

60mm sq.

San Ace 60



General Specifications

- Material Frame: Plastics (Flammability: UL94V-0),
Impeller: Plastics (Flammability: UL94V-1)
- Expected Life Refer to specifications (L10:Survival rate:90% at 60°C ,
rated voltage, and continuously run in a free air state)
- Lead Wire ⊕red ⊖black (Sensor) yellow (Control) brown
- Storage Temperature -30°C to +70°C (Non-condensing)

60×60×38mm (Mass : 130g) 9GV type

Specifications The following nos. **have PWM controls, pulse sensors, and ribs.** For ribless, append "1" to the model no.

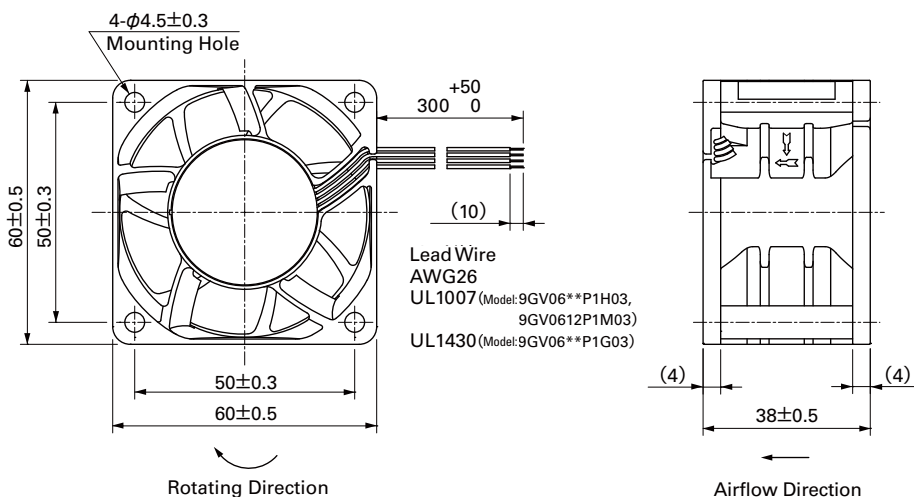
Model No.	Rated Voltage [V]	Operating Voltage Range [V]	PWM duty cycle※ [%]	Rated Current [A]	Rated Input [W]	Rated Speed [min ⁻¹]	Max. Airflow [m ³ /min] [CFM]	Max. Static Pressure [Pa] [InchH ₂ O]	SPL [dB(A)]	Operating Temperature Range [°C]	Expected Life [h]
9GV0612P1G03	12	8.0 to 13.8	100	2.8	33.6	16,000	2.37 84	751 3.02	66	-20 to +70	40,000/60°C
			0	0.12	1.5	3,100	0.44 15	26 0.10	25		
100			2.0	24.0	14,500	2.15 76	617 2.48	63			
0			0.1	1.2	2,700	0.40 14	21 0.09	22			
9GV0612P1H03		10.8 to 13.8	100	1.5	18.0	13,000	1.93 68	496 1.99	60		
0			0.08	1.0	2,500	0.38 13	18 0.07	19			
9GV0612P1M03	20.4 to 27.6	100	100	0.7	8.4	10,000	1.49 52.6	293 1.17	52		
9GV0612P1L01 <small>(Note)</small>			100	1.4	33.6	16,000	2.37 84	751 3.02	66		
9GV0624P1G03	24	20.4 to 27.6	0	0.12	2.88	6,000	0.89 31	105 0.42	38		
9GV0624P1M03 <small>(Note)</small>			100	0.73	17.52	13,000	1.93 68.0	496 1.99	60		
9GV0648P1H03	48	38 to 57	100	0.5	24	14,500	2.15 76	617 2.48	63		
			0	0.08	3.84	6,000	0.89 31	105 0.42	38		

Note : Fan does not rotate when PWM duty cycle is 0%.

※PWM Frequency : 25kHz

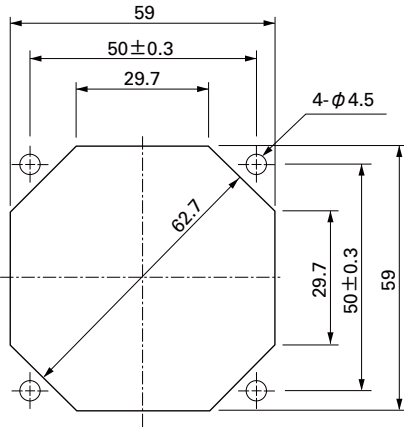
Models without sensors, or with pulse sensors (no PWM control function), or lock sensors are available as options. Please refer to the index (p. 477).

Dimensions (unit: mm) (With ribs)



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

Inlet side, Outlet side



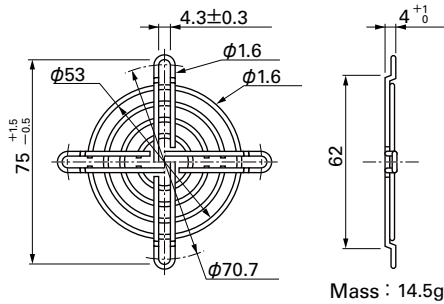
Options (unit: mm)

Finger Guards

Model : 109-139E Surface treatment : Nickel-chrome plating (silver)
 : 109-139H : Cation electropainting (black)

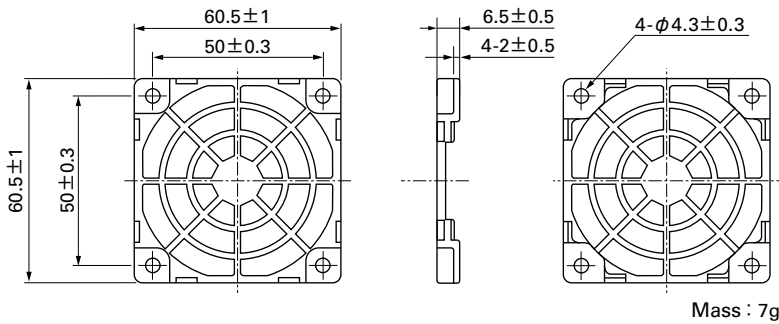
Color

Inlet side, Outlet side



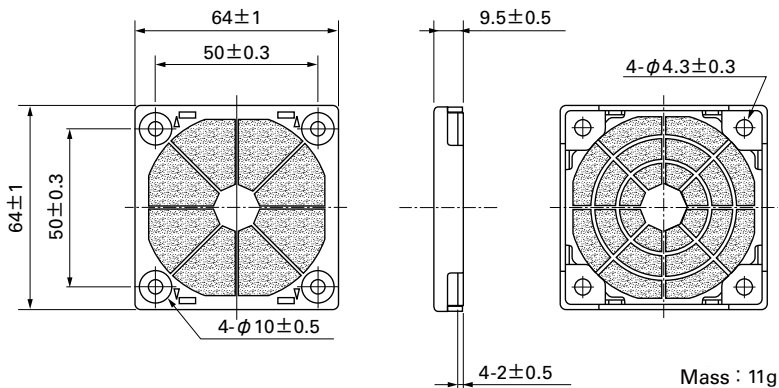
Resin Finger Guards

Model : 109-1003G



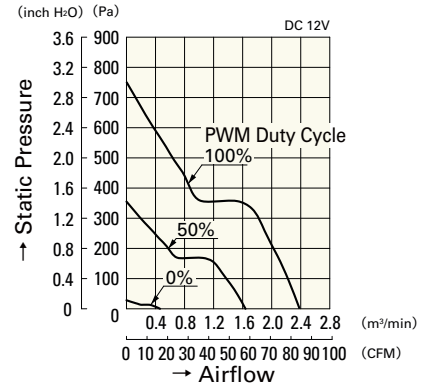
Resin Filter Kits

Model : 109-1003F13 (13PPI), 109-1003F20 (20PPI)
 : 109-1003F30 (30PPI), 109-1003F40 (40PPI)



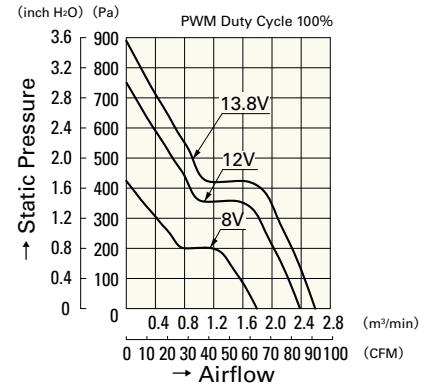
Airflow - Static Pressure Characteristics

PWM Duty Cycle



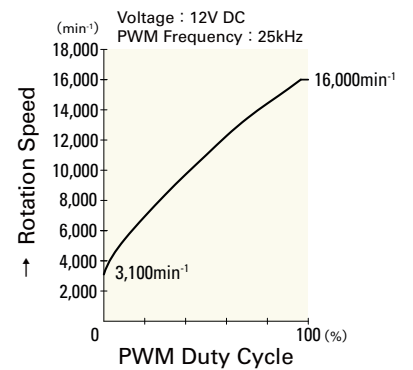
9GV0612P1G03

Operating Voltage Range



9GV0612P1G03

PWM Duty - Speed Characteristics Example



9GV0612P1G03

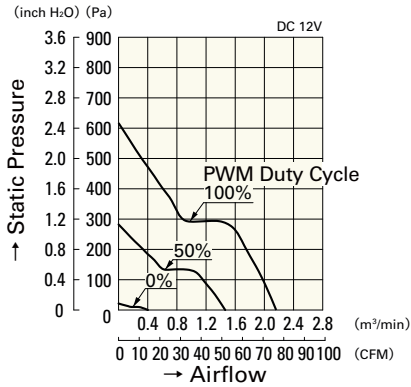
60mm sq.

San Ace 60

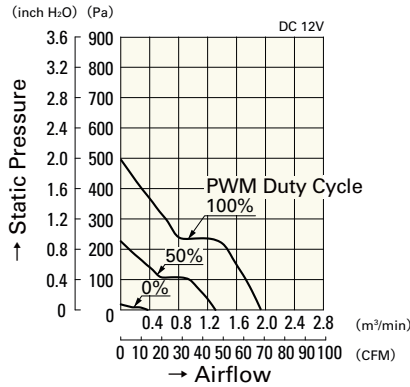
60×60×38mm [Mass : 130g]

Airflow - Static Pressure Characteristics

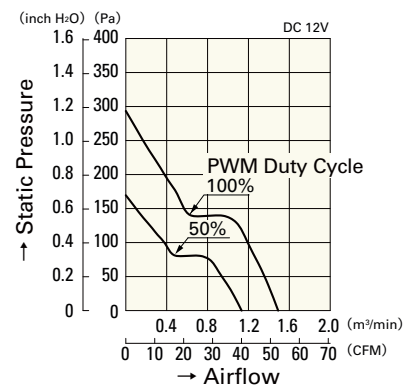
PWM Duty Cycle



9GV0612P1H03

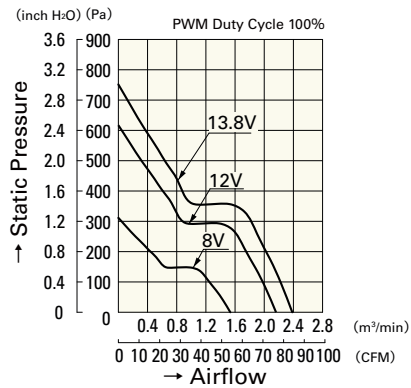


9GV0612P1M03

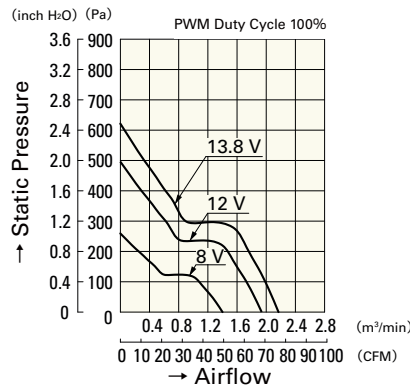


9GV0612P1L01

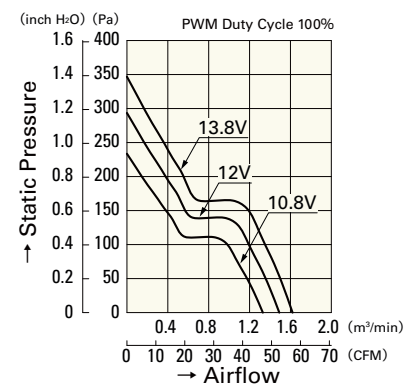
Operating Voltage Range



9GV0612P1H03

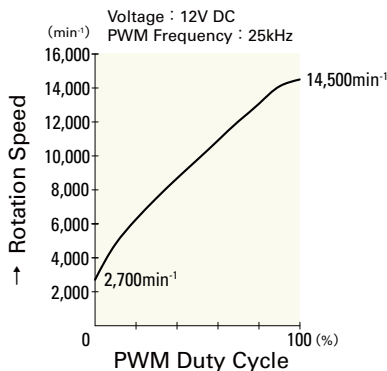


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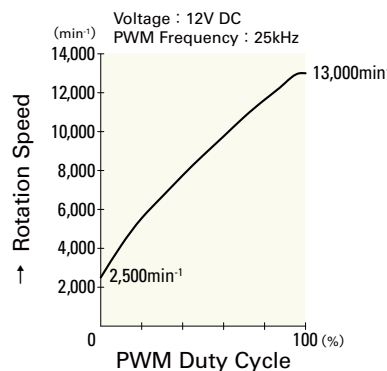


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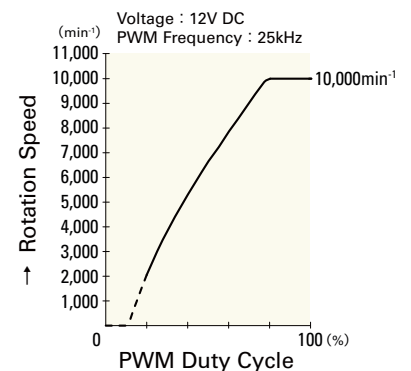
PWM Duty - Speed Characteristics Example



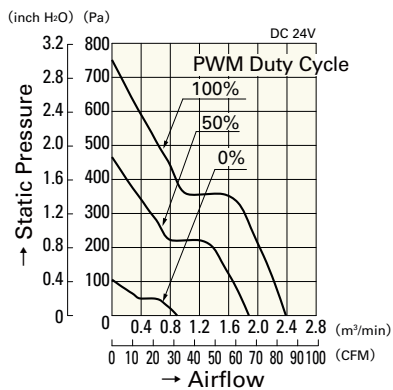
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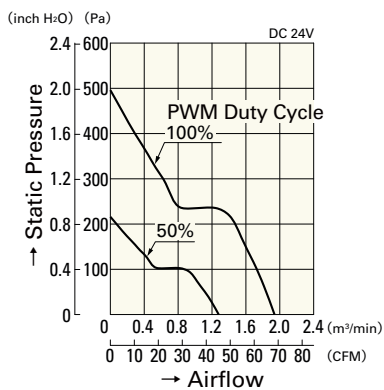
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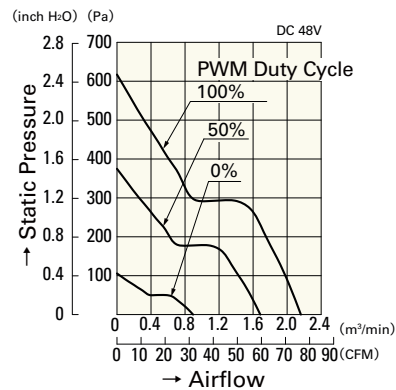
9GV0612P1L01



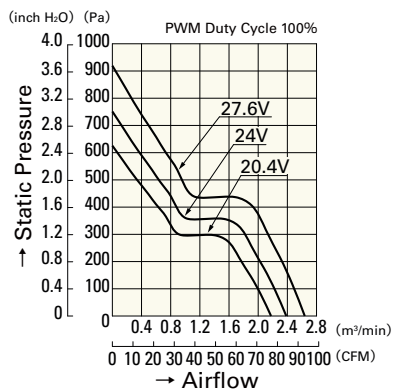
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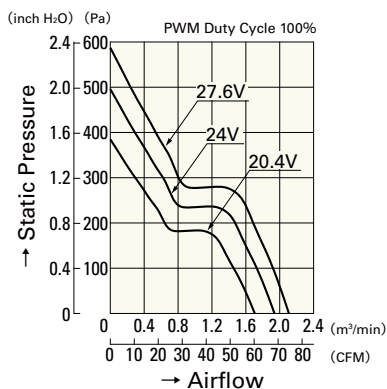
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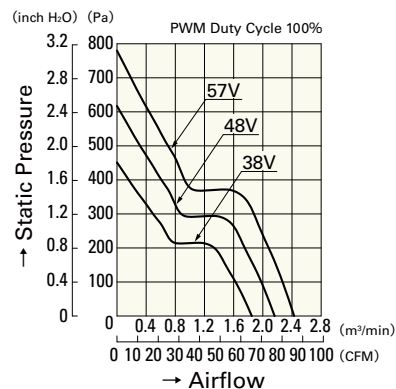
9GV0648P1H03



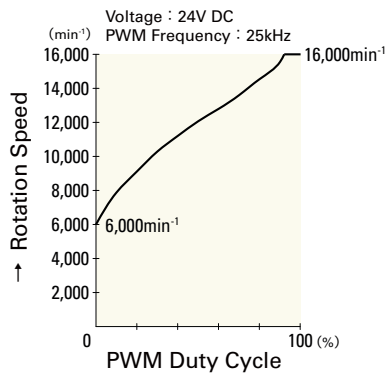
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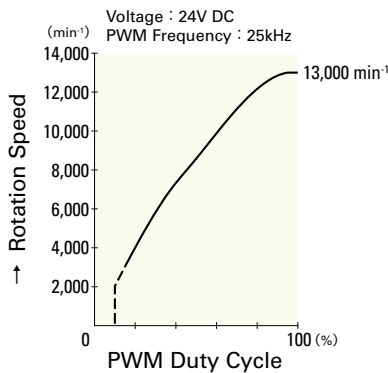
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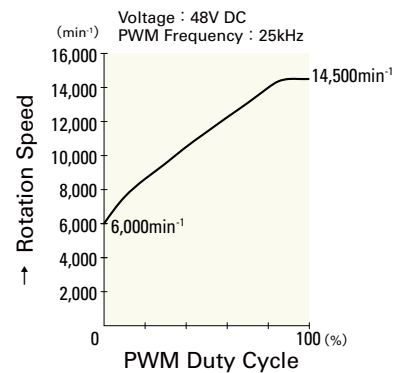
9GV0648P1H03



9GV0624P1G03



9GV0624P1M03



9GV0648P1H03

Part 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 material 109P / Plastics 109R / Plastics 9GA / Plastics 9S / Plastics 9GV / Plastics Aluminum 9GE / Aluminum 9G / Plastics 9A / Plastics 9SG / Aluminum 109E / Aluminum 9EC / Aluminum 9GX / Plastics 9GAX / Plastics	Frame size 36 : 36×36mm 03 : 38×38mm 04 : 40×40mm 05 : 52×52mm 06 : 60×60mm 08 : 80×80mm 09 : 92×92mm 12 : 120×120mm 13 : 127×127mm 14 : 140×140mm 15 : 150×150mm 17 : ϕ 172mm 47 : ϕ 172mm×147mm (sidecut) 57 : ϕ 172mm×150mm (sidecut) 20 : ϕ 200mm	Voltage 05 : 5V 12 : 12V 24 : 24V 48 : 48V etc	Speed code A, B, C, D, E, F, G, H, J, K, L, M, S, W etc	Frame thickness 0 : 70mm 1 : 38mm thick 2 : 32mm thick 3 : 28mm thick 4 : 25mm thick 5 : 50mm thick 51mm thick 6 : 20mm thick 7 : 15mm thick 9 : 10mm thick	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 : Plastics frame: Ribbed frame Aluminum frame: Ribless frame 1 : Plastics frame: Ribless frame 3 : 40×40×28mm for 1U applications Plastics frame: Ribbed frame

Fans with PWM control function

Example :

9GV	12	12	P	4	G	01	
Type name / frame material 9GV / Plastics Aluminum	Frame size 12 : 120×120mm	Voltage 12 : 12V	PWM control function	Frame thickness	Speed code	Individual customer's spec 2 to 4 digits	Frame form Nil : Plastics frame: Ribbed frame Aluminum frame: Ribless frame