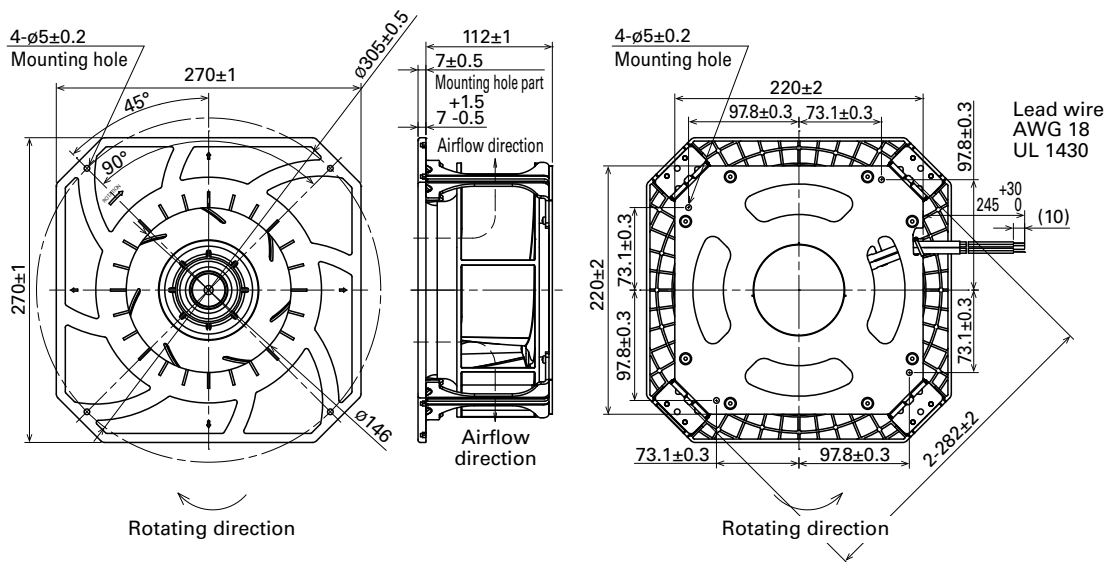
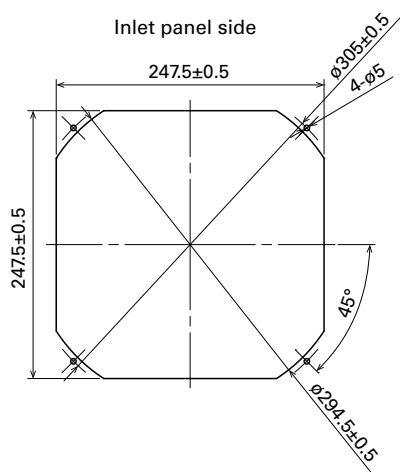
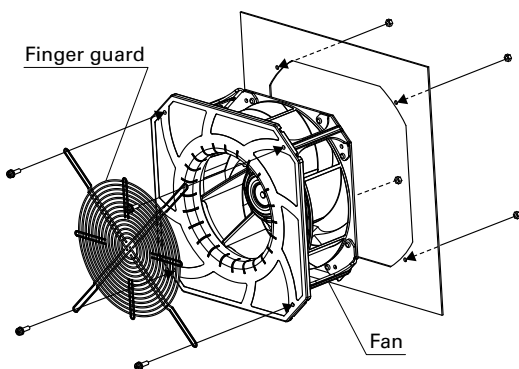




## Reference Dimensions of Mounting Holes and Vent Opening (unit: mm)



## Reference Diagram for Mounting



## Options

Finger guards

page: p. 602

Model no.: 109-1146, 109-1146H

DC

Splash Proof Centrifugal Fan 270 mm sq.



# Oil Proof Fan

Cooling fan capable of operating in an oil-mist environment.  
Related product: Splash Proof Fan p. 361, Splash Proof Blower p. 421, Splash Proof Centrifugal Fan p. 425

**Model Numbering System** Not every combination of the following codes or characters is available. Contact us for an available combination.

| 9WF       | 12         | 24      | H          | 1               | 01                    |            |
|-----------|------------|---------|------------|-----------------|-----------------------|------------|
| Type name | Frame size | Voltage | Speed code | Frame thickness | Sensor specifications | Frame form |

|                       |                     |       |                  |       |                    |
|-----------------------|---------------------|-------|------------------|-------|--------------------|
| Type name             | 9WF 9WFA            |       |                  |       |                    |
| Frame size (mm)       | 04                  | 06    | 08               | 09    | 12                 |
|                       | 40×40               | 60×60 | 80×80            | 92×92 | 120×120            |
| Voltage (V)           | 24                  |       |                  |       |                    |
|                       | 24                  |       |                  |       |                    |
| Speed code            | H                   |       |                  |       |                    |
| Frame thickness (mm)  | 1                   | 2     | 4                | 6     | 7                  |
|                       | 38                  | 32    | 25               | 20    | 15                 |
| Sensor specifications | 01, 001             |       | 02, 002          |       | D01, D001          |
|                       | With a pulse sensor |       | Without a sensor |       | With a lock sensor |
| Frame form            | Nil                 |       |                  |       |                    |
|                       | Ribbed frame        |       |                  |       |                    |

**How to Read Specifications** (DC fan) The following is a sample. See respective product pages for detailed information.

| Model no.    | Rated voltage [V] | Operating voltage range [V] | Rated current [A] | Rated input [W] | Rated speed [min <sup>-1</sup> ] | Max. airflow [m³/min] [CFM] | Max. static pressure [Pa] [inchH <sub>2</sub> O] | SPL [dB (A)] | Operating temperature [°C] | Expected life [h]       |
|--------------|-------------------|-----------------------------|-------------------|-----------------|----------------------------------|-----------------------------|--------------------------------------------------|--------------|----------------------------|-------------------------|
| 9GA0412G7001 | 12                | 7 to 13.8                   | 0.17              | 2.04            | 13100                            | 0.36 12.7                   | 192 0.77                                         | 42           | -20 to +70                 | 40000/60°C (70000/40°C) |

- Rated voltage ..... This is the necessary voltage to drive the fan. E.g.) 12 VDC, 24 VDC, 48 VDC
- Operating voltage range ..... The voltage range over which fan operation is guaranteed.
- Rated current ..... The current when the fan is operating at rated voltage (at free air).
- Rated input ..... The power value when the fan is operating at rated voltage (at free air).
- Rated speed ..... The speed when the fan is operating at rated voltage (at free air).
- Max. airflow ..... The airflow at 0 Pa static pressure when the fan is operating at rated voltage. (Measured using the double chamber method)
- Max. static pressure ..... The static pressure at 0 m³/min airflow when the fan is operating at rated voltage. (Measured using the double chamber method)
- SPL ..... A-weighted sound pressure level (SPL) when the fan operates at the rated speed.  
For the measurement method, see the Technical Materials section in the catalog.
- Operating temperature ..... The temperature range over which fan operation is guaranteed (Non-condensing).
- Expected life ..... Service life hours that 90% of bearings will survive without failing when continuously operated at the rated voltage and 60°C temperature. Expected life at 40°C is for reference only.  
For more information, please refer to the technical material section.

# 40×40×15 mm

San Ace 40WF 9WF<sub>type</sub>   



## General Specifications

- Material ..... Frame: Plastic (Flammability: UL 94V-0), Impeller: Plastic (Flammability: UL 94V-0)
- Expected life ..... See the table below. (L10 life: 90% survival rate for continuous operation in free air at 60°C, rated voltage)  
Expected life at 40°C is for reference only.
- Motor protection function ..... Locked rotor burnout protection, Reverse polarity protection  
For details, please refer to p. 616.
- Dielectric strength ..... 50/60 Hz, 500 VAC, for 1 minute (between lead wire conductors and frame)
- Insulation resistance ..... 10 MΩ min. at 500 VDC (between lead wire conductors and frame)
- Sound pressure level (SPL) ..... A-weighted sound pressure level (SPL) at 1 m away from the air inlet.
- Storage temperature ..... -30 to +70°C (Non-condensing)
- Lead wire ..... ⊕Red ⊖Black ☐Sensor ☐Yellow
- Mass ..... 35 g

This fan can be used in environments with oil mist.\*  
\* Environment where cutting oil creates oil mist. Conduct a product evaluation with the type of oil to be used.

## Specifications

The models listed below **have ribs and a pulse sensor.**

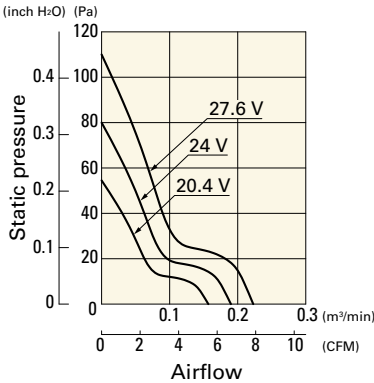
| Model no.   | Rated voltage<br>[V] | Operating voltage range<br>[V] | Rated current<br>[A] | Rated input<br>[W] | Rated speed<br>[min <sup>-1</sup> ] | Max. airflow<br>[m <sup>3</sup> /min] [CFM] | Max. static pressure<br>[Pa] [inchH <sub>2</sub> O] | SPL<br>[dB (A)] | Operating temperature<br>[°C] | Expected life<br>[h]       |
|-------------|----------------------|--------------------------------|----------------------|--------------------|-------------------------------------|---------------------------------------------|-----------------------------------------------------|-----------------|-------------------------------|----------------------------|
| 9WF0424H701 | 24                   | 20.4 to 27.6                   | 0.085                | 2.04               | 11300                               | 0.195 6.9                                   | 80 0.32                                             | 38              | -20 to +70                    | 40000/60°C<br>(70000/40°C) |

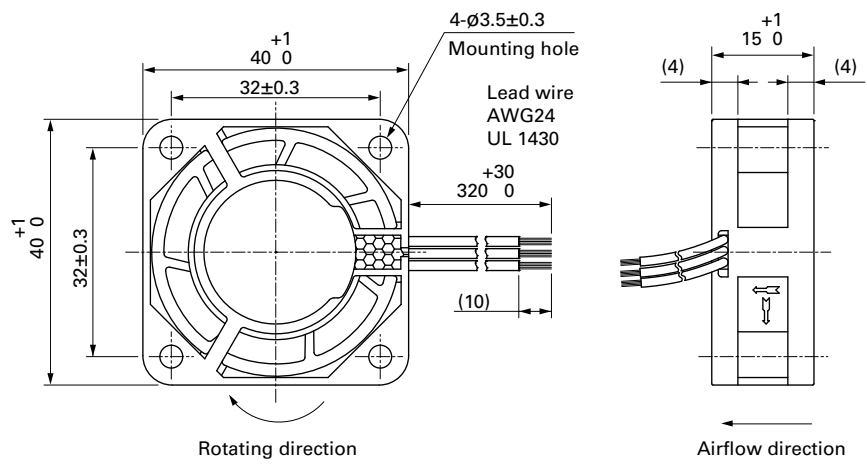
Note: Sensor and control options are available for selection. Refer to the table on p. 660.

## Airflow - Static Pressure Characteristics

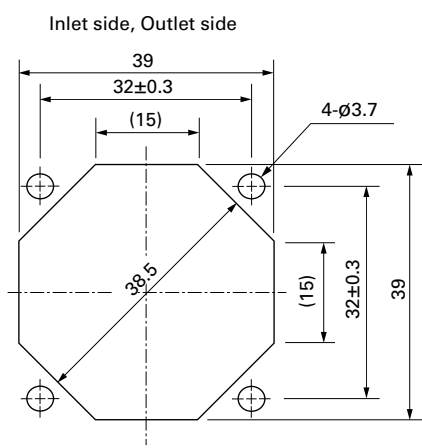
**9WF0424H701** With pulse sensor

Operating voltage range





■ **Reference Dimensions of Mounting Holes and Vent Opening (unit: mm)**



■ **Options**

Finger guards page: p. 598

Model no.: 109-059, 109-059H

Oil Proof Fan 40 mm sq. DC