

Long-Life Fans MDE Series

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



Ambient Temperature: $-10\sim+60^{\circ}\text{C}$ ($+14\sim+140^{\circ}\text{F}$)
 Operating Voltage Range: $\pm 15\%$
 Materials
 Frame: Die Cast Aluminum
 Blades: Polycarbonate (Flammability grade V-0)
 Overheat Protection: Built-in Overheat Protection Circuit
 Bearings: Ball Bearings

The 100,000 hours of expected life indicates that more than 90% of fans will satisfy the following criteria when used at an ambient temperature of 60°C (140°F).

Criteria: Speed (at rated voltage): Greater than 70% of rated speed
 Input Current (at rated voltage): Less than 130% of rated current

● Using these fans at relative humidity 25% or more in the condition of temperature 35°C (95°F) or more may reduce their life expectancy.

Specifications (RoHS)



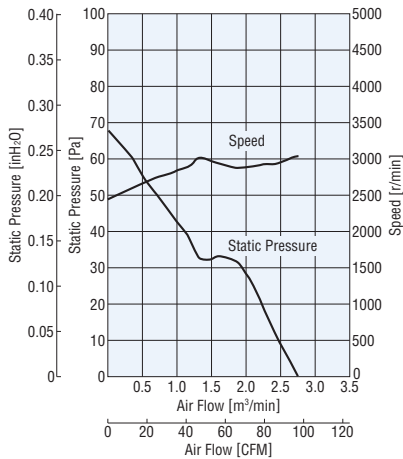
Speed Type	Function	Model	Voltage VDC	Current A	Speed r/min	Max. Air Flow m ³ /min CFM	Max. Static Pressure Pa inH ₂ O	Noise Level dB (A)
Standard Speed	Stall Alarm, Electronic Alarm Type (Alarm specifications: ①)	MDE1225-12L	12	0.58	3000	2.7 95.3	70 0.281	46
		MDE1225-24L	24	0.30				

● How to read specifications → Page E-19 ● Alarm specifications ① → Page E-21 ● Details of safety standards → Page G-2 ● Details of RoHS Directive → Page G-38

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

Air Flow – Static Pressure Characteristics

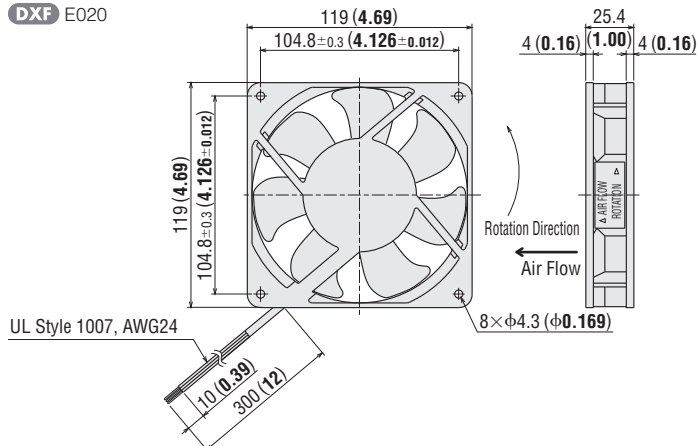
● How to read air flow – static pressure characteristics → Page E-20



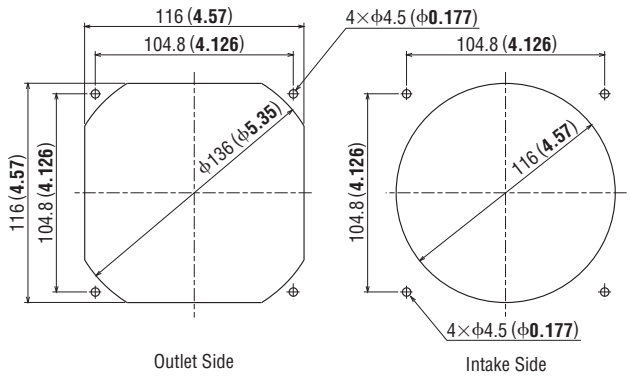
Dimensions Unit = mm (in.)

Mass: 0.3 kg (0.66 lb.)

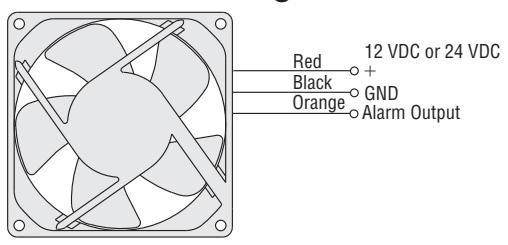
DXF E020



Panel Cut-Out Unit = mm (in.)



Connection Diagram



Accessories

The following products are RoHS-Compliant.
 Details → Page E-137

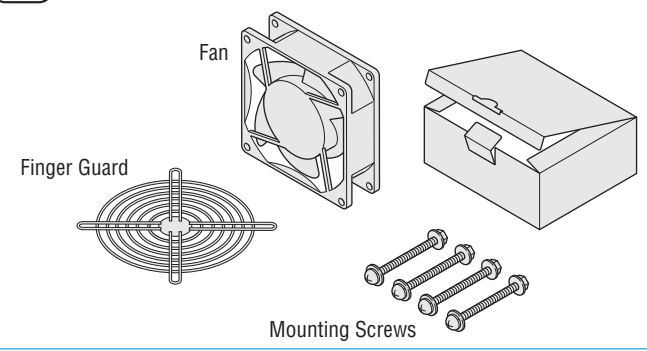
Product	Model	Safety Standards	Page
Finger Guard	FG12D	Conformed component	E-145
Filter	FL12	—	E-147
Screen	FS12S	—	E-150

Fan Kit

The lineup includes a product configuration containing all necessary accessories in one package.

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RoHS



Product Line

- Fan Kit Model
- T-MDE1225-12L-G**
- T-MDE1225-24L-G**

MDS Series

φ172 mm – 51 mm Thick
(φ6.77 in. – 2.01 in. Thick)



Connector Type

Lead Wire Type

Ambient Temperature: $-10\sim+60^{\circ}\text{C}$ ($+14\sim+140^{\circ}\text{F}$)
Operating Voltage Range: $\pm 15\%$
Materials
Frame: Die Cast Aluminum
Blades: Polycarbonate (Flammability grade V-0)
Overheat Protection: Built-in Overheat Protection Circuit
Bearings: Ball Bearings



Specifications RoHS

Function	Model		Voltage VDC	Current A	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB (A)
	Connector Type	Lead Wire Type				m ³ /min	CFM	Pa	inH ₂ O	
Low-Speed Alarm, Contact Alarm Type (Alarm specifications: ⑧)	MDS1751-24BH	MDS1751-24B	24	0.7	3200	6	212	137	0.549	47
Pulse Sensor Type (Alarm specifications: ⑨)	MDS1751-24SH	MDS1751-24S								
Standard Type	MDS1751-24H	MDS1751-24								

● Only standard type lead wire model is DEMKO certified.

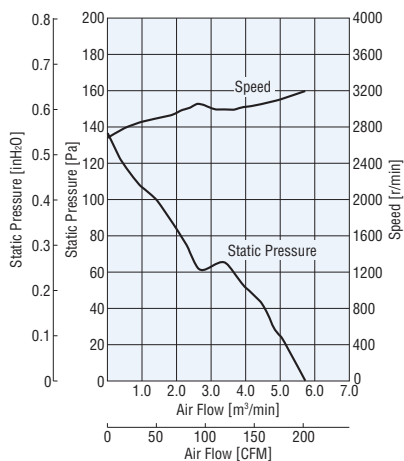
● How to read specifications → Page E-19 ● Alarm specifications ⑧, ⑨ → Page E-21 ● Details of safety standards → Page G-2 ● Details of RoHS Directive → Page G-38

The following items are included in each product.

- Connector Type
Fan, Cable with Connector, Operating Manual
- Lead Wire Type
Fan, Operating Manual

Air Flow – Static Pressure Characteristics

● How to read air flow – static pressure characteristics → Page E-20

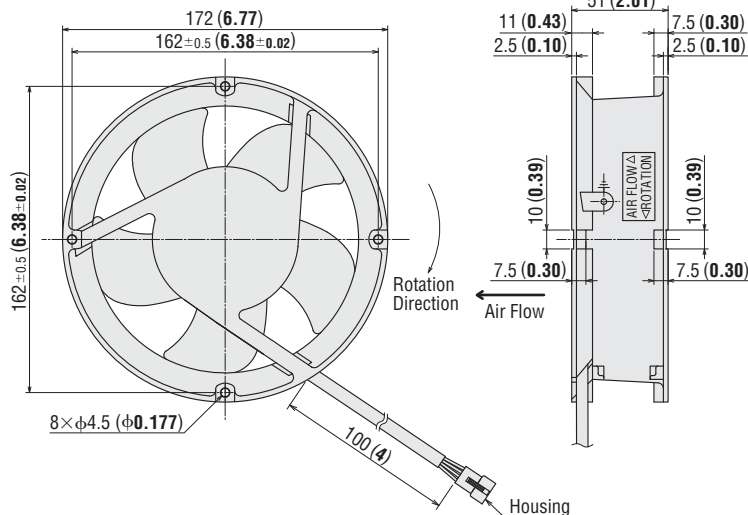


Dimensions Unit = mm (in.)

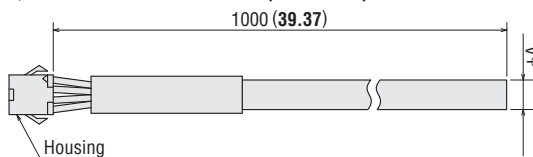
● Connector Type

◇ Fan

Type	Housing P/N	Mass kg (lb.)	DXF
Low-Speed Alarm, Contact Alarm Type	SMR-04V-N (J.S.T.)	0.9 (2.0)	E115
Pulse Sensor Type / Standard Type	SMR-03V-N (J.S.T.)		E116



◇ Cable with Connector (Included)

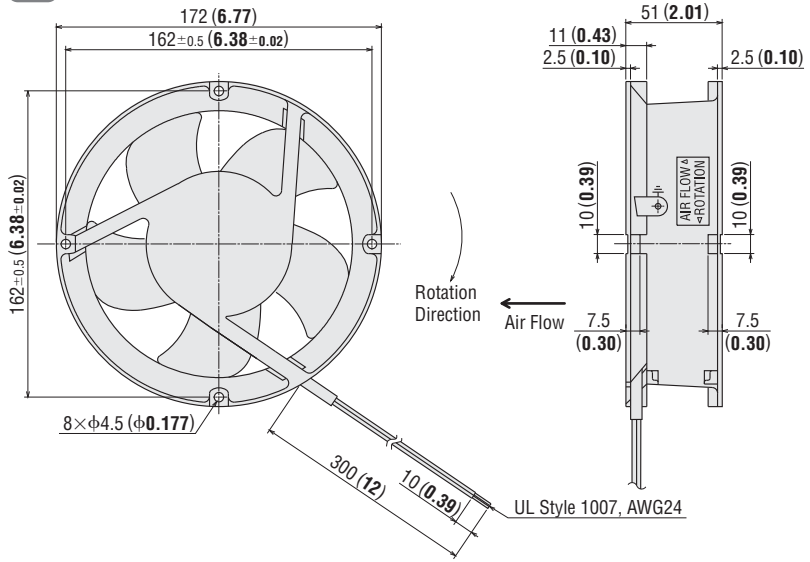


Type	φA	Housing P/N
Low-Speed Alarm, Contact Alarm Type	φ5.1 (φ0.20)	SMP-04V-NC (J.S.T.)
Pulse Sensor Type	φ4.8 (φ0.19)	SMP-03V-NC (J.S.T.)
Standard Type	φ4.5 (φ0.18)	

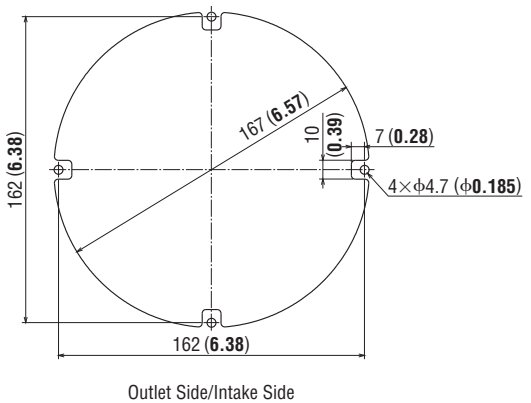
● Lead Wire Type

Mass: 0.9 kg (2.0 lb.)

DXF E016

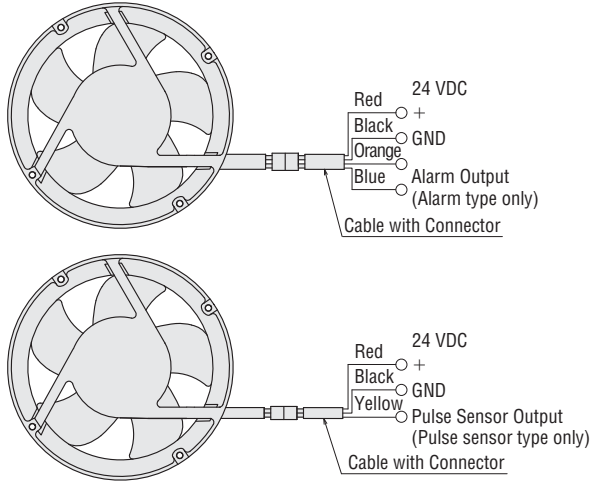


■ Panel Cut-Out Unit = mm (in.)

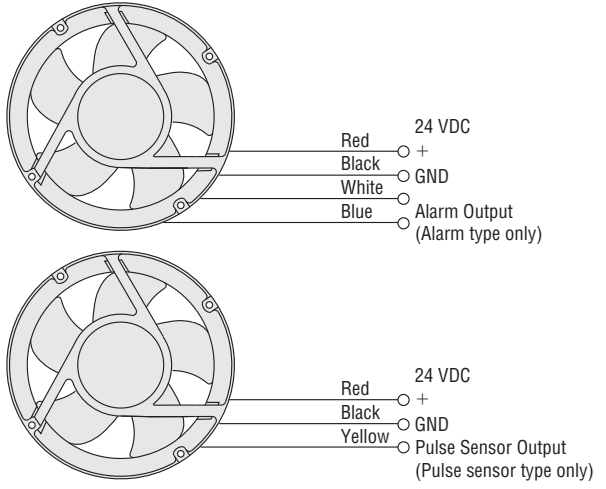


■ Connection Diagrams

● Connector Type



● Lead Wire Type



■ Accessories

The following product is RoHS-Compliant.

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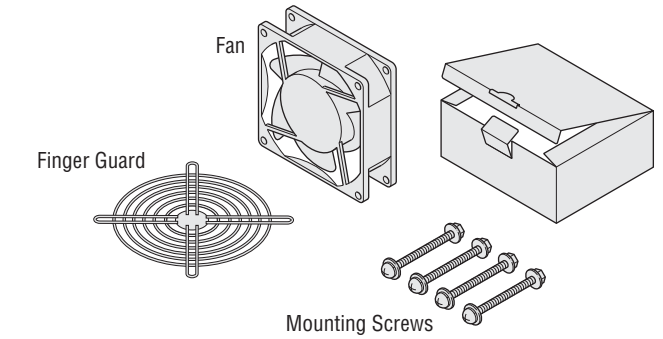
Product	Model	Safety Standards	Page
Finger Guard	FG17D	Conformed component	E-145

Fan Kit

The lineup includes a product configuration containing all necessary accessories in one package.

RoHS

Details → Page E-141



● Product Line

◇ Connector Type

- Fan Kit Model
- T-MDS1751-24BHG**
- T-MDS1751-24SHG**
- T-MDS1751-24HG**

◇ Lead Wire Type

- Fan Kit Model
- T-MDS1751-24B-G**
- T-MDS1751-24S-G**
- T-MDS1751-24-G**

MDS Series

□ **140 mm – 51 mm Thick**
 (□ **5.51 in. – 2.01 in. Thick**)



Connector Type

Lead Wire Type

Ambient Temperature: $-10\sim+60^{\circ}\text{C}$ ($+14\sim+140^{\circ}\text{F}$)
 Operating Voltage Range: $\pm 15\%$
 Materials
 Frame: Die Cast Aluminum
 Blades: Polycarbonate (Flammability grade V-0)
 Overheat Protection: Built-in Overheat Protection Circuit
 Bearings: Ball Bearings



Specifications **RoHS**

Speed Type	Function	Model		Voltage VDC	Current A	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB (A)
		Connector Type	Lead Wire Type				m ³ /min	CFM	Pa	inH ₂ O	
Standard Speed	Stall Alarm, Electronic Alarm Type (Alarm specifications: ①)	MDS1451-24LH	MDS1451-24L	24	0.7	3150	5.8	205	130	0.521	49
		MDS1451-48LH	MDS1451-48L	48	0.35						
	Pulse Sensor Type (Alarm specifications: ⑩)	MDS1451-24SH	MDS1451-24S	24	0.7						
		MDS1451-48SH	MDS1451-48S	48	0.35						
Standard Type		MDS1451-24H	MDS1451-24	24	0.7						
		MDS1451-48H	MDS1451-48	48	0.35						

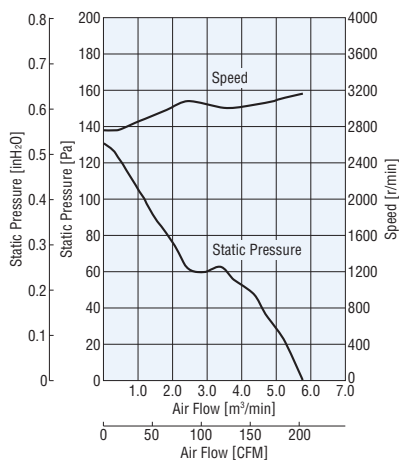
● How to read specifications → Page E-19 ● Alarm specifications ①, ⑩ → Page E-21 ● Details of safety standards → Page G-2 ● Details of RoHS Directive → Page G-38

The following items are included in each product.

- Connector Type
Fan, Cable with Connector, Operating Manual
- Lead Wire Type
Fan, Operating Manual

Air Flow – Static Pressure Characteristics

● How to read air flow – static pressure characteristics → Page E-20



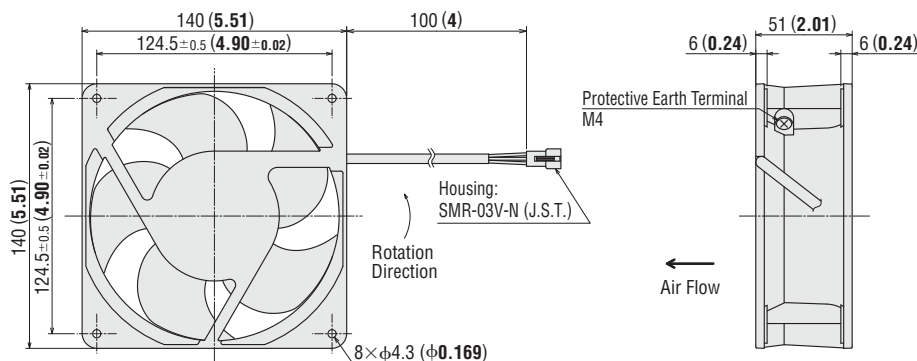
Dimensions Unit = mm (in.)

● Connector Type

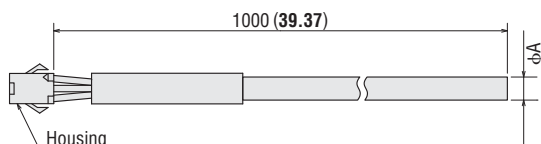
◇ Fan

Mass: 0.65 kg (1.43 lb.)

DXF E117



◇ Cable with Connector (Included)

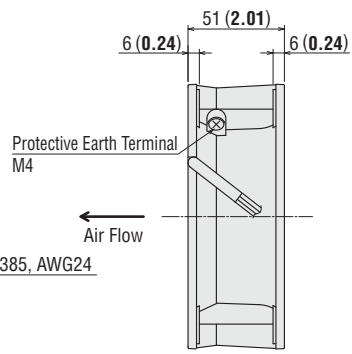
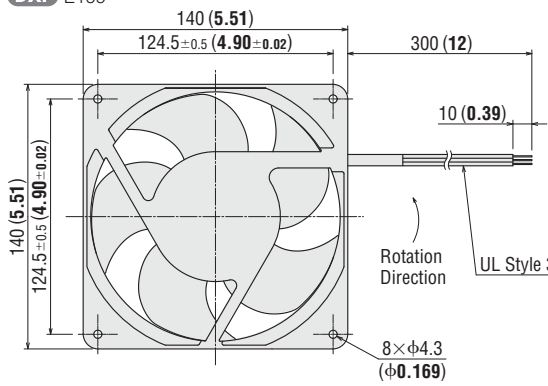


Type	φA	Housing P/N
Stall Alarm, Electronic Alarm Type	φ4.8 (φ0.19)	SMP-03V-NC (J.S.T.)
Pulse Sensor Type	φ4.8 (φ0.19)	
Standard Type	φ4.5 (φ0.18)	

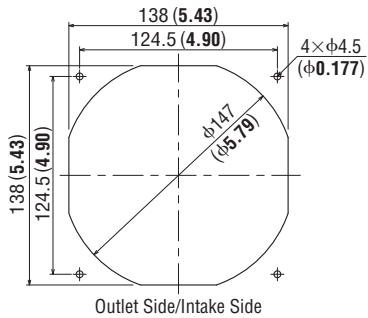
● Lead Wire Type

Mass: 0.65 kg (1.43 lb.)

DXF E109

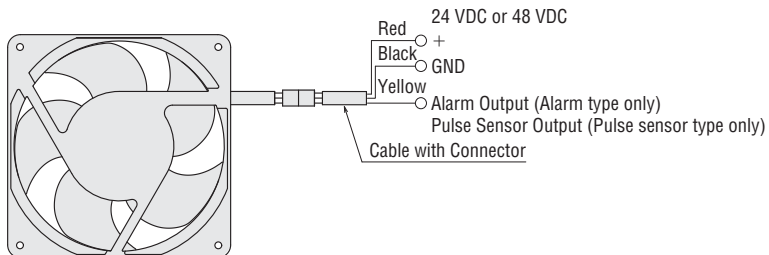


■ Panel Cut-Out Unit = mm (in.)

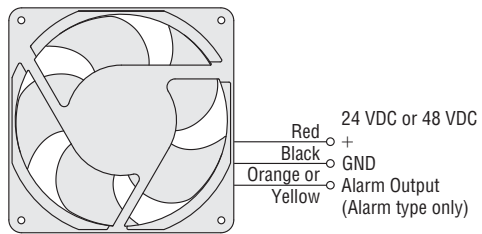


■ Connection Diagrams

● Connector Type



● Lead Wire Type



■ Accessories

The following products are RoHS-Compliant.

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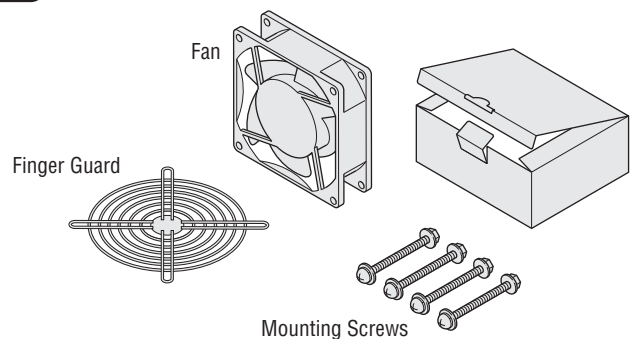
Product	Model	Safety Standards	Page
Finger Guard	FG14D	Conformed component	E-145
Filter	FL14	-	E-147

Fan Kit

The lineup includes a product configuration containing all necessary accessories in one package.

RoHS

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● Product Line

◇ Connector Type

Fan Kit Model	
T-MDS1451-24LHG	T-MDS1451-48LHG
T-MDS1451-24SHG	T-MDS1451-48SHG
T-MDS1451-24HG	T-MDS1451-48HG

◇ Lead Wire Type

Fan Kit Model	
T-MDS1451-24L-G	T-MDS1451-48L-G
T-MDS1451-24S-G	T-MDS1451-48S-G
T-MDS1451-24-G	T-MDS1451-48-G

MDS Series

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



Connector Type

Lead Wire Type

Ambient Temperature: $-10\sim+60^{\circ}\text{C}$ ($+14\sim+140^{\circ}\text{F}$)
 Operating Voltage Range: $\pm 15\%$ (**MDS1225-12M, -24M**: $\pm 10\%$)
 Materials
 Frame: Die Cast Aluminum
 Blades: Polycarbonate (Flammability grade V-0)
 Overheat Protection: Built-in Overheat Protection Circuit
 Bearings: Ball Bearings



Specifications (RoHS)

Speed Type	Function	Model		Voltage VDC	Current A	Speed r/min	Max. Air Flow m ³ /min CFM	Max. Static Pressure		Noise Level dB (A)	
		Connector Type	Lead Wire Type					Pa	inH ₂ O		
Standard Speed	Low-Speed Alarm, Electronic Alarm Type (Alarm specifications: ④)	MDS1225-12MH	MDS1225-12M	12	0.63	3000	2.7	95.3	70	0.281	46
		MDS1225-24MH	MDS1225-24M	24	0.34						
	Standard Type	MDS1225-12H	MDS1225-12	12	0.58						
		MDS1225-24H	MDS1225-24	24	0.30						

● Only lead wire type is DEMKO certified.

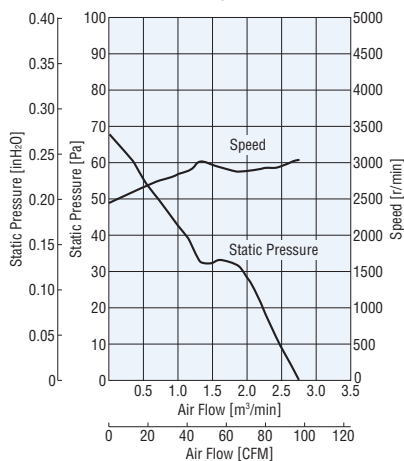
● How to read specifications → Page E-19 ● Alarm specifications ④ → Page E-21 ● Details of safety standards → Page G-2 ● Details of RoHS Directive → Page G-38

The following items are included in each product.

- Connector Type
Fan, Cable with Connector, Operating Manual
- Lead Wire Type
Fan, Operating Manual

Air Flow – Static Pressure Characteristics

● How to read air flow – static pressure characteristics → Page E-20

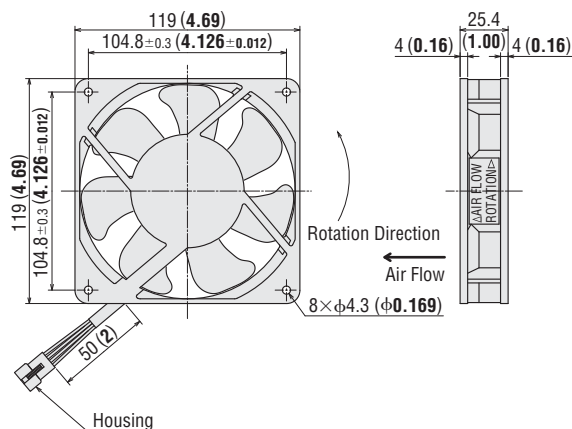


Dimensions Unit = mm (in.)

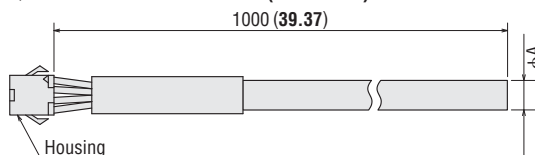
● Connector Type

◇ Fan

Type	Housing P/N	Mass kg (lb.)	DXF
Low-Speed Alarm, Electronic Alarm Type	SMP-04V-N (J.S.T.)	0.3 (0.66)	E118
Standard Type	SMP-03V-N (J.S.T.)		E119



◇ Cable with Connector (Included)

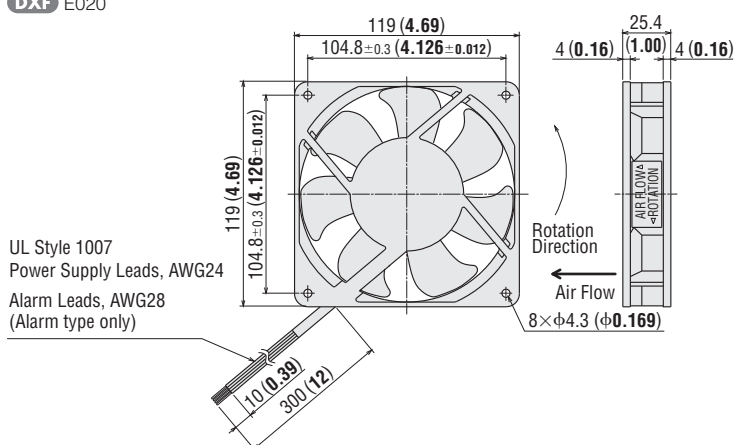


Type	φA	Housing P/N
Low-Speed Alarm, Electronic Alarm Type	φ5.1 (φ0.20)	SMP-04V-NC (J.S.T.)
Standard Type	φ4.5 (φ0.18)	SMP-03V-NC (J.S.T.)

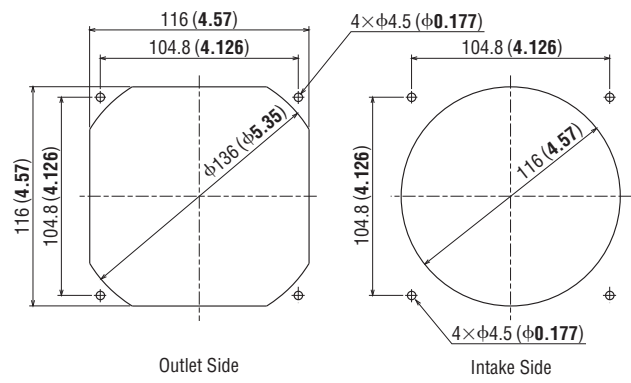
● Lead Wire Type

Mass: : 0.3 kg (0.66 lb.)

DXF E020

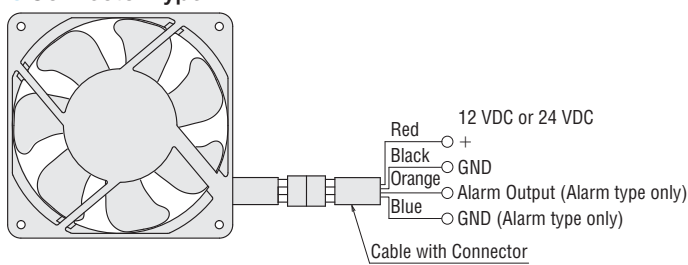


■ Panel Cut-Out Unit = mm (in.)

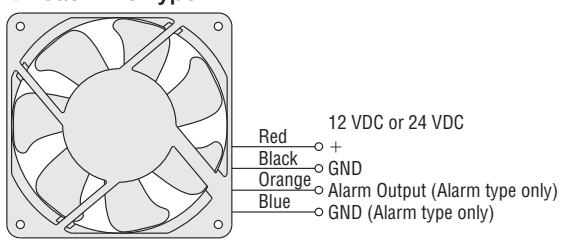


■ Connection Diagrams

● Connector Type



● Lead Wire Type



■ Accessories

The following products are RoHS-Compliant.

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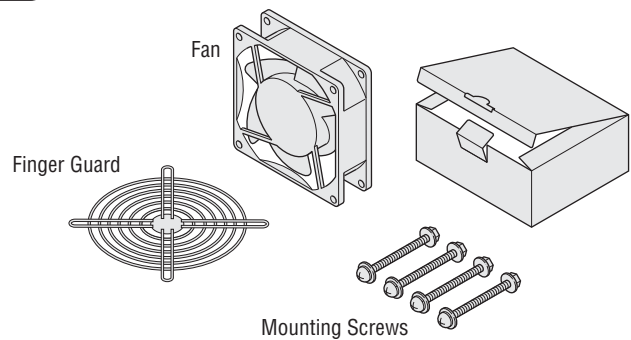
Product	Model	Safety Standards	Page
Finger Guard	FG12D	Conformed component	E-145
Filter	FL12	-	E-147
Screen	FS12S	-	E-150

Fan Kit

The lineup includes a product configuration containing all necessary accessories in one package.

RoHS

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● Product Line

◇ Connector Type

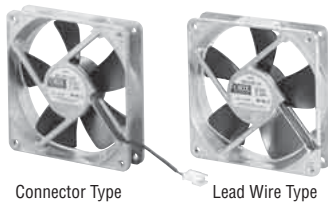
Fan Kit Model
T-MDS1225-12MHG
T-MDS1225-24MHG
T-MDS1225-12HG
T-MDS1225-24HG

◇ Lead Wire Type

Fan Kit Model
T-MDS1225-12M-G
T-MDS1225-24M-G
T-MDS1225-12-G
T-MDS1225-24-G

MD Series

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



Connector Type

Lead Wire Type

Ambient Temperature: $-10\sim+60^{\circ}\text{C}$ ($+14\sim+140^{\circ}\text{F}$)
 Operating Voltage Range: $\pm 15\%$
 Materials
 Frame: Die Cast Aluminum
 Blades: Polycarbonate (Flammability grade V-0)
 Overheat Protection: Built-in Overheat Protection Circuit
 Bearings: Ball Bearings

Specifications RoHS



Speed Type	Model		Voltage VDC	Current A	Speed r/min	Max. Air Flow m ³ /min	Max. Air Flow CFM	Max. Static Pressure		Noise Level dB (A)
	Connector Type	Lead Wire Type						Pa	inH ₂ O	
Standard Speed	MD1225-12H	MD1225-12	12	0.47	3100	2.5	88.3	43	0.172	45
	MD1225-24H	MD1225-24	24	0.26						

● Only lead wire model is DEMKO certified.

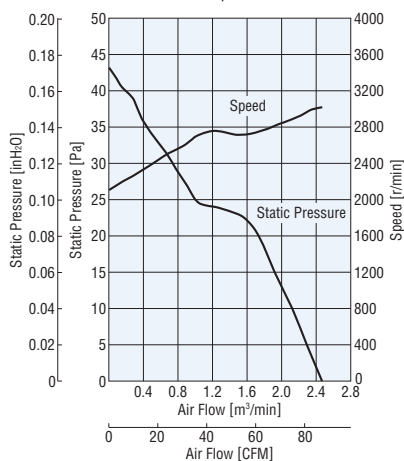
● How to read specifications → Page E-19 ● Details of safety standards → Page G-2 ● Details of RoHS Directive → Page G-38

The following items are included in each product.

- Connector Type
Fan, Cable with Connector, Operating Manual
- Lead Wire Type
Fan, Operating Manual

Air Flow – Static Pressure Characteristics

● How to read air flow – static pressure characteristics → Page E-20



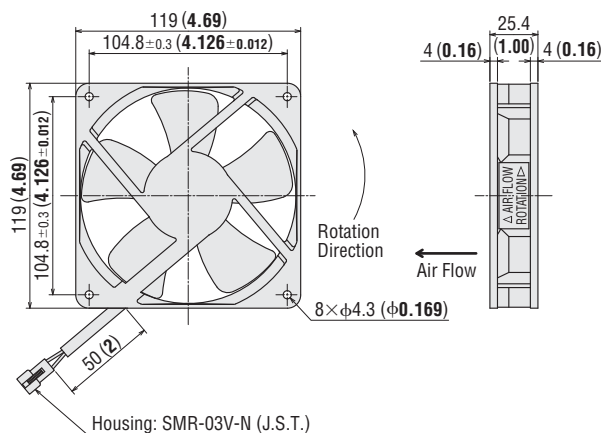
Dimensions Unit = mm (in.)

● Connector Type

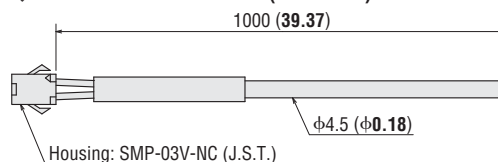
◇ Fan

Mass: 0.19 kg (0.42 lb.)

DXF E120



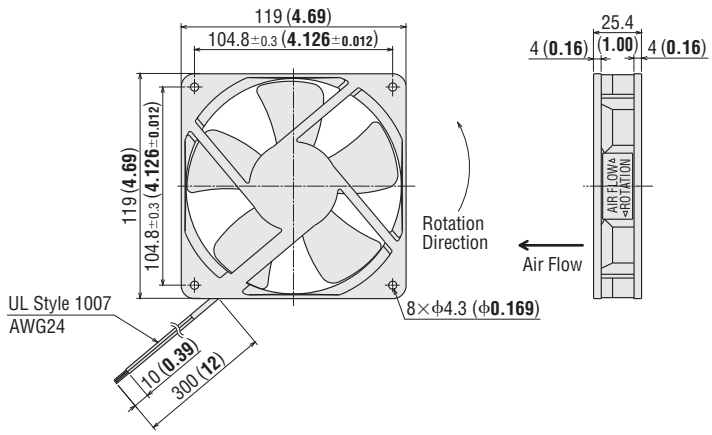
◇ Cable with Connector (Included)



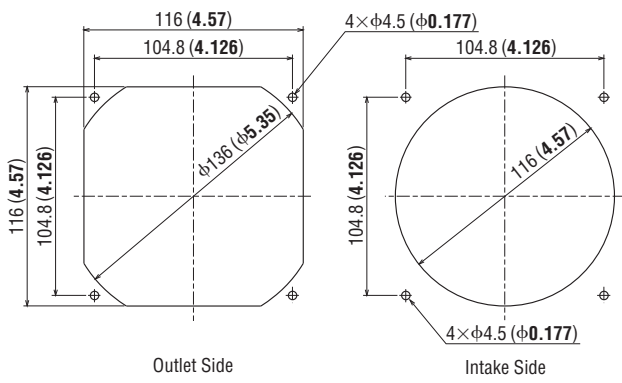
● Lead Wire Type

Mass: 0.19 kg (0.42 lb.)

DXF E021

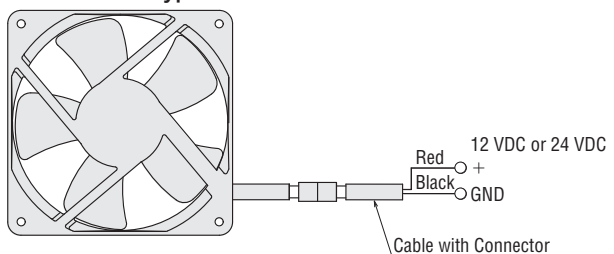


■ Panel Cut-Out Unit = mm (in.)

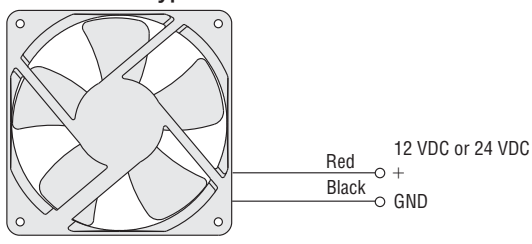


■ Connection Diagrams

● Connector Type



● Lead Wire Type



■ Accessories

The following products are RoHS-Compliant.

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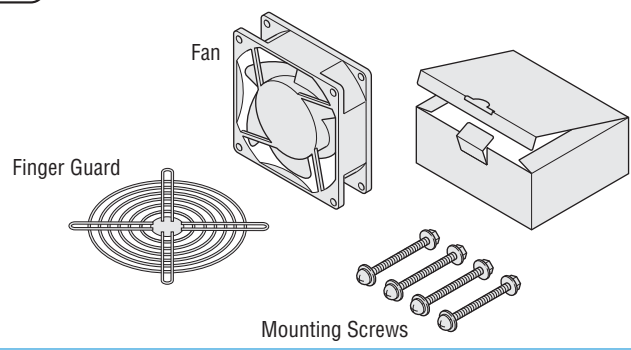
Product	Model	Safety Standards	Page
Finger Guard	FG12D	Conformed component	E-145
Filter	FL12	—	E-147
Screen	FS12S	—	E-150

■ Fan Kit

The lineup includes a product configuration containing all necessary accessories in one package.

RoHS

Details → Page E-141



● Product Line

◇ Connector Type

Fan Kit Model
T-MD1225-12HG
T-MD1225-24HG

◇ Lead Wire Type

Fan Kit Model
T-MD1225-12-G
T-MD1225-24-G

MD Series

□ 92 mm – 25.4 mm Thick
 (□ 3.62 in. – 1.00 in. Thick)



Connector Type

Lead Wire Type

Ambient Temperature: $-10\sim+60^{\circ}\text{C}$ ($+14\sim+140^{\circ}\text{F}$)
 Operating Voltage Range: $\pm 15\%$
 Materials
 Frame: Polycarbonate (Flammability grade: V-0)
 Blades: Polycarbonate (Flammability grade V-0)
 Overheat Protection: Built-in Overheat Protection Circuit
 Bearings: Ball Bearings



Specifications (RoHS)

Speed Type	Function	Model		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)
		Connector Type	Lead Wire Type								
Standard Speed	Stall Alarm, Electronic Alarm Type (Alarm specifications: ①)	MD925A-12LH	MD925A-12L	12	0.24	3400	1.30	45.9	49	0.196	36
		MD925A-24LH	MD925A-24L	24	0.12						
	Pulse Sensor Type (Alarm specifications: ②)	MD925A-12SH	MD925A-12S	12	0.24						
		MD925A-24SH	MD925A-24S	24	0.12						
	Standard Type	MD925A-12H	MD925A-12	12	0.24						
		MD925A-24H	MD925A-24	24	0.12						
Middle Speed	Standard Type	–	MD925AM-12	12	0.15	2800	1.10	38.8	34	0.137	31
–		MD925AM-24	24	0.09							
Low Speed	Standard Type	–	MD925AL-12	12	0.10	2200	0.90	31.8	22	0.0882	25
		–	MD925AL-24	24	0.07						

● Applicable standard and certification body depends on the approved product. For details, refer to the list of safety standard approved products G-11.

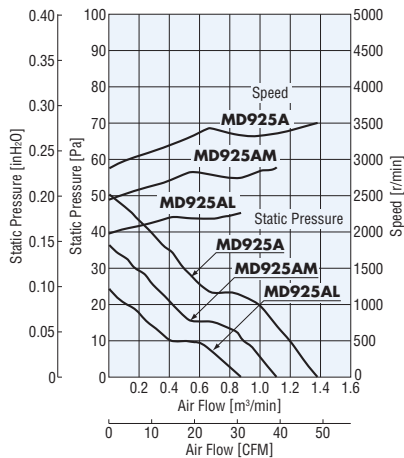
● How to read specifications → Page E-19 ● Alarm specifications ①, ② → Page E-21 ● Details of safety standards → Page G-2 ● Details of RoHS Directive → Page G-38

The following items are included in each product.

- Connector Type
Fan, Cable with Connector, Operating Manual
- Lead Wire Type
Fan, Operating Manual

Air Flow – Static Pressure Characteristics

● How to read air flow – static pressure characteristics → Page E-20



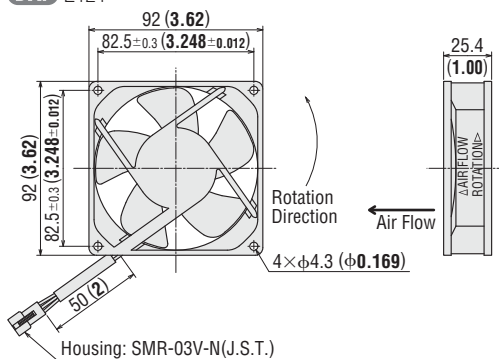
Dimensions Unit = mm (in.)

● Connector Type

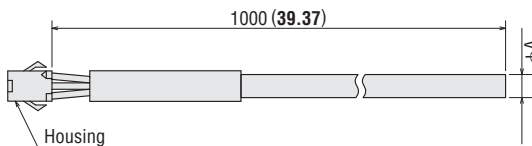
◇ Fan

Mass: 0.12 kg (0.26 lb.)

DXF E121



◇ Cable with Connector (Included)

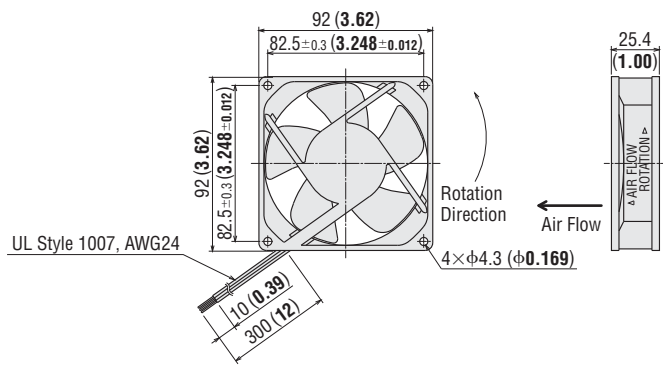


Type	φA	Housing P/N
Stall Alarm, Electronic Alarm Type	φ4.8 (φ0.19)	SMP-03V-NC (J.S.T.)
Pulse Sensor Type		
Standard Type	φ4.5 (φ0.18)	

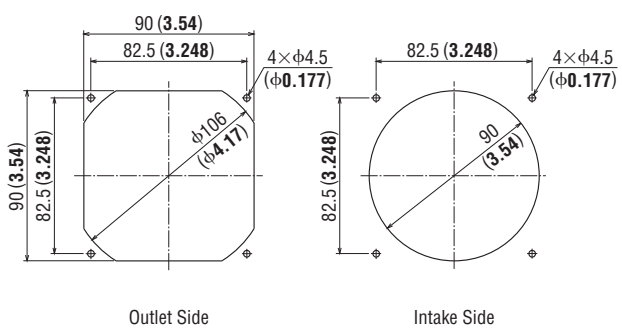
● Lead Wire Type

Mass: 0.12 kg (0.26 lb.)

DXF E022

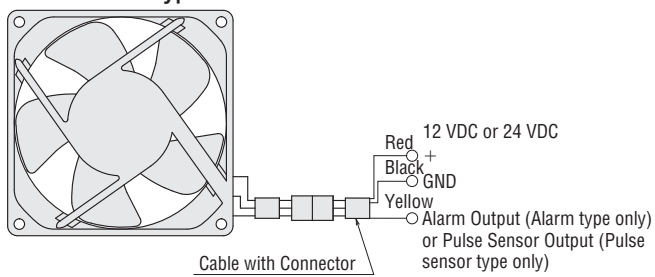


■ Panel Cut-Out Unit = mm (in.)

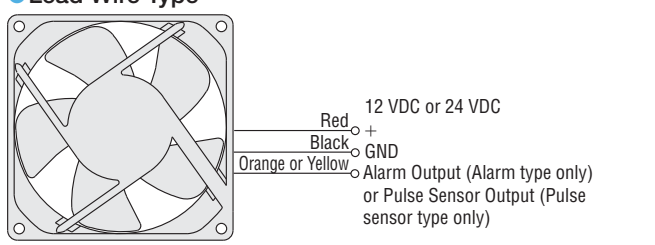


■ Connection Diagrams

● Connector Type



● Lead Wire Type



■ Accessories

The following products are RoHS-Compliant.

Details → Page E-137

Product	Model	Safety Standards	Page
Finger Guard	FG9D	Conformed component	E-145
Filter	FL9	-	E-147
Screen	FS9S	-	E-150

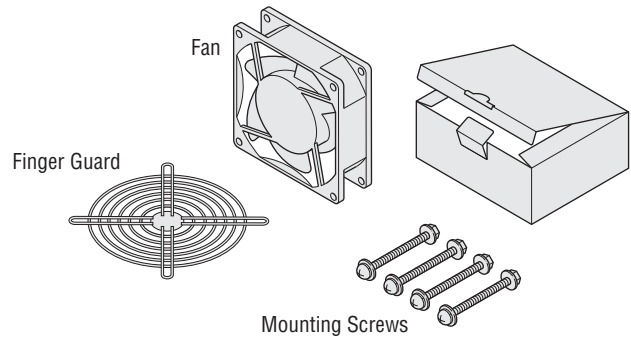
● Use M3 screws to install the **FL9S** filter to the fan frame.

■ Fan Kit

The lineup includes a product configuration containing all necessary accessories in one package.

Details → Page E-141

RoHS



● Product Line

◇ Connector Type

Fan Kit Model	
T-MD925A-12LHG	T-MD925A-24LHG
T-MD925A-12SHG	T-MD925A-24SHG
T-MD925A-12HG	T-MD925A-24HG

◇ Lead Wire Type

Fan Kit Model	
T-MD925A-12L-G	T-MD925A-24L-G
T-MD925A-12S-G	T-MD925A-24S-G
T-MD925A-12-G	T-MD925A-24-G
T-MD925AM-12-G	T-MD925AM-24-G
T-MD925AL-12-G	T-MD925AL-24-G

MD Series

□ **80 mm – 25.4 mm Thick**
 (□ **3.15 in. – 1.00 in. Thick**)



Connector Type

Lead Wire Type

Ambient Temperature: $-10 \sim +60^{\circ}\text{C}$ ($+14 \sim +140^{\circ}\text{F}$)Operating Voltage Range: $\pm 15\%$

Materials

Frame: Polycarbonate (Flammability grade: V-0)

Blades: Polycarbonate (Flammability grade V-0)

Overheat Protection: Built-in Overheat Protection Circuit

Bearings: Ball Bearings

Specifications RoHS



Speed Type	Function	Model		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)
		Connector Type	Lead Wire Type								
Standard Speed	Stall Alarm, Electronic Alarm Type (Alarm specifications: ①)	MD825B-12LH	MD825B-12L	12	0.25	3800	1.00	35.3	49	0.196	35
		MD825B-24LH	MD825B-24L	24	0.14						
	Pulse Sensor Type (Alarm specifications: ②)	MD825B-12SH	MD825B-12S	12	0.25						
		MD825B-24SH	MD825B-24S	24	0.14						
	Standard Type	MD825B-12H	MD825B-12	12	0.25						
		MD825B-24H	MD825B-24	24	0.14						
Middle Speed	Standard Type	–	MD825BM-12	12	0.15	2850	0.73	25.8	29	0.116	26
		–	MD825BM-24	24	0.09						
Low Speed	Standard Type	–	MD825BL-12	12	0.07	2100	0.55	19.4	16	0.0642	18

● Applicable standard and certification body depends on the approved product. For details, refer to the list of safety standard approved products G-11.

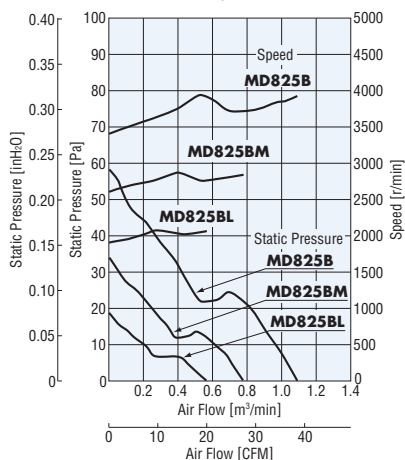
● How to read specifications → Page E-19 ● Alarm specifications ①, ② → Page E-21 ● Details of safety standards → Page G-2 ● Details of RoHS Directive → Page G-38

The following items are included in each product.

- Connector Type
Fan, Cable with Connector, Operating Manual
- Lead Wire Type
Fan, Operating Manual

Air Flow – Static Pressure Characteristics

● How to read air flow – static pressure characteristics → Page E-20



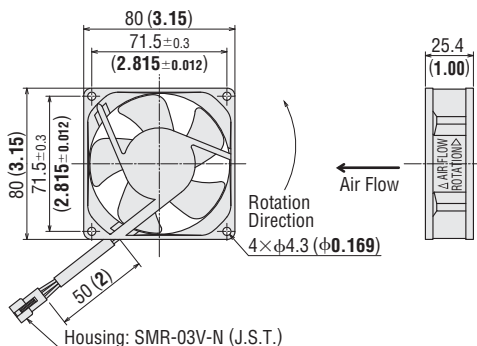
Dimensions Unit = mm (in.)

● Connector Type

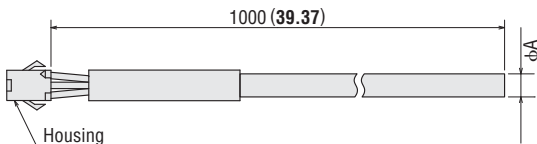
◇ Fan

Mass: 0.11 kg (0.24 lb.)

DXF E122



◇ Cable with Connector (Included)

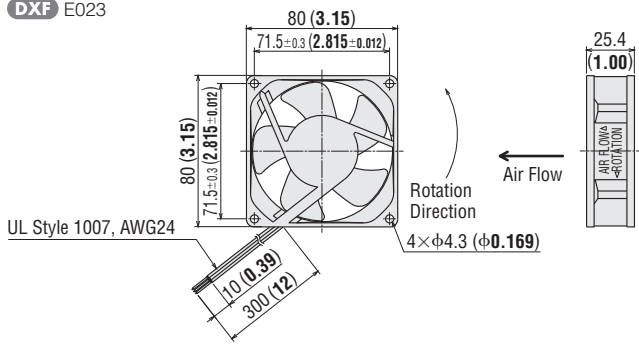


Type	φA	Housing P/N
Stall Alarm, Electronic Alarm Type Pulse Sensor Type	φ4.8 (φ0.19)	SMP-03V-NC (J.S.T.)
Standard Type	φ4.5 (φ0.18)	

● Lead Wire Type

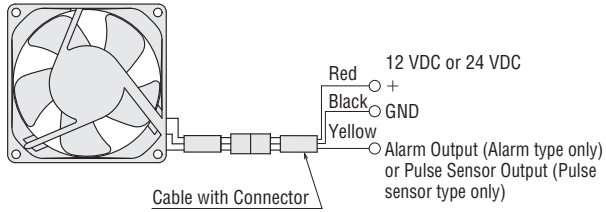
Mass: 0.11 kg (0.24 lb.)

DXF E023

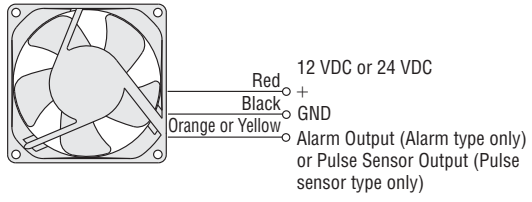


■ Connection Diagrams

● Connector Type



● Lead Wire Type



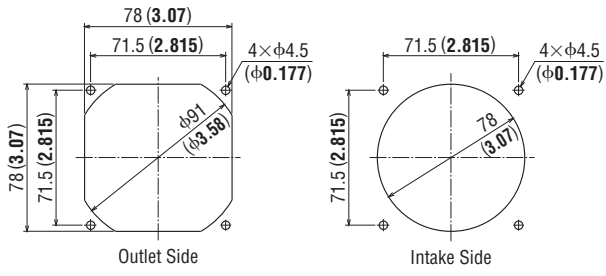
■ Accessories

The following products are RoHS-Compliant.

Details → Page E-137

Product	Model	Safety Standards	Page
Finger Guard	FG8D	Conformed component	E-145
Filter	FL8	-	E-147
Screen	FS8S	-	E-150

■ Panel Cut-Out Unit = mm (in.)

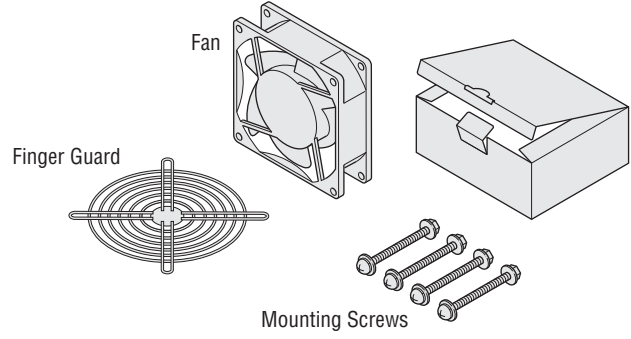


Fan Kit

The lineup includes a product configuration containing all necessary accessories in one package.

RoHS

Details → Page E-141



● Product Line

◇ Connector Type

Fan Kit Model	
T-MD825B-12LHG	T-MD825B-24LHG
T-MD825B-12SHG	T-MD825B-24SHG
T-MD825B-12HG	T-MD825B-24HG

◇ Lead Wire Type

Fan Kit Model	
T-MD825B-12L-G	T-MD825B-24L-G
T-MD825B-12S-G	T-MD825B-24S-G
T-MD825B-12-G	T-MD825B-24-G
T-MD825BM-12-G	T-MD825BM-24-G
T-MD825BL-12-G	-

Introduction

Cooling Module

AC Input MRS

AC Input Variable Flow MRS

AC Input MU

DC Input Long-Life MDE

DC Input MDS/MD

AC Input MB

DC Input MBD

AC Input MF

DC Input MFD

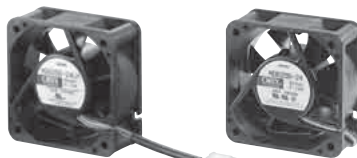
Thermostats

Accessories

Installation

MD Series

□ 62 mm – 25.4 mm Thick
 (□ 2.44 in. – 1.00 in. Thick)



Connector Type

Lead Wire Type

Ambient Temperature: $-10\sim+60^{\circ}\text{C}$ ($+14\sim+140^{\circ}\text{F}$)Operating Voltage Range: $\pm 15\%$

Materials

Frame: Polycarbonate (Flammability grade: V-0)

Blades: Polycarbonate (Flammability grade V-0)

Overheat Protection: Built-in Overheat Protection Circuit

Bearings: Ball Bearings



Specifications (RoHS)

Speed Type	Function	Model		Voltage VDC	Current A	Speed r/min	Max. Air Flow m ³ /min	CFM	Max. Static Pressure Pa	inH ₂ O	Noise Level dB (A)
		Connector Type	Lead Wire Type								
Standard Speed	Stall Alarm, Electronic Alarm Type (Alarm specifications: ①)	MD625B-12LH	MD625B-12L	12	0.16	4000	0.50	17.7	49	0.196	30
		MD625B-24LH	MD625B-24L	24	0.10						
	Pulse Sensor Type (Alarm specifications: ②)	MD625B-12SH	MD625B-12S	12	0.16						
		MD625B-24SH	MD625B-24S	24	0.10						
	Standard Type	MD625B-12H	MD625B-12	12	0.16						
MD625B-24H		MD625B-24	24	0.10							
Middle Speed	Standard Type	–	MD625BM-12	12	0.10	3000	0.37	13.1	27	0.109	20
		–	MD625BM-24	24	0.07						

● Applicable standard and certification body depends on the approved product. For details, refer to the list of safety standard approved products G-11.

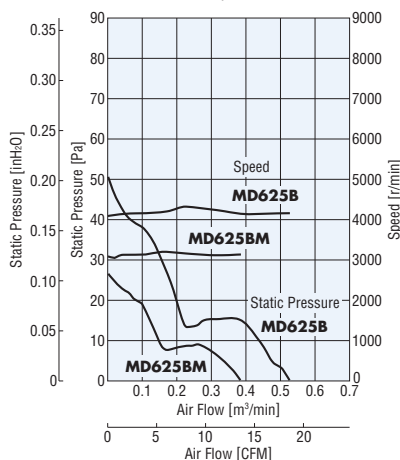
● How to read specifications → Page E-19 ● Alarm specifications ①, ② → Page E-21 ● Details of safety standards → Page G-2 ● Details of RoHS Directive → Page G-38

The following items are included in each product.

- Connector Type
Fan, Cable with Connector, Operating Manual
- Lead Wire Type
Fan, Operating Manual

Air Flow – Static Pressure Characteristics

● How to read air flow – static pressure characteristics → Page E-20



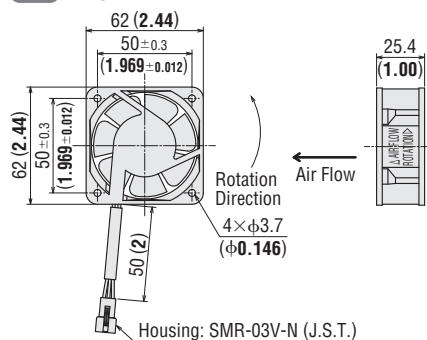
Dimensions Unit = mm (in.)

● Connector Type

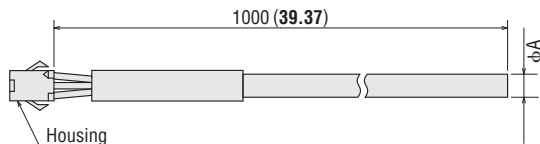
◇ Fan

Mass: 0.1 kg (0.22 lb.)

DXF E123



◇ Cable with Connector (Included)

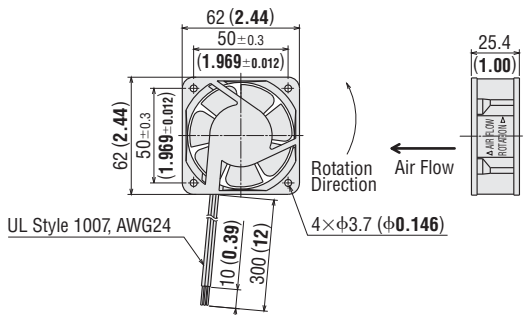


Type	φA	Housing P/N
Stall Alarm, Electronic Alarm Type Pulse Sensor Type	φ4.8 (φ0.19)	SMP-03V-NC (J.S.T.)
Standard Type	φ4.5 (φ0.18)	

● Lead Wire Type

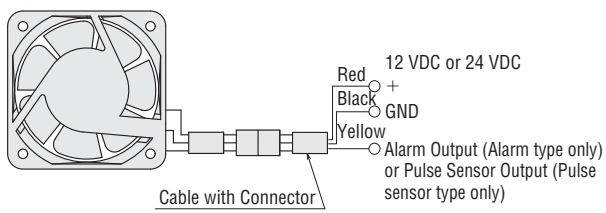
Mass: 0.1 kg (0.22 lb.)

DXF E024

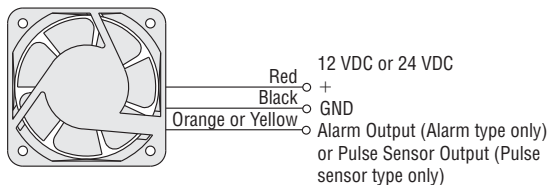


■ Connection Diagrams

● Connector Type



● Lead Wire Type



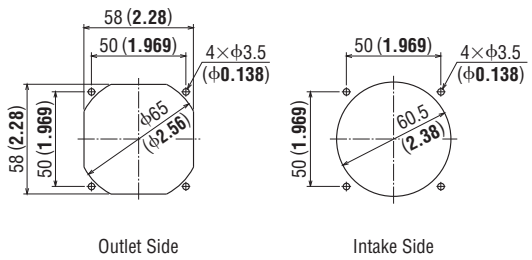
■ Accessories

The following products are RoHS-Compliant.

Details → Page E-137

Product	Model	Safety Standards	Page
Finger Guard	FG6D	Conformed component	E-145
Filter	FL6	—	E-147
Screen	FS6S	—	E-150

■ Panel Cut-Out Unit = mm (in.)

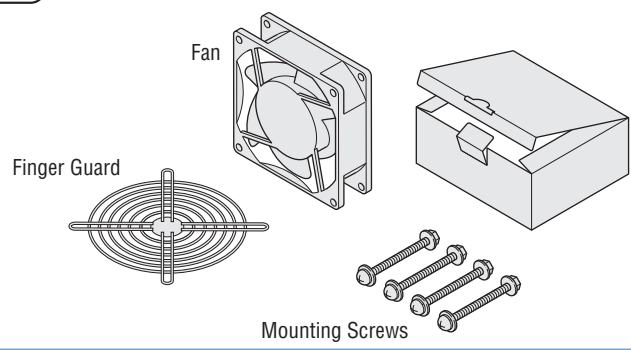


Fan Kit

The lineup includes a product configuration containing all necessary accessories in one package.

RoHS

Details → Page E-141



● Product Line

◇ Connector Type

Fan Kit Model	
T-MD625B-12LHG	T-MD625B-24LHG
T-MD625B-12SHG	T-MD625B-24SHG
T-MD625B-12HG	T-MD625B-24HG

◇ Lead Wire Type

Fan Kit Model	
T-MD625B-12L-G	T-MD625B-24L-G
T-MD625B-12S-G	T-MD625B-24S-G
T-MD625B-12-G	T-MD625B-24-G
T-MD625BM-12-G	T-MD625BM-24-G

Introduction

Cooling Module

AC Input MRS

AC Input Variable Flow MRS

AC Input MU

DC Input Long-Life MDE

DC Input MDS/MD

AC Input MB

DC Input MBD

AC Input MF

DC Input MFD

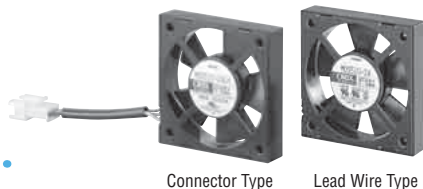
Thermostats

Accessories

Installation

MDS Series

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



Connector Type

Lead Wire Type

Ambient Temperature: $-10\sim+60^{\circ}\text{C}$ ($+14\sim+140^{\circ}\text{F}$)
 Operating Voltage Range: $\pm 10\%$
 Materials
 Frame: Polycarbonate (Flammability grade: V-0)
 Blades: PBT (Flammability grade: V-0)
 Overheat Protection: Built-in Overheat Protection Circuit
 Bearings: Ball Bearings



Specifications (RoHS)

Speed Type	Function	Model		Voltage VDC	Current A	Speed r/min	Max. Air Flow m ³ /min	CFM	Max. Static Pressure		Noise Level dB (A)
		Connector Type	Lead Wire Type						Pa	inH ₂ O	
Standard Speed	Stall Alarm, Electronic Alarm Type (Alarm specifications: ①)	MDS510-12LH	MDS510-12L	12	0.14	7000	0.27	9.53	54	0.217	36
		MDS510-24LH	MDS510-24L	24	0.08						
	Standard Type	MDS510-12H	MDS510-12	12	0.14						
		MDS510-24H	MDS510-24	24	0.08						
Middle Speed	Standard Type	MDS510M-5H	MDS510M-5	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.

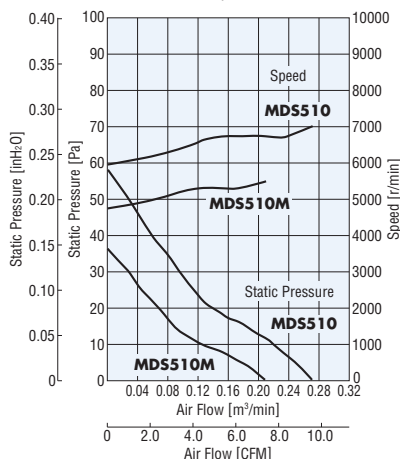
● How to read specifications → Page E-19 ● Alarm specifications ① → Page E-21 ● Details of safety standards → Page G-2 ● Details of RoHS Directive → Page G-38

The following items are included in each product.

- Connector Type
Fan, Cable with Connector, Operating Manual
- Lead Wire Type
Fan, Operating Manual

Air Flow – Static Pressure Characteristics

● How to read air flow – static pressure characteristics → Page E-20



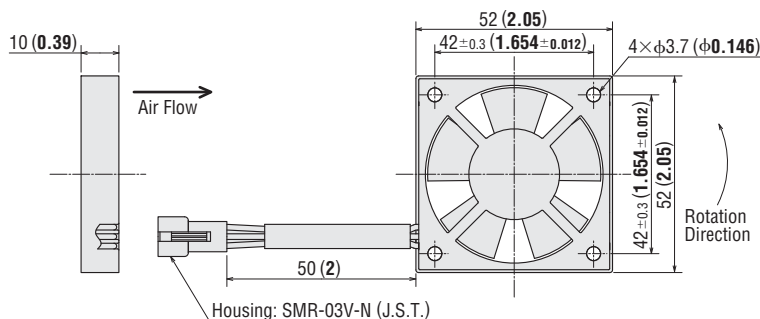
Dimensions Unit = mm (in.)

● Connector Type

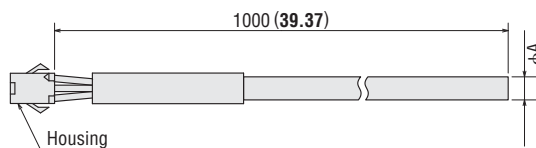
◇ Fan

Mass: 30 g (1.06 oz.)

DXF E124



◇ Cable with Connector (Included)

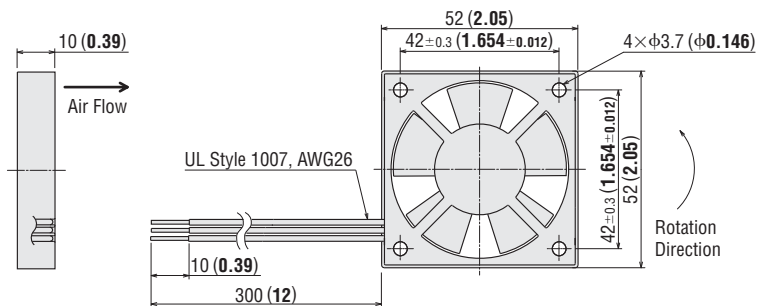


Type	φA	Housing P/N
Stall Alarm, Electronic Alarm Type	φ4.8 (φ0.19)	SMP-03V-NC (J.S.T.)
Standard Type, Standard Speed	φ4.5 (φ0.18)	
Standard Type, Middle Speed		

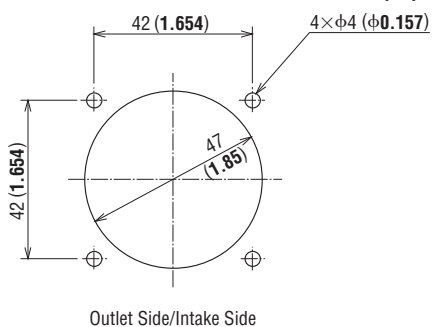
● Lead Wire Type

Mass: 30 g (1.06 oz.)

DXF E018

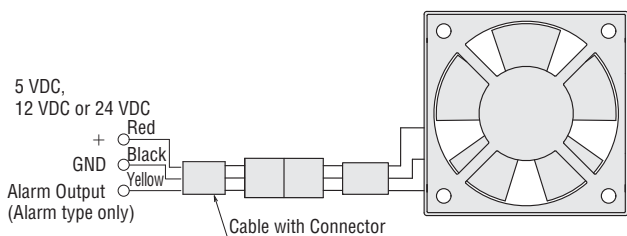


■ Panel Cut-Out Unit = mm (in.)

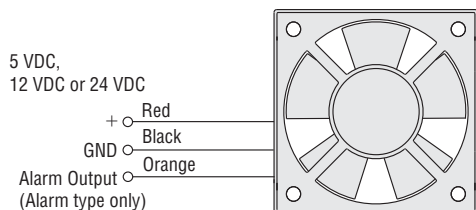


■ Connection Diagrams

● Connector Type



● Lead Wire Type



■ Accessories

The following product is RoHS-Compliant.

Details → Page E-137

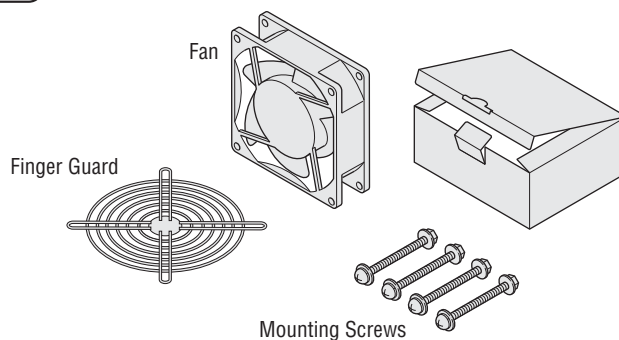
Product	Model	Safety Standards	Page
Finger Guard	FG5D	Conformed component	E-145

Fan Kit

The lineup includes a product configuration containing all necessary accessories in one package.

RoHS

Details → Page E-141



● Product Line

◇ Connector Type

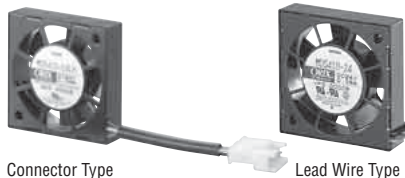
Fan Kit Model	
T-MDS510-12LHG	T-MDS510-24LHG
T-MDS510-12HG	T-MDS510-24HG
T-MDS510M-5HG	-

◇ Lead Wire Type

Fan Kit Model	
T-MDS510-12L-G	T-MDS510-24L-G
T-MDS510-12-G	T-MDS510-24-G
T-MDS510M-5-G	-
T-MDS510M-12-G	T-MDS510M-24-G

MDS Series

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



Connector Type

Lead Wire Type

Ambient Temperature: $-10\sim+60^{\circ}\text{C}$ ($+14\sim+140^{\circ}\text{F}$)Operating Voltage Range: $\pm 10\%$

Materials

Frame: Polycarbonate (Flammability grade: V-0)

Blades: PBT (Flammability grade: V-0)

Overheat Protection: Built-in Overheat Protection Circuit

Bearings: Ball Bearings

Specifications (RoHS)



Speed Type	Function	Model		Voltage VDC	Current A	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB (A)
		Connector Type	Lead Wire Type				m ³ /min	CFM	Pa	inH ₂ O	
Standard Speed	Stall Alarm, Electronic Alarm Type (Alarm specifications: ①)	MDS410-12LH	MDS410-12L	12	0.16	10000	0.18	6.35	86	0.345	34
		MDS410-24LH	MDS410-24L	24	0.09						
	Standard Type	MDS410-12H	MDS410-12	12	0.16						
		MDS410-24H	MDS410-24	24	0.09						
Middle Speed	Standard Type	MDS410M-5H	MDS410M-5	5	0.20	7500	0.13	4.59	47	0.188	25

● Only lead wire type is DEMKO certified.

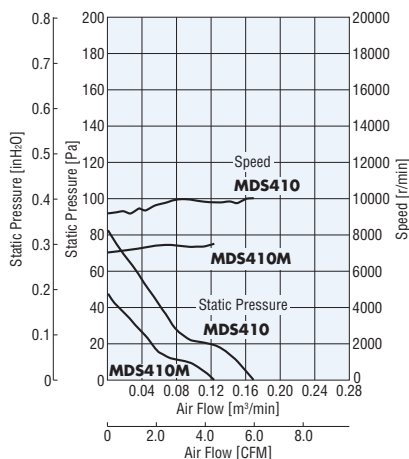
● How to read specifications → Page E-19 ● Alarm specifications ① → Page E-21 ● Details of safety standards → Page G-2 ● Details of RoHS Directive → Page G-38

The following items are included in each product.

- Connector Type
Fan, Cable with Connector, Operating Manual
- Lead Wire Type
Fan, Operating Manual

Air Flow – Static Pressure Characteristics

● How to read air flow – static pressure characteristics → Page E-20



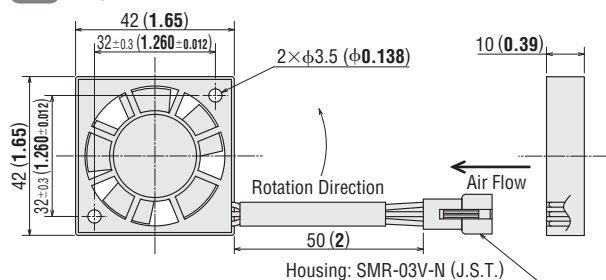
Dimensions Unit = mm (in.)

● Connector Type

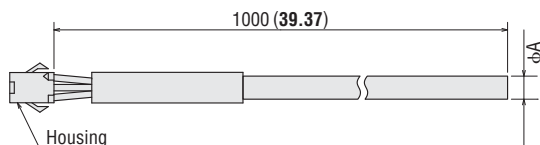
◇ Fan

Mass: 25 g (0.88 oz.)

DXF E125



◇ Cable with Connector (Included)

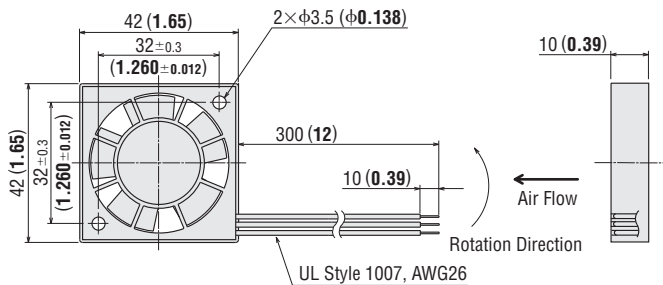


Type	φA	Housing P/N
Stall Alarm, Electronic Alarm Type	φ4.8 (φ0.19)	SMP-03V-NC (J.S.T.)
Standard Type, Standard Speed	φ4.5 (φ0.18)	
Standard Type, Middle Speed		

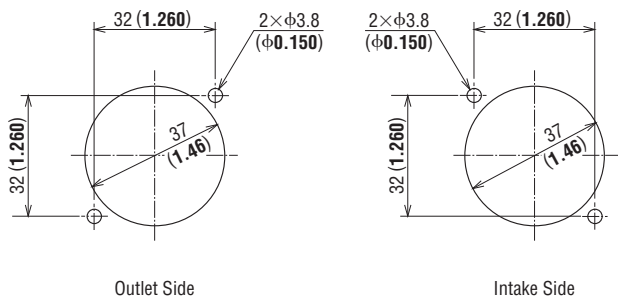
● Lead Wire Type

Mass: 25 g (0.88 oz.)

DXF E019

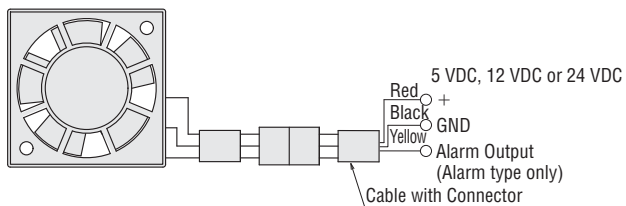


■ Panel Cut-Out Unit = mm (in.)

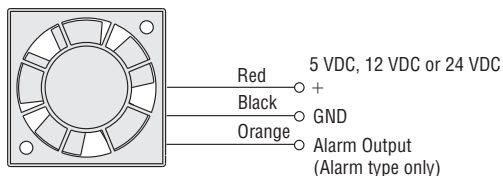


■ Connection Diagrams

● Connector Type



● Lead Wire Type



■ Accessories

The following product is RoHS-Compliant.

Details → Page E-137

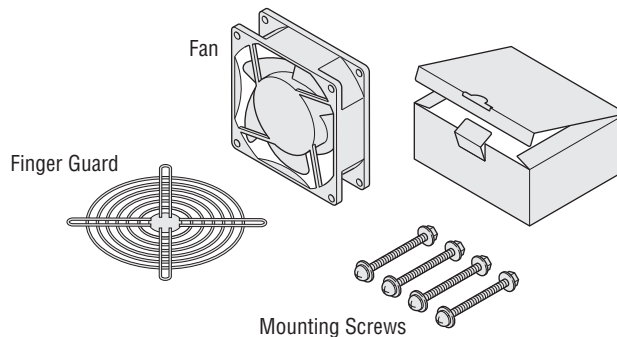
Product	Model	Safety Standards	Page
Finger Guard	FG4D	Conformed component	E-145

Fan Kit

The lineup includes a product configuration containing all necessary accessories in one package.

Details → Page E-141

RoHS



● Product Line

◇ Connector Type

Fan Kit Model	
T-MDS410-12LHG	T-MDS410-24LHG
T-MDS410-12HG	T-MDS410-24HG
T-MDS410M-5HG	-

◇ Lead Wire Type

Fan Kit Model	
T-MDS410-12L-G	T-MDS410-24L-G
T-MDS410-12-G	T-MDS410-24-G
T-MDS410M-5-G	-

