



∅ 172×150×51 mm

San Ace 172     

Sidecut 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) Expected life at 40°C is for reference only.
- Motor structure Capacitor motor
- Motor protection function Locked rotor burnout protection, Reverse polarity protection
For details, please refer to p. 573.
- Dielectric strength 50/60 Hz, 1500 VAC, for 1 minute (between input terminal 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)
- Mass 1000 g

Specifications

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]
109S301	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	51/56	-30 to +60	25000/60°C (56000/40°C)
109S304	115			0.29/0.22	0.55/0.54						
109S302	200			0.16/0.13	0.33/0.32						
109S303	230			0.14/0.11	0.28/0.27						

These are Short LeadTime Service applicable models. Contact your point of sale for stock availability. For more information on the service, see p. 626.

Set Models

Fan, finger guard, plug cord, screws, etc. can be purchased in one package. For details, please refer to p. 627.

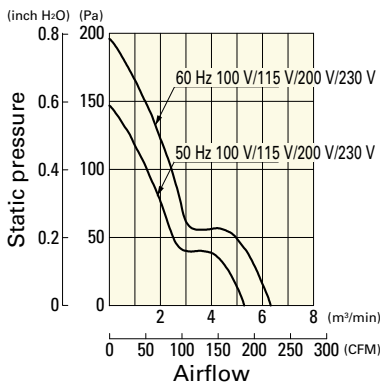
Order no.	Set items					
	Fan	Voltage	Low-speed sensor	Plug cord*	Finger guards	Mounting screws
ST1-109S301	109S301	100 V		489-1619-L10	109-319E	M4×25 mm (4 screws)**
ST1-109S304	109S304	115 V		489-1619-L10	109-319E	
ST1-109S302	109S302	200 V		489-1619-L10	109-319E	
ST1-109S303	109S303	230 V		489-1619-L10	109-319E	

* PSE compatible.

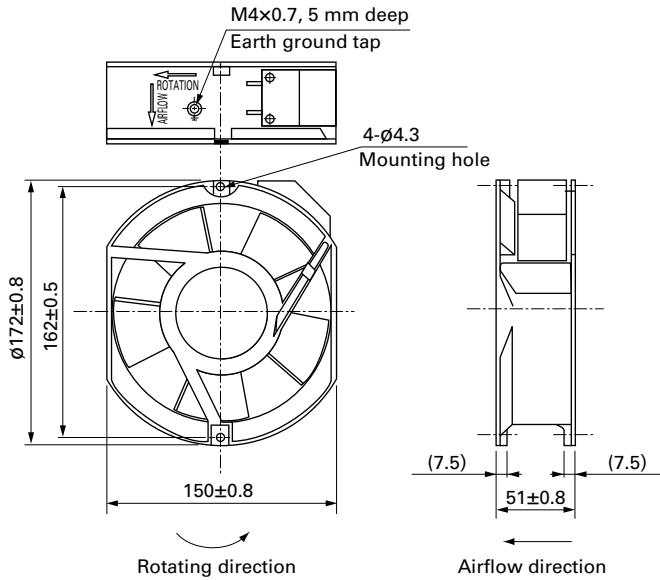
** Though these are 2-hole or 3-hole frame mount types, 4 screws are included for extra.

Airflow - Static Pressure Characteristics

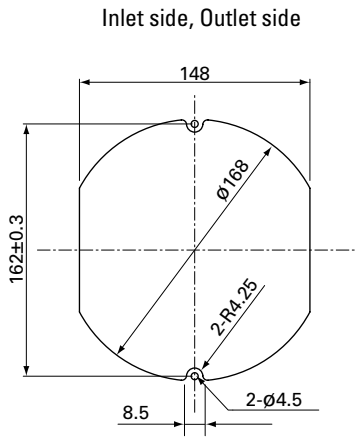
109S301, 109S304, 109S302, 109S303



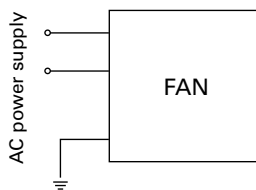
Dimensions (unit: mm)



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



Wiring Diagram



Options

Finger guards

page: p. 560






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

Plug cord

page: pp. 568 to 569

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

∅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) Expected life at 40°C is for reference only.
- Motor structure Capacitor motor
- Motor protection function Locked rotor burnout protection, Reverse polarity protection
For details, please refer to p. 573.
- 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 (56000/40°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. 576. 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 (56000/40°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						

These are Short LeadTime Service applicable models. Contact your point of sale for stock availability. For more information on the service, see p. 626.

Set Models

Fan, finger guard, plug cord, screws, etc. can be purchased in one package. For details, please refer to p. 627.

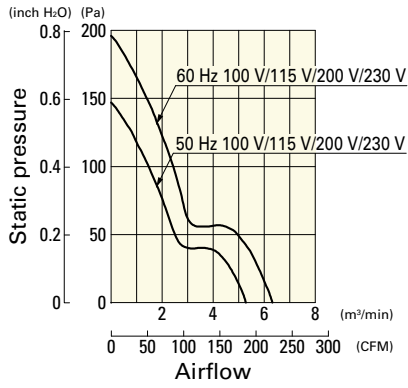
Order no.	Set items					
	Fan	Voltage	Low-speed sensor	Plug cord*	Finger guards	Mounting screws
ST1-109-311	109-311	100 V		489-1619-L10	109-319E	M4×25 mm (4 screws)
ST1-109-314	109-314	115 V		489-1619-L10	109-319E	
ST1-109-312	109-312	200 V		489-1619-L10	109-319E	
ST1-109-313	109-313	230 V		489-1619-L10	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

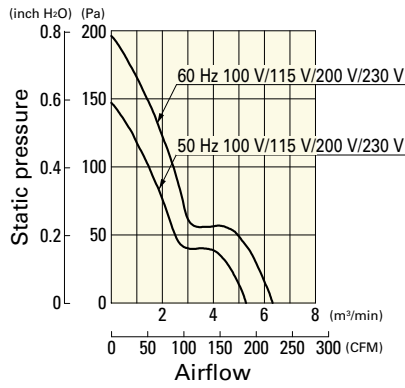
Standard

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



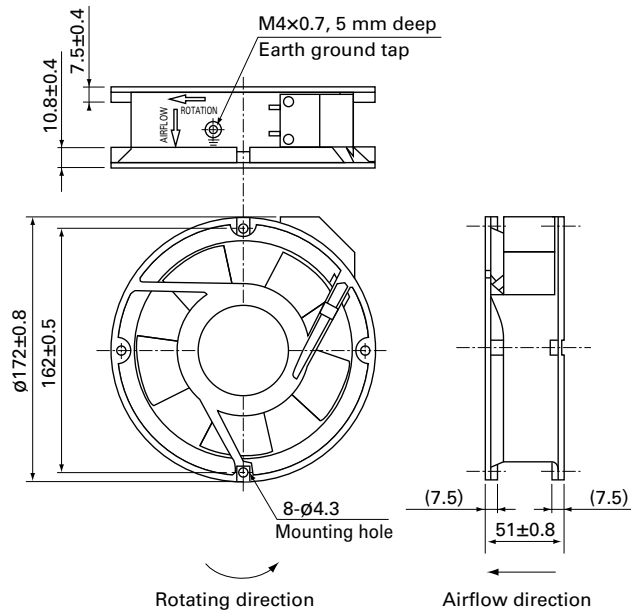
with Sensor

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

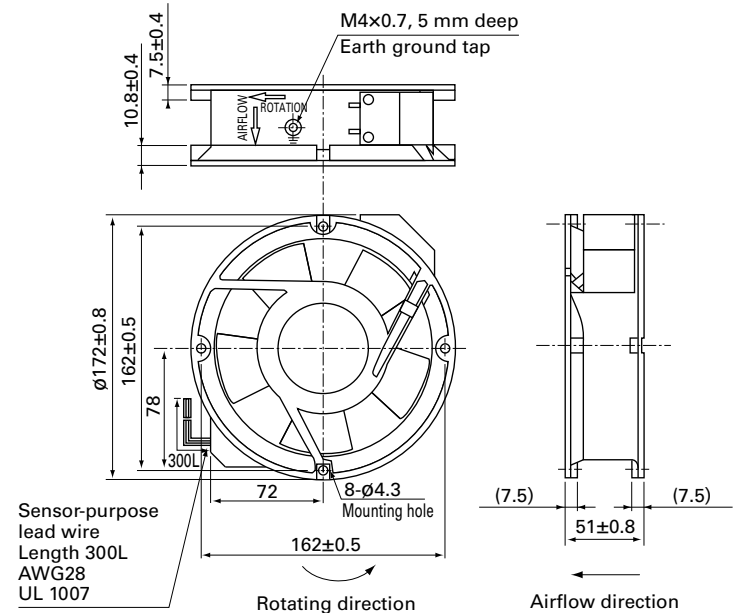


Dimensions (unit: mm)

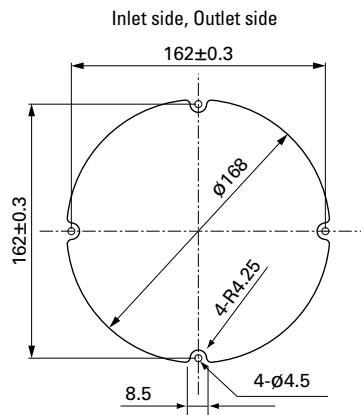
Standard



with Sensor



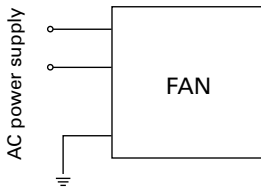
Reference Dimensions of Mounting Holes and Vent Opening (unit: mm)



AC
AC Fan \varnothing 172 mm

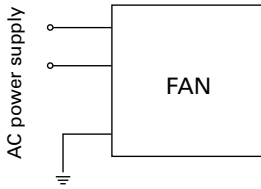
Wiring Diagram

Standard

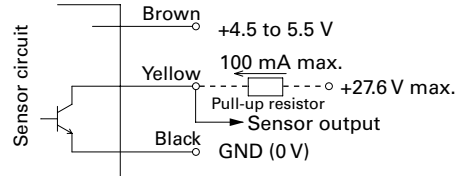


with Sensor

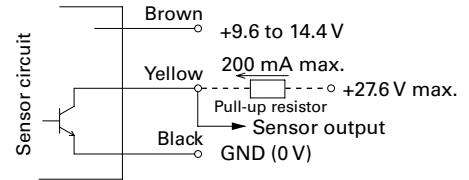
For fan power supply



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. 560

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

Plug cord

page: pp. 568 to 569

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

AC

AC Fan \varnothing 172 mm