DC Fan

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

Model	Numberir	ng S	ys	ter	n r	Not ev	very co	mbinati	on o	f the f	ollowi	ng c	odes	or chara	cters i	s av	ailable	e. Contac	t us for a	n availabl	e combina
9GV	12		1	2			J		1			0′	I		1						
Type name	Frame size		Volt	age		Spee	ed code	Fram	e thic	kness	Sensor	spec	fications	Fran	ne form						
ans with P	WM contro	ol fur	ncti	ion																	
9GV	12		1	2			Ρ		4			G	ì	()1						
Type name	Frame size		Volt	age		PWM co	ntrol functio	n Fram	e thic	kness	Spe	eed	code		customer's s 4 digits)	pec	Fran	ne form			
Type name		9E		9P	(9R	9A	9EC	90	3 9	GA 9	9GA	X 9	GV 9	GE	9G>	(91	1V 9HV	'A 9S	9SG	
Frame size (n	nm)	03 38×		04 40×		05 2×52	06 60×6	80 8×08 0	80 9:	09 2×92	12 120×12	20 1	13 27×127	14 140×14(15) 150×1		17 ø172	36 36×36	47 Ø172×14 (sidecut)	57 Ø172×150 (sidecut)	20 ø200
Voltage (V)		05 5		12 12	24 24	48 48	etc														
Speed code		А	В	С	D	Ε	FG	H.	J	< L	. M	S	W	etc.							
Frame thickn	ess (mm)	0 70)	1 38	;	2 32	3 28	4 25	5	5 0, 51	6 20		7 15	9 10							
Sensor speci	fications	01 o Wit			lse s	enso	or	02 o Wit			ensor			D01 a With			enso	r			
Frame form							d fram Iless fr	-		1 Plas	tic fra	me	Rible	ess frar	ne					or 1U app bed frame	

Model no.	Rated voltage	Operating voltage range	Rated current	Rated input	Rated speed	Max. a	airflow	Max. stat	ic pressure	SPL	Operating temperature	Expected life
Wibdel Ho.	[V]	[V]	[A]	[W]	[min ⁻¹]	[m³/min]	[CFM]	[Pa]	[inchH ₂ 0]	[dB (A)]	[°C]	[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
Rated speed
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
Expected life
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

		lanotion				
9CRA	03	12	Ρ	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 9	OCRE 9	CRH 90	RV	
Frame size (mm)	03	04	06	08	12	57		
	38×38	40×40	60×60	80×80	120×120	Ø172×150 (sidecut)		
Voltage (V)		48 48						
Speed code	G H	Jł	< S	etc.				
Frame thickness (mm)	0	4	5	6	8	9		
	76	48	51, 56	56	80	102		
Sensor specifications	01				02			D01
	With	a pulse	e senso	or	Witho	out a se	isor	With a lock sensor

How to Read Specifications (DC fan)

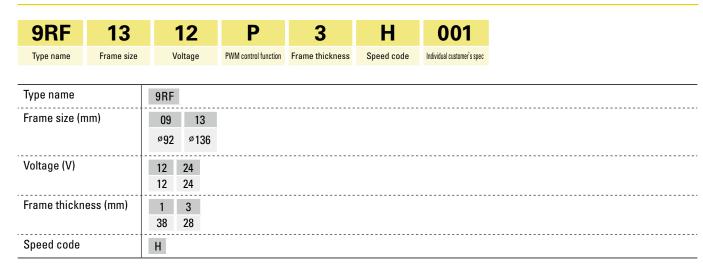
Model no.	Rated voltage [V]	Operating voltage range [V]	Rated current [A]	Rated input [W]	Rated speed [min ⁻¹]	Max. a [m³/min]	airflow [CFM]	Max. stat [Pa]	ic pressure [inchH ₂ 0]	SPL [dB (A)]	Operating temperature [°C]	Expected life [h]
9GA0412G7001	12	7 to 13.8	0.17	2.04	13100	0.36	12.7	192	0.77	42	-20 to +70	40000/60°C (70000/40°C
ated voltage	Thi	s is the necessar	v voltane	to drive th	efan Eg) 12	VDC 24	VDC 48 V	חר:				
perating voltage range			, ,				100, 101	20				
ited current				•	•		air).					
ited input				•								
ited speed ······		•		•	•	•						
ax. airflow ·····								measured	l with our d	louble cha	mber measurii	na device
		low is the volum		•		• •						0
ax. static pressure	······ The	maximum static p	essure val	ue that the	, fan can produc	e during r	ated opera	tion (meas	ured with o	ur double cl	hamber measuri	ng device
·		ic pressure indicat			•	•	•					•
֊լ		stands for Sour		•	•							
		ase refer to the t				•		•				
perating temperature	······ The	temperature rai	nge over v	vhich fan	operation is g	uarantee	d (Non- c	ondensin	g).			
pected life	······ Ser	•	at 90% of	bearings	vill survive w	vithout fai			•	ted at the	rated voltage	and 60°C
	-			e								

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.



How to Read Specifications (DC fan)

Model no.	Rated voltage	Operating voltage range	Rated current	Rated input	Rated speed	Max. a	airflow	Max. stat	ic pressure	SPL	Operating temperature	Expected life
Model IIO.	[V]	[V]	[A]	[W]	[min ⁻¹]	[m³/min]	[CFM]	[Pa]	[inchH ₂ O]	[dB (A)]	[°C]	[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.
-	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 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, places refer to the technical material section

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	Numberir	ng System	Not every com	bination of the f	ollowing codes c	or characters is av	ailable.
9WS	08	12	Н	4	01		
Type name	Frame size	Voltage	Speed code	Frame thickness	Sensor specifications	Frame form	
ans with P	WM contro	ol function					
9WV	08	48	Р	1	Н	001	
Type name	Frame size	Voltage	PWM control function	Frame thickness	Speed code	Individual customer's spec (2 to 3 digits)	Frame for
Type name Frame size (n Voltage (V)	nm)	04 06 40×40 60×60 12 24 44	08 09 80×80 92×92 3	9WL 9WP 9 12 14 120×120 140×140	17 57	0	
Speed code		12 24 48 A D E F		L M S e	tc.		
Frame thickn	ess (mm)	1 4 5 38 25 5					
Sensor speci	ifications	01 With a pulse	sensor	02 Without a se	ensor	D01 With a lock s	ensor
Frame form		Nil Plastic frame: Aluminum fra	Ribbed frame me: Ribless fra		tic frame: Rible	ess frame	

Model no.	Rated voltage	Operating voltage range	Rated current	Rated input	Rated speed	Max. a	airflow	Max. stat	ic pressure	SPL	Operating temperature	Expected life
Woder no.	[V]	[V]	[A]	[W]	[min ⁻¹]	[m³/min]	[CFM]	[Pa]	[inchH ₂ O]	[dB (A)]	[°C]	[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
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
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	Μ	2	18		Ρ	4	4	Н	01
Type name	Impeller size	Vo	oltage	PWM cor	trol function	Thic	kness	Speed code	Individual customer's spec (2 to 3 digits)
Type name		9W1T	9W2T						
Impeller size	(mm)	G	J	М	Ν	Р	S		
		ø175	ø133	ø100	ø150	ø221	ø225		
Voltage (V)		24	48						
		24	48						
Thickness (m	m)	0	1	4					
		69 min.	35	25					
Speed code		H G	S	etc.					

Model no.	Rated voltage [V]	Operating voltage range [V]	Rated current [A]	Rated input [W]	Rated speed [min ⁻¹]	Max. a [m³/min]	airflow [CFM]	Max. stat [Pa]	ic pressure [inchH20]	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			, ,			-	VDC, 48 V	DC				
Operating voltage range				•	•							
Rated current				•	-							
Rated input	······ The	power value wh	ien the fai	n is operat	ting at rated v	voltage (at	t free air).					
Rated speed ······	······ The	speed when the	fan is op	erating at	rated voltage	e (at free a	air).					
Max. airflow ·····	······ The	e maximum airflov	w that the	fan can g	enerate durin	g rated op	peration (r	neasurec	with our c	louble cha	mber measuriı	ng device).
	Airf	low is the volum	e of air ge	nerated b	y the fan per	unit of tim	ie.					
Max. static pressure	······ The	maximum static pr	essure val	ue that the	fan can produo	ce during ra	ated operat	ion (meas	ured with o	ur double ch	lamber measuri	ng device).
	Stat	ic pressure indicat	es a fan's a	ability to m	ove air against	resistance	due to the	internal s	ructure of t	he device to	which the fan i	s installed.
SPL	······ SPL	stands for Soun	d Pressur	e Level. T	he noise leve	l during th	ne fan's ra	ited oper	ation.			
	Ple	ase refer to the t	echnical r	naterial se	ection for the	measure	ment metł	nod.				
Operating temperature	······ The	temperature rar	nge over v	vhich fan	operation is g	juarantee	d (Non- c	ondensin	g).			
Expected life	······ Ser	vice life hours th	at 90% of	bearings	will survive w	, ithout fail	ling when	continuo	usly opera	ted at the	rated voltage	and 60°C
·	tem	perature. Expect	ted life at	40°C is for	reference or	ıly.	-				0	
		more information					ction.					

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.

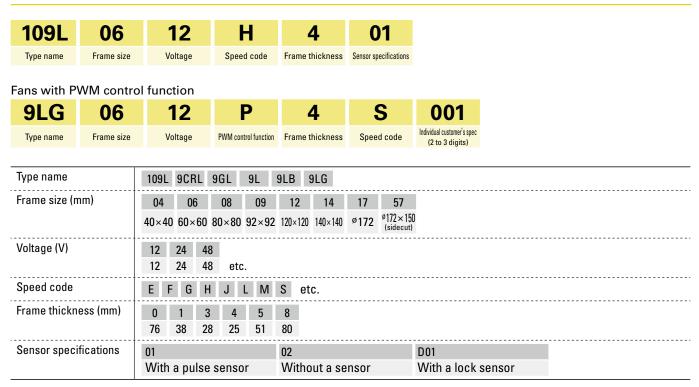
9WF	12		24		ł	-	1	01	
Type name	Frame size	١	/oltage		Spee	d code	Frame thickness	Sensor specifications	Frame form
Type name		9WF							
Frame size (I	nm)	04	06	-	08 0×80	09 92×92	12 120×120		
Voltage (V)		24 24							
Speed code		Η							
Frame thickr	iess (mm)	1 38	2 32	4 25	6 20	7 15			
Sensor spec	ifications	01 With	n a pu	lse s	senso	r	02 Without a se	ensor	D01 With a lock
Frame form		Nil Ribb	ed frai	me					

												-
Model no.	Rated voltage			Rated input			airflow		tic pressure	SPL	Operating temperature	Expected life
	[V]	[V]	[A]	[W]	[min ⁻¹]	[m³/min]	[CFM]	[Pa]	[inchH ₂ 0]	[dB (A)]	[°C]	[h]
9GA0412G7001	12	7 += 10.0	0.17	2.04	10100	0.00	10.7	100	0 77	40	20 to 170	40000/60°C
9GA0412G7001	12	7 to 13.8	0.17	2.04	13100	0.36	12.7	192	0.77	42	-20 to +70	(70000/40°C)
Rated voltage	······ Thi	s is the necessar	y voltage	to drive th	ie fan. E.g.) 12	2 VDC, 24	VDC, 48 V	DC				
Operating voltage range	The	e voltage range o	, ver which	ı fan opera	ation is quara	nteed.						
Rated current		e e		•			air).					
Rated input												
Rated speed ······		•		•	•	•						
-		•		-	-							
Max. airflow ·····				-				measure	a with our c	iouble cha	mber measurii	ng aevice).
	Airl	flow is the volum	e of air ge	enerated b	y the fan per	unit of tim	1e.					
Max. static pressure	······ The	maximum static pr	essure val	ue that the	fan can produ	ce during ra	ated opera	tion (mea	sured with o	ur double cł	namber measuri	ng device).
	Stat	tic pressure indicat	tes a fan's	ability to m	ove air against	resistance	due to the	internal s	structure of t	he device to	which the fan i	is installed.
SPL	SPI	_ stands for Soun	d Pressu	re Level. T	he noise leve	l during th	ne fan's ra	ated ope	ration.			
		ase refer to the t				•		•				
Operating temperature	The	temperature rai	ue over v	which fan	oneration is o	warantee	d (Non- c	ondensir	nu)			
Expected life		•	•						•	tod at tha	rotod voltago	and 60°C
Expected me.				-			ing when	continu	ousiy opera	ieu al life	rateu voltage	
		perature. Expect				'						
	For	more information	n, please	refer to th	e technical m	naterial se	ction.					

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.



How to Read Specifications (DC fan)

Model no.	Rated voltage	Operating voltage range	Rated current	Rated input	Rated speed	Max. a	airflow	Max. stat	ic pressure	SPL	Operating temperature	Expected life
Woderno.	[V]	[V]	[A]	[W]	[min ⁻¹]	[m ³ /min]	[CFM]	[Pa]	[inchH ₂ 0]	[dB (A)]	[°C]	[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		s is the necessar voltage range o	, ,			-	VDC, 48 V	DC				
Rated current	······ The	current when th	ne fan is o	perating a	t rated voltag	je (at free	air).					
Rated input	······ The	power value wh	ien the far	n is operat	ting at rated v	oltage (at	t free air).					
Rated speed ······	······ The	speed when the	e fan is op	erating at	rated voltage	e (at free a	air).					
Max. airflow ·····	······ The	maximum airflov	w that the	fan can g	enerate durin	g rated or	peration (r	neasured	l with our d	louble cha	mber measurir	ng device).
	Airf	low is the volum	e of air ge	nerated b	y the fan per	unit of tim	ie.					
Max static pressure ·····	The	maximum static n	essure vali	ue that the	fan can nroduu	e durina ra	ated onera	tion (meas	ured with or	ir double ch	namher measuri	na device)

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.

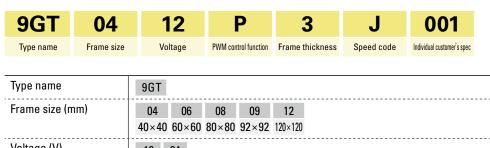
Operating temperature The temperature range over which fan operation is guaranteed (Non- condensing).

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.



Voltage (V)	12	24	
	12	24	
Frame thickness (mm)	1	3	4
	38	28	25
Speed code			

Model no.	Rated voltage	Operating voltage range	Rated current	Rated input	Rated speed	Max. a	airflow	Max. sta	tic pressure	SPL	Operating temperature	Expected life
Woder no.	[V]	[V]	[A]	[W]	[min ⁻¹]	[m³/min]	[CFM]	[Pa]	[inchH ₂ 0]	[dB (A)]	[°C]	[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	s is the necessar	y voltage	to drive th	e fan. E.g.) 12	2 VDC, 24	VDC, 48 V	DC				
Operating voltage range	····· The	voltage range o	ver which	fan opera	ation is guara	nteed.						
Rated current	······ The	current when th	e fan is o	perating a	t rated voltag	je (at free	air).					
Rated input	······ The	power value wh	en the fai	n is operat	ting at rated v	voltage (at	t free air).					
Rated speed ······	······ The	speed when the	fan is op	erating at	rated voltage	e (at free a	air).					
Max. airflow ······	······ The	maximum airflov	w that the	fan can g	enerate durin	g rated op	peration (measure	d with our c	louble cha	mber measurii	ng device).
	Airf	low is the volum	e of air ge	nerated b	y the fan per	unit of tim	ie.					
Max. static pressure	······ The	maximum static pr	essure val	ue that the	fan can produo	ce during ra	ated opera	tion (meas	sured with o	ur double ch	namber measuri	ng device).
·	Stat	ic pressure indicat	es a fan's a	ability to mo	ove air against	resistance	due to the	internal s	tructure of t	he device to	which the fan i	s installed.
SPL	SPL	stands for Soun	d Pressur	e Level. T	he noise leve	l during th	ne fan's ra	ated oper	ation.			
	Ple	ase refer to the t	echnical r	naterial se	ection for the	measure	ment met	hod.				
Operating temperature …	······ The	temperature rar	nge over v	vhich fan	operation is c	uarantee	d (Non- c	ondensin	ıq).			
Expected life		•	•							ted at the	rated voltage	and 60°C
•		perature. Expect		-			0		,		5	
		more information					ction.					

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	2	24	Р	1	G	001
Type name	Frame size	Vo	ltage	PWM control function	Frame thickness	Speed code	Individual customer's spec (3 digits)
Type name		9GP					
Frame size (m	im)	12 120×120	57 Ø172×150 (sidecut)				
Voltage (V)		24	48				
Frame thickne	ess (mm)	24 1	48 5				
Speed code		38 G H	51				

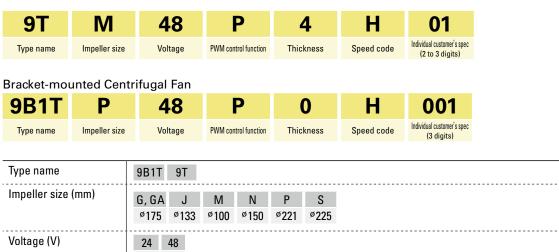
Model no.	Rated voltage	Operating voltage range	Rated current	Rated input	Rated speed	Max. a	airflow	Max. stat	ic pressure	SPL	Operating temperature	Expected life
Woder no.	[V]	[V]	[A]	[W]	[min ⁻¹]	[m ³ /min]	[CFM]	[Pa]	[inchH ₂ 0]	[dB (A)]	[°C]	[h]
9GA0412G7001	12	7 to 13.8	0.17	2.04	13100	0.36	12.7	192	0.77	42	-20 to +70	40000/60°C (70000/40°C)

lated voltage This is the necessary voltage to drive the fan. E.g.) 12 VDC, 24 VDC, 48 VDC	
lated current	
ated input	
lated speed The speed when the fan is operating at rated voltage (at free air).	
Nax. airflow The maximum airflow that the fan can generate during rated operation (measured with our double chamber measuring de	evice).
Airflow is the volume of air generated by the fan per unit of time.	
Aax. static pressure	vice).
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 inst	alled.
PL ······ 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.	
perating temperature	
xpected life Service life hours that 90% of bearings will survive without failing when continuously operated at the rated voltage and 6	30°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.



Voltage (V)	24 48 24 48
Thickness (mm)	0 1 4
	69 min., 99, 119 35 25
Speed code	H G etc.

Model no.	Rated voltage [V]	Operating voltage range [V]	Rated current [A]	Rated input [W]	Rated speed [min ⁻¹]	Max. a [m³/min]	irflow [CFM]	Max. stat [Pa]	ic pressure [inchH20]	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			, 0				VDC, 48 V	DC				
Operating voltage range												
Rated current	····· The	current when th	e fan is o	perating a	t rated voltag	je (at free	air).					
Rated input	····· The	power value wh	ien the fai	n is operat	ing at rated v	oltage (at	free air).					
Rated speed ······	····· The	speed when the	fan is op	erating at	rated voltage	e (at free a	ir).					
Max. airflow ·····	····· The	maximum airflov	w that the	fan can g	enerate durin	g rated op	eration (neasured	l with our d	louble cha	mber measurii	ng device).
	Airf	low is the volum	e of air ge	nerated b	y the fan per	unit of tim	e.					
Max. static pressure	····· The	maximum static pr	essure val	ue that the	fan can produc	e during ra	ated opera	tion (meas	ured with ou	ur double cl	namber measuri	ng device).
	Stat	ic pressure indicat	es a fan's a	ability to mo	ove air against	resistance	due to the	internal s	tructure of t	he device to	which the fan i	is installed.
SPL	SPL	stands for Soun	d Pressur	e Level. T	he noise leve	l during th	ie fan's ra	ated oper	ation.			
	Plea	ase refer to the t	echnical r	naterial se	ection for the	measurer	nent metl	nod.				
Operating temperature	····· The	temperature rar	nae over v	vhich fan o	operation is o	uarantee	d (Non- c	ondensin	a).			
Expected life		•	•							ted at the	rated voltage	and 60°C
F		perature. Expect		•			5		,			
		more information				'	ction					

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	С	1	12		H		С	2	-1	
Type name	Frame size	Va	oltage	Spee	d code	Sensor sp	pecifications	Frame thicknes	s Individual custome	er's spec
9B	MB	1	12		G	4	2	01	-1	
Type name	Frame size	Vo	oltage	Spee	d code	Frame	thickness	Sensor specification	s Individual custome	er's spec
Fans with P	WM contro	ol func	tion							
9B	MB	1	12		Ρ		2	G	01	
Type name	Frame size	Vo	oltage	PWM cor	ntrol function	Frame t	thickness	Speed code	Individual custome (2 to 3 digi	
Type name		109B	9B							
Frame size (n	nm)	С	D	F, FB	G	J	M, MI	B, MC		
		52	76	120	160	127	9	7		
Voltage (V)			24 24							
Speed code		F G	H	ΚM	S etc	;.				
Sensor speci	fications	A, 02 Witho	ut a ser	sor	C, 01 With a	a pulse	sensor	D With a lock	sensor	
Frame thickn	ess (mm)	1 40	2 30, 32,	, 33 1	76 520					

How to Read Specifications (DC fan)

Model no.	Rated voltage	Operating voltage range	Rated current	Rated input	Rated speed	Max. airflow		Max. static pressure		SPL	Operating temperature	Expected life
Woderno.	[V]	[V]	[A]	[W]	[min ⁻¹]	[m³/min]	[CFM]	[Pa]	[inchH ₂ O]	[dB (A)]	[°C]	[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 ····· Thi	is is the necessary voltage to drive the fan. E.g.) 12 VDC, 24 VDC, 48 VDC
Operating voltage range The	e voltage range over which fan operation is guaranteed.
Rated current The	e current when the fan is operating at rated voltage (at free air).
Rated input The	e power value when the fan is operating at rated voltage (at free air).
Rated speed The	e speed when the fan is operating at rated voltage (at free air).
Max. airflow The	e maximum airflow that the fan can generate during rated operation (measured with our double chamber measuring device).
Air	rflow is the volume of air generated by the fan per unit of time.
Max. static pressure The	e maximum static pressure value that the fan can produce during rated operation (measured with our double chamber measuring device).
Sta	atic 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 SP	PL stands for Sound Pressure Level. The noise level during the fan's rated operation.
Ple	ease refer to the technical material section for the measurement method.
Operating temperature The	e temperature range over which fan operation is guaranteed (Non- condensing).
Expected life ······ Se	ervice life hours that 90% of bearings will survive without failing when continuously operated at the rated voltage and 60°C $$
ten	mperature. Expected life at 40°C is for reference only.
For	r more information, please refer to the technical material section.

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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.

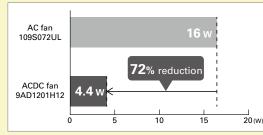
Low power consumption

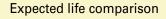
Lona life

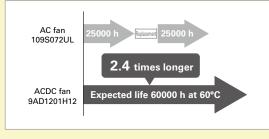
Wide voltage range (Compared with our existing AC fan with equal size.)

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







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

9AD	09	01	Н	1	2		
Type name	Frame size	Voltage	Speed code	Frame thickness	Sensor specifications	Frame form	
Type name		9AD					
Frame size (n	ım)	09 12 92×92 120×120					
Voltage (V)		01 100 to 240					
Speed code H M etc.							
Frame thickn	ess (mm)	1 38					
Sensor speci	fications	2 Without a ser	nsor	H With a lo	H With a low-speed sensor		
Frame form		Nil Plastic frame:	Ribbod framo	1 Plas	tic frame: Rible:	ss framo	

Model no.	Rated voltage	Operating voltage range	Frequency	Rated current	Rated input	Rated speed	Max. a	irflow	Max. static pressure		SPL	Operating temperature	Expected life
Woder no.	[V]	[V]	[Hz]	[A]	[W]	[min ⁻¹]	[m³/min]	[CFM]	[Pa]	[inchH ₂ O]	[dB (A)]	[°C]	[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	-20 10 +75	00000/00 C

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 $^\circ$ C
	temperature. For more information, please refer to the technical material section.