DC Input
MDS Series, MD Series

The MDS/MD Series DC axial flow fans are compact axial flow fans offering good overall performance and value. Available in 8 frame sizes from □42 mm (□1.65 in.) up to ϕ172 mm (ϕ6.77 in.) and depending on frame size are available with a stall alarm as a standard fan type. Also different speed types are available, from Low Speed, Middle Speed to Standard Speed.

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

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

Features
Product Line

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

<table>
<thead>
<tr>
<th>Frame Size</th>
<th>MDS410</th>
<th>MDS510</th>
<th>MDS5625/MD625</th>
<th>MDS825/MD825</th>
<th>MDS925/MD925</th>
<th>MDS1225/MD1225</th>
<th>MDS1238</th>
<th>MDS1451</th>
<th>MDS1751*</th>
</tr>
</thead>
<tbody>
<tr>
<td>□42 (1.65)</td>
<td>□52 (2.05)</td>
<td>□60/62 (2.36/2.44)</td>
<td>□80 (3.15)</td>
<td>□92 (3.62)</td>
<td>□119 (4.69)</td>
<td>□119/120 (4.69/4.72)</td>
<td>□140 (5.51)</td>
<td>□172 (6.77)</td>
<td></td>
</tr>
<tr>
<td>□52 (2.05)</td>
<td>□60/62 (2.36/2.44)</td>
<td>□80 (3.15)</td>
<td>□92 (3.62)</td>
<td>□119 (4.69)</td>
<td>□119/120 (4.69/4.72)</td>
<td>□140 (5.51)</td>
<td>□172 (6.77)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□60/62 (2.36/2.44)</td>
<td>□80 (3.15)</td>
<td>□92 (3.62)</td>
<td>□119 (4.69)</td>
<td>□119/120 (4.69/4.72)</td>
<td>□140 (5.51)</td>
<td>□172 (6.77)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□80 (3.15)</td>
<td>□92 (3.62)</td>
<td>□119 (4.69)</td>
<td>□119/120 (4.69/4.72)</td>
<td>□140 (5.51)</td>
<td>□172 (6.77)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□92 (3.62)</td>
<td>□119 (4.69)</td>
<td>□119/120 (4.69/4.72)</td>
<td>□140 (5.51)</td>
<td>□172 (6.77)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□119 (4.69)</td>
<td>□119/120 (4.69/4.72)</td>
<td>□140 (5.51)</td>
<td>□172 (6.77)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□119/120 (4.69/4.72)</td>
<td>□140 (5.51)</td>
<td>□172 (6.77)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□140 (5.51)</td>
<td>□172 (6.77)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□172 (6.77)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Frame Thickness [mm (in.)]

<table>
<thead>
<tr>
<th>Speed Type</th>
<th>High Speed</th>
<th>Standard Speed</th>
<th>Middle Speed</th>
<th>Low Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>□52 (2.05)</td>
<td>□60/62 (2.36/2.44)</td>
<td>□80 (3.15)</td>
<td>□92 (3.62)</td>
<td>□119 (4.69)</td>
</tr>
<tr>
<td>□60/62 (2.36/2.44)</td>
<td>□80 (3.15)</td>
<td>□92 (3.62)</td>
<td>□119 (4.69)</td>
<td>□119/120 (4.69/4.72)</td>
</tr>
<tr>
<td>□80 (3.15)</td>
<td>□92 (3.62)</td>
<td>□119 (4.69)</td>
<td>□119/120 (4.69/4.72)</td>
<td>□140 (5.51)</td>
</tr>
<tr>
<td>□92 (3.62)</td>
<td>□119 (4.69)</td>
<td>□119/120 (4.69/4.72)</td>
<td>□140 (5.51)</td>
<td>□172 (6.77)</td>
</tr>
<tr>
<td>□119 (4.69)</td>
<td>□119/120 (4.69/4.72)</td>
<td>□140 (5.51)</td>
<td>□172 (6.77)</td>
<td></td>
</tr>
<tr>
<td>□119/120 (4.69/4.72)</td>
<td>□140 (5.51)</td>
<td>□172 (6.77)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>□140 (5.51)</td>
<td>□172 (6.77)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□172 (6.77)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Alarm Type

<table>
<thead>
<tr>
<th>Power Supply Voltage</th>
<th>5 VDC</th>
<th>12 VDC</th>
<th>24 VDC</th>
<th>48 VDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stall Alarm</td>
<td>Stall Alarm</td>
<td>Stall Alarm</td>
<td>Stall Alarm</td>
<td>Stall Alarm</td>
</tr>
</tbody>
</table>

Fans with Stall Alarm

Outputs an alarm when the cooling fan stops. This allows for quick detection of a problem and replacement if needed.
### System Configuration

#### MDS Series, MD Series

- Axis Flow Fans
- Motive Power Supply (Main power supply)
- DC Power Supply (No supplied)
- Contact Type Fan

#### Accessories (Sold separately)

- Finger Guards
- Filters
- Screens

#### Example of System Configuration

<table>
<thead>
<tr>
<th>Fan Only</th>
<th>Sold Separately</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fan</td>
<td>Thermostat</td>
</tr>
<tr>
<td>MDS1225-24H</td>
<td>AM2-XA1</td>
</tr>
<tr>
<td>$48.00</td>
<td>$35.00</td>
</tr>
</tbody>
</table>

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

### Product Number

#### Fan Only

**MDS 17 51 F H - 24**

1. **Frame Size**: 4: 42 mm (1.65 in.), 5: 52 mm (2.05 in.), 6: 60 mm (2.36 in.) or 62 mm (2.44 in.), 8: 80 mm (3.15 in.), 9: 92 mm (3.62 in.), 12: 119 mm (4.69 in.) or 120 mm (4.72 in.), 14: 140 mm (5.51 in.), 17: φ172 mm (6.77 in.)

2. **Frame Thickness**: 10: 10 mm (0.39 in.), 25: 25 mm (0.99 in.), 25.2 mm (0.99 in.) or 25.4 mm (1.00 in.), 38: 38 mm (1.50 in.), 51: 51 mm (2.01 in.)

3. **Frame Shape**: F: Side-cut

4. **Speed Type**: H: High Speed
   - Blank, A, B: Standard Speed
   - AM, BM: Middle Speed
   - AL, BL: Low Speed

5. **Power Supply Voltage**: 5: 5 VDC, 12: 12 VDC, 24: 24 VDC, 48: 48 VDC

6. **Additional Function**: L: Stall Alarm, Electronic Alarm Type
   - Blank: No additional functions

7. **Connection Type**: Blank: Lead Wire Type
   - H: Connector Type

#### Fan Kit

**T - MDS1751FH-24 G**

- **Fan Kit Order Code**
- **Fan Product Name**
- **G - G** With finger guard and installation screws
MDS Series

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

Specifications

<table>
<thead>
<tr>
<th>Series</th>
<th>Speed Type</th>
<th>Function</th>
<th>Product Name</th>
<th>Voltage (VDC)</th>
<th>Current (A)</th>
<th>Speed (r/min)</th>
<th>Max. Air Flow</th>
<th>Max. Static Pressure (Pa)</th>
<th>Noise Level (dB A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDS Series</td>
<td>Standard Speed</td>
<td>Standard Type</td>
<td>MDS410-12</td>
<td>12</td>
<td>0.16</td>
<td>10000</td>
<td>0.18</td>
<td>6.35</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stall Alarm, Electronic Alarm Type</td>
<td>MDS410-12L</td>
<td>12</td>
<td>0.16</td>
<td>10000</td>
<td>0.18</td>
<td>6.35</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>Middle Speed</td>
<td>Standard Type</td>
<td>MDS410M-5</td>
<td>5</td>
<td>0.20</td>
<td>7500</td>
<td>0.13</td>
<td>4.59</td>
<td>47</td>
</tr>
</tbody>
</table>

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

Product Line

Fan Only

- Lead Wire Type
  - Product Name | List Price
  - MDS410-12    | $23.00
  - MDS410-12L   | $26.00
  - MDS410M-5    | $23.00
  - The following items are included with each product: Fan, Operating Manual

- Connector Type
  - Product Name | List Price
  - MDS410-12H   | $29.00
  - MDS410-12LH  | $33.00
  - MDS410M-5H   | $29.00
  - The following items are included with each product: Fan, Cable with Connector, Operating Manual

Fan Kit

- Lead Wire Type
  - Product Name | List Price
  - T-MDS410-12G | $26.00
  - T-MDS410-12LH | $29.00
  - T-MDS410M-5S-G | $26.00

- Connector Type
  - Product Name | List Price
  - T-MDS410-12HG | $32.00
  - T-MDS410-12LHG | $36.00
  - T-MDS410M-5SHG | $32.00
  - The following items are included in each kit: Fan, Finger Guard, Installation Screws (M3 × 25 mm (0.98 in.))

Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)

With Stall Alarm
- Operating Voltage Range: ±10%
- Overheat Protection: Built-in Overheat Protection Circuit
- Color: Black
- Materials: Polycarbonate (Flammability grade V-0)
- Blades: PBT (Flammability grade V-0)
### Dimensions
Unit = mm (in.)

- **Lead Wire Type**
  - Mass: 25 g (0.88 oz.)
  - UL Style 1007, AWG26

- **Connector Type**
  - Fan
  - UL Style 1007, AWG26

- **Panel Cut-Out**
  - Unit = mm (in.)

- **Connection Diagrams**
  - Lead Wire Type
  - Connector Type

### Accessories
<table>
<thead>
<tr>
<th>Product</th>
<th>Product Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finger Guard</td>
<td>FG4D</td>
<td>G-108</td>
</tr>
</tbody>
</table>
# MDS Series

**52 mm – 10 mm Thick**

(2.05 in. – 0.39 in. Thick)

## Specifications

<table>
<thead>
<tr>
<th>Series</th>
<th>Speed Type</th>
<th>Function</th>
<th>Product Name</th>
<th>Voltage (VDC)</th>
<th>Current (A)</th>
<th>Speed (r/min)</th>
<th>Max. Air Flow (m³/min)</th>
<th>Max. Static Pressure (Pa)</th>
<th>Noise Level (dB(A))</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MDS Series</strong></td>
<td>Standard Speed</td>
<td>Standard Type</td>
<td>MDS510-12</td>
<td>12</td>
<td>0.14</td>
<td>7000</td>
<td>0.27</td>
<td>9.53</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MDS510-12H</td>
<td>12</td>
<td>0.14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MDS510-24</td>
<td>24</td>
<td>0.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MDS510-24H</td>
<td>24</td>
<td>0.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Middle Speed</td>
<td>Standard Type</td>
<td>MDS510M-5</td>
<td>5</td>
<td>0.20</td>
<td>5500</td>
<td>0.20</td>
<td>7.06</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MDS510M-5H</td>
<td>5</td>
<td>0.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MDS510M-12</td>
<td>12</td>
<td>0.12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MDS510M-12L</td>
<td>12</td>
<td>0.12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MDS510M-12H</td>
<td>12</td>
<td>0.12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MDS510M-24</td>
<td>24</td>
<td>0.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MDS510M-24H</td>
<td>24</td>
<td>0.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

## Product Line

### Fan Only

#### Lead Wire Type

<table>
<thead>
<tr>
<th>Product Name</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDS510-12</td>
<td>$24.00</td>
</tr>
<tr>
<td>MDS510-12L</td>
<td>$27.00</td>
</tr>
<tr>
<td>MDS510M-5</td>
<td>$24.00</td>
</tr>
<tr>
<td>MDS510M-12</td>
<td>$24.00</td>
</tr>
</tbody>
</table>

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

#### Connector Type

<table>
<thead>
<tr>
<th>Product Name</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDS510-12H</td>
<td>$30.00</td>
</tr>
<tr>
<td>MDS510-12LH</td>
<td>$34.00</td>
</tr>
<tr>
<td>MDS510M-5H</td>
<td>$30.00</td>
</tr>
</tbody>
</table>

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

### Fan Kit

#### Lead Wire Type

<table>
<thead>
<tr>
<th>Product Name</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-MDS510-12-G</td>
<td>$28.00</td>
</tr>
<tr>
<td>T-MDS510-12L-G</td>
<td>$31.00</td>
</tr>
<tr>
<td>T-MDS510M-5-G</td>
<td>$28.00</td>
</tr>
<tr>
<td>T-MDS510M-12-G</td>
<td>$28.00</td>
</tr>
</tbody>
</table>

#### Connector Type

<table>
<thead>
<tr>
<th>Product Name</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-MDS510-12HG</td>
<td>$30.00</td>
</tr>
<tr>
<td>T-MDS510-12LHG</td>
<td>$38.00</td>
</tr>
<tr>
<td>T-MDS510M-5HG</td>
<td>$30.00</td>
</tr>
</tbody>
</table>

The following items are included in each kit.
- Fan, Finger Guard, Installation Screws

## Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)

![Air Flow - Static Pressure Characteristics Graph](image-url)

- With Stall Alarm
- Operating Voltage Range: ± 10%
- Overheat Protection: Built-in Overheat Protection Circuit
- Color: Frame: Black, Blades: Black
- Materials: Frame: Polycarbonate (Flammability grade V-0), Blades: PBT (Flammability grade V-0)
Cooling Fans

Dimensions  Unit = mm (in.)

Lead Wire Type
Mass: 30 g (1.06 oz.)

Connectors Type

Panel Cut-Out  Unit = mm (in.)

Connection Diagrams

Accessories

Table:
<table>
<thead>
<tr>
<th>Product</th>
<th>Product Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finger Guard</td>
<td>FG5D</td>
<td>G-108</td>
</tr>
</tbody>
</table>

Overview, Product Series
Axial Flow Fans
AC Input Low-Power Consumption EMU
AC Input Compact Size MU
AC Input Large Size, Large Air Flow MRS
AC Input Long-Life MRE
DC Input MDS MD
DC Input Alarm MDA
DC Input Variable Flow MDV
DC Input Long-Life MRE
Enclosure Fan Modules
Thermostat
Accessories
Installation
**Specifications**

<table>
<thead>
<tr>
<th>Series</th>
<th>Speed Type</th>
<th>Function</th>
<th>Product Name</th>
<th>Voltage (VDC)</th>
<th>Current (A)</th>
<th>Speed (r/min)</th>
<th>Max. Air Flow (m³/min)</th>
<th>Max. Static Pressure (Pa)</th>
<th>Noise Level (dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDS</td>
<td>High Speed</td>
<td>Standard Type</td>
<td>MD625B-24</td>
<td>24</td>
<td>0.24</td>
<td>7600</td>
<td>1.06</td>
<td>37.1</td>
<td>155</td>
</tr>
<tr>
<td>MD</td>
<td>Standard Speed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stall Alarm, Electronic Alarm Type (Alarm specifications: ③)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Middle Speed</td>
<td>Standard Type</td>
<td>MD625BM-12</td>
<td>12</td>
<td>0.1</td>
<td>3000</td>
<td>0.37</td>
<td>13.1</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>MD625BM-24</td>
<td></td>
<td>MD625BM-24</td>
<td>24</td>
<td>0.07</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

| Fan Only |

| Lead Wire Type |

<table>
<thead>
<tr>
<th>Product Name</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD625B-12</td>
<td>$28.00</td>
</tr>
<tr>
<td>MD625B-12L</td>
<td>$28.00</td>
</tr>
<tr>
<td>MD625B-24</td>
<td>$25.00</td>
</tr>
<tr>
<td>MD625B-24L</td>
<td>$25.00</td>
</tr>
</tbody>
</table>

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

| Connector Type |

<table>
<thead>
<tr>
<th>Product Name</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD625B-12H</td>
<td>$31.00</td>
</tr>
<tr>
<td>MD625B-24H</td>
<td>$31.00</td>
</tr>
<tr>
<td>MD625B-12LH</td>
<td>$35.00</td>
</tr>
<tr>
<td>MD625B-24LH</td>
<td>$35.00</td>
</tr>
</tbody>
</table>

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

**Air Flow – Static Pressure Characteristics**

(The characteristics are applicable for the fan only.)

![Air Flow - Static Pressure Characteristics Graph](image)

**Product Line**

**Fan Only**

**Lead Wire Type**

<table>
<thead>
<tr>
<th>Product Name</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD625B-12</td>
<td>$28.00</td>
</tr>
<tr>
<td>MD625B-12L</td>
<td>$28.00</td>
</tr>
<tr>
<td>MD625B-24</td>
<td>$25.00</td>
</tr>
<tr>
<td>MD625B-24L</td>
<td>$25.00</td>
</tr>
</tbody>
</table>

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

**Connector Type**

<table>
<thead>
<tr>
<th>Product Name</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD625B-12H</td>
<td>$31.00</td>
</tr>
<tr>
<td>MD625B-24H</td>
<td>$31.00</td>
</tr>
<tr>
<td>MD625B-12LH</td>
<td>$35.00</td>
</tr>
<tr>
<td>MD625B-24LH</td>
<td>$35.00</td>
</tr>
</tbody>
</table>

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

**Fan Kit**

**Lead Wire Type**

<table>
<thead>
<tr>
<th>Product Name</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-MD625B-12G</td>
<td>$19.00</td>
</tr>
<tr>
<td>T-MD625B-24G</td>
<td>$29.00</td>
</tr>
<tr>
<td>T-MD625B-12LG</td>
<td>$20.00</td>
</tr>
<tr>
<td>T-MD625B-24LG</td>
<td>$34.00</td>
</tr>
</tbody>
</table>

The following items are included in each kit. Fan, Finger Guard, Installation Screws [M3 x 40 mm (1.57 in.)]
Dimensions  Unit = mm (in.)

- MDS Series  
  - Lead Wire Type  
    - Mass: 0.09 kg (0.22 lb.)

- MD Series  
  - Lead Wire Type  
    - Mass: 0.1 kg (0.22 lb.)

Panel Cut-Out  Unit = mm (in.)

- MDS Series  
  - Connector Type  

Connection Diagrams

Lead Wire Type  
- DC Power Supply  
  - Red  
  - Black  
  - Stall Alarm Output (Stall Alarm type only)

Accessories

- MDS Series  
  - Product Name  
    - Finger Guard FG6E  
    - Filter FL6  
    - Screen FS65

- MD Series  
  - Product Name  
    - Finger Guard FG6D  
    - Filter FL6  
    - Screen FS65

Thermostat

The thermostat automatically controls the operation of the fan in accordance with temperature fluctuations inside the equipment. This helps improve the equipment’s "environmental" performance relative to energy savings, noise reduction, etc.

Thermostat AM2-XA1

Number of Connectable Fans: 7
- Only the standard speed type 24 VDC input fan can be connectable.

Support

E-mail: techsupport@orientalmotor.com

TEL: (800) 468-3982
**MDS • MD Series**

- **80 mm – 25 (25.4) mm Thick**
  
- **3.15 in. – 0.99 (1.00) in. Thick**

### Specifications

<table>
<thead>
<tr>
<th>Series</th>
<th>Speed Type</th>
<th>Function</th>
<th>Product Name</th>
<th>Voltage VDC</th>
<th>Current A</th>
<th>Speed r/min</th>
<th>Max. Air Flow</th>
<th>Max. Static Pressure</th>
<th>Noise Level (dB(A))</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDS Series</td>
<td>High Speed</td>
<td>Standard Type</td>
<td>MDS825H-24</td>
<td>24</td>
<td>0.20</td>
<td>4500</td>
<td>1.5</td>
<td>53.0</td>
<td>80.4</td>
</tr>
<tr>
<td>MD Series</td>
<td>Standard Speed</td>
<td>Standard Type</td>
<td>MDS825B-12 / MD825B-12H</td>
<td>12</td>
<td>0.25</td>
<td>3800</td>
<td>1.00</td>
<td>35.3</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stall Alarm, Electronic Alarm Type (Alarm specifications: ③)</td>
<td>MDS825B-12L / MD825B-12LH</td>
<td>12</td>
<td>0.25</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MDS825B-24 / MD825B-24H</td>
<td>24</td>
<td>0.14</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Middle Speed</td>
<td>Standard Type</td>
<td>MDS825BM-12</td>
<td>12</td>
<td>0.15</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MDS825BM-24</td>
<td>24</td>
<td>0.09</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Low Speed</td>
<td>Standard Type</td>
<td>MDS825BL-12</td>
<td>12</td>
<td>0.07</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

- For detailed information about regulations and standards, please see the Oriental Motor website.
- Alarm specifications ③ → Page G-15
- Regulations & Standards → Page I-2

### Product Line

- **Fan Only**
  - **Lead Wire Type**
    - Product Name | List Price
    - MD825B-12 | $30.00
    - MD825B-24 | $28.00
    - MD825B-12L | $25.00
    - MD825B-24L | $25.00
    - MD825BL-12 | $25.00
    - The following items are included with each product.
      - Fan, Operating Manual

- **Connector Type**
  - Product Name | List Price
  - MD825B-12H | $31.00
  - MD825B-24H | $30.00
  - MD825B-12LH | $35.00
  - The following items are included with each product.
    - Fan, Cable with Connector, Operating Manual

- **Fan Kit**
  - **Lead Wire Type**
    - Product Name | List Price
    - T-MD825B-12-G | $47.00
    - T-MD825B-24-G | $30.00
    - T-MD825B-12L-G | $33.00
    - T-MD825B-24L-G | $33.00
    - T-MD825BM-12-G | $30.00
    - T-MD825BM-24-G | $30.00
  - **Connector Type**
    - Product Name | List Price
    - T-MD825B-12HG | $36.00
    - T-MD825B-24HG | $40.00
    - T-MD825B-12LHG | $36.00
    - T-MD825B-24LHG | $40.00
    - The following items are included in each kit.
      - Fan, Finger Guard, Installation Screws (M4 × 40 mm (1.57 in.))

### Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)

---

**ORIENTAL MOTOR GENERAL CATALOG**

2015/2016
### Dimensions
Unit = mm (in.)

#### MDS Series
- **Lead Wire Type**
  - Mass: 0.11 kg (0.24 lb.)
  - 2D CAD: E184

#### MD Series
- **Connector Type**
- **Fan**
  - Mass: 0.11 kg (0.24 lb.)
  - 2D CAD: E122

#### MDE Series
- **Connector Type**
- **Fan**
  - Mass: 0.11 kg (0.24 lb.)
  - 2D CAD: E023

### Panel Cut-Out
Unit = mm (in.)

#### MDS Series
- **Connector Type**

### Connection Diagrams

#### Lead Wire Type
- DC Power Supply
- GND
- Stall Alarm Output
  - (Stall Alarm type only)

### Accessories
<table>
<thead>
<tr>
<th>Product</th>
<th>Product Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finger Guard</td>
<td>FG8D</td>
<td>G-108</td>
</tr>
<tr>
<td>Filter</td>
<td>FL8</td>
<td>G-110</td>
</tr>
<tr>
<td>Screen</td>
<td>FS8S</td>
<td>G-113</td>
</tr>
</tbody>
</table>

### Thermostat
The thermostat automatically controls the operation of the fan in accordance with temperature fluctuations inside the equipment. This helps improve the equipment’s “environmental” performance relative to energy savings, noise reduction, etc.

**Thermostat AM2-XA1**
- Number of Connectable Fans: 5
- Only the standard speed type 24 VDC input fan can be connectable.

**Page**: G-104
MDS • MD Series

[92 mm – 25.2 (25.4) mm Thick
[3.62 in. – 0.99 (1.00) in. Thick]

Specifications

<table>
<thead>
<tr>
<th>Series</th>
<th>Speed Type</th>
<th>Function</th>
<th>Product Name</th>
<th>Voltage VDC</th>
<th>Current A</th>
<th>Speed r/min</th>
<th>Max. Air Flow</th>
<th>Max. Static Pressure</th>
<th>Noise Level dB(A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDS</td>
<td>High Speed</td>
<td>Standard Type</td>
<td>MDS925H-24</td>
<td>24</td>
<td>0.15</td>
<td>4400</td>
<td>1.93</td>
<td>68.2</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>Standard Type</td>
<td>MD925A-12</td>
<td>MD925A-12H</td>
<td>12</td>
<td>0.24</td>
<td>3400</td>
<td>1.30</td>
<td>45.9</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>Standard Type</td>
<td>MD925A-24</td>
<td>MD925A-24H</td>
<td>24</td>
<td>0.12</td>
<td>2800</td>
<td>1.1</td>
<td>38.8</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>Stall Alarm, Electronic Alarm Type</td>
<td>MD925A-12L</td>
<td>MD925A-12LH</td>
<td>12</td>
<td>0.15</td>
<td>2000</td>
<td>0.90</td>
<td>31.8</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MD925A-24L</td>
<td>MD925A-24LH</td>
<td>24</td>
<td>0.07</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Product Line

- Fan Only
- Lead Wire Type

<table>
<thead>
<tr>
<th>Product Name</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>MD925A-12</td>
<td>$27.00</td>
</tr>
<tr>
<td>MD925A-12L</td>
<td>$30.00</td>
</tr>
<tr>
<td>MD925AM-12</td>
<td>$27.00</td>
</tr>
<tr>
<td>MD925AL-12</td>
<td>$27.00</td>
</tr>
</tbody>
</table>

- Connector Type

<table>
<thead>
<tr>
<th>Product Name</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD925A-12H</td>
<td>$33.00</td>
</tr>
<tr>
<td>MD925A-24H</td>
<td>$37.00</td>
</tr>
</tbody>
</table>

- Fan Kit
- Lead Wire Type

<table>
<thead>
<tr>
<th>Product Name</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>T-MD925H-24</td>
<td>$48.00</td>
</tr>
<tr>
<td>T-MD925A-12</td>
<td>$32.00</td>
</tr>
<tr>
<td>T-MD925A-12L</td>
<td>$35.00</td>
</tr>
<tr>
<td>T-MD925AM-12</td>
<td>$32.00</td>
</tr>
<tr>
<td>T-MD925AL-12</td>
<td>$32.00</td>
</tr>
</tbody>
</table>

- Connector Type

<table>
<thead>
<tr>
<th>Product Name</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-MD925A-12H</td>
<td>$38.00</td>
</tr>
<tr>
<td>T-MD925A-24HG</td>
<td>$42.00</td>
</tr>
</tbody>
</table>

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

Air Flow – Static Pressure Characteristics

(Day characteristics are applicable for the fan only.)

Dimensions

Unit = mm (in.)

- MDS Series
- Lead Wire Type

<table>
<thead>
<tr>
<th>Mass: 0.125 kg (0.28 lb.)</th>
</tr>
</thead>
</table>

- UL Style 1007, AWG26

- With Stall Alarm
  - Operating Voltage Range: ±15%
  - Overheat Protection: Built-in Overheat Protection Circuit
  - Color: Black
  - Blades: Black
  - Materials: Frame: Polycarbonate (Flammability grade V-0)
  - Blades: Polycarbonate (Flammability grade V-0)
  - Frame: ABS/PBT Alloy (Flammability grade V-0)
  - Blades: Polyphenylene Oxide (Flammability grade V-0)
Cooling Fans

Overview, Product Series
Axial Flow Fans
Centrifugal Blowers
AC Input Low-Power Consumption
AC Input Compact Size
AC Input Large Size, Large Air Flow
AC Input Long-Life
DC Input MDS
DC Input MDR
DC Input MDS
DC Input MDR
Cross Flow Fans
Centrifugal Blowers
AC Input MB
DC Input MB
Enclosure Fan Modules
Thermostat
Accessories
Installation

Panel Cut-Out  Unit = mm (in.)

MDS Series

Outlet Side  90.5 (3.56)  90.5 (3.56)  90.5 (3.56)  90.5 (3.56)
Intake Side  90.5 (3.56)  90.5 (3.56)  90.5 (3.56)  90.5 (3.56)

Connection Diagrams

Lead Wire Type

<table>
<thead>
<tr>
<th>Function</th>
<th>Cable Cores: AWG22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Type</td>
<td>Ø4.5 (Ø1.8)</td>
</tr>
<tr>
<td>Stall Alarm, Electronic Alarm Type</td>
<td>Ø4.8 (Ø1.9)</td>
</tr>
</tbody>
</table>

■ Accessories

<table>
<thead>
<tr>
<th>Product</th>
<th>Product Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finger Guard</td>
<td>FG9D</td>
<td>G-108</td>
</tr>
<tr>
<td>Filter</td>
<td>FL9</td>
<td>G-111</td>
</tr>
<tr>
<td>Screen</td>
<td>FS9S</td>
<td>G-113</td>
</tr>
</tbody>
</table>

- Use M3 screws to install the FL9 filter to the fan frame.

■ Thermostat

The thermostat automatically controls the operation of the fan in accordance with temperature fluctuations inside the equipment. This helps improve the equipment’s "environmental" performance relative to energy savings, noise reduction, etc.

Thermostat AM2-XA1
Number of Connectable Fans: 6
- Only the standard speed type 24 VDC input fan can be connectable.
- Page: G-104
MDS • MD Series

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

Specifications

<table>
<thead>
<tr>
<th>Series</th>
<th>Speed Type</th>
<th>Function</th>
<th>Product Name</th>
<th>Voltage VDC</th>
<th>Current A</th>
<th>Speed r/min</th>
<th>Max. Air Flow CFM</th>
<th>Max. Static Pressure Pa</th>
<th>Noise Level dB(A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDS</td>
<td>Standard Speed</td>
<td>Standard Type</td>
<td>MDS1225-12</td>
<td>12</td>
<td>0.58</td>
<td>3000</td>
<td>2.7</td>
<td>95.3</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>MDS1225-24</td>
<td>24</td>
<td>0.3</td>
<td>3100</td>
<td>2.5</td>
<td>88.3</td>
<td>43</td>
</tr>
</tbody>
</table>

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

Product Line

- Fan Only
- Lead Wire Type

<table>
<thead>
<tr>
<th>Product Name</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-MDS1225-12</td>
<td>$48.00</td>
</tr>
<tr>
<td>T-MDS1225-24</td>
<td>$54.00</td>
</tr>
</tbody>
</table>

- Connector Type

<table>
<thead>
<tr>
<th>Product Name</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-MDS1225-12H</td>
<td>$48.00</td>
</tr>
<tr>
<td>T-MDS1225-24H</td>
<td>$54.00</td>
</tr>
</tbody>
</table>

- Fan Kit
- Lead Wire Type

<table>
<thead>
<tr>
<th>Product Name</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-MD1225-12-G</td>
<td>$40.00</td>
</tr>
<tr>
<td>T-MD1225-24-G</td>
<td>$40.00</td>
</tr>
</tbody>
</table>

- Connector Type

<table>
<thead>
<tr>
<th>Product Name</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-MD1225-12HG</td>
<td>$46.00</td>
</tr>
<tr>
<td>T-MD1225-24HG</td>
<td>$46.00</td>
</tr>
</tbody>
</table>

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

Dimensions

<table>
<thead>
<tr>
<th>MDS Series</th>
<th>Unit = mm (in.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)

Operating Voltage Range: ±15%
Overheat Protection: Built-in Overheat Protection Circuit
Color: Frame: Unpainted (Aluminum) Blades: Black
Materials: Frame: Die Cast Aluminum Blades: Polycarbonate (Flammability grade V-0)

UL Style 1007, AWG24
**MDS Series**

- **Connector Type**
- **Fan**
  - Mass: 0.3 kg (0.66 lb.)

**MD Series**

- **Lead Wire Type**
  - Mass: 0.19 kg (0.42 lb.)

**Panel Cut-Out**

- Unit = mm (in.)

**Enclosure Fan Modules**

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

- **Finger Guard**
  - IP2X Type

- **Slit Metal Plate**
  - IP4X Type

- **Dust and Water Resistant IP43-IP55 Type**

**Connection Diagrams**

- **Lead Wire Type**
- **Connector Type**
  - Cable with Connector (Included)

**Accessories**

<table>
<thead>
<tr>
<th>Product</th>
<th>Product Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finger Guard</td>
<td>FG12D</td>
<td>G-108</td>
</tr>
<tr>
<td>Filter</td>
<td>FL12</td>
<td>G-111</td>
</tr>
<tr>
<td>Screen</td>
<td>FS12S</td>
<td>G-113</td>
</tr>
</tbody>
</table>

**Thermostat**

The thermostat automatically controls the operation of the fan in accordance with temperature fluctuations inside the equipment. This helps improve the equipment’s "environmental" performance relative to energy savings, noise reduction, etc.

Thermostat AM2-XA1

- Number of Connectable Fans: 3
- Only 24 VDC input fan can be connectable.
- Page: G-104

---

G-69 Cooling Fans

Overview, Product Series
Axial Flow Fans
AC Input Low-Power Consumption
EMU
AC Input Compact Size
MU
AC Input Large Size
Large Air Flow
MRS
AC Input Long-Life
MRE
DC Input MDS
MD
DC Input MDS MDE
DC Input MDS MDP
Centrifugal Blowers
AC Input MB
DC Input MBD
Cross Flow Fans
AC Input MF
DC Input MFD
Enclosure Fan Modules
Thermostat
Accessories
Installation
MDS Series

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

Specifications

<table>
<thead>
<tr>
<th>Speed Type</th>
<th>Function</th>
<th>Product Name</th>
<th>Voltage (VDC)</th>
<th>Current (A)</th>
<th>Speed (r/min)</th>
<th>Max. Air Flow (m³/min)</th>
<th>Max. Static Pressure (Pa)</th>
<th>Noise Level (dB(A))</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Speed</td>
<td>Standard Type</td>
<td>MDS1238H-24</td>
<td>24</td>
<td>1.5</td>
<td>6400</td>
<td>6.35</td>
<td>224</td>
<td>1.450</td>
</tr>
<tr>
<td>Standard Speed</td>
<td>Stall Alarm, Electronic Alarm Type</td>
<td>MDS1238-24L</td>
<td>24</td>
<td>0.5</td>
<td>3600</td>
<td>3.88</td>
<td>137</td>
<td>0.542</td>
</tr>
</tbody>
</table>

Fan Only

<table>
<thead>
<tr>
<th>Product Name</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDS1238H-24</td>
<td>$96.00</td>
</tr>
<tr>
<td>MDS1238-24</td>
<td>$65.00</td>
</tr>
<tr>
<td>MDS1238-24L</td>
<td>$65.00</td>
</tr>
</tbody>
</table>

The following items are included with each product:

- Fan, Operating Manual

Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)
**Dimensions**  Unit = mm (in.)

- **Lead Wire Type**
  - **MDS1238H-24**
    - Mass: 0.36 kg (0.79 lb.)
    - UL Style 1430, AWG24
    - Mass: 0.33 kg (0.73 lb.)
    - UL Style 1007, AWG24

- **MDS1238-24, -24L**
  - Mass: 0.36 kg (0.79 lb.)
  - UL Style 1430, AWG24
  - Mass: 0.33 kg (0.73 lb.)
  - UL Style 1007, AWG24

**Panel Cut-Out**  Unit = mm (in.)

- **MDS1238H-24**
- **MDS1238-24, -24L**

**Connection Diagrams**

- **DC Power Supply**
  - Red (+)
  - Black (GND)
  - Yellow (Stall Alarm Output)

**Accessories**

<table>
<thead>
<tr>
<th>Product</th>
<th>Product Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finger Guard</td>
<td>FG12D</td>
<td>G-108</td>
</tr>
<tr>
<td>Filter</td>
<td>FL12</td>
<td>G-111</td>
</tr>
<tr>
<td>Screen</td>
<td>FS125</td>
<td>G-113</td>
</tr>
</tbody>
</table>

**Thermostat**

The thermostat automatically controls the operation of the fan in accordance with temperature fluctuations inside the equipment. This helps improve the equipment’s “environmental” performance relative to energy savings, noise reduction, etc.

Thermostat **AM2-XA1**

Number of Connectable Fan: 1

- Only the standard speed fan can be connectable.
- Page ➜ G-104
**MDS Series**

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

### Specifications

<table>
<thead>
<tr>
<th>Series</th>
<th>Speed Type</th>
<th>Function</th>
<th>Lead Wire Type</th>
<th>Connector Type</th>
<th>Voltage</th>
<th>Current</th>
<th>Speed r/min</th>
<th>Max. Air Flow m³/min</th>
<th>Max. Static Pressure Pa</th>
<th>Noise Level (dB (A))</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDS</td>
<td>Standard</td>
<td>Standard</td>
<td>MDS1451-24</td>
<td>MDS1451-24H</td>
<td>24</td>
<td>0.7</td>
<td>3150</td>
<td>5.8</td>
<td>205</td>
<td>130</td>
</tr>
<tr>
<td></td>
<td>Stall Alarm, Electronic Alarm Type</td>
<td>MDS1451-24L</td>
<td>MDS1451-24LH</td>
<td>24</td>
<td>0.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Machine specifications ① → Page G-15
- Regulations & Standards → Page I-2

### Product Line

- **Fan Only**
  - **Lead Wire Type**
    - Product Name | List Price |
      | MDS1451-24    | $72.00
      | MDS1451-24L   | $75.00

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

- **Connector Type**
  - Product Name | List Price |
    | MDS1451-24H   | $78.00
    | MDS1451-24LH  | $82.00

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

- **Fan Kit**
  - **Lead Wire Type**
    - Product Name | List Price |
      | T-MDS1451-24-G | $79.00
      | T-MDS1451-24L-G | $82.00

- **Connector Type**
  - Product Name | List Price |
    | T-MDS1451-24HG | $85.00
    | T-MDS1451-24LHG | $89.00

- The following items are included in each kit:
  - Fan
  - Finger Guard
  - Installation Screws [M4 × 70 mm (2.76 in.)]

### Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)

### Dimensions

**Unit = mm (in.)**

- **Lead Wire Type**
  - Mass: 0.65 kg (1.43 lb.)

- **M4**
  - E109 CAD

- **UL Style 3385, AWG24**

- Rotation Direction
- Protective Earth Terminal M4
- Air Flow
- UL Style 3385, AWG24

**With Stall Alarm**

- Operating Voltage Range: ±15%
- Overheat Protection: Built-in Overheat Protection Circuit
- Color: Frame: Unpainted (Aluminum) Blades: Black
- Materials: Frame: Die Cast Aluminum, Blades: Polycarbonate (Flammability grade V-0)
Cooling Fans

Overview, Product Series
Axial Flow Fans
Centrifugal Blowers
AC Input Low-Power Consumption EMU
AC Input Compact Size MU
AC Input Large Size, Large Air Flow MRS
AC Input Long-Life MRE
DC Input MDS MD
DC Input Alarm MDA
DC Input Variable Flow MDV
DC Input Long-Life MDE
DC Input Splash Proof MDP
Centrifugal Blowers
AC Input MB DC Input MBD
Cross Flow Fans
AC Input MF DC Input MFD
Enclosure Fan Modules
Thermostat
Accessories
Installation

● Connector Type

◇ Fan

Mass: 0.65 kg (1.43 lb.)

2D CAD E117

<table>
<thead>
<tr>
<th>Function</th>
<th>aA</th>
<th>Housing P/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Type</td>
<td>φ4.5 (0.18)</td>
<td>SMP-03V-NC (J.S.T.)</td>
</tr>
<tr>
<td>Stall Alarm, Electronic Alarm Type</td>
<td>φ4.8 (0.19)</td>
<td></td>
</tr>
</tbody>
</table>

● Cable with Connector (Included)

Panel Cut-Out Unit = mm (in.)

Connection Diagrams

● Lead Wire Type

DC Power Supply
Red +
Black -
GND

Stall Alarm Output (Stall Alarm type only)

● Connector Type

DC Power Supply
Red +
Black -
GND
Yellow

Stall Alarm Output (Stall Alarm type only)

Cable with Connector

Accessories

<table>
<thead>
<tr>
<th>Product</th>
<th>Product Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finger Guard</td>
<td>FG14D</td>
<td>G-108</td>
</tr>
<tr>
<td>Filter</td>
<td>FL14</td>
<td>G-111</td>
</tr>
</tbody>
</table>

Thermostat

The thermostat automatically controls the operation of the fan in accordance with temperature fluctuations inside the equipment. This helps improve the equipment’s “environmental” performance relative to energy savings, noise reduction, etc.

Thermostat AM2-XA1
Number of Connectable Fan: 1
• Only 24VDC input fan can be connectable.
• Page: G-104

Thermostat Details

○ Connector Type

140 (5.51) 124.5 (4.90) 100 (4) 6 (0.24) 51 (2.01) 6 (0.24)

Protective Earth Terminal M4

Housing: SMR-03V-N (J.S.T.)

Rotation Direction

Air Flow

![Diagram]

Finger Guard FG14D
Filter FL14

Connectable Fans

AC Input Low-Power Consumption EMU
AC Input Compact Size MU
AC Input Large Size, Large Air Flow MRS
AC Input Long-Life MRE
DC Input MDS MD
DC Input Alarm MDA
DC Input Variable Flow MDV
DC Input Long-Life MDE
DC Input Splash Proof MDP
Centrifugal Blowers
AC Input MB DC Input MBD
Cross Flow Fans
AC Input MF DC Input MFD
Enclosure Fan Modules
Thermostat
Accessories
Installation

CAD Data Manuals www.orientalmotor.com Technical Support TEL: (800) 468-3982 E-mail: techsupport@orientalmotor.com

G-73
**MDS Series**

**172 mm – 51 mm Thick**

(6.77 in. – 2.01 in. Thick)

---

### Specifications

<table>
<thead>
<tr>
<th>Series</th>
<th>Speed Type</th>
<th>Product Name</th>
<th>Voltage</th>
<th>Current</th>
<th>Speed</th>
<th>Max. Air Flow</th>
<th>Max. Static Pressure</th>
<th>Noise Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDS</td>
<td>High Speed Type</td>
<td>MDS1751H-24</td>
<td>24</td>
<td>2.3</td>
<td>4800</td>
<td>9.9</td>
<td>350</td>
<td>308</td>
</tr>
<tr>
<td></td>
<td>High Speed Type (Side-cut)</td>
<td>MDS1751FH-24</td>
<td>24</td>
<td>0.7</td>
<td>3200</td>
<td>6</td>
<td>212</td>
<td>137</td>
</tr>
<tr>
<td></td>
<td>Standard Speed Type</td>
<td>MDS1751-24</td>
<td>24</td>
<td>0.7</td>
<td>3200</td>
<td>6</td>
<td>212</td>
<td>137</td>
</tr>
</tbody>
</table>

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

### Product Line

#### Fan Only

**Lead Wire Type**

<table>
<thead>
<tr>
<th>Product Name</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDS1751H-24</td>
<td>$135.00</td>
</tr>
<tr>
<td>MDS1751FH-24</td>
<td>$135.00</td>
</tr>
<tr>
<td>MDS1751-24</td>
<td>$69.00</td>
</tr>
</tbody>
</table>

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

#### Fan Kit

**Lead Wire Type**

<table>
<thead>
<tr>
<th>Product Name</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-MDS1751H-24-G</td>
<td>$149.00</td>
</tr>
<tr>
<td>T-MDS1751FH-24G</td>
<td>$153.00</td>
</tr>
<tr>
<td>T-MDS1751-24-G</td>
<td>$103.00</td>
</tr>
</tbody>
</table>

The following items are included in each kit:
- Fan
- Finger Guard
- Installation Screws
- Cable with Connector
- Operating Manual

#### Connector Type

<table>
<thead>
<tr>
<th>Product Name</th>
<th>List Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-MDS1751-24HG</td>
<td>$109.00</td>
</tr>
</tbody>
</table>

#### Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)

- MDS1751
- MDS1751H
- MDS1751FH

#### Dimensions

Unit = mm (in.)

**Lead Wire Type**

- MDS1751H-24
- Mass: 0.78 kg (1.72 lb.)

---

**DC Input**

**MDS • MD Series**

- Operating Voltage Range: ±15%
- Overheat Protection: Built-in Overheat Protection Circuit
- Color: Unpainted (Aluminum)
- Blades: Black
- Frame: Die Cast Aluminum
- Blades: Polycarbonate (Flammability grade V-0)*

*MD1751H-24, MDS1751FH-24
- Blades: Polyphenylene Oxide (Flammability grade V-1)

---

**ORIENTAL MOTOR GENERAL CATALOG**

2015/2016
Cooling Fans

Overview, Product Series
Axial Flow Fans
Centrifugal Blowers
AC Input Low-Power Consumption EMU
AC Input Compact Size MU
AC Input Large Size, Large Air Flow MRS
AC Input Long-Life MRE
DC Input MDS MD
DC Input MDA
DC Input MDE
DC Input Splash Proof MDP
Centrifugal Blowers
AC Input MB DC Input MDB
Cross Flow Fans
AC Input MF DC Input MFD
Enclosure Fan Modules
Thermostat
Accessories
Installation

● Lead Wire Type
  ● MDS1751FH-24
    Mass: 0.76 kg (1.67 lb.)

● Connector Type
  ● MDS1751-24H
    Fan
    Mass 0.9 kg (2.0 lb.)

Panel Cut-Out
Panel Cut-Out

● Connection Diagrams
  ● Lead Wire Type
    Red Black DC Power Supply
  ● Connector Type
    Red Black DC Power Supply

Accessories

<table>
<thead>
<tr>
<th>Product</th>
<th>Product Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finger Guard</td>
<td>FG17D</td>
<td>G-109</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product</th>
<th>Product Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finger Guard</td>
<td>FG17DF</td>
<td>G-109</td>
</tr>
</tbody>
</table>