

# AC Axial Fans

# R87F/R87T

CSM\_R87F\_R87T\_DS\_E\_8\_6

## Optimum Cooling with a Comprehensive Lineup of Axial Fans

- Low noise level, long service life, and resistance to the environment.
- Shaft supported by ball bearings for highly-reliable operation.
- Plastic-bladed models (44 type) and metal-bladed models (28 type) included in series.
- R87T-A□A15H-WR Water-resistant AC Axial Fans (IP X7 degree of protection) added to series.

**Note:** The compliant standards and certified safety standards depend on the product. Check the information in *Characteristics*.



 Refer to the *Safety Precautions for All Axial Fans* on our website.

For the most recent information on models that have been certified for safety standards, refer to your OMRON website.

## Model Number Structure

### Model Number Legend

R87   -                

1      2      3      4      5      6      7      8

#### 1. Basic series

R87F: Plastic blade  
R87T: Metal blade

#### 2. Rated voltage

A1: 100 VAC  
A3: 115 VAC  
A4: 200 VAC  
A6: 230 VAC

#### 3. Frame material

A: Die-cast aluminum

#### 4. Frame size

8: 80 × 80  
9: 92 × 92  
1: 120 × 120  
0: 150 dia.

#### 5. Frame thickness

3: 25  
5: 38  
7: 55

#### 6. Rotational speed

H: High  
M: Medium  
L: Low

#### 7. Terminal type

No marking: Lead wires  
P: Terminals (See note 1.)

#### 8. Type

No marking: Standard  
WR: Water-resistant

**Note:** 1. A Plug Cord (R87F-PC) is available as an option for models with terminals.

2. These tables show only how to read product markings. They do not indicate which products are available. Refer to “*Ratings and Ordering Information*” when ordering.

## Ordering Information

### Available Models

#### AC Axial Fans

| Series                   | Size (mm)       | Model          | Datasheet available |
|--------------------------|-----------------|----------------|---------------------|
| R87F<br>(plastic blades) | 80 × 80 × t25   | R87F-A□A83     | Refer to page 2.    |
|                          | 80 × 80 × t38   | R87F-A□A85     | Refer to page 4.    |
|                          | 92 × 92 × t25   | R87F-A□A93     | Refer to page 6.    |
|                          | 120 × 120 × t25 | R87F-A□A13     | Refer to page 8.    |
|                          | 120 × 120 × t38 | R87F-A□A15     | Refer to page 10.   |
| R87T<br>(metal blades)   | 80 × 80 × t25   | R87T-A□A83     | Refer to page 12.   |
|                          | 80 × 80 × t38   | R87T-A□A85     | Refer to page 14.   |
|                          | 120 × 120 × t38 | R87T-A□A15     | Refer to page 16.   |
|                          | 150-dia. × t38  | R87T-A□A05     | Refer to page 18.   |
|                          | 150-dia. × t55  | R87T-A□A07     | Refer to page 20.   |
|                          | 120 × 120 × t38 | R87T-A□A15H-WR | Refer to page 22.   |

#### Options (Order Separately)

| Product name | Model        | Datasheet available |
|--------------|--------------|---------------------|
| Plug Cord    | R87F-PC      | Refer to page 24.   |
| Finger Guard | R87F-FG□     | Refer to page 25.   |
| Filter       | R87F-FL□(S)  | Refer to page 26.   |
| Set model    | R87F-SET□□□□ | Refer to page 25.   |

**Note:** Mounting screws are not attached to Finger Guard.  
Order the Set model when the screws are needed.

## Safety Precautions

Refer to the *Safety Precautions for All Axial Fans* on our website.

# AC Axial Fans with Lead Wires (80 × 80 × t25 mm)

# R87F-A□A83

## Specifications

### Ratings and Ordering Information

**Note:** An asterisk (\*) indicates a nominal value.

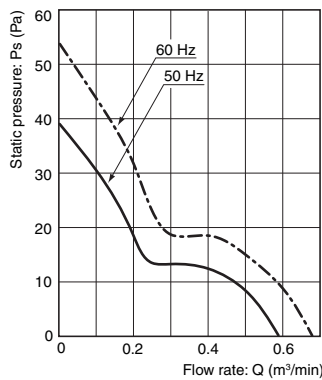
| Item<br><br>Model | Rated voltage (V) | Permitted voltage fluctuation range (%) | Frequency (Hz) | Rated current (A) * |       | Rated input (W) * |       | Rated rotational speed (r/min) * |       | Maximum flow rate (m³/min) * |       | Maximum static pressure (Pa) * |       | Noise (dB) * |       |
|-------------------|-------------------|-----------------------------------------|----------------|---------------------|-------|-------------------|-------|----------------------------------|-------|------------------------------|-------|--------------------------------|-------|--------------|-------|
|                   |                   |                                         |                | 50 Hz               | 60 Hz | 50 Hz             | 60 Hz | 50 Hz                            | 60 Hz | 50 Hz                        | 60 Hz | 50 Hz                          | 60 Hz | 50 Hz        | 60 Hz |
| R87F-A1A83H       | 100 VAC           | 85% to 110% rated voltage               | 50/60          | 0.097               | 0.080 | 7                 | 6     | 2,600                            | 3,000 | 0.6                          | 0.7   | 39.2                           | 53.9  | 32           | 36    |
| R87F-A3A83H       | 115 VAC           |                                         |                | 0.085               | 0.070 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A4A83H       | 200 VAC           |                                         |                | 0.048               | 0.041 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A6A83H       | 230 VAC           |                                         |                | 0.046               | 0.039 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A1A83L       | 100 VAC           | 85% to 110% rated voltage               | 50/60          | 0.063               | 0.055 | 5                 | 4     | 1,900                            | 2,100 | 0.4                          | 0.5   | 19.5                           | 23.5  | 28           | 30    |
| R87F-A3A83L       | 115 VAC           |                                         |                | 0.055               | 0.048 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A4A83L       | 200 VAC           |                                         |                | 0.033               | 0.030 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A6A83L       | 230 VAC           |                                         |                | 0.028               | 0.024 |                   |       |                                  |       |                              |       |                                |       |              |       |

### Characteristics

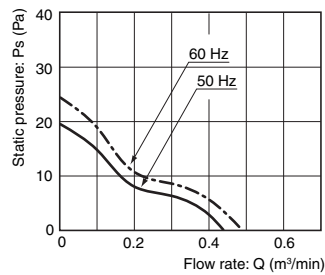
|                               |                                                                                          |
|-------------------------------|------------------------------------------------------------------------------------------|
| Motor type                    | Single-phase shading coil induction motor (2-pole, open type)                            |
| Terminal type                 | Lead wires                                                                               |
| Insulation class              | IEC class B (130°C)<br>UL class A (105°C)<br>CSA class A (105°C)                         |
| Insulation resistance         | 100 MΩ min. (at 500 VDC) between all power supply connections and uncharged metal parts. |
| Insulation withstand voltage  | 2,000 VAC (1 minute) between all power supply connections and uncharged metal parts.     |
| Ambient operating temperature | −30 to 70°C (no icing)                                                                   |
| Ambient storage temperature   | −40 to 85°C (no icing)                                                                   |
| Ambient humidity              | 25% to 85%                                                                               |
| Protection                    | Impedance protection                                                                     |
| Materials                     | Frame: Die-cast aluminum<br>Blades: Glass polycarbonate                                  |
| Bearings                      | Ball bearings                                                                            |
| Weight                        | Approx. 230 g                                                                            |
| Compliant standards           | EN/IEC 60335 (CE marking compliant)                                                      |
| Certified standards           | UL/CSA                                                                                   |

## Flow Rate and Static Pressure Characteristics (Reference Values)

R87F-A□A83H



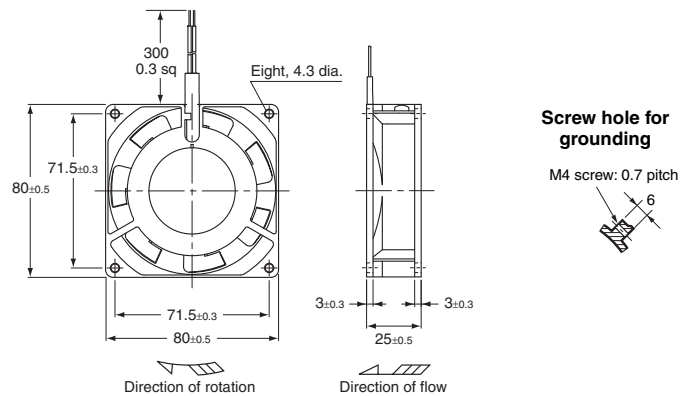
R87F-A□A83L



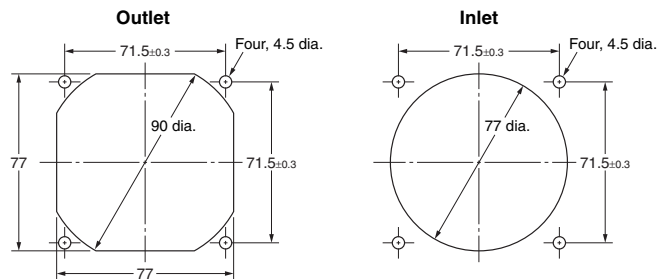
**Note:** For details on measurement conditions, refer to *Flow Rate and Static Pressure on Safety Precautions for All Axial Fans*.

## Dimensions

(Unit: mm)



### Panel Cutouts



## Options

| Names        | Model        | Datasheet available |
|--------------|--------------|---------------------|
| Finger Guard | R87F-FG80    | Refer to page 25.   |
| Filter       | R87F-FL80    | Refer to page 26.   |
| Set model    | R87F-SET8025 | Refer to page 25.   |

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

In the interest of product improvement, specifications are subject to change without notice.

# AC Axial Fans with Terminals (80 × 80 × t38 mm)

# R87F-A□A85

## Specifications

### Ratings and Ordering Information

**Note:** An asterisk (\*) indicates a nominal value.

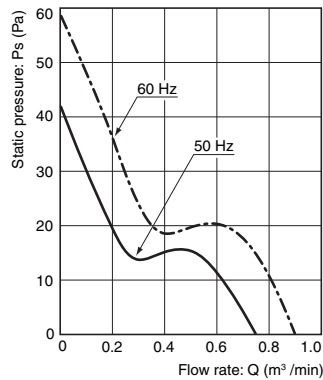
| Item<br>Model | Rated voltage (V) | Permitted voltage fluctuation range (%) | Frequency (Hz) | Rated current (A) * |       | Rated input (W) * |       | Rated rotational speed (r/min) * |       | Maximum flow rate (m³/min) * |       | Maximum static pressure (Pa) * |       | Noise (dB) * |       |
|---------------|-------------------|-----------------------------------------|----------------|---------------------|-------|-------------------|-------|----------------------------------|-------|------------------------------|-------|--------------------------------|-------|--------------|-------|
|               |                   |                                         |                | 50 Hz               | 60 Hz | 50 Hz             | 60 Hz | 50 Hz                            | 60 Hz | 50 Hz                        | 60 Hz | 50 Hz                          | 60 Hz | 50 Hz        | 60 Hz |
| R87F-A1A85HP  | 100 VAC           | 85% to 110% rated voltage               | 50/60          | 0.140               | 0.115 | 10                | 9     | 2,700                            | 3,200 | 0.8                          | 0.9   | 42.1                           | 58.8  | 32           | 36    |
| R87F-A3A85HP  | 115 VAC           |                                         |                | 0.120               | 0.100 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A4A85HP  | 200 VAC           |                                         |                | 0.080               | 0.060 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A6A85HP  | 230 VAC           |                                         |                | 0.060               | 0.050 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A1A85LP  | 100 VAC           | 85% to 110% rated voltage               | 50/60          | 0.090               | 0.080 | 7                 | 6     | 2,200                            | 2,500 | 0.6                          | 0.7   | 25.0                           | 32.0  | 26           | 29    |
| R87F-A3A85LP  | 115 VAC           |                                         |                | 0.080               | 0.070 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A4A85LP  | 200 VAC           |                                         |                | 0.050               | 0.040 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A6A85LP  | 230 VAC           |                                         |                | 0.040               | 0.040 |                   |       |                                  |       |                              |       |                                |       |              |       |

### Characteristics

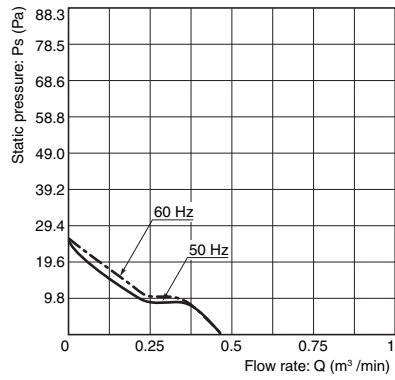
|                               |                                                                                          |
|-------------------------------|------------------------------------------------------------------------------------------|
| Motor type                    | Single-phase shading coil induction motor (2-pole, open type)                            |
| Terminal type                 | Terminals                                                                                |
| Insulation class              | IEC class B (130°C)<br>UL class A (105°C)<br>CSA class A (105°C)                         |
| Insulation resistance         | 100 MΩ min. (at 500 VDC) between all power supply connections and uncharged metal parts. |
| Insulation withstand voltage  | 2,000 VAC (1 minute) between all power supply connections and uncharged metal parts.     |
| Ambient operating temperature | −30 to 70°C (no icing)                                                                   |
| Ambient storage temperature   | −40 to 85°C (no icing)                                                                   |
| Ambient humidity              | 25% to 85%                                                                               |
| Protection                    | Impedance protection                                                                     |
| Materials                     | Frame: Die-cast aluminum<br>Blades: Glass polycarbonate                                  |
| Bearings                      | Ball bearings                                                                            |
| Weight                        | Approx. 280 g                                                                            |
| Compliant standards           | PSE, EN/IEC 60335 (CE marking compliant)                                                 |
| Certified standards           | UL/CSA                                                                                   |

Flow Rate and Static Pressure Characteristics (Reference Values)

R87F-A□A85HP



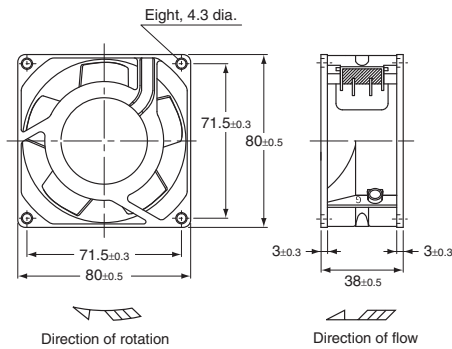
R87F-A□A85LP



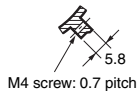
**Note:** For details on measurement conditions, refer to *Flow Rate and Static Pressure on Safety Precautions for All Axial Fans*.

Dimensions

(Unit: mm)



Screw hole for grounding

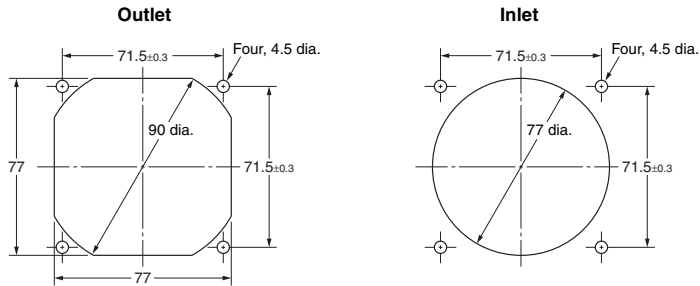


Terminal shape



Faston #110 terminal (or equivalent)

Panel Cutouts



Options

| Name         | Model        | Datasheet available |
|--------------|--------------|---------------------|
| Plug Cord    | R87F-PC      | Refer to page 24.   |
| Finger Guard | R87F-FG80    | Refer to page 25.   |
| Filter       | R87F-FL80    | Refer to page 26.   |
| Set model    | R87F-SET8038 | Refer to page 25.   |

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.  
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

In the interest of product improvement, specifications are subject to change without notice.

# AC Axial Fans with Terminals (92 × 92 × t25 mm)

# R87F-A□A93

## Specifications

### Ratings and Ordering Information

**Note:** An asterisk (\*) indicates a nominal value.

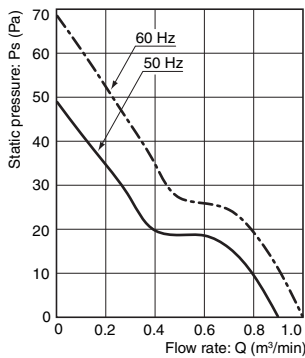
| Item<br>Model | Rated voltage (V) | Permitted voltage fluctuation range (%) | Frequency (Hz) | Rated current (A) * |       | Rated input (W) * |       | Rated rotational speed (r/min) * |       | Maximum flow rate (m³/min) * |       | Maximum static pressure (Pa) * |       | Noise (dB) * |       |
|---------------|-------------------|-----------------------------------------|----------------|---------------------|-------|-------------------|-------|----------------------------------|-------|------------------------------|-------|--------------------------------|-------|--------------|-------|
|               |                   |                                         |                | 50 Hz               | 60 Hz | 50 Hz             | 60 Hz | 50 Hz                            | 60 Hz | 50 Hz                        | 60 Hz | 50 Hz                          | 60 Hz | 50 Hz        | 60 Hz |
| R87F-A1A93HP  | 100 VAC           | 85% to 110% rated voltage               | 50/60          | 0.150               | 0.130 | 13                | 11    | 2,550                            | 3,050 | 0.9                          | 1.0   | 49.0                           | 68.6  | 33           | 36    |
| R87F-A3A93HP  | 115 VAC           |                                         |                | 0.125               | 0.100 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A4A93HP  | 200 VAC           |                                         |                | 0.070               | 0.060 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A6A93HP  | 230 VAC           |                                         |                | 0.055               | 0.050 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A1A93LP  | 100 VAC           | 85% to 110% rated voltage               | 50/60          | 0.100               | 0.085 | 7                 | 6     | 1,900                            | 2,200 | 0.7                          | 0.8   | 24.5                           | 34.3  | 29           | 32    |
| R87F-A3A93LP  | 115 VAC           |                                         |                | 0.090               | 0.075 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A4A93LP  | 200 VAC           |                                         |                | 0.050               | 0.043 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A6A93LP  | 230 VAC           |                                         |                | 0.045               | 0.040 |                   |       |                                  |       |                              |       |                                |       |              |       |

### Characteristics

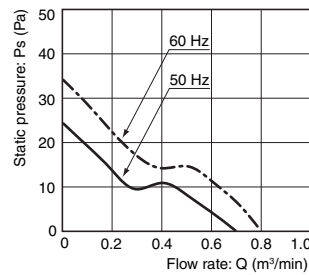
|                               |                                                                                          |
|-------------------------------|------------------------------------------------------------------------------------------|
| Motor type                    | Single-phase shading coil induction motor (2-pole, open type)                            |
| Terminal type                 | Terminals                                                                                |
| Insulation class              | IEC class B (130°C)<br>UL class A (105°C)<br>CSA class A (105°C)                         |
| Insulation resistance         | 100 MΩ min. (at 500 VDC) between all power supply connections and uncharged metal parts. |
| Insulation withstand voltage  | 2,000 VAC (1 minute) between all power supply connections and uncharged metal parts.     |
| Ambient operating temperature | −30 to 70°C (no icing)                                                                   |
| Ambient storage temperature   | −40 to 85°C (no icing)                                                                   |
| Ambient humidity              | 25% to 85%                                                                               |
| Protection                    | Impedance protection                                                                     |
| Materials                     | Frame: Die-cast aluminum<br>Blades: Glass polycarbonate                                  |
| Bearings                      | Ball bearings                                                                            |
| Weight                        | Approx. 300 g                                                                            |
| Compliant standards           | PSE, EN/IEC 60335 (CE marking compliant)                                                 |
| Certified standards           | UL/CSA                                                                                   |

## Flow Rate and Static Pressure Characteristics (Reference Values)

R87F-A□A93HP



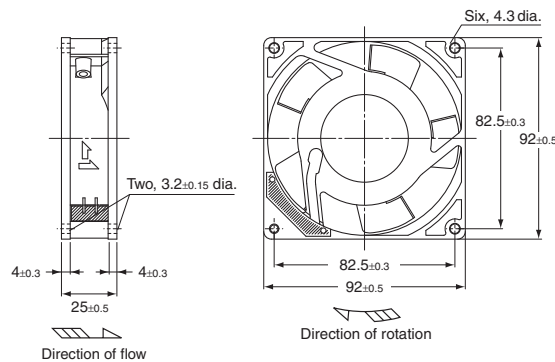
R87F-A□A93LP



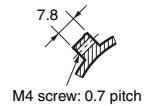
**Note:** For details on measurement conditions, refer to *Flow Rate and Static Pressure on Safety Precautions for All Axial Fans*.

## Dimensions

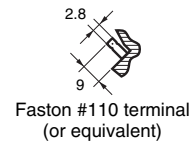
(Unit: mm)



Screw hole for grounding

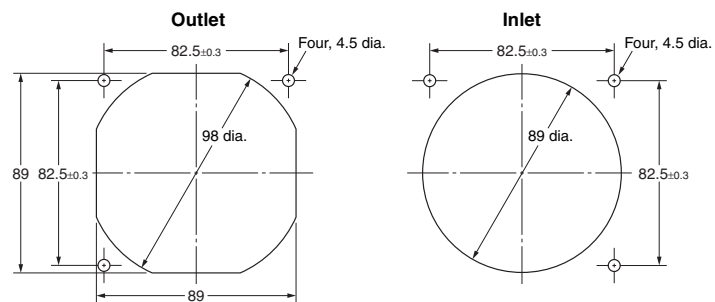


Terminal shape



### Panel Cutouts

Panel cutting reference dimensions (note 3 mounting holes)



## Options

| Name         | Model        | Datasheet available |
|--------------|--------------|---------------------|
| Plug Cord    | R87F-PC      | Refer to page 24.   |
| Finger Guard | R87F-FG90    | Refer to page 25.   |
| Filter       | R87F-FL90    | Refer to page 26.   |
| Set model    | R87F-SET9025 | Refer to page 25.   |

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

In the interest of product improvement, specifications are subject to change without notice.

# AC Axial Fans with Terminals (120 × 120 × t25 mm)

# R87F-A□A13

## Specifications

### Ratings and Ordering Information

**Note:** An asterisk (\*) indicates a nominal value.

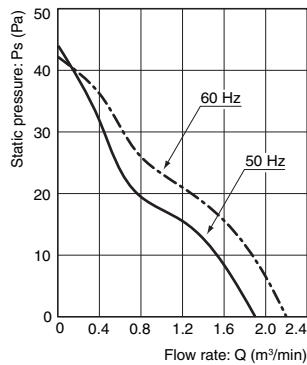
| Item<br>Model | Rated voltage (V) | Permitted voltage fluctuation range (%) | Frequency (Hz) | Rated current (A) * |       | Rated input (W) * |       | Rated rotational speed (r/min) * |       | Maximum flow rate (m³/min) * |       | Maximum static pressure (Pa) * |       | Noise (dB) * |       |
|---------------|-------------------|-----------------------------------------|----------------|---------------------|-------|-------------------|-------|----------------------------------|-------|------------------------------|-------|--------------------------------|-------|--------------|-------|
|               |                   |                                         |                | 50 Hz               | 60 Hz | 50 Hz             | 60 Hz | 50 Hz                            | 60 Hz | 50 Hz                        | 60 Hz | 50 Hz                          | 60 Hz | 50 Hz        | 60 Hz |
| R87F-A1A13HP  | 100 VAC           | 85% to 110% rated voltage               | 50/60          | 0.180               | 0.150 | 14                | 12    | 2,400                            | 2,800 | 1.9                          | 2.2   | 44                             | 42    | 39           | 43    |
| R87F-A3A13HP  | 115 VAC           |                                         |                | 0.160               | 0.130 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A4A13HP  | 200 VAC           |                                         |                | 0.090               | 0.075 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A6A13HP  | 230 VAC           |                                         |                | 0.080               | 0.070 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A1A13LP  | 100 VAC           | 85% to 110% rated voltage               | 50/60          | 0.140               | 0.120 | 12                | 10    | 1,700                            | 2,000 | 1.3                          | 1.5   | 20                             | 24    | 32           | 34    |
| R87F-A3A13LP  | 115 VAC           |                                         |                | 0.130               | 0.110 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A4A13LP  | 200 VAC           |                                         |                | 0.080               | 0.060 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A6A13LP  | 230 VAC           |                                         |                | 0.060               | 0.050 |                   |       |                                  |       |                              |       |                                |       |              |       |

### Characteristics

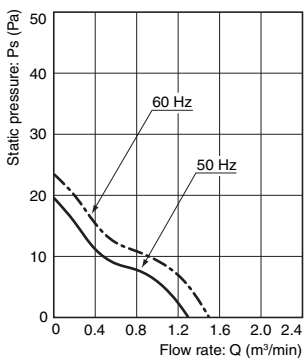
|                               |                                                                                          |
|-------------------------------|------------------------------------------------------------------------------------------|
| Motor type                    | Single-phase shading coil induction motor (2-pole, open type)                            |
| Terminal type                 | Terminals                                                                                |
| Insulation class              | IEC class B (130°C)<br>cULus class B (130°C)                                             |
| Insulation resistance         | 100 MΩ min. (at 500 VDC) between all power supply connections and uncharged metal parts. |
| Insulation withstand voltage  | 2,000 VAC (1 minute) between all power supply connections and uncharged metal parts.     |
| Ambient operating temperature | −30 to 70°C (no icing)                                                                   |
| Ambient storage temperature   | −40 to 85°C (no icing)                                                                   |
| Ambient humidity              | 25% to 85%                                                                               |
| Protection                    | Impedance protection                                                                     |
| Materials                     | Frame: Die-cast aluminum<br>Blades: Glass polycarbonate                                  |
| Bearings                      | Ball bearings                                                                            |
| Weight                        | Approx. 350 g                                                                            |
| Compliant standards           | PSE, EN/IEC 60335 (CE marking compliant)                                                 |
| Certified standards           | cULus                                                                                    |

Flow Rate and Static Pressure Characteristics (Reference Values)

R87F-A□A13HP



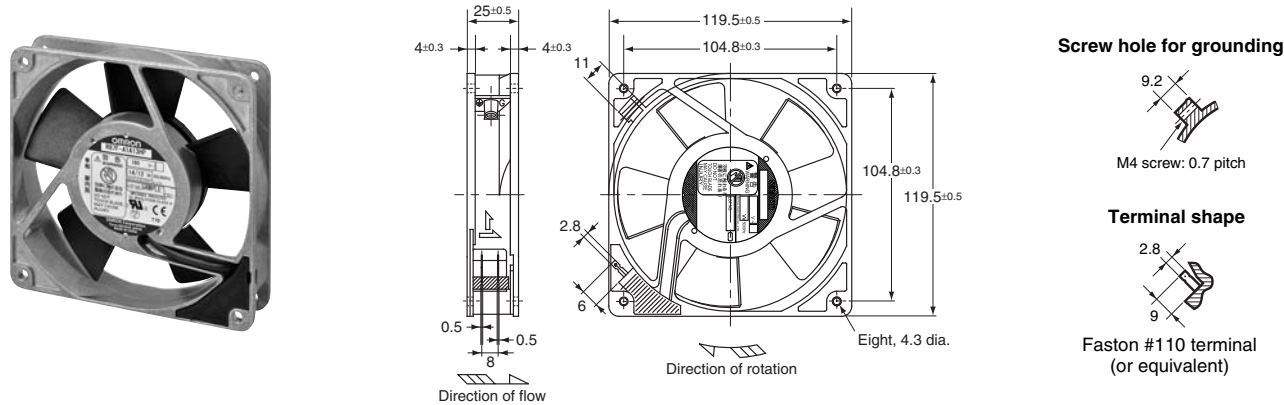
R87F-A□A13LP



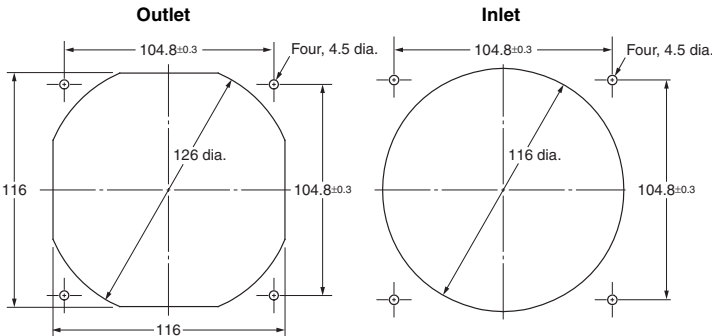
**Note:** For details on measurement conditions, refer to *Flow Rate and Static Pressure on Safety Precautions for All Axial Fans*.

Dimensions

(Unit: mm)



Panel Cutouts



Options

| Name         | Model         | Datasheet available |
|--------------|---------------|---------------------|
| Plug Cord    | R87F-PC       | Refer to page 24.   |
| Finger Guard | R87F-FG120    | Refer to page 25.   |
| Filter       | R87F-FL120(S) | Refer to page 26.   |
| Set model    | R87F-SET1225  | Refer to page 25.   |

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.  
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

In the interest of product improvement, specifications are subject to change without notice.

# AC Axial Fans with Terminals (120 × 120 × t38 mm)

# R87F-A□A15

## Specifications

### Ratings and Ordering Information

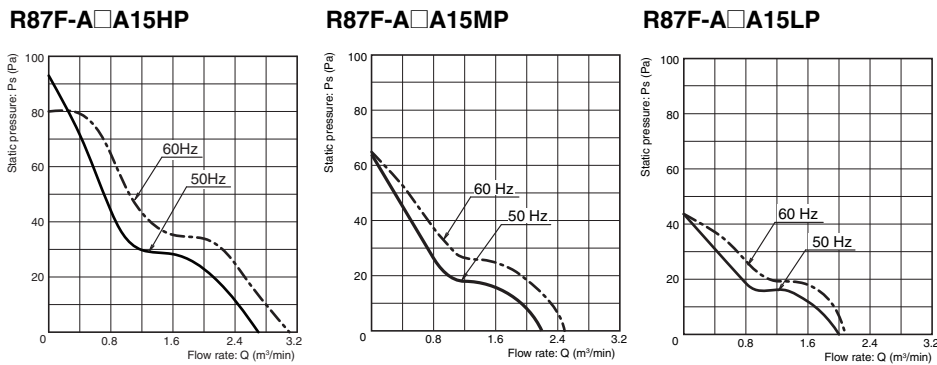
**Note:** An asterisk (\*) indicates a nominal value.

| Item<br>Model | Rated voltage (V) | Permitted voltage fluctuation range (%) | Frequency (Hz) | Rated current (A) * |       | Rated input (W) * |       | Rated rotational speed (r/min) * |       | Maximum flow rate (m³/min) * |       | Maximum static pressure (Pa) * |       | Noise (dB) * |       |
|---------------|-------------------|-----------------------------------------|----------------|---------------------|-------|-------------------|-------|----------------------------------|-------|------------------------------|-------|--------------------------------|-------|--------------|-------|
|               |                   |                                         |                | 50 Hz               | 60 Hz | 50 Hz             | 60 Hz | 50 Hz                            | 60 Hz | 50 Hz                        | 60 Hz | 50 Hz                          | 60 Hz | 50 Hz        | 60 Hz |
| R87F-A1A15HP  | 100 VAC           | 85% to 110% rated voltage               | 50/60          | 0.230               | 0.200 | 15                | 14    | 2,750                            | 3,200 | 2.7                          | 3.1   | 93                             | 80    | 42           | 46    |
| R87F-A3A15HP  | 115 VAC           |                                         |                | 0.190               | 0.170 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A4A15HP  | 200 VAC           |                                         |                | 0.110               | 0.100 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A6A15HP  | 230 VAC           |                                         |                | 0.090               | 0.080 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A1A15MP  | 100 VAC           | 85% to 110% rated voltage               | 50/60          | 0.220               | 0.180 | 15                | 14    | 2,450                            | 2,700 | 2.2                          | 2.5   | 64                             | 64    | 39           | 42    |
| R87F-A3A15MP  | 115 VAC           |                                         |                | 0.180               | 0.160 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A4A15MP  | 200 VAC           |                                         |                | 0.110               | 0.090 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A6A15MP  | 230 VAC           |                                         |                | 0.090               | 0.080 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A1A15LP  | 100 VAC           | 85% to 110% rated voltage               | 50/60          | 0.170               | 0.150 | 11                | 10    | 2,100                            | 2,250 | 2.0                          | 2.1   | 44                             | 44    | 36           | 38    |
| R87F-A3A15LP  | 115 VAC           |                                         |                | 0.140               | 0.120 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A4A15LP  | 200 VAC           |                                         |                | 0.080               | 0.070 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87F-A6A15LP  | 230 VAC           |                                         |                | 0.070               | 0.060 |                   |       |                                  |       |                              |       |                                |       |              |       |

### Characteristics

|                               |                                                                                          |
|-------------------------------|------------------------------------------------------------------------------------------|
| Motor type                    | Single-phase shading coil induction motor (2-pole, open type)                            |
| Terminal type                 | Terminals                                                                                |
| Insulation class              | IEC class B (130°C)<br>cULus class B (130°C)                                             |
| Insulation resistance         | 100 MΩ min. (at 500 VDC) between all power supply connections and uncharged metal parts. |
| Insulation withstand voltage  | 2,000 VAC (1 minute) between all power supply connections and uncharged metal parts.     |
| Ambient operating temperature | –30 to 70°C (no icing)                                                                   |
| Ambient storage temperature   | –40 to 85°C (no icing)                                                                   |
| Ambient humidity              | 25% to 85%                                                                               |
| Protection                    | Impedance protection                                                                     |
| Materials                     | Frame: Die-cast aluminum<br>Blades: Glass polycarbonate                                  |
| Bearings                      | Ball bearings                                                                            |
| Weight                        | Approx. 540 g                                                                            |
| Compliant standards           | PSE, EN/IEC 60335 (CE marking compliant)                                                 |
| Certified standards           | cULus                                                                                    |

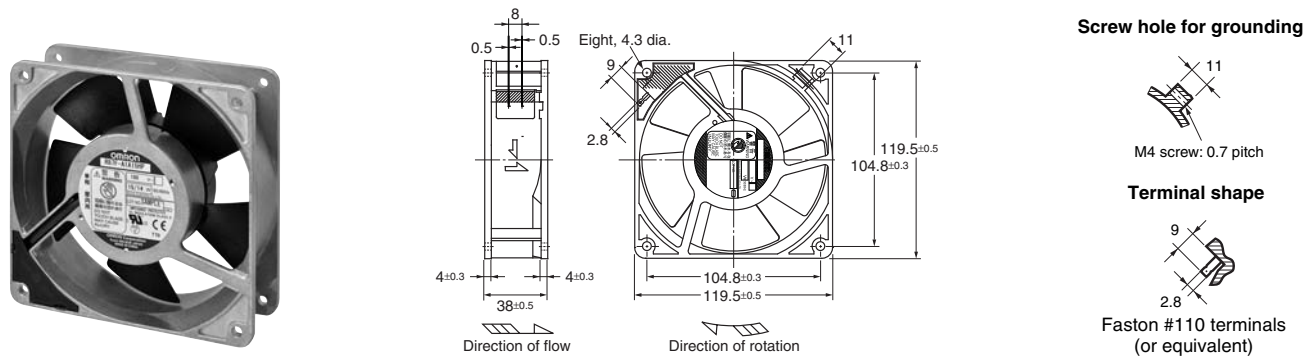
Flow Rate and Static Pressure Characteristics (Reference Values)



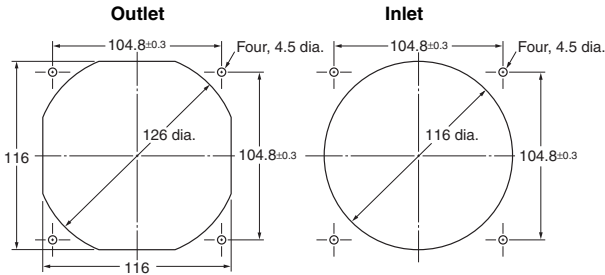
**Note:** For details on measurement conditions, refer to *Flow Rate and Static Pressure on Safety Precautions for All Axial Fans*.

Dimensions

(Unit: mm)



Panel Cutouts



Options

| Name         | Model         | Datasheet available |
|--------------|---------------|---------------------|
| Plug Cord    | R87F-PC       | Refer to page 24.   |
| Finger Guard | R87F-FG120    | Refer to page 25.   |
| Filter       | R87F-FL120(S) | Refer to page 26.   |
| Set model    | R87F-SET1238  | Refer to page 25.   |

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.  
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

In the interest of product improvement, specifications are subject to change without notice.

# AC Axial Fans with Lead Wires (80 × 80 × t25 mm)

# R87T-A□A83

## Specifications

### Ratings and Ordering Information

**Note:** An asterisk (\*) indicates a nominal value.

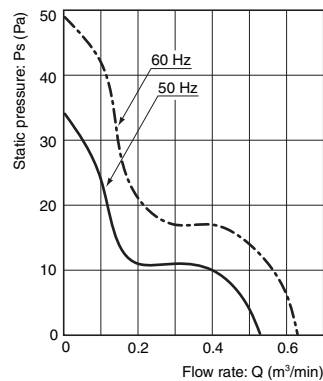
| Item        | Rated voltage (V) | Permitted voltage fluctuation range (%) | Frequency (Hz) | Rated current (A)* |       | Rated input (W)* |       | Rated rotational speed (r/min)* |       | Maximum flow rate (m³/min)* |       | Maximum static pressure (Pa)* |       | Noise (dB)* |       |
|-------------|-------------------|-----------------------------------------|----------------|--------------------|-------|------------------|-------|---------------------------------|-------|-----------------------------|-------|-------------------------------|-------|-------------|-------|
| Model       |                   |                                         |                | 50 Hz              | 60 Hz | 50 Hz            | 60 Hz | 50 Hz                           | 60 Hz | 50 Hz                       | 60 Hz | 50 Hz                         | 60 Hz | 50 Hz       | 60 Hz |
| R87T-A1A83H | 100 VAC           | 85% to 110% rated voltage               | 50/60          | 0.180              | 0.150 | 12               | 11    | 2,500                           | 3,000 | 0.5                         | 0.6   | 34.0                          | 49.0  | 33          | 36    |
| R87T-A3A83H | 115 VAC           |                                         |                | 0.150              | 0.130 |                  |       |                                 |       |                             |       |                               |       |             |       |
| R87T-A4A83H | 200 VAC           |                                         |                | 0.087              | 0.075 |                  |       |                                 |       |                             |       |                               |       |             |       |
| R87T-A6A83H | 230 VAC           |                                         |                | 0.075              | 0.065 |                  |       |                                 |       |                             |       |                               |       |             |       |

### Characteristics

|                                      |               |                                                                                          |
|--------------------------------------|---------------|------------------------------------------------------------------------------------------|
| <b>Motor type</b>                    |               | Single-phase shading coil induction motor (2-pole, open type)                            |
| <b>Terminal type</b>                 |               | Lead wires                                                                               |
| <b>Insulation class</b>              |               | IEC class B (130°C)<br>UL class A (105°C)                                                |
| <b>Insulation resistance</b>         |               | 100 MΩ min. (at 500 VDC) between all power supply connections and uncharged metal parts. |
| <b>Insulation withstand voltage</b>  |               | 2,000 VAC (1 minute) between all power supply connections and uncharged metal parts.     |
| <b>Ambient operating temperature</b> |               | −20 to 70°C (no icing)                                                                   |
| <b>Ambient storage temperature</b>   |               | −40 to 85°C (no icing)                                                                   |
| <b>Ambient humidity</b>              |               | 25% to 85%                                                                               |
| <b>Protection</b>                    |               | Impedance protection                                                                     |
| <b>Materials</b>                     | <b>Frame</b>  | Die-cast aluminum                                                                        |
|                                      | <b>Blades</b> | Steel plate (black coating)                                                              |
| <b>Bearings</b>                      |               | Ball bearings                                                                            |
| <b>Weight</b>                        |               | Approx. 330 g                                                                            |
| <b>Standards</b>                     |               | EN/IEC 60335 (CE marking compliant)                                                      |
| <b>Certified standards</b>           |               | UL                                                                                       |

Flow Rate and Static Pressure Characteristics (Reference Values)

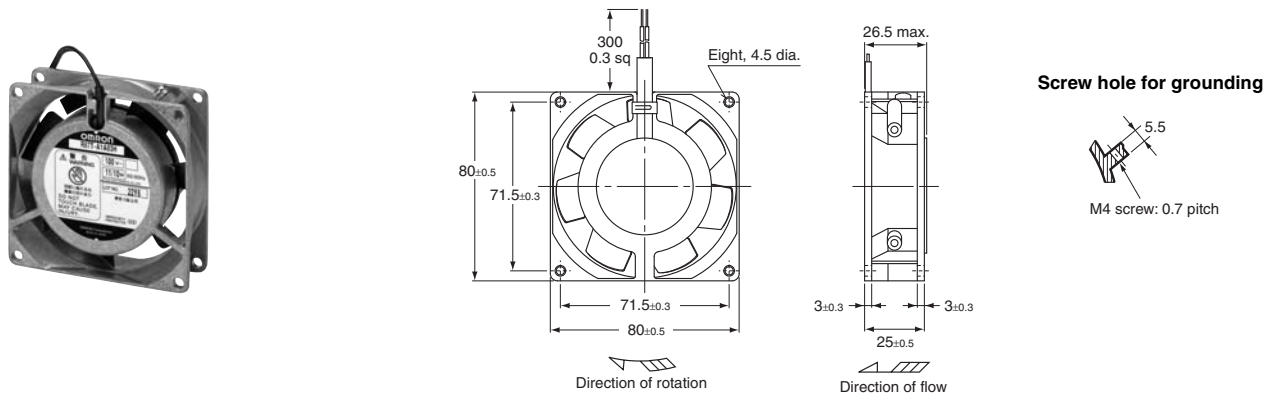
R87T-A□A83H



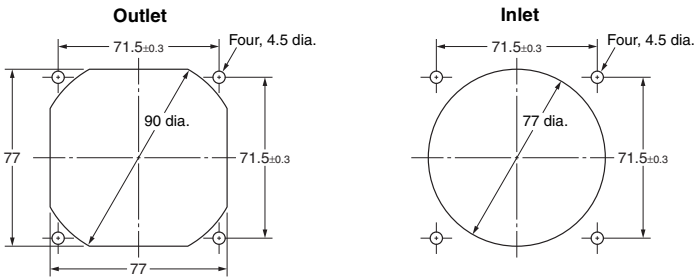
Note: For details on measurement conditions, refer to Flow Rate and Static Pressure on Safety Precautions for All Axial Fans.

Dimensions

(Unit: mm)



Panel Cutouts



Options

| Name         | Model        | Datasheet available |
|--------------|--------------|---------------------|
| Finger Guard | R87F-FG80    | Refer to page 25.   |
| Filter       | R87F-FL80    | Refer to page 26.   |
| Set model    | R87F-SET8025 | Refer to page 25.   |

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.  
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

In the interest of product improvement, specifications are subject to change without notice.

# AC Axial Fans with Lead Wires (80 × 80 × t38 mm)

# R87T-A□A85

## Specifications

### Ratings and Ordering Information

**Note:** An asterisk (\*) indicates a nominal value.

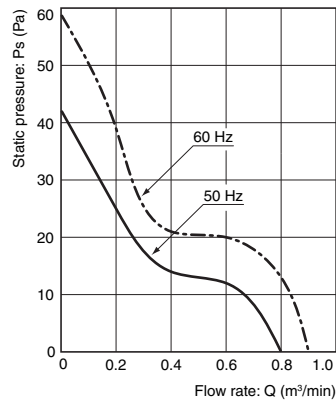
| Item        | Rated voltage (V) | Permitted voltage fluctuation range (%) | Frequency (Hz) | Rated current (A) * |       | Rated input (W) * |       | Rated rotational speed (r/min) * |       | Maximum flow rate (m³/min) * |       | Maximum static pressure (Pa) * |       | Noise (dB) * |       |
|-------------|-------------------|-----------------------------------------|----------------|---------------------|-------|-------------------|-------|----------------------------------|-------|------------------------------|-------|--------------------------------|-------|--------------|-------|
| Model       |                   |                                         |                | 50 Hz               | 60 Hz | 50 Hz             | 60 Hz | 50 Hz                            | 60 Hz | 50 Hz                        | 60 Hz | 50 Hz                          | 60 Hz | 50 Hz        | 60 Hz |
| R87T-A1A85H | 100 VAC           | 85% to 110% rated voltage               | 50/60          | 0.180               | 0.160 | 12                | 10    | 2,800                            | 3,300 | 0.80                         | 0.90  | 42                             | 58    | 37           | 40    |
| R87T-A3A85H | 115 VAC           |                                         |                | 0.155               | 0.135 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87T-A4A85H | 200 VAC           |                                         |                | 0.085               | 0.075 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87T-A6A85H | 230 VAC           |                                         |                | 0.080               | 0.070 |                   |       |                                  |       |                              |       |                                |       |              |       |

### Characteristics

|                               |                                                                                          |
|-------------------------------|------------------------------------------------------------------------------------------|
| Motor type                    | Single-phase shading coil induction motor (2-pole, open type)                            |
| Terminal type                 | Lead wires                                                                               |
| Insulation class              | IEC class B (130°C)<br>UL class A (105°C)                                                |
| Insulation resistance         | 100 MΩ min. (at 500 VDC) between all power supply connections and uncharged metal parts. |
| Insulation withstand voltage  | 2,000 VAC (1 minute) between all power supply connections and uncharged metal parts.     |
| Ambient operating temperature | −20 to 70°C (no icing)                                                                   |
| Ambient storage temperature   | −40 to 85°C (no icing)                                                                   |
| Ambient humidity              | 25% to 85%                                                                               |
| Protection                    | Impedance protection                                                                     |
| Materials                     | Frame: Die-cast aluminum<br>Blades: Steel plate (black coating)                          |
| Bearings                      | Ball bearings                                                                            |
| Weight                        | Approx. 440 g                                                                            |
| Compliant standards           | EN/IEC 60335 (CE marking compliant)                                                      |
| Certified standards           | UL                                                                                       |

Flow Rate and Static Pressure Characteristics (Reference Values)

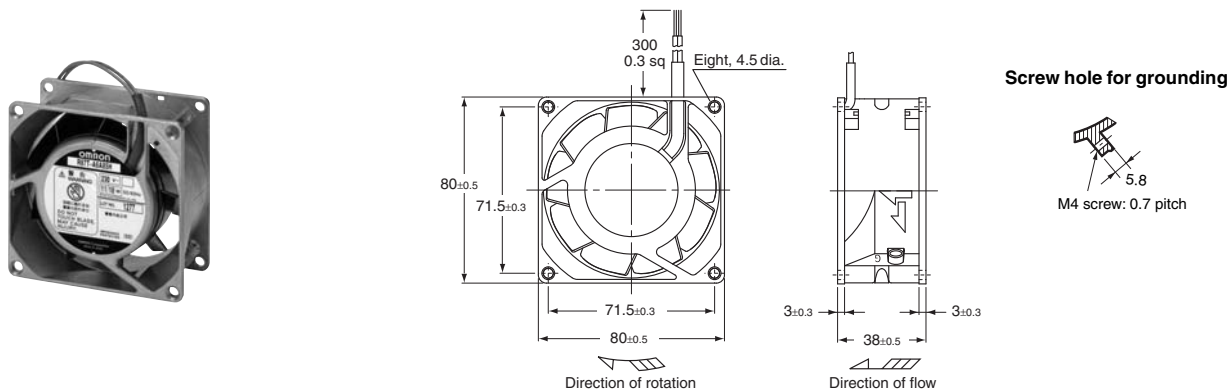
R87T-A□A85H



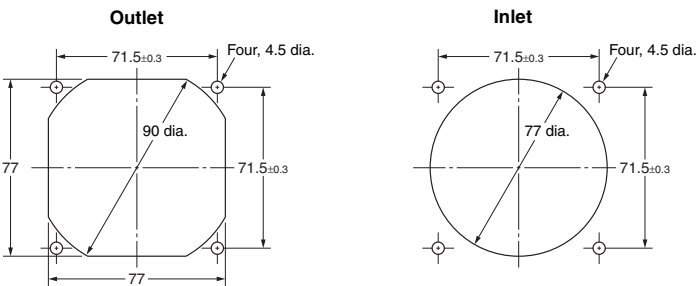
**Note:** For details on measurement conditions, refer to *Flow Rate and Static Pressure on Safety Precautions for All Axial Fans*.

Dimensions

(Unit: mm)



Panel Cutouts



Options

| Name         | Model        | Datasheet available |
|--------------|--------------|---------------------|
| Finger Guard | R87F-FG80    | Refer to page 25.   |
| Filter       | R87F-FL80    | Refer to page 26.   |
| Set model    | R87F-SET8038 | Refer to page 25.   |

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.  
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

In the interest of product improvement, specifications are subject to change without notice.

# AC Axial Fans with Terminals (120 × 120 × t38 mm)

# R87T-A□A15

## Specifications

### Ratings and Ordering Information

**Note:** An asterisk (\*) indicates a nominal value.

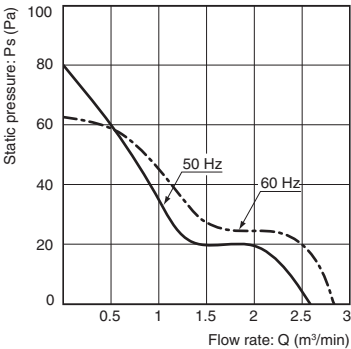
| Item<br>Model | Rated voltage (V) | Permitted voltage fluctuation range (%) | Frequency (Hz) | Rated current (A) * |       | Rated input (W) * |       | Rated rotational speed (r/min) * |       | Maximum flow rate (m³/min) * |       | Maximum static pressure (Pa) * |       | Noise (dB) * |       |
|---------------|-------------------|-----------------------------------------|----------------|---------------------|-------|-------------------|-------|----------------------------------|-------|------------------------------|-------|--------------------------------|-------|--------------|-------|
|               |                   |                                         |                | 50 Hz               | 60 Hz | 50 Hz             | 60 Hz | 50 Hz                            | 60 Hz | 50 Hz                        | 60 Hz | 50 Hz                          | 60 Hz | 50 Hz        | 60 Hz |
| R87T-A1A15HP  | 100 VAC           | 85% to 110% rated voltage               | 50/60          | 0.240               | 0.210 | 17                | 16    | 2,700                            | 3,100 | 2.6                          | 2.9   | 80                             | 62    | 42           | 46    |
| R87T-A3A15HP  | 115 VAC           |                                         |                | 0.210               | 0.180 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87T-A4A15HP  | 200 VAC           |                                         |                | 0.120               | 0.110 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87T-A6A15HP  | 230 VAC           |                                         |                | 0.110               | 0.090 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87T-A1A15MP  | 100 VAC           | 85% to 110% rated voltage               | 50/60          | 0.170               | 0.150 | 12                | 11    | 2,350                            | 2,600 | 1.8                          | 2.1   | 42                             | 40    | 36           | 40    |
| R87T-A3A15MP  | 115 VAC           |                                         |                | 0.140               | 0.120 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87T-A4A15MP  | 200 VAC           |                                         |                | 0.080               | 0.070 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87T-A6A15MP  | 230 VAC           |                                         |                | 0.070               | 0.060 |                   |       |                                  |       |                              |       |                                |       |              |       |

### Characteristics

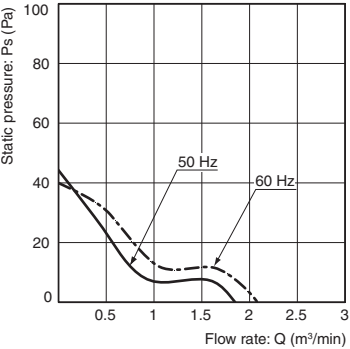
|                               |                                                                                          |
|-------------------------------|------------------------------------------------------------------------------------------|
| Motor type                    | Single-phase shading coil induction motor (2-pole, open type)                            |
| Terminal type                 | Terminals                                                                                |
| Insulation class              | IEC class B (130°C)<br>cULus class B (130°C)                                             |
| Insulation resistance         | 100 MΩ min. (at 500 VDC) between all power supply connections and uncharged metal parts. |
| Insulation withstand voltage  | 2,000 VAC (1 minute) between all power supply connections and uncharged metal parts.     |
| Ambient operating temperature | −20 to 70°C (no icing)                                                                   |
| Ambient storage temperature   | −40 to 85°C (no icing)                                                                   |
| Ambient humidity              | 25% to 85%                                                                               |
| Protection                    | Impedance protection                                                                     |
| Materials                     | Frame: Die-cast aluminum<br>Blades: Steel plate (black coating)                          |
| Bearings                      | Ball bearings                                                                            |
| Weight                        | Approx. 540 g                                                                            |
| Compliant standards           | PSE, EN/IEC 60335 (CE marking compliant)                                                 |
| Certified standards           | cULus                                                                                    |

Flow Rate and Static Pressure Characteristics (Reference Values)

R87T-A□A15HP



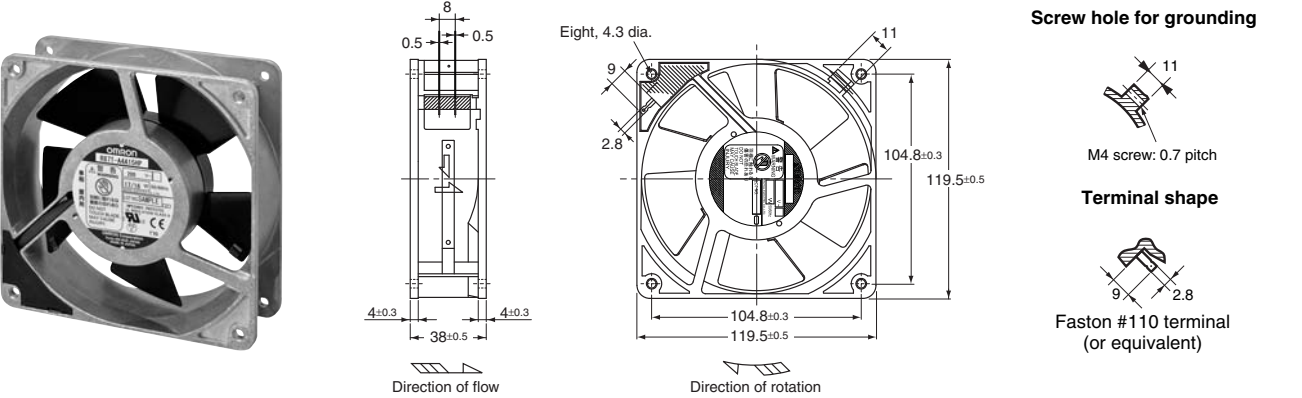
R87T-A□A15MP



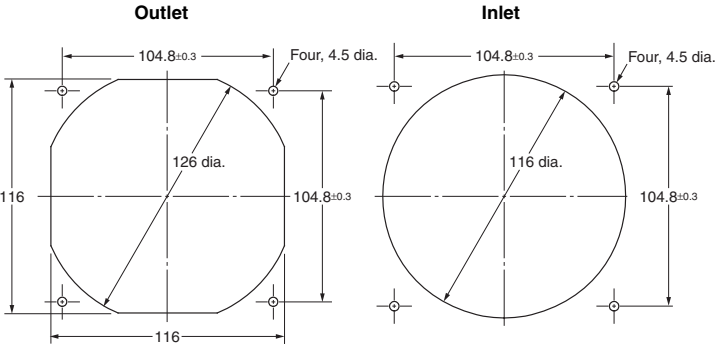
**Note:** For details on measurement conditions, refer to *Flow Rate and Static Pressure on Safety Precautions for All Axial Fans*.

Dimensions

(Unit: mm)



Panel Cutouts



Options

| Name         | Model         | Datasheet available |
|--------------|---------------|---------------------|
| Plug Cord    | R87F-PC       | Refer to page 24.   |
| Finger Guard | R87F-FG120    | Refer to page 25.   |
| Filter       | R87F-FL120(S) | Refer to page 26.   |
| Set model    | R87F-SET1238  | Refer to page 25.   |

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.  
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

In the interest of product improvement, specifications are subject to change without notice.

# AC Axial Fans with Lead Wires (150-dia. × t38 mm)

# R87T-A□A05

## Specifications

### Ratings and Ordering Information

**Note:** An asterisk (\*) indicates a nominal value.

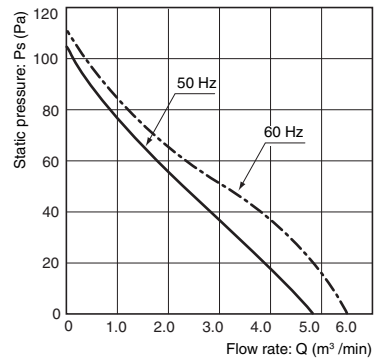
| Item        | Rated voltage (V) | Permitted voltage fluctuation range (%) | Frequency (Hz) | Rated current (A) * |       | Rated input (W) * |       | Rated rotational speed (r/min) * |       | Maximum flow rate (m³/min) * |       | Maximum static pressure (Pa) * |       | Noise (dB) * |       |
|-------------|-------------------|-----------------------------------------|----------------|---------------------|-------|-------------------|-------|----------------------------------|-------|------------------------------|-------|--------------------------------|-------|--------------|-------|
| Model       |                   |                                         |                | 50 Hz               | 60 Hz | 50 Hz             | 60 Hz | 50 Hz                            | 60 Hz | 50 Hz                        | 60 Hz | 50 Hz                          | 60 Hz | 50 Hz        | 60 Hz |
| R87T-A1A05H | 100 VAC           | 85% to 110% rated voltage               | 50/60          | 0.550               | 0.460 | 50                | 48    | 2,650                            | 3,100 | 4.8                          | 5.7   | 104                            | 107   | 56           | 58    |
| R87T-A3A05H | 115 VAC           |                                         |                | 0.470               | 0.390 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87T-A4A05H | 200 VAC           |                                         |                | 0.260               | 0.220 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87T-A6A05H | 230 VAC           |                                         |                | 0.220               | 0.190 |                   |       |                                  |       |                              |       |                                |       |              |       |

### Characteristics

|                               |                                                                                          |
|-------------------------------|------------------------------------------------------------------------------------------|
| Motor type                    | Single-phase shading coil induction motor (2-pole, open type)                            |
| Terminal type                 | Lead wires                                                                               |
| Insulation class              | IEC class B (130°C)<br>UL class A (105°C)                                                |
| Insulation resistance         | 100 MΩ min. (at 500 VDC) between all power supply connections and uncharged metal parts. |
| Insulation withstand voltage  | 2,000 VAC (1 minute) between all power supply connections and uncharged metal parts.     |
| Ambient operating temperature | –20 to 70°C (no icing)                                                                   |
| Ambient storage temperature   | –40 to 85°C (no icing)                                                                   |
| Ambient humidity              | 25% to 85%                                                                               |
| Protection                    | Thermal protection                                                                       |
| Materials                     | Frame: Die-cast aluminum<br>Blades: Steel plate (mat black baked coating)                |
| Bearings                      | Ball bearings                                                                            |
| Weight                        | Approx. 840 g                                                                            |
| Compliant standards           | EN/IEC 60335 (CE marking compliant)                                                      |
| Certified standards           | UL                                                                                       |

Flow Rate and Static Pressure Characteristics (Reference Value)

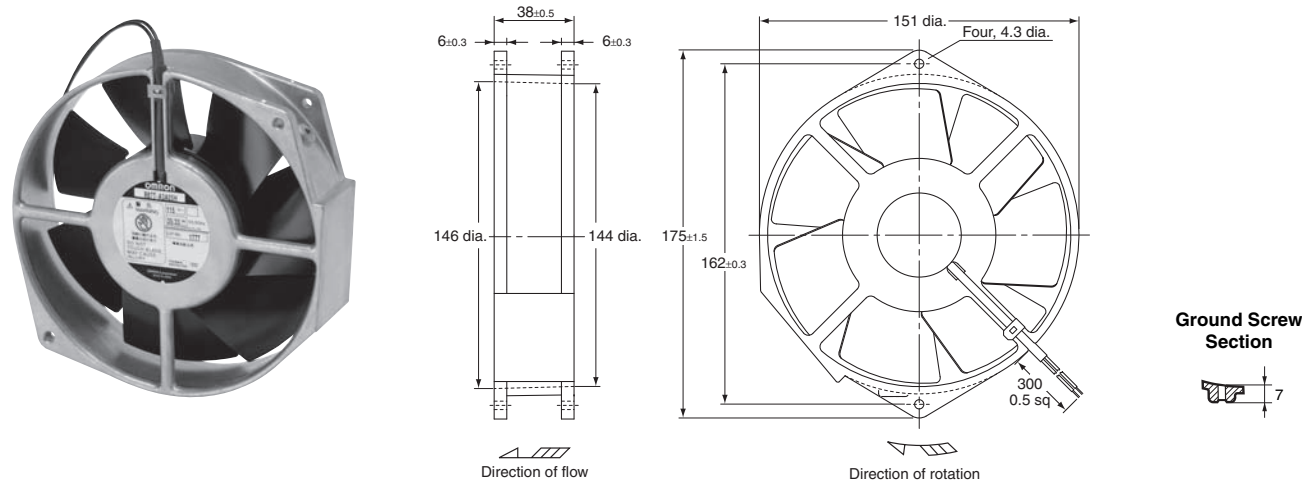
R87T-A□A05H



Note: For details on measurement conditions, refer to Flow Rate and Static Pressure on Safety Precautions for All Axial Fans.

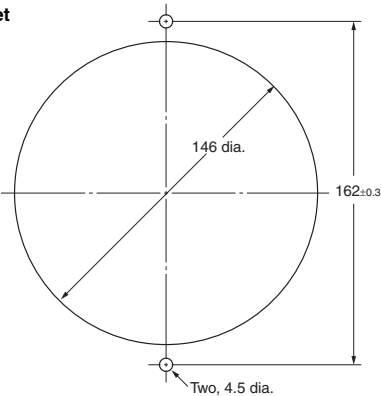
Dimensions

(Unit: mm)



Panel Cutouts

Outlet and Inlet



Options

| Name         | Model        | Datasheet available |
|--------------|--------------|---------------------|
| Finger Guard | R87F-FG150   | Refer to page 25.   |
| Set model    | R87F-SET1538 | Refer to page 25.   |

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.  
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

In the interest of product improvement, specifications are subject to change without notice.

# AC Axial Fans with Lead Wires (150-dia. × t55 mm)

# R87T-A□A07

## Specifications

### Ratings and Ordering Information

**Note:** An asterisk (\*) indicates a nominal value.

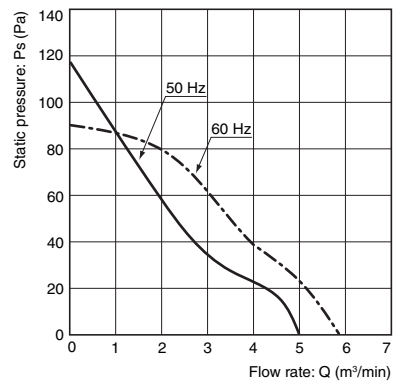
| Item        | Rated voltage (V) | Permitted voltage fluctuation range (%) | Frequency (Hz) | Rated current (A) * |       | Rated input (W) * |       | Rated rotational speed (r/min) * |       | Maximum flow rate (m³/min) * |       | Maximum static pressure (Pa) * |       | Noise (dB) * |       |
|-------------|-------------------|-----------------------------------------|----------------|---------------------|-------|-------------------|-------|----------------------------------|-------|------------------------------|-------|--------------------------------|-------|--------------|-------|
| Model       |                   |                                         |                | 50 Hz               | 60 Hz | 50 Hz             | 60 Hz | 50 Hz                            | 60 Hz | 50 Hz                        | 60 Hz | 50 Hz                          | 60 Hz | 50 Hz        | 60 Hz |
| R87T-A1A07H | 100 VAC           | 85% to 110% rated voltage               | 50/60          | 0.480               | 0.420 | 43                | 40    | 2,800                            | 3,250 | 5.0                          | 5.8   | 118                            | 88    | 52           | 56    |
| R87T-A3A07H | 115 VAC           |                                         |                | 0.420               | 0.370 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87T-A4A07H | 200 VAC           |                                         |                | 0.240               | 0.210 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87T-A6A07H | 230 VAC           |                                         |                | 0.210               | 0.190 |                   |       |                                  |       |                              |       |                                |       |              |       |

### Characteristics

|                                      |                                                                                          |
|--------------------------------------|------------------------------------------------------------------------------------------|
| <b>Motor type</b>                    | Single-phase shading coil induction motor (2-pole, open type)                            |
| <b>Terminal type</b>                 | Lead wires                                                                               |
| <b>Insulation class</b>              | IEC class B (130°C)<br>UL class A (105°C)                                                |
| <b>Insulation resistance</b>         | 100 MΩ min. (at 500 VDC) between all power supply connections and uncharged metal parts. |
| <b>Insulation withstand voltage</b>  | 2,000 VAC (1 minute) between all power supply connections and uncharged metal parts.     |
| <b>Ambient operating temperature</b> | −20 to 70°C (no icing)                                                                   |
| <b>Ambient storage temperature</b>   | −40 to 85°C (no icing)                                                                   |
| <b>Ambient humidity</b>              | 25% to 85%                                                                               |
| <b>Protection</b>                    | Thermal protection                                                                       |
| <b>Materials</b>                     | Frame: Die-cast aluminum<br>Blades: Steel plate (black coating)                          |
| <b>Bearings</b>                      | Ball bearings                                                                            |
| <b>Weight</b>                        | Approx. 1,200 g                                                                          |
| <b>Compliant standards</b>           | EN/IEC 60335 (CE marking compliant)                                                      |
| <b>Certified standards</b>           | UL                                                                                       |

Flow Rate and Static Pressure Characteristics (Reference Value)

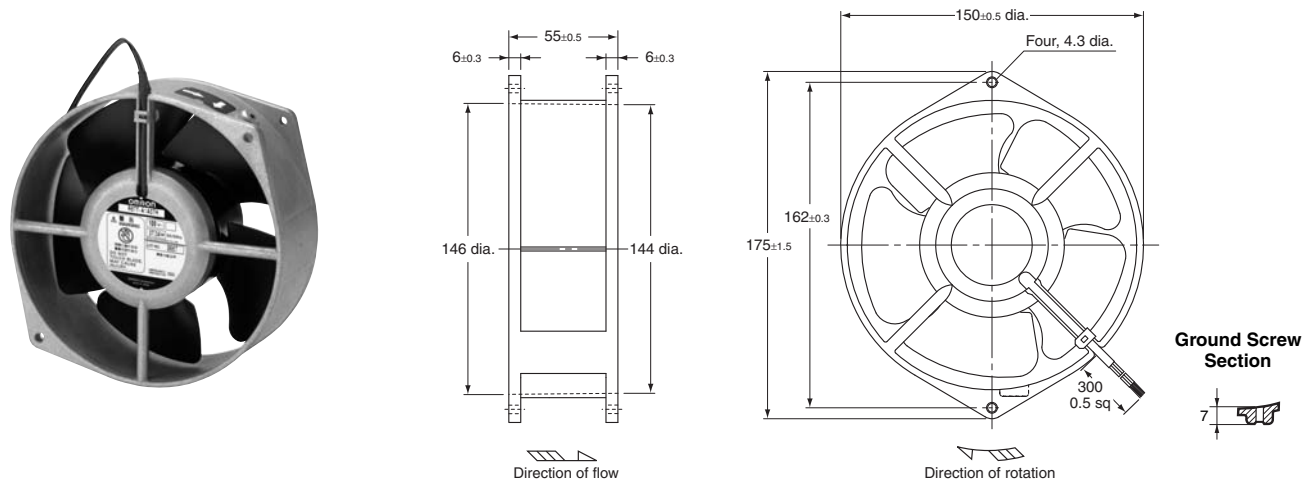
R87T-A□A07H



**Note:** For details on measurement conditions, refer to *Flow Rate and Static Pressure on Safety Precautions for All Axial Fans*.

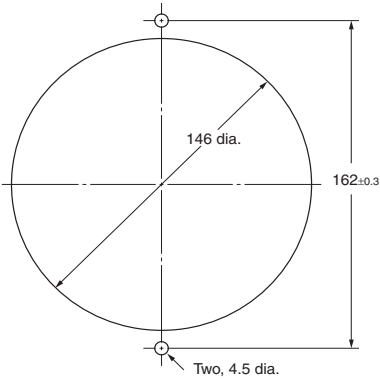
Dimensions

(Unit: mm)



Panel Cutouts

Outlet and Inlet



Options

| Name         | Model        | Datasheet available |
|--------------|--------------|---------------------|
| Finger Guard | R87F-FG150   | Refer to page 25.   |
| Set model    | R87F-SET1555 | Refer to page 25.   |

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.  
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

In the interest of product improvement, specifications are subject to change without notice.

# Water-resistant AC Axial Fans with Lead Wires (120 × 120 × t38 mm)

# R87T-A□A15H-WR

## Specifications

### Ratings and Ordering Information

**Note:** An asterisk (\*) indicates a nominal value.

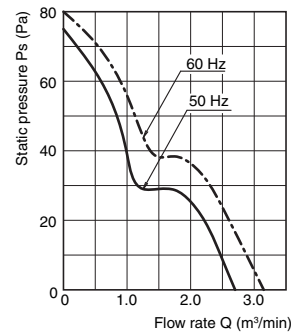
| Item           | Rated voltage (V) | Permitted voltage fluctuation range (%) | Frequency (Hz) | Rated current (A) * |       | Rated input (W) * |       | Rated rotational speed (r/min) * |       | Maximum flow rate (m³/min) * |       | Maximum static pressure (Pa) * |       | Noise (dB) * |       |
|----------------|-------------------|-----------------------------------------|----------------|---------------------|-------|-------------------|-------|----------------------------------|-------|------------------------------|-------|--------------------------------|-------|--------------|-------|
| Model          |                   |                                         |                | 50 Hz               | 60 Hz | 50 Hz             | 60 Hz | 50 Hz                            | 60 Hz | 50 Hz                        | 60 Hz | 50 Hz                          | 60 Hz | 50 Hz        | 60 Hz |
| R87T-A1A15H-WR | 100 VAC           | 85% to 110% rated voltage               | 50/60          | 0.350               | 0.280 | 22                | 20    | 2,550                            | 2,900 | 2.7                          | 3.2   | 75.0                           | 80.0  | 42           | 46    |
| R87T-A3A15H-WR | 115 VAC           |                                         |                | 0.300               | 0.240 |                   |       |                                  |       |                              |       |                                |       |              |       |
| R87T-A4A15H-WR | 200 VAC           |                                         |                | 0.170               | 0.135 | 15 to 22          |       |                                  |       |                              |       |                                |       |              |       |
| R87T-A6A15H-WR | 200 to 230 VAC    |                                         |                | 0.145               | 0.115 |                   |       |                                  |       |                              |       |                                |       |              |       |

### Characteristics

|                               |        |                                                                                          |
|-------------------------------|--------|------------------------------------------------------------------------------------------|
| Motor type                    |        | Single-phase shading coil induction motor (2-pole, open type)                            |
| Terminal type                 |        | Lead wires                                                                               |
| Insulation class              |        | IEC class B (130°C)<br>UL class A (105°C)<br>CSA class A (105°C)                         |
| Insulation resistance         |        | 100 MΩ min. (at 500 VDC) between all power supply connections and uncharged metal parts. |
| Insulation withstand voltage  |        | 2,000 VAC (1 minute) between all power supply connections and uncharged metal parts.     |
| Degree of protection          |        | IP X7                                                                                    |
| Ambient operating temperature |        | −40 to 70°C (no icing)                                                                   |
| Ambient storage temperature   |        | −40 to 85°C (no icing)                                                                   |
| Ambient humidity              |        | 95% max.                                                                                 |
| Protection                    |        | Impedance protection                                                                     |
| Materials                     | Frame  | Die-cast aluminum<br>Black coating                                                       |
|                               | Blades | Zinc die-cast                                                                            |
| Bearings                      |        | Ball bearings                                                                            |
| Weight                        |        | Approx. 650 g                                                                            |
| Standards                     |        | EN/IEC 60335 (CE marking compliant)                                                      |
| Certified standards           |        | cUL                                                                                      |

Flow Rate and Static Pressure Characteristics (Reference Values)

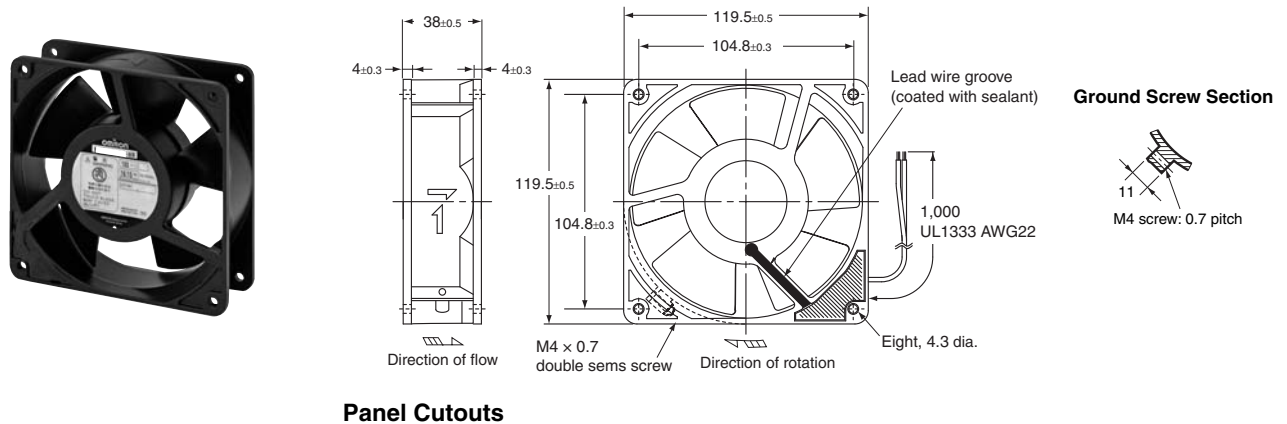
R87T-A□A15H-WR



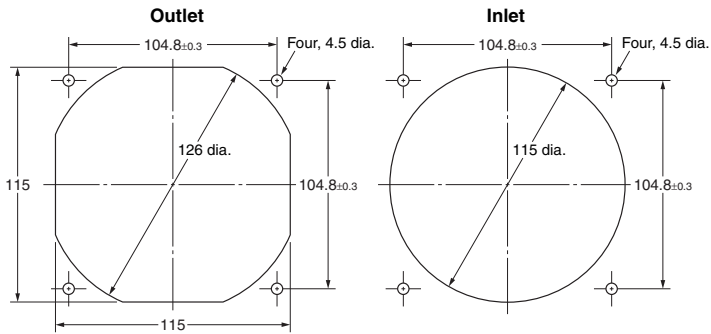
**Note:** For details on measurement conditions, refer to *Flow Rate and Static Pressure on Safety Precautions for All Axial Fans*.

Dimensions

(Unit: mm)



Panel Cutouts



Options

| Name         | Model         | Page number       |
|--------------|---------------|-------------------|
| Finger Guard | R87F-FG120    | Refer to page 25. |
| Filter       | R87F-FL120(S) | Refer to page 26. |
| Set model    | R87F-SET1238  | Refer to page 25. |

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.  
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

In the interest of product improvement, specifications are subject to change without notice.

# Plug Cord

# R87F-PC

## Accessories (Order Separately)

### Available Models

| Cord length | Model number | Weight (g) |
|-------------|--------------|------------|
| 1 m         | R87F-PC      | 39         |
| 2 m         | R87F-PC-20   | 69         |

**R87F-PC Rating: 250 VAC, 3 A**

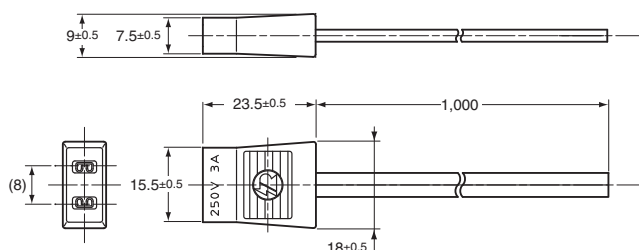
UL-certified Plug Cord



## Dimensions

(Unit: mm)

### R87F-PC



Connectable to Faston #110 terminals (or equivalent).

**Note:** This Plug Cord is used for Axial Fans with terminals.

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

In the interest of product improvement, specifications are subject to change without notice.

## Accessories (Order Separately)

## Available Models

| Size      | Model number | Weight (g) |
|-----------|--------------|------------|
| 150 dia.  | R87F-FG150   | Approx. 58 |
| 120 x 120 | R87F-FG120   | Approx. 45 |
| 92 x 92   | R87F-FG90    | Approx. 25 |
| 80 x 80   | R87F-FG80    | Approx. 20 |

## Applicable Axial Fans

| Axial Fans     | Set model    |              |     |                |      |        |          |     |
|----------------|--------------|--------------|-----|----------------|------|--------|----------|-----|
|                | Model        | Contents     |     |                |      |        |          |     |
|                |              | Finger Guard |     | Hexagonal nuts |      | Screws |          |     |
|                |              | size         | Qty | Model          | size | Qty    | size     | Qty |
| R87F-A□A83     | R87F-SET8025 | 80 x 80      | 1   | R87F-FG80      | M4   | 4      | M4 x L38 | 4   |
| R87T-A□A83     |              |              |     |                |      |        |          |     |
| R87F-A□A85     | R87F-SET8038 | 80 x 80      | 1   | R87F-FG80      | M4   | 4      | M4 x L50 | 4   |
| R87T-A□A85     |              |              |     |                |      |        |          |     |
| R87F-A□A93     | R87F-SET9025 | 92 x 92      | 1   | R87F-FG90      | M4   | 3      | M4 x L38 | 3   |
|                |              |              |     |                | M3   | 1      | M3 x L38 | 1   |
| R87F-A□A13     | R87F-SET1225 | 120 x 120    | 1   | R87F-FG120     | M4   | 4      | M4 x L38 | 4   |
| R87F-A□A15     | R87F-SET1238 | 120 x 120    | 1   | R87F-FG120     | M4   | 4      | M4 x L50 | 4   |
| R87T-A□A15     |              |              |     |                |      |        |          |     |
| R87T-A□A15H-WR |              |              |     |                |      |        |          |     |
| R87T-A□A05     | R87F-SET1538 | 150 dia.     | 1   | R87F-FG150     | M4   | 2      | M4 x L50 | 2   |
| R87T-A□A07     | R87F-SET1555 | 150 dia.     | 1   | R87F-FG150     | M4   | 2      | M4 x L70 | 2   |

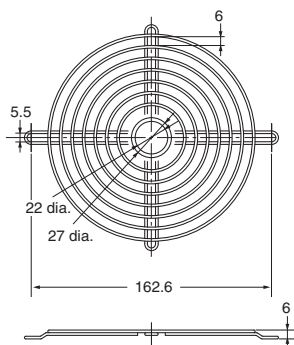
**Note:** Finger Guards reduce the flow rate by approximately 2% to 5%.

## Dimensions

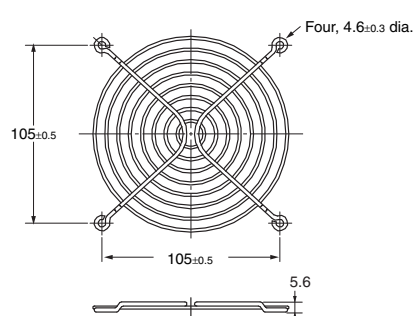
(Unit: mm)

Material: steel, Joints: spot welded, Surface: nickel-chrome plated

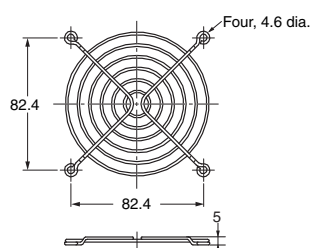
## R87F-FG150



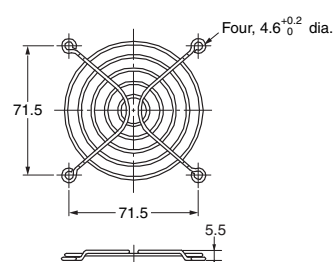
## R87F-FG120



## R87F-FG90



## R87F-FG80



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To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

In the interest of product improvement, specifications are subject to change without notice.

## Accessories (Order Separately)

## Available Models

## Filter

| Size      | Model number | Weight (g) |
|-----------|--------------|------------|
| 120 × 120 | R87F-FL120   | Approx. 43 |
| 92 × 92   | R87F-FL90    | Approx. 30 |
| 80 × 80   | R87F-FL80    | Approx. 21 |
| 120 × 120 | R87F-FL120S  | Approx. 19 |

**Note:** The filter contains one medium.

## Media

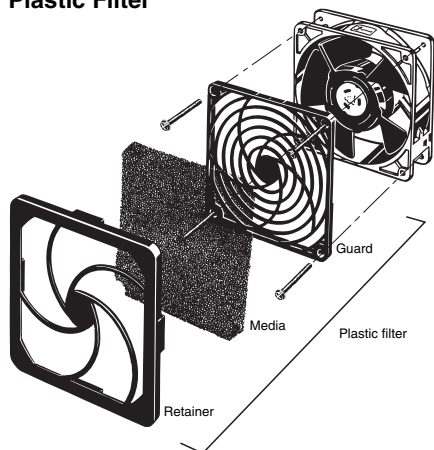
| Size      | Model number    |
|-----------|-----------------|
| 120 × 120 | R87F-FL120-M120 |
| 92 × 92   | R87F-FL90-M90   |
| 80 × 80   | R87F-FL80-M80   |

**Note:** Use the following model number to order the Media only.

R87F-FL□-M□ (□: 120, 90, or 80)

(One set containing five Media, weight: 5 g max.)

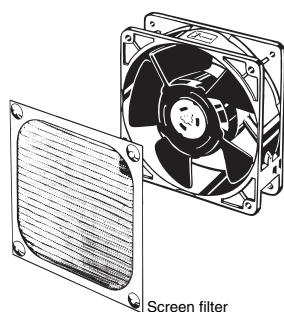
### R87F-FL□ Plastic Filter



#### Mounting Method

1. Attach the guard to the Fan using the mounting bolts. (There are no mounting bolts provided with the Plastic Filter.)
2. With the media held between the retainer and the guard, hook the retainer to the guard. (The Media and retainer can be one-touch mounted/dismounted.)

### R87F-FL120S Screen Filter



## Applicable Axial Fans

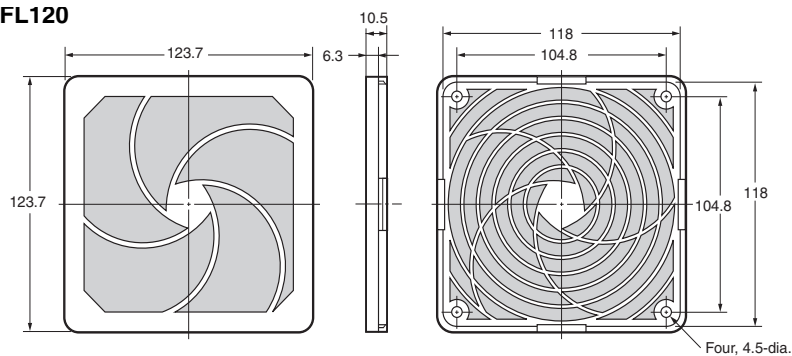
| AC Axial Fan |                     | Filter     |             |
|--------------|---------------------|------------|-------------|
| Size         | Model               | Plastic    | Aluminum    |
| 150 dia.     | R87T-A□A0 Series    | ---        | ---         |
| 120 × 120    | R89F-DS1225□ series | R87F-FL120 | R87F-FL120S |
|              | R89F-DS1238□ series |            |             |
|              | R89F-MS1238HP       |            |             |
|              | R87F-A□A1 Series    |            |             |
|              | R87T-A□A1 Series    |            |             |
| 92 × 92      | R87F-A□A9 Series    | R87F-FL90  | ---         |
| 80 × 80      | R87F-A□A8 Series    | R87F-FL80  | ---         |
|              | R87T-A□A8 Series    |            |             |

**Note:** Filters reduce the flow rate by approximately 20% to 40%. Ensure that there is no clogging.

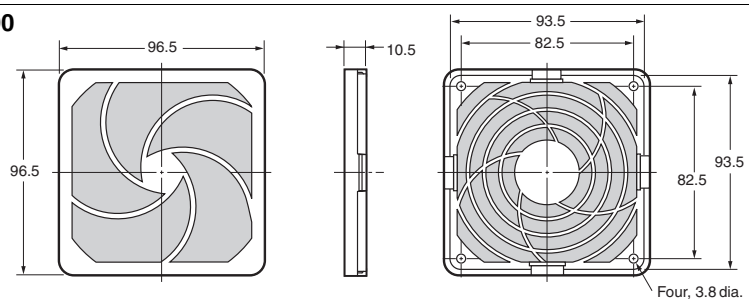
## Dimensions

(Unit: mm)

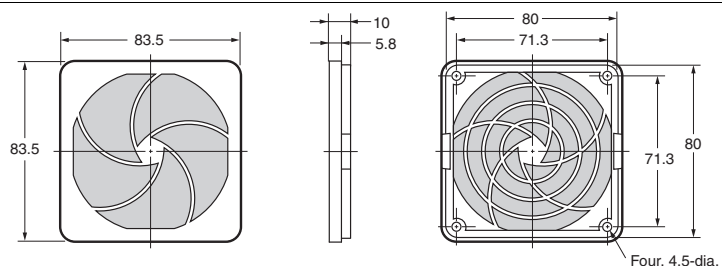
## R87F-FL120



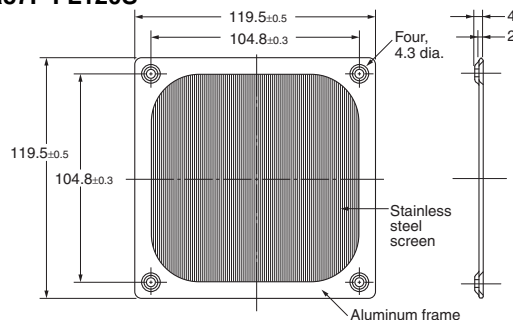
## R87F-FL90



## R87F-FL80



## R87F-FL120S



- Note:**
1. The Screen Filter is made using aluminium and has an **EMI/RFI** shielding effect.
  2. When mounting the Screen Filter, make sure that it does not come in contact with the fan blades.
  3. The screen is a 30 × 30 aluminium mesh. (30 aluminium wires per inch)

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