

Cross Flow Fans

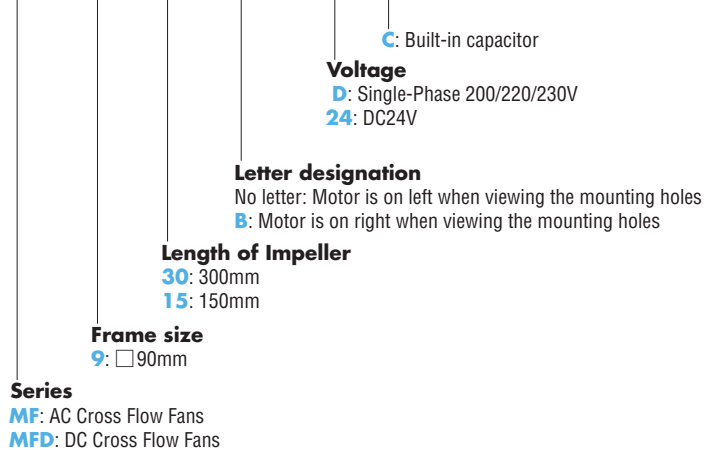
General Information and Product Number Code	·C-86
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MF Series	·····C-88
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Types of Cross Flow Fans

Length of impeller	Model		Page	
	Single-Phase 200/220/230V	DC 24V	AC	DC
300mm	MF930(B) -DC	MFD930(B) -24	C-88	C-92
150mm	MF915(B) -DC	MFD915(B) -24	C-90	C-94

Product Number Code

MF 9 30 B - D C



General Specifications

Item	Specifications
Insulation Resistance	100MΩ or more when 500V DC is applied between the windings and the frame under normal ambient temperature and humidity. (MFD Series : 10MΩ or more, 250V DC)
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. (MFD Series : 500V · 50Hz, 1 minute)
Temperature Rise	45°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. (MFD Series : 15°C or less)
Operating Voltage Range	AC Cross Flow Fans : ±10% of the rated voltage DC Cross Flow Fans : +10%, -40% of the rated voltage
Insulation Class	Class E (120°C) [Recognized as Class A (105°C) by UL and CSA standards.]
Overheat Protection	Operating temperature Open : 120°C±5°C Close : 77°C±15°C MFD Series has an overheat protection function installed.
Ambient Temperature	-10°C~+60°C
Ambient Humidity	0~85% (noncondensing)
Color	Black

Safety Standards and CE Marking

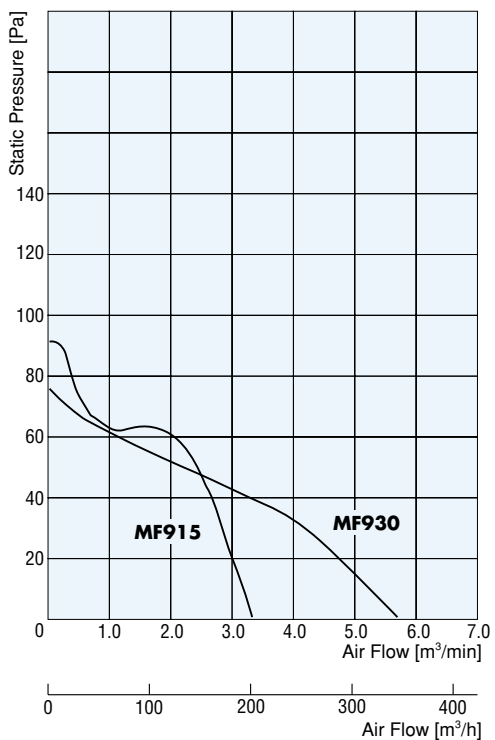
Model	Standards	Certification Body	Standards File No.	CE Marking
MF Series	UL507	UL	E58377	Low Voltage Directives
	CAN/CSA-C22.2 No.113			
	EN60950	VDE	5854ÜG	

- * For installation conditions for EN/IEC standards, refer to page D-2 for further detail.
- * The file No. depends on the type of products. Refer to page D-10 for further detail.

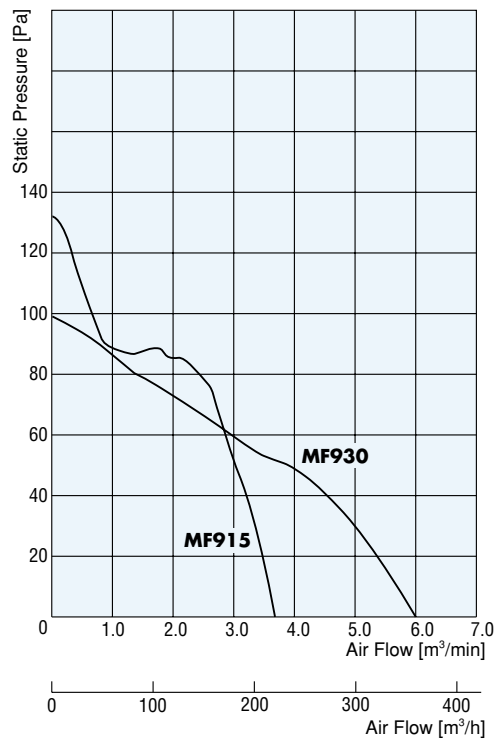
Comparisons of Characteristics

■ AC Cross Flow Fans MF Series

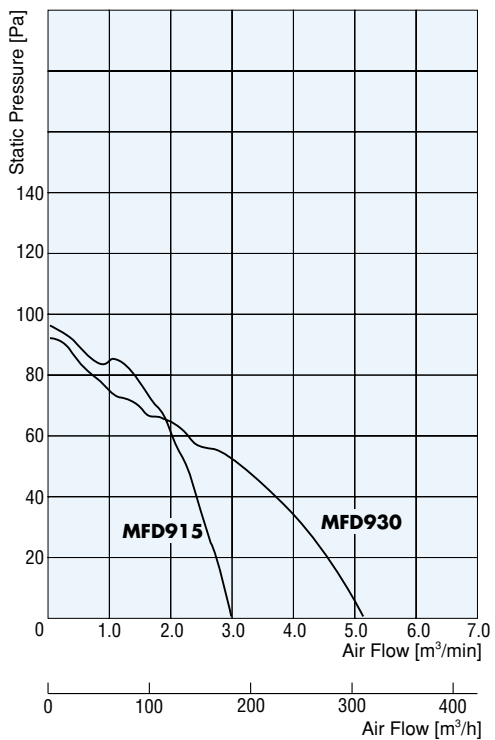
● 50Hz



● 60Hz

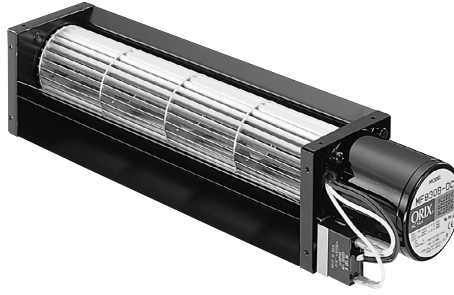


■ DC Cross Flow Fans MFD Series



MF Series
AC Cross Flow Fans

Length of Impeller
300mm



Materials
Impeller : Aluminum
Casing : Steel
Motor case : Die Cast Aluminum

Specifications

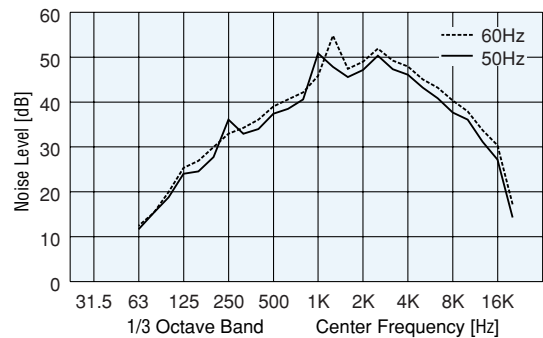
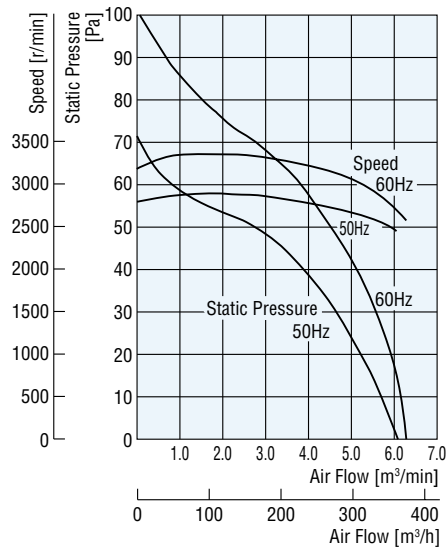
Model	Voltage V	Frequency Hz	Current A	Input Power W	Speed r/min	Max. Air Flow m ³ /min (m ³ /h)	Max. Static Pressure Pa	Noise Level dB (A)
MF930-DC MF930B-DC	Single-Phase 200	50	0.20	35	2500	6.0 (360)	74	58
	Single-Phase 200	60	0.25	45	2700	6.2 (372)	103	60
	Single-Phase 220	60	0.25	48	2950	6.6 (396)	106	62
	Single-Phase 230	50	0.20	40	2700	6.2 (372)	78	60
	Single-Phase 230	60	0.25	50	3000	6.8 (408)	106	63

- Values for maximum air flow and maximum static pressure are measured by the double-chamber method.
- Noise level is measured in the A range, at a distance of 1m from the fan intake side.
- A thermal protector is installed. If the fan heats up, the thermal protector goes into operation and the fan stops. Once the fan temperature drops, it will automatically restart. Perform inspection work after turning off the power source.
- Fans bearing the CE mark should only be used with Class I equipment. When installing into the equipment, either earth the fan or ensure that there is no contact with bare hands. For protection, use the optional finger guard. Standards specifications are listed on page D-2.
- Refer to page D-4 for VDE certified products.

Air Flow – Static Pressure Characteristics

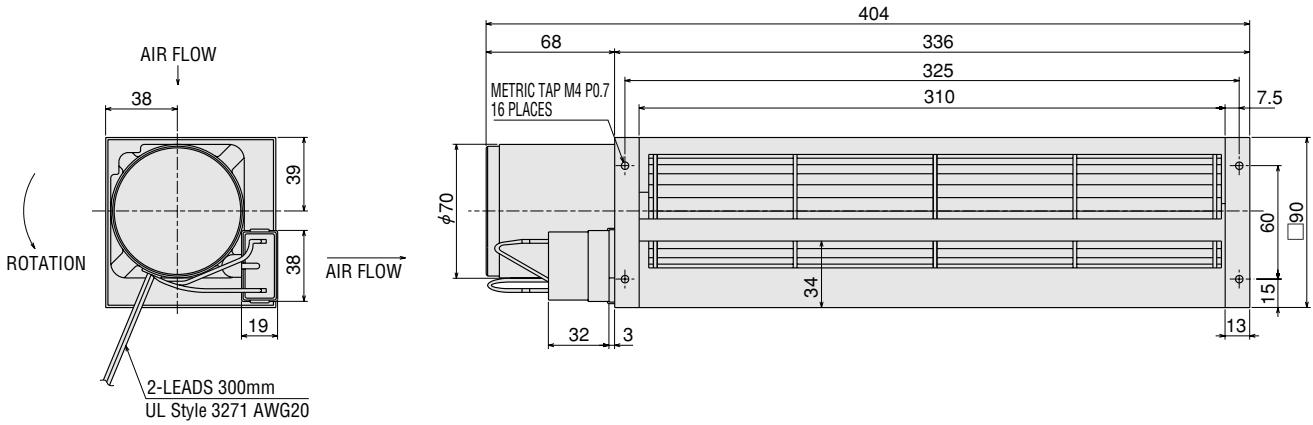
Audible Noise Frequency Analysis

Measure at a distance of 1m from the fan intake side

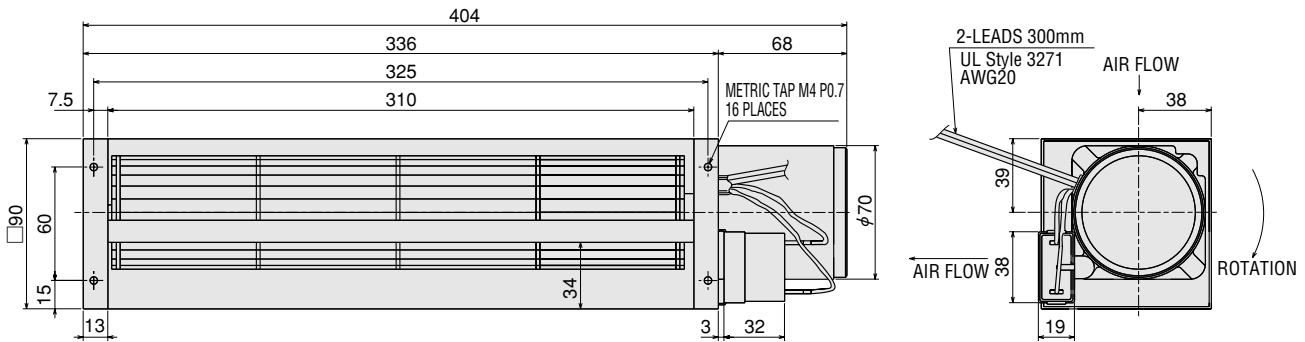


Dimensions (scale 1/4, Unit=mm)

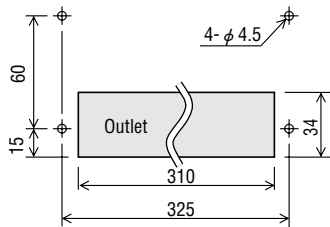
● **MF930-DC** Mass: 1.9kg



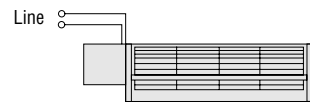
● **MF930B-DC** Mass: 1.9kg



Panel Cut-Out (unit=mm)



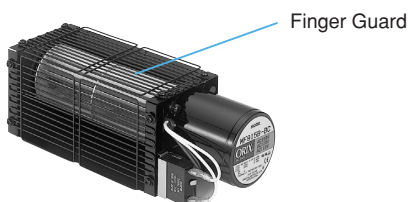
Wiring Diagram



Accessories (Sold separately)

Item	Model	Safety Standards	Page
Finger Guard	FG930D	*	C-98

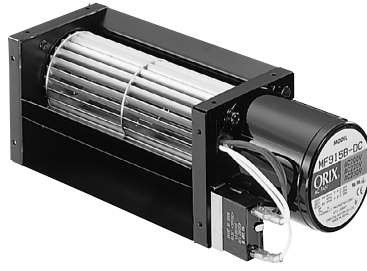
* These products have been designed to pass tests set forth under the UL and CSA standards for equipment used in fans. They conform to the standards only when used in an **ORIX.FAN**.



* The photo shows two finger guards.

MF Series
AC Cross Flow Fans

Length of Impeller
150mm



Materials
Impeller : Aluminum
Casing : Steel
Motor case : Die Cast Aluminum

Specifications

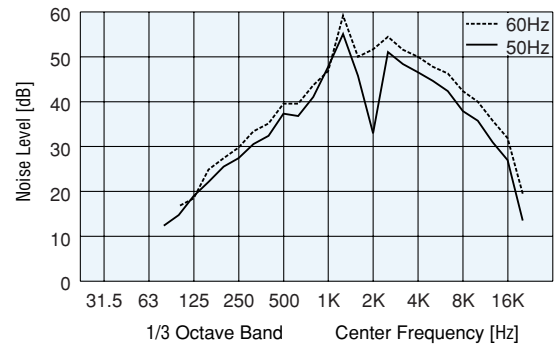
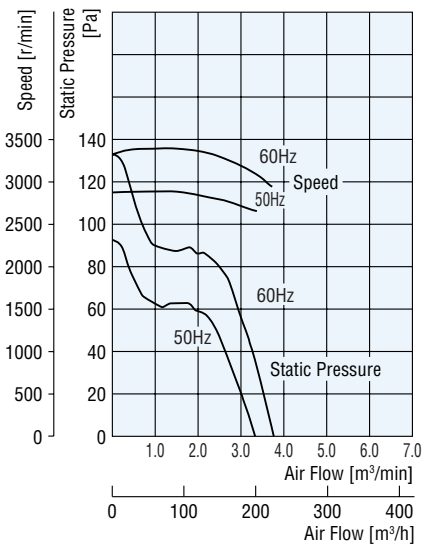
Model	Voltage V	Frequency Hz	Current A	Input Power W	Speed r/min	Max. Air Flow m ³ /min (m ³ /h)	Max. Static Pressure Pa	Noise Level dB (A)
MF915-DC MF915B-DC	Single-Phase 200	50	0.20	30	2650	3.4 (204)	88	60
	Single-Phase 200	60	0.25	40	2950	3.7 (222)	127	63
	Single-Phase 220	60	0.25	42	3200	4.0 (240)	132	64
	Single-Phase 230	50	0.20	33	2800	3.6 (216)	92	61
	Single-Phase 230	60	0.25	43	3250	4.1 (246)	132	64

- Values for maximum air flow and maximum static pressure are measured by the double-chamber method.
- Noise level is measured in the A range, at a distance of 1m from the fan intake side.
- A thermal protector is installed. If the fan heats up, the thermal protector goes into operation and the fan stops. Once the fan temperature drops, it will automatically restart. Perform inspection work after turning off the power source.
- Fans bearing the CE mark should only be used with Class I equipment. When installing into the equipment, either earth the fan or ensure that there is no contact with bare hands. For protection, use the optional finger guard. Standards specifications are listed on page D-2.
- Refer to page D-4 for VDE certified products.

Air Flow – Static Pressure Characteristics

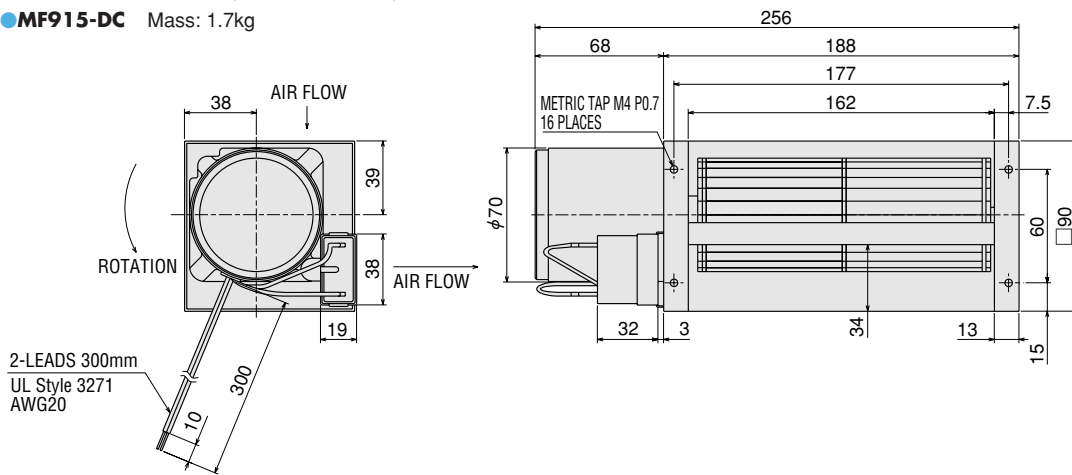
Audible Noise Frequency Analysis

Measure at a distance of 1m from the fan intake side

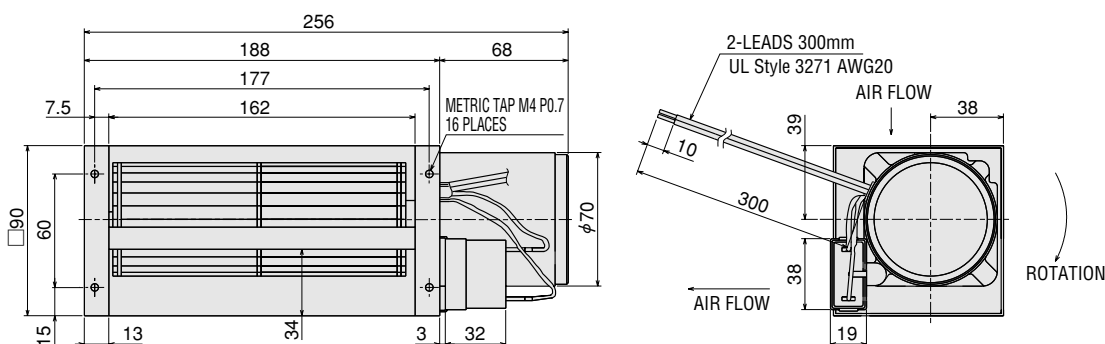


■ Dimensions (scale 1/4, Unit=mm)

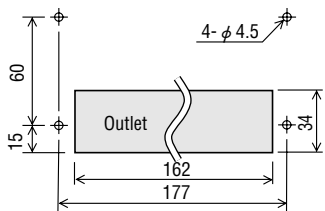
● **MF915-DC** Mass: 1.7kg



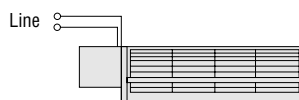
● **MF915B-DC** Mass: 1.7kg



■ Panel Cut-Out (unit=mm)



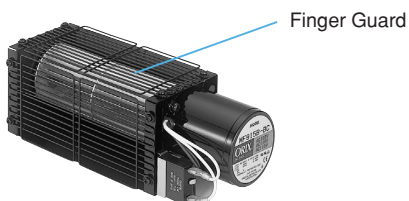
■ Wiring Diagram



■ Accessories (Sold separately)

Item	Model	Safety Standards	Page
Finger Guard	FG915D	*	C-98

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* The photo shows two finger guards.

MFD Series
DC Cross Flow Fans

Length of Impeller
300mm



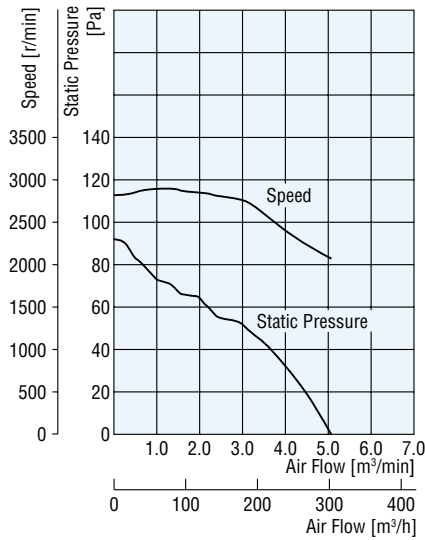
Materials
Impeller : Aluminum
Casing : Steel
Motor case : Die Cast Aluminum

Specifications

Model	Rated Voltage DC V	Rated Current A	Rated Speed r/min	Max. Air Flow m³/min(m³/h)	Max. Static Pressure Pa	Noise Level dB (A)
MFD930-24	24	1.0	2100	5.2 (312)	83	60
MFD930B-24						

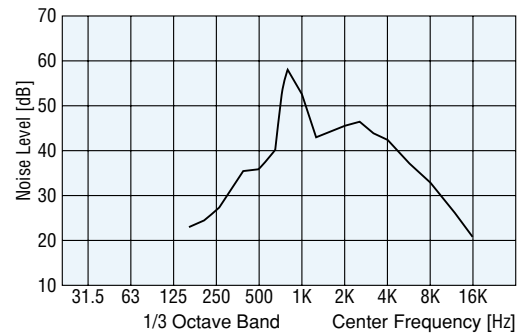
- Values for maximum air flow and maximum static pressure are measured by the double-chamber method.
- Noise level is measured in the A range, at a distance of 1m from the fan intake side
- Operating Voltage Range: ±10% of the rated voltage
- An overheat protection function is installed.

Air Flow – Static Pressure Characteristics



Audible Noise Frequency Analysis

Measure at a distance of 1m from the fan intake side



DC Long life MDE

AC MRS

AC MU

DC MDS+MD

Variable Flow

AC MB

DC MB

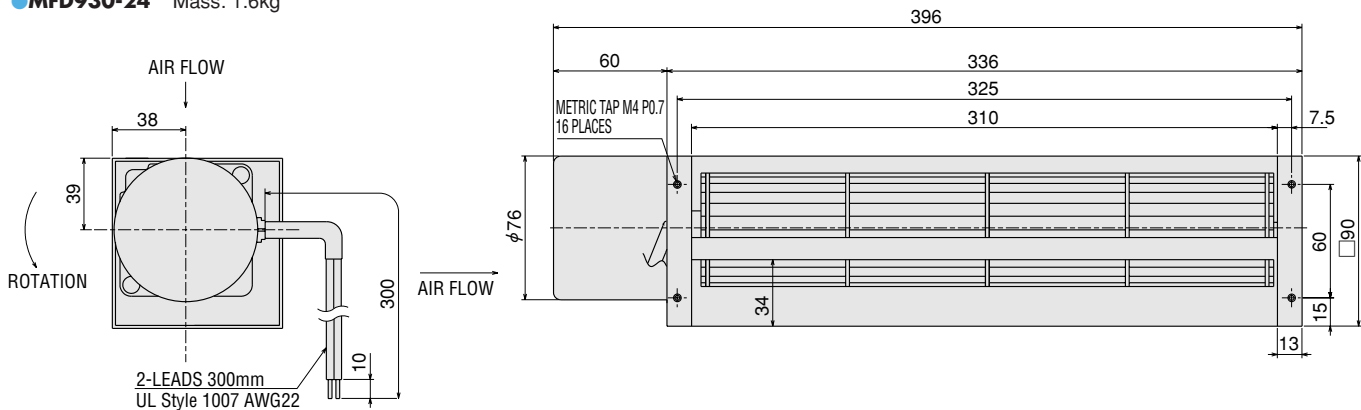
AC MF

DC MFD

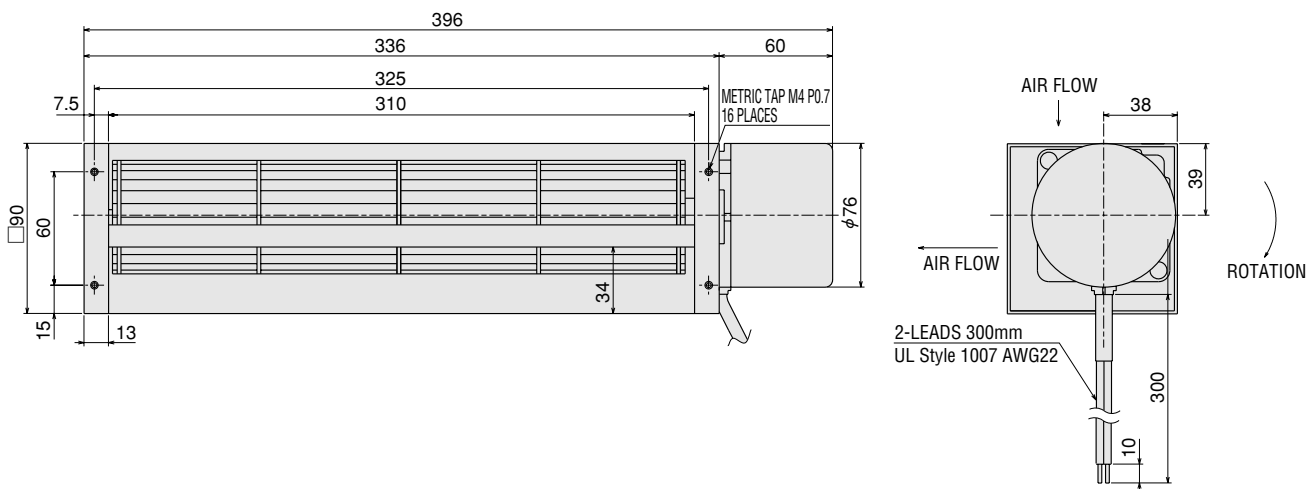
Accessories

■ Dimensions (scale 1/4, Unit=mm)

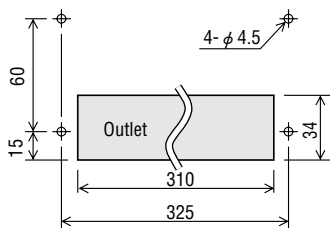
● **MFD930-24** Mass: 1.6kg



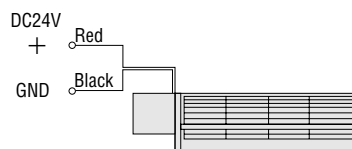
● **MFD930B-24** Mass: 1.6kg



■ Panel Cut-Out (unit=mm)



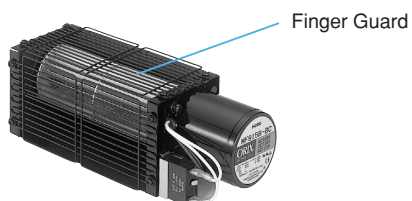
■ Wiring Diagram



■ Accessories (Sold separately)

Item	Model	Safety Standards	Page
Finger Guard	FG930D	*	C-98

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* The photo shows two finger guards.

MFD Series

DC Cross Flow Fans

Length of Impeller
150mm



Materials

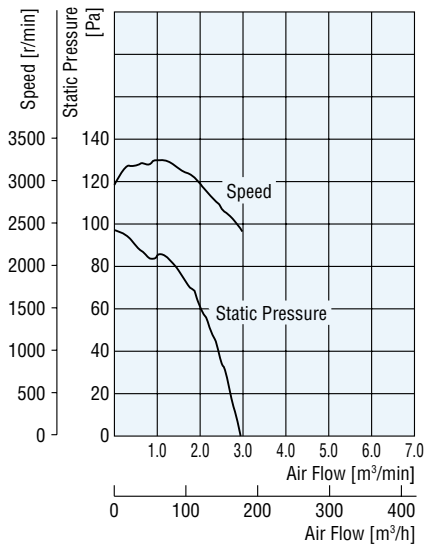
Impeller : Aluminum
Casing : Steel
Motor case : Die Cast Aluminum

Specifications

Model	Rated Voltage DC V	Rated Current A	Rated Speed r/min	Max. Air Flow m ³ /min(m ³ /h)	Max. Static Pressure Pa	Noise Level dB (A)
MFD915-24	24	1.0	2500	3.0 (180)	98	60
MFD915B-24						

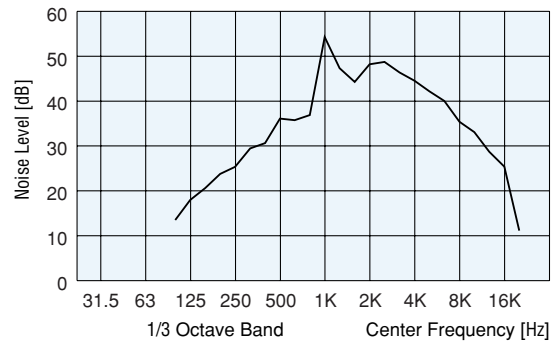
- Values for maximum air flow and maximum static pressure are measured by the double-chamber method.
- Noise level is measured in the A range, at a distance of 1m from the fan intake side
- Operating Voltage Range: $\pm 10\%$ of the rated voltage
- An overheat protection function is installed.

Air Flow – Static Pressure Characteristics



Audible Noise Frequency Analysis

Measure at a distance of 1m from the fan intake side



DC Long life MDE

AC MRS

AC MU

DC MDS+MD

Variable Flow

AC MB

DC MBD

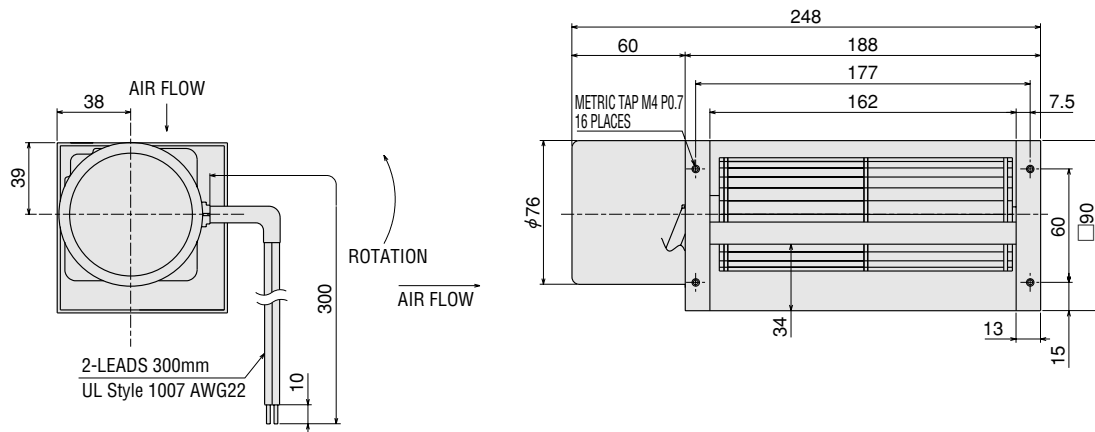
AC MF

DC MFD

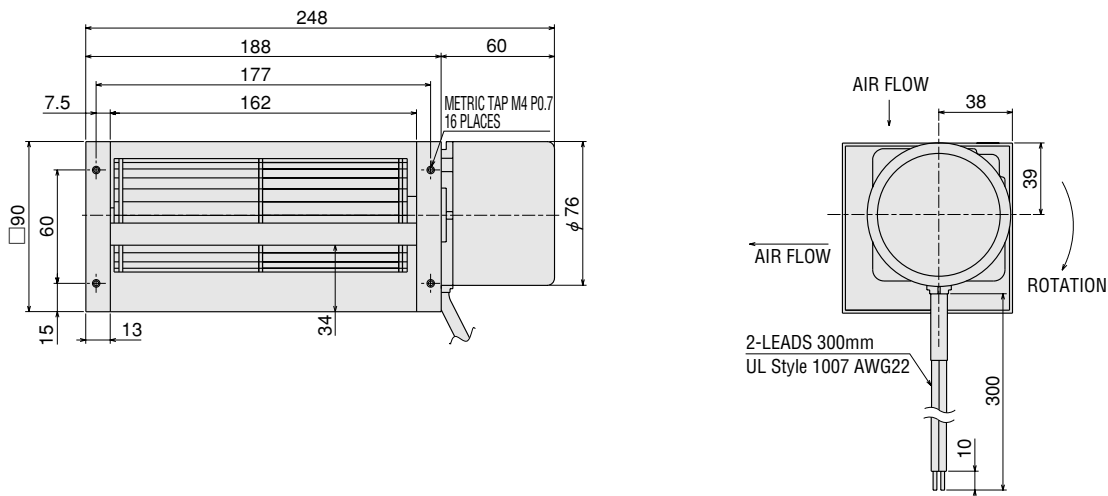
Accessories

Dimensions (scale 1/4, Unit=mm)

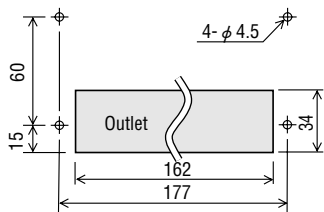
● **MFD915-24** Mass: 1.4kg



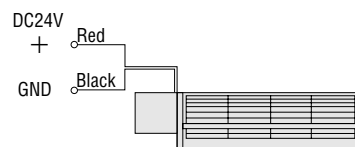
● **MFD915B-24** Mass: 1.4kg



Panel Cut-Out (unit=mm)



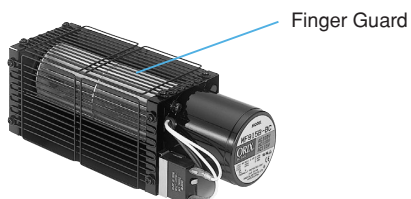
Wiring Diagram



Accessories (Sold separately)

Item	Model	Safety Standards	Page
Finger Guard	FG915D	*	C-98

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* The photo shows two finger guards.