.)



Specifications

Series	Speed Type	Function	Product Name		Voltage VDC	Current A	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB(A)
			Lead Wire Type	Connector Type				m ³ /min	CFM	Pa	inH ₂ O	
MDS Series	Standard Speed	Standard Type	MDS510-12	MDS510-12H	12	0.14	7000	0.27	9.53	54	0.217	36
			MDS510-24	MDS510-24H	24	0.08						
		Stall Alarm, Electronic Alarm Type (Alarm specifications: ⑤)	MDS510-12L	MDS510-12LH	12	0.14						
			MDS510-24L	MDS510-24LH	24	0.08						
	Middle Speed	Standard Type	MDS510M-5	MDS510M-5H	5	0.20	5500	0.20	7.06	32	0.129	30
			MDS510M-12	—	12	0.12						
			MDS510M-24	—	24	0.06						

- Only lead wire type is DEMKO certified.
- Alarm specifications ⑤ → Page G-15
- Regulations & Standards → Page I-2

Product Line

Fan Only

Lead Wire Type

Product Name		List Price
MDS510-12	MDS510-24	\$24.00
MDS510-12L	MDS510-24L	\$27.00
MDS510M-5	—	\$24.00
MDS510M-12	MDS510M-24	\$24.00

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

Connector Type

Product Name		List Price
MDS510-12H	MDS510-24H	\$30.00
MDS510-12LH	MDS510-24LH	\$34.00
MDS510M-5H	—	\$30.00

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

Fan Kit

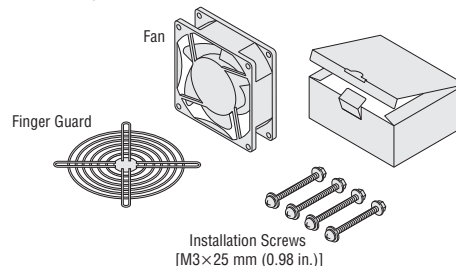
Lead Wire Type

Product Name		List Price
T-MDS510-12-G	T-MDS510-24-G	\$28.00
T-MDS510-12L-G	T-MDS510-24L-G	\$31.00
T-MDS510M-5-G	—	\$28.00
T-MDS510M-12-G	T-MDS510M-24-G	\$28.00

Connector Type

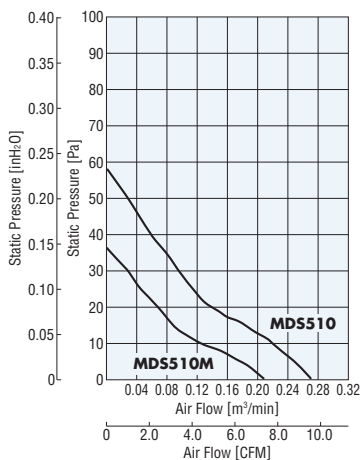
Product Name		List Price
T-MDS510-12HG	T-MDS510-24HG	\$34.00
T-MDS510-12LHG	T-MDS510-24LHG	\$38.00
T-MDS510M-5HG	—	\$34.00

The following items are included in each kit.



Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)

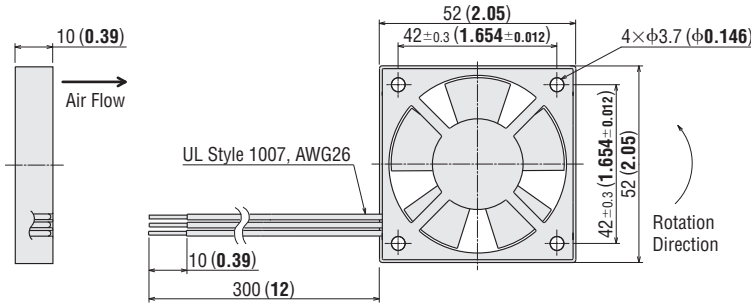


Dimensions Unit = mm (in.)

● Lead Wire Type

Mass: 30 g (1.06 oz.)

2D CAD E018 3D CAD

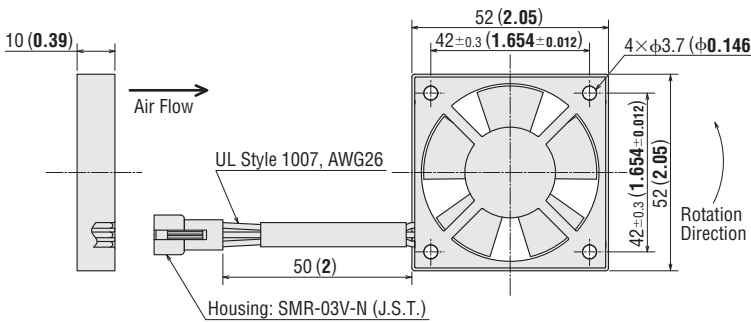


● Connector Type

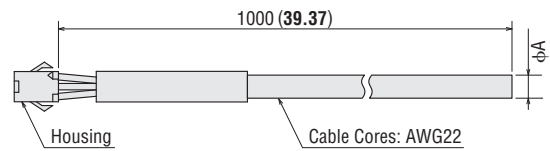
◇ Fan

Mass: 30 g (1.06 oz.)

2D CAD E124 3D CAD

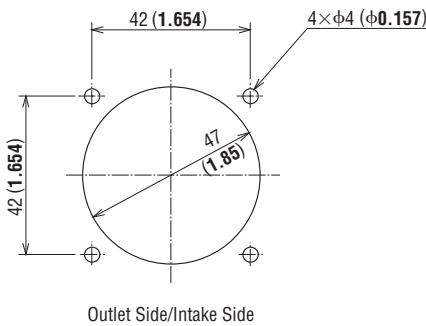


◇ Cable with Connector (Included)



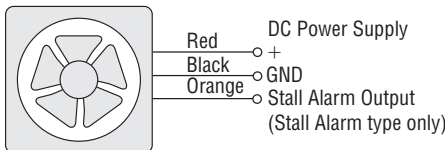
Function	φA	Housing P/N
Standard Type	φ4.5 (φ0.18)	SMP-03V-NC (J.S.T.)
Stall Alarm, Electronic Alarm Type	φ4.8 (φ0.19)	

Panel Cut-Out Unit = mm (in.)

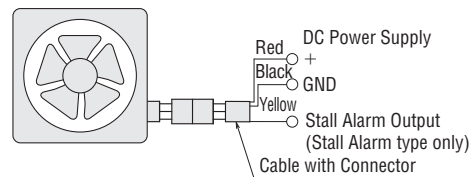


Connection Diagrams

● Lead Wire Type



● Connector Type



Accessories

Product	Product Name	Page
Finger Guard	FG5D	G-108

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

MDS • MD Series

60 (62) mm – 25 (25.4) mm Thick
 2.36 (2.44) in. – 0.99 (1.00) in. Thick



MDS Series



MD Series

With Stall Alarm

Operating Voltage Range: ±15% (**MDS625H-24**: ±10%)

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)*

*MDS625H-24

Frame: ABS/PBT Alloy (Flammability grade V-0)

Blades: Polyphenylene Oxide (Flammability grade V-1)

42 mm
 1.65 in.)

52 mm
 2.05 in.)

62/60 mm
 2.44/2.36 in.)

80 mm
 3.15 in.)

92 mm
 3.62 in.)

119 mm
 4.69 in.)

140 mm
 5.51 in.)

172 mm
 6.77 in.)

Specifications

MDS625H-24: / MD Series:

Series	Speed Type	Function	Product Name		Voltage VDC	Current A	Speed r/min	Max. Air Flow m ³ /min	Max. Air Flow CFM	Max. Static Pressure Pa	Max. Static Pressure inH ₂ O	Noise Level dB (A)
			Lead Wire Type	Connector Type								
MDS Series	High Speed	Standard Type	MDS625H-24	–	24	0.24	7600	1.06	37.1	155	0.622	44
MD Series	Standard Speed	Standard Type	MD625B-12	MD625B-12H	12	0.16	4000	0.50	17.7	49	0.196	30
			MD625B-24	MD625B-24H	24	0.1						
		MD625B-12L	MD625B-12LH	12	0.16							
	Middle Speed	Standard Type	MD625B-24L	MD625B-24LH	24	0.1	3000	0.37	13.1	27	0.109	20
			MD625BM-12	–	12	0.1						
			MD625BM-24	–	24	0.07						

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

● Alarm specifications ⑤ → Page G-15

● Regulations & Standards → Page I-2

Product Line

● Fan Only

◇ Lead Wire Type

Product Name		List Price
–	MDS625H-24	\$42.00
MD625B-12	MD625B-24	\$25.00
MD625B-12L	MD625B-24L	\$28.00
MD625BM-12	MD625BM-24	\$25.00

– The following items are included with each product.

Fan, Operating Manual

◇ Connector Type

Product Name		List Price
MD625B-12H	MD625B-24H	\$31.00
MD625B-12LH	MD625B-24LH	\$35.00

– The following items are included with each product.

Fan, Cable with Connector, Operating Manual

● Fan Kit

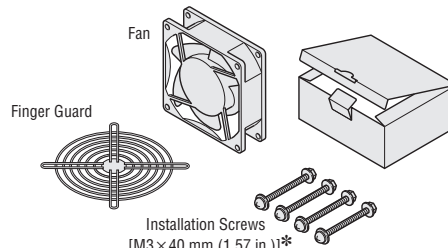
◇ Lead Wire Type

Product Name		List Price
–	T-MDS625H-24-G	\$46.00
T-MD625B-12-G	T-MD625B-24-G	\$29.00
T-MD625B-12L-G	T-MD625B-24L-G	\$32.00
T-MD625BM-12-G	T-MD625BM-24-G	\$29.00

◇ Connector Type

Product Name		List Price
T-MD625B-12HG	T-MD625B-24HG	\$35.00
T-MD625B-12LHG	T-MD625B-24LHG	\$39.00

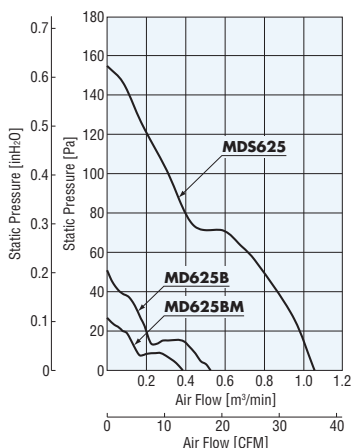
The following items are included in each kit.



*The **MDS625H-24** fan kit product includes M4×40 mm (1.57 in.) installation screws.

Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)



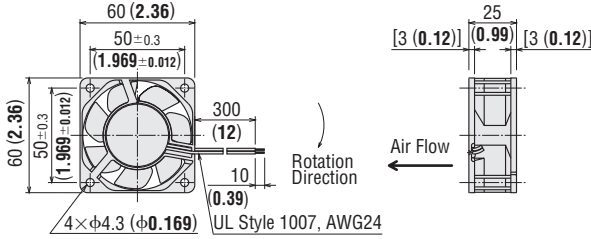
Dimensions Unit = mm (in.)

● MDS Series

◇ Lead Wire Type

Mass: 0.09 kg (0.198 lb.)

2D CAD E183 3D CAD

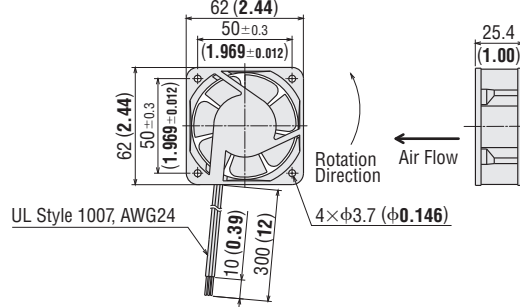


● MD Series

◇ Lead Wire Type

Mass: 0.1 kg (0.22 lb.)

2D CAD E024 3D CAD



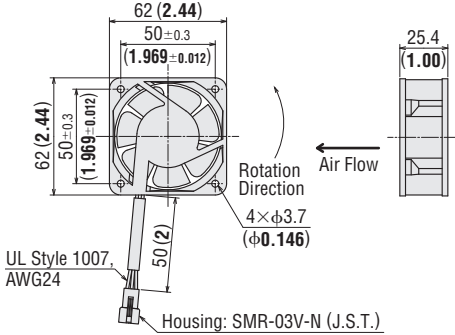
● MD Series

◇ Connector Type

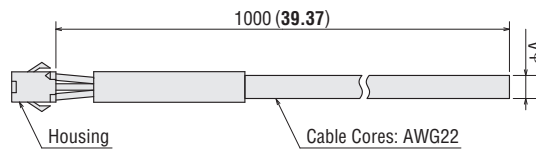
● Fan

Mass: 0.1 kg (0.22 lb.)

2D CAD E123 3D CAD



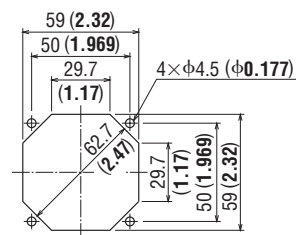
● Cable with Connector (Included)



Function	φA	Housing P/N
Standard Type	φ4.5 (φ0.18)	SMP-03V-NC (J.S.T.)
Stall Alarm, Electronic Alarm Type	φ4.8 (φ0.19)	

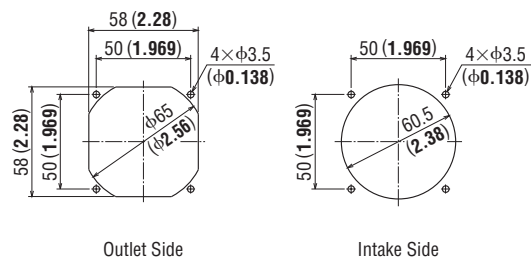
Panel Cut-Out Unit = mm (in.)

● MDS Series



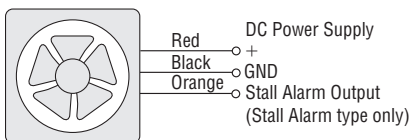
Outlet Side/Intake Side

● MD Series

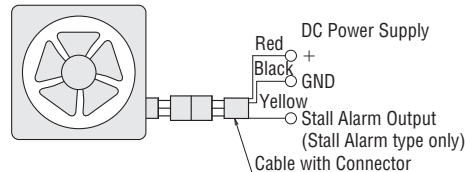


Connection Diagrams

● Lead Wire Type



● Connector Type



Accessories

● MDS Series

Product	Product Name	Page
Finger Guard	FG6E	G-108
Filter	FL6	G-110
Screen	FS6S	G-113

● MD Series

Product	Product Name	Page
Finger Guard	FG6D	G-108
Filter	FL6	G-110
Screen	FS6S	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: 7

- Only the standard speed type 24 VDC input fan can be connectable.
- 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 **MF D**

Enclosure Fan Modules

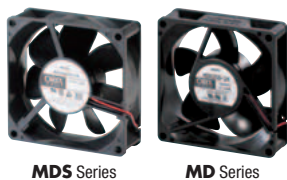
Thermostat

Accessories

Installation

MDS • MD Series

80 mm – 25 (25.4) mm Thick
[3.15 in. – 0.99 (1.00) in. Thick]



With Stall Alarm

Operating Voltage Range: ±15% (**MDS825H-24**: ±10%)
 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)*
***MDS825H-24**
 Frame: ABS/PBT Alloy (Flammability grade V-0)
 Blades: Polyphenylene Oxide (Flammability grade V-1)

42 mm (1.65 in.)

52 mm (2.05 in.)

62/60 mm (2.44/2.36 in.)

80 mm (3.15 in.)

92 mm (3.62 in.)

119 mm (4.69 in.)

140 mm (5.51 in.)

φ172 mm (φ6.77 in.)

Specifications

MDS825H-24: / MD Series:

Series	Speed Type	Function	Product Name		Voltage VDC	Current A	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB (A)
			Lead Wire Type	Connector Type				m ³ /min	CFM	Pa	inH ₂ O	
MDS Series	High Speed	Standard Type	MDS825H-24	—	24	0.20	4500	1.5	53.0	80.4	0.323	40
			MD825B-12	MD825B-12H	12	0.25	3800	1.00	35.3	49	0.196	35
MD825B-24	MD825B-24H	24	0.14									
MD825B-12L	MD825B-12LH	12	0.25									
MD Series	Standard Speed	Standard Type	MD825B-24L	MD825B-24LH	24	0.14	2800	0.73	25.8	29	0.116	26
			MD825BM-12	—	12	0.15						
	MD825BM-24	—	24	0.09								
	MD825BM-24L	—	24	0.07								
MD Series	Middle Speed	Standard Type	MD825BM-12	—	12	0.15	2100	0.55	19.4	16	0.0642	18
MD Series	Low Speed	Standard Type	MD825BL-12	—	12	0.07						

- For detailed information about regulations and standards, please see the Oriental Motor website.
- Alarm specifications ⑤ → Page G-15
- Regulations & Standards → Page I-2

Product Line

Fan Only

Lead Wire Type

Product Name		List Price
—	MDS825H-24	\$42.00
MD825B-12	MD825B-24	\$25.00
MD825B-12L	MD825B-24L	\$28.00
MD825BM-12	MD825BM-24	\$25.00
MD825BL-12	—	\$25.00

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

Connector Type

Product Name		List Price
MD825B-12H	MD825B-24H	\$31.00
MD825B-12LH	MD825B-24LH	\$35.00

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

Fan Kit

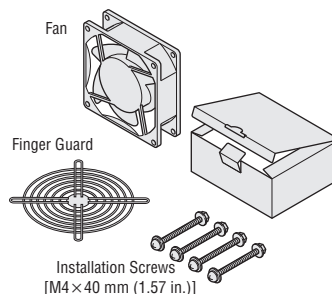
Lead Wire Type

Product Name		List Price
—	T-MDS825H-24-G	\$47.00
T-MD825B-12-G	T-MD825B-24-G	\$30.00
T-MD825B-12L-G	T-MD825B-24L-G	\$33.00
T-MD825BM-12-G	T-MD825BM-24-G	\$30.00
T-MD825BL-12-G	—	\$30.00

Connector Type

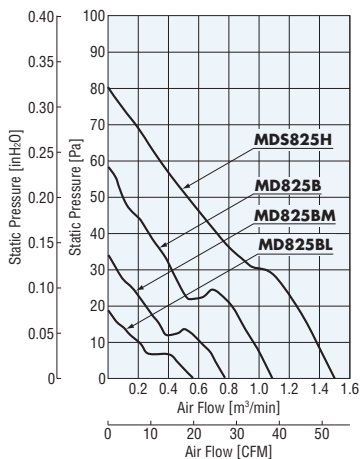
Product Name		List Price
T-MD825B-12HG	T-MD825B-24HG	\$36.00
T-MD825B-12LHG	T-MD825B-24LHG	\$40.00

The following items are included in each kit.



Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)



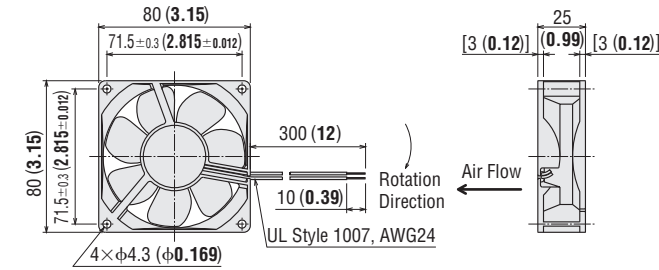
Dimensions Unit = mm (in.)

● MDS Series

◇ Lead Wire Type

Mass: 0.11 kg (0.24 lb.)

2D CAD E184 3D CAD



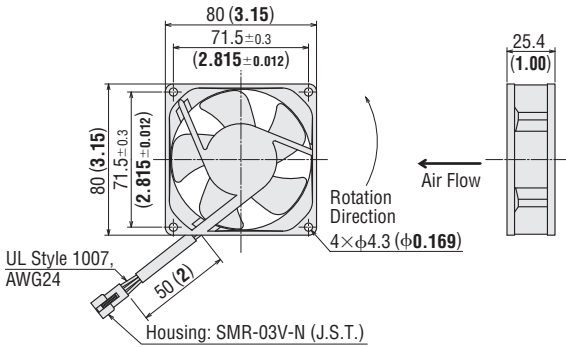
● MD Series

◇ Connector Type

● Fan

Mass: 0.11 kg (0.24 lb.)

2D CAD E122 3D CAD

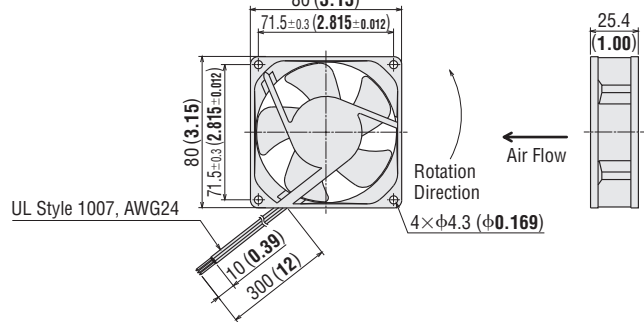


● MD Series

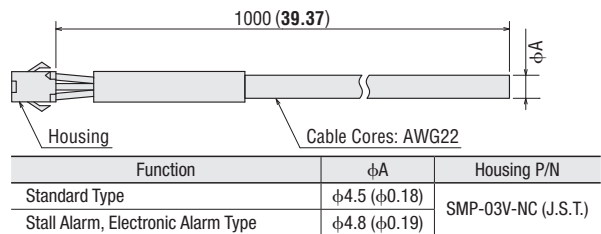
◇ Lead Wire Type

Mass: 0.11 kg (0.24 lb.)

2D CAD E023 3D CAD

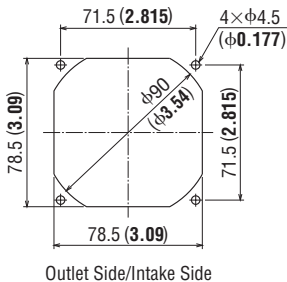


● Cable with Connector (Included)

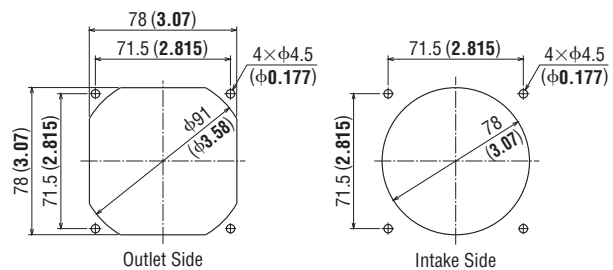


Panel Cut-Out Unit = mm (in.)

● MDS Series

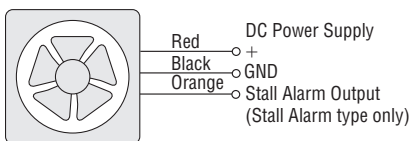


● MD Series

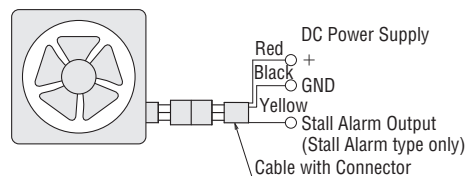


Connection Diagrams

● Lead Wire Type



● Connector Type



Accessories

Product	Product Name	Page
Finger Guard	FG8D	G-108
Filter	FL8	G-110
Screen	FS8S	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: 5

● Only the standard speed type 24 VDC input fan can be connectable.

● 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

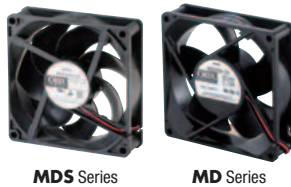
Thermostat

Accessories

Installation

MDS • MD Series

92 mm – 25.2 (25.4) mm Thick
[3.62 in. – 0.99 (1.00) in. 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)*
***MDS925H-24**
Frame: ABS/PBT Alloy (Flammability grade V-0)
Blades: Polyphenylene Oxide (Flammability grade V-0)

- 42 mm (□ 1.65 in.)
- 52 mm (□ 2.05 in.)
- 62/60 mm (□ 2.44/2.36 in.)
- 80 mm (□ 3.15 in.)
- 92 mm (□ 3.62 in.)
- 119 mm (□ 4.69 in.)
- 140 mm (□ 5.51 in.)
- φ 172 mm (φ 6.77 in.)

Specifications

MDS925H-24: / MD Series:

Series	Speed Type	Function	Product Name		Voltage VDC	Current A	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB(A)
			Lead Wire Type	Connector Type				m ³ /min	CFM	Pa	inH ₂ O	
MDS Series	High Speed	Standard Type	MDS925H-24	—	24	0.15	4400	1.93	68.2	81	0.330	39
			MD925A-12	MD925A-12H	12	0.24	3400	1.30	45.9	49	0.196	36
MD Series	Standard Speed	Standard Type	MD925A-24	MD925A-24H	24	0.12						
			Stall Alarm, Electronic Alarm Type (Alarm specifications: ⑤)	MD925A-12L	MD925A-12LH	12						
MD Series	Middle Speed	Standard Type		MD925AM-12	—	12	0.15	2800	1.1	38.8	34	0.137
			MD925AM-24	—	24	0.09						
MD Series	Low Speed	Standard Type	MD925AL-12	—	12	0.1	2200	0.90	31.8	22	0.0882	25
			MD925AL-24	—	24	0.07						

- For detailed information about regulations and standards, please see the Oriental Motor website.
- Alarm specifications ⑤ → Page G-15
- Regulations & Standards → Page I-2

Product Line

● Fan Only

◇ Lead Wire Type

Product Name		List Price
—	MDS925H-24	\$47.00
MD925A-12	MD925A-24	\$27.00
MD925A-12L	MD925A-24L	\$30.00
MD925AM-12	MD925AM-24	\$27.00
MD925AL-12	MD925AL-24	\$27.00

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

◇ Connector Type

Product Name		List Price
MD925A-12H	MD925A-24H	\$33.00
MD925A-12LH	MD925A-24LH	\$37.00

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

● Fan Kit

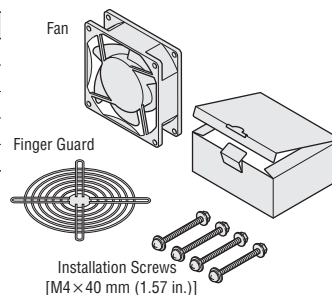
◇ Lead Wire Type

Product Name		List Price
—	T-MDS925H-24-G	\$52.00
T-MD925A-12-G	T-MD925A-24-G	\$32.00
T-MD925A-12L-G	T-MD925A-24L-G	\$35.00
T-MD925AM-12-G	T-MD925AM-24-G	\$32.00
T-MD925AL-12-G	T-MD925AL-24-G	\$32.00

◇ Connector Type

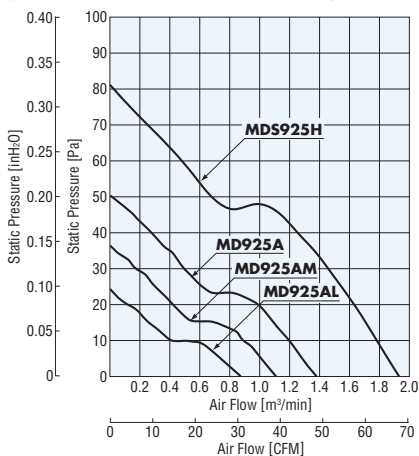
Product Name		List Price
T-MD925A-12HG	T-MD925A-24HG	\$38.00
T-MD925A-12LHG	T-MD925A-24LHG	\$42.00

The following items are included in each kit.



Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)



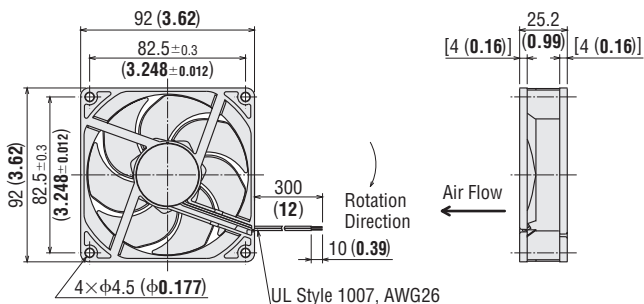
Dimensions Unit = mm (in.)

● MDS Series

◇ Lead Wire Type

Mass: 0.125 kg (0.28 lb.)

2D CAD E185 3D CAD

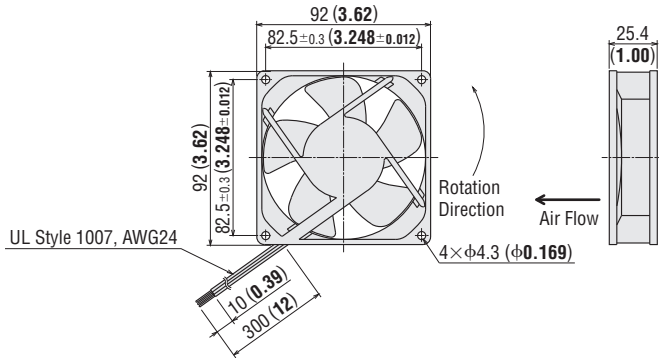


● MD Series

◇ Lead Wire Type

Mass: 0.12 kg (0.26 lb.)

2D CAD E022 3D CAD

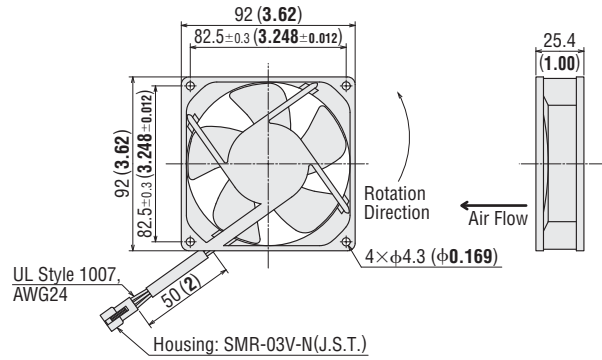


◇ Connector Type

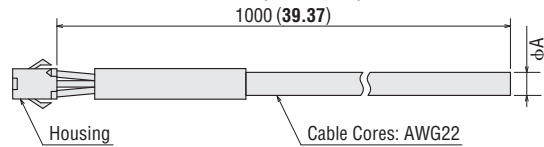
● Fan

Mass: 0.12 kg (0.26 lb.)

2D CAD E121 3D CAD



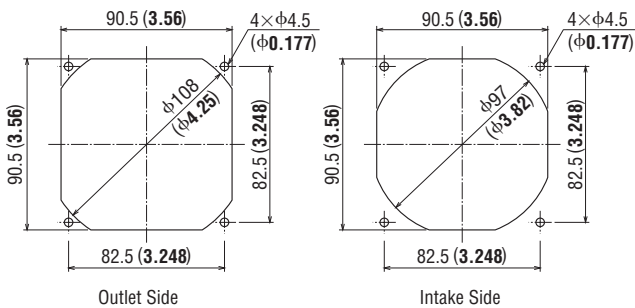
● Cable with Connector (Included)



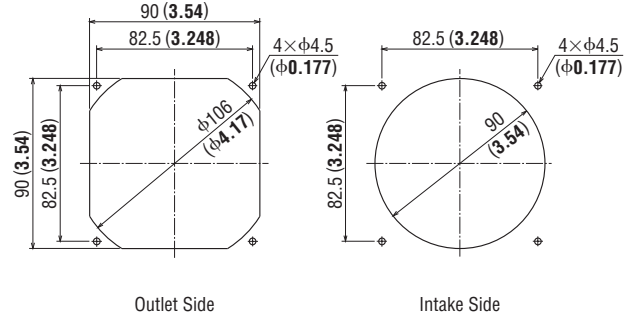
Function	φA	Housing P/N
Standard Type	φ4.5 (φ0.18)	SMP-03V-NC (J.S.T.)
Stall Alarm, Electronic Alarm Type	φ4.8 (φ0.19)	

■ Panel Cut-Out Unit = mm (in.)

● MDS Series

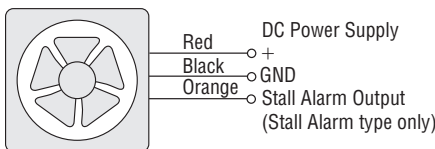


● MD Series

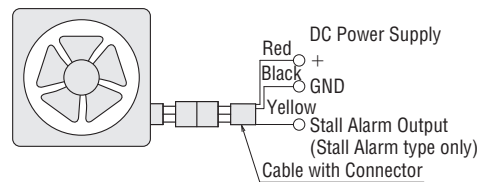


■ Connection Diagrams

● Lead Wire Type



● Connector Type



■ Accessories

Product	Product Name	Page
Finger Guard	FG9D	G-108
Filter	FL9	G-111
Screen	FS9S	G-113

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

■ 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: 6

● Only the standard speed type 24 VDC input fan can be connectable.

● 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

MDS • MD Series

119 mm – 25.4 mm Thick
(4.69 in. – 1.00 in. Thick)



Operating Voltage Range: $\pm 15\%$
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
(1.65 in.)

52 mm
(2.05 in.)

62/60 mm
(2.44/2.36 in.)

80 mm
(3.15 in.)

92 mm
(3.62 in.)

119 mm
(4.69 in.)

140 mm
(5.51 in.)

$\phi 172$ mm
($\phi 6.77$ in.)



Specifications

Series	Speed Type	Function	Product Name		Voltage VDC	Current A	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB(A)
			Lead Wire Type	Connector Type				m ³ /min	CFM	Pa	inH ₂ O	
MDS Series	Standard Speed	Standard Type	MDS1225-12	MDS1225-12H	12	0.58	3000	2.7	95.3	70	0.281	46
			MDS1225-24	MDS1225-24H	24	0.3						
MD Series	Standard Speed	Standard Type	MD1225-12	MD1225-12H	12	0.47	3100	2.5	88.3	43	0.172	45
			MD1225-24	MD1225-24H	24	0.26						

● Only lead wire model is DEMKO certified.
● Regulations & Standards → Page I-2

Product Line

● Fan Only

◇ Lead Wire Type

Product Name		List Price
MDS1225-12	MDS1225-24	\$42.00
MD1225-12	MD1225-24	\$34.00

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

◇ Connector Type

Product Name		List Price
MDS1225-12H	MDS1225-24H	\$48.00
MD1225-12H	MD1225-24H	\$40.00

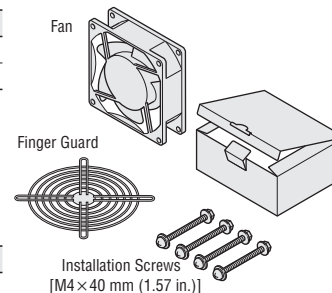
The following items are included with each product.
Fan, Cable with Connector, Operating Manual

● Fan Kit

◇ Lead Wire Type

Product Name		List Price
T-MDS1225-12-G	T-MDS1225-24-G	\$48.00
T-MD1225-12-G	T-MD1225-24-G	\$40.00

The following items are included in each kit.

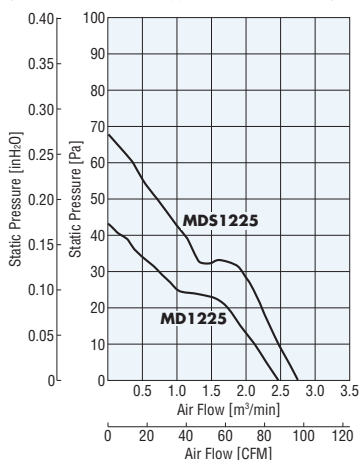


◇ Connector Type

Product Name		List Price
T-MDS1225-12HG	T-MDS1225-24HG	\$54.00
T-MD1225-12HG	T-MD1225-24HG	\$46.00

Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)



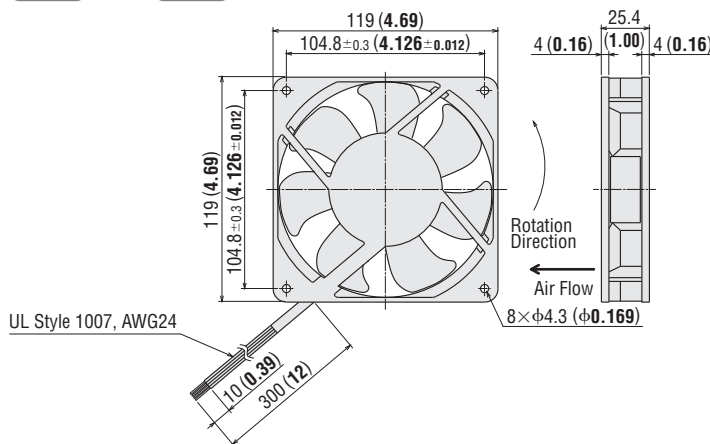
Dimensions Unit = mm (in.)

● MDS Series

◇ Lead Wire Type

Mass: 0.3 kg (0.66 lb.)

2D CAD E020 3D CAD



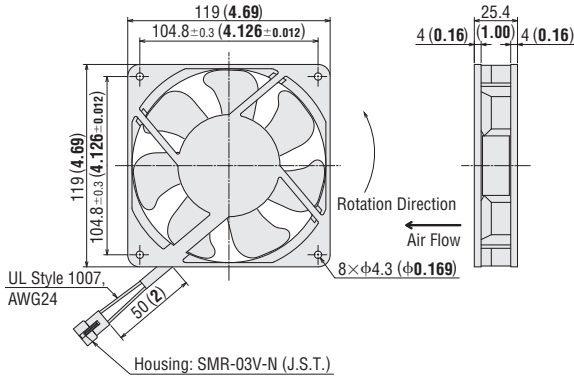
● MDS Series

◇ Connector Type

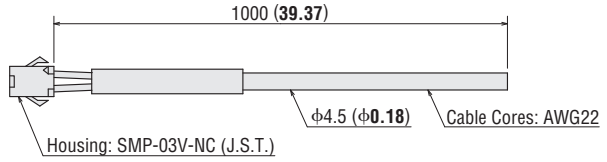
● Fan

Mass: 0.3 kg (0.66 lb.)

2D CAD E119 3D CAD



● Cable with Connector (Included)



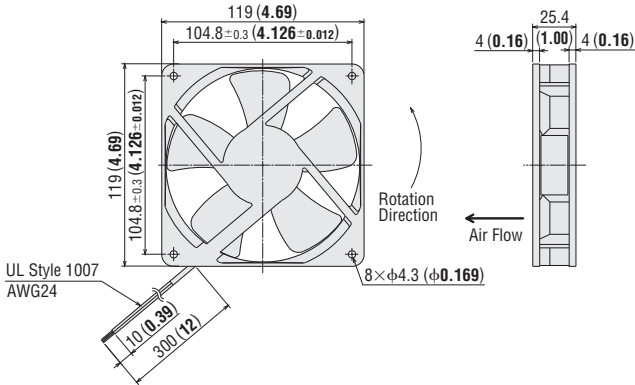
● Cable with connector is common to the **MDS** Series and **MD** Series.

● MD Series

◇ Lead Wire Type

Mass: 0.19 kg (0.42 lb.)

2D CAD E021 3D CAD



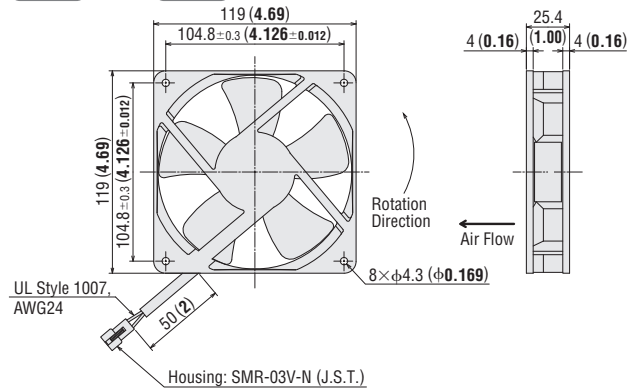
● MD Series

◇ Connector Type

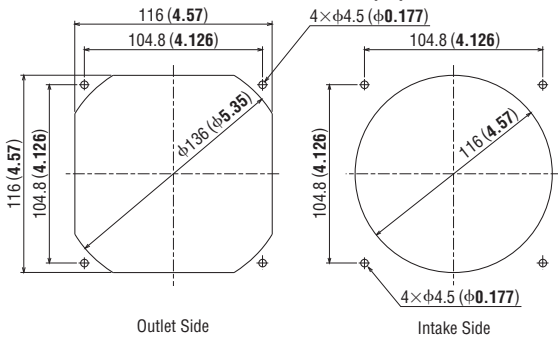
● Fan

Mass: 0.19 kg (0.42 lb.)

2D CAD E120 3D CAD

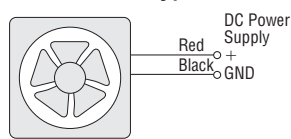


■ Panel Cut-Out Unit = mm (in.)

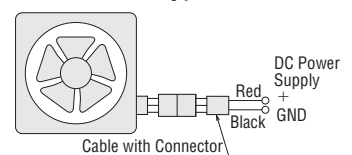


■ Connection Diagrams

● Lead Wire Type



● Connector Type



■ Enclosure Fan Modules → G-96

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

- Finger Guard IP2X Type
- Slit Metal Plate IP4X Type
- Dust and Water Resistant IP43-IP55 Type



→ G-102



→ G-102



→ G-102

■ Accessories

Product	Product Name	Page
Finger Guard	FG12D	G-108
Filter	FL12	G-111
Screen	FS12S	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: 3

- Only 24 VDC input fan can be connectable.
- 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

MDS Series

119 (120) mm – 38 mm Thick
 4.69 (4.72) in. – 1.50 in. Thick



High Speed Type



Standard Speed Type

With Stall Alarm

Operating Voltage Range: $\pm 15\%$
 Overheat Protection: Built-in Overheat Protection Circuit
 Color
 Frame: Black Blades: Black
 Materials
 Frame: ABS/PBT Alloy (Flammability grade V-0)
 Blades: Polyphenylene Oxide (Flammability grade V-1)

42 mm
 1.65 in.)

52 mm
 2.05 in.)

62/60 mm
 2.44/2.36 in.)

80 mm
 3.15 in.)

92 mm
 3.62 in.)

119 mm
 4.69 in.)

140 mm
 5.51 in.)

$\phi 172$ mm
 ($\phi 6.77$ in.)

Specifications

High Speed Type: / Standard Speed Type:

Series	Speed Type	Function	Product Name	Voltage VDC	Current A	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB (A)
			Lead Wire Type				m ³ /min	CFM	Pa	inH ₂ O	
MDS Series	High Speed	Standard Type	MDS1238H-24	24	1.5	6400	6.35	224	360	1.450	64
		Standard Type	MDS1238-24	24	0.5	3600	3.88	137	135	0.542	49
	Stall Alarm, Electronic Alarm Type (Alarm specifications: ⑥)		MDS1238-24L	24	0.5						

● Alarm specifications ⑥ → Page G-15
 ● Regulations & Standards → Page I-2

Product Line

● Fan Only

◇ Lead Wire Type

Product Name	List Price
MDS1238H-24	\$96.00
MDS1238-24	\$65.00
MDS1238-24L	\$65.00

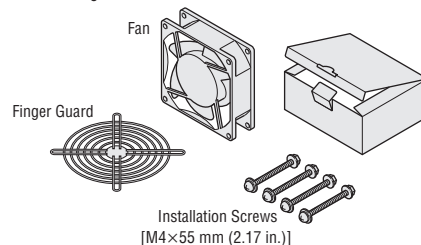
The following items are included with each product.
 Fan, Operating Manual

● Fan Kit

◇ Lead Wire Type

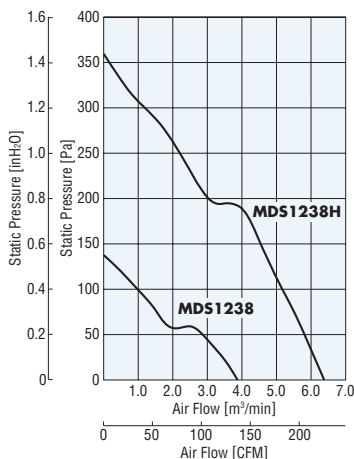
Product Name	List Price
T-MDS1238H-24-G	\$102.00
T-MDS1238-24-G	\$71.00
T-MDS1238-24L-G	\$71.00

The following items are included in each kit.



Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)



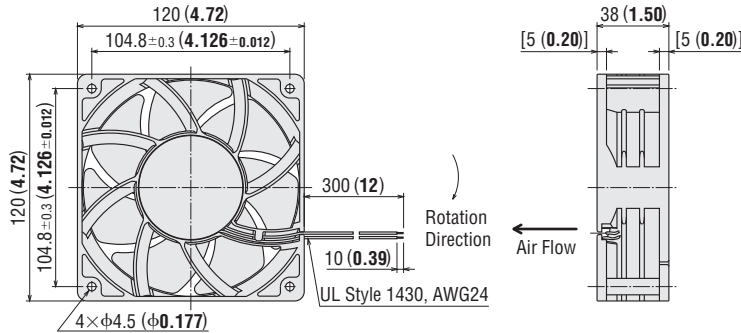
Dimensions Unit = mm (in.)

● Lead Wire Type

● MDS1238H-24

Mass: 0.36 kg (0.79 lb.)

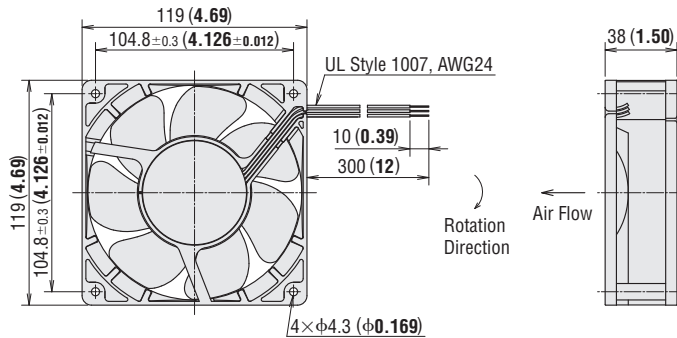
2D CAD E186 3D CAD



● MDS1238-24, -24L

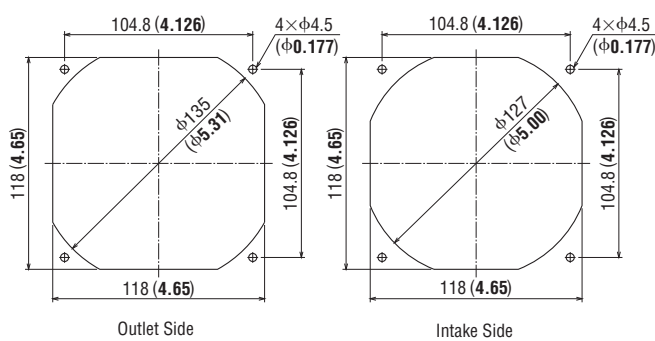
Mass: 0.33 kg (0.73 lb.)

2D CAD E198 3D CAD

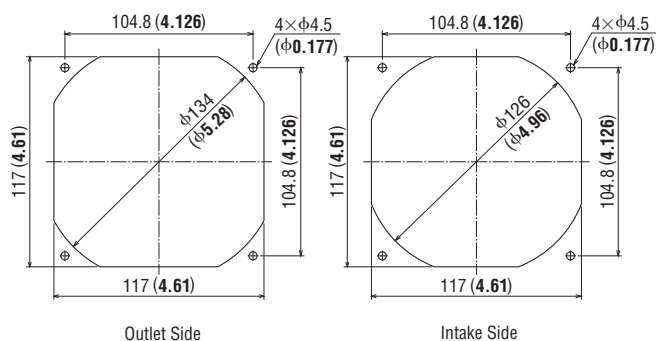


Panel Cut-Out Unit = mm (in.)

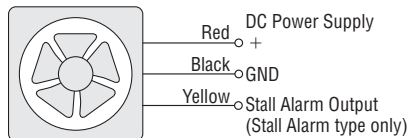
● MDS1238H-24



● MDS1238-24, -24L



Connection Diagrams



Accessories

Product	Product Name	Page
Finger Guard	FG12D	G-108
Filter	FL12	G-111
Screen	FS12S	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 Fan: 1

● Only the standard speed fan can be connectable.

● 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

MDS Series

140 mm – 51 mm Thick
(5.51 in. – 2.01 in. 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 (1.65 in.)

52 mm (2.05 in.)

62/60 mm (2.44/2.36 in.)

80 mm (3.15 in.)

92 mm (3.62 in.)

119 mm (4.69 in.)

140 mm (5.51 in.)

φ172 mm (φ6.77 in.)



Specifications

Series	Speed Type	Function	Product Name		Voltage VDC	Current A	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB (A)
			Lead Wire Type	Connector Type				m ³ /min	CFM	Pa	inH ₂ O	
MDS Series	Standard Speed	Standard Type	MDS1451-24	MDS1451-24H	24	0.7	3150	5.8	205	130	0.521	49
			MDS1451-48	MDS1451-48H	48	0.35						
		Stall Alarm, Electronic Alarm Type (Alarm specifications: ⑤)	MDS1451-24L	MDS1451-24LH	24	0.7						
			MDS1451-48L	MDS1451-48LH	48	0.35						

● Alarm specifications ⑤ → Page G-15
● Regulations & Standards → Page I-2

Product Line

● Fan Only

◇ Lead Wire Type

Product Name		List Price
MDS1451-24	MDS1451-48	\$72.00
MDS1451-24L	MDS1451-48L	\$75.00

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

◇ Connector Type

Product Name		List Price
MDS1451-24H	MDS1451-48H	\$78.00
MDS1451-24LH	MDS1451-48LH	\$82.00

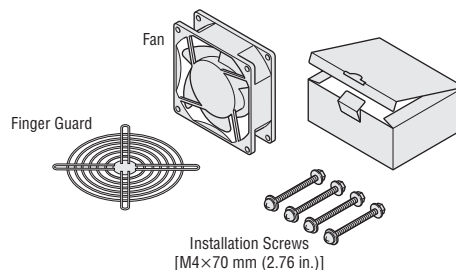
The following items are included with each product.
Fan, Cable with Connector, Operating Manual

● Fan Kit

◇ Lead Wire Type

Product Name		List Price
T-MDS1451-24-G	T-MDS1451-48-G	\$79.00
T-MDS1451-24L-G	T-MDS1451-48L-G	\$82.00

The following items are included in each kit.

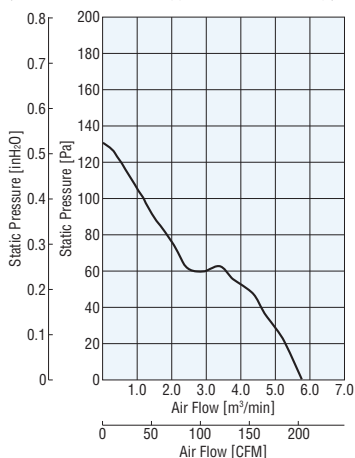


◇ Connector Type

Product Name		List Price
T-MDS1451-24HG	T-MDS1451-48HG	\$85.00
T-MDS1451-24LHG	T-MDS1451-48LHG	\$89.00

Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)



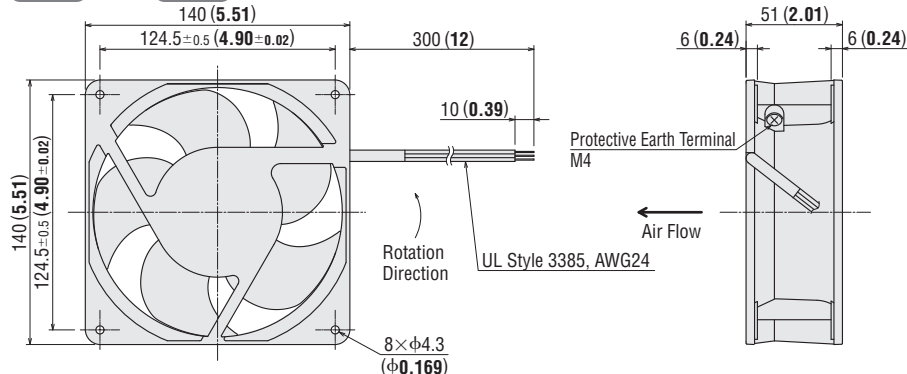
Dimensions Unit = mm (in.)

● Lead Wire Type

Mass: 0.65 kg (1.43 lb.)

2D CAD E109

3D CAD

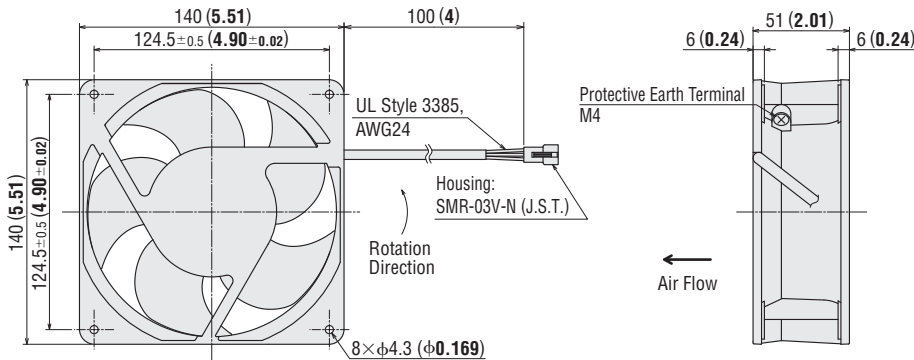


● Connector Type

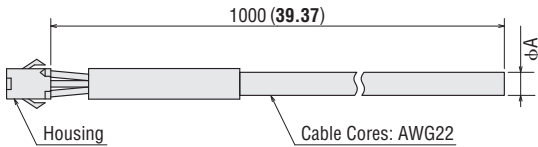
◇ Fan

Mass: 0.65 kg (1.43 lb.)

2D CAD E117 3D CAD

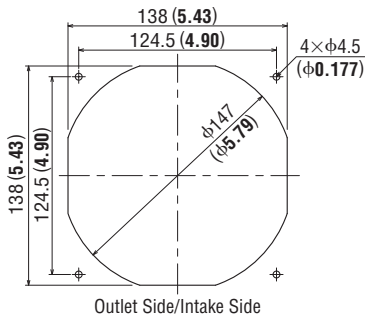


◇ Cable with Connector (Included)



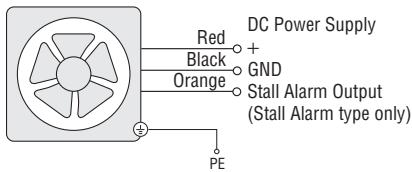
Function	φA	Housing P/N
Standard Type	φ4.5 (φ0.18)	SMP-03V-NC (J.S.T.)
Stall Alarm, Electronic Alarm Type	φ4.8 (φ0.19)	

■ Panel Cut-Out Unit = mm (in.)

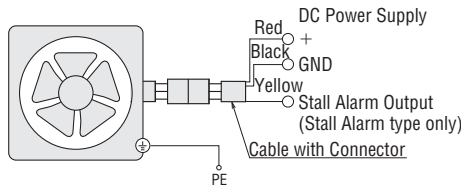


■ Connection Diagrams

● Lead Wire Type



● Connector Type



■ Accessories

Product	Product Name	Page
Finger Guard	FG14D	G-108
Filter	FL14	G-111

■ 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 Fan: 1

- Only 24 VDC input fan can be connectable.
- 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 **MF D**

Enclosure Fan Modules

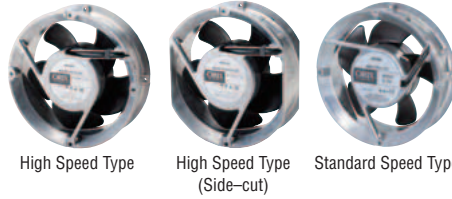
Thermostat

Accessories

Installation

MDS Series

φ172 mm – 51 mm Thick
(φ6.77 in. – 2.01 in. 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)*
*MDS1751H-24, MDS1751FH-24
Blades: Polyphenylene Oxide (Flammability grade V-1)

□42 mm
(□1.65 in.)

□52 mm
(□2.05 in.)

□62/60 mm
(□2.44/2.36 in.)

□80 mm
(□3.15 in.)

□92 mm
(□3.62 in.)

□119 mm
(□4.69 in.)

□140 mm
(□5.51 in.)

φ172 mm
(φ6.77 in.)

Specifications

MDS1751H-24, MDS1751FH-24 :

Series	Speed Type	Product Name		Voltage VDC	Current A	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB (A)
		Lead Wire Type	Connector Type				m ³ /min	CFM	Pa	inH ₂ O	
MDS Series	High Speed Type	MDS1751H-24	-	24	2.3	4800	9.9	350	308	1.237	60
	High Speed Type (Side-cut)	MDS1751FH-24									66
	Standard Speed Type	MDS1751-24	MDS1751-24H	24	0.7	3200	6	212	137	0.549	47

● Only MDS1751-24 lead wire model is DEMKO certified.
● Regulations & Standards → Page I-2

Product Line

● Fan Only

◇ Lead Wire Type

Product Name	List Price
MDS1751H-24	\$135.00
MDS1751FH-24	\$135.00
MDS1751-24	\$89.00

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

◇ Connector Type

Product Name	List Price
MDS1751-24H	\$95.00

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

● Fan Kit

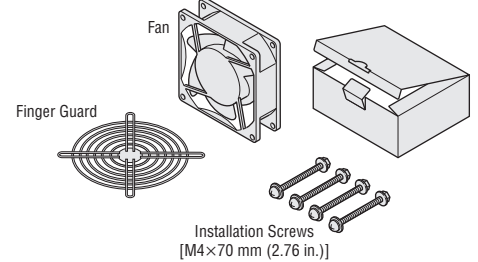
◇ Lead Wire Type

Product Name	List Price
T-MDS1751H-24-G	\$149.00
T-MDS1751FH-24G	\$153.00
T-MDS1751-24-G	\$103.00

◇ Connector Type

Product Name	List Price
T-MDS1751-24HG	\$109.00

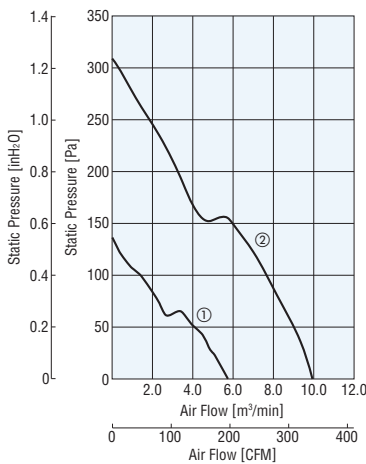
The following items are included in each kit.



Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)

- ① MDS1751
- ② MDS1751H
MDS1751FH



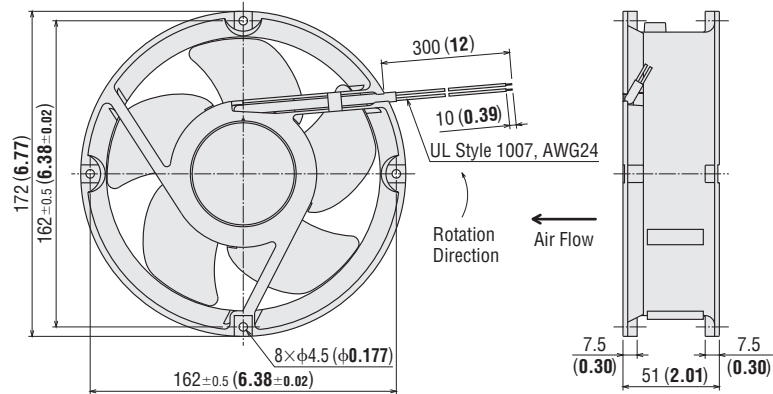
Dimensions Unit = mm (in.)

● Lead Wire Type

● MDS1751H-24

Mass: 0.78 kg (1.72 lb.)

2D CAD E187 3D CAD

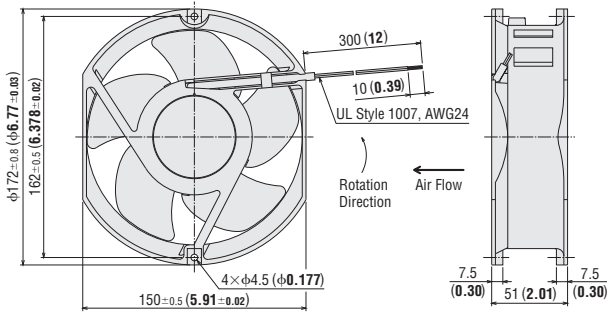


● Lead Wire Type

● MDS1751FH-24

Mass: 0.76 kg (1.67 lb.)

2D CAD E188 3D CAD



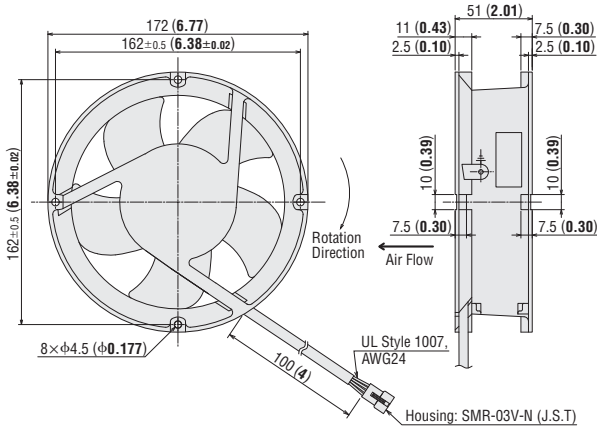
● Connector Type

● MDS1751-24H

◇ Fan

Mass 0.9 kg (2.0 lb.)

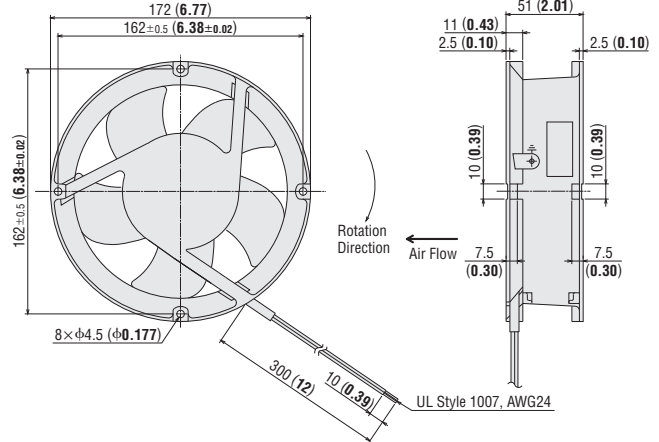
2D CAD E116 3D CAD



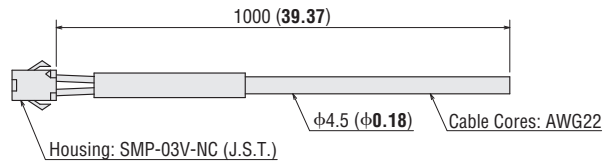
● MDS1751-24

Mass: 0.9 kg (2.0 lb.)

2D CAD E016 3D CAD

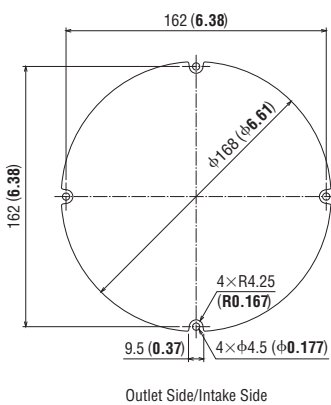


◇ Cable with Connector (Included)

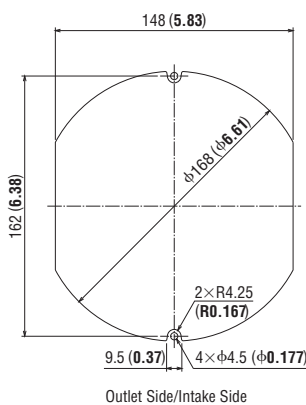


■ Panel Cut-Out Unit = mm (in.)

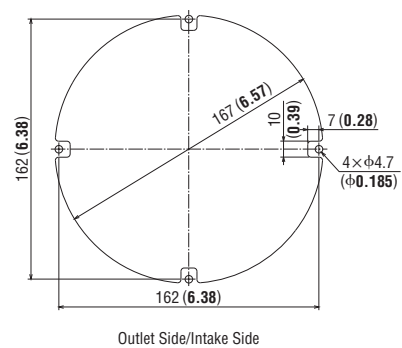
● MDS1751H-24



● MDS1751FH-24

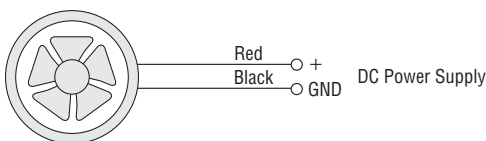


● MDS1751-24, -24H

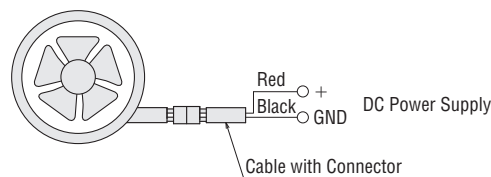


■ Connection Diagrams

● Lead Wire Type



● Connector Type



■ Accessories

● MDS1751H-24, MDS1751-24, -24H

Product	Product Name	Page
Finger Guard	FG17D	G-109

● MDS1751FH-24

Product	Product Name	Page
Finger Guard	FG17DF	G-109

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 **MF D**

Enclosure Fan Modules

Thermostat

Accessories

Installation