AC Input/Low-Power Consumption

EMU Series

Reduced power consumption through the use of a built-in brushless motor. With support for a wide voltage range, the fans can use single-phase 100-240 VAC (50/60 Hz). The same characteristics can be achieved regardless of the frequency used.

**Features**

**Low-Power Consumption**

By using brushless motors, power consumption is reduced by approximately 68%.

**Lifetime of 60,000 hours (approx. 6 years)**

By using brushless motors, heat generation can be reduced and unit life is increased 2.2 times.

*Compared to MU1238A-21B.

**Wide Voltage Support**

Can be used with single-phase 100-240 VAC (50/60 Hz) power supply. The same characteristics can be achieved regardless of the frequency used.

**Lightweight**

The mass of the fan has been lightened by approximately 45% by using resin for the frame.

**Comparison of Specifications and Characteristics between the EMU Series and Conventional Products**

<table>
<thead>
<tr>
<th>Item</th>
<th>EMU1238-□</th>
<th>Conventional Product® 50/60 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Consumption [W]</td>
<td>4.4</td>
<td>14/13</td>
</tr>
<tr>
<td>Speed [r/min]</td>
<td>3250</td>
<td>2800/3250</td>
</tr>
<tr>
<td>Max. Air Flow [m³/min (CFM)]</td>
<td>3 (106)</td>
<td>2.7/3 (95.3/106)</td>
</tr>
<tr>
<td>Max. Static Pressure [Pa (inhO2)]</td>
<td>84 (0.337)</td>
<td>81/81 (0.325/0.325)</td>
</tr>
<tr>
<td>Noise Level [dB]</td>
<td>42</td>
<td>43/46</td>
</tr>
<tr>
<td>Mass [kg (lb.)]</td>
<td>0.29 (0.64)</td>
<td>0.53 (1.2)</td>
</tr>
</tbody>
</table>

*Compared to MU1238A-21B
### System Configuration

**EMU Series**

![Cooling Fans](image)

**Peripheral Equipment (Sold separately)**

- AC Power Supply (Main power supply)
  - Not supplied

- Thermostat AM2-XA1

**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>EMU1238-1</td>
<td>AM2-XA1, FG12D</td>
</tr>
<tr>
<td>$52.00</td>
<td>$35.00, $6.00</td>
</tr>
</tbody>
</table>

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

### Product Number

#### Fan Only

**EMU 12 38 - 1**

1. Series
2. Frame Size: 120 mm (4.72 in.)
3. Frame Thickness: 38 mm (1.50 in.)
4. Plug Cord Length (Included): 1 m (3.3 ft.), 2 m (6.6 ft.)

#### Fan Kit

**T - EMU1238-1 - G**

1. Fan Kit Order Code
2. Fan Product Name
3. G: With finger guard and installation screws

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**Overview, Product Series**
- Axial Flow Fans
- Centrifugal Blowers
- Cross Flow Fans
- Enclosure Fan Modules
- Thermostat
- Accessories
- Installation

**Contact Information**
- CAD Data Manuals: www.orientalmotor.com
- Technical Support: TEL: (800) 468-3982, E-mail: techsupport@orientalmotor.com
### EMU Series

**120 mm – 38 mm Thick**

(4.72 in. – 1.50 in. Thick)

### Specifications

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Voltage</th>
<th>Frequency</th>
<th>Current</th>
<th>Input</th>
<th>Speed</th>
<th>Max. Air Flow</th>
<th>Max. Static Pressure</th>
<th>Noise Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMU1238-1</td>
<td>100-240</td>
<td>50/60</td>
<td>0.08</td>
<td>4.4</td>
<td>3250</td>
<td>106</td>
<td>84</td>
<td>0.337</td>
</tr>
<tr>
<td>EMU1238-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>42</td>
</tr>
</tbody>
</table>

*□ A number indicating the desired length of 1 [1 m (3.3 ft.)] or 2 [2 m (6.6 ft.)] is entered where the box □ is located within the product name when the plug cord included with the product.*

### Product Line

- **Fan Only**
  - EMU1238-1
  - EMU1238-2

- **Fan Kit**
  - T-EMU1238-1-G
  - T-EMU1238-2-G

The following items are included with each product:
- Fan, Plug Cord for Connection to Power Supply, Operating Manual

### Air Flow – Static Pressure Characteristics

(The characteristics are applicable for the fan only.)

![Graph showing Air Flow vs Static Pressure characteristics](graph.png)
### Dimensions

**Fan**
- Mass: 0.29 kg (0.64 lb.)

**Plug Cord for Connection to Power Supply (Included)**

- 2-Core Flat Vinyl Cord (Black)
  - SPT-1 AWG18

### Panel Cut-Out

**Connecting Diagram**

**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: 9
  - Page G-104