



Introduction

MRS

AC Input
Variable
Flow

MU

Long Life
MDE

MDS · MD

Axial Flow Fans

MB

Centrifugal Blowers
AC Input DC Input

MBD

Cross Flow Fans
AC Input DC Input

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a Fan

Axial Flow Fans

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Axial Flow Fans

Axial flow fans use a propeller to create a flow of air in the direction of the axis of rotation. Because they create a large airflow, axial flow fans are optimal for a wide variety of cooling and other airflow needs.



In the **ORIX_{FAN}** line, axial flow fans are available in a large number of sizes and voltage characteristics, from high air flow AC fans to extraordinarily compact DC fans. In addition to the standard type, built-in alarm types are also available which detect and signal fan rotation abnormalities.

Safety Standards and CE Marking

Model	Standards	Certification Body	Standards File No.	CE Marking
MRS Series	UL507	UL	E58377	Low Voltage Directives
	CSA C22.2 No.113	CSA	LR62524	
	EN60950 (MRS25 type is not certified)	VDE	5866ÜG, 5867ÜG 5868ÜG, 5869ÜG	
MRS18V2 Series	UL507, UL1917	UL	E58377	Low Voltage Directives
	CSA 22.2 No.113			
	EN60950	DEMKO	125232	
MU Series	UL507	UL	E58377	Low Voltage Directives
	CSA 22.2 No.113	CSA	LR62524	
	EN60950	VDE	5870ÜG, 5807ÜG	
	ELECTRICAL APPLIANCE AND MATERIAL Safety LAW	JET	0018-91002-001 0018-91002-002 0018-91002-003	
MDE Series MDS, MD Series	UL507	UL	E58377	EMC Directives
	CSA C22.2 No.113			
	EN60950	DEMKO	124018	

- **Details of Safety Standard** → Page G-2
- **List of Safety Standard Approved Products** → Page G-22
- Some alarm type fans are not DEMKO approved.

General Specifications

AC Axial Flow Fans

Item	Specifications
Insulation Resistance	100 MΩ or more when 500 VDC is applied between the windings and the frame under normal ambient temperature and humidity.
Dielectric Strength	Sufficient to withstand 1.5kV at 50Hz applied between the windings and the frame for 1 minute under normal ambient temperature and humidity.
Temperature Rise	54°F (30°C) or less measured by the thermometer method after the temperature of the coil has stabilized under normal operation at the rated voltage and frequency.
Operating Voltage Range	±10% of the rated voltage
Insulation Class	Class E (248°F [120°C]) [Recognized as Class A (221°F [105°C]) by UL and CSA standards.]
Overheat Protection	MRS Series has built-in thermal protector (automatic reset type) Operating temperature, open: 248°F±9°F (120°C±5°C), close: 170.6°F±27°F (77°C±15°C) MU Series has impedance protection
Ambient Temperature	14°F~140°F (-10°C~+60°C)
Ambient Humidity	0~85% (noncondensing)
Colors	MRS Frame: Black; Blades: Black MU Frame: Unpainted (Aluminum); Blades: Black

● DC Axial Flow Fans

Item	Specifications
Insulation Resistance	10 MΩ or more when 250 VDC is applied between the windings and the frame under normal ambient temperature and humidity.
Dielectric Strength	Sufficient to withstand 500V at 50Hz applied between the windings and the frame for 1 minute under normal ambient temperature and humidity.
Temperature Rise	18°F (10°C) or less measured by the thermometer method after the temperature of the coil has stabilized under normal operation at the rated voltage.
Operating Voltage Range	±15% of the rated voltage (MDS510, MDS410 : ±10%)
Insulation Class	Class E (248°F [120°C]) [Recognized as Class A (221°F [105°C]) by UL and CSA standards.]
Overheat Protection	Built-in overheat protection circuit.
Ambient Temperature	14°F~140°F (-10°C~+60°C)
Ambient Humidity	0~85% (noncondensing)
Colors	MDE1225, MDS510, MDS410, MD925, MD825, MD625 : Frame: Black; Blades: Black MDS1751, MDS1225, MD1225 : Frame: Unpainted (Aluminum); Blades: Black

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Axial Flow Fans

DC Input

AC Input

AC Input

DC Input

AC Input

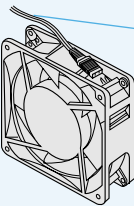
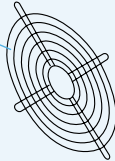
DC Input

System Configuration

Finger Guards (Accessories)

Protect against the hazards posed by rotating fan blades.

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Axial Flow Fans

Plug Cords (Accessories)

Provide terminals for connection to the power supply.

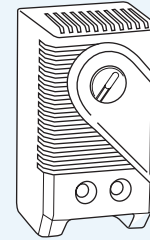
For **MU** Series fans.

(→Page E-108)

Thermostats

Thermostats make it possible for fans to operate only when cooling is necessary, thereby conserving energy.

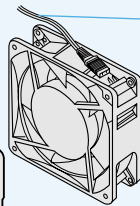
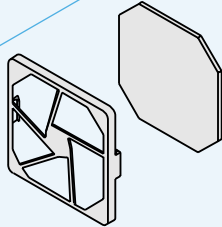
(→Page E-97)



Filters (Accessories)

Prevents dust from entering the fan, eliminating particulate contamination of the equipment.

(→Page E-105)



Axial Flow Fans

Plug Cords (Accessories)

Provide terminals for connection to the power supply.

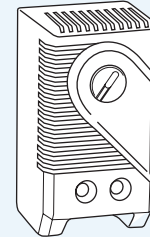
For **MU** Series fans.

(→Page E-108)

Thermostats

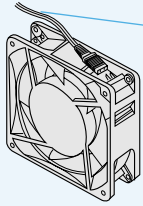
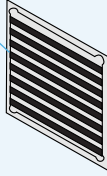
Thermostats make it possible for fans to operate only when cooling is necessary, thereby conserving energy.

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Screens (Accessories)

Allow the passage of air but block electromagnetic waves.
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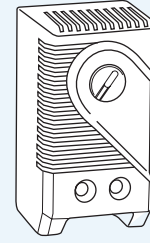
Axial Flow Fans

Plug Cords (Accessories)

Provide terminals for connection to the power supply.
For **MU** Series fans.
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Thermostats

Thermostats make it possible for fans to operate only when cooling is necessary, thereby conserving energy.
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Product Number Codes

● AC Axial Flow Fans

◆ MRS Series

MRS 18(V2)- B UL

Series

Letter Designation

B: Contact type alarm
M: Electronic type alarm
TM: Terminal box, electronic type alarm
UL: Standard
TA: With terminal box contact type alarm

Voltage

B: Single-Phase 100/115 VAC
D: Single-Phase 200/230 VAC
T: Three-Phase 200/230 VAC

Speed Type

V2: Variable flow

Frame Size

14: 5.51 in.sq. (140 mm sq.)
16: 6.30 in.sq. (160 mm sq.)
18: 7.09 in.sq. (180 mm sq.)
20: 7.87 in.sq. (200 mm sq.)
25: 9.84 in.sq. (250 mm sq.)

◆ MU Series

MU 12 38 A - 2 1 B

Series

Frame Size

8: 3.15 in.sq. (80 mm sq.)
9: 3.62 in.sq. (92 mm sq.)
12: 4.69 in.sq. (119 mm sq.)

Frame Thickness

25: 0.98 in. (25 mm)
38: 1.50 in. (38 mm)

Letter Designation

No letter } indicates the shape of the frame
B }

Power Connection

1: Internal plug cord
3: Lead wire

Voltage

2: Single-Phase 115 VAC
5: Single-Phase 220/230 VAC

Speed Type

A } Standard Speed
S }
M } Middle Speed
B }
L: Low Speed

◆ DC Axial Flow Fans

MD 9 25 A - 12 L

Series

MDE: MDE Series
MDS: MDS Series
MD: MD Series

Frame Size

4: 1.65 in.sq. (42 mm sq.)
5: 2.05 in.sq. (52 mm sq.)
6: 2.44 in.sq. (62 mm sq.)
8: 3.15 in.sq. (80 mm sq.)
9: 3.62 in.sq. (92 mm sq.)
12: 4.69 in.sq. (119 mm sq.)
17: 6.77 in.dia. (172 mm dia.)

Alarm Type

B: Low speed alarm type (contact type)
M: Low speed alarm type (electronic alarm type)
L: Stall alarm type
S: Pulse sensor type

Rated Voltage

5: 5 VDC
12: 12 VDC
24: 24 VDC

Speed Type

No letter, **A, B:** Standard Speed
AM, BM: Middle Speed
AL, BL: Low Speed

Frame Thickness

10: 0.39 in. (10 mm)
25: 0.98 in. (25 mm)
51: 2.01 in. (51 mm)

Types of Axial Flow Fans

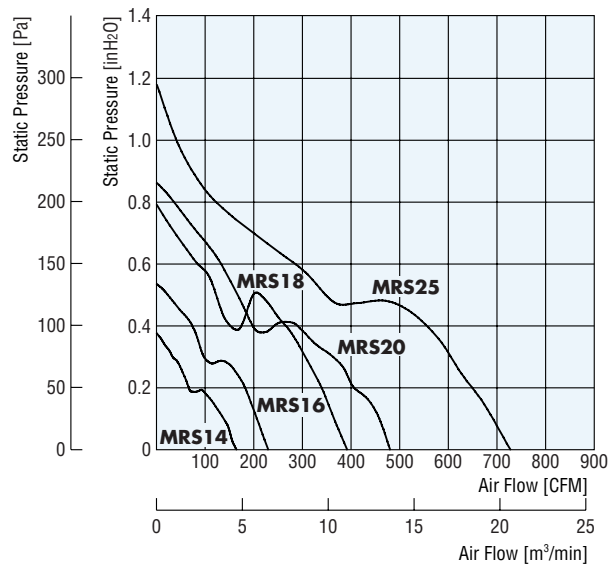
Frame Size in. sq.	Thickness inch	AC						DC		Input Type		Function	
		Single-Phase	Single-Phase	Single-Phase	Single-Phase	Three-Phase	Three-Phase	12 VDC	24 VDC	AC	DC	Alarm	Variable Flow
		100 VAC	115 VAC	200 VAC	230 VAC	200 VAC	230 VAC						
9.84	4.72	MRS25-B, BM, BB		MRS25-D, DM, DB		MRS25-T, TM, TB				E-24	—	E-24	—
7.87	3.54	MRS20-BUL, BM		MRS20-DUL, DM		MRS20-TUL, TM				E-26	—	E-26	—
7.09	3.54	MRS18-BUL, BTM		MRS18-DUL, DTM		MRS18-TUL, TTM				E-28	—	E-28	E-34
6.77	2.01								MDS1751-24, 24B, 24S	—	E-46	E-46	—
6.30	2.44	MRS16-BUL, BTM, BTA		MRS16-DUL, DTM, DTA		MRS16-TUL, TTM, TTA				E-30	—	E-30	—
5.51	1.85									E-32	—	E-32	—
4.69	1.50	MU1238A-21B		MU1238A-51B						E-36	—	—	—
	0.98							MDE1225-12L	MDE1225-24L	—	E-44	E-44	—
3.62	0.98							MDS1225-12, 12M	MDS1225-24, 24M	—	E-48	E-48	—
								MD1225-12, 12M	MD1225-24, 24M	E-38	—	—	—
3.15	0.98	MU9255-21		MU9255-51				MD925A-12, 12L, 12S	MD925A-24, 24L, 24S	E-40	E-52	E-52	—
2.44	0.98	MU8255-23		MU8255-53				MD825B-12, 12L, 12S	MD825B-24, 24L, 24S	E-42	E-54	E-54	—
2.05	0.98							MD625B-12, 12L, 12S	MD625B-24, 24L, 24S	—	E-56	E-56	—
1.65	0.98							MDS510-12, 12L	MDS510-24, 24L	—	E-58	E-58	—
								MDS410-12, 12L	MDS410-24, 24L	—	E-60	E-60	—

Comparison of Characteristics

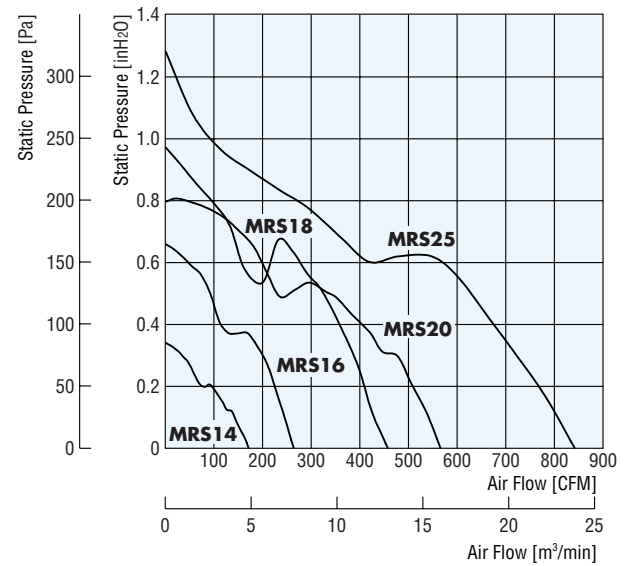
AC Axial Flow Fans

MRS Series

50 Hz



60 Hz



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Thermostats

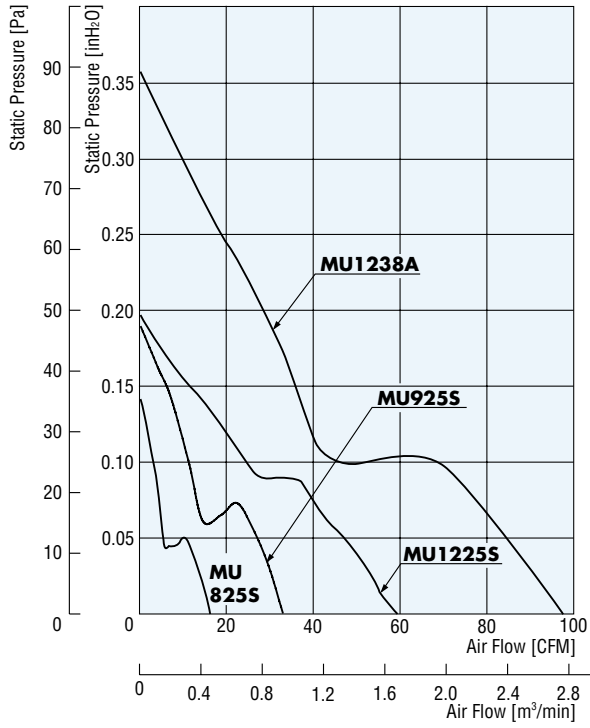
Accessories

Before Using a Fan

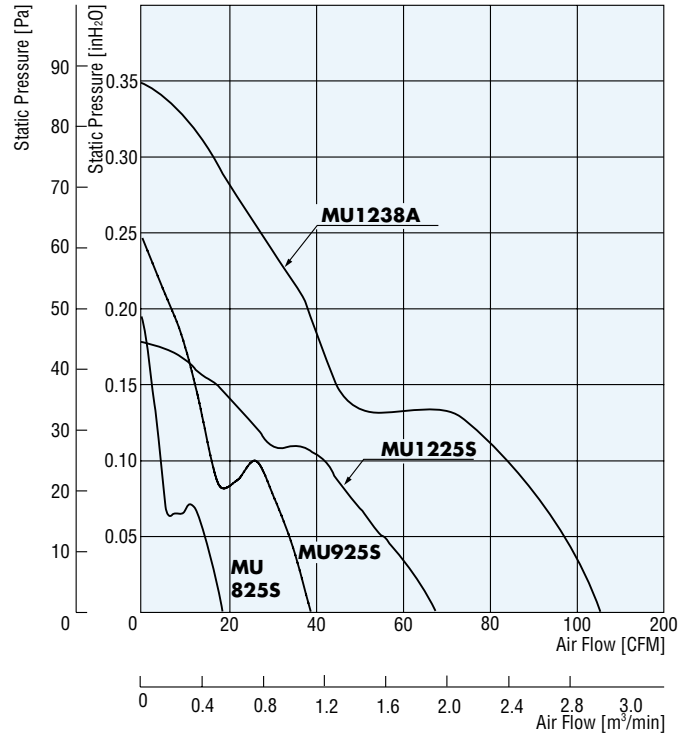
Comparison of Characteristics

◆ MU Series

● 50 Hz

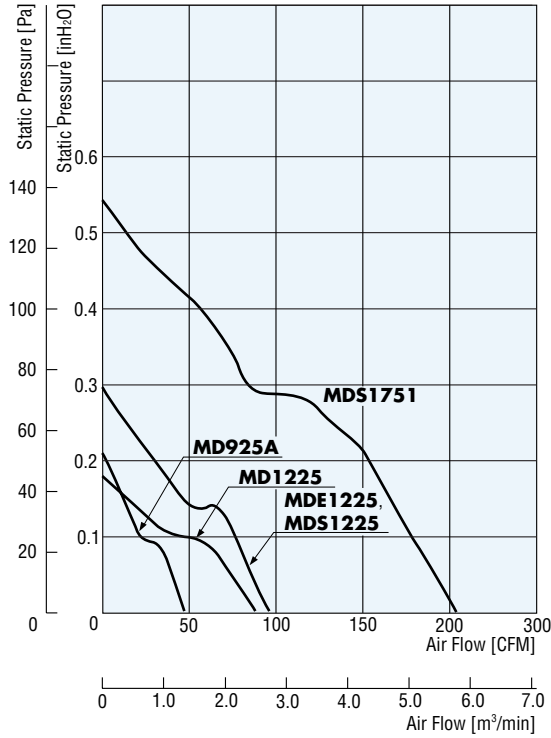


● 60 Hz

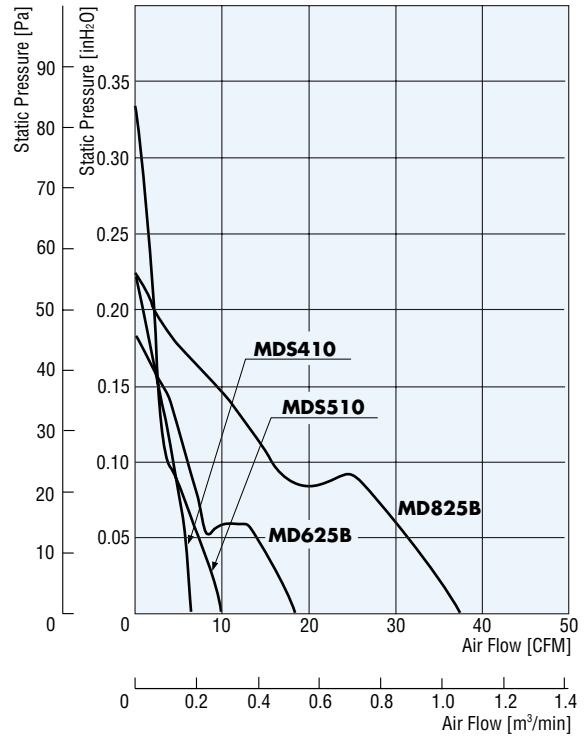


● DC Axial Flow Fans

- MDS1751
- MDE1225
- MDS1225
- MD1225
- MD925A



- MD825B
- MD625B
- MDS510
- MDS410



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Centrifugal Blowers

AC Input DC Input

AC Input DC Input

AC Input DC Input

AC Input DC Input

AC Input DC Input

AC Input DC Input

AC Input DC Input

AC Input DC Input

AC Input DC Input

AC Input DC Input

AC Input DC Input

AC Input DC Input

MRS Series

High-Efficiency, Low-Noise Models

□ 9.84 in.×4.72 in. thick
 (□ 250 mm×120 mm thick)



Ambient Temperature: 14°F to 140°F (–10°C to +60°C)
 Operating Voltage Range: ±10%

Materials

Frame: Die Cast Aluminum
 Blades: Resin
 Flammability Grade: V-0
 Overheat Protection: Built-in Thermal Protector
 Bearings: Ball Bearings

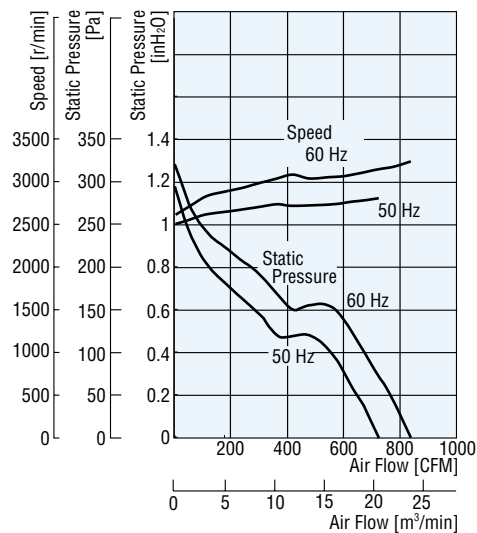


Specifications

Model			Voltage VAC	Frequency Hz	Current A	Input Power W	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB (A)	Capacitor μ F
Electronic Alarm Type	Contact Alarm Type	Standard Type						CFM	m ³ /min	inH ₂ O	Pa		
MRS25-BM	MRS25-BB	MRS25-B	Single-Phase 100	50	0.8	80	2800	742	21.0	1.16	290	58	16.0
		Single-Phase 100	60	1.1	110	3220	848	24.0	1.28	320	62		
		Single-Phase 110	60	1.1	120	3280	848	24.0	1.36	340	62		
		Single-Phase 115	60	1.1	125	3300	848	24.0	1.45	360	62		
MRS25-DM	MRS25-DB	MRS25-D	Single-Phase 200	50	0.4	85	2790	742	21.0	1.16	290	58	4.5
		Single-Phase 200	60	0.7	120	3220	848	24.0	1.28	320	62		
		Single-Phase 220	50	0.4	95	2820	742	21.0	1.24	310	58		
		Single-Phase 220	60	0.7	130	3260	848	24.0	1.45	360	62		
		Single-Phase 230	50	0.5	100	2830	742	21.0	1.28	320	58		
Single-Phase 230	60	0.7	135	3290	848	24.0	1.45	360	62				
MRS25-TM	MRS25-TB	MRS25-T	Three-Phase 200	50	0.4	70	2830	742	21.0	1.24	310	58	—
		Three-Phase 200	60	0.4	100	3270	848	24.0	1.45	360	62		
		Three-Phase 220	50	0.4	80	2850	742	21.0	1.28	320	58		
		Three-Phase 220	60	0.4	105	3320	883	25.0	1.57	390	62		
Three-Phase 230	60	0.4	105	3340	883	25.0	1.65	410	63				

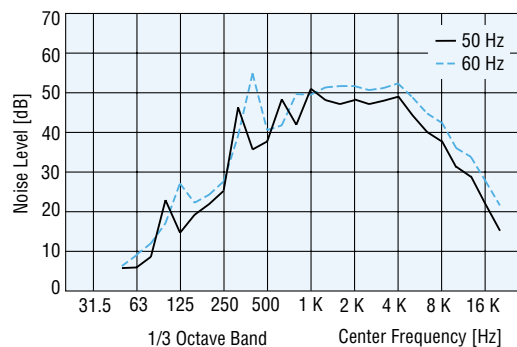
•How to read the specifications →Page E-13 •Alarm Specifications: ②→Page E-14, ⑤→Page E-15 •Details of safety standards →Page G-2

Air Flow – Static Pressure Characteristics



Frequency – Audible Noise Level (dB)

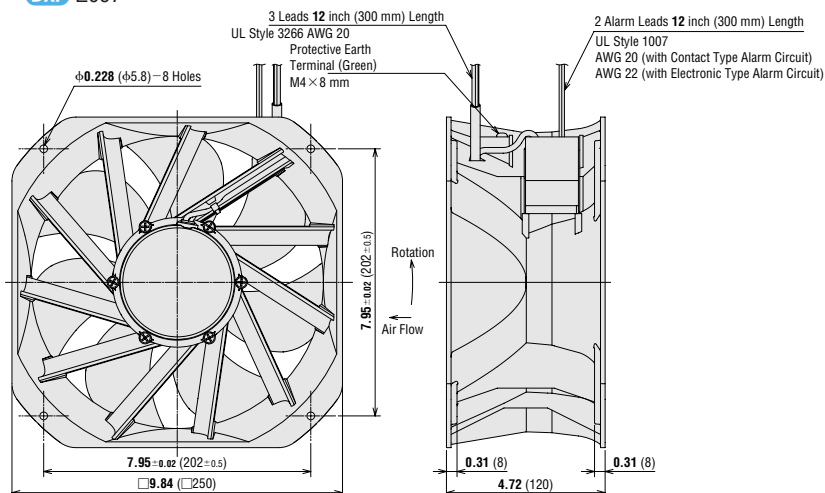
Measured at a distance of 3.3 feet (1 m) from the fan intake side



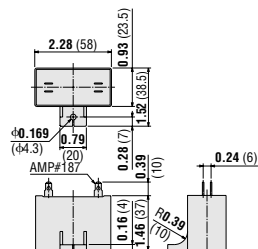
Dimensions Scale 1/5, Unit = inch (mm)

Weight: 9.0 lb. (4.1 kg)

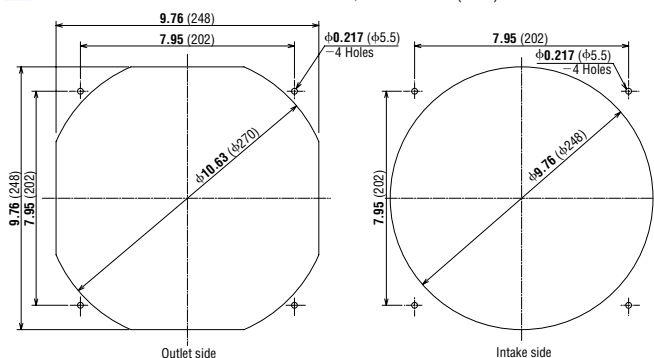
DXF E097



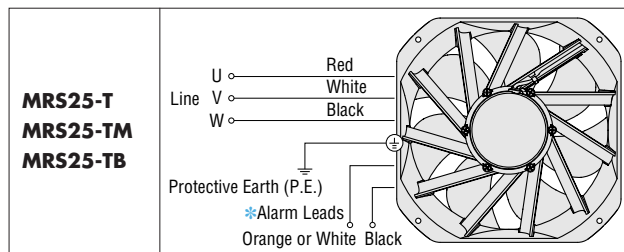
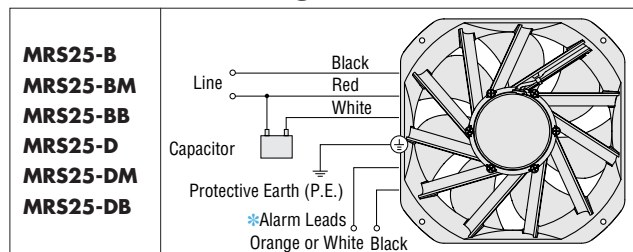
- Capacitor (included)
CH160CFAUL for **MRS25-B, BM, BB**
Weight: 2.6 oz. (75 g)
CH45BFAUL for **MRS25-D, DM, DB**
Weight: 2.6 oz. (73 g)
(Capacitor and capacitor cap are included with single-phase fans.)



Panel Cut-Out Scale 1/5, Unit = inch (mm)



Connection Diagrams



* Alarm type only.

● How to connect a capacitor → Page E-113

Thermostats (Sold Separately)

Thermostats make it possible for fans to operate only when cooling is necessary, thereby conserving energy.



Thermostats: **AM1-WA1**
AM1-XA1

→ Page E-97

Accessories (Sold Separately)

Item	Model	Safety Standards	Page
Finger Guard	FG25D	*	E-103

* These products have been designed to pass tests set forth under the UL and CSA standards for equipment used in fans. They conform to the standards only when used with an **ORIX FAN**.



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Thermostats																				
Accessories																				
Before Using a Fan																				

MRS Series

High-Efficiency, Low-Noise Models

□ 7.87 in.×3.54 in. thick
 (□ 200 mm×90 mm thick)



Ambient Temperature: 14°F to 140°F (-10°C to +60°C)
 Operating Voltage Range: ±10%

Materials

Frame: Die Cast Aluminum
 Blades: Resin
 Flammability Grade: V-0
 Overheat Protection: Built-in Thermal Protector
 Bearings: Ball Bearings

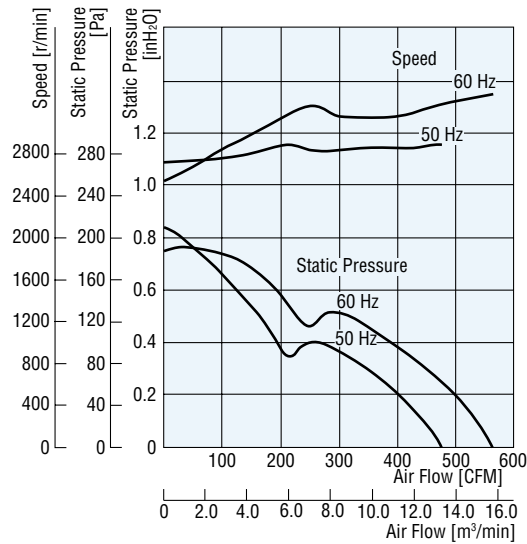
Specifications



Model		Voltage VAC	Frequency Hz	Current A	Input Power W	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB (A)	Capacitor μF
Low Speed Alarm, Electronic Alarm Type ②	Standard Type						CFM	m ³ /min	inH ₂ O	Pa		
MRS20-BM	MRS20-BUL	Single-Phase 100	50	0.8	75	2850	466	13.2	0.886	221	56	6.0
		Single-Phase 100	60	1.0	95	3350	547	15.5	0.746	186	60	
		Single-Phase 115	60	1.0	95	3400	547	15.5	1.06	265	61	
MRS20-DM	MRS20-DUL	Single-Phase 200	50	0.4	75	2850	466	13.2	0.886	221	56	6.0
		Single-Phase 200	60	0.5	95	3350	547	15.5	0.746	186	60	
		Single-Phase 230	60	0.5	95	3400	547	15.5	1.06	265	61	
MRS20-TM	MRS20-TUL	Three-Phase 200	50	0.4	75	2850	466	13.2	0.886	221	56	-
		Three-Phase 200	60	0.4	95	3350	547	15.5	1.06	265	60	
		Three-Phase 230	60	0.4	95	3400	547	15.5	1.06	265	61	

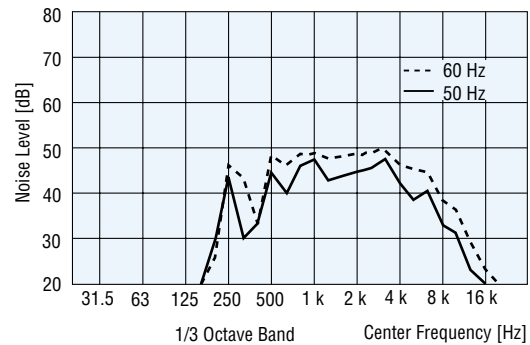
●How to read the specifications →Page E-13 ●Alarm Specifications: ②→Page E-14 ●Details of safety standards →Page G-2

Air Flow – Static Pressure Characteristics



Frequency – Audible Noise Level (dB)

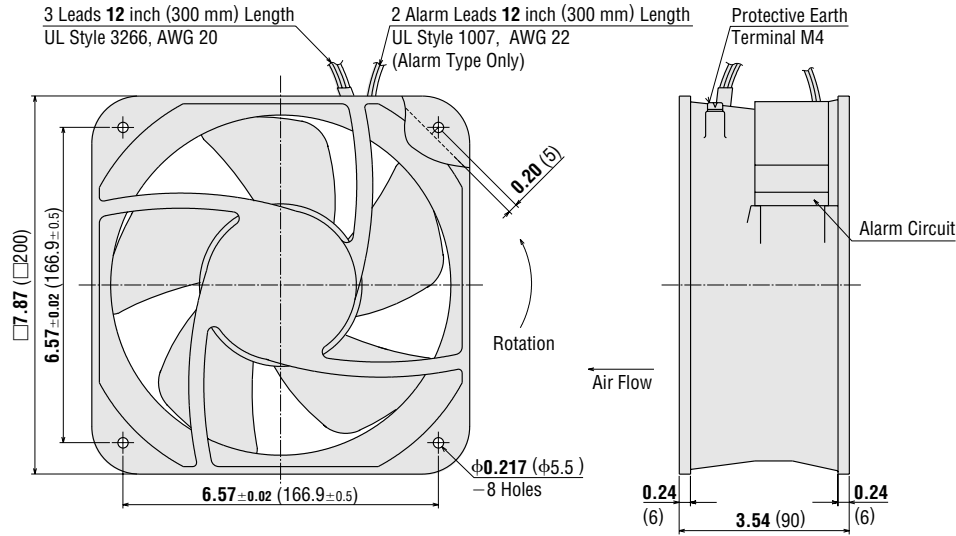
Measured at a distance of 3.3 feet (1 m) from the fan intake side



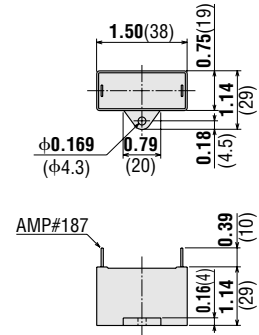
Dimensions Scale 1/4, Unit = inch (mm)

Weight: 5.5 lb. (2.5 kg)

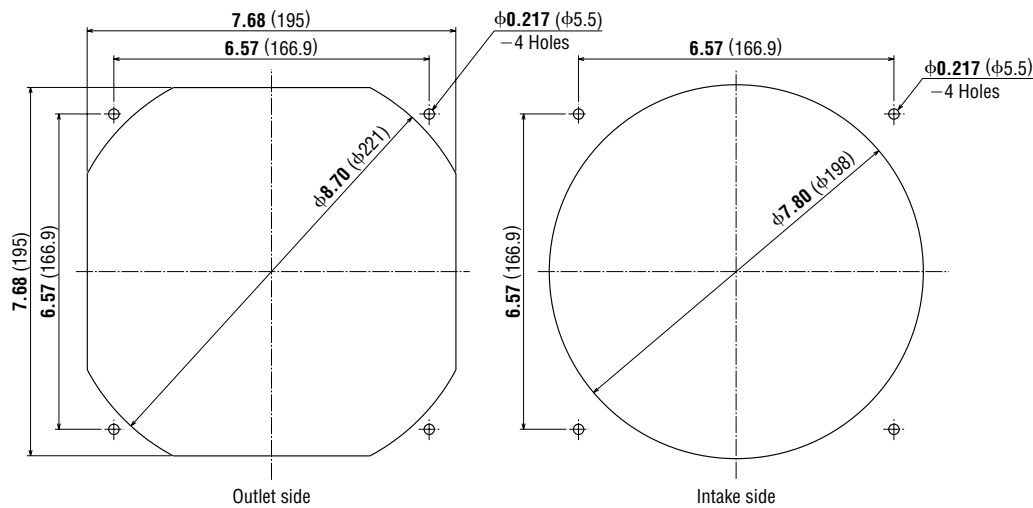
DXF E001



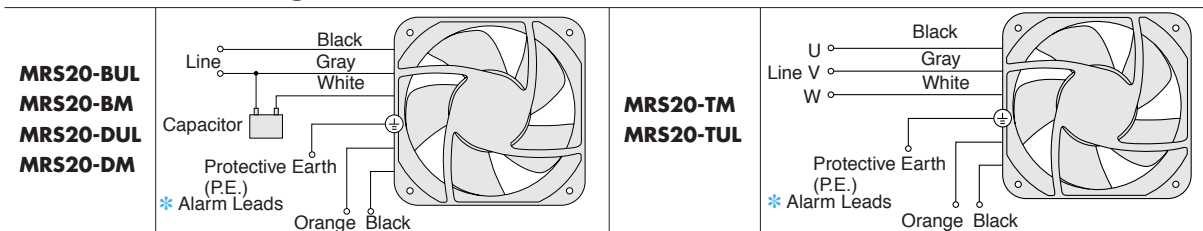
- Capacitor
CH60UL
Weight: 1.1 oz. (32 g)
(Capacitor and capacitor cap are included with single-phase fans.)



Panel Cut-Out Scale 1/4, Unit = inch (mm)



Connection Diagrams



* Alarm type only.

● How to connect a capacitor → Page E-113

Thermostats (Sold Separately)

Thermostats make it possible for fans to operate only when cooling is necessary, thereby conserving energy.



Thermostats: **AM1-WA1**
AM1-XA1

→ Page E-97

Accessories (Sold Separately)

Item	Model	Safety Standards	Page
Finger Guard	FG20D	*	E-103

* These products have been designed to pass tests set forth under the UL and CSA standards for equipment used in fans. They conform to the standards only when used with an **ORIX FAN**.



Finger Guard

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Axial Flow Fans

DC Input

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DC Input

AC Input

DC Input

Cross Flow Fans

AC Input

DC Input

MRS Series

High-Efficiency, Low-Noise Models

□ 7.09 in.×3.54 in. thick
 (□ 180 mm×90 mm thick)



Ambient Temperature: 14°F to 140°F (−10°C to +60°C)
 Operating Voltage Range: ±10%

Materials

Frame: Die Cast Aluminum
 Blades: Resin
 Flammability Grade: V-0
 Overheat Protection: Built-in Thermal Protector
 Bearings: Ball Bearings

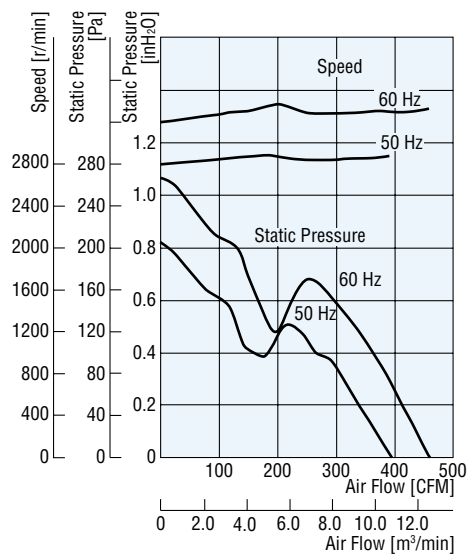
Specifications



Model		Voltage VAC	Frequency Hz	Current A	Input Power W	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB (A)	Capacitor μ F
Low Speed Alarm, Electronic Alarm Type ②	Standard Type						CFM	m ³ /min	inH ₂ O	Pa		
MRS18-BTM	MRS18-BUL	Single-Phase 100	50	0.8	75	2850	388	11.0	0.786	196	56	6.0
		Single-Phase 100	60	1.0	95	3300	452	12.8	0.982	245	60	
		Single-Phase 115	60	1.0	95	3350	452	12.8	0.982	245	61	
MRS18-DTM	MRS18-DUL	Single-Phase 200	50	0.4	75	2850	388	11.0	0.786	196	56	6.0
		Single-Phase 200	60	0.5	95	3300	452	12.8	0.982	245	60	
		Single-Phase 230	60	0.5	95	3350	452	12.8	0.982	245	61	
MRS18-TTM	MRS18-TUL	Three-Phase 200	50	0.4	75	2850	388	11.0	0.786	196	56	—
		Three-Phase 200	60	0.4	95	3300	452	12.8	0.982	245	60	
		Three-Phase 230	60	0.4	95	3350	452	12.8	0.982	245	61	

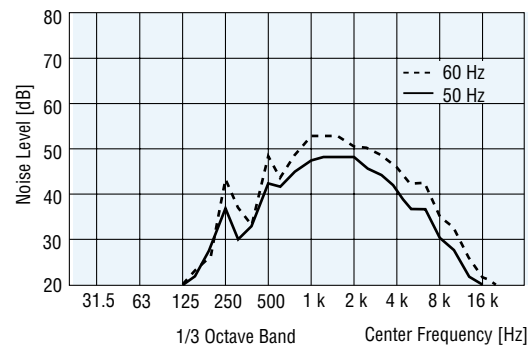
•How to read the specifications →Page E-13 •Alarm Specifications: ②→Page E-14 •Details of safety standards →Page G-2

Air Flow – Static Pressure Characteristics



Frequency – Audible Noise Level (dB)

Measured at a distance of 3.3 feet (1 m) from the fan intake side

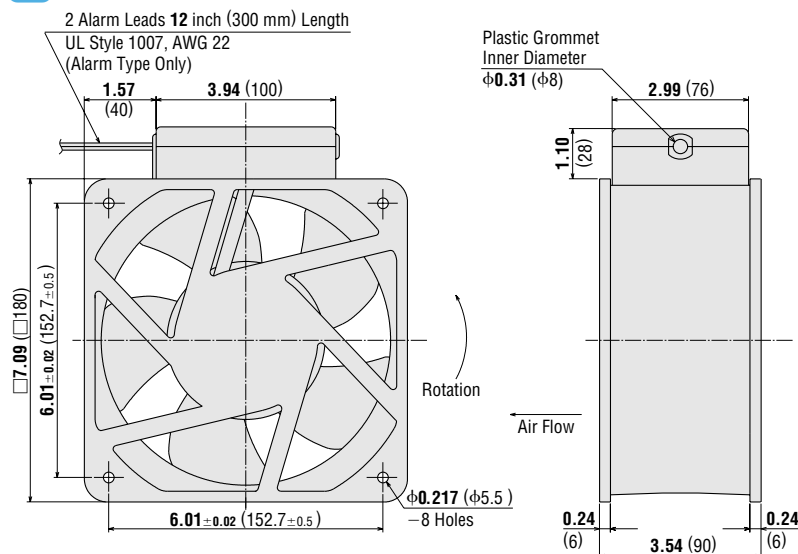


Dimensions

Scale 1/4, Unit = inch (mm)

Weight: 5.5 lb. (2.5 kg)

DXF E002

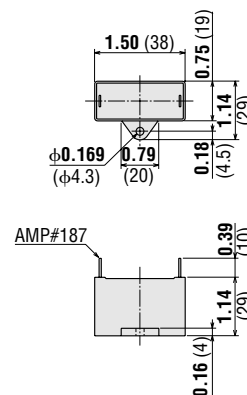


- Capacitor

CH60UL

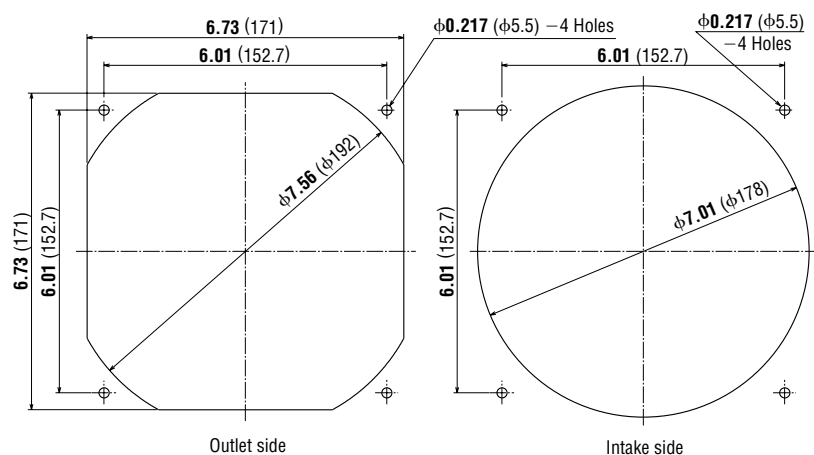
Weight: 1.1 oz. (32 g)

(Capacitor and capacitor cap are included with single-phase alarm type fans. Single-phase standard types of fans contain a built-in capacitor.)



Panel Cut-Out

Scale 1/4, Unit = inch (mm)



Accessories (Sold Separately)

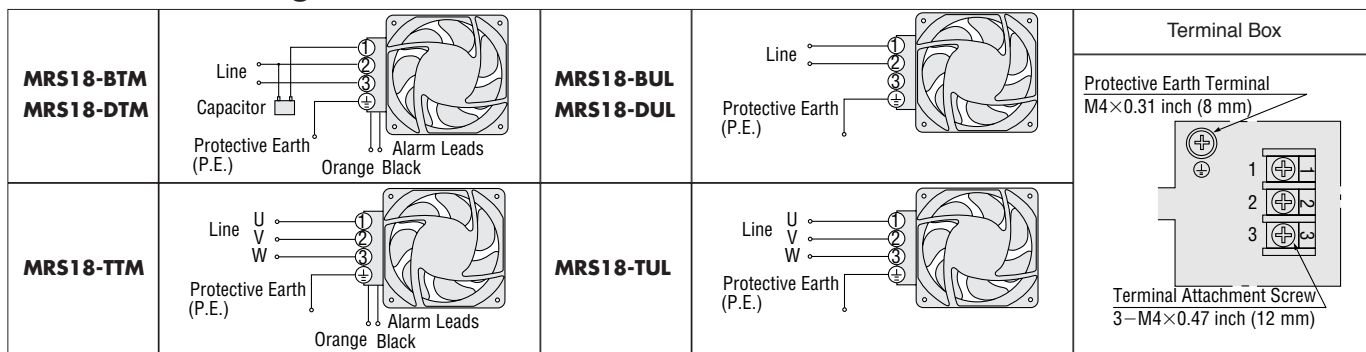
Item	Model	Safety Standards	Page
Finger Guard	FG18D	*	E-103
Filter	FL18	-	E-106

* These products have been designed to pass tests set forth under the UL and CSA standards for equipment used in fans. They conform to the standards only when used with an **ORIX FAN**.



- A filter can be installed in place of the finger guard.

Connection Diagrams



Thermostats (Sold Separately)

Thermostats make it possible for fans to operate only when cooling is necessary, thereby conserving energy.



Thermostats: **AM1-WA1**
AM1-XA1

→Page E-97

MRS Series

High-Efficiency, Low-Noise Models

□ 6.30 in. × 2.44 in. thick
 (□ 160 mm × 62 mm thick)



Ambient Temperature: 14°F to 140°F (-10°C to +60°C)
 Operating Voltage Range: ±10%

Materials

- Frame: Die Cast Aluminum
- Blades: Resin
- Flammability Grade: V-0
- Overheat Protection: Built-in Thermal Protector
- Bearings: Ball Bearings

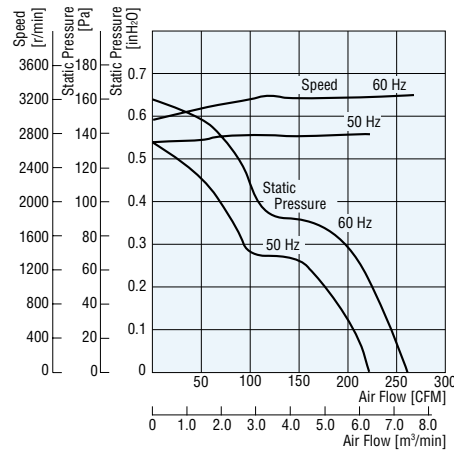


Specifications

Model			Voltage VAC	Frequency Hz	Current A	Input Power W	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB (A)	Capacitor μF
Low Speed Alarm	Electronic Alarm Type	Contact Alarm Type						Standard Type	CFM	m ³ /min	inH ₂ O		
	②	⑥											
MRS16-BTM	MRS16-BTA	MRS16-BUL	Single-Phase 100	50	0.47	45	2800	219	6.2	0.509	127	49	
			Single-Phase 100	60	0.46	45	3250	258	7.3	0.63	157	52	3.0
			Single-Phase 115	60	0.49	55	3300	258	7.3	0.63	157	53	
MRS16-DTM	MRS16-DTA	MRS16-DUL	Single-Phase 200	50	0.24	45	2800	219	6.2	0.509	127	49	
			Single-Phase 200	60	0.24	45	3250	258	7.3	0.63	157	52	3.0
			Single-Phase 230	60	0.25	55	3300	258	7.3	0.63	157	53	
MRS16-TTM	MRS16-TTA	MRS16-TUL	Three-Phase 200	50	0.19	38	2800	219	6.2	0.509	127	49	
			Three-Phase 200	60	0.17	41	3250	258	7.3	0.63	157	52	—
			Three-Phase 230	60	0.18	48	3300	258	7.3	0.63	157	53	

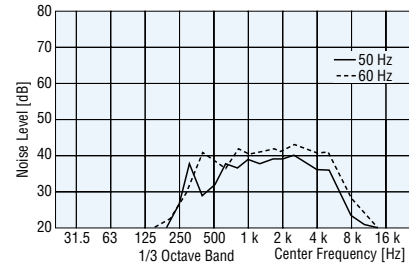
• How to read the specifications → Page E-13 • Alarm Specifications: ② → Page E-14, ⑥ → Page E-15 • Details of safety standards → Page G-2

Air Flow – Static Pressure Characteristics



Frequency – Audible Noise Level (dB)

Measured at a distance of 3.3 feet (1 m) from the fan intake side

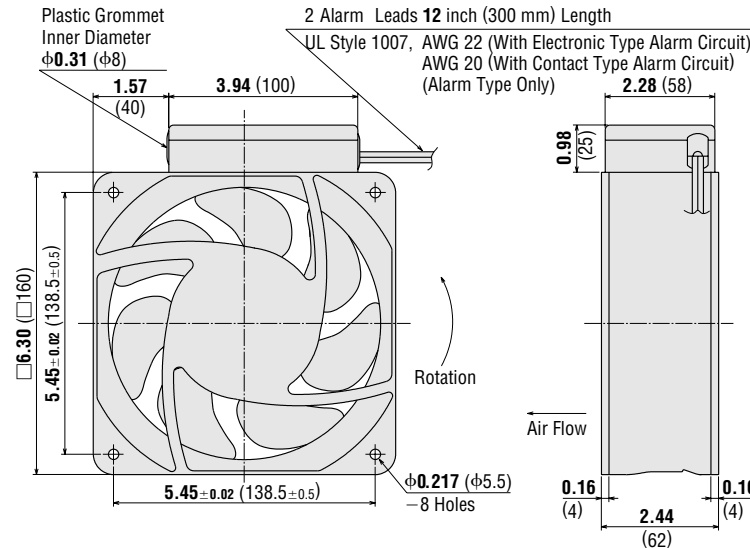


Dimensions

Scale 1/4, Unit = inch (mm)

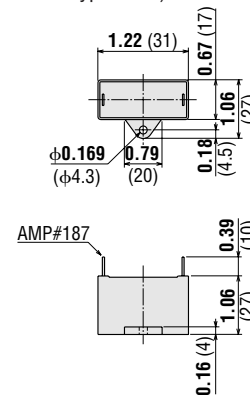
Weight: 3.0 lb. (1.35 kg)

DXF E003



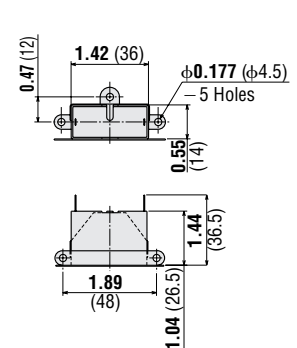
Capacitor For MRS16-□TM

CH30UL
 Weight: 0.81 oz. (23 g)
 (Capacitor and capacitor cap are included with single-phase alarm type fans.)



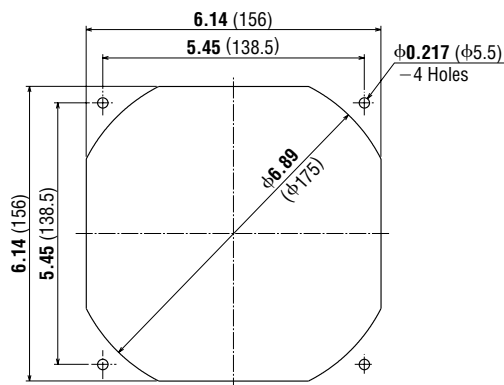
Capacitor For MRS16-□TA

CH30
 Weight: 1.1 oz. (30 g)
 (Capacitor is included with the single-phase alarm type fans.)



Panel Cut-Out

Scale 1/4, Unit = inch (mm)



Outlet side/Intake side

Connection Diagrams

				Terminal Box
MRS16-BTM MRS16-DTM		MRS16-BTA MRS16-DTA		
MRS16-TTM		MRS16-TTA		
MRS16-BUL MRS16-DUL		MRS16-TUL		

• How to connect a capacitor → Page E-113

Thermostats (Sold Separately)

Thermostats make it possible for fans to operate only when cooling is necessary, thereby conserving energy.



Thermostats: **AM1-WA1**
AM1-XA1

→ Page E-97

Accessories (Sold Separately)

Item	Model	Safety Standards	Page
Finger Guard	FG16D	*	E-103
Filter	FL16	—	E-106

* These products have been designed to pass tests set forth under the UL and CSA standards for equipment used in fans. They conform to the standards only when used with an **ORIX FAN**.



Finger Guard

• A filter can be installed in place of the finger guard.

MRS Series

High-Efficiency, Low-Noise Models

□ 5.51 in.×1.85 in. thick
 (□ 140 mm×47 mm thick)



Ambient Temperature: 14°F to 140°F (−10°C to +60°C)
 Operating Voltage Range: ±10%

Materials

Frame: Die Cast Aluminum
 Blades: Resin
 Flammability Grade: V-0
 Overheat Protection: Built-in Thermal Protector
 Bearings: Ball Bearings

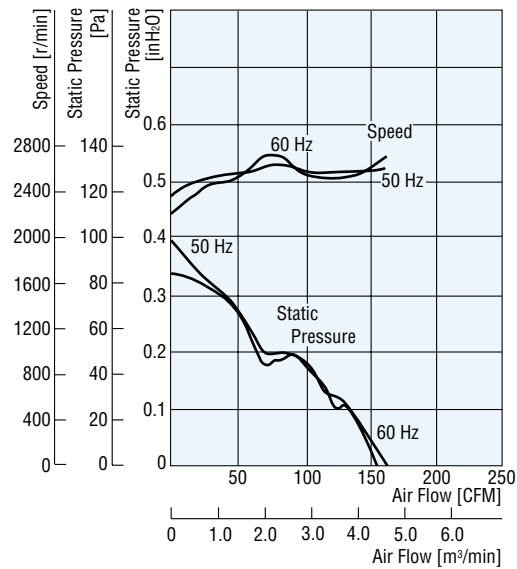
Specifications



Model		Voltage VAC	Frequency Hz	Current A	Input Power W	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB (A)
Low Speed Alarm, Electronic Alarm Type ③	Standard Type						CFM	m ³ /min	inH ₂ O	Pa	
		Three-Phase 200	50	0.08	18.0	2600	159	4.5	0.369	92	48
MRS14-TTM	MRS14-TUL	Three-Phase 200	60	0.09	22.0	2650	162	4.6	0.325	81	49
		Three-Phase 230	60	0.09	24.5	2950	177	5.0	0.437	109	51

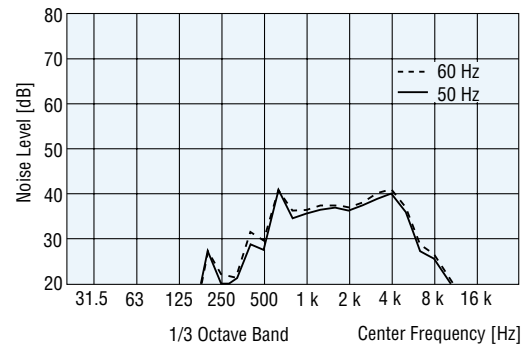
•How to read the specifications →Page E-13 •Alarm Specifications: ③→Page E-14 •Details of safety standards→Page G-2

Air Flow – Static Pressure Characteristics



Frequency – Audible Noise Level (dB)

Measured at a distance of 3.3 feet (1 m) from the fan intake side

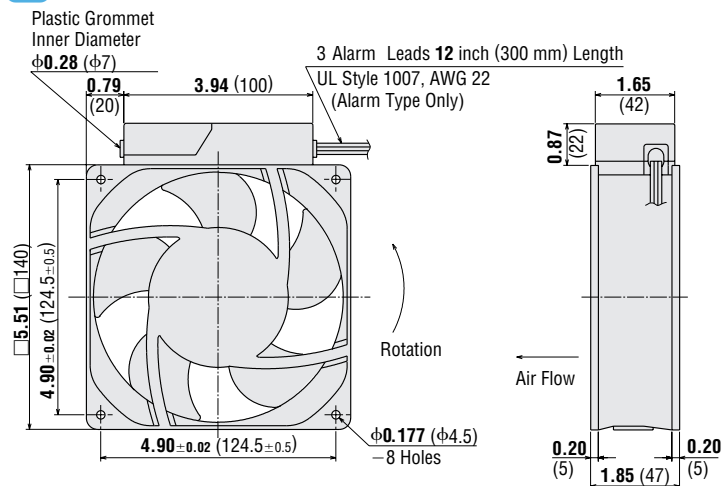


■ Dimensions

Scale 1/4, Unit = inch (mm)

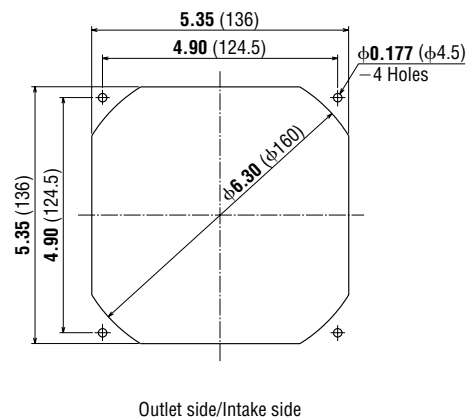
Weight: 2.0 lb. (0.9 kg)

DXF E004

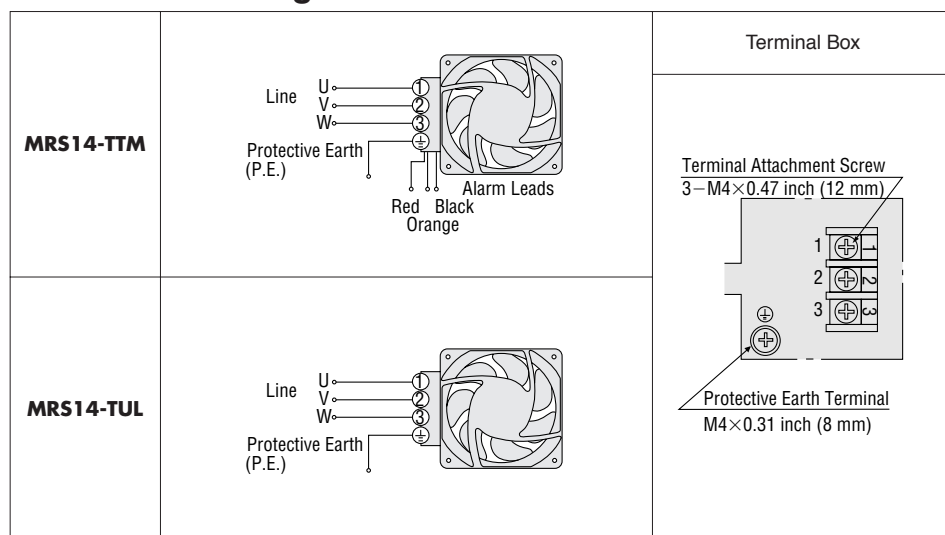


■ Panel Cut-Out

Scale 1/4, Unit = inch (mm)



■ Connection Diagrams



■ Thermostats (Sold Separately)

Thermostats make it possible for fans to operate only when cooling is necessary, thereby conserving energy.



Thermostats: **AM1-WA1**
AM1-XA1

→ Page E-97

■ Accessories (Sold Separately)

Item	Model	Safety Standards	Page
Finger Guard	FG14D	*	E-103

* These products have been designed to pass tests set forth under the UL and CSA standards for equipment used in fans. They conform to the standards only when used with an **ORIX FAN**.



Finger Guard

VARIOFLOW

MRS Series

□ 7.09 in. × 3.54 in. thick
 (□ 180 mm × 90 mm thick)



Ambient Temperature: 14°F to 140°F (-10°C to +60°C)
 Operating Voltage Range: ±10%

Materials

- Frame: Die Cast Aluminum
- Blades: Resin
- Flammability Grade: V-0
- Overheat protection: Built-in Thermal Protector
- Bearings: Ball Bearings



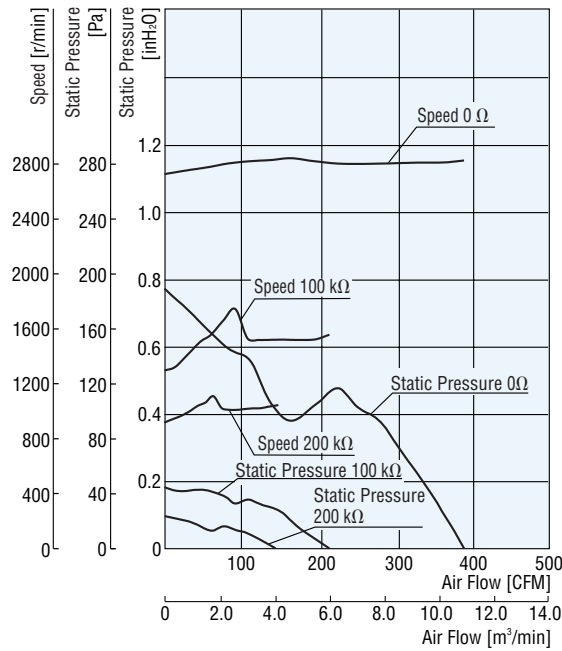
Specifications

Model	Voltage VAC	Frequency Hz	Current A	Input Power W	Resistance kΩ	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB
							CFM	m ³ /min	inH ₂ O	Pa	
MRS18V2-B	Single-Phase 100	50	1.2	74	0	2800	388	11.0	0.746	186	56
		60	1.4	100	200	1000	138	3.9	0.0786	19.6	46
	Single-Phase 115	60	1.4	100	0	3200	424	12.0	0.786	196	60
		60	1.4	100	200	750	98.8	2.8	0.0472	11.8	40
MRS18V2-D	Single-Phase 200	50	0.6	74	0	2800	388	11.0	0.746	186	56
		60	0.7	100	200	1000	138	3.9	0.0786	19.6	46
	Single-Phase 230	60	0.7	100	0	3200	424	12.0	0.786	196	60
		60	0.7	100	200	750	98.8	2.8	0.0472	11.8	40
	Single-Phase 200	50	0.6	84	0	2850	388	11.0	0.786	196	56
		60	0.7	100	200	1350	177	5.0	0.146	36.3	49
Single-Phase 230	50	0.6	84	0	3350	452	12.8	1.02	255	61	
	60	0.7	100	200	1100	141	4.0	0.0942	23.5	44	

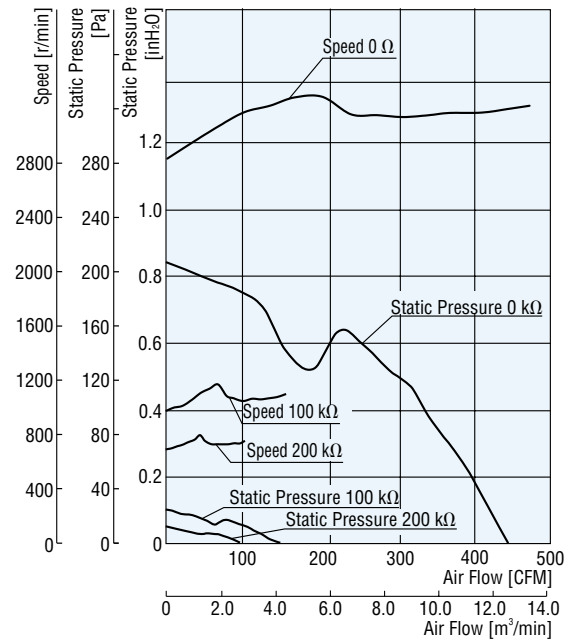
• How to read the specifications → Page E-13 • Details of safety standards → Page G-2

Air Flow – Static Pressure Characteristics

• 50 Hz



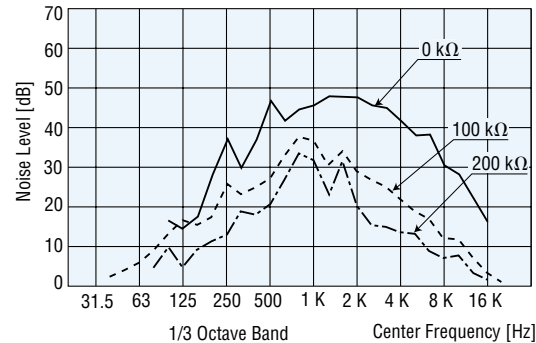
• 60 Hz



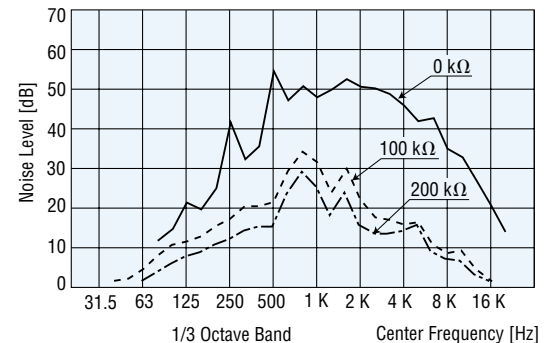
Frequency – Audible Noise Level (dB)

Measured at a distance of 3.3 feet (1 m) from the fan intake side.

• 50 Hz



• 60 Hz

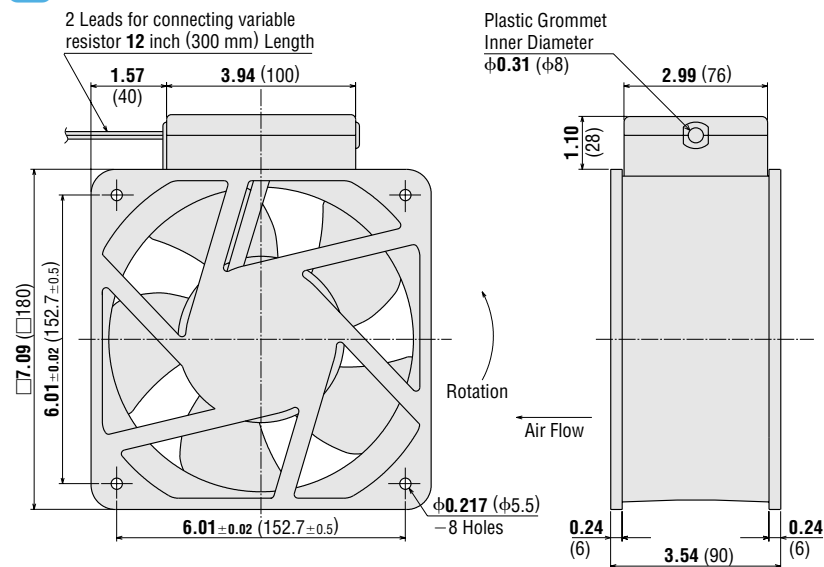


Dimensions

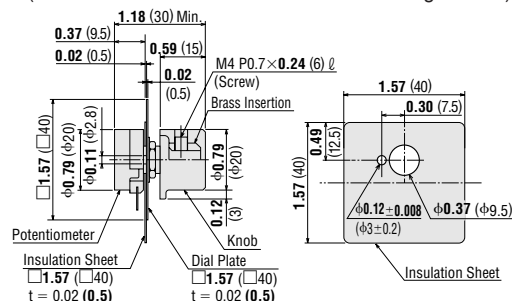
Scale 1/4, Unit = inch (mm)

Weight: 5.5 lb. (2.5 kg)

DXF E002

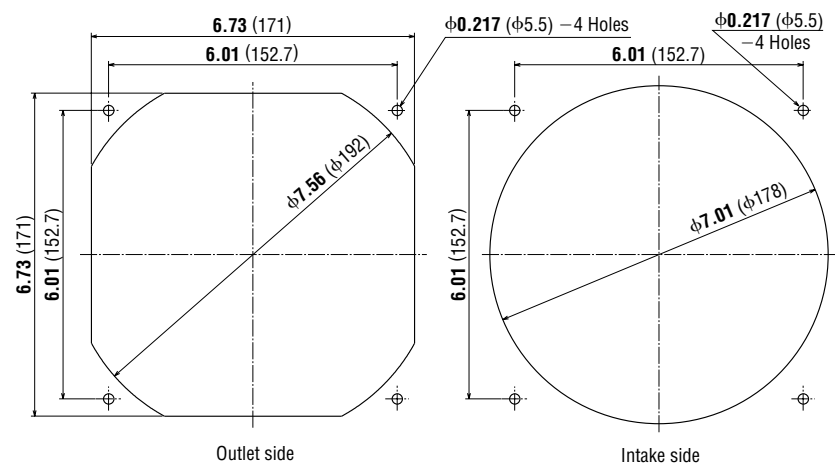


- Potentiometer (included)

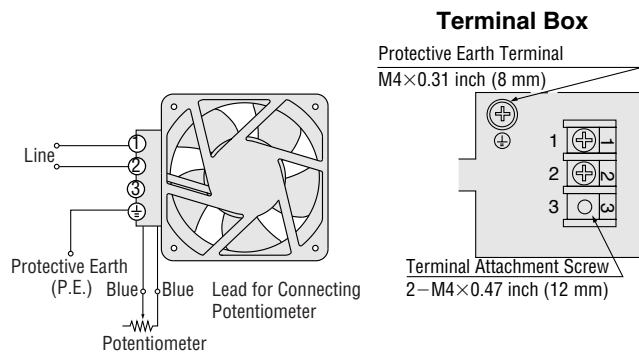
(200 k Ω 1/4 W with a linear resistance vs. angle curve)

Panel Cut-Out

Scale 1/4, Unit = inch (mm)



Connection Diagram



Accessories (Sold Separately)

Item	Model	Safety Standards	Page
Finger Guard	FG18D	*	E-103
Filter	FL18	-	E-106

* These products have been designed to pass tests set forth under the UL and CSA standards for equipment used in fans. They conform to the standards only when used with an **ORIX FAN**.



- A filter or screen can be installed in place of the finger guard.

Thermostats (Sold Separately)

Thermostats make it possible for fans to operate only when cooling is necessary, thereby conserving energy.



Thermostats: **AM1-WA1**
AM1-XA1

→ Page E-97

MU Series

Slim-Line, General-Purpose Models

□ 4.69 in. × 1.50 in. thick
 (□ 119 mm × 38 mm thick)



Ambient Temperature: 14°F to 140°F (−10°C to +60°C)
 Operating Voltage Range: ±10%

Materials

Frame: Die Cast Aluminum
 Blades: Resin
 Flammability Grade: V-0
 Overheat Protection: Impedance Protected
 Bearings: Ball Bearings

Specifications

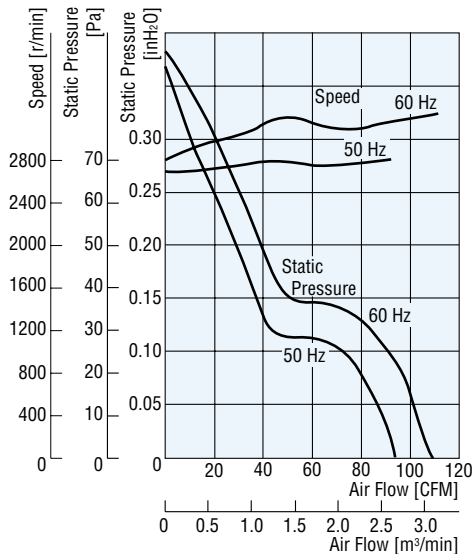


Speed Type	Model	Voltage VAC	Frequency Hz	Input Power W	Current A	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB (A)	
							CFM	m ³ /min	inH ₂ O	Pa		
Standard Speed	MU1238A-21B	Single-Phase 115	50	14.0	0.20	2700	95.3	2.7	0.325	81	43	
			60	13.0	0.18	3050	106	3.0	0.325	81	46	
	MU1238A-51B	Single-Phase 230	50	13.5	0.10	2700	95.3	2.7	0.325	81	43	
			60	16.0	0.11	2700	95.3	2.7	0.325	81	43	
Middle Speed	MU1238B-21B	Single-Phase 115	50	12.5	0.16	2300	77.7	2.2	0.209	52	38	
			60	11.5	0.15	2500	88.3	2.5	0.209	52	40	
	MU1238B-51B	Single-Phase 230	50	11.5	0.09	2300	77.7	2.2	0.209	52	38	
			60	14.0	0.09	2400	81.2	2.3	0.237	59	39	
			Single-Phase 230	50	11.5	0.09	2500	88.3	2.5	0.209	52	40
				60	11.5	0.09	2500	88.3	2.5	0.209	52	40
Low Speed	MU1238L-21B	Single-Phase 115	50	8.0	0.10	2000	67.1	1.9	0.137	34	33	
			60	7.5	0.09	1900	63.5	1.8	0.11	27	32	
	MU1238L-51B	Single-Phase 230	50	7.5	0.06	1950	65.3	1.85	0.137	34	33	
			60	9.5	0.06	2000	67.1	1.9	0.137	34	34	
			Single-Phase 230	50	7.5	0.06	2000	67.1	1.9	0.118	29	33
				60	7.5	0.06	2000	67.1	1.9	0.118	29	33

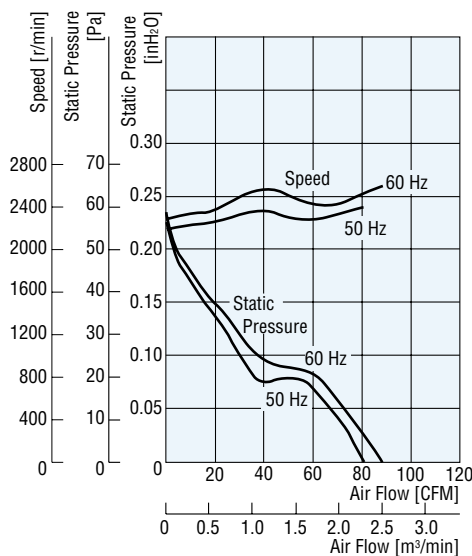
•How to read the specifications →Page E-13 •Details of safety standards →Page G-2

Air Flow — Static Pressure Characteristics

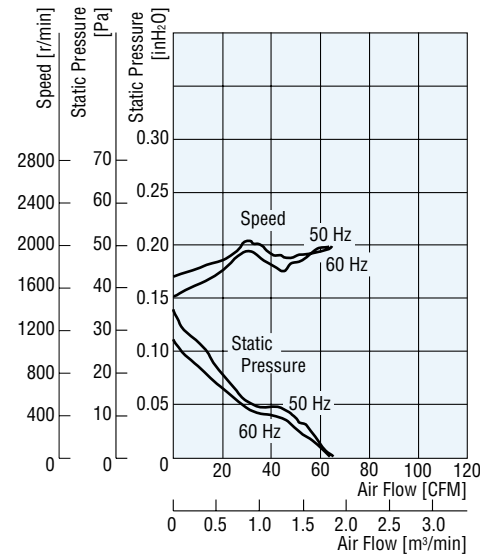
● MU1238A



● MU1238B



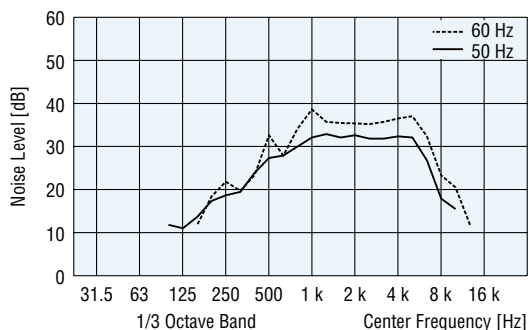
● MU1238L



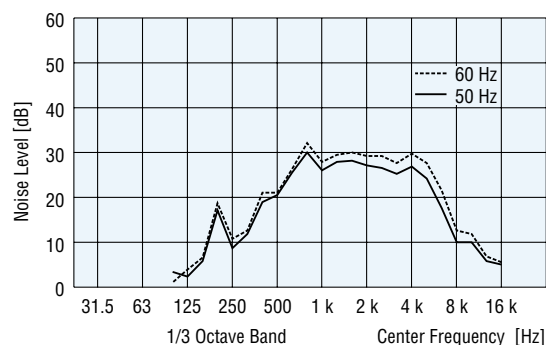
Frequency — Audible Noise Level (dB)

Measured at a distance of 3.3 feet (1 m) from the fan intake side

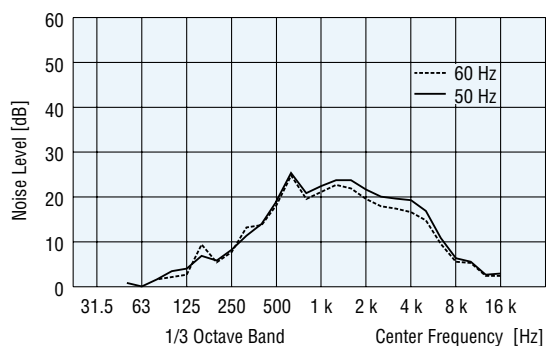
MU1238A



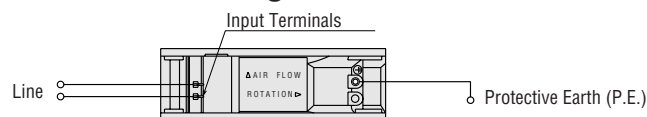
MU1238B



MU1238L



Connection Diagram



Thermostats (Sold Separately)

Thermostats make it possible for fans to operate only when cooling is necessary, thereby conserving energy.



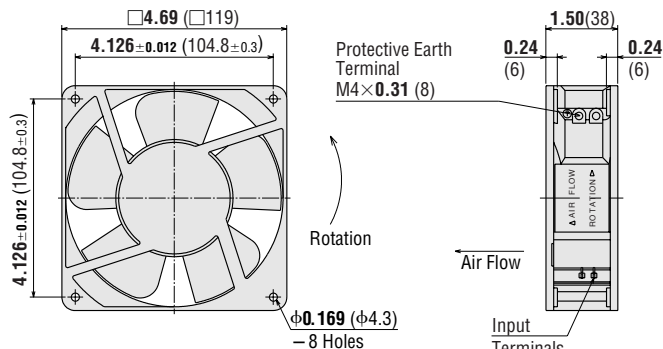
Thermostats: **AM1-WA1**
AM1-XA1

→ Page E-97

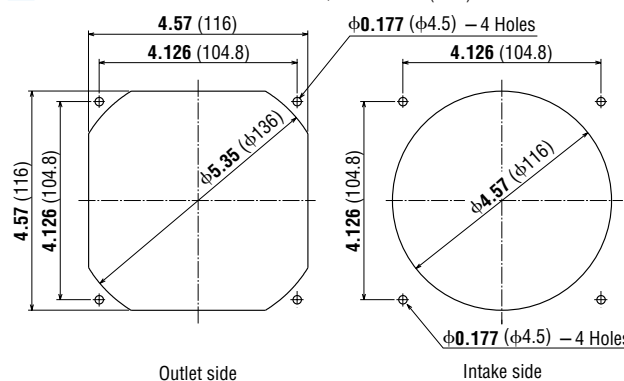
Dimensions Scale 1/4, Unit = inch (mm)

Weight: 1.2 lb. (0.53 kg)

DXF E010



Panel Cut-Out Scale 1/4, Unit = inch (mm)



Accessories (Sold Separately)

Item	Model	Safety Standards	Page
Finger Guard	FG12D	*1	E-102
Filter	FL12	—	E-106
Screen	FS12	—	E-107
Plug Cord (3.3 feet)	PCA2B	*2	E-108
Plug Cord (6.6 feet)	PCA2D2	*3	

*1 These products have been designed to pass tests set forth under the UL and CSA standards for equipment used in fans. They conform to the standards only when used with an **ORIX FAN**.

*2 These products conform to UL standards only when used with an **ORIX FAN**, and certified by CSA and Electrical Appliance and Material Control Law.

*3 These products conform to UL standards only when used with an **ORIX FAN**, and certified by CSA standards.



- A filter or screen can be installed in place of the finger guard.

MU Series

Slim-Line, General-Purpose Models

□ 4.69 in.×0.98 in. thick
 (□ 119 mm×25 mm thick)



Ambient Temperature: 14°F to 140°F (−10°C to +60°C)
 Operating Voltage Range: ±10%

Materials

Frame: Die Cast Aluminum
 Blades: Resin
 Flammability Grade: V-0
 Overheat Protection: Impedance Protected
 Bearings: Ball Bearings

Specifications

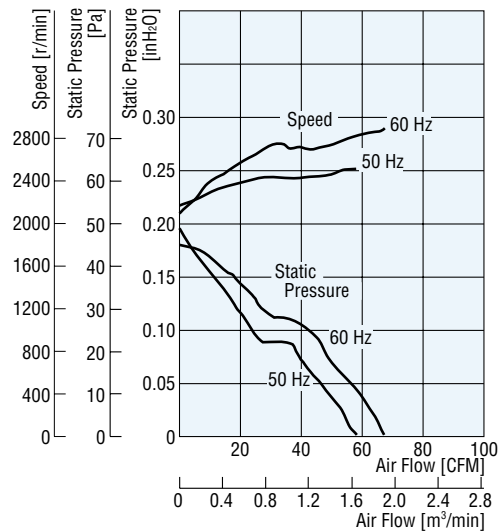


Speed Type	Model	Voltage VAC	Frequency Hz	Input Power W	Current A	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB(A)
							CFM	m ³ /min	inH ₂ O	Pa	
Standard Speed	MU1225S-21	Single-Phase 115	50	11.0	0.14	2500	56.5	1.6	0.196	49	36
			60	9.5	0.12	2950	67.1	1.9	0.176	44	40
	MU1225S-51	Single-Phase 230	50	10.5	0.07	2500	56.5	1.6	0.196	49	36
			50	12.0	0.08	2500	56.5	1.6	0.196	49	36
			60	10.0	0.07	2950	67.1	1.9	0.176	44	40
Middle Speed	MU1225M-21	Single-Phase 115	50	10.5	0.13	2250	49.4	1.4	0.129	32	33
			60	9.0	0.11	2600	60	1.7	0.125	31	37
	MU1225M-51	Single-Phase 230	50	10.0	0.07	2250	49.4	1.4	0.129	32	33
			50	12.0	0.07	2250	49.4	1.4	0.129	32	33
			60	9.5	0.07	2600	60	1.7	0.125	31	37

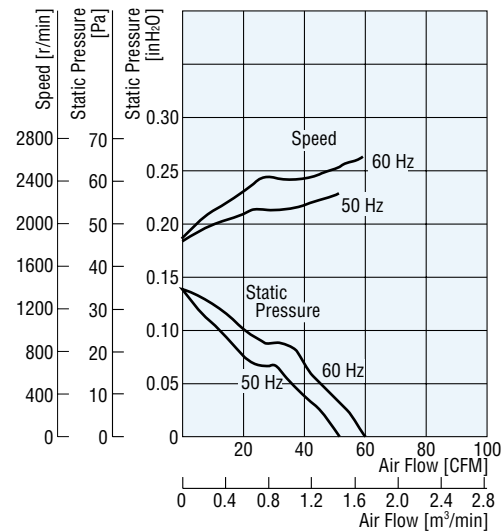
●How to read the specifications →Page E-13 ●Details of safety standards →Page G-2

Air Flow — Static Pressure Characteristics

● MU1225S



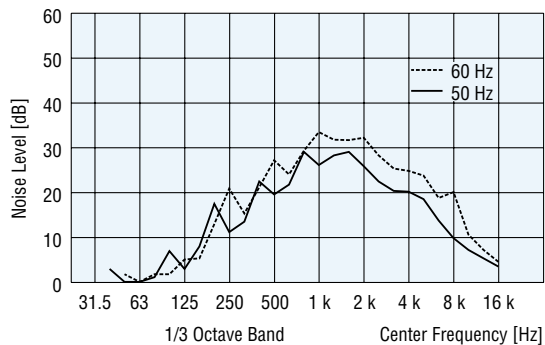
● MU1225M



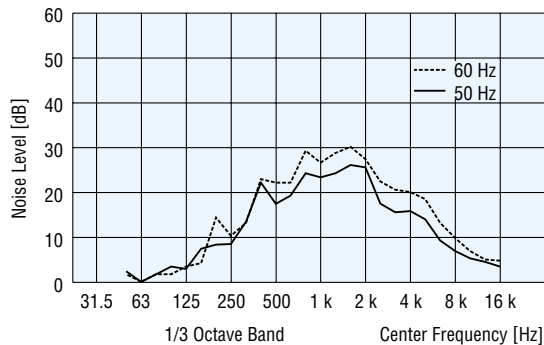
Frequency — Audible Noise Level (dB)

Measured at a distance of 3.3 feet (1 m) from the fan intake side

MU1225S



MU1225M

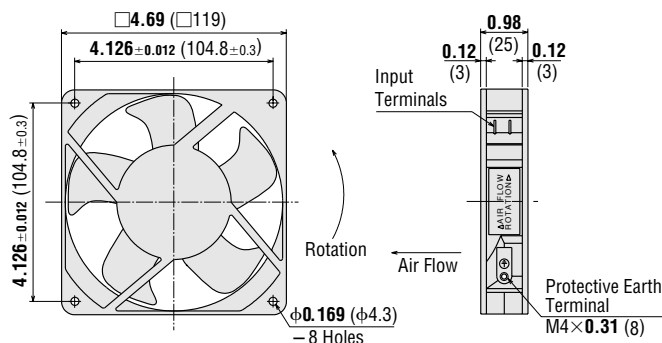


Dimensions

Scale 1/4, Unit = inch (mm)

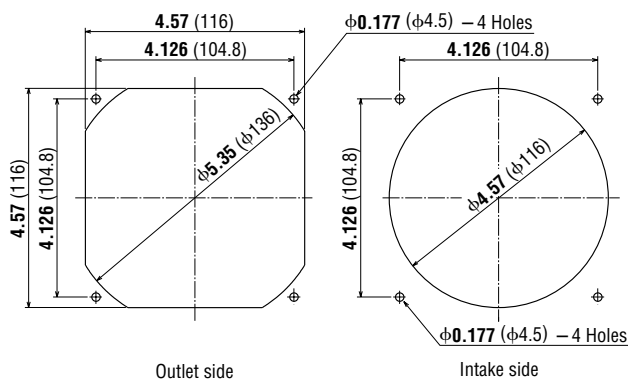
Weight: 0.66 lb. (0.3 kg)

DXF E012

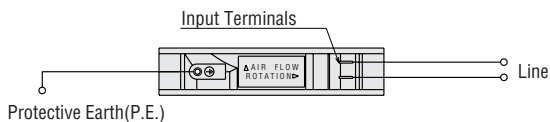


Panel Cut-Out

Scale 1/4, Unit = inch (mm)



Connection Diagram



Thermostats (Sold Separately)

Thermostats make it possible for fans to operate only when cooling is necessary, thereby conserving energy.



Thermostats: **AM1-WA1**
AM1-XA1

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Accessories (Sold Separately)

Item	Model	Safety Standards	Page
Finger Guard	FG12D	*1	E-102
Filter	FL12	—	E-106
Screen	FS12	—	E-107
Plug Cord (3.3 feet)	PCA2B	*2	E-108
Plug Cord (6.6 feet)	PCA2D2	*3	

- *1 These products have been designed to pass tests set forth under the UL and CSA standards for equipment used in fans. They conform to the standards only when used with an **ORIX FAN**.
- *2 These products conform to UL standards only when used with an **ORIX FAN**, and certified by CSA and Electrical Appliance and Material Control Law.
- *3 These products conform to UL standards only when used with an **ORIX FAN**, and certified by CSA standards.



- A filter or screen can be installed in place of the finger guard.

MU Series

Slim-Line, General-Purpose Models

□ 3.62 in. × 0.98 in. thick
 (□ 92 mm × 25 mm thick)



Ambient Temperature: 14°F to 140°F (−10°C to +60°C)
 Operating Voltage Range: ±10%

Materials

Frame: Die Cast Aluminum
 Blades: Resin
 Flammability Grade: V-0
 Overheat Protection: Impedance Protected
 Bearings: Ball Bearings

Specifications

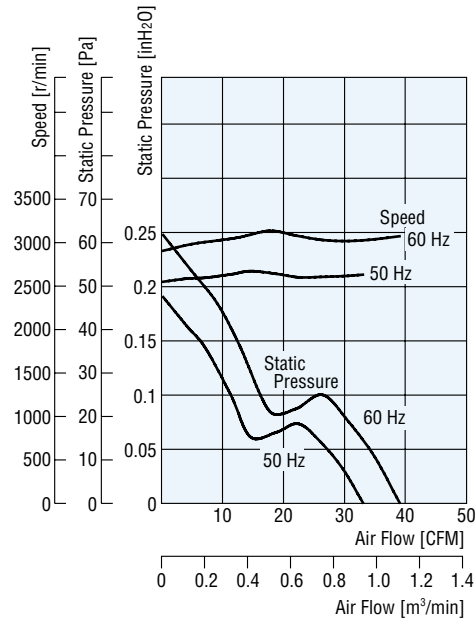


Speed Type	Model	Voltage VAC	Frequency Hz	Input Power W	Current A	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB (A)
							CFM	m ³ /min	inH ₂ O	Pa	
Standard Speed	MU9255-21	Single-Phase 115	50	9.5	0.11	2600	33.5	0.95	0.176	44	35
			60	8.0	0.10	3000	38.8	1.10	0.237	59	39
	MU9255-51	Single-Phase 220	50	8.5	0.06	2600	33.5	0.95	0.176	44	35
			60	10.5	0.07	2600	33.5	0.95	0.176	44	35
Middle Speed	MU925M-21	Single-Phase 115	50	9.0	0.11	2300	30.0	0.85	0.137	34	31
			60	8.0	0.10	2700	35.8	1.00	0.176	44	36
	MU925M-51	Three-Phase 220	50	8.5	0.06	2300	30.0	0.85	0.137	34	31
			60	9.5	0.06	2300	30.0	0.85	0.137	34	32
	MU925M-51	Three-Phase 230	50	9.5	0.06	2300	30.0	0.85	0.137	34	32
			60	8.0	0.06	2700	35.8	1.00	0.176	44	36

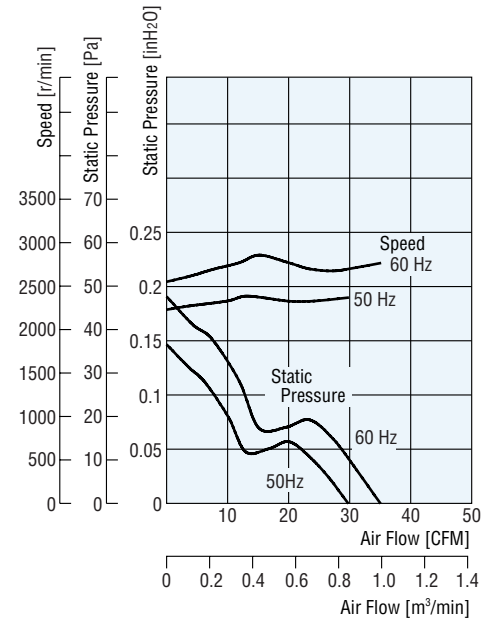
•How to read the specifications →Page E-13 •Details of safety standards →Page G-2

Air Flow — Static Pressure Characteristics

● MU925S



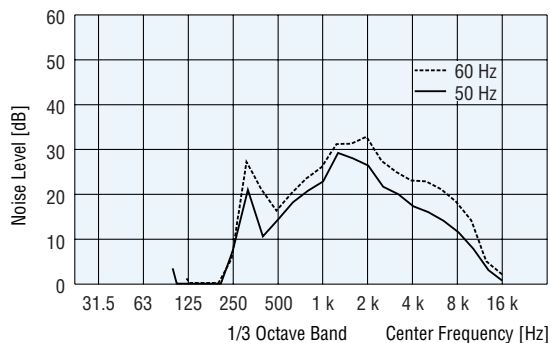
● MU925M



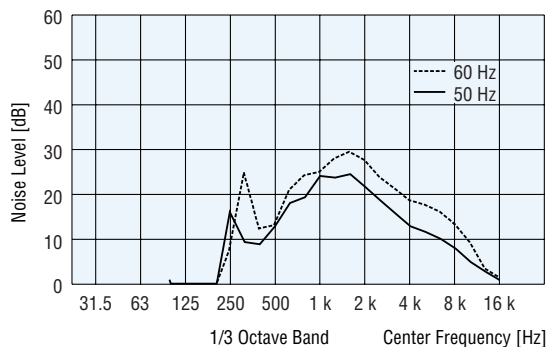
Frequency — Audible Noise Level (dB)

Measured at a distance of 3.3 feet (1 m) from the fan intake side

MU925S



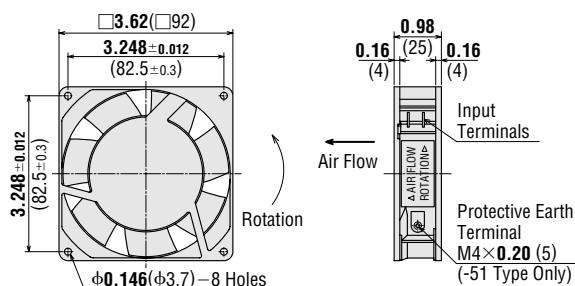
MU925M



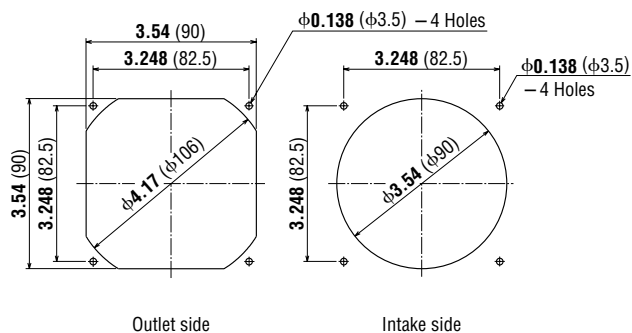
Dimensions Scale 1/4, Unit = inch (mm)

Weight: 0.59 lb. (0.27 kg)

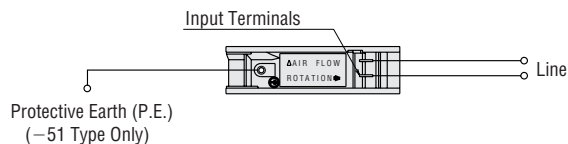
DXF E104



Panel Cut-Out Scale 1/4, Unit = inch (mm)



Connection Diagram



Thermostats (Sold Separately)

Thermostats make it possible for fans to operate only when cooling is necessary, thereby conserving energy.



Thermostats: **AM1-WA1**
AM1-XA1

→Page E-97

Accessories (Sold Separately)

Item	Model	Safety Standards	Page
Finger Guard	FG9D	*1	E-102
Filter	FL9	—	E-105
Screen	FS9	—	E-107
Plug Cord (3.3 feet)	PCA2B	*2	E-108
	PCA2D	*3	
Plug Cord (6.6 feet)	PCA2D₂	*3	

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*2 These products conform to UL standards only when used with an **ORIX FAN**, and certified by CSA and Electrical Appliance and Material Control Law.

*3 These products conform to UL standards only when used with an **ORIX FAN**, and certified by CSA standards.



- A filter or screen can be installed in place of the finger guard.

MU Series

Slim-Line, General-Purpose Models

□ 3.15 in. × 0.98 in. thick
 (□ 80 mm × 25 mm thick)



Ambient Temperature: 14°F to 140°F (−10°C to +60°C)
 Operating Voltage Range: ±10%

Materials

Frame: Die Cast Aluminum
 Blades: Resin
 Flammability Grade: V-0
 Overheat Protection: Impedance Protected
 Bearings: Ball Bearings

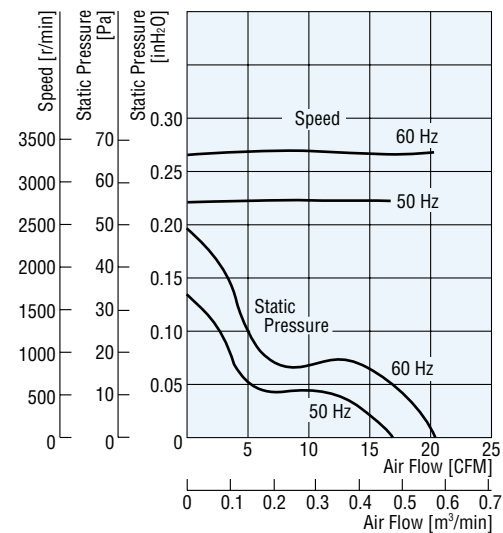
Specifications



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

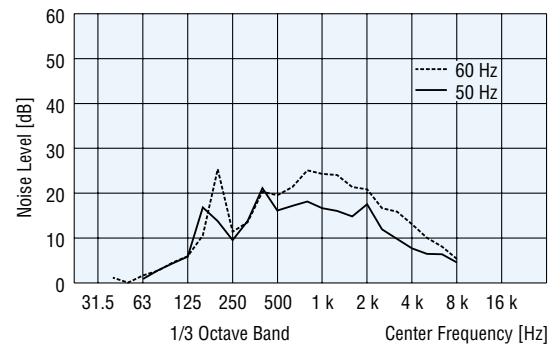
•How to read the specifications →Page E-13 •Details of safety standards →Page G-2

Air Flow — Static Pressure Characteristics



Frequency — Audible Noise Level (dB)

Measured at a distance of 3.3 feet (1 m) from the fan intake side

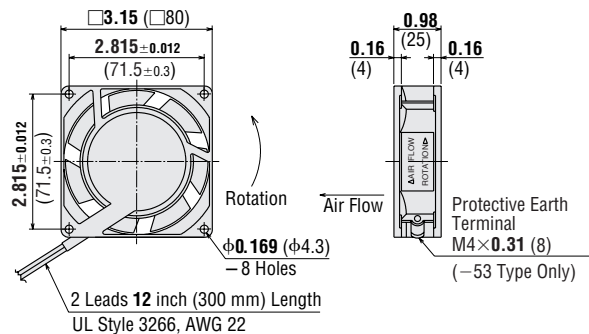


■ Dimensions

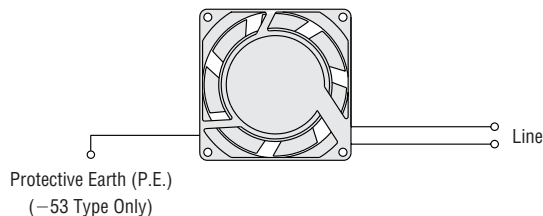
Scale 1/4, Unit = inch (mm)

Weight: 0.55 lb. (0.25 kg)

DXF E015



■ Connection Diagram



■ Thermostats (Sold Separately)

Thermostats make it possible for fans to operate only when cooling is necessary, thereby conserving energy.

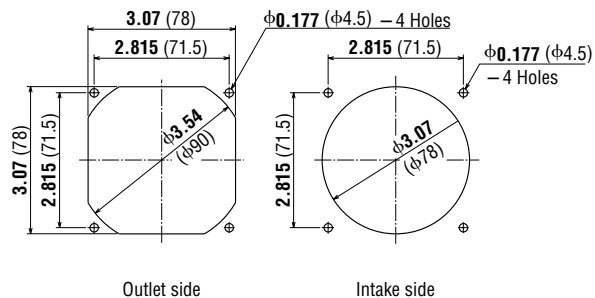


Thermostats: **AM1-WA1**
AM1-XA1

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■ Panel Cut-Out

Scale 1/4, Unit = inch (mm)



■ Accessories (Sold Separately)

Item	Model	Safety Standards	Page
Finger Guard	FG8D	*	E-102
Filter	FL8	—	E-105
Screen	FS8	—	E-107

* These products have been designed to pass tests set forth under the UL and CSA standards for equipment used in fans. They conform to the standards only when used with an **ORIX FAN**.

MDE Series

Long-Life Models

□ 4.69 in.×1.00 in. thick
 (□ 119 mm×25.4 mm thick)



Ambient Temperature: 14°F to 140°F (−10°C to +60°C)
 Operating Voltage Range: ±15%

Materials

Frame: Die Cast Aluminum
 Blades: Resin
 Flammability Grade: V-0
 Overheat Protection: Built-in Overheat Protection Circuit
 Bearings: Ball Bearings

100,000 hour life expectancy lowers maintenance costs and reduces downtime. More than 90% of fans satisfy the following criteria when operating at an ambient temperature of 140°F (60°C) :

- Rotation Speed (at rated voltage) Less than 30% below rated speed
- Input Current (at rated speed) Less than 30% above rated current

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

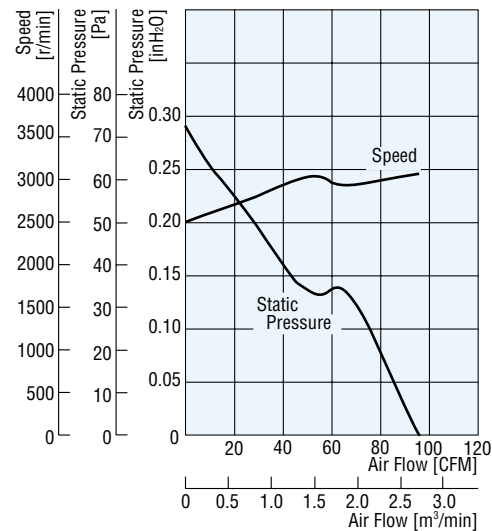
Specifications



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

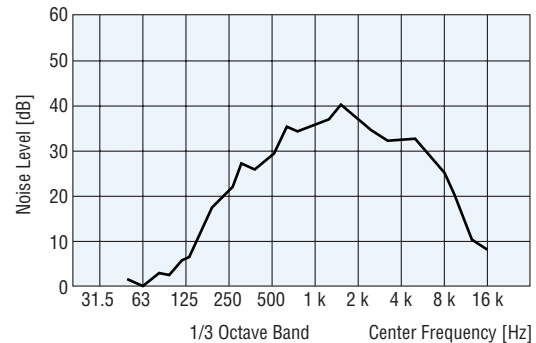
- How to read the specifications →Page E-13 •Alarm Specifications: ① →Page E-14 •Details of safety standards →Page G-2

Air Flow — Static Pressure Characteristics



Frequency — Audible Noise Level (dB)

Measured at a distance of 3.3 feet (1 m) from the fan intake side

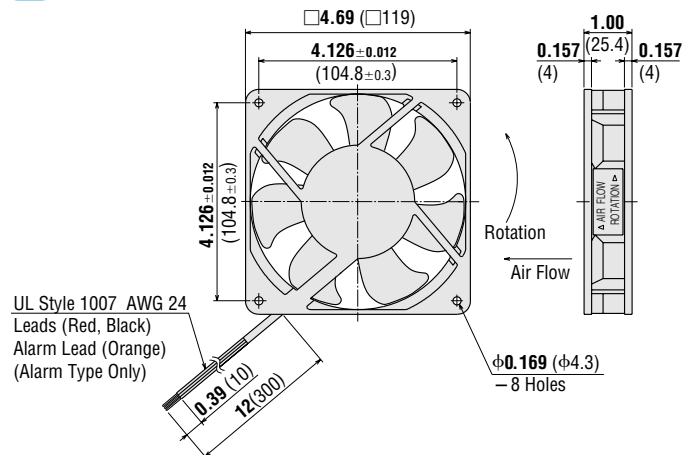


Dimensions

Scale 1/4, Unit = inch (mm)

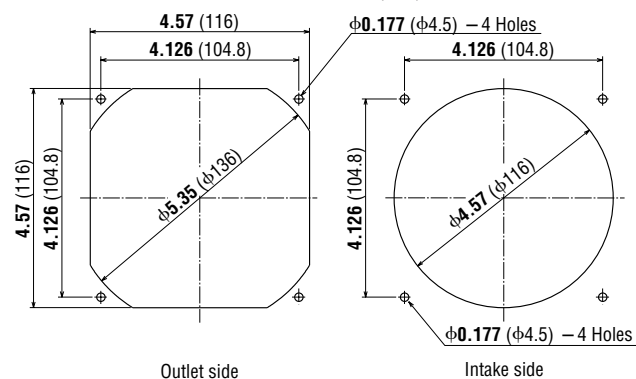
Weight: 0.66 lb. (0.3 kg)

DXF E020

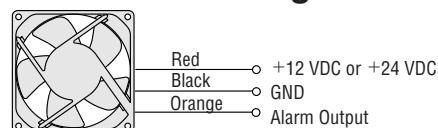


Panel Cut-Out

Unit = inch (mm)



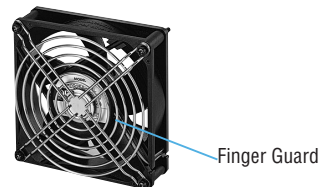
Connection Diagram



Accessories (Sold Separately)

Item	Model	Safety Standards	Page
Finger Guard	FG12D	*	E-102
Filter	FL12	—	E-106
Screen	FS12	—	E-107

* These products have been designed to pass tests set forth under the UL and CSA standards for equipment used in fans. They conform to the standards only when used with an **ORIX FAN**.



• A filter or screen can be installed in place of the finger guard.

Introduction

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Variable Flow

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MDE

MDS - MD

MB

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Before Using a Fan

MDS Series

High-Performance Models

φ6.77 in.×2.01 in. thick
(φ172 mm×51 mm thick)



Ambient Temperature: 14°F to 140°F (−10°C to +60°C)
Operating Voltage Range: ±15%

Materials

Frame: Die Cast Aluminum
Blades: Resin
Flammability Grade: V-0
Overheat Protection: Built-in Overheat Protection Circuit
Bearings: Ball Bearings

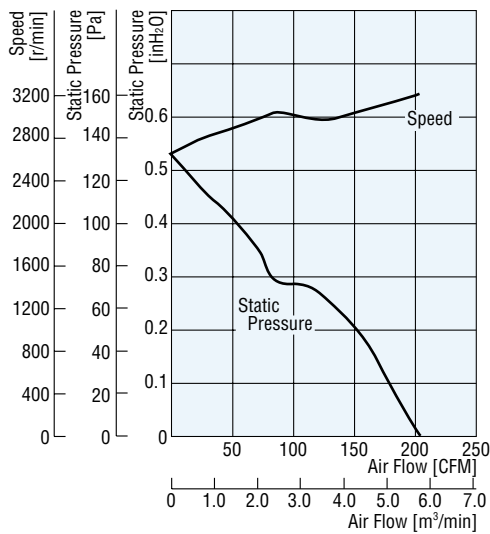
Specifications



Speed Type	Model	Voltage VDC	Current A	Speed r/min	Max. Air Flow CFM	Max. Air Flow m ³ /min	Max. Static Pressure inH ₂ O	Max. Static Pressure Pa	Noise Level dB(A)
Low Speed Alarm, Contact Alarm Type	MDS1751-24B								
Standard Speed	MDS1751-24S	24	0.70	3200	212	6	0.549	137	47
	MDS1751-24								

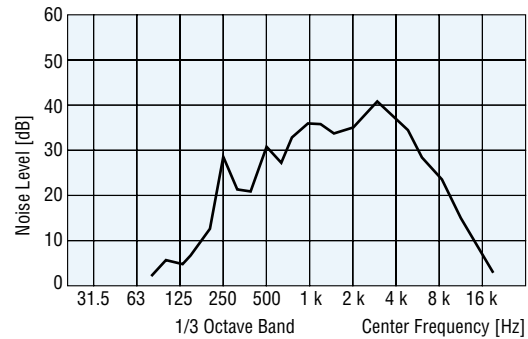
- How to read the specifications →Page E-13
- Alarm Specifications: ⑧, ⑨ →Page E-16
- Details of safety standards →Page G-2
- The low speed alarm and pulse sensor type are not DEMKO approved.

Air Flow — Static Pressure Characteristics



Frequency — Audible Noise Level (dB)

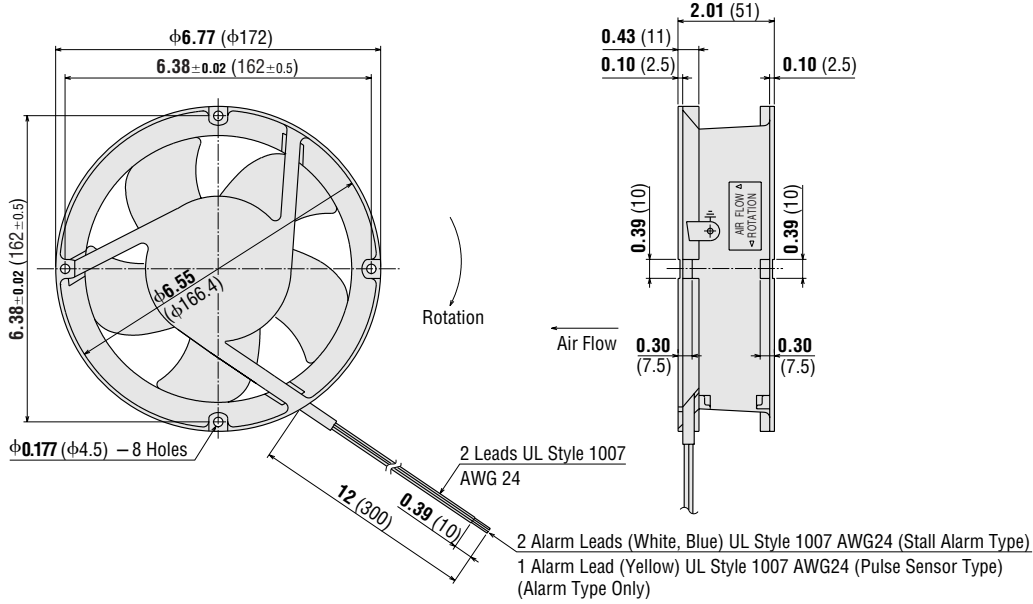
Measured at a distance of 3.3 feet (1 m) from the fan intake side



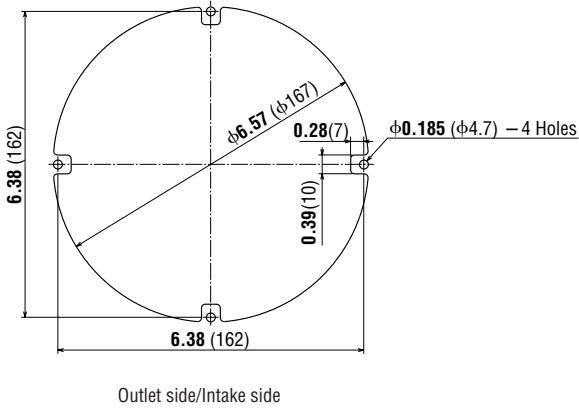
Dimensions Scale 1/4, Unit = inch (mm)

Weight: 2.0 lb. (0.9 kg)

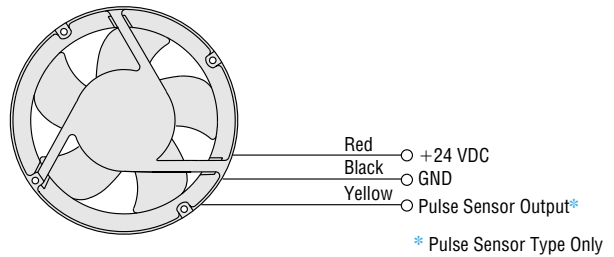
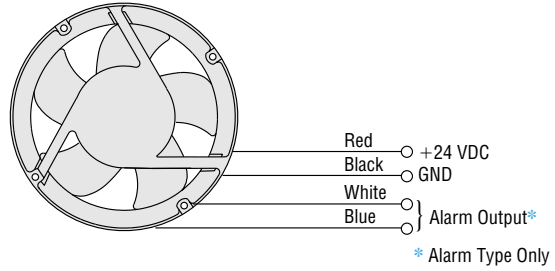
DXF E016



Panel Cut-Out Scale 1/4, Unit = inch (mm)



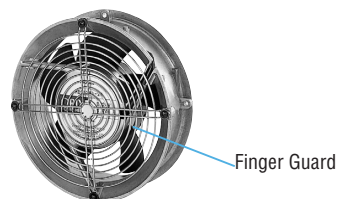
Connection Diagrams



Accessories (Sold Separately)

Item	Model	Safety Standards	Page
Finger Guard	FG17D	*	E-103

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Axial Flow Fans

DC Input

AC Input

Centrifugal Blowers

Cross Flow Fans

Accessories

Before Using a Fan

MDS Series

High-Performance Models

□ 4.69 in.×1.00 in. thick
 (□ 119 mm×25.4 mm thick)



Ambient Temperature: 14°F to 140°F (–10°C to +60°C)
 Operating Voltage Range: ±15%

Materials

Frame: Die Cast Aluminum
 Blades: Resin
 Flammability Grade: V-0
 Overheat Protection: Built-in Overheat Protection Circuit
 Bearings: Ball Bearings

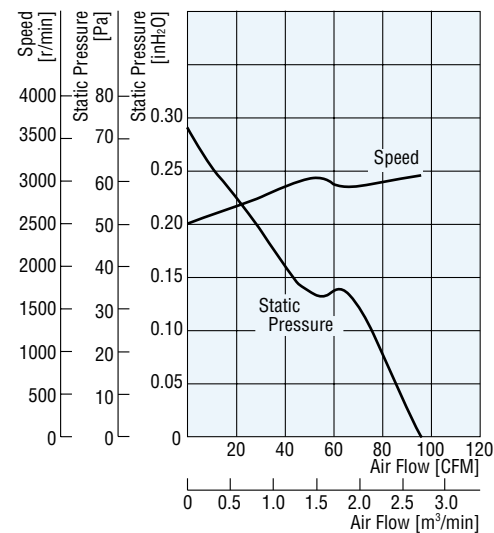
Specifications



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

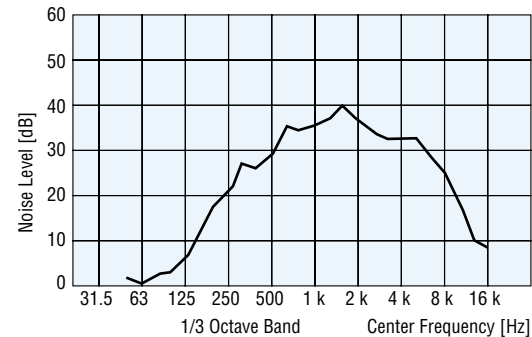
•How to read the specifications→Page E-13 •Alarm Specifications: ④→Page E-15 •Details of safety standards→Page G-2

Air Flow – Static Pressure Characteristics



Frequency – Audible Noise Level (dB)

Measured at a distance of 3.3 feet (1 m) from the fan intake side

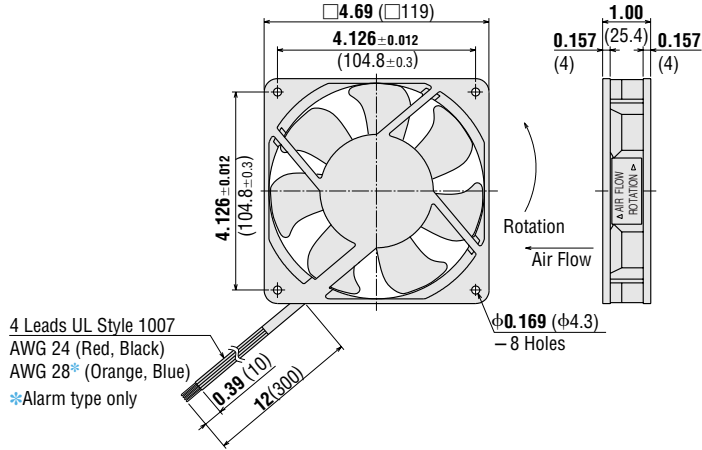


Dimensions

Scale 1/4, Unit = inch (mm)

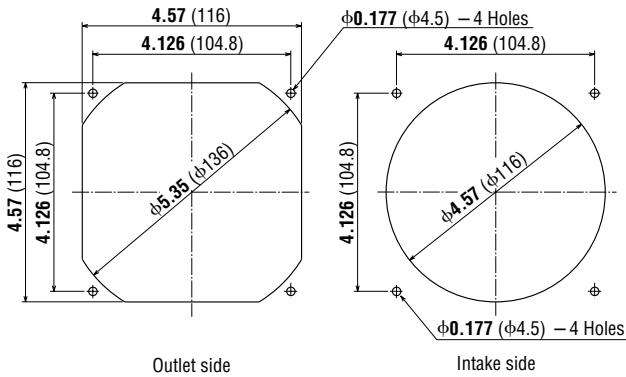
Weight: 0.66 lb. (0.3 kg)

DXF E020

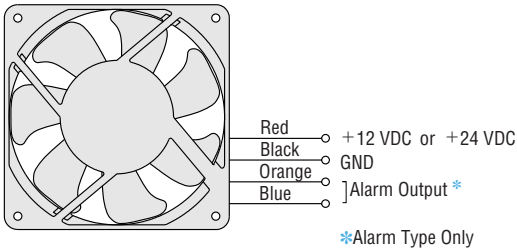


Panel Cut-Out

Scale 1/4, Unit = inch (mm)



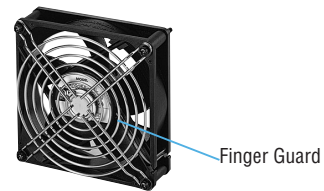
Connection Diagram



Accessories (Sold Separately)

Item	Model	Safety Standards	Page
Finger Guard	FG12D	*	E-102
Filter	FL12	—	E-106
Screen	FS12	—	E-107

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- A filter or screen can be installed in place of the finger guard.

Introduction

MRS

Variable Flow

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Before Using a Fan

MD Series

□ 4.69 in. × 1.00 in. thick
 (□ 119 mm × 25.4 mm thick)



Ambient Temperature: 14°F to 140°F (−10°C to +60°C)
 Operating Voltage Range: ±15%

Materials

Frame: Die Cast Aluminum
 Blades: Resin
 Flammability Grade: V-0
 Overheat Protection: Built-in Overheat Protection Circuit
 Bearings: Ball Bearings

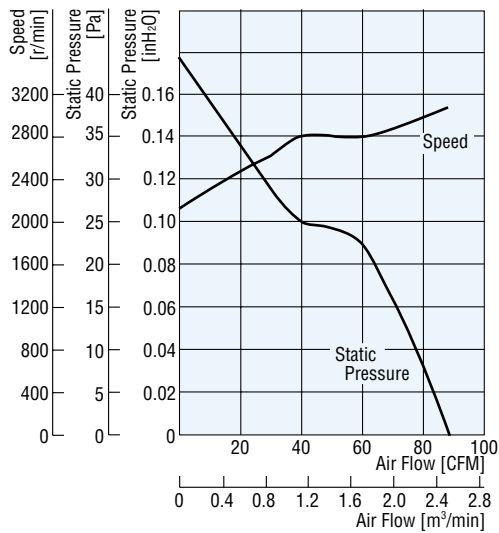
Specifications



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

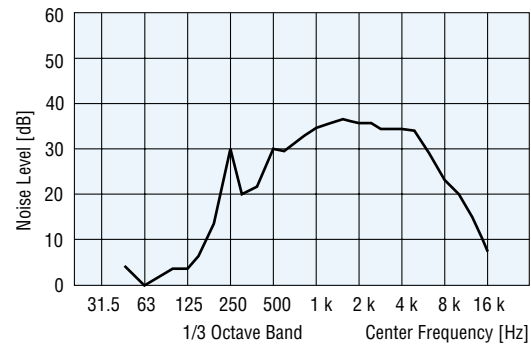
•How to read the specifications →Page E-13 •Details of safety standards →Page G-2

Air Flow — Static Pressure Characteristics



Frequency — Audible Noise Level (dB)

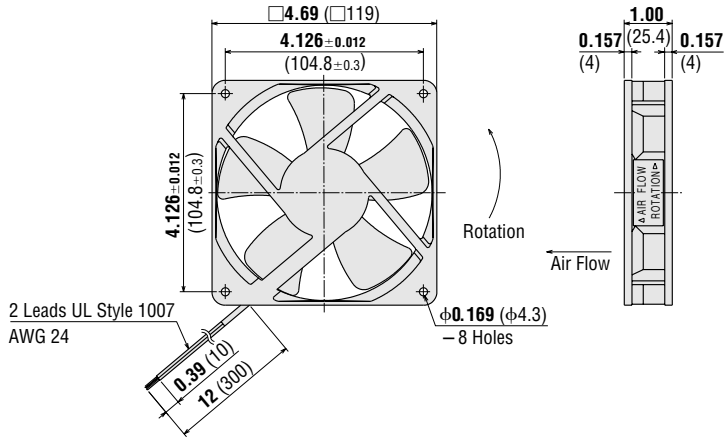
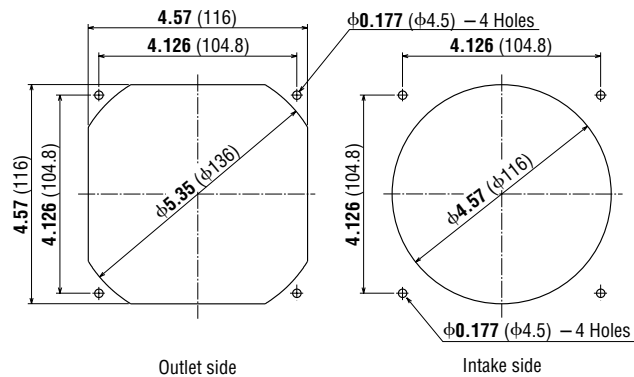
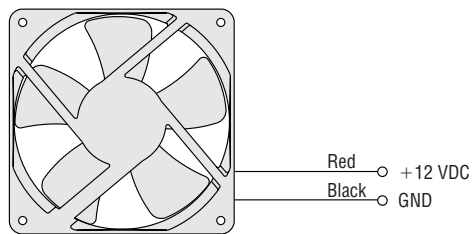
Measured at a distance of 3.3 feet (1 m) from the fan intake side



Dimensions Scale 1/4, Unit = inch (mm)

Weight: 0.42 lb. (0.19 kg)

DXF E021

**Panel Cut-Out** Scale 1/4, Unit = inch (mm)**Connection Diagram****Accessories** (Sold Separately)

Item	Model	Safety Standards	Page
Finger Guard	FG12D	*	E-102
Filter	FL12	-	E-106
Screen	FS12	-	E-107

* These products have been designed to pass tests set forth under the UL and CSA standards for equipment used in fans. They conform to the standards only when used with an **ORIX FAN**.



- A filter or screen can be installed in place of the finger guard.

Introduction

MRS

Variable
Flow

MU

Long Life
MDE

MDS · MD

MB

MBD

MF

MFD

Thermostats

Accessories

Before Using
a Fan

MD Series

□ 3.62 in. × 1.00 in. thick
 (□ 92 mm × 25.4 mm thick)



Ambient Temperature: 14°F to 140°F (−10°C to +60°C)
 Operating Voltage Range: ±15%

Materials

Frame: Resin
 Flammability Grade: V-0
 Blades: Resin
 Flammability Grade: V-0
 Overheat Protection: Built-in Overheat Protection Circuit
 Bearings: Ball Bearings

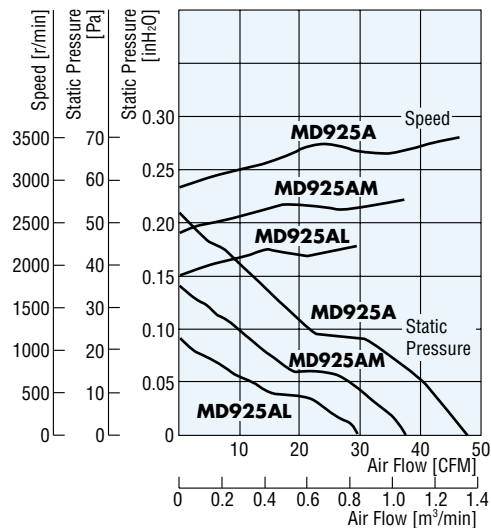
Specifications



Speed Type	Model			Voltage VDC	Current A	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB (A)
	Stall Alarm, Electronic Alarm Type ①	Pulse Sensor Type ⑨	Standard Type				CFM	m ³ /min	inH ₂ O	Pa	
Standard Speed	MD925A-12L	MD925A-12S	MD925A-12	12	0.24	3400	45.9	1.30	0.196	49	36
	MD925A-24L	MD925A-24S	MD925A-24	24	0.12						
Middle Speed	—	—	MD925AM-12	12	0.15	2800	38.8	1.10	0.137	34	31
	—	—	MD925AM-24	24	0.09						
Low Speed	—	—	MD925AL-12	12	0.10	2200	31.8	0.90	0.0882	22	28
	—	—	MD925AL-24	24	0.07						

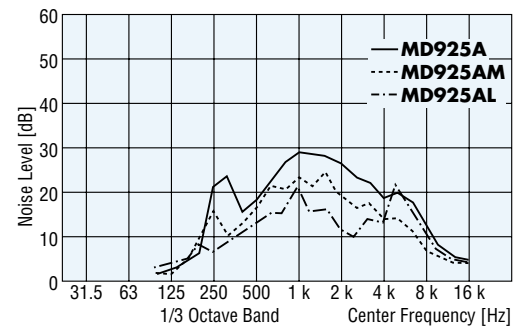
- How to read the specifications → Page E-13
- Alarm Specifications: ① → Page E-14, ⑨ → Page E-16
- Details of safety standards → Page G-2
- Pulse sensor type is not DEMKO approved.

Air Flow — Static Pressure Characteristics



Frequency — Audible Noise Level (dB)

Measured at a distance of 3.3 feet (1 m) from the fan intake side

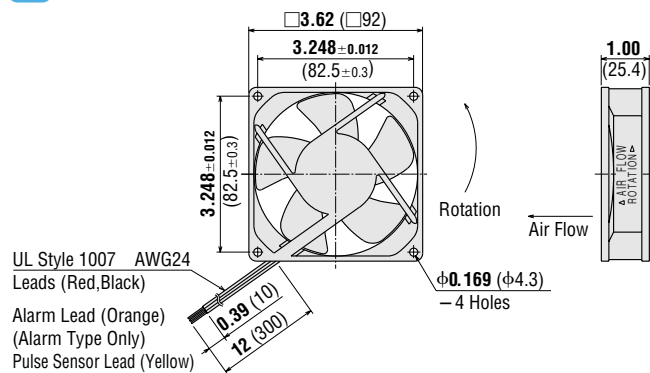


Dimensions

Scale 1/4, Unit = inch (mm)

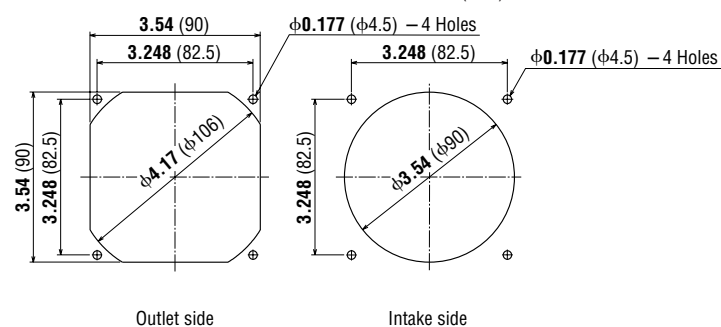
Weight: 0.26 lb. (0.12 kg)

DXF E022

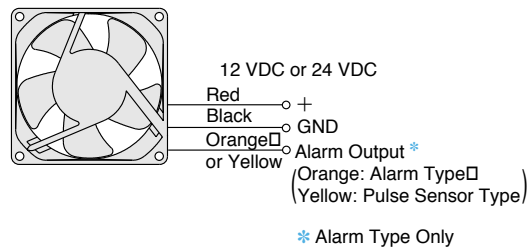


Panel Cut-Out

Scale 1/4, Unit = inch (mm)



Connection Diagram



Accessories (Sold Separately)

Item	Model	Safety Standards	Page
Finger Guard	FG9D	*1	E-102
Filter*2	FL9	-	E-105
Screen	FS9	-	E-107

*1 These products have been designed to pass tests set forth under the UL and CSA standards for equipment used in fans. They conform to the standards only when used with an **ORIX FAN**.

*2 Use M3 metric size screws to attach the filter to the fan frame.



Finger Guard

- A filter or screen can be installed in place of the finger guard.

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MRS

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Before Using a Fan

MD Series

□ 3.15 in. × 1.00 in. thick
(□ 80 mm × 25.4 mm thick)



Ambient Temperature: 14°F to 140°F (−10°C to +60°C)
Operating Voltage Range: ±15%

Materials

Frame: Die Cast Aluminum
Blades: Resin
Flammability Grade: V-0
Overheat Protection: Built-in Overheat Protection Circuit
Bearings: Ball Bearings

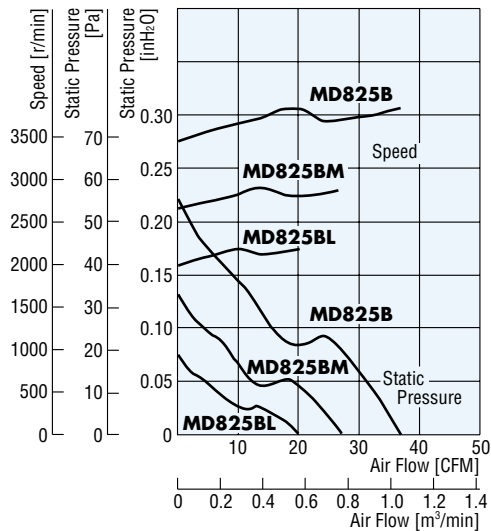
Specifications



Speed Type	Model			Voltage VDC	Current A	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB (A)
	Stall Alarm, Electronic Alarm Type ①	Pulse Sensor Type ⑨	Standard Type				CFM	m ³ /min	inH ₂ O	Pa	
Standard Speed	MD825B-12L	MD825B-12S	MD825B-12	12	0.24	3800	35.3	1.00	0.196	49	35
	MD825B-24L	MD825B-24S	MD825B-24	24	0.14						
Middle Speed	—	—	MD825BM-12	12	0.15	2850	25.8	0.73	0.116	29	29
	—	—	MD825BM-24	24	0.09						
Low Speed	—	—	MD825BL-12	12	0.07	2100	19.4	0.55	0.0642	16	25

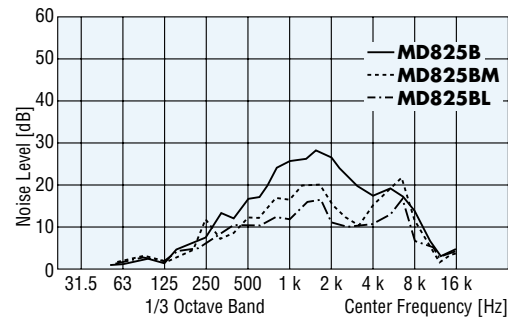
- How to read the specifications → Page E-13
- Alarm Specifications: ① → Page E-14, ⑨ → Page E-16
- Details of safety standards → Page G-2
- Pulse sensor type is not DEMKO approved.

Air Flow — Static Pressure Characteristics



Frequency — Audible Noise Level (dB)

Measured at a distance of 3.3 feet (1 m) from the fan intake side

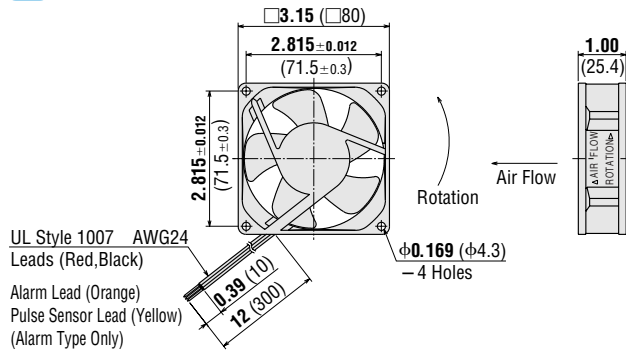


■ Dimensions

Scale 1/4, Unit = inch (mm)

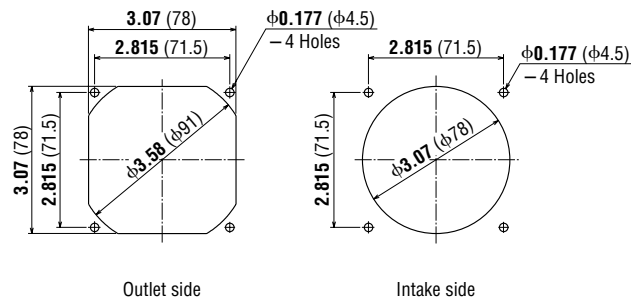
Weight: 0.24 lb. (0.11 kg)

DXF E023

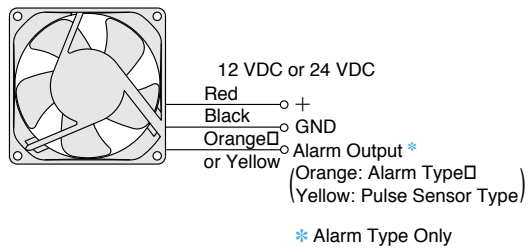


■ Panel Cut-Out

Scale 1/4, Unit = inch (mm)



■ Connection Diagram



■ Accessories (Sold Separately)

Item	Model	Safety Standards	Page
Finger Guard	FG12D	*	E-102
Filter	FL12	-	E-106
Screen	FS12	-	E-107

* These products have been designed to pass tests set forth under the UL and CSA standards for equipment used in fans. They conform to the standards only when used with an **ORIX FAN**.



Finger Guard

- A filter or screen can be installed in place of the finger guard.

Introduction

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Before Using a Fan

MD Series

□ 2.44 in. × 1.00 in. thick
 (□ 62 mm × 25.4 mm thick)



Ambient Temperature: 14°F to 140°F (−10°C to + 60°C)
 Operating Voltage Range: ±15%

Materials

Frame: Resin
 Flammability Grade: V-0
 Blades: Resin
 Flammability Grade: V-0
 Overheat Protection: Built-in Overheat Protection Circuit
 Bearings: Ball Bearings

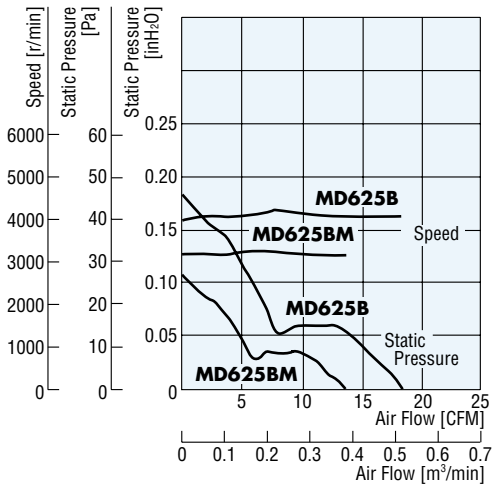
Specifications



Speed Type	Model			Voltage VDC	Current A	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB (A)
	Stall Alarm, Electronic Alarm Type ①	Pulse Sensor Type ⑨	Standard Type				CFM	m ³ /min	inH ₂ O	Pa	
Standard Speed	MD625B-12L	MD625B-12S	MD625B-12	12	0.16	4000	17.7	0.50	0.196	49	30
	MD625B-24L	MD625B-24S	MD625B-24	24	0.10						
Middle Speed	—	—	MD625BM-12	12	0.10	3000	13.1	0.37	0.109	27	25
	—	—	MD625BM-24	24	0.07						

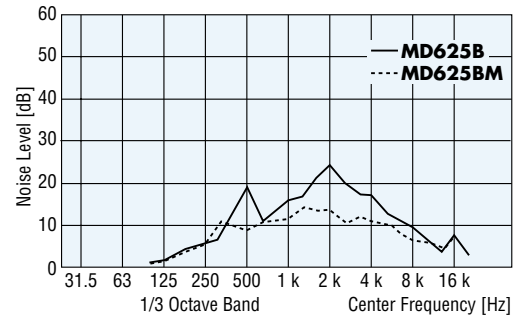
- How to read the specifications → Page E-13
- Alarm Specifications: ① → Page E-14, ⑨ → Page E-16
- Details of safety standards → Page G-2
- Pulse sensor type is not DEMKO approved.

Air Flow — Static Pressure Characteristics



Frequency — Audible Noise Level (dB)

Measured at a distance of 3.3 feet (1 m) from the fan intake side

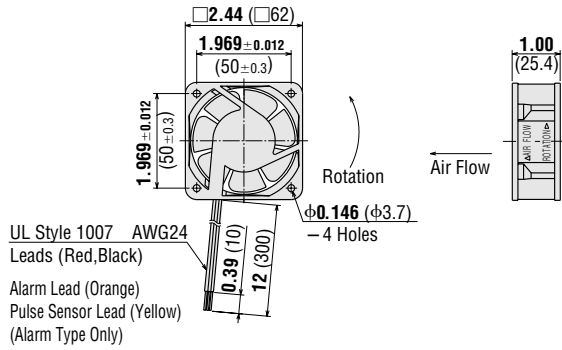


Dimensions

Scale 1/4, Unit = inch (mm)

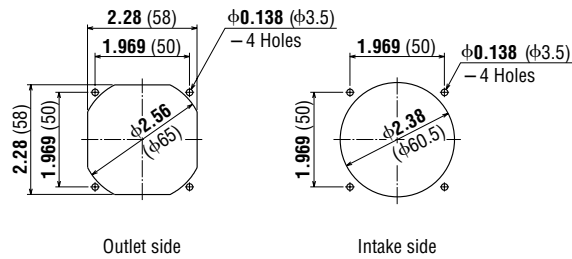
Weight: 0.22 lb. (0.1 kg)

DXF E024

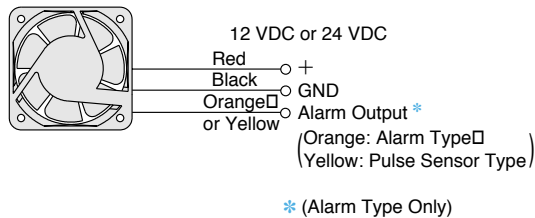


Panel Cut-Out

Scale 1/4, Unit = inch (mm)



Connection Diagram



Accessories (Sold Separately)

Item	Model	Safety Standards	Page
Finger Guard	FG6D	*	E-102
Filter	FL6	-	E-105

* These products have been designed to pass tests set forth under the UL and CSA standards for equipment used in fans. They conform to the standards only when used with an **ORIX FAN**.



Finger Guard

- A filter or screen can be installed in place of the finger guard.

Introduction

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Accessories

Before Using a Fan

MDS Series

High-Performance Models

□ 2.05 in. × 0.39 in. thick
 (□ 52 mm × 10 mm thick)



Ambient Temperature: 14°F to 140°F (−10°C to +60°C)
 Operating Voltage Range: ±10%

Materials

Frame: Resin
 Flammability Grade: V-0
 Blades: Resin
 Flammability Grade: V-0
 Overheat Protection: Built-in Overheat Protection Circuit
 Bearings: Ball Bearings

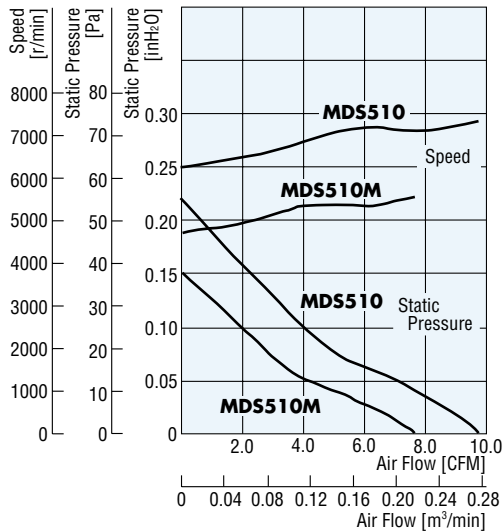


Specifications

Speed Type	Model		Voltage VDC	Current A	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB(A)
	Electronic Alarm Type	Standard Type				CFM	m ³ /min	inH ₂ O	Pa	
Standard Speed	①	MDS510-12L	12	0.14	7000	9.53	0.27	0.217	54	36
		MDS510-24L	24	0.08						
Middle Speed		MDS510M-5	5	0.2	5500	7.06	0.2	0.129	32	30
		MDS510M-12	12	0.12						
		MDS510M-24	24	0.06						

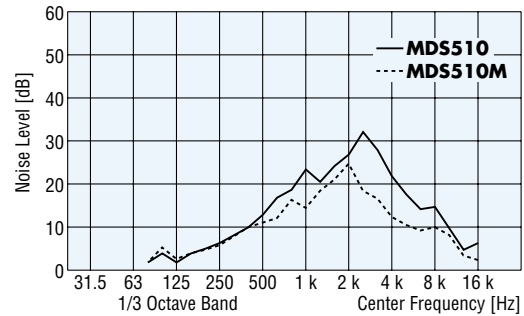
•How to read the specifications → Page E-13 •Alarm Specifications: ① → Page E-14 •Details of safety standards → Page G-2

Air Flow — Static Pressure Characteristics



Frequency — Audible Noise Level (dB)

Measured at a distance of 3.3 feet (1 m) from the fan intake side

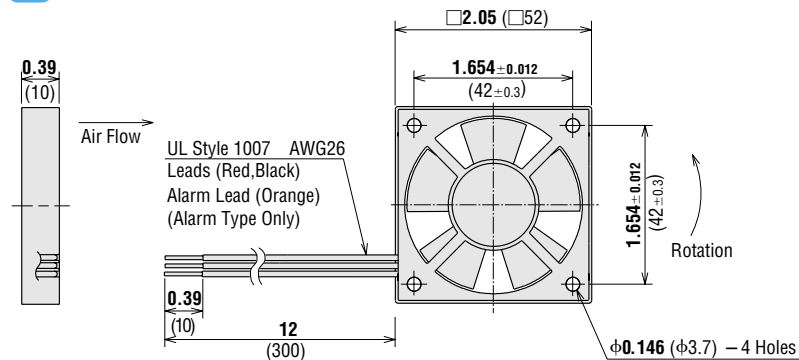


■ Dimensions

Scale 1/2, Unit = inch (mm)

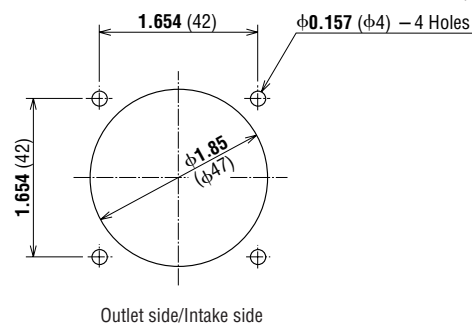
Weight: 1.1 oz. (30 g)

DXF E018

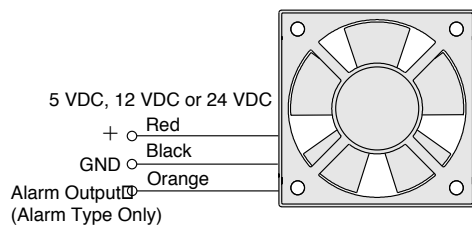


■ Panel Cut-Out

Scale 1/2, Unit = inch (mm)



■ Connection Diagram



■ Accessories (Sold Separately)

Item	Model	Safety Standards	Page
Finger Guard	FG5D	*	E-102

* These products have been designed to pass tests set forth under the UL and CSA standards for equipment used in fans. They conform to the standards only when used with an **ORIX FAN**.



Finger Guard

MDS Series

High-Performance Models

□ 1.65 in. × 0.39 in. thick
 (□ 42 mm × 10 mm thick)



Ambient Temperature: 14°F to 140°F (−10°C to +60°C)
 Operating Voltage Range: ±10%

Materials

Frame: Resin
 Flammability Grade: V-0
 Blades: Resin
 Flammability Grade: V-0
 Overheat Protection: Built-in Overheat Protection Circuit
 Bearings: Ball Bearings

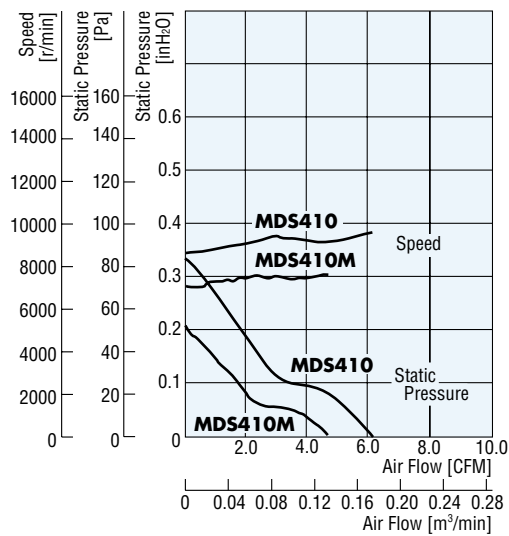


Specifications

Speed Type	Model		Voltage VDC	Current A	Speed r/min	Max. Air Flow		Max. Static Pressure		Noise Level dB(A)
	Electronic Alarm Type ①	Standard Type				CFM	m³/min	inH ₂ O	Pa	
Standard Speed	MDS410-12L	MDS410-12	12	0.16	10000	6.35	0.18	0.345	86	34
	MDS410-24L	MDS410-24	24	0.09						
Middle Speed	—	MDS410M-5	5	0.2	7500	4.59	0.13	0.188	47	29

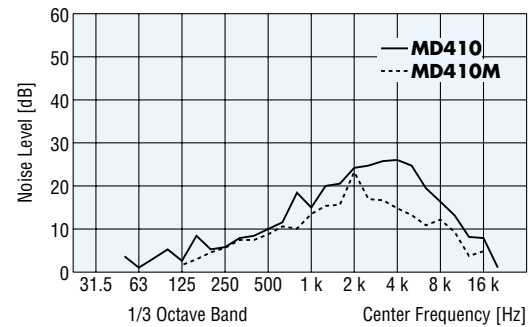
• How to read the specifications → Page E-13 • Alarm Specifications: ① → Page E-14 • Details of safety standards → Page G-2

Air Flow – Static Pressure Characteristics



Frequency – Audible Noise Level (dB)

Measured at a distance of 3.3 feet (1 m) from the fan intake side

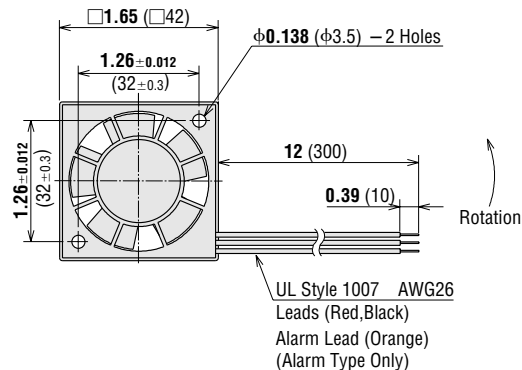


Dimensions

Scale 1/2, Unit = inch (mm)

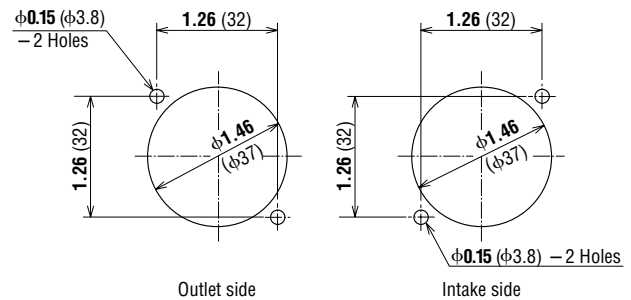
Weight: 1.1 oz. (30 g)

DXF E019

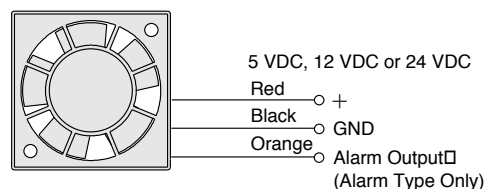


Panel Cut-Out

Scale 1/2, Unit = inch (mm)



Connection Diagram



Accessories (Sold Separately)

Item	Model	Safety Standards	Page
Finger Guard	FG4D	*	E-102

* These products have been designed to pass tests set forth under the UL and CSA standards for equipment used in fans. They conform to the standards only when used with an **ORIX FAN**.

