DC Fan

Wide lineup including low power consumption fans (9GA type), silent fans (9S type), and high airflow and high static pressure fans.

Model Numbering System

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

9GV	12	12	J	1	01	1
Type name	Frame size	Voltage	Speed code	Frame thickness	Sensor specifications	Frame form

Fans with PWM control function

9GV	12	12	P	4	G	01	
Type name	Frame size	Voltage	PWM control function	Frame thickness	Speed code	Individual customer's spec (2 to 4 digits)	Frame form

Type name	9E 9P 9R 9A 9EC 9G 9GA 9GAX 9GV 9GE 9GX 9HV 9HVA 9S 9SG
Frame size (mm)	03: 38×38; 04: 40×40; 05: 52×52; 06: 60×60; 08: 80×80; 09: 92×92; 12: 120×120; 13: 127×127; 14: 140×140; 15: 150×150; 17: ø172; 36: 36×36; 47: ø172×147 (sidecut); 57: ø172×150 (sidecut); 20: ø200
Voltage (V)	05: 5; 12: 12; 24: 24; 48: 48; etc.
Speed code	A B C D E F G H J K L M S W etc.
Frame thickness (mm)	0: 70; 1: 38; 2: 32; 3: 28; 4: 25; 5: 50, 51; 6: 20; 7: 15; 9: 10
Sensor specifications	01 or 001: With a pulse sensor; 02 or 002: Without a sensor; D01 or D001: With a lock sensor
Frame form	Nil: Plastic frame: Ribbed frame, Aluminum frame: Ribless frame; 1: Plastic frame: Ribless frame; 3: 40 × 40 × 28 mm for 1U applications, Plastic frame: Ribbed frame

How to Read Specifications (DC fan)

Model no.	Rated voltage [V]	Operating voltage range [V]	Rated current [A]	Rated input [W]	Rated speed [min⁻¹]	Max. airflow [m³/min]	Max. airflow [CFM]	Max. static pressure [Pa]	Max. static pressure [inchH₂O]	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 maximum airflow that the fan can generate during rated operation (measured with our double chamber measuring device). Airflow is the volume of air generated by the fan per unit of time.
Max. static pressure ····· The maximum static pressure value that the fan can produce during rated operation (measured with our double chamber measuring device). Static pressure indicates a fan's ability to move air against resistance due to the internal structure of the device to which the fan is installed.
SPL ····· SPL stands for Sound Pressure Level. The noise level during the fan's rated operation. Please refer to the technical material section for the measurement method.
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.

Counter Rotating Fan

Counter rotating fans feature high airflow and high static pressure.
Related product: Long Life Fan pp. 361, 366

Model Numbering System

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

9CRA	04	12	K	4	01
Type name	Frame size	Voltage	Speed code	Frame thickness	Sensor specifications

Fans with PWM control function

9CRA	03	12	P	4	K	03
Type name	Frame size	Voltage	PWM control function	Frame thickness	Speed code	Individual customer's spec (2 to 3 digits)

Type name	9CR	9CRA	9CRB	9CRD	9CRE	9CRH	9CRV
Frame size (mm)	03 38×38	04 40×40	06 60×60	08 80×80	12 120×120	57 ø172×150 (sidecut)	
Voltage (V)	12 12	48 48					
Speed code	G	H	J	K	S	etc.	
Frame thickness (mm)	0 76	4 48	5 51, 56	6 56	8 80	9 102	
Sensor specifications	01 With a pulse sensor		02 Without a sensor		D01 With a lock sensor		

How to Read Specifications (DC fan)

Model no.	Rated voltage [V]	Operating voltage range [V]	Rated current [A]	Rated input [W]	Rated speed [min⁻¹]	Max. airflow [m³/min]	Max. airflow [CFM]	Max. static pressure [Pa]	Max. static pressure [inchH₂O]	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 maximum airflow that the fan can generate during rated operation (measured with our double chamber measuring device). Airflow is the volume of air generated by the fan per unit of time.
Max. static pressure ····· The maximum static pressure value that the fan can produce during rated operation (measured with our double chamber measuring device). Static pressure indicates a fan's ability to move air against resistance due to the internal structure of the device to which the fan is installed.
SPL ····· SPL stands for Sound Pressure Level. The noise level during the fan's rated operation. Please refer to the technical material section for the measurement method.
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.

Reversible Flow Fan

The wind directions can be switched with these fans. Equivalent cooling performance can be obtained in both directions.

Model Numbering System

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

9RF	13	12	P	3	H	001
Type name	Frame size	Voltage	PWM control function	Frame thickness	Speed code	Individual customer's spec

Type name	9RF
Frame size (mm)	09 (ø92) 13 (ø136)
Voltage (V)	12 24 12 24
Frame thickness (mm)	1 3 38 28
Speed code	H

How to Read Specifications (DC fan)

Model no.	Rated voltage [V]	Operating voltage range [V]	Rated current [A]	Rated input [W]	Rated speed [min⁻¹]	Max. airflow [m³/min]	Max. airflow [CFM]	Max. static pressure [Pa]	Max. static pressure [inchH₂O]	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 maximum airflow that the fan can generate during rated operation (measured with our double chamber measuring device). Airflow is the volume of air generated by the fan per unit of time.
Max. static pressure ····· The maximum static pressure value that the fan can produce during rated operation (measured with our double chamber measuring device). Static pressure indicates a fan's ability to move air against resistance due to the internal structure of the device to which the fan is installed.
SPL ····· SPL stands for Sound Pressure Level. The noise level during the fan's rated operation. Please refer to the technical material section for the measurement method.
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.

Splash Proof Fan

Cooling fan of IP54, IP55 and IP68 waterproof capability. For more information on IP rating, refer to p. 534.
Related product: Splash Proof Centrifugal Fan p. 319, Oil Proof Fan p. 333

Model Numbering System

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

9WS	08	12	H	4	01	
Type name	Frame size	Voltage	Speed code	Frame thickness	Sensor specifications	Frame form

Fans with PWM control function

9WV	08	48	P	1	H	001	
Type name	Frame size	Voltage	PWM control function	Frame thickness	Speed code	Individual customer's spec (2 to 3 digits)	Frame form

Type name	9W 9WB 9WE 9WG 9WL 9WP 9WS 9WV
Frame size (mm)	04 (40×40) 06 (60×60) 08 (80×80) 09 (92×92) 12 (120×120) 14 (140×140) 17 (ø172) 57 (ø172×150 (sidecut))
Voltage (V)	12 24 48 12 24 48 etc.
Speed code	A D E F G H J L M S etc.
Frame thickness (mm)	1 (38) 4 (25) 5 (51) 6 (20)
Sensor specifications	01 With a pulse sensor 02 Without a sensor D01 With a lock sensor
Frame form	Nil Plastic frame: Ribbed frame Aluminum frame: Ribless frame 1 Plastic frame: Ribless frame

How to Read Specifications (DC fan)

Model no.	Rated voltage [V]	Operating voltage range [V]	Rated current [A]	Rated input [W]	Rated speed [min⁻¹]	Max. airflow [m³/min]	Max. airflow [CFM]	Max. static pressure [Pa]	Max. static pressure [inchH₂O]	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 maximum airflow that the fan can generate during rated operation (measured with our double chamber measuring device). Airflow is the volume of air generated by the fan per unit of time.
Max. static pressure ····· The maximum static pressure value that the fan can produce during rated operation (measured with our double chamber measuring device). Static pressure indicates a fan's ability to move air against resistance due to the internal structure of the device to which the fan is installed.
SPL ····· SPL stands for Sound Pressure Level. The noise level during the fan's rated operation. Please refer to the technical material section for the measurement method.
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.

Splash Proof Centrifugal Fan

Centrifugal fans of IP54 and IP56 waterproof capability. For more information on IP rating, refer to p. 534.
Related product: Splash Proof Fan p. 265, Centrifugal Fan p. 413, Oil Proof Fan p. 333

Model Numbering System

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

9W1T	M	48	P	4	H	01
Type name	Impeller size	Voltage	PWM control function	Thickness	Speed code	Individual customer's spec (2 to 3 digits)

Type name	9W1T	9W2T					
Impeller size (mm)	G	J	M	N	P	S	
	ø175	ø133	ø100	ø150	ø221	ø225	
Voltage (V)	24	48					
	24	48					
Thickness (mm)	0	1	4				
	69 min.	35	25				
Speed code	H	G	S	etc.			

How to Read Specifications (DC fan)

Model no.	Rated voltage [V]	Operating voltage range [V]	Rated current [A]	Rated input [W]	Rated speed [min⁻¹]	Max. airflow [m³/min]	Max. airflow [CFM]	Max. static pressure [Pa]	Max. static pressure [inchH₂O]	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 maximum airflow that the fan can generate during rated operation (measured with our double chamber measuring device). Airflow is the volume of air generated by the fan per unit of time.
Max. static pressure ····· The maximum static pressure value that the fan can produce during rated operation (measured with our double chamber measuring device). Static pressure indicates a fan's ability to move air against resistance due to the internal structure of the device to which the fan is installed.
SPL ····· SPL stands for Sound Pressure Level. The noise level during the fan's rated operation. Please refer to the technical material section for the measurement method.
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.

Oil Proof Fan

Cooling fan capable of operating in an oil-mist environment.
Related product: Splash Proof Fan p. 265, Splash Proof Centrifugal Fan p. 319

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

How to Read Specifications (DC fan)

Model no.	Rated voltage [V]	Operating voltage range [V]	Rated current [A]	Rated input [W]	Rated speed [min⁻¹]	Max. airflow [m³/min]	Max. airflow [CFM]	Max. static pressure [Pa]	Max. static pressure [inchH₂O]	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 maximum airflow that the fan can generate during rated operation (measured with our double chamber measuring device). Airflow is the volume of air generated by the fan per unit of time.
Max. static pressure ····· The maximum static pressure value that the fan can produce during rated operation (measured with our double chamber measuring device). Static pressure indicates a fan's ability to move air against resistance due to the internal structure of the device to which the fan is installed.
SPL ····· SPL stands for Sound Pressure Level. The noise level during the fan's rated operation. Please refer to the technical material section for the measurement method.
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.

Long Life Fan

Cooling fan with Max. 200,000 hours of expected life.
Related product: Splash Proof Fan pp. 268, 271, 277, 286

Model Numbering System

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

109L	06	12	H	4	01
Type name	Frame size	Voltage	Speed code	Frame thickness	Sensor specifications

Fans with PWM control function

9LG	06	12	P	4	S	001
Type name	Frame size	Voltage	PWM control function	Frame thickness	Speed code	Individual customer's spec (2 to 3 digits)

Type name	109L 9CRL 9GL 9L 9LB 9LG
Frame size (mm)	04 (40×40) 06 (60×60) 08 (80×80) 09 (92×92) 12 (120×120) 14 (140×140) 17 (ø172) 57 (ø172×150 (sidecut))
Voltage (V)	12 24 48 12 24 48 etc.
Speed code	E F G H J L M S etc.
Frame thickness (mm)	0 (76) 1 (38) 3 (28) 4 (25) 5 (51) 8 (80)
Sensor specifications	01 With a pulse sensor 02 Without a sensor D01 With a lock sensor

How to Read Specifications (DC fan)

Model no.	Rated voltage [V]	Operating voltage range [V]	Rated current [A]	Rated input [W]	Rated speed [min⁻¹]	Max. airflow [m³/min]	Max. airflow [CFM]	Max. static pressure [Pa]	Max. static pressure [inchH₂O]	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 maximum airflow that the fan can generate during rated operation (measured with our double chamber measuring device). Airflow is the volume of air generated by the fan per unit of time.
Max. static pressure ····· The maximum static pressure value that the fan can produce during rated operation (measured with our double chamber measuring device). Static pressure indicates a fan's ability to move air against resistance due to the internal structure of the device to which the fan is installed.
SPL ····· SPL stands for Sound Pressure Level. The noise level during the fan's rated operation. Please refer to the technical material section for the measurement method.
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.

Wide Temperature Range Fan

These fans can be used in a wide temperature range from -40 to +85˚C.

Model Numbering System

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

9GT	04	12	P	3	J	001
Type name	Frame size	Voltage	PWM control function	Frame thickness	Speed code	Individual customer's spec

Type name	9GT
Frame size (mm)	04 (40×40) 06 (60×60) 08 (80×80) 09 (92×92) 12 (120×120)
Voltage (V)	12 12 / 24 24
Frame thickness (mm)	1 38 / 3 28 / 4 25
Speed code	J

How to Read Specifications (DC fan)

Model no.	Rated voltage [V]	Operating voltage range [V]	Rated current [A]	Rated input [W]	Rated speed [min⁻¹]	Max. airflow [m³/min]	Max. airflow [CFM]	Max. static pressure [Pa]	Max. static pressure [inchH₂O]	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 maximum airflow that the fan can generate during rated operation (measured with our double chamber measuring device). Airflow is the volume of air generated by the fan per unit of time.

Max. static pressure ····· The maximum static pressure value that the fan can produce during rated operation (measured with our double chamber measuring device). Static pressure indicates a fan's ability to move air against resistance due to the internal structure of the device to which the fan is installed.

SPL ····· SPL stands for Sound Pressure Level. The noise level during the fan's rated operation. Please refer to the technical material section for the measurement method.

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.

G Proof Fan

These fans are suitable for cooling CT scanners and other devices subject to high G-force or vibration.

Model Numbering System

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

9GP	12	24	P	1	G	001
Type name	Frame size	Voltage	PWM control function	Frame thickness	Speed code	Individual customer's spec (3 digits)

Type name	9GP
Frame size (mm)	12 (120×120) 57 (ø172×150 (sidecut))
Voltage (V)	24 48 24 48
Frame thickness (mm)	1 5 38 51
Speed code	G H

How to Read Specifications (DC fan)

Model no.	Rated voltage [V]	Operating voltage range [V]	Rated current [A]	Rated input [W]	Rated speed [min⁻¹]	Max. airflow [m³/min]	Max. airflow [CFM]	Max. static pressure [Pa]	Max. static pressure [inchH₂O]	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 maximum airflow that the fan can generate during rated operation (measured with our double chamber measuring device). Airflow is the volume of air generated by the fan per unit of time.

Max. static pressure ····· The maximum static pressure value that the fan can produce during rated operation (measured with our double chamber measuring device). Static pressure indicates a fan's ability to move air against resistance due to the internal structure of the device to which the fan is installed.

SPL ····· SPL stands for Sound Pressure Level. The noise level during the fan's rated operation. Please refer to the technical material section for the measurement method.

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.

Centrifugal Fan

Cooling fan blows air in a centrifugal course. It features high static pressure.
Related product: Splash Proof Centrifugal Fan p. 319

Model Numbering System

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

9T	M	48	P	4	H	01
Type name	Impeller size	Voltage	PWM control function	Thickness	Speed code	Individual customer's spec (2 to 3 digits)

Bracket-mounted Centrifugal Fan

9B1T	P	48	P	0	H	001
Type name	Impeller size	Voltage	PWM control function	Thickness	Speed code	Individual customer's spec (3 digits)

Type name	9B1T	9T				
Impeller size (mm)	G, GA	J	M	N	P	S
	ø175	ø133	ø100	ø150	ø221	ø225
Voltage (V)	24	48				
	24	48				
Thickness (mm)	0		1	4		
	69 min., 99, 119		35	25		
Speed code	H	G	etc.			

How to Read Specifications (DC fan)

Model no.	Rated voltage [V]	Operating voltage range [V]	Rated current [A]	Rated input [W]	Rated speed [min⁻¹]	Max. airflow [m³/min]	Max. airflow [CFM]	Max. static pressure [Pa]	Max. static pressure [inchH₂O]	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 maximum airflow that the fan can generate during rated operation (measured with our double chamber measuring device). Airflow is the volume of air generated by the fan per unit of time.
Max. static pressure ····· The maximum static pressure value that the fan can produce during rated operation (measured with our double chamber measuring device). Static pressure indicates a fan's ability to move air against resistance due to the internal structure of the device to which the fan is installed.
SPL ····· SPL stands for Sound Pressure Level. The noise level during the fan's rated operation. Please refer to the technical material section for the measurement method.
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.

Blower

Cooling fan specialized for high static pressure.

Model Numbering System

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

109B	C	12	H	C	2	-1
Type name	Frame size	Voltage	Speed code	Sensor specifications	Frame thickness	Individual customer's spec

9B	MB	12	G	2	01	-1
Type name	Frame size	Voltage	Speed code	Frame thickness	Sensor specifications	Individual customer's spec

Fans with PWM control function

9B	MB	12	P	2	G	01
Type name	Frame size	Voltage	PWM control function	Frame thickness	Speed code	Individual customer's spec (2 to 3 digits)

Type name	109B	9B				
Frame size (mm)	C	D	F, FB	G	J	M, MB, MC
	52	76	120	160	127	97
Voltage (V)	12	24				
	12	24				
Speed code	F	G	H	K	M	S etc.
Sensor specifications	A, 02	C, 01	D			
	Without a sensor	With a pulse sensor	With a lock sensor			
Frame thickness (mm)	1	2	7	6		
	40	30, 32, 33	15	20		

How to Read Specifications (DC fan)

Model no.	Rated voltage [V]	Operating voltage range [V]	Rated current [A]	Rated input [W]	Rated speed [min^{-1}]	Max. airflow [m^3/min]	Max. airflow [CFM]	Max. static pressure [Pa]	Max. static pressure [inchH$_2$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 maximum airflow that the fan can generate during rated operation (measured with our double chamber measuring device).
Airflow is the volume of air generated by the fan per unit of time.
Max. static pressure ····· The maximum static pressure value that the fan can produce during rated operation (measured with our double chamber measuring device).
Static pressure indicates a fan's ability to move air against resistance due to the internal structure of the device to which the fan is installed.
SPL ····· SPL stands for Sound Pressure Level. The noise level during the fan's rated operation.
Please refer to the technical material section for the measurement method.
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.

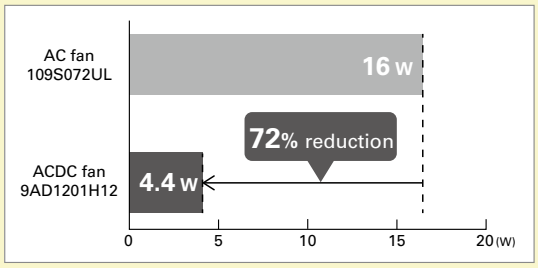
ACDC Fan

This fan works while internally converting AC power into DC power, providing the superior performance of a DC fan with the flexibility of AC input.

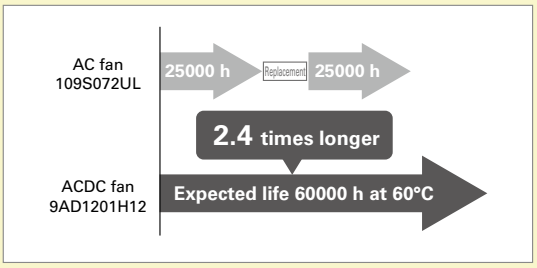
Low power consumption | Long life | Wide voltage range (Compared with our existing AC fan with equal size.)

With AC input, the same level of energy saving and long life as a DC fan can be achieved.
The maintenance effort can be reduced too.

Power consumption comparison



Expected life comparison



Model Numbering System

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

9AD	09	01	H	1	2	
Type name	Frame size	Voltage	Speed code	Frame thickness	Sensor specifications	Frame form

Type name	9AD	
Frame size (mm)	09 92×92	12 120×120
Voltage (V)	01 100 to 240	
Speed code	H	M etc.
Frame thickness (mm)	1 38	
Sensor specifications	2 Without a sensor	H With a low-speed sensor
Frame form	Nil Plastic frame: Ribbed frame	1 Plastic frame: Ribless frame

How to Read Specifications (ACDC fan)

Model no.	Rated voltage [V]	Operating voltage range [V]	Frequency [Hz]	Rated current [A]	Rated input [W]	Rated speed [min⁻¹]	Max. airflow [m³/min]	Max. airflow [CFM]	Max. static pressure [Pa]	Max. static pressure [inchH₂O]	SPL [dB (A)]	Operating temperature [°C]	Expected life [h]
9AD0901H12	100 to 240	90 to 264	50/60	0.08	4.5	3850	1.5	53.0	90	0.36	40	-20 to +75	60000/60°C
9AD0901M12				0.06	3.0	3100	1.18	41.7	56	0.22	33		

Rated voltage ····· This is the necessary voltage to drive the fan. Single-phase 100 to 240 VAC are also available.
Operating voltage range ····· The voltage range over which fan operation is guaranteed.
Frequency ····· This is a frequency of alternating current (AC). The frequencies of 50 Hz and 60 Hz are existing in Japan.
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 maximum airflow that the fan can generate during rated operation (measured with our double chamber measuring device). Airflow is the volume of air generated by the fan per unit of time.
Max. static pressure ····· The maximum static pressure value that the fan can produce during rated operation (measured with our double chamber measuring device). Static pressure indicates a fan's ability to move air against resistance due to the internal structure of the device to which the fan is installed.
SPL ····· SPL stands for Sound Pressure Level. The noise level during the fan's rated operation. Please refer to the technical material section for the measurement method.
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. For more information, please refer to the technical material section.