

120mm sq.

San Ace 120

25mm thick (GV type), 25mm thick (G type)
 38mm thick (GV type), 38mm thick (G type)
 38mm thick (SG type)



General Specifications With a pulse sensor Specifications for pulse sensors ⇔ Refer to Page 307

With PWM speed control function

- Material Frame: Plastics (Flammability: UL94V-0),
 Impeller: Plastics (Flammability: UL94V-1)
- Life Expectancy Varies for each model (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)

120×120×25mm (Mass : 260g)

GV type

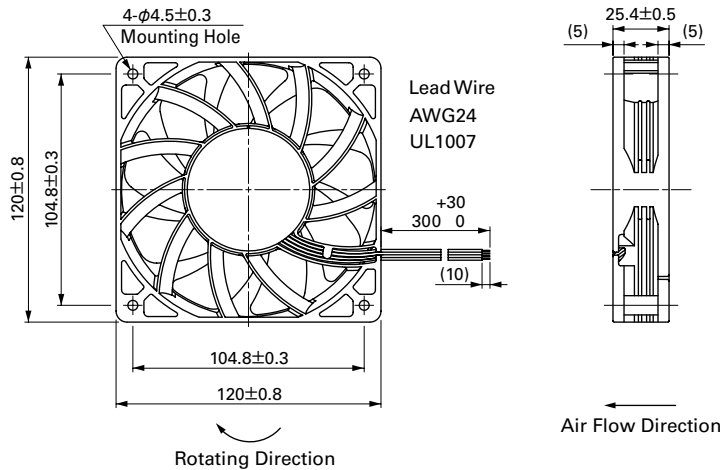
Specifications The numbers in () represent ribless models.

| Model No. | Rated Voltage [V] | Operating Voltage Range [V] | PWM duty cycle※ [%] | Rated Current [A] | Rated Input [W] | Rated Speed [min ⁻¹] | Air Flow [m ³ /min] [CFM] | Static Pressure [Pa] [inchH ₂ O] | SPL [dB(A)] | Operating Temperature [°C] | Life Expectancy [h] |
|-------------------|-------------------|-----------------------------|---------------------|-------------------|-----------------|----------------------------------|--------------------------------------|---|-------------|----------------------------|---------------------|
| 9GV1212P4G01(011) | 12 | 10.2 to 13.8 | 100 | 1.68 | 20.16 | 5,100 | 4.83 171 | 224 0.90 | 58 | -10 to +70 | 40,000 |
| | | | 0 | 0.18 | 2.16 | 1,650 | 1.56 55.1 | 23.5 0.09 | 30 | | |
| 9GV1224P4G01 | 24 | 20.4 to 27.6 | 100 | 0.84 | 20.16 | 5100 | 4.83 171 | 224 0.90 | 58 | | |
| | | | 0 | 0.13 | 3.12 | 1650 | 1.56 55.1 | 23.5 0.09 | 30 | | |
| 9GV1248P4G01(011) | 48 | 40.8 to 60.0 | 100 | 0.42 | 20.16 | 5,100 | 4.83 171 | 224 0.90 | 58 | | |
| | | | 0 | 0.07 | 3.36 | 1,650 | 1.56 55.1 | 23.5 0.09 | 30 | | |
| 9GV1248P4H01(011) | | | 100 | 0.33 | 15.84 | 4,600 | 4.35 154 | 182 0.73 | 55 | | |
| | | | 0 | 0.07 | 3.36 | 1,650 | 1.56 55.1 | 23.5 0.09 | 30 | | |

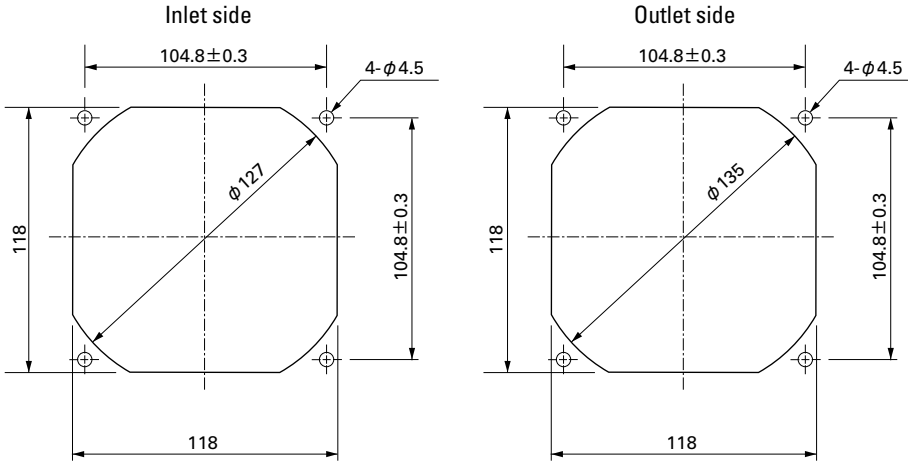
※PWM Frequency : 25kHz

Without Sensor Pulse Sensor PWM Control Available in all models.

Dimensions (Unit : mm) (With ribs)



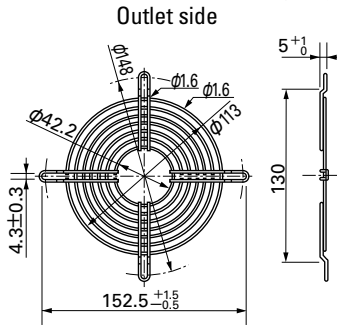
Reference dimension of mounting holes and vent opening (Unit : mm)



Options (Unit : mm)

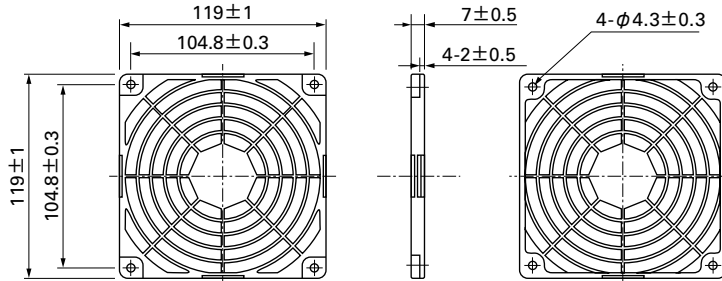
Finger guards

Model : 109-019C Surface treatment : Nickel-chrome plating (silver) Color : 109-019H : Cation electropainting (black)

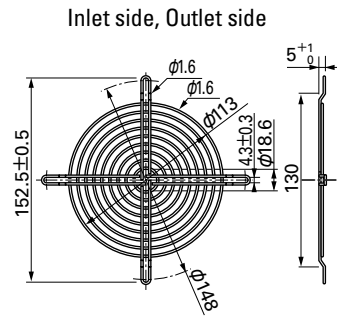


Resin finger guards

Model : 109-1000G

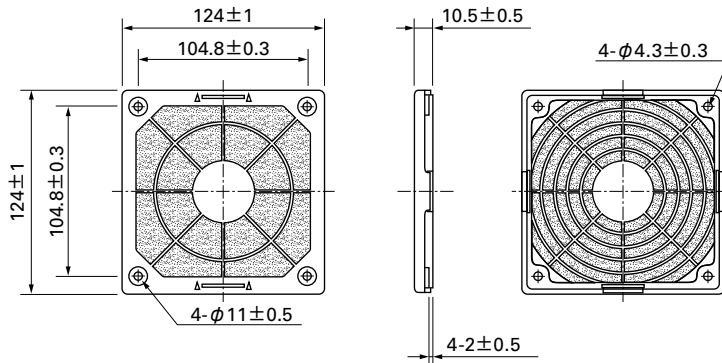


Model : 109-019E Surface treatment : Nickel-chrome plating (silver) Color : 109-019K : Cation electropainting (black)



Resin filter kits

Model : 109-1000F13 (13PPI), 109-1000F20 (20PPI) : 109-1000F30 (30PPI), 109-1000F40 (40PPI)



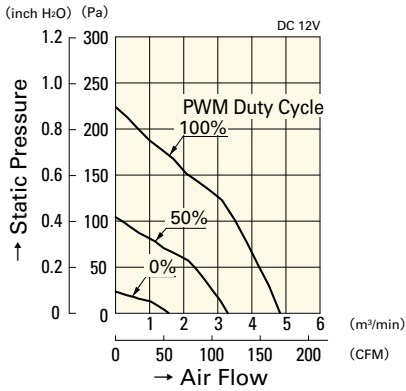
120mm sq.

San Ace 120

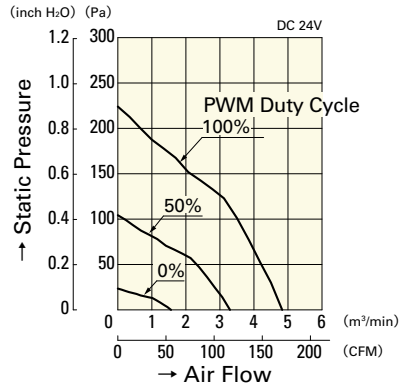
120×120×25mm [Mass : 260g]

Air Flow and Static Pressure Characteristics

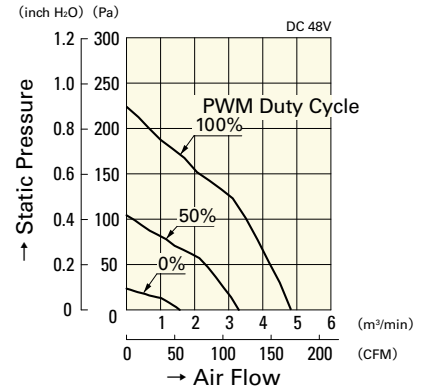
PWM Duty Cycle



9GV1212P4G01(011)

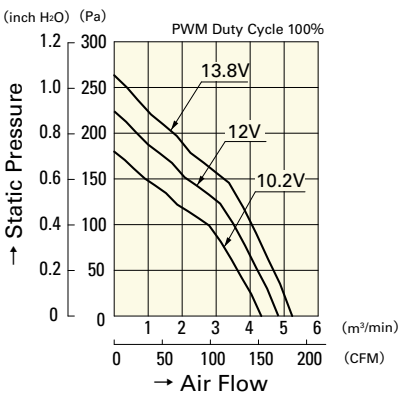


9GV1224P4G01

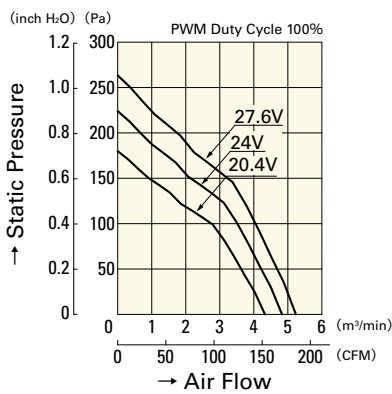


9GV1248P4G01(011)

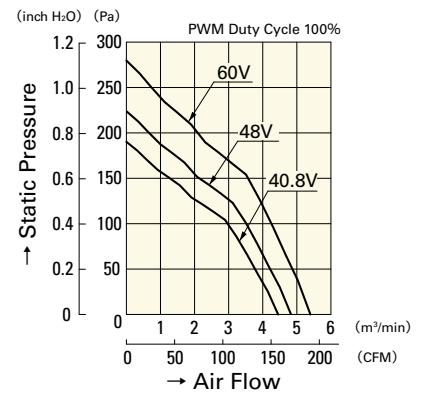
Operating Voltage Range



9GV1212P4G01(011)

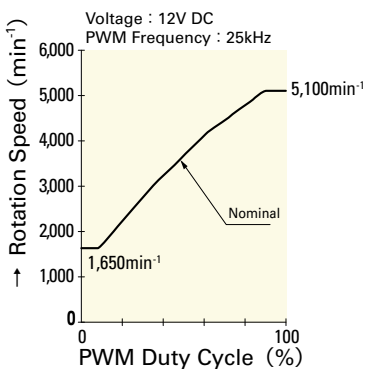


9GV1224P4G01

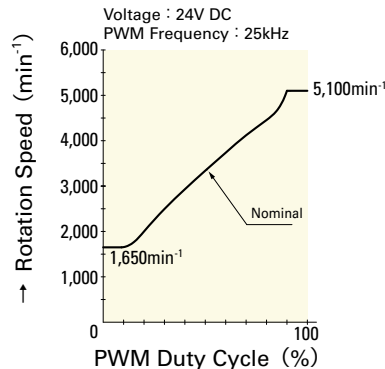


9GV1248P4G01(011)

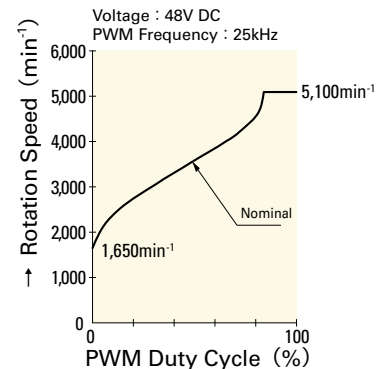
PWM Duty - Speed Characteristics Example



9GV1212P4G01(011)

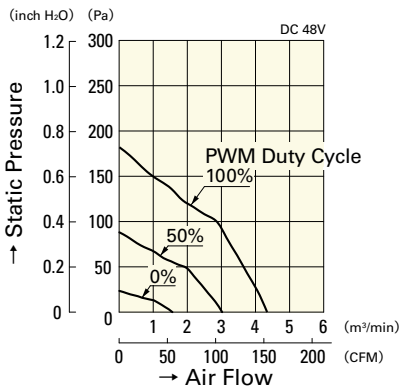


9GV1224P4G01



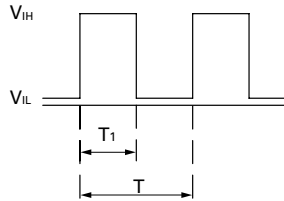
9GV1248P4G01(011)

PWM Input Signal Example



9GV1248P4H01(011)

Input Signal Wave Form



$V_{IH}=4.75V$ to $5.25V$

$V_{IL}=0V$ to $0.4V$

$$\text{PWM Duty Cycle (\%)} = \frac{T_1}{T} \times 100$$

$$\text{PWM Frequency 25 (kHz)} = \frac{1}{T}$$

Source Current (I_{source}) : 1mA Max. at control voltage 0V

Sink Current (I_{sink}) : 1mA Max. at control voltage 5.25V

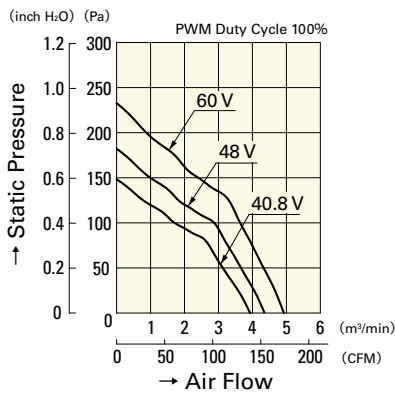
Control Terminal Voltage : 5.25V Max. (Rated voltage 12V fan)

: 8.0V Max. (Rated voltage 48V fan)

(Open Circuit)

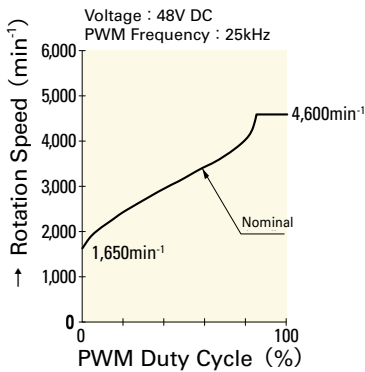
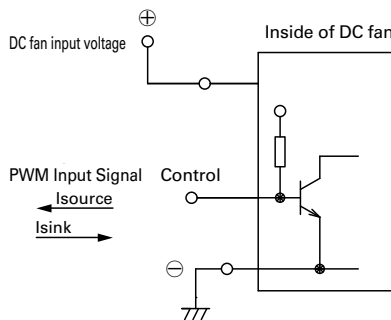
When the control lead wire is no connecting, the speed is the same speed as at 100% of PWM cycle.

This fan speed should be controlled by PWM input signal of either TTL input or open collector, drain input.



9GV1248P4H01(011)

Connection Schematic



9GV1248P4H01(011)