

∅ 190x88 mm

San Ace 190AD 9ADW1TU type   

General Specifications

- Material Motor case: Aluminum (Black coating), Impeller: Plastic (Flammability: UL 94V-0)
- Expected life See the table below. (L10 life: 90% survival rate for continuous operation in indoor free air at 60°C, rated voltage) Expected life at 40°C is for reference only.
- Motor protection function Locked rotor burnout protection For details, please refer to p. 580.
- Dielectric strength 50/60 Hz, 1500 VAC, for 1 minute (between lead wire conductors and motor case)
- Insulation resistance 10 MΩ min. at 500 VDC (between lead wire conductors and motor case)
- 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

AC power input	L: Orange	N: Gray	Ground	Yellow / Green
+10 VDC output	Red	Black	Sensor	Yellow
			Control	Brown
- Mass 1700 g
- Ingress protection IP56

Specifications When the optional inlet nozzle (109-1073H) is mounted.

The models listed below **have pulse sensors with PWM control function.**

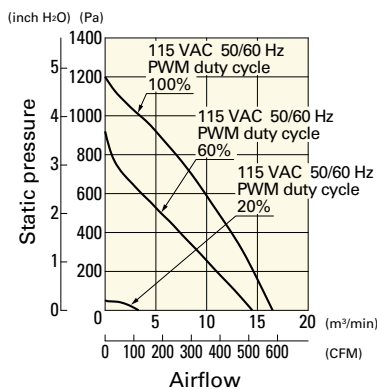
Model no.	Rated voltage [V]	Operating voltage range [V]	Frequency [Hz]	PWM duty cycle [%]	Rated current [A]	Rated input [W]	Rated speed [min ⁻¹]	Max. airflow [m ³ /min] [CFM]	Max. static pressure [Pa] [inchH ₂ O]	SPL [dB (A)]	Operating temperature [°C]	Expected life [h]
9ADW1TU11P0G001	115	90 to 132	50/60	100	2.5	150	4800	16.5 583	1200 4.82	72	-25 to +60	40000/60°C (70000/40°C)
				20	0.3	10	1000	3.3 116	52 0.21	43		
9ADW1TU23P0G001	230	180 to 264		100	1.3	150	4800	16.5 583	1200 4.82	72		
				20	0.2	10	1000	3.3 116	52 0.21	43		

* PWM frequency is 1 kHz. Models without ratings for 0% PWM duty cycle have zero speed at 0%. When control terminal is open, speed is the same as at 100% duty cycle.

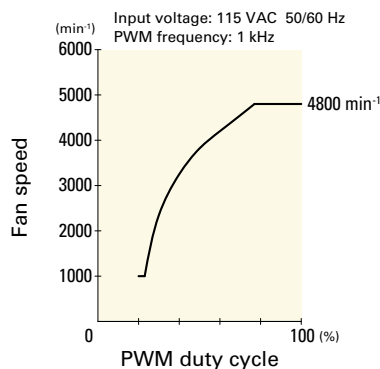
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9ADW1TU11P0G001 With pulse sensor with PWM control function

PWM duty cycle



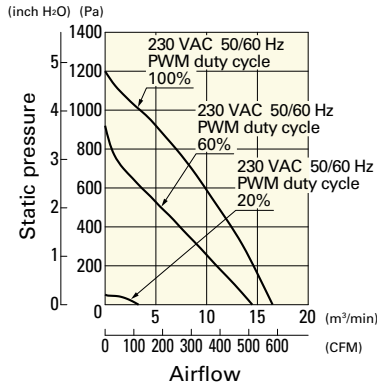
PWM duty - Speed characteristics example



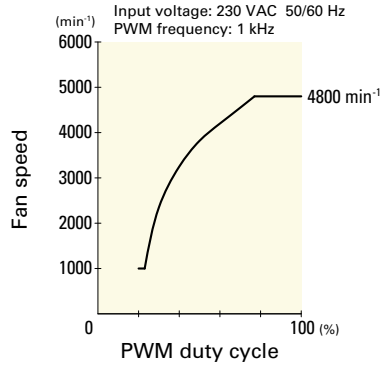
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9ADW1TU23P0G001 With pulse sensor with PWM control function

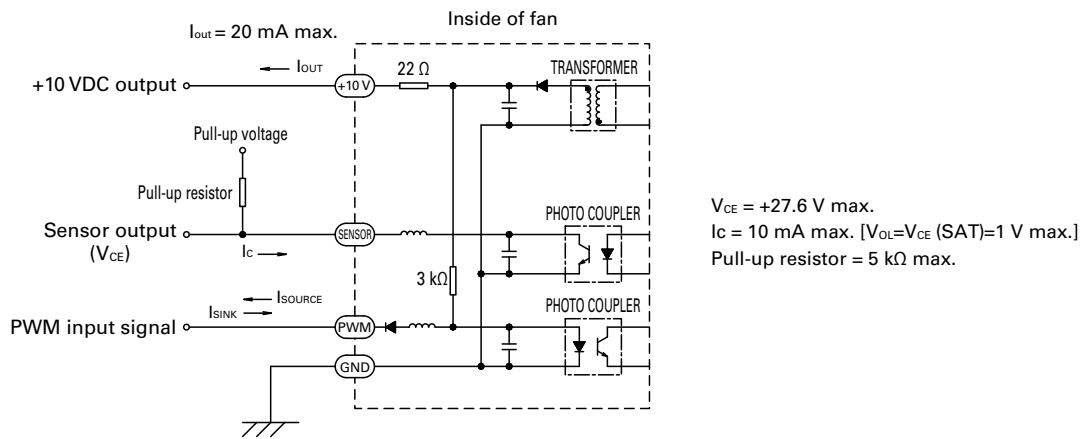
PWM duty cycle



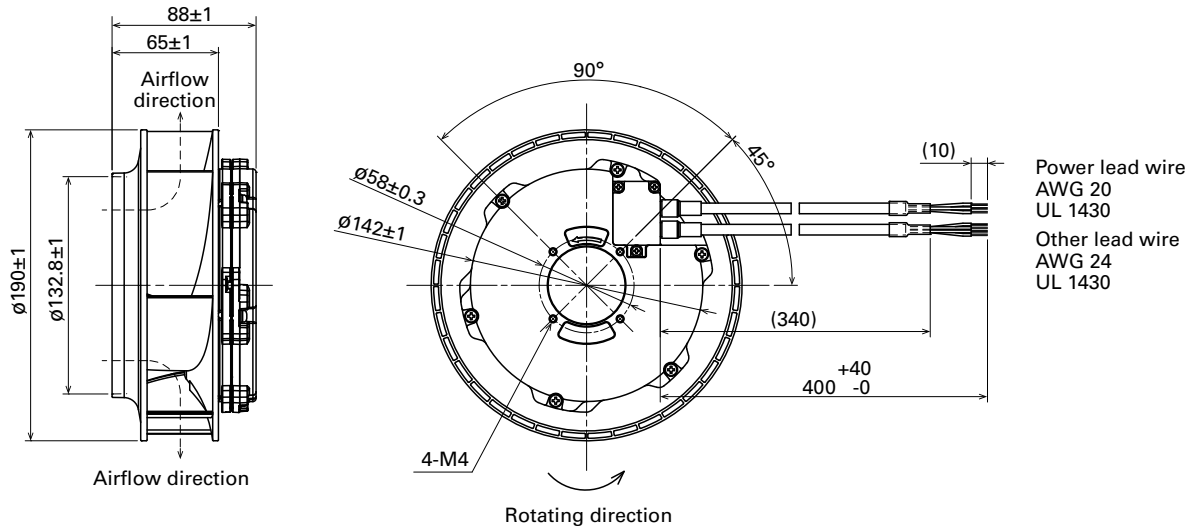
PWM duty - Speed characteristics example



Connection Schematic

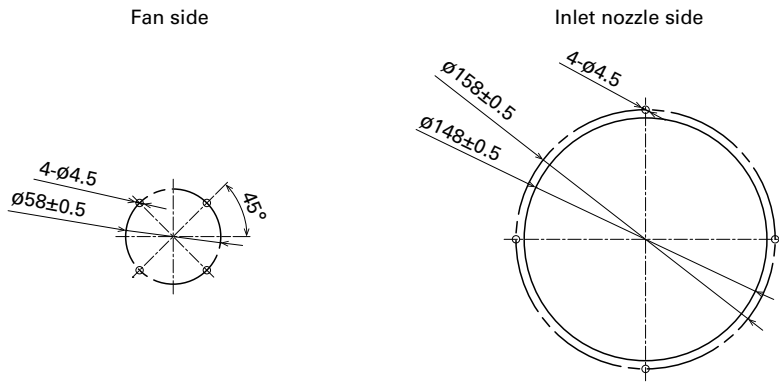


Dimensions (unit: mm)

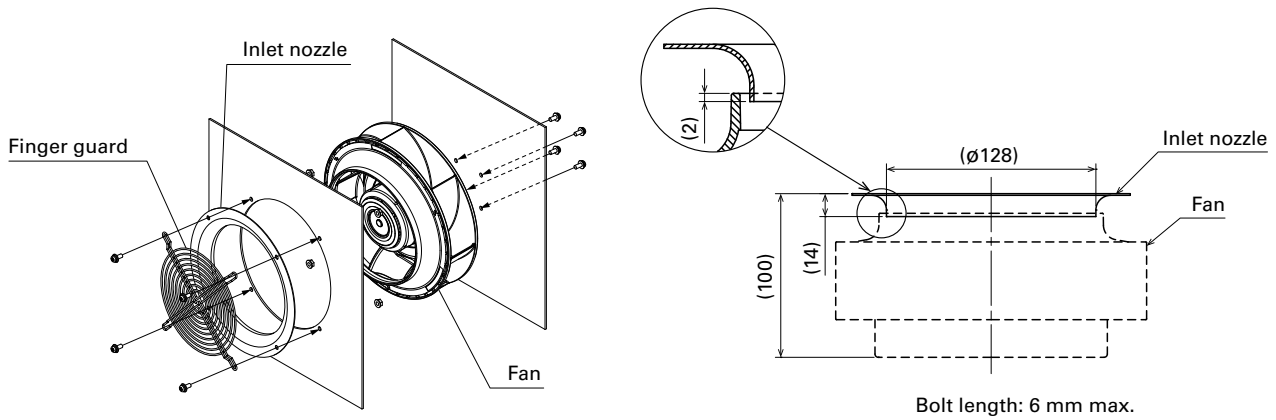


ACDC Fan $\phi 190 \text{ mm}$

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



■ Reference Diagram for Mounting (unit: mm)



■ Options

Finger guards page: p. 565
Model no.: 109-722, 109-722H

Inlet nozzle page: p. 569
Model no.: 109-1073, 109-1073H



Ø225x99 mm

San Ace 225AD 9ADW1TS type   

General Specifications

- Material Motor case: Aluminum (Black coating), Impeller: Plastic (Flammability: UL 94V-0)
- Expected life See the table below. (L10 life: 90% survival rate for continuous operation in indoor free air at 60°C, rated voltage) Expected life at 40°C is for reference only.
- Motor protection function Locked rotor burnout protection For details, please refer to p. 580.
- Dielectric strength 50/60 Hz, 1500 VAC, for 1 minute (between lead wire conductors and motor case)
- Insulation resistance 10 MΩ min. at 500 VDC (between lead wire conductors and motor case)
- 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

AC power input	L: Orange	N: Gray	Ground	Yellow / Green
+10 VDC output	Red	Black	Sensor	Yellow
			Control	Brown
- Mass 1900 g
- Ingress protection IP56

Specifications When the optional inlet nozzle (109-1134H) is mounted.

The models listed below **have pulse sensors with PWM control function.**

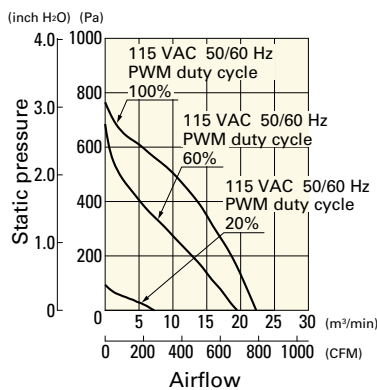
Model no.	Rated voltage [V]	Operating voltage range [V]	Frequency [Hz]	PWM duty cycle [%]	Rated current [A]	Rated input [W]	Rated speed [min ⁻¹]	Max. airflow [m ³ /min] [CFM]	Max. static pressure [Pa] [inchH ₂ O]	SPL [dB (A)]	Operating temperature [°C]	Expected life [h]
9ADW1TS11P0H001	115	90 to 132	50/60	100	2.06	140	3100	22.3 787	760 3.05	73	-20 to +60	40000/60°C (70000/40°C)
				20	0.3	11	1000	7.1 252	80 0.32	50		
9ADW1TS11P0M001	115	90 to 132		100	1.08	61	2350	16.9 597	440 1.77	67		
				20	0.3	11	1000	7.1 252	80 0.32	50		
9ADW1TS23P0H001	230	180 to 264		100	1.06	140	3100	22.3 787	760 3.05	73		
				20	0.2	11	1000	7.1 252	80 0.32	50		
9ADW1TS23P0M001	230	180 to 264	100	0.57	61	2350	16.9 597	440 1.77	67			
			20	0.2	11	1000	7.1 252	80 0.32	50			

* PWM frequency is 1 kHz. Models without ratings for 0% PWM duty cycle have zero speed at 0%. When control terminal is open, speed is the same as at 100% duty cycle.

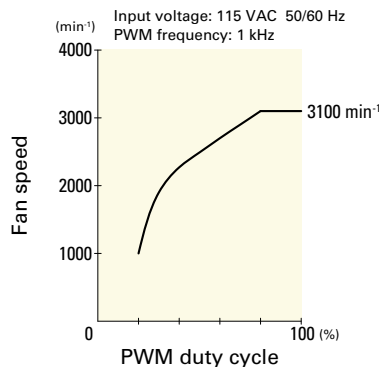
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9ADW1TS11P0H001 With pulse sensor with PWM control function

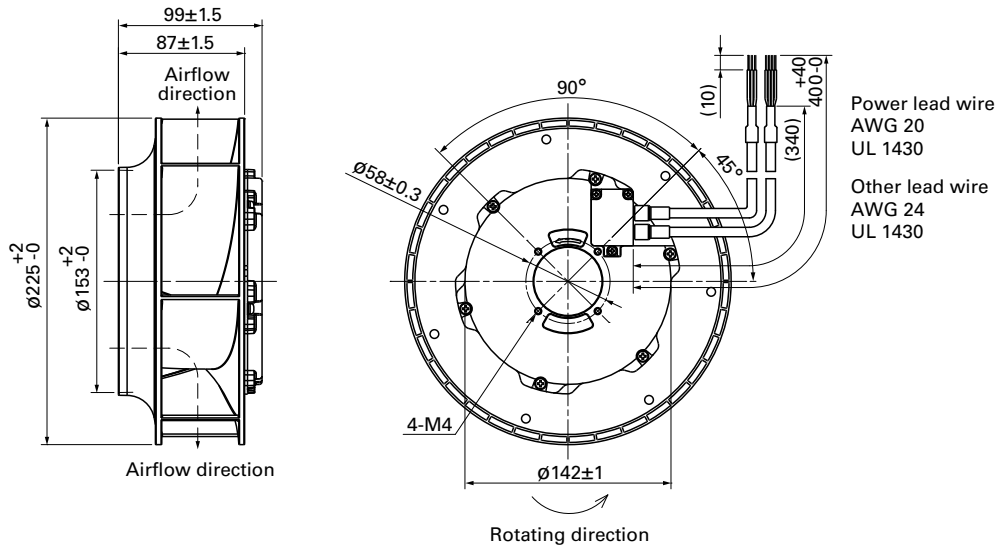
PWM duty cycle



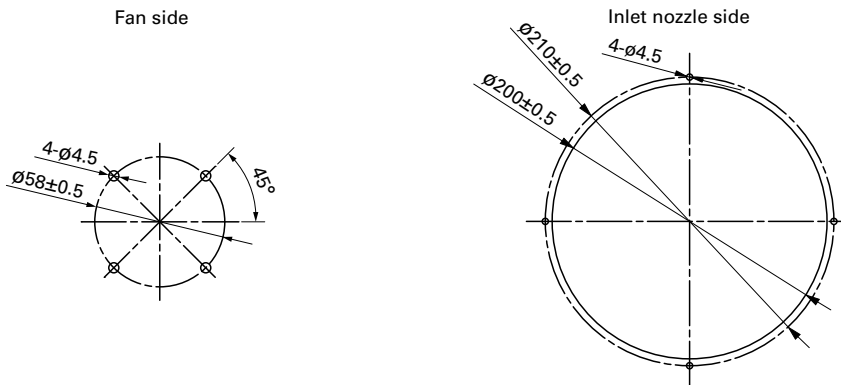
PWM duty - Speed characteristics example



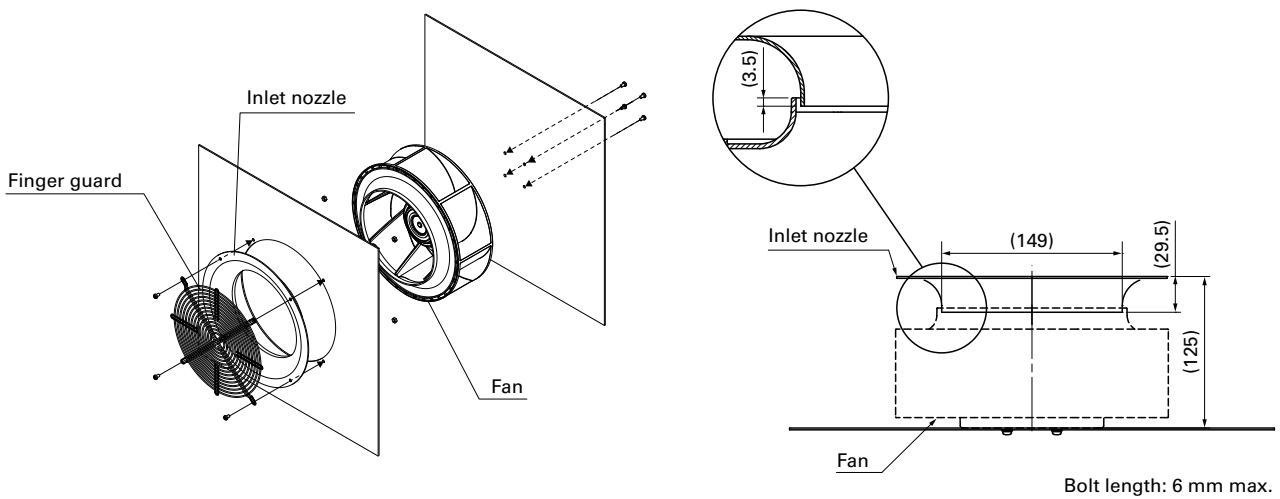
Dimensions (unit: mm)



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



Reference Diagram for Mounting (unit: mm)



Options

Finger guards

page: p. 567

Model no.: 109-1137, 109-1137H

Inlet nozzle

page: p. 569

Model no.: 109-1134, 109-1134H



∅250×99 mm

San Ace 250AD 9ADW1TV type   

General Specifications

- Material Motor case: Aluminum (Black coating), Impeller: Plastic (Flammability: UL 94V-0)
- Expected life See the table below. (L10 life: 90% survival rate for continuous operation in indoor free air at 60°C, rated voltage) Expected life at 40°C is for reference only.
- Motor protection function Locked rotor burnout protection For details, please refer to p. 580.
- Dielectric strength 50/60 Hz, 1500 VAC, for 1 minute (between lead wire conductors and motor case)
- Insulation resistance 10 MΩ min. at 500 VDC (between lead wire conductors and motor case)
- 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

AC power input	L: Orange	N: Gray	Ground	Yellow / Green
+10 VDC output	Red	Black	Sensor	Yellow
			Control	Brown
- Mass 2020 g
- Ingress protection IP56

Specifications When the optional inlet nozzle (109-1151H) is mounted.

The models listed below **have pulse sensors with PWM control function.**

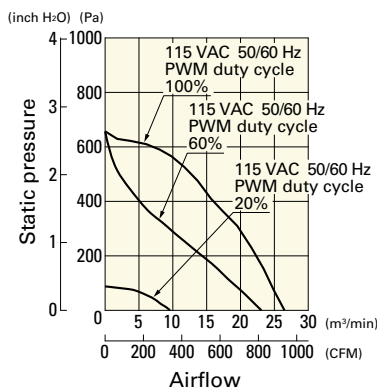
Model no.	Rated voltage [V]	Operating voltage range [V]	Frequency [Hz]	PWM duty cycle [%]	Rated current [A]	Rated input [W]	Rated speed [min ⁻¹]	Max. airflow [m ³ /min] [CFM]	Max. static pressure [Pa] [inchH ₂ O]	SPL [dB (A)]	Operating temperature [°C]	Expected life [h]
9ADW1TV11P0G001	115	90 to 132	50/60	100	2.3	140	2700	26.5 936	650 2.61	71	-25 to +60	40000/60°C (70000/40°C)
				20	0.3	10	1000	9.6 339	88 0.35	57		
9ADW1TV23P0G001	230	180 to 264		100	1.2	140	2700	26.5 936	650 2.61	71		
				20	0.2	10	1000	9.6 339	88 0.35	57		

* PWM frequency is 1 kHz. Models without ratings for 0% PWM duty cycle have zero speed at 0%. When control terminal is open, speed is the same as at 100% duty cycle.

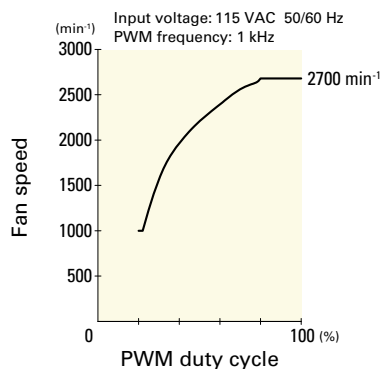
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9ADW1TV11P0G001 With pulse sensor with PWM control function

PWM duty cycle



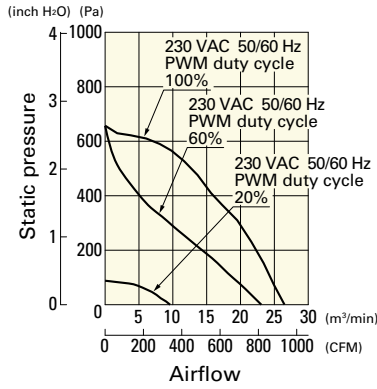
PWM duty - Speed characteristics example



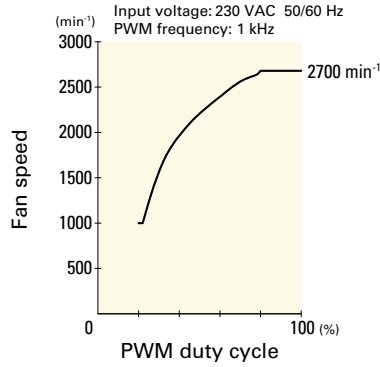
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9ADW1TV23P0G001 With pulse sensor with PWM control function

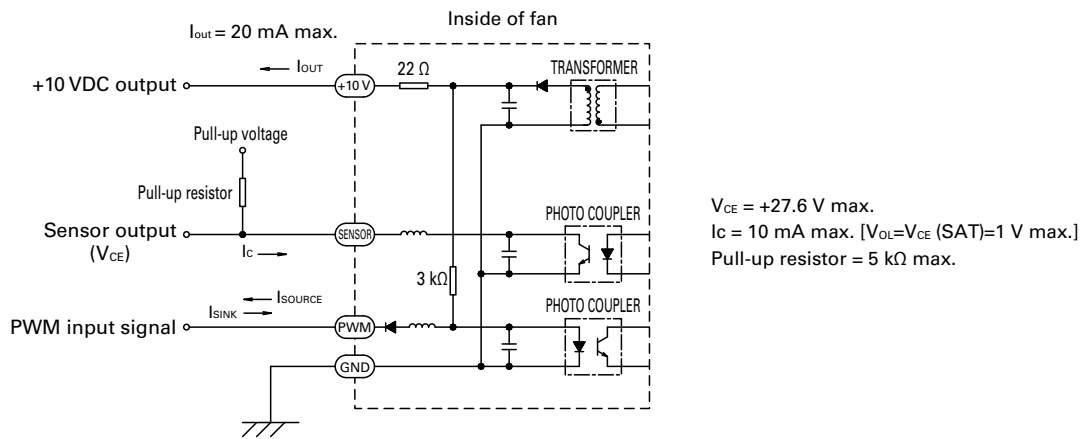
PWM duty cycle



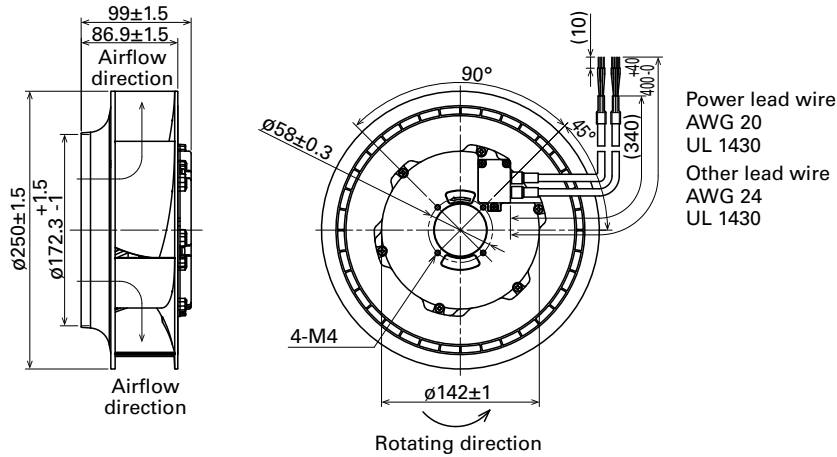
PWM duty - Speed characteristics example



Connection Schematic

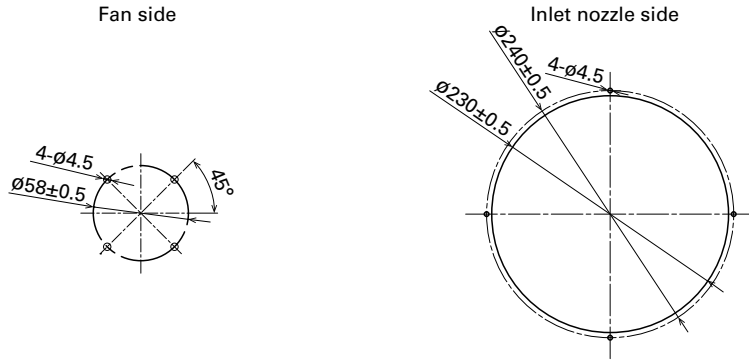


Dimensions (unit: mm)

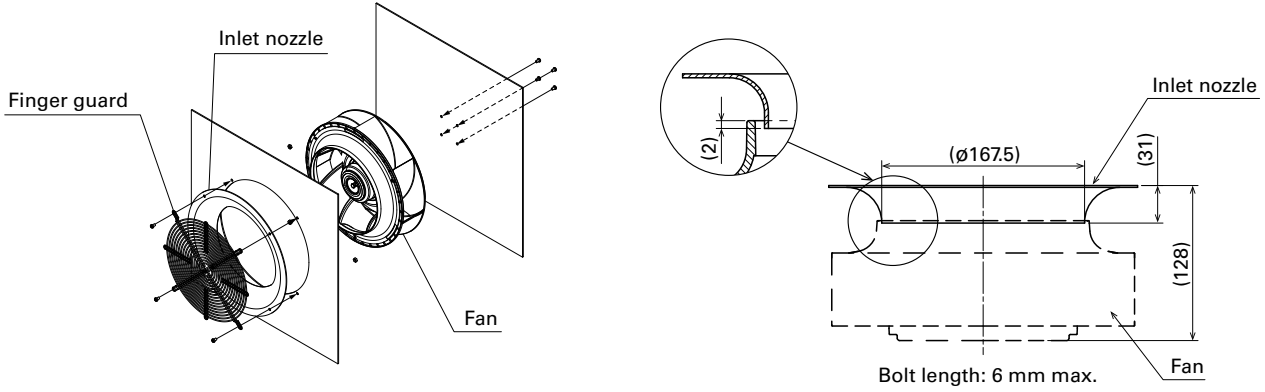


ACDC Fan ϕ 250 mm

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



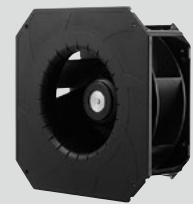
Reference Diagram for Mounting (unit: mm)



Options

Finger guards page: p. 568
 Model no.: 109-1152, 109-1152H

Inlet nozzle page: p. 569
 Model no.: 109-1151, 109-1151H



270x270x119 mm

San Ace 225AD 9ADB1W1TS type

General Specifications

- Material Motor case: Aluminum (Black coating), Impeller: Plastic (Flammability: UL 94V-0)
Bracket: Aluminum (Black coating), Plastic (Flammability: UL94V-0)
- Expected life See the table below. (L10 life: 90% survival rate for continuous operation in indoor free air at 60°C, rated voltage)
Expected life at 40°C is for reference only.
- Motor protection function Locked rotor burnout protection
For details, please refer to p. 580.
- Dielectric strength 50/60 Hz, 1500 VAC, for 1 minute (between lead wire conductors and bracket)
- Insulation resistance 10 MΩ min. at 500 VDC (between lead wire conductors and bracket)
- 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

AC power input	L: Orange	N: Gray	Ground	Yellow / Green
+10 VDC output	Red	Black	Sensor	Yellow
			Control	Brown
- Mass 2600 g
- Ingress protection IP56

Specifications

The models listed below **have pulse sensors with PWM control function.**

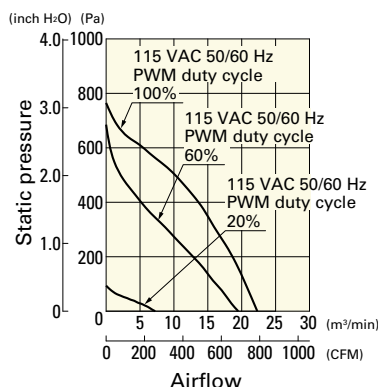
Model no.	Rated voltage [V]	Operating voltage range [V]	Frequency [Hz]	PWM duty cycle [%]	Rated current [A]	Rated input [W]	Rated speed [min ⁻¹]	Max. airflow [m ³ /min] [CFM]	Max. static pressure [Pa] [inchH ₂ O]	SPL [dB (A)]	Operating temperature [°C]	Expected life [h]
9ADB1W1TS11P0H001	115	90 to 132	50/60	100	2.06	140	3100	22.3 787	760 3.05	73	-20 to +60	40000/60°C (70000/40°C)
				20	0.3	11	1000	7.1 252	80 0.32	50		
9ADB1W1TS11P0M001	115	90 to 132	50/60	100	1.08	61	2350	16.9 597	440 1.77	67		
				20	0.3	11	1000	7.1 252	80 0.32	50		
9ADB1W1TS23P0H001	230	180 to 264	50/60	100	1.06	140	3100	22.3 787	760 3.05	73		
				20	0.2	11	1000	7.1 252	80 0.32	50		
9ADB1W1TS23P0M001	230	180 to 264	50/60	100	0.57	61	2350	16.9 597	440 1.77	67		
				20	0.2	11	1000	7.1 252	80 0.32	50		

* PWM frequency is 1 kHz. Models without ratings for 0% PWM duty cycle have zero speed at 0%. When control terminal is open, speed is the same as at 100% duty cycle.

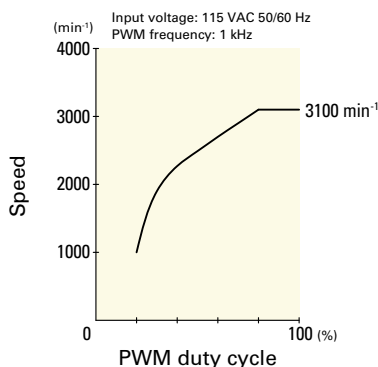
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9ADB1W1TS11P0H001 With pulse sensor with PWM control function

PWM duty cycle



PWM duty - Speed characteristics example

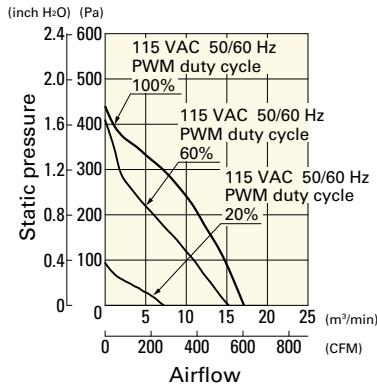


ACDC Fan 270 mm sq. ACDC

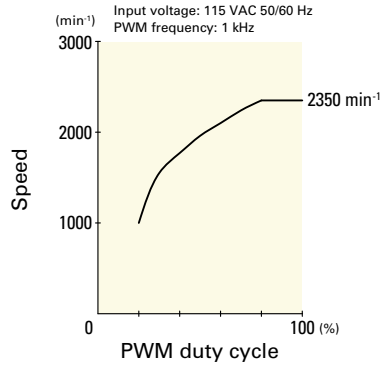
Airflow - Static Pressure Characteristics / PWM Duty - Speed Characteristics Example

9ADB1W1TS11P0M001 With pulse sensor with PWM control function

PWM duty cycle

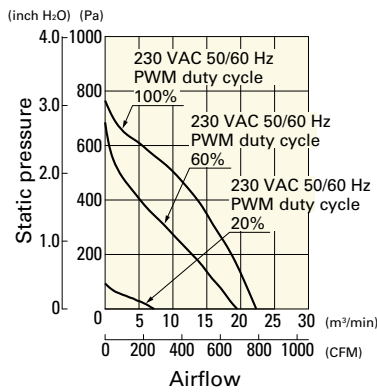


PWM duty - Speed characteristics example

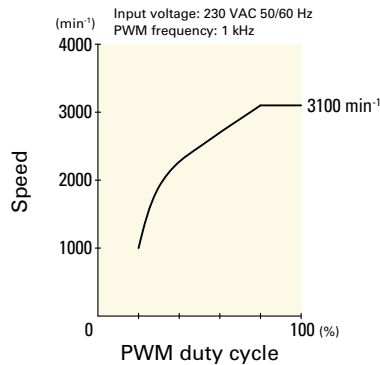


9ADB1W1TS23P0H001 With pulse sensor with PWM control function

PWM duty cycle

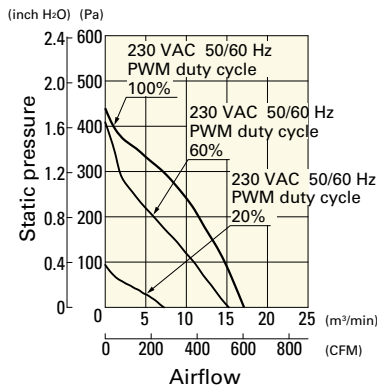


PWM duty - Speed characteristics example

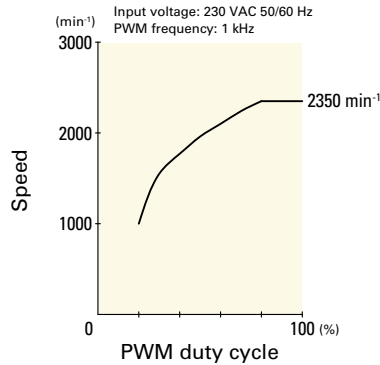


9ADB1W1TS23P0M001 With pulse sensor with PWM control function

PWM duty cycle



PWM duty - Speed characteristics example



ACDC Fan 270 mm sq.

Connection Schematic

