

AC Input/Low-Power Consumption EMU Series

<Additional Information>

- Technical reference → Page H-1
- Regulations & Standards → Page I-2



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



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 72%*.

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-51B**.

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.

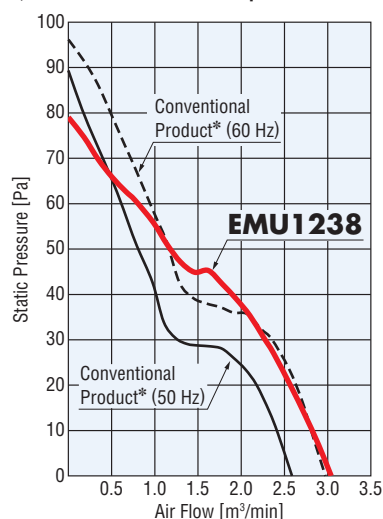
Comparison of Specifications and Characteristics between the EMU Series and Conventional Products

◇ Specification Comparison

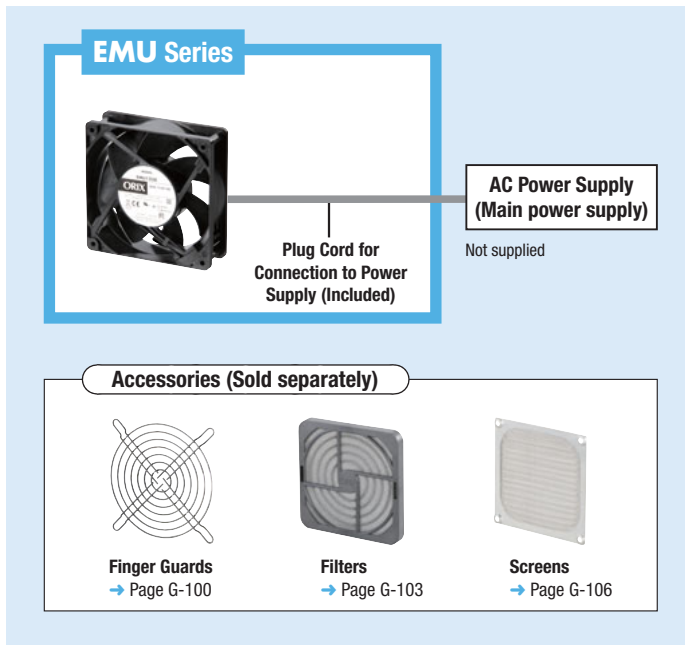
| Item | Product | EMU1238-□ | Conventional Product* 230 VAC 50/60 Hz |
|-------------------------------------|---------|-------------|---|
| Power Consumption [W] | | 4.4 | 16/13.5 |
| Speed [r/min] | | 3250 | 2800/3250 |
| Max. Air Flow [m ³ /min] | | 3 | 2.7/3 |
| Max. Static Pressure [Pa] | | 84 | 81/81 |
| Noise Level [dB] | | 42 | 43/46 |
| Mass [kg] | | 0.29 | 0.53 |

***MU1238A-51B**

◇ Characteristics Comparison



System Configuration



● Example of System Configuration

| | | |
|------------------|---|---------------------|
| Fan | + | Sold Separately |
| EMU1238-1 | | Finger Guard |
| €34.00 | | FG12D |
| | | €5.00 |

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

Product Number

● Fan Only

EMU 12 38 M - 1

① ② ③ ④ ⑤

● Fan Kit

T - EMU1238M-1 - G

① ② ③

| | | |
|---|-----------------------------|--|
| ① | Series | EMU: EMU Series |
| ② | Frame Size | 12: 120 mm |
| ③ | Frame Thickness | 38: 38 mm |
| ④ | Additional Function | M: Low-Speed Alarm, Electronic Alarm Type Blank: No additional functions |
| ⑤ | Plug Cord Length (Included) | 1: 1 m, 2: 2 m |

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

Overview,
Product
Series

Axial
Flow
Fans

AC Input
Energy Saving
EMU

AC Input
Energy Saving,
Variable Flow
EMR

AC Input
Compact Size
MU

AC Input
Long-Life
MRE

DC Input
MDS
MD

DC Input
Alarm
MDA

DC Input
Long-Life
MDE

Centrifugal
Blowers

AC Input
MB
DC Input
MBD

Cross Flow Fans

AC Input
MF
DC Input
MFD

Accessories

Installation

EMU Series

120 mm – 38 mm Thick



With Alarm

Operating Voltage Range: $\pm 10\%$
Overheat Protection: Built-in Overheat Protection Circuit
Color
Frame: Black Blades: Black
Materials
Frame: PBT (Flammability grade V-0)
Blades: Polyphenylene Oxide (Flammability grade V-1)

80 mm

92 mm

104 mm

119 (120) mm

140 mm

160 mm

180 mm

200 mm

Specifications



| Product Name | | Voltage VAC | Frequency Hz | Current A | Input W | Speed r/min | Max. Air Flow m ³ /min | Max. Static Pressure Pa | Noise Level dB(A) |
|--|---|----------------------|-----------------|--------------|------------|----------------|--------------------------------------|----------------------------|----------------------|
| Standard Type | Low-Speed Alarm Electronic Alarm Type (Alarm Specifications: ①) | | | | | | | | |
| EMU1238- <input type="checkbox"/> | EMU1238M- <input type="checkbox"/> | Single-Phase 100-240 | 50/60 | 0.08 | 4.4 | 3250 | 3 | 84 | 42 |

- A number indicating the desired length of **1** (1 m) or **2** (2 m) is entered where the box is located within the product name when the plug cord included with the product.
- The current is the value when 100 VAC is applied.
- Alarm specifications ① → Page G-13
- Regulations & Standards → Page I-2

Product Line

Standard Type

| Fan Only | | Fan Kit | |
|------------------|------------|----------------------|------------|
| Product Name | List Price | Product Name | List Price |
| EMU1238-1 | €34.00 | T-EMU1238-1-G | €38.00 |
| EMU1238-2 | €34.00 | T-EMU1238-2-G | €38.00 |

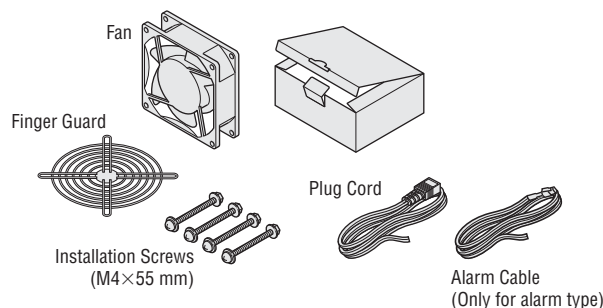
- The fan kit includes a finger guard **FG12D** (€5.00).

Low-Speed Alarm, Electronic Alarm Type

| Fan Only | | Fan Kit | |
|-------------------|------------|-----------------------|------------|
| Product Name | List Price | Product Name | List Price |
| EMU1238M-1 | €46.00 | T-EMU1238M-1-G | €49.00 |
| EMU1238M-2 | €46.00 | T-EMU1238M-2-G | €49.00 |

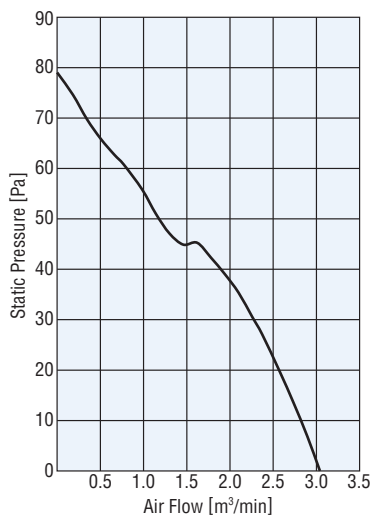
- The fan kit includes a finger guard **FG12D** (€5.00).

The following items are included in each kit.



Air Flow – Static Pressure Characteristics

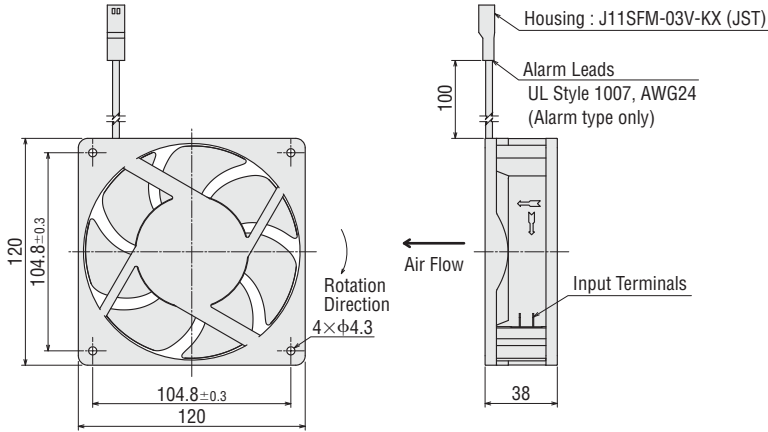
(The characteristics are applicable for the fan only.)



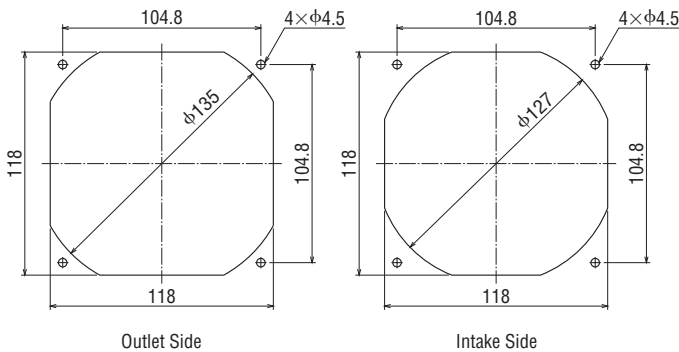
Dimensions Unit: mm

Fan

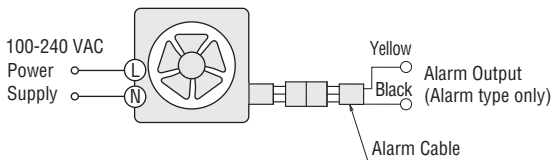
Mass: 0.29 kg



Panel Cut-Out Unit: mm



Connecting Diagram



Enclosure Fan Modules

These products integrate the **EMU** Series fan with peripheral equipment such as the cover, filter media, frame and finger guard. Optimized cooling for control boxes.

Finger Guard IP2X Type



List Price €49.00~€66.00

Slit Metal Plate IP4X Type

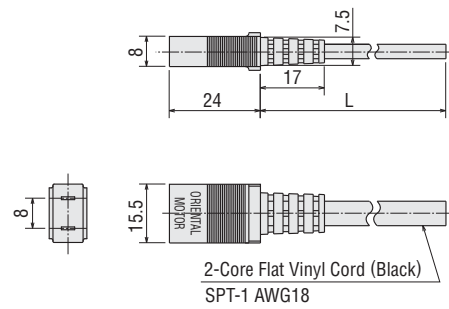


List Price €85.00~€266.00

● For details on these products please refer to our website.

Extension Cable (Included)

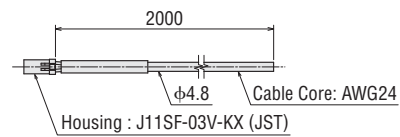
Plug Cord for Connection to Power Supply



| Product Name | L [mm] |
|-------------------|--------|
| EMU1238□-1 | 1000 |
| EMU1238□-2 | 2000 |

● With the alarm type, **M** is entered where the box □ is located within the product name.

Alarm Cable (Included with the alarm type)



Accessories

| Product | Product Name | List Price | Page |
|------------------------------|--------------|------------|-------|
| Finger Guard | FG12D | €5.00 | G-100 |
| Stainless Steel Finger Guard | FG12S | €6.00 | G-102 |
| Filter | FL12 | €8.00 | G-104 |
| Metallic Filter | FLW12 | €14.00 | G-105 |
| Screen | FS12S | €7.00 | G-106 |

Overview, Product Series

Axial Flow Fans

AC Input Energy Saving **EMU**

AC Input Energy Saving, Variable Flow **EMR**

AC Input Compact Size **MU**

AC Input Long-Life **MRE**

DC Input **MDS**
MD

DC Input Alarm **MDA**

DC Input Long-Life **MDE**

Centrifugal Blowers

AC Input **MB**
DC Input **MBD**

Cross Flow Fans

AC Input **MF**
DC Input **MF**

Accessories

Installation