

# ORIENTAL MOTOR GENERAL CATALOG



## *Axial Flow Fans*

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# Types of Axial Flow Fans

Frame Size in. sq.	Thickness in.	Voltage								Input Type		Functions	
		Single-Phase 100V	Single-Phase 115V	Single-Phase 200V	Single-Phase 230V	Three-Phase 200V	Three-Phase 230V	DC12V	DC24V	AC	DC	Alarm	Variable flow
7.87	3.54	<b>MRS20-BUL, BM</b>		<b>MRS20-DUL, DM</b>		<b>MRS20-TUL, TM</b>				C-34		C-34	
7.09	3.54	<b>MRS18-BUL, BTM</b>		<b>MRS18-DUL, DTM</b>		<b>MRS18-TUL, TTM</b>				C-36		C-36	C-66
6.77	2.01								<b>MDS1751-24</b>	C-50			
6.30	2.44	<b>MRS16-BUL, BTM, BTA</b>		<b>MRS16-DUL, DTM, DTA</b>		<b>MRS16-TUL, TTM, TTA</b>				C-38		C-38	
5.51	1.85					<b>MRS14-TUL, TTM</b>				C-40		C-40	
4.69	1.50		<b>MU1238A-21B</b>		<b>MU1238A-51B</b>					C-42			
	.98		<b>MU1225S-21</b>		<b>MU1225S-51</b>			<b>MDS1225-12, 12M</b>	<b>MDS1225-24, 24M</b>		C-52	C-52	
3.62	.98		<b>MU925S-21</b>		<b>MU925S-51</b>			<b>MD1225-12, 12M</b>	<b>MD1225-24, 24M</b>	C-44	C-54		
3.15	.98		<b>MU825S-23</b>		<b>MU825S-53</b>			<b>MD925A-12, 12L</b>	<b>MD925A-24, 24L</b>	C-46	C-56	C-56	
2.44	.98							<b>MD825B-12, 12L</b>	<b>MD825B-24, 24L</b>	C-48	C-58	C-58	
2.05	.39							<b>MD625B-12, 12L</b>	<b>MD625B-24, 24L</b>		C-60	C-60	
1.65	.39							<b>MDS510-12, 12L</b>	<b>MDS510-24, 24L</b>		C-62	C-62	
								<b>MDS410-12, 12L</b>	<b>MDS410-24, 24L</b>		C-64	C-64	

**Note:** The above table applies only to standard-speed fans; specifications for other fans are given elsewhere in this catalog.

## ■ General Specifications

### ■ AC Axial Flow Fans

Item	Specifications
Insulation Resistance	100MΩ or more when 500V DC 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	<b>MRS</b> series has built-in thermal protector (Automatic return type) Operating temperature, open: 248°F±9°F (120°C±5°C), close: 170.6°F±27°F (77°C±15°C) <b>MU</b> series has impedance protection
Ambient Temperature	14°F~140°F (-10°C~+60°C)
Ambient Humidity	0~85% (noncondensing)
Colors	<b>MRS</b> series frame: Black; Blades: Black <b>MU</b> series frame: Unpainted (Aluminum); Blades: Black

### ■ DC Axial Flow Fans

Item	Specifications
Insulation Resistance	10MΩ or more when 250V DC 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 <div style="display: flex; align-items: center;"> <div style="font-size: 3em; margin-right: 10px;">{</div> <div> <p><b>MDS510, MDS410:</b> ±10%</p> <p><b>MD625 :</b> 12V types +15%, -33%</p> <p style="padding-left: 20px;">24V types +15%, -50%</p> <p><b>MDS1751 :</b> +10%, -40%</p> </div> </div>
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	<b>MDS510, MDS410, MD925, MD825, MD625:</b> Series frame : Black ; Blades : Black <b>MDS1751, MDS1225, MD1225:</b> Series frame : Unpainted (Aluminum) ; Blades : Black

## ■ Safety Standards and CE Marking

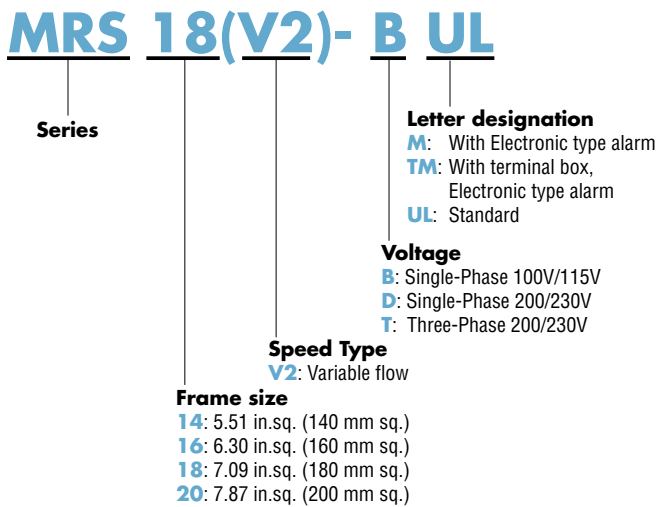
Model	Standards	Certification Body	Standards File No.	CE Marking
<b>MRS</b> series	UL507	UL	E58377	Low Voltage Directives
	CAN/CSA-C22.2 No.113	CSA	LR62524	
	EN60950	VDE	5866ÜG,5867ÜG 5868ÜG,5869ÜG	
<b>MRS18V2</b> series	UL507,UL1917	UL	E58377	Low Voltage Directives
	CAN/CSA-22.2 No.113			
	EN60950	DEMKO	125232/98-04256	
<b>MU</b> series	UL507	UL	E58377	Low Voltage Directives
	CAN/CSA-22.2 No.113	CSA	LR62524	
	EN60950	VDE	5870ÜG,5807ÜG	
	ELECTRICAL APPLIANCE AND MATERIAL CONTROL LAW	JET	0018-91002-001 0018-91002-002 0018-91002-003	
<b>MDS,MD</b> series	UL507	UL	E58377	EMC Directives
	CAN/CSA-C22.2 No.113			
	EN60950	DEMKO	124018/DK 98-03344	

- For installation conditions for EN/IEC standards, see Page D-2.
- The file No. depends on the type of product. See details on page D-10

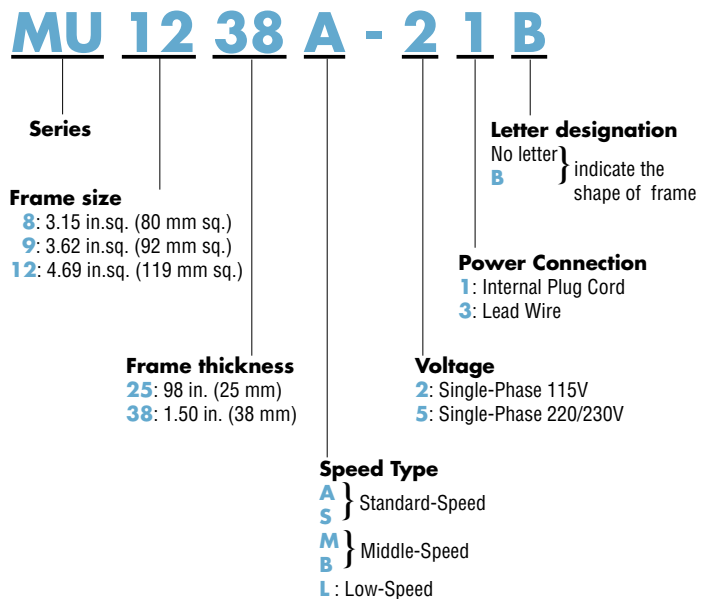
## ■ Product Number Codes

### ■ AC Axial Flow Fans

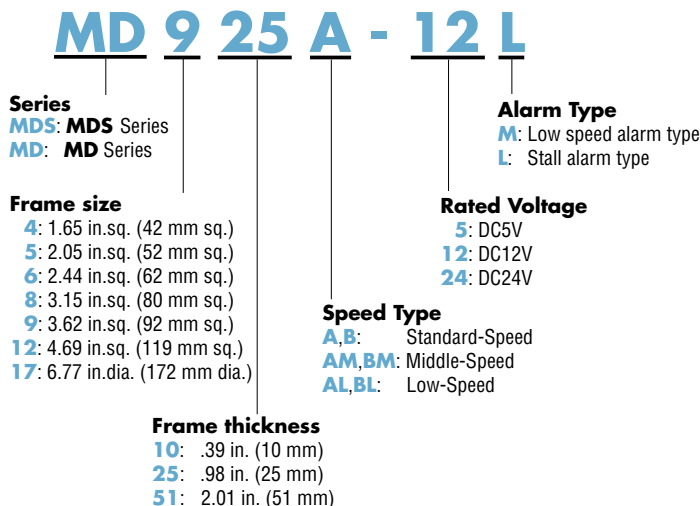
#### ● MRS Series



#### ● MU Series



### ■ DC Axial Flow Fans

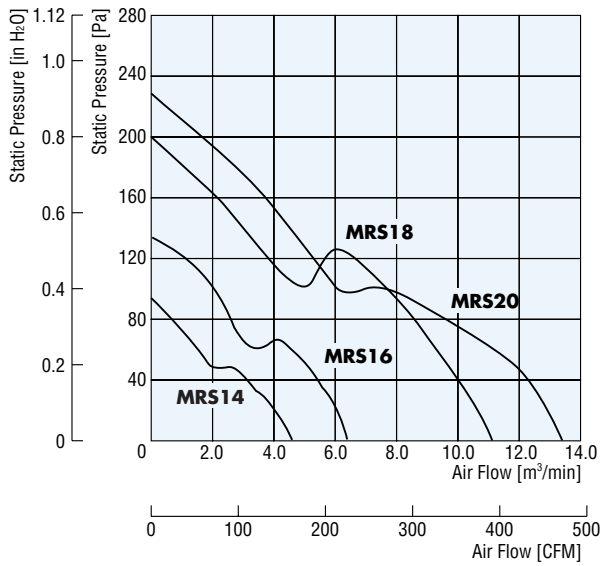


# Comparisons of Characteristics

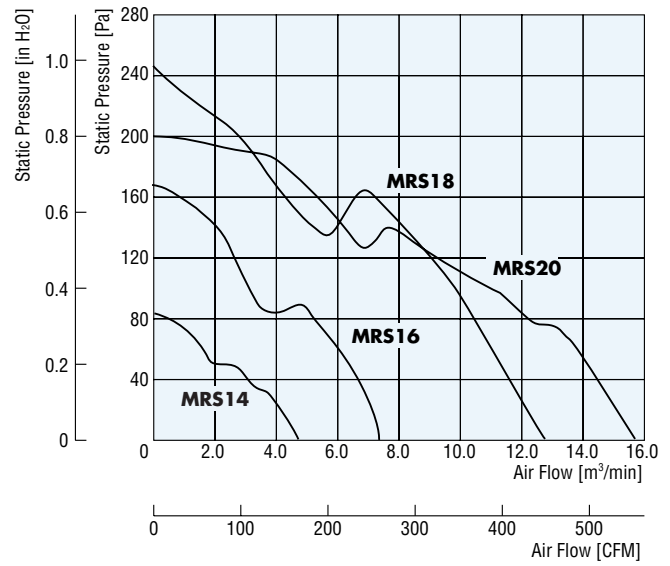
## ■ AC Axial Flow Fans

### MRS Series

● 50Hz

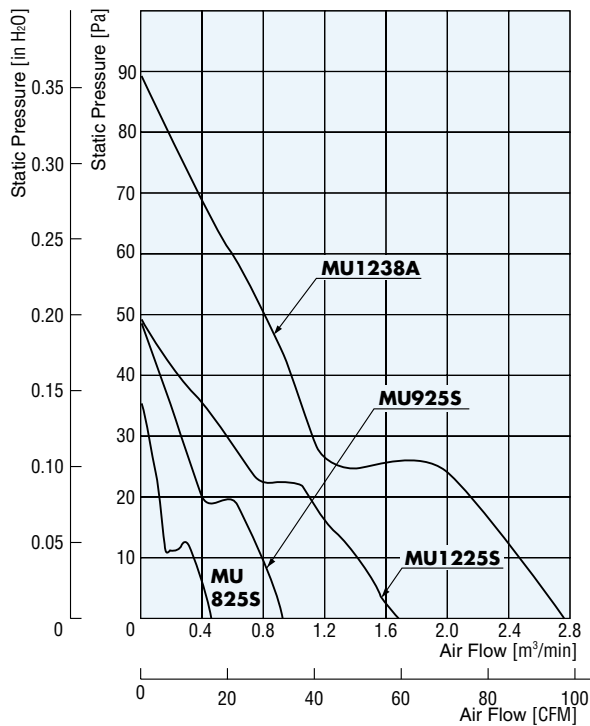


● 60Hz

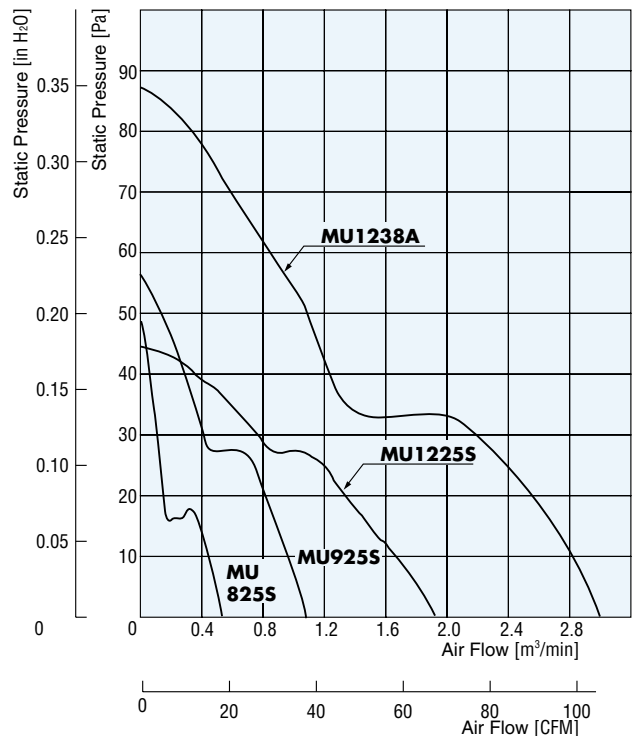


### MU Series

● 50Hz



● 60Hz



## ■ DC Axial Flow Fans

- MDS1751
- MDS1225
- MD1225
- MD925A

- MD825B
- MD625B
- MDS510
- MDS410

