






Ø 172x51 mm

San Ace 172      Only standard fans (without sensors) have acquired CSA certification. Round type


General Specifications

- Material Frame: Aluminum, Impeller: Plastic (Flammability: UL 94V-1)
- Expected life See the table below. (L10 life: 90% survival rate for continuous operation in free air at 60°C, rated voltage)
- Motor structure Capacitor motor
- Motor protection function Locked rotor burnout protection, Reverse polarity protection
For details, please refer to p. 547.
- Dielectric strength 50/60 Hz, 1500 VAC, for 1 minute (between input terminal and frame)
- Dielectric strength (with sensor) 50/60 Hz 1500 VAC 1 minute (between AC input terminal and frame)
50/60 Hz 1000 VAC 1 minute (between lead wire conductors and frame)
- Insulation resistance 10 MΩ or more with a 500 VDC megger
- Sound pressure level (SPL) At 1 m away from the air inlet
- Operating voltage range Voltage of each model ±10%
- Storage temperature -30 to +70°C (Non-condensing)
- Sensor-Purpose lead wire ⊕Brown ⊖Black (Sensor) Yellow
- Mass 1000 g

Specifications

Standard

| Model no. | Rated voltage [V] | Frequency [Hz] | Input [W] | Current [A] | Locked rotor current [A] | Rated speed [min ⁻¹] | Max. airflow [m ³ /min] [CFM] | Max. static pressure [Pa] [inchH ₂ O] | SPL [dB (A)] | Operating temperature [°C] | Expected life [h] |
|-----------|-------------------|----------------|-----------|-------------|--------------------------|----------------------------------|--|--|--------------|----------------------------|-------------------|
| 109-311 | 100 | 50/60 | 27/25 | 0.33/0.25 | 0.65/0.64 | 2900/3500 | 5.3/6.4 187.3/226.1 | 147/196 0.59/0.787 | 47/51 | -30 to +60 | 25000/60°C |
| 109-314 | 115 | | | 0.29/0.22 | 0.55/0.54 | | | | | | |
| 109-312 | 200 | | | 0.16/0.13 | 0.33/0.32 | | | | | | |
| 109-313 | 230 | | | 0.14/0.11 | 0.28/0.27 | | | | | | |

with Sensor

For sensor specifications, please refer to p. 550. Sensor specification differs depending on the fan's speed specification.

For a 5 V sensor power supply (ITEM-20), please append "-20" to the end of model number. E.g. 109-371-20

For a 12 V sensor power supply (ITEM-30), please append "-30" to the end of model number. E.g. 109-371-30

| Model no. | Rated voltage [V] | Frequency [Hz] | Input [W] | Current [A] | Locked rotor current [A] | Rated speed [min ⁻¹] | Max. airflow [m ³ /min] [CFM] | Max. static pressure [Pa] [inchH ₂ O] | SPL [dB (A)] | Operating temperature [°C] | Expected life [h] |
|-----------|-------------------|----------------|-----------|-------------|--------------------------|----------------------------------|--|--|--------------|----------------------------|-------------------|
| 109-371 | 100 | 50/60 | 27/25 | 0.33/0.25 | 0.65/0.64 | 2900/3500 | 5.3/6.4 187.3/226.1 | 147/196 0.59/0.787 | 47/51 | -10 to +60 | 25000/60°C |
| 109-374 | 115 | | | 0.29/0.22 | 0.55/0.54 | | | | | | |
| 109-372 | 200 | | | 0.16/0.13 | 0.33/0.32 | | | | | | |
| 109-373 | 230 | | | 0.14/0.11 | 0.28/0.27 | | | | | | |

Set Models

Fan, finger guard, plug cord, screws, etc. can be purchased in one package. For details, please refer to p. 594.

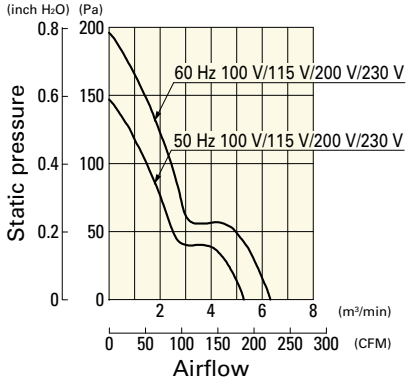
| Order no. | Set items | | | | | |
|----------------|------------|---------|------------------|--------------|---------------|---------------------|
| | Fan | Voltage | Low-speed sensor | Plug cord* | Finger guards | Mounting screws |
| ST1-109-311 | 109-311 | 100 V | | 489-1619-L10 | 109-319E | M4x25 mm (4 screws) |
| ST1-109-314 | 109-314 | 115 V | | 489-1619-L10 | 109-319E | |
| ST1-109-312 | 109-312 | 200 V | | 489-1619-L10 | 109-319E | |
| ST1-109-313 | 109-313 | 230 V | | 489-1619-L10 | 109-319E | |
| ST1-109-371-20 | 109-371-20 | 100 V | ○ (5 V) | 489-1619-L10 | 109-319E | |
| ST1-109-371-30 | 109-371-30 | | ○ (12 V) | 489-1619-L10 | 109-319E | |
| ST1-109-374-20 | 109-374-20 | 115 V | ○ (5 V) | 489-1619-L10 | 109-319E | |
| ST1-109-374-30 | 109-374-30 | | ○ (12 V) | 489-1619-L10 | 109-319E | |
| ST1-109-372-20 | 109-372-20 | 200 V | ○ (5 V) | 489-1619-L10 | 109-319E | |
| ST1-109-372-30 | 109-372-30 | | ○ (12 V) | 489-1619-L10 | 109-319E | |
| ST1-109-373-20 | 109-373-20 | 230 V | ○ (5 V) | 489-1619-L10 | 109-319E | |
| ST1-109-373-30 | 109-373-30 | | ○ (12 V) | 489-1619-L10 | 109-319E | |

* PSE compatible.

Airflow - Static Pressure Characteristics

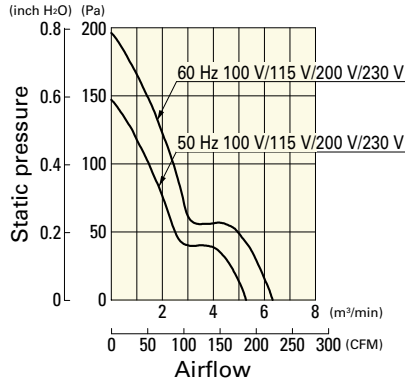
Standard

109-311, 109-314, 109-312, 109-313



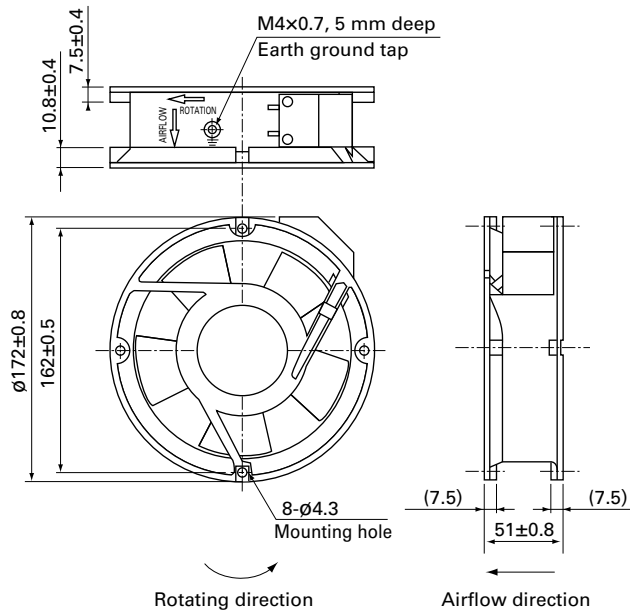
with Sensor

109-371, 109-374, 109-372, 109-373

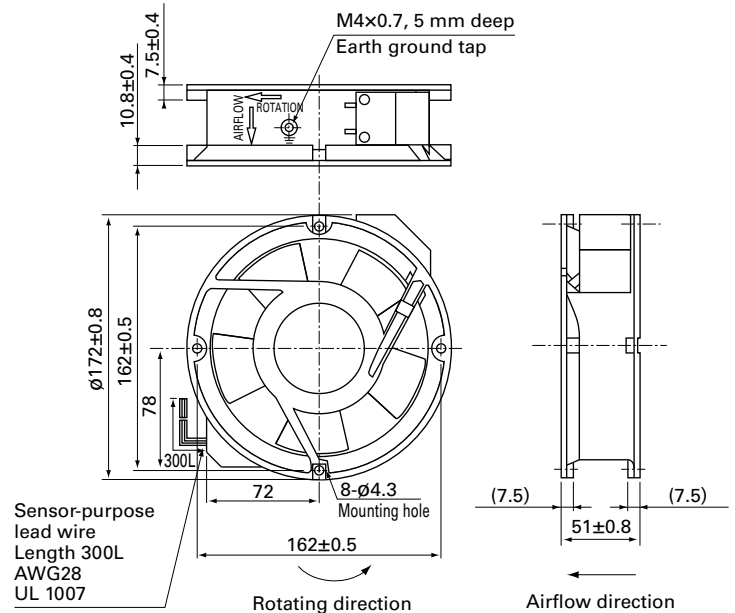


Dimensions (unit: mm)

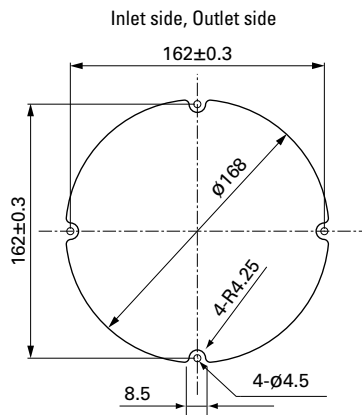
Standard



with Sensor



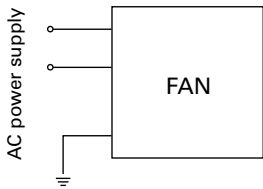
Reference Dimensions of Mounting Holes and Vent Opening (unit: mm)



AC
AC Fan \varnothing 172 mm

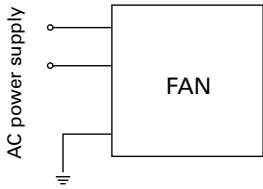
Wiring Diagram

Standard

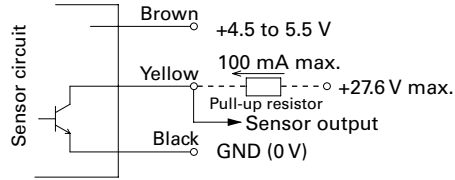


with Sensor

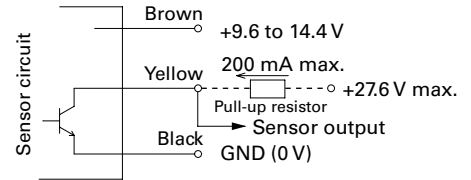
For fan power supply



For sensor circuit
5 V (ITEM-20)



12 V (ITEM-30)



GND (Black) should be shared in case that power supply for sensor circuit (Brown) and that for sensor pull-up (Yellow) are separated.

Options

Finger guards

page: p. 534

Model no.: 109-319E, 109-319H, 109-320, 109-1066,
109-1068

Plug cord

page: pp. 542 to 543

Model no.: 489-1619-L10, 489-1619-L21, 489-084-L10,
489-084-L21