

Server. Storage. Telecom Cooling Solution

*All products are RoHS compliant.



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36x36x28 mm

18.1~22.8 CFM



Specifications

Model	Bearing	Rating Voltage	Power Current	Power Consumption	Speed	Air Flow	Static Pressure	Noise	Weight	Curve
	2BALL Sleeve	(VDC)	(mA)	(WATTS)	(RPM)	(CFM)	(inch-H ₂ O)	(dB(A))	(g)	
PF36281BX-000U-A99	☉	12	800	9.60	23000	22.8	2.55	61.9	40.5	1
PF36281B1-000U-A99	☉	12	450	5.40	18400	18.1	1.62	55.7	40.5	2

Function

PF36281BX / 1

A99: AutoRestart

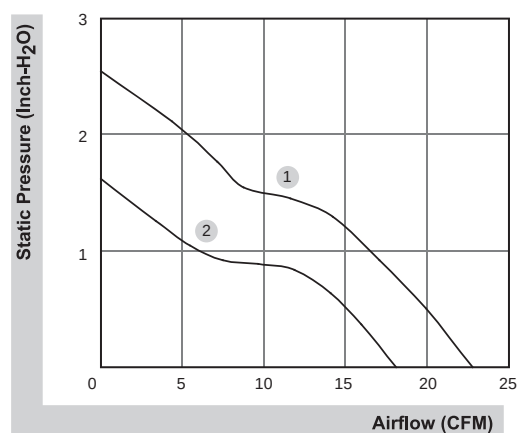
F99: AutoRestart and R type

G99: AutoRestart and F type

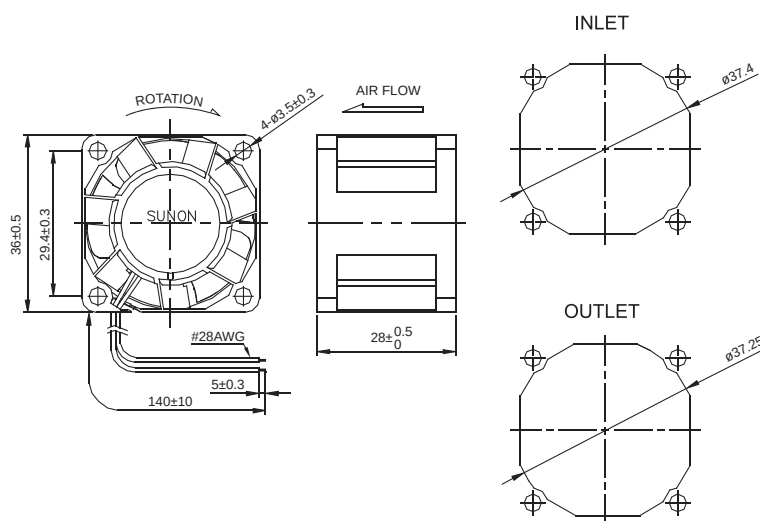
H99: AutoRestart and PWM

S99: AutoRestart , F type and with PWM

Air Flow-Static Pressure Characteristics



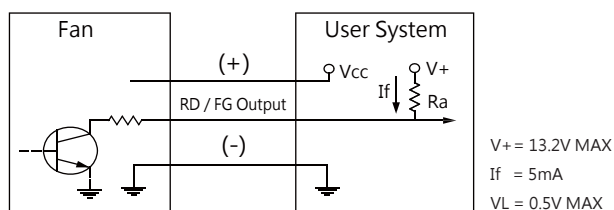
External dimensions(mm)



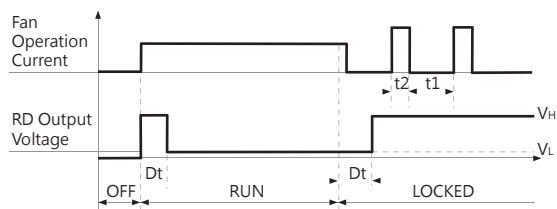
*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

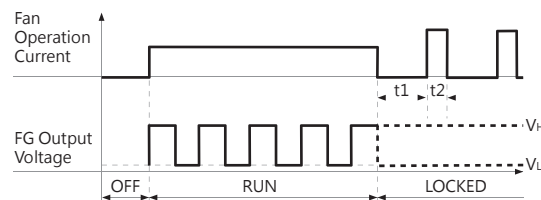
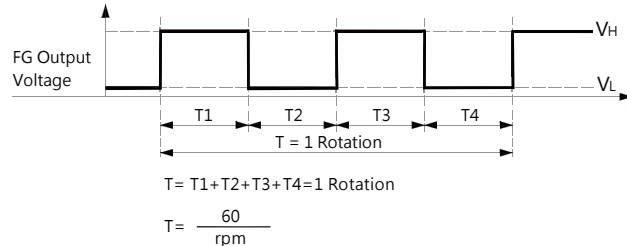
■ RD / FG Signal



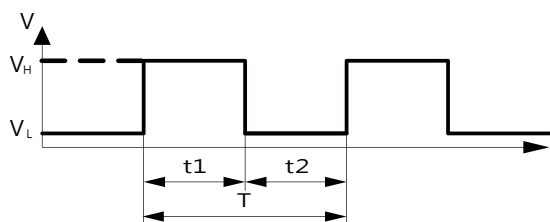
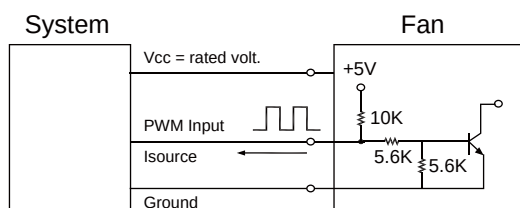
[RD Signal]



[FG Signal]



■ PWM Input Signal



1. Period : $T = \frac{1}{f_{PWM}} = t1 + t2(\text{sec})$

2. Duty Cycle (D.C.) : $\frac{t1}{t1 + t2} * 100 = \frac{t1}{T} * 100(\%)$

$V_H = 2.3 \sim 5.5V$

$V_L = 0 \sim 0.8V$

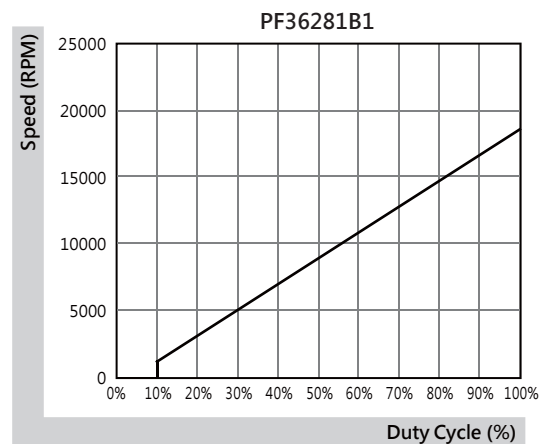
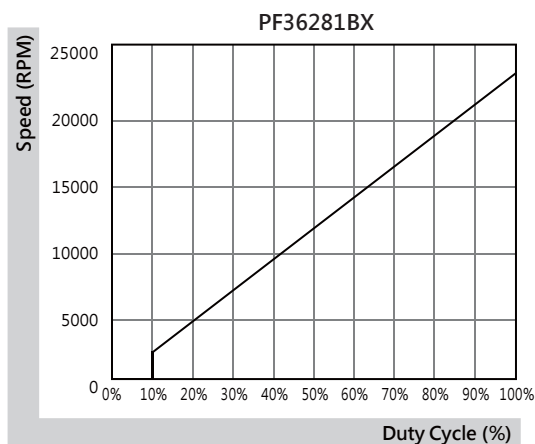
PWM FREQUENCY: 25KHZ

Isource=0.5mA at PWM Input Voltage 0V

The speed is default to be maximum if PWM input pin is unconnected.

Min. start up duty cycle is 10%.

■ PWM Curve



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38x38x28 mm

18.9~24.2 CFM



Specifications

Model	Bearing	Rating Voltage	Power Current	Power Consumption	Speed	Air Flow	Static Pressure	Noise	Weight	Curve
	2BALL Sleeve	(VDC)	(mA)	(WATTS)	(RPM)	(CFM)	(inch-H ₂ O)	(dB(A))	(g)	
VF38281BX-000U-A9H	☉	12	870	10.44	27000	24.2	3.56	61.6	44.0	1
VF38281B1-000U-A9H	☉	12	475	5.70	21600	18.9	2.50	58.1	44.0	2

Function

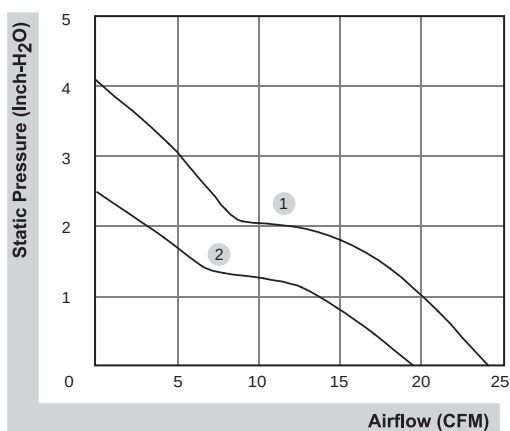
VF38281BX / 1

A9H: AutoRestart

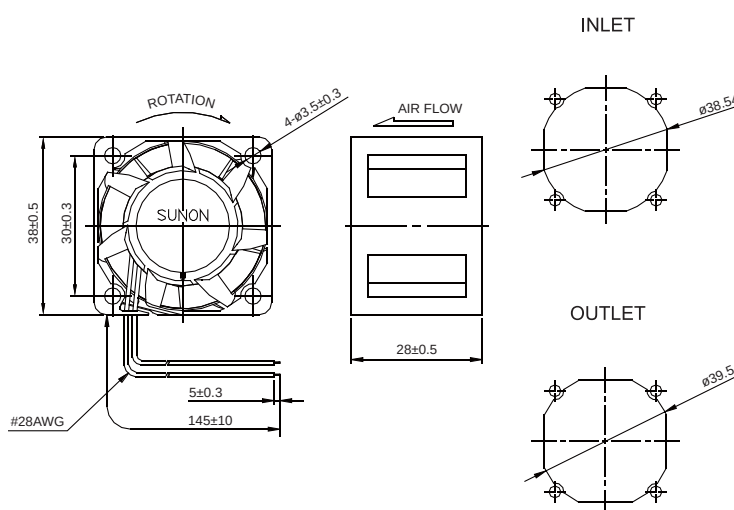
G9H: AutoRestart and F type

S9H: AutoRestart , F type and PWM

Air Flow-Static Pressure Characteristics



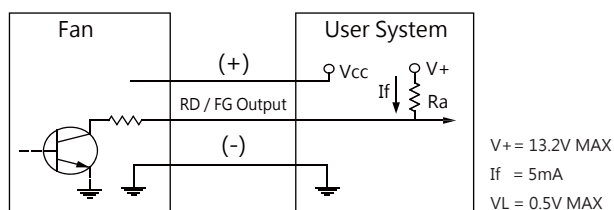
External dimensions(mm)



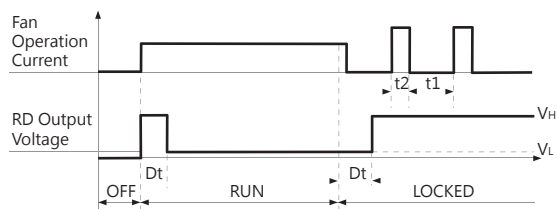
*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

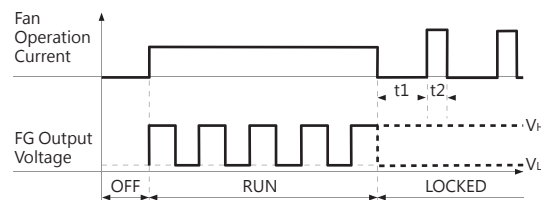
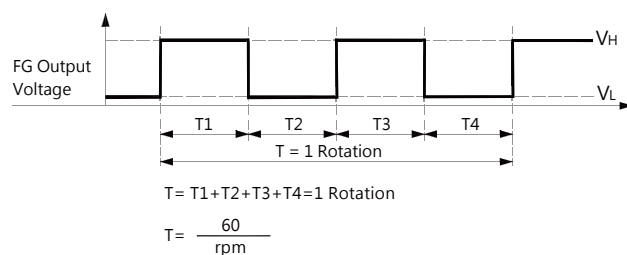
■ RD / FG Signal



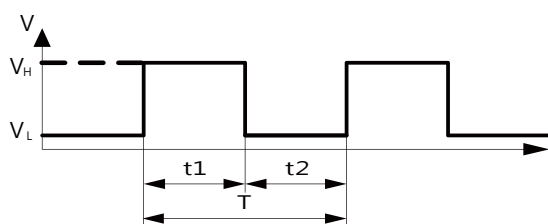
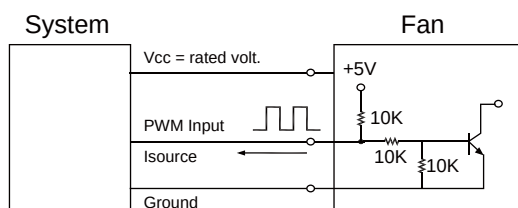
[RD Signal]



[FG Signal]

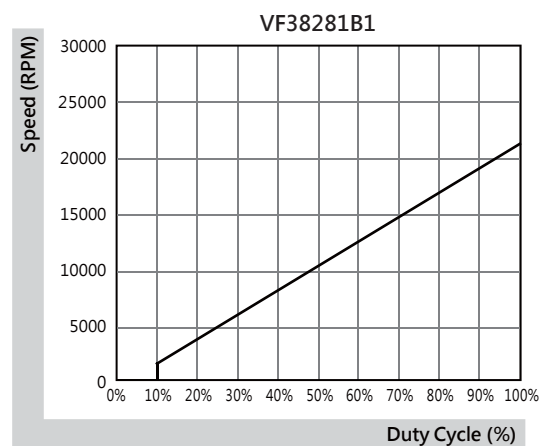
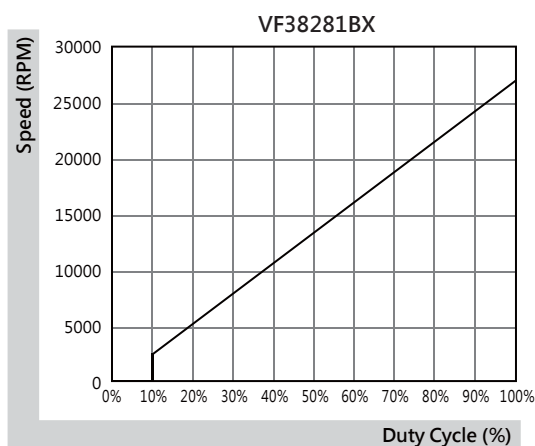


■ PWM Input Signal



1. Period :
$$T = \frac{1}{f_{PWM}} = t_1 + t_2 (\text{sec})$$
2. Duty Cycle (D.C.) :
$$\frac{t_1}{t_1 + t_2} * 100 = \frac{t_1}{T} * 100 (\%)$$
- V_H=2.3~5.5V
V_L=0~0.8V
PWM FREQUENCY: 25KHZ
I_{source}=0.5mA at PWM Input Voltage 0V
The speed is default to be maximum if PWM input pin is unconnected.
Min. start up duty cycle is 10%.

■ PWM Curve



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38x38x28 mm

18.1 CFM



■ Specifications

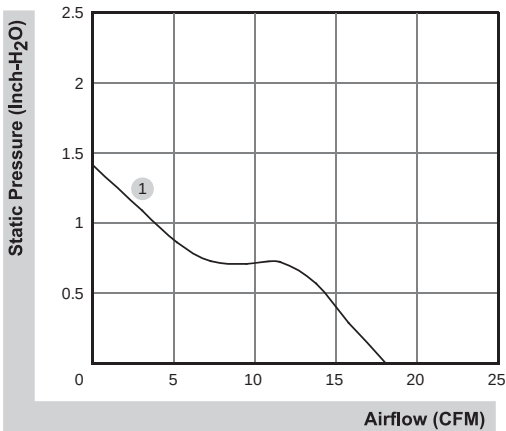
	Bearing	Rating Voltage	Power Current	Power Consumption	Speed	Air Flow	Static Pressure	Noise	Weight	Curve
	● VAPO	(VDC)	(mA)	(WATTS)	(RPM)	(CFM)	(Inch-H ₂ O)	(dB(A))	(g)	
PF38281V1-000U-A99	●	12	574	6.89	16000	18.1	1.42	51.8	43.0	1

■ Function

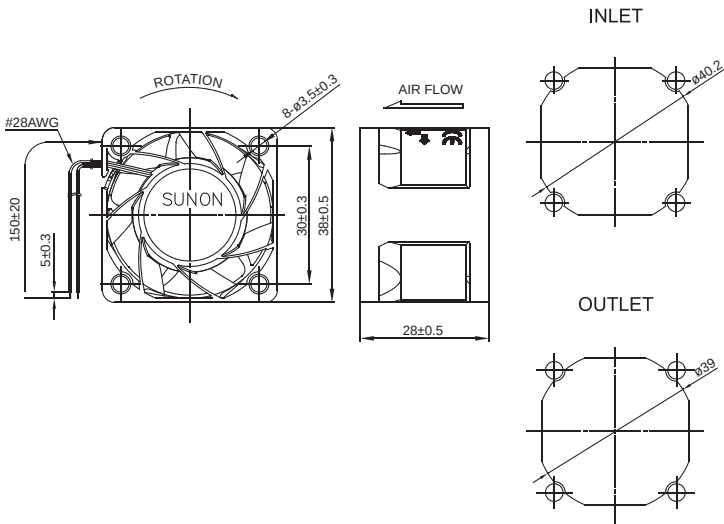
PF38281V1

A99: AutoRestart
G99: AutoRestart and F type
S99: AutoRestart , F type and PWM

■ Air Flow-Static Pressure Characteristics

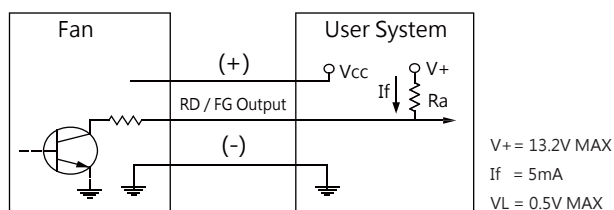


■ External dimensions(mm)

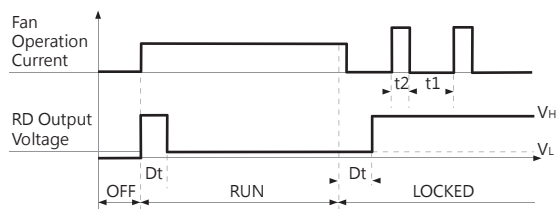


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*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

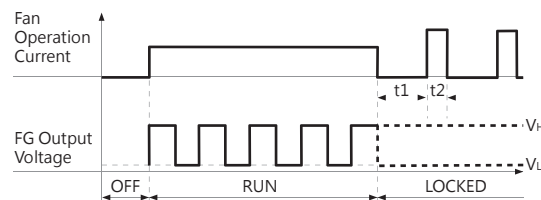
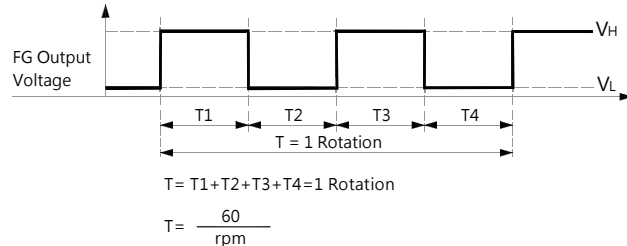
■ RD / FG Signal



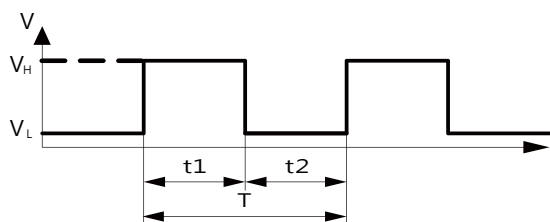
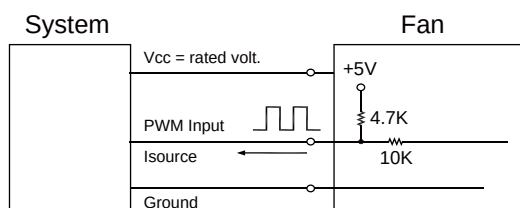
[RD Signal]



[FG Signal]



■ PWM Input Signal



1. Period : $T = \frac{1}{f_{\text{PWM}}} = t1 + t2(\text{sec})$

2. Duty Cycle (D.C.) : $\frac{t1}{t1 + t2} * 100 = \frac{t1}{T} * 100(\%)$

VH=2.3~5.5V

VL=0~0.8V

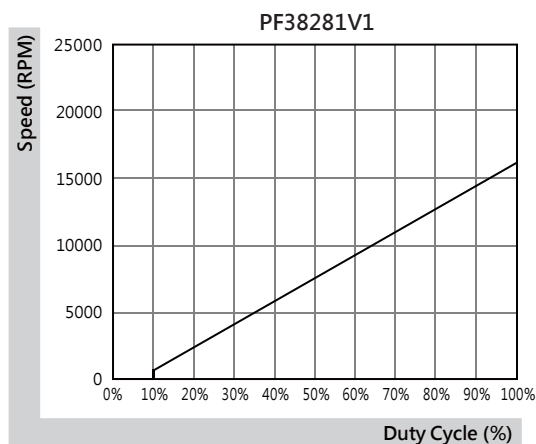
PWM FREQUENCY: 25KHZ

Isource=0.5mA at PWM Input Voltage 0V

The speed is default to be maximum if PWM input pin is unconnected.

Min. start up duty cycle is 10%.

■ PWM Curve

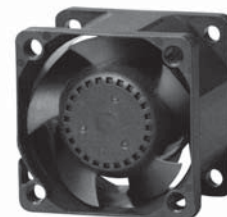


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38x38x28 mm

11.3~23.0 CFM



Specifications

Model	Bearing	Rating Voltage	Power Current	Power Consumption	Speed	Air Flow	Static Pressure	Noise	Weight	Curve
	2BALL Sleeve	(VDC)	(mA)	(WATTS)	(RPM)	(CFM)	(Inch-H ₂ O)	(dB(A))	(g)	
PF38281BX-000U-A99	☉	12	520	6.24	20000	23.0	2.23	57.0	41.0	1
PF38281B1-000U-A99	☉	12	315	3.78	16000	18.1	1.42	51.8	41.0	2
PF38281B2-000U-A99	☉	12	290	3.48	15000	16.9	1.26	51.0	40.0	3
PF38281B3-000U-A99	☉	12	194	2.33	13000	14.9	1.00	47.3	40.0	4
PF38281B4-000U-A99	☉	12	115	1.38	10000	11.3	0.60	40.8	40.0	5

Function

PF38281BX / 1

A99: AutoRestart

F99: AutoRestart and R type

G99: AutoRestart and F type

H99: AutoRestart and PWM

Q99: AutoRestart , R type and PWM

S99: AutoRestart , F type and PWM

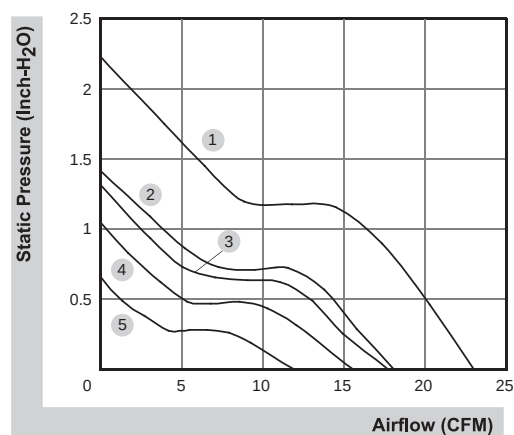
PF38281B2 / 3 / 4

A99: AutoRestart

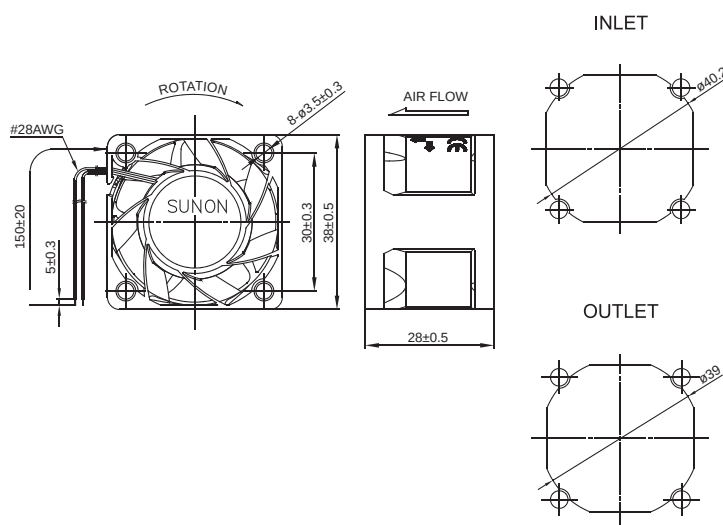
F99: AutoRestart and R type

G99: AutoRestart and F type

Air Flow-Static Pressure Characteristics



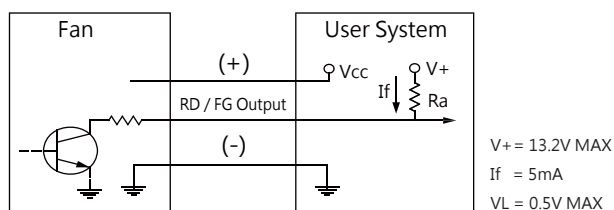
External dimensions(mm)



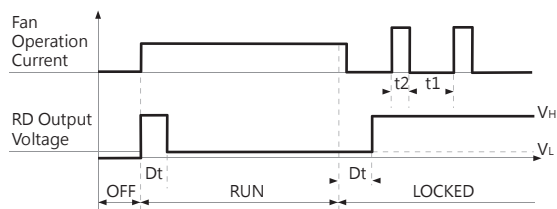
*All model could be customized. Please contact with Sunon Sales.

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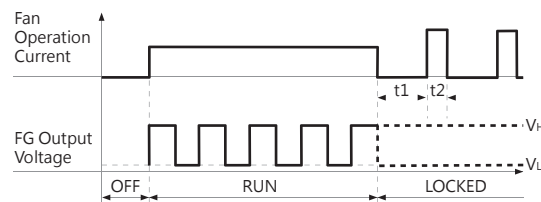
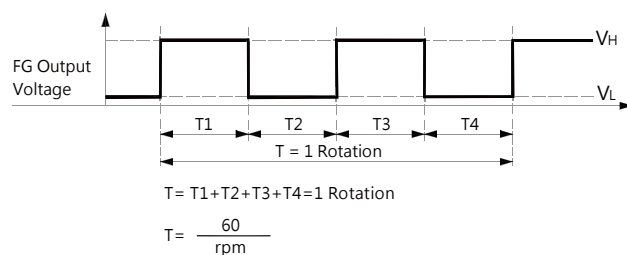
■ RD / FG Signal



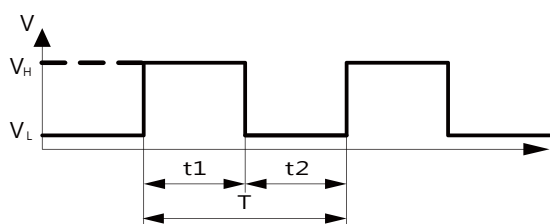
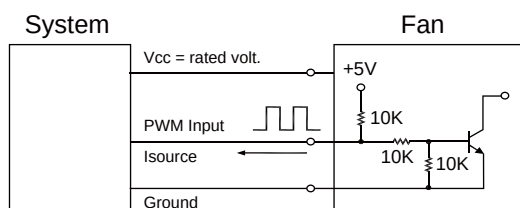
[RD Signal]



[FG Signal]



■ PWM Input Signal



1. Period :
$$T = \frac{1}{f_{PWM}} = t_1 + t_2 (\text{sec})$$
2. Duty Cycle (D.C.) :
$$\frac{t_1}{t_1 + t_2} * 100 = \frac{t_1}{T} * 100 (\%)$$

$V_H = 2.3 \sim 5.5V$

 $V_L = 0 \sim 0.8V$

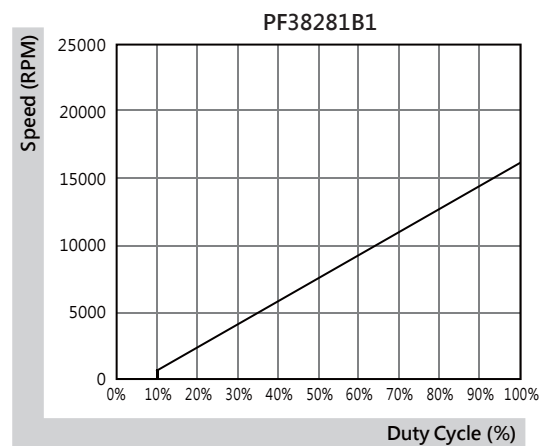
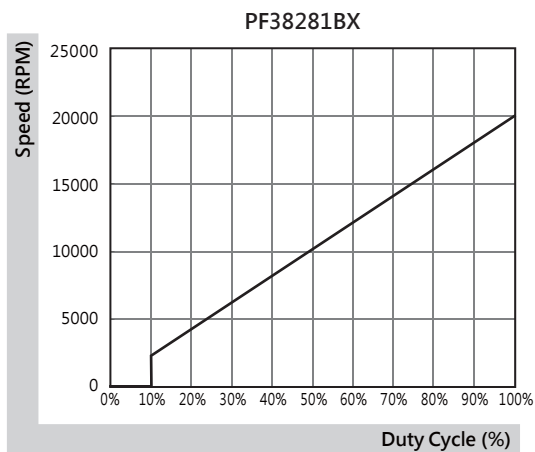
PWM FREQUENCY: 25KHZ

Isorce=0.5mA at PWM Input Voltage 0V

The speed is default to be maximum if PWM input pin is unconnected.

Min. start up duty cycle is 10%.

■ PWM Curve



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40x40x28 mm

25.6~31.5 CFM



Specifications

Model	Bearing	Rating Voltage	Power Current	Power Consumption	Speed	Air Flow	Static Pressure	Noise	Weight	Curve
	2BALL Sleeve	(VDC)	(mA)	(WATTS)	(RPM)	(CFM)	(inch-H ₂ O)	(dB(A))	(g)	
VF40281BX-000U-A9H	☉	12	1140	13.68	27000	31.5	3.95	63.7	46.0	1
VF40281B1-000U-A9H	☉	12	630	7.56	21600	25.6	2.77	58.6	46.0	2

Function

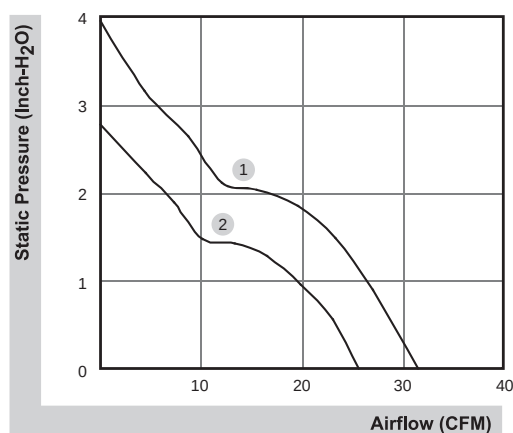
VF40281BX / 1

A9H: AutoRestart

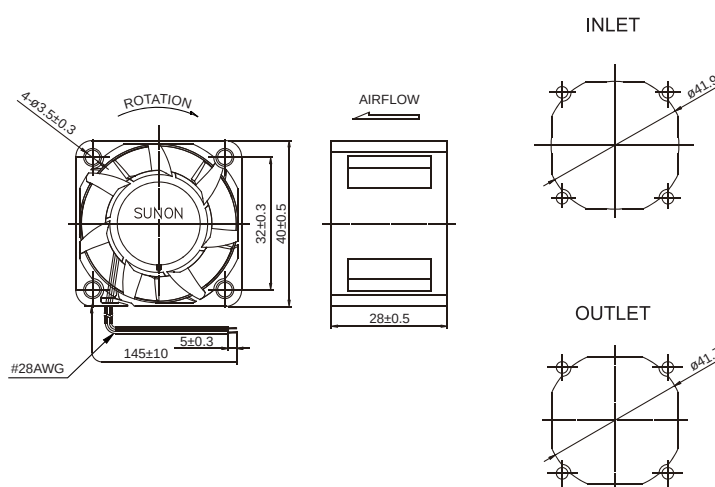
G9H: AutoRestart and F type

S9H: AutoRestart , F type and PWM

Air Flow-Static Pressure Characteristics



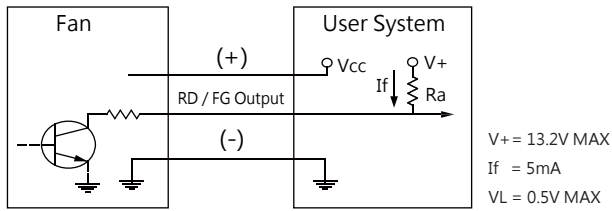
External dimensions(mm)



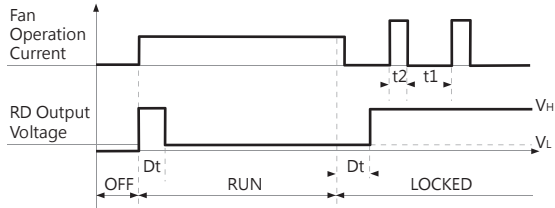
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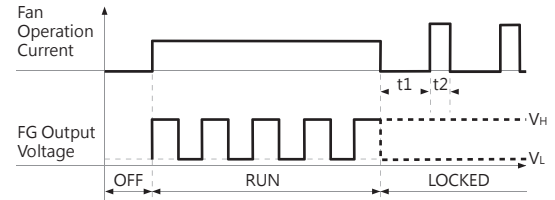
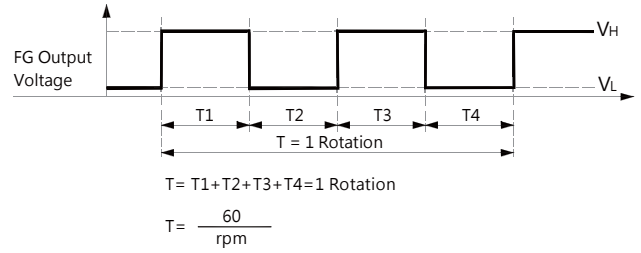
■ RD / FG Signal



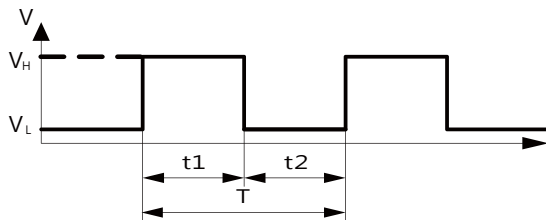
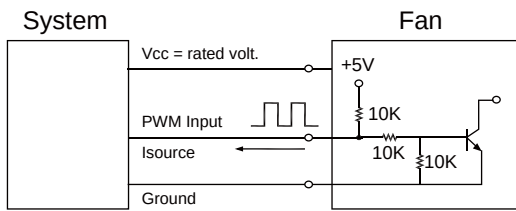
[RD Signal]



[FG Signal]



■ PWM Input Signal



1. Period : $T = \frac{1}{f_{PWM}} = t1 + t2(\text{sec})$

2. Duty Cycle (D.C.) : $\frac{t1}{t1 + t2} * 100 = \frac{t1}{T} * 100(\%)$

VH=2.3~5.5V

VL=0~0.8V

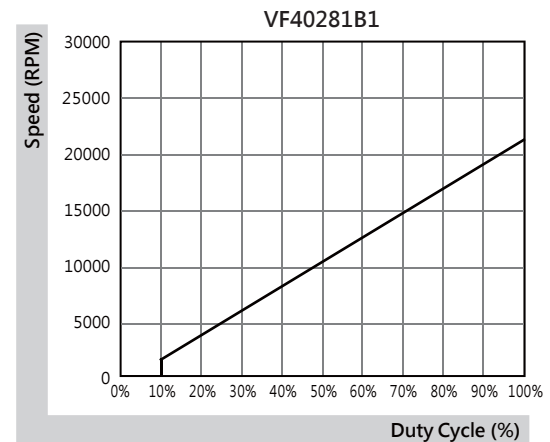
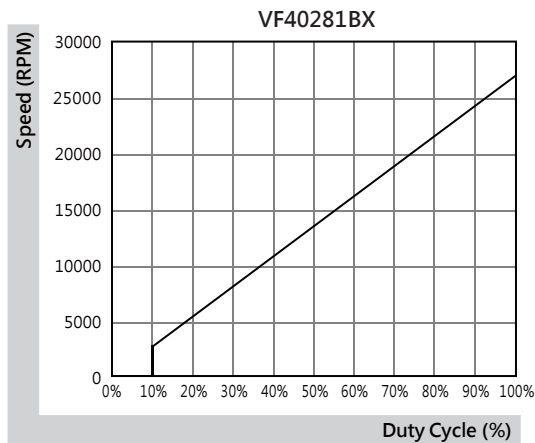
PWM FREQUENCY: 25KHZ

Isource=0.5mA at PWM Input Voltage 0V

The speed is default to be maximum if PWM input pin is unconnected.

Min. start up duty cycle is 10%.

■ PWM Curve



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40x40x28 mm

24.9 CFM



■ Specifications

	Bearing	Rating Voltage	Power Current	Power Consumption	Speed	Air Flow	Static Pressure	Noise	Weight	Curve
	VAPO	(VDC)	(mA)	(WATTS)	(RPM)	(CFM)	(Inch-H ₂ O)	(dB(A))	(g)	
PF40281V1-000U-A99	●	12	740	8.88	17600	24.9	1.95	56.0	45.0	1

■ Function

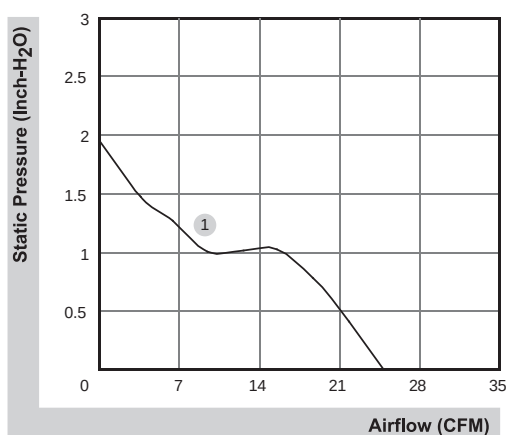
PF40281V1

A99: AutoRestart

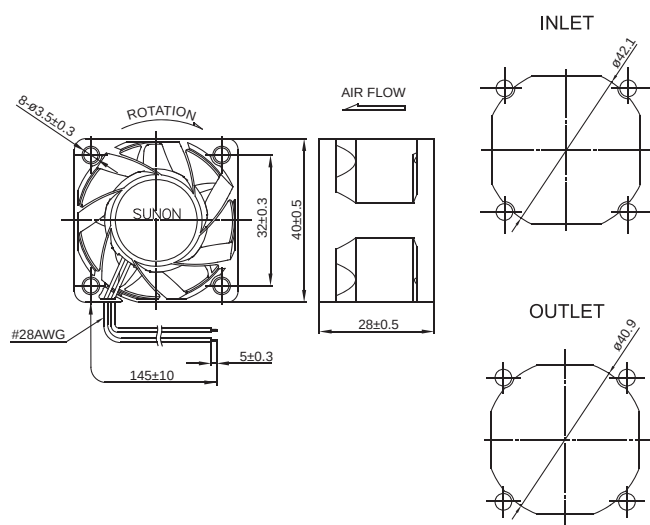
G99: AutoRestart and F type

S99: AutoRestart , F type and PWM

■ Air Flow-Static Pressure Characteristics



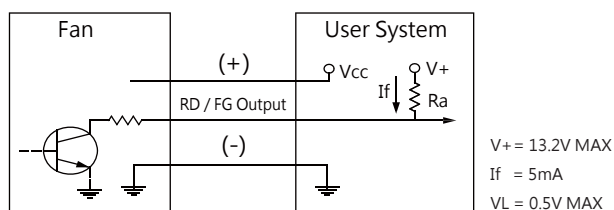
■ External dimensions(mm)



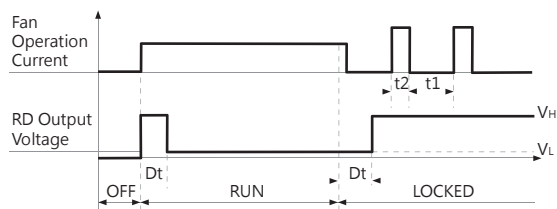
*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

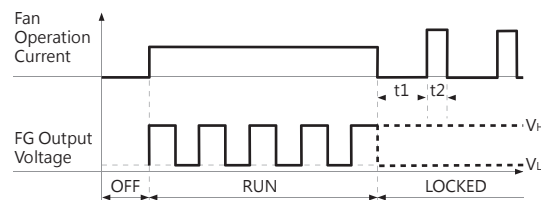
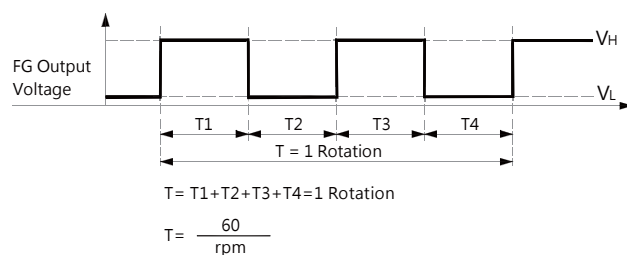
■ FG Signal



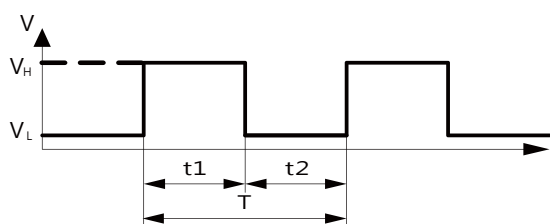
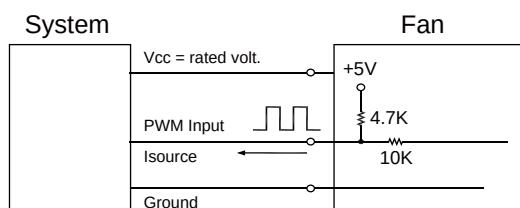
[RD Signal]



[FG Signal]



■ PWM Input Signal



1. Period : $T = \frac{1}{f_{PWM}} = t_1 + t_2 (\text{sec})$

$$2. \text{ Duty Cycle (D.C.) : } \frac{t_1}{t_1+t_2} * 100 = \frac{t_1}{T} * 100(\%)$$

$V_H = 2.3 \sim 5.5V$

 $V_L = 0 \sim 0.8V$

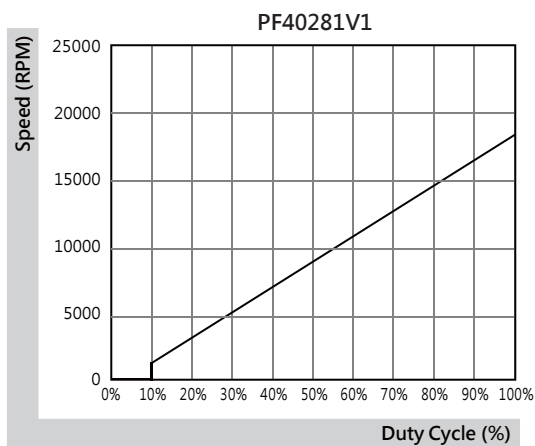
PWM FREQUENCY: 25KHZ

Isorce=0.5mA at PWM Input Voltage 0V

The speed is default to be maximum if PWM input pin is unconnected.

Min. start up duty cycle is 10%.

■ PWM Curve

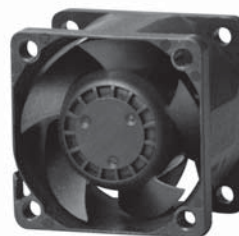


*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

40x40x28 mm

12.8~31.3 CFM



Specifications

Model	Bearing	Rating Voltage	Power Current	Power Consumption	Speed	Air Flow	Static Pressure	Noise	Weight	Curve
	2BALL Sleeve	(VDC)	(mA)	(WATTS)	(RPM)	(CFM)	(Inch-H ₂ O)	(dB(A))	(g)	
PF40281BX-000U-A99	☉	12	900	10.80	22000	31.3	2.81	62.0	42.0	1
PF40281B1-000U-A99	☉	12	510	6.12	17600	24.9	1.95	56.0	42.0	2
PF40281B2-000U-A99	☉	12	246	2.96	13000	18.0	1.10	48.7	45.0	3
PF40281B3-000U-A99	☉	12	162	1.95	11000	15.4	0.78	43.9	45.0	4
PF40281B4-000U-A99	☉	12	116	1.40	9200	12.8	0.54	39.9	45.0	5

Function

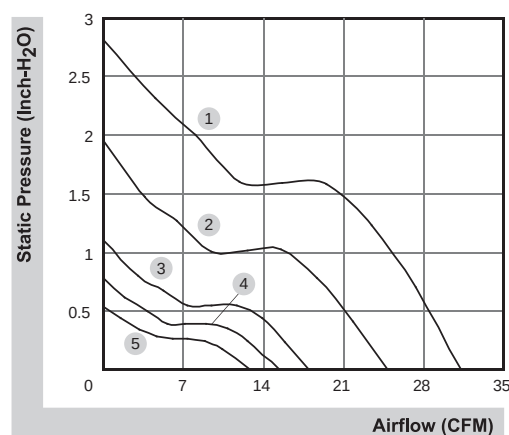
PF40281BX / 1

A99: AutoRestart
 F99: AutoRestart and R type
 G99: AutoRestart and F type
 H99: AutoRestart and PWM
 Q99: AutoRestart , R type and PWM
 S99: AutoRestart , F type and PWM

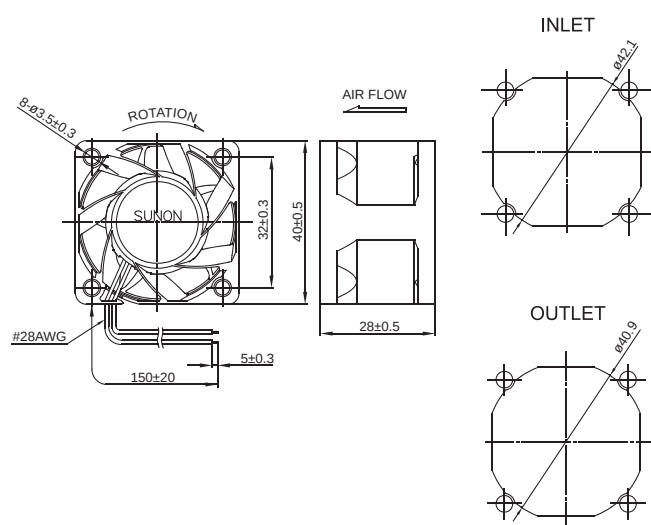
PF40281B2 / 3 / 4

A99: AutoRestart
 F99: AutoRestart and R type
 G99: AutoRestart and F type

Air Flow-Static Pressure Characteristics



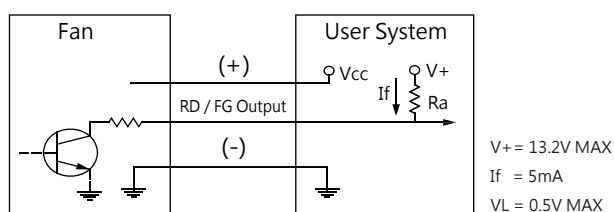
External dimensions(mm)



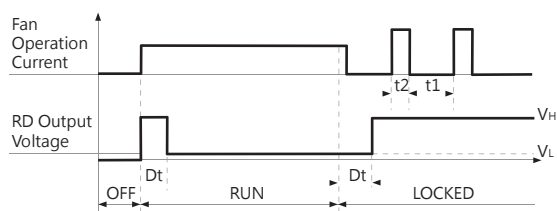
*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

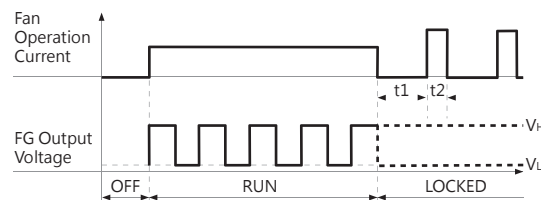
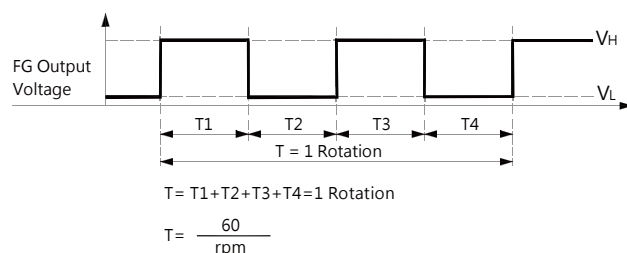
■ FG Signal



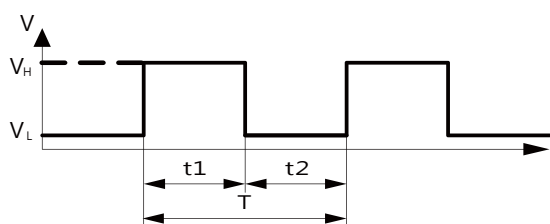
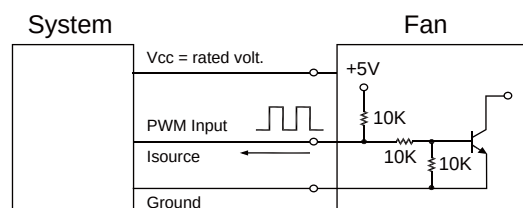
[RD Signal]



[FG Signal]



■ PWM Input Signal



1. Period : $T = \frac{1}{f_{PWM}} = t_1 + t_2 (\text{sec})$

$$2. \text{ Duty Cycle (D.C.) : } \frac{t_1}{t_1+t_2} * 100 = \frac{t_1}{T} * 100(\%)$$

$V_H = 2.3 \sim 5.5V$

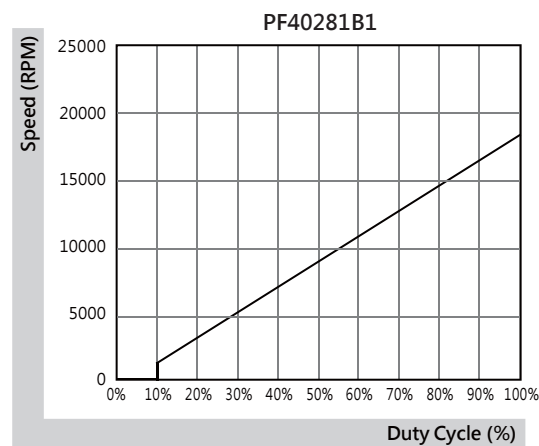
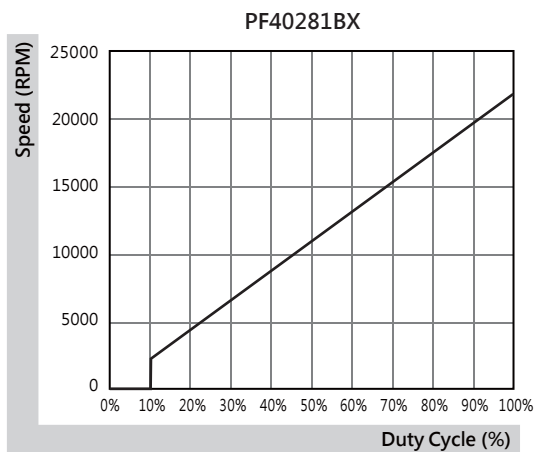
 $V_L = 0 \sim 0.8V$

PWM FREQUENCY: 25KHZ

Isorce=0.5mA at PWM Input Voltage 0V

The speed is default to be maximum if PWM input pin is unconnected.
Min. start up duty cycle is 10%.

■ PWM Curve

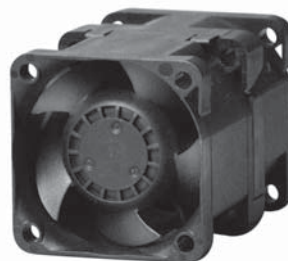


*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

40x40x56 mm

26.9~31.7 CFM



Specifications

Model	Bearing	Rating Voltage	Power Current	Power Consumption	Speed in / out	Air Flow	Static Pressure	Noise	Weight	Curve
	2BALL Sleeve	(VDC)	(mA)	(WATTS)	(RPM)	(CFM)	(Inch-H ₂ O)	(dB(A))	(g)	
PF40561BX-000U-A99	☉	12	1390	16.68	21500/18000	31.7	3.60	65.9	87.0	1
PF40561B1-000U-A99	☉	12	890	10.68	18000/15000	26.9	2.56	62.3	87.0	2

Function

PF40561BX / 1

A99: AutoRestart

F99: AutoRestart and R type

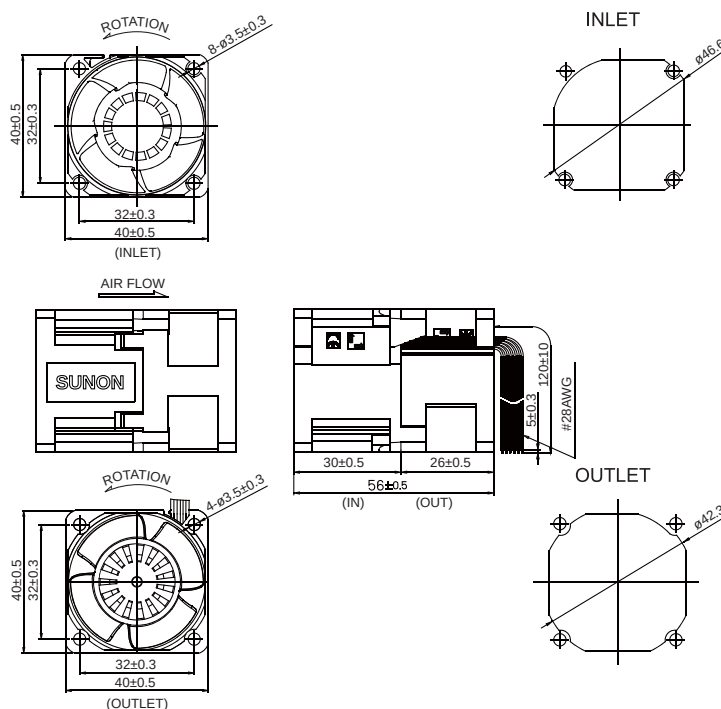
G99: AutoRestart and F type

H99: AutoRestart and PWM

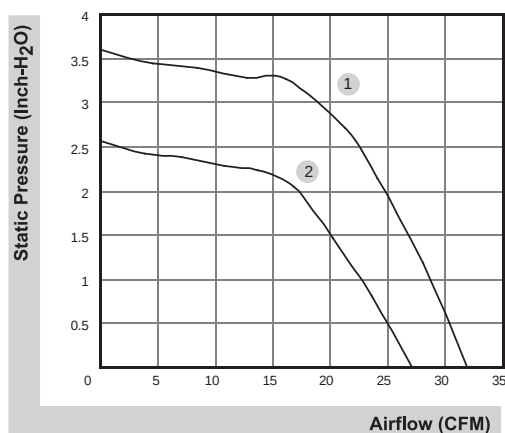
Q99: AutoRestart , R type and PWM

S99: AutoRestart , F type and PWM

External dimensions(mm)



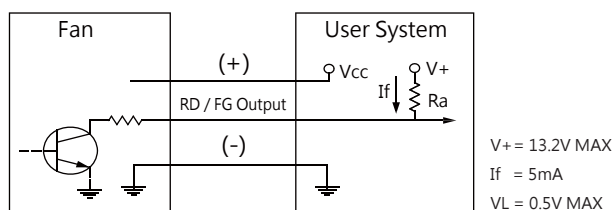
Air Flow-Static Pressure Characteristics



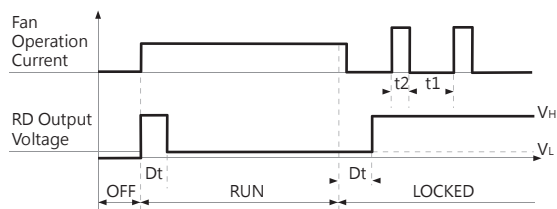
*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

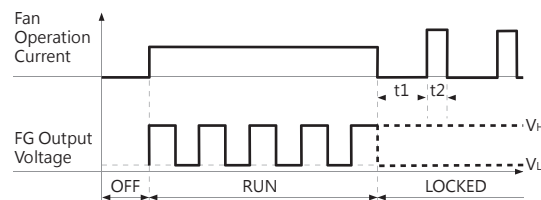
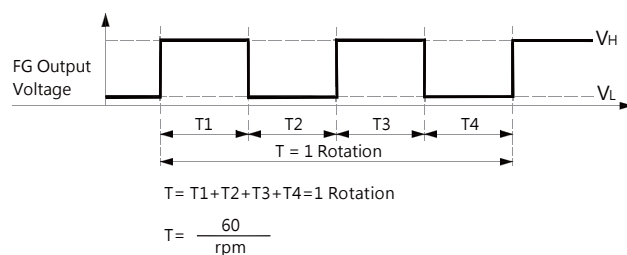
■ FG Signal



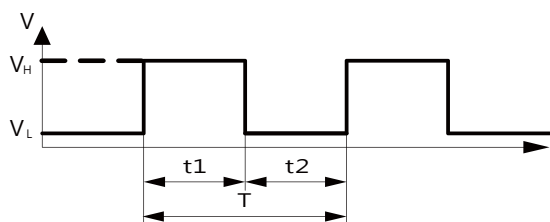
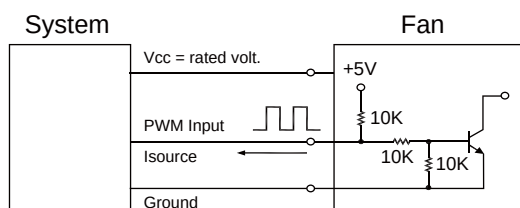
[RD Signal]



[FG Signal]



■ PWM Input Signal



1. Period :
$$T = \frac{1}{f_{PWM}} = t1 + t2(\text{sec})$$

2. Duty Cycle (D.C.) :
$$\frac{t1}{t1 + t2} * 100 = \frac{t1}{T} * 100(\%)$$

VH=2.3~5.5V

VL=0~0.8V

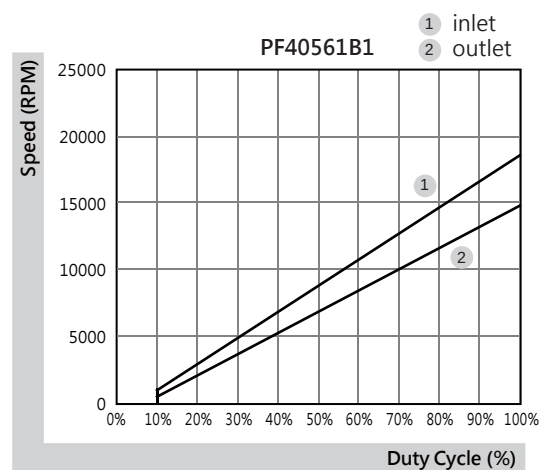
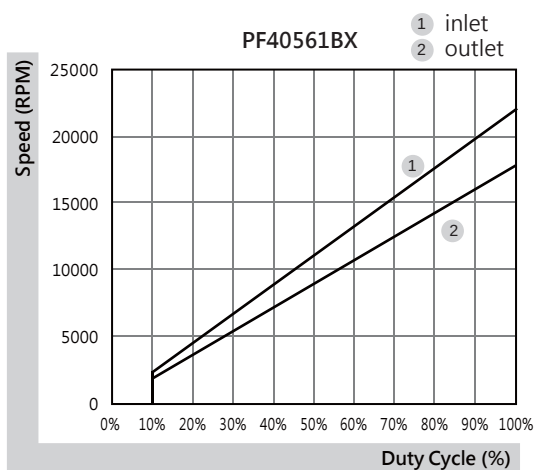
PWM FREQUENCY: 25KHZ

Isource=0.5mA at PWM Input Voltage 0V

The speed is default to be maximum if PWM input pin is unconnected.

Min. start up duty cycle is 10%.

■ PWM Curve



*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

40x40x56 mm

19.7~25.0 CFM



Specifications

Model	Bearing	Rating Voltage	Power Current	Power Consumption	Speed in / out	Air Flow	Static Pressure	Noise	Weight	Curve
	2BALL Sleeve	(VDC)	(mA)	(WATTS)	(RPM)	(CFM)	(inch-H ₂ O)	(dB(A))	(g)	
VG40561BX-000U-A9H	☉	12	1400	16.80	25500/22300	25.0	6.19	65.0	87.0	1
VG40561B1-000U-A9H	☉	12	750	9.00	20400/17800	19.7	4.16	62.5	87.0	2

Function

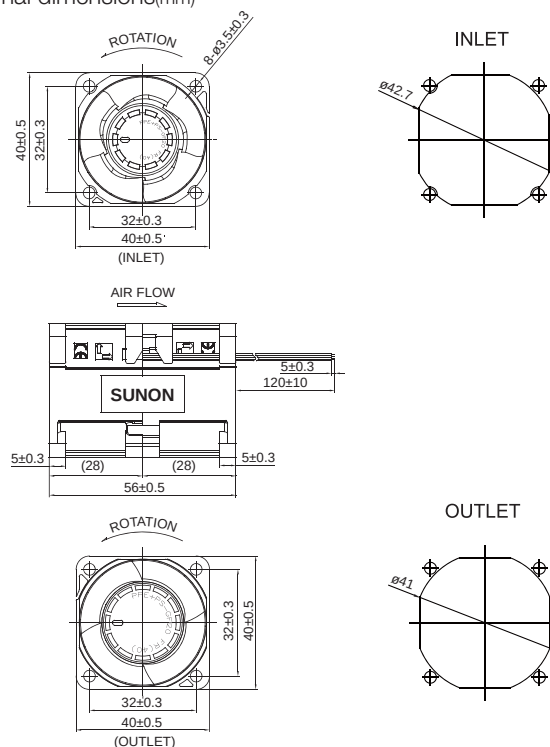
VG40561BX / 1

A9H: AutoRestart

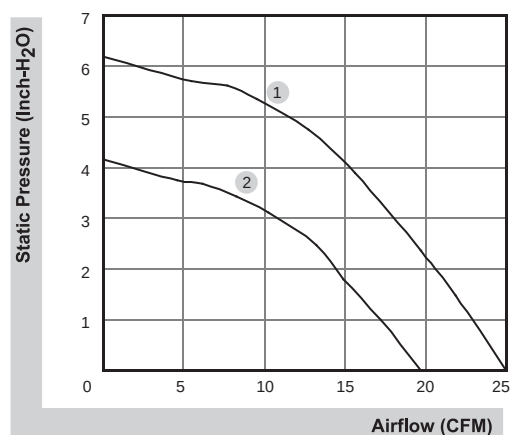
G9H: AutoRestart and F type

S9H: AutoRestart , F type and PWM

External dimensions(mm)



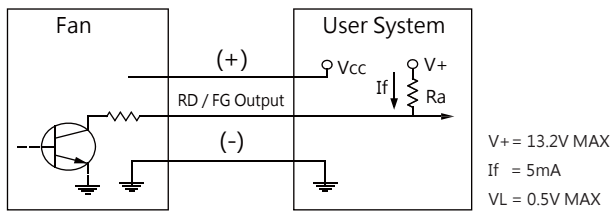
Air Flow-Static Pressure Characteristics



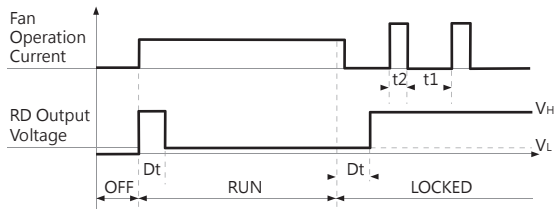
*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

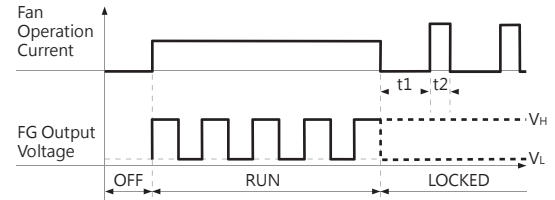
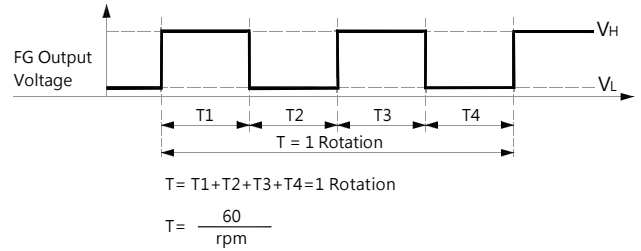
■ FG Signal



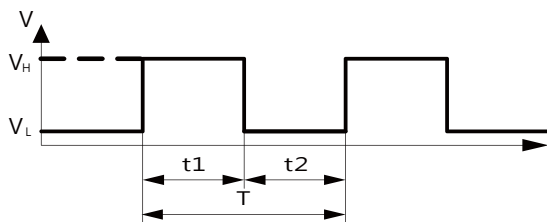
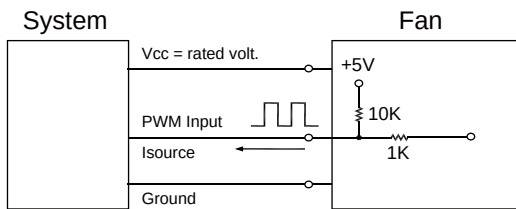
[RD Signal]



[FG Signal]



■ PWM Input Signal



1. Period : $T = \frac{1}{f_{\text{PWM}}} = t_1 + t_2 (\text{sec})$

2. Duty Cycle (D.C.) : $\frac{t_1}{t_1 + t_2} * 100 = \frac{t_1}{T} * 100 (\%)$

$V_H = 2.3 \sim 5.5V$

$V_L = 0 \sim 0.8V$

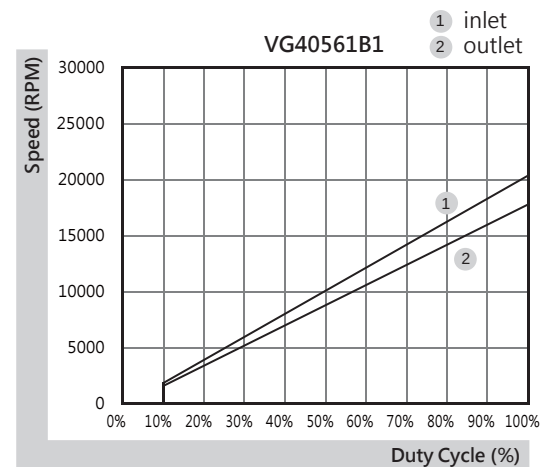
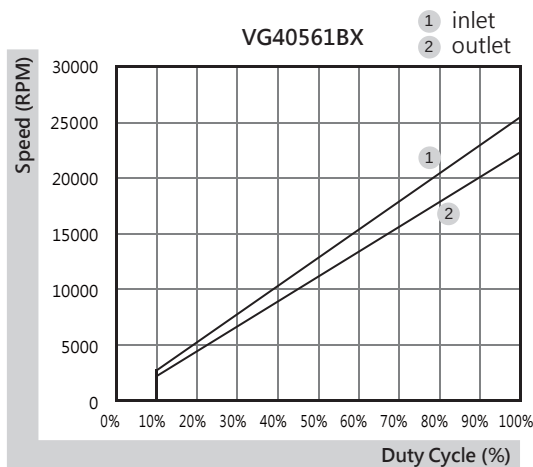
PWM FREQUENCY: 25KHZ

Isouce=0.5mA at PWM Input Voltage 0V

The speed is default to be maximum if PWM input pin is unconnected.

Min. start up duty cycle is 10%.

■ PWM Curve



*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

60x60x38 mm

60.6~75.2 CFM



Specifications

Model	Bearing	Rating Voltage	Power Current	Power Consumption	Speed	Air Flow	Static Pressure	Noise	Weight	Curve
	2BALL Sleeve	(VDC)	(mA)	(WATTS)	(RPM)	(CFM)	(Inch-H ₂ O)	(dB(A))	(g)	
PF60381BX-000U-A99	☉	12	2500	30.00	16500	75.2	3.28	67.6	127.0	1
PF60381B1-000U-A99	☉	12	1200	14.40	13200	60.6	2.13	61.2	127.0	2

Function

PF60381BX / 1

A99: AutoRestart

F99: AutoRestart and R type

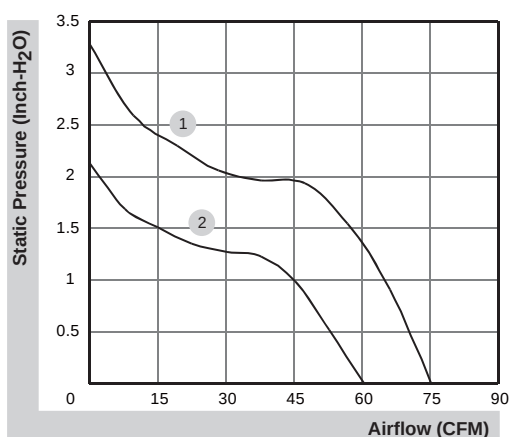
G99: AutoRestart and F type

H99: AutoRestart and PWM

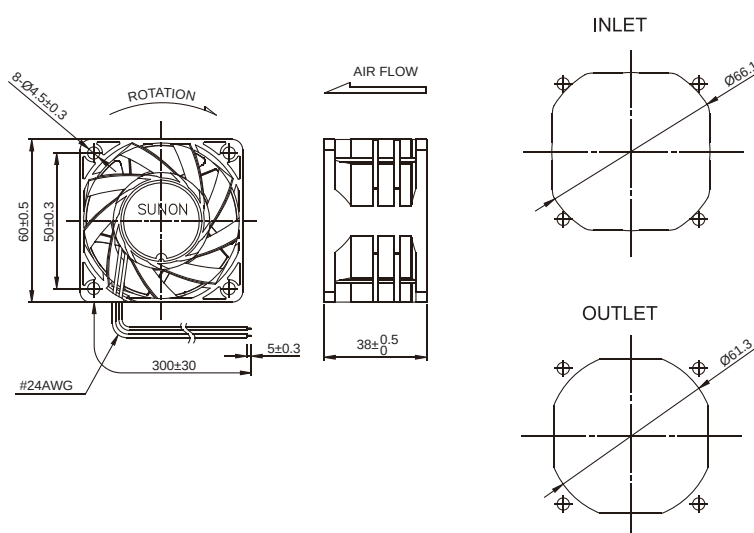
Q99: AutoRestart , R type and PWM

S99: AutoRestart , F type and PWM

Air Flow-Static Pressure Characteristics

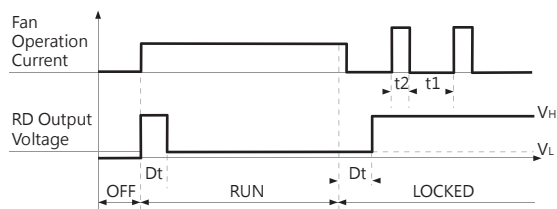


External dimensions(mm)



*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.



FG Output Voltage

V_H

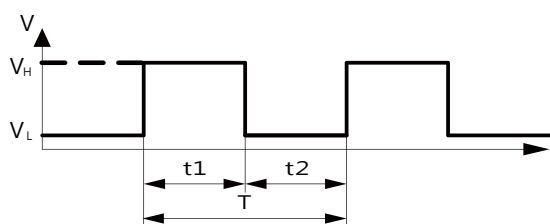
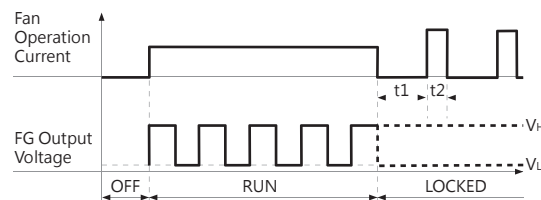
V_L

T_1 T_2 T_3 T_4

$T = 1 \text{ Rotation}$

$T = T_1 + T_2 + T_3 + T_4 = 1 \text{ Rotation}$

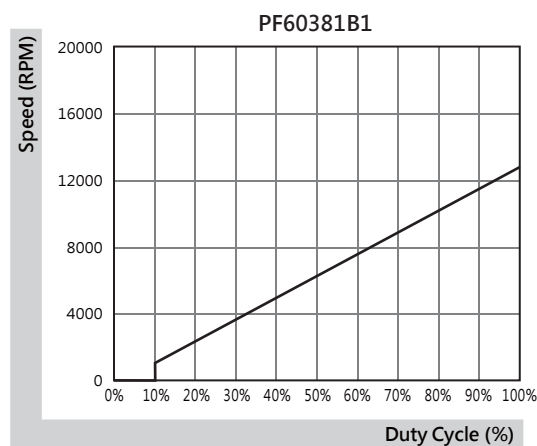
$T = \frac{60}{\text{rpm}}$



1. Period :
$$T = \frac{1}{f_{PWM}} = t_1 + t_2(\text{sec})$$
2. Duty Cycle (D.C.) :
$$\frac{t_1}{t_1 + t_2} * 100 = \frac{t_1}{T} * 100(\%)$$
- VH=2.3~5.5V
VL=0~0.8V
PWM FREQUENCY: 25KHZ
Isource=0.5mA at PWM Input Voltage 0V
The speed is default to be maximum if PWM input pin is unconnected.
Min. start up duty cycle is 10%.

PF60381BX

Duty Cycle (%)	Speed (RPM)
10	1800
20	3600
30	5400
40	7200
50	9000
60	10800
70	12600
80	14400
90	16200
100	16500



*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

60x60x38 mm

54.1~67.8 CFM



■ Specifications

Model	Bearing	Rating Voltage	Power Current	Power Consumption	Speed	Air Flow	Static Pressure	Noise	Weight	Curve
	2BALL O Sleeve	(VDC)	(mA)	(WATTS)	(RPM)	(CFM)	(inch-H ₂ O)	(dB(A))	(g)	
VF60381BX-000U-A9H	☛	12	1900	22.80	22800	67.8	4.84	64.1	120.0	1
VF60381B1-000U-A9H	☛	12	1000	12.00	18300	54.1	4.23	60.9	120.0	2

■ Function

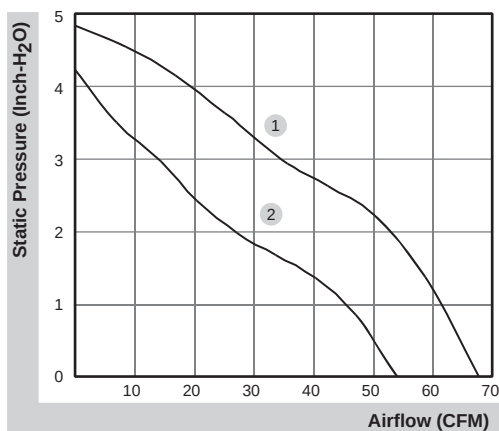
VF60381BX / 1

A9H: AutoRestart

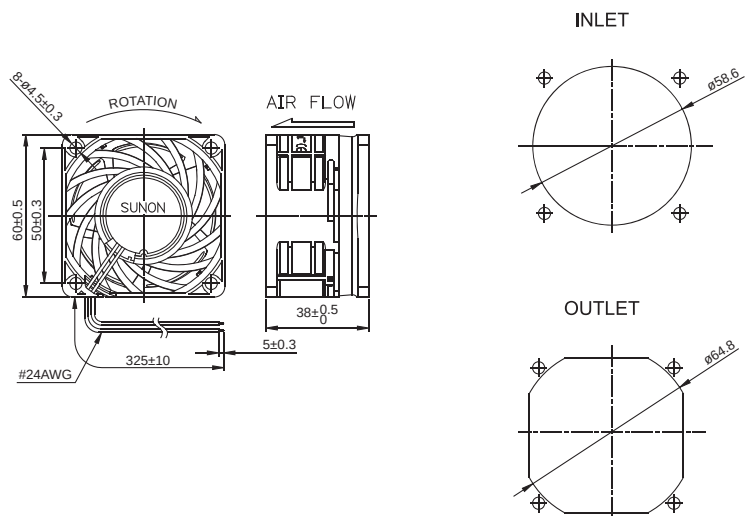
G9H: AutoRestart and F type

S9H: AutoRestart , F type and PWM

■ Air Flow-Static Pressure Characteristics



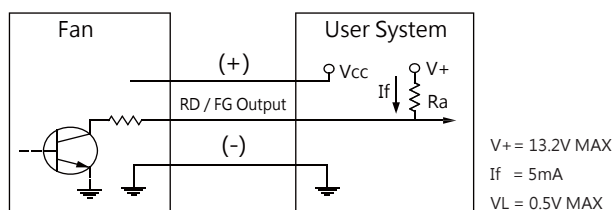
■ External dimensions(mm)



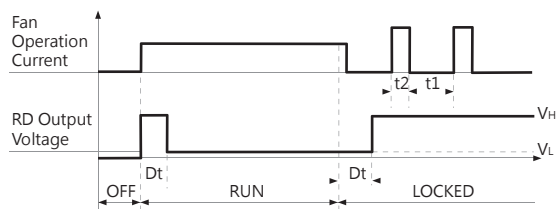
*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

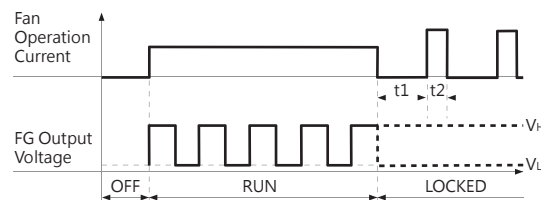
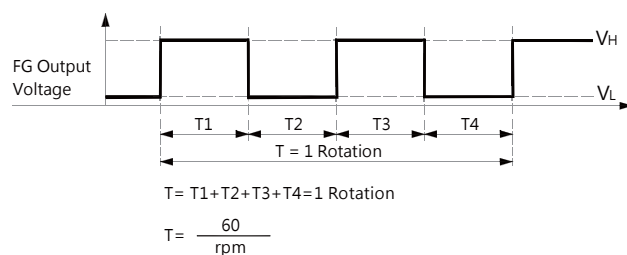
■ RD / FG Signal



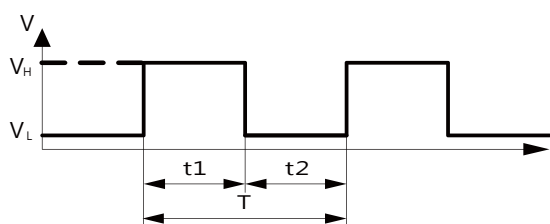
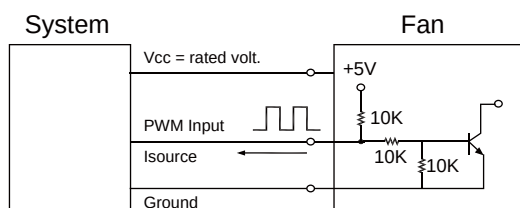
[RD Signal]



[FG Signal]



■ PWM Input Signal



1. Period : $T = \frac{1}{f_{PWM}} = t_1 + t_2 (\text{sec})$
2. Duty Cycle (D.C.) : $\frac{t_1}{t_1 + t_2} * 100 = \frac{t_1}{T} * 100 (\%)$

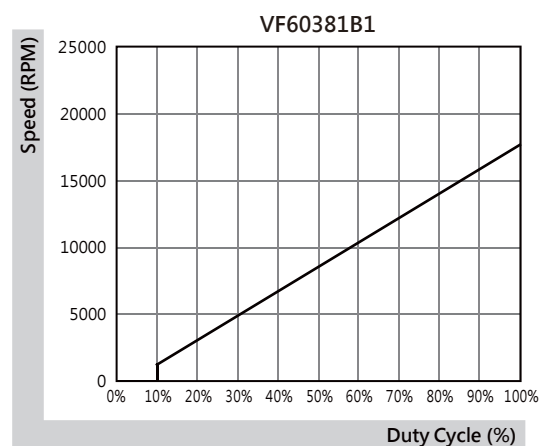
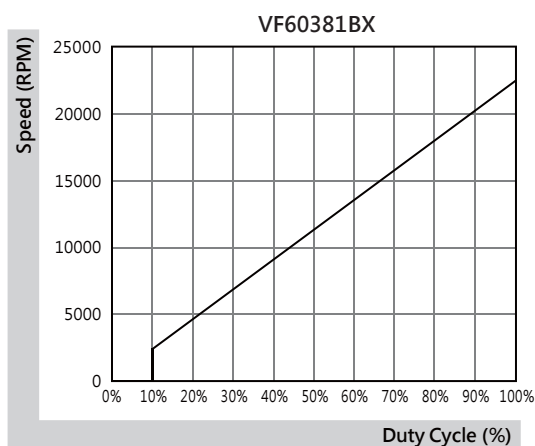
 $V_H = 2.3 \sim 5.5V$ $V_L = 0 \sim 0.8V$

PWM FREQUENCY: 25KHZ

Isorce=0.5mA at PWM Input Voltage 0V

The speed is default to be maximum if PWM input pin is unconnected.
Min. start up duty cycle is 10%.

■ PWM Curve



*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

60x60x56 mm

58.5~72.9 CFM



Specifications

Model	Bearing	Rating Voltage	Power Current	Power Consumption	Speed in / out	Air Flow	Static Pressure	Noise	Weight	Curve
	2BALL Sleeve	(VDC)	(mA)	(WATTS)	(RPM)	(CFM)	(inch-H ₂ O)	(dB(A))	(g)	
PF60561BX-000U-A9H	●	12	2500	30.00	15300/14300	72.9	3.44	71.7	172.0	1
PF60561B1-000U-A9H	●	12	1400	16.80	12300/11500	58.5	2.35	67.0	172.0	2

Function

PF60561BX / 1

A9H: AutoRestart

F9H: AutoRestart and R type

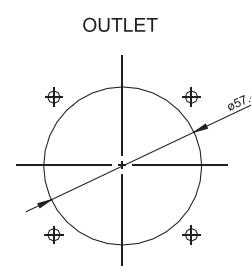
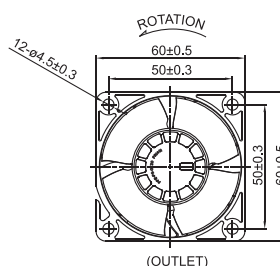
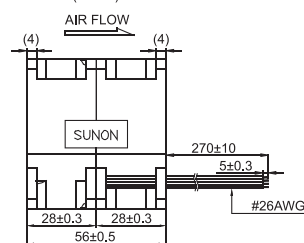
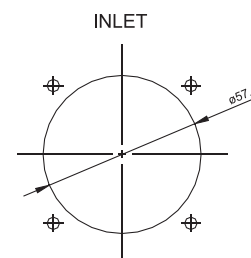
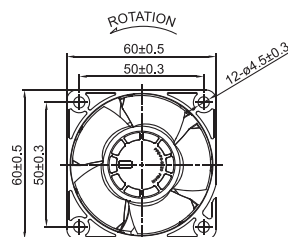
G9H: AutoRestart and F type

H9H: AutoRestart and PWM

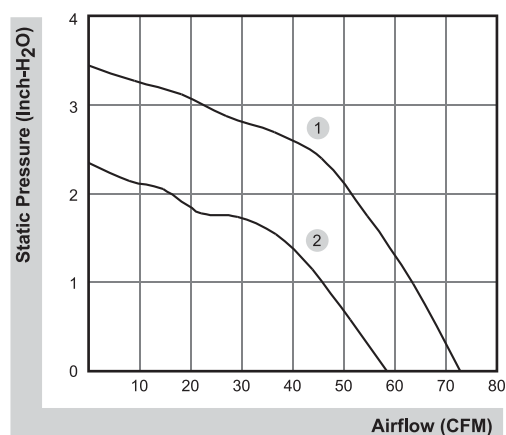
Q9H: AutoRestart , R type and PWM

S9H: AutoRestart , F type and PWM

External dimensions (mm)



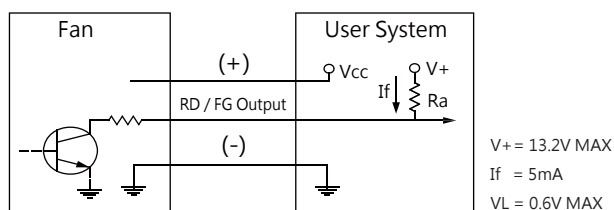
Air Flow-Static Pressure Characteristics



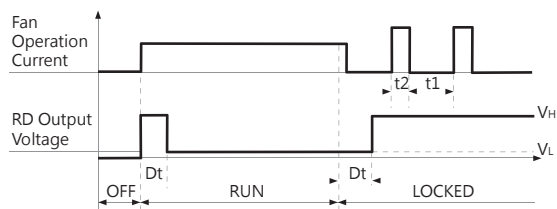
*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

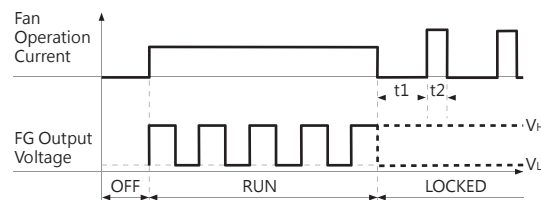
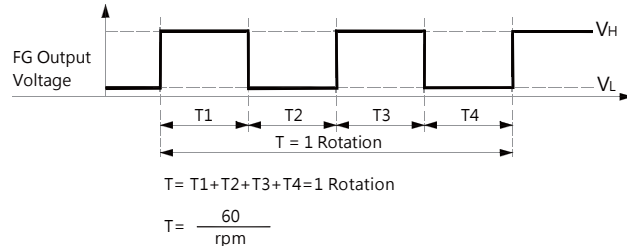
■ RD / FG Signal



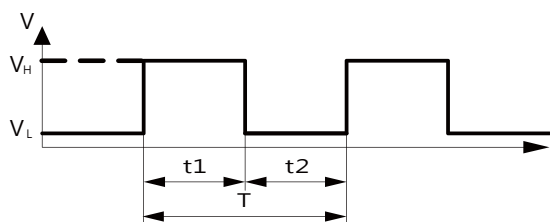
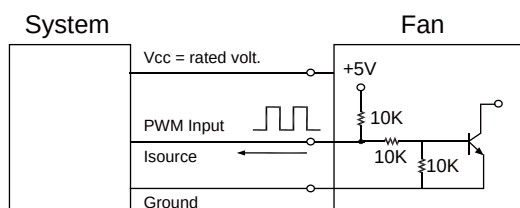
[RD Signal]



[FG Signal]



■ PWM Input Signal



1. Period : $T = \frac{1}{f_{PWM}} = t1 + t2(\text{sec})$

2. Duty Cycle (D.C.) : $\frac{t1}{t1+t2} * 100 = \frac{t1}{T} * 100(\%)$

VH=2.3~5.5V

VL=0~0.8V

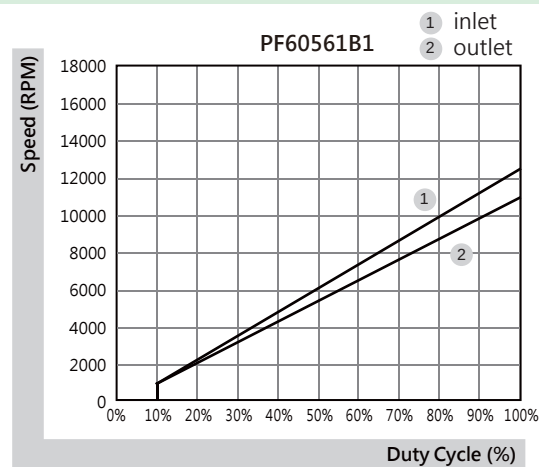
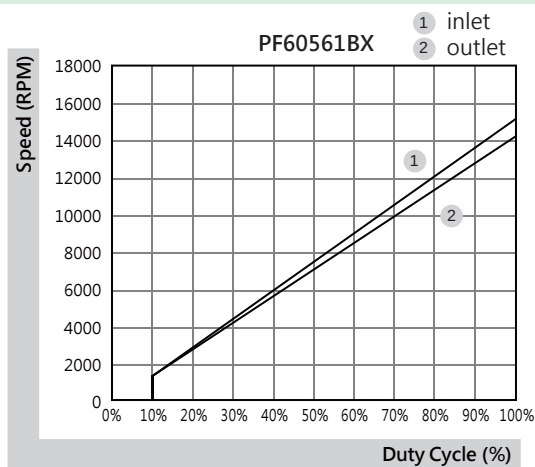
PWM FREQUENCY: 25KHZ

Isource=0.5mA at PWM Input Voltage 0V

The speed is default to be maximum if PWM input pin is unconnected.

Min. start up duty cycle is 10%.

■ PWM Curve



*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

60x60x76 mm

58.7~73.2 CFM



Specifications

Model	Bearing	Rating Voltage	Power Current	Power Consumption	Speed in / out	Air Flow	Static Pressure	Noise	Weight	Curve
	2BALL Sleeve	(VDC)	(mA)	(WATTS)	(RPM)	(CFM)	(inch-H ₂ O)	(dB(A))	(g)	
PF60761BX-000U-A99	☉	12	2800	33.60	18200/14700	73.2	3.96	68.6	270.0	1
PF60761B1-000U-A99	☉	12	1600	19.20	14600/11700	58.7	2.54	62.8	270.0	2

Function

PF60761BX / 1

A99: AutoRestart

F99: AutoRestart and R type

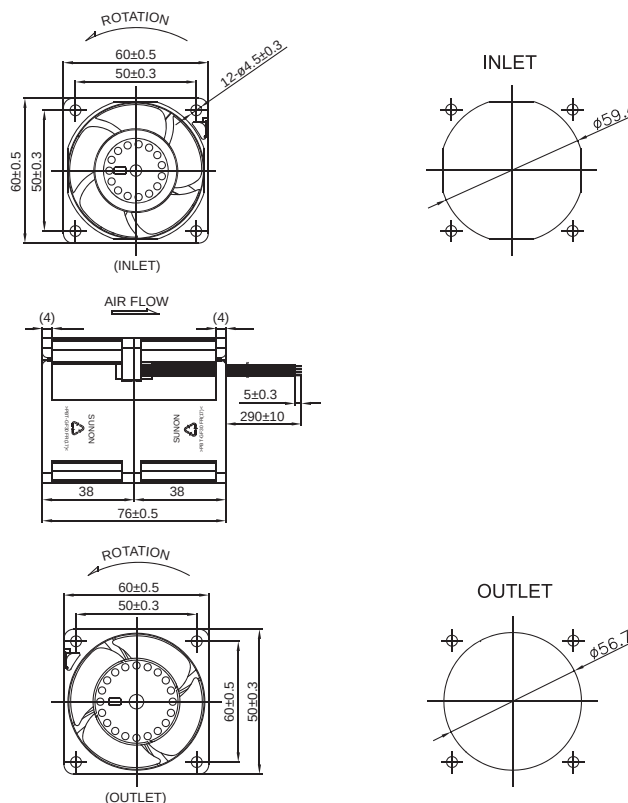
G99: AutoRestart and F type

H99: AutoRestart and PWM

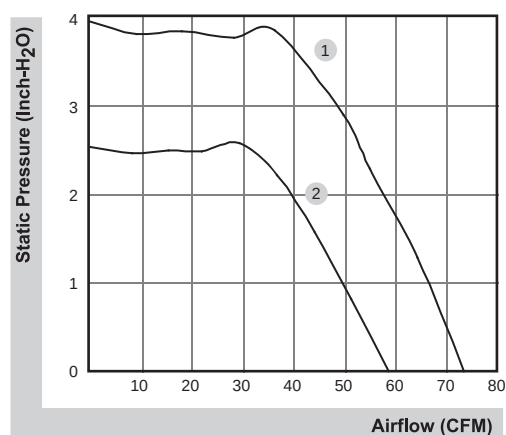
Q99: AutoRestart , R type and PWM

S99: AutoRestart , F type and PWM

External dimensions(mm)



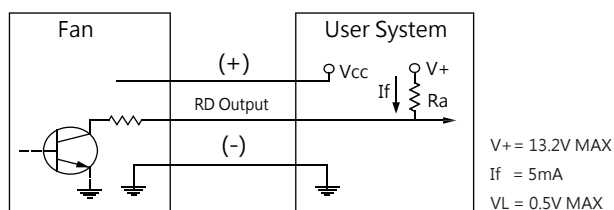
Air Flow-Static Pressure Characteristics



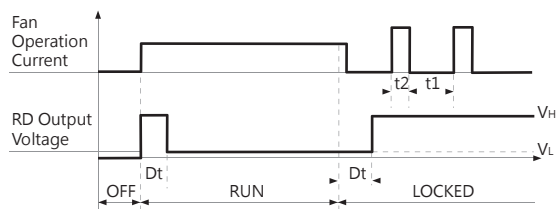
*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

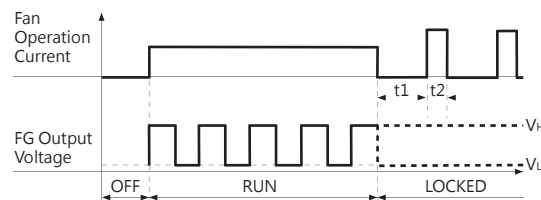
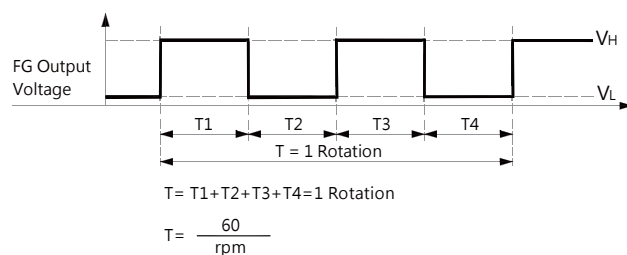
■ RD / FG Signal



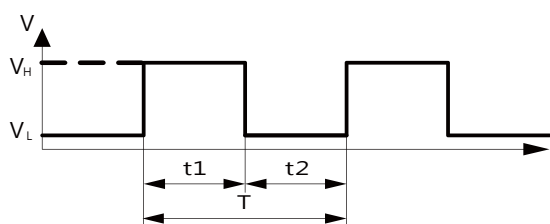
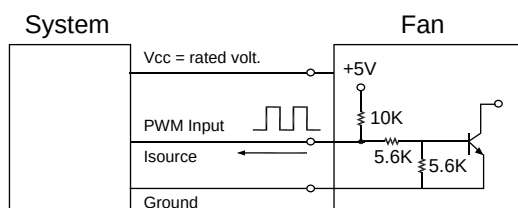
[RD Signal]



[FG Signal]



■ PWM Input Signal



1. Period : $T = \frac{1}{f_{PWM}} = t_1 + t_2 (\text{sec})$

$$2. \text{ Duty Cycle (D.C.) : } \frac{t_1}{t_1+t_2} * 100 = \frac{t_1}{T} * 100(\%)$$

 $V_H = 2.3 \sim 5.5V$ $V_L = 0 \sim 0.8V$

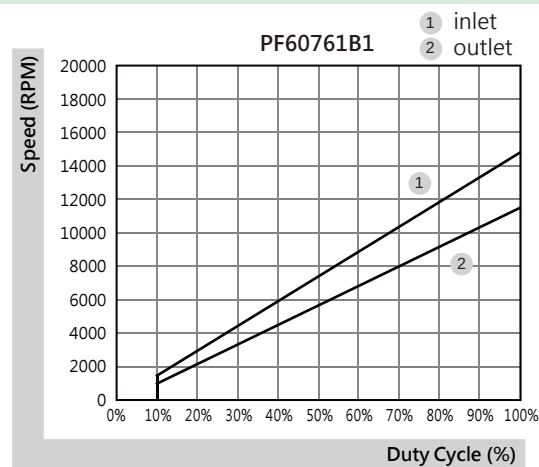
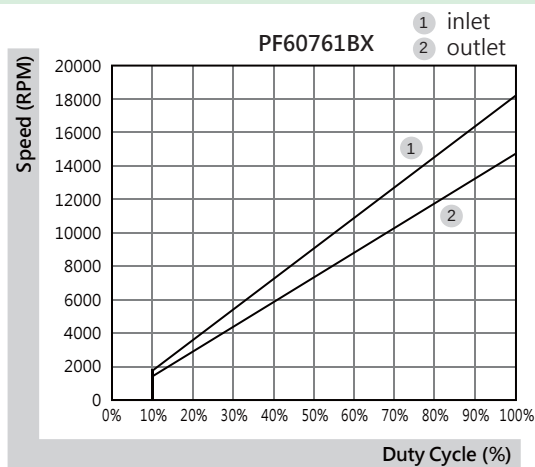
PWM FREQUENCY: 25KHZ

Isorce=0.5mA at PWM Input Voltage 0V

The speed is default to be maximum if PWM input pin is unconnected.

Min. start up duty cycle is 10%.

■ PWM Curve

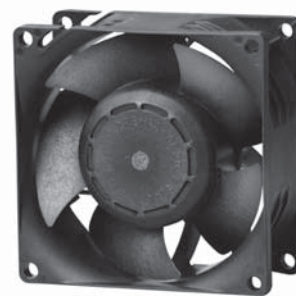


*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

80x80x38 mm

113.9~141.9 CFM



Specifications

Model	Bearing	Rating Voltage	Power Current	Power Consumption	Speed	Air Flow	Static Pressure	Noise	Weight	Curve
	2BALL Sleeve	(VDC)	(mA)	(WATTS)	(RPM)	(CFM)	(inch-H ₂ O)	(dB(A))	(g)	
PF80381BX-000U-A99	☉	12	4000	48.00	14000	141.9	3.20	72.1	195.0	1
PF80381B1-000U-A99	☉	12	2000	24.00	11200	113.9	2.23	64.8	195.0	2

Function

PF80381BX / 1

A99: AutoRestart

F99: AutoRestart and R type

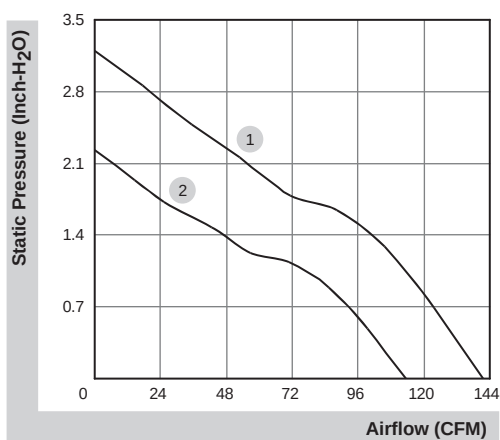
G99: AutoRestart and F type

H99: AutoRestart and PWM

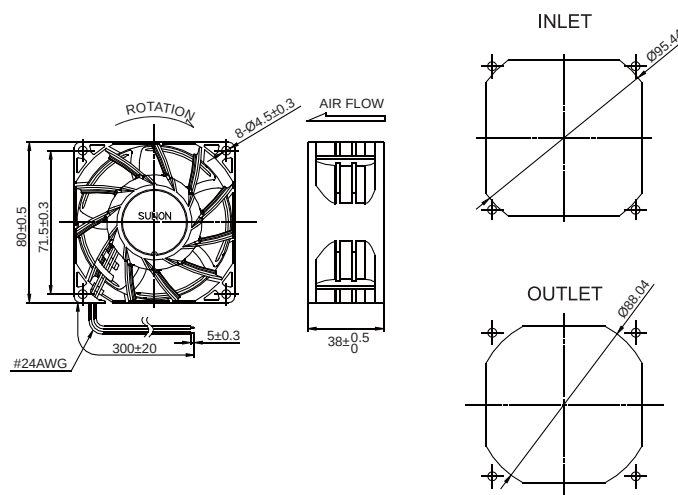
Q99: AutoRestart , R type and PWM

S99: AutoRestart , F type and PWM

Air Flow-Static Pressure Characteristics



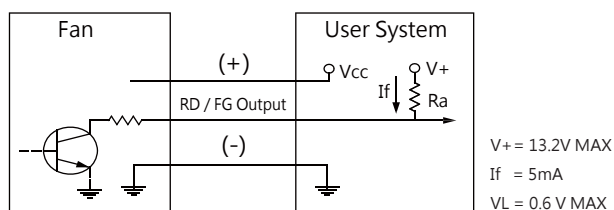
External dimensions(mm)



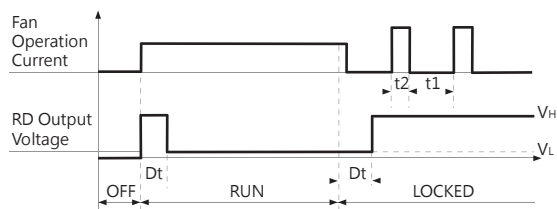
*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

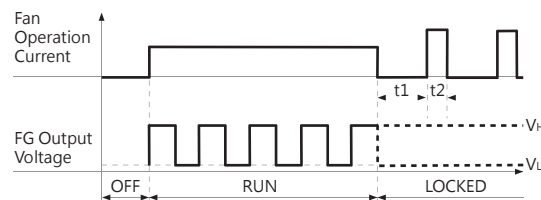
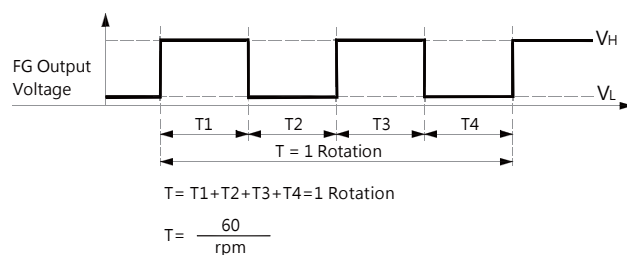
■ FG Signal



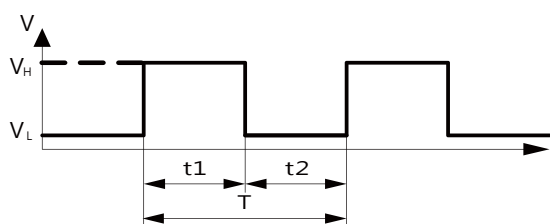
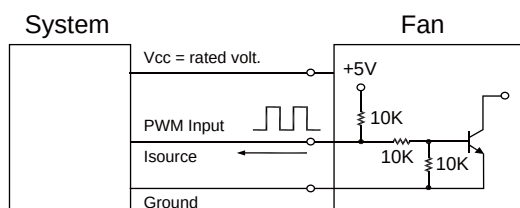
[RD Signal]



[FG Signal]



■ PWM Input Signal



1. Period : $T = \frac{1}{f_{PWM}} = t_1 + t_2 (\text{sec})$

$$2. \text{ Duty Cycle (D.C.) : } \frac{t_1}{t_1+t_2} * 100 = \frac{t_1}{T} * 100(\%)$$

$V_H = 2.3 \sim 5.5V$

 $V_L = 0 \sim 0.8V$

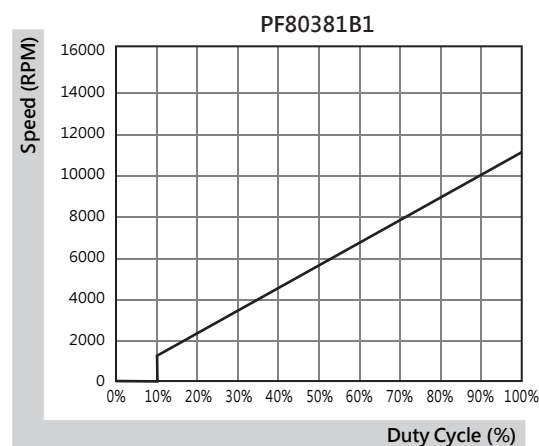
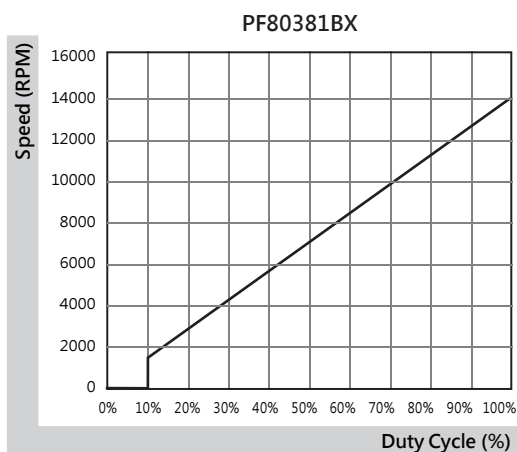
PWM FREQUENCY: 25KHZ

Isorce=0.5mA at PWM Input Voltage 0V

The speed is default to be maximum if PWM input pin is unconnected.

Min. start up duty cycle is 10%.

■ PWM Curve



*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

80x80x38 mm

105.8~134.3 CFM



Specifications

Model	Bearing	Rating Voltage	Power Current	Power Consumption	Speed	Air Flow	Static Pressure	Noise	Weight	Curve
	2BALL Sleeve	(VDC)	(mA)	(WATTS)	(RPM)	(CFM)	(inch-H ₂ O)	(dB(A))	(g)	
PF80384BX-000U-A99	☉	48	700	33.60	12900	134.3	3.35	67.5	204.0	1
PF80384B1-000U-A99	☉	48	380	18.24	10500	105.8	2.46	62.6	204.0	2

Function

PF80384BX / 1

A99: AutoRestart

F99: AutoRestart and R type

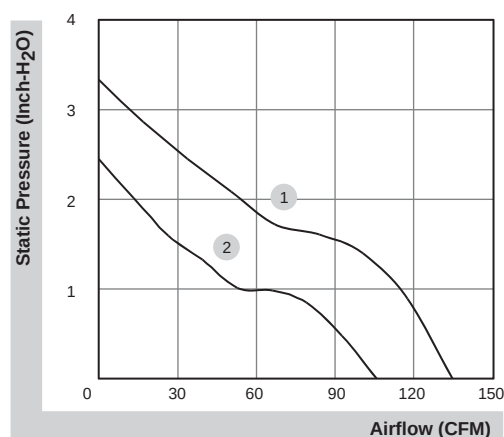
G99: AutoRestart and F type

H99: AutoRestart and PWM

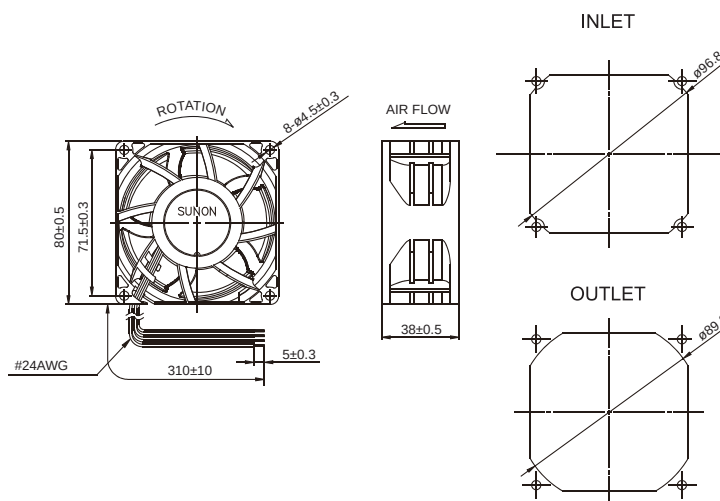
Q99: AutoRestart , R type and PWM

S99: AutoRestart , F type and PWM

Air Flow-Static Pressure Characteristics



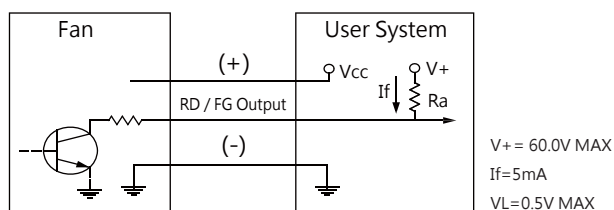
External dimensions(mm)



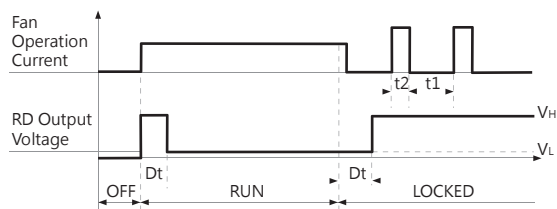
*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

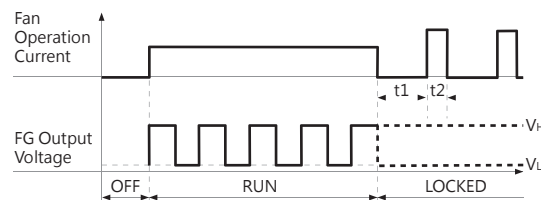
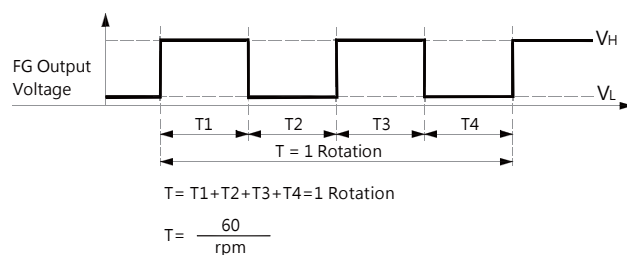
■ FG Signal



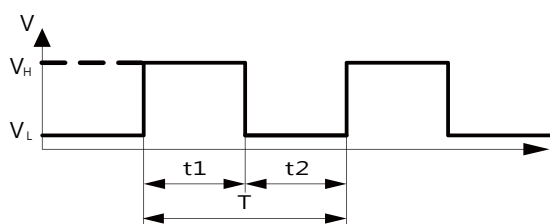
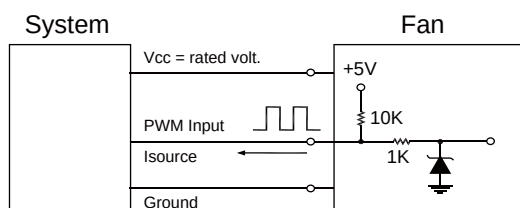
[RD Signal]



[FG Signal]



■ PWM Input Signal



1. Period : $T = \frac{1}{f_{PWM}} = t_1 + t_2 (\text{sec})$

$$2. \text{ Duty Cycle (D.C.) : } \frac{t_1}{t_1+t_2} * 100 = \frac{t_1}{T} * 100(\%)$$

$V_H = 2.8 \sim 5.5V$

 $V_L = 0 \sim 0.8V$

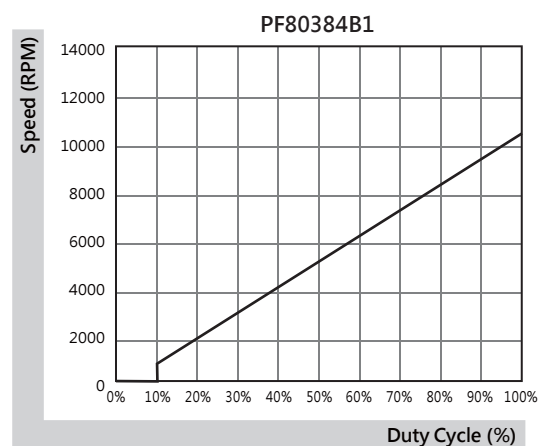
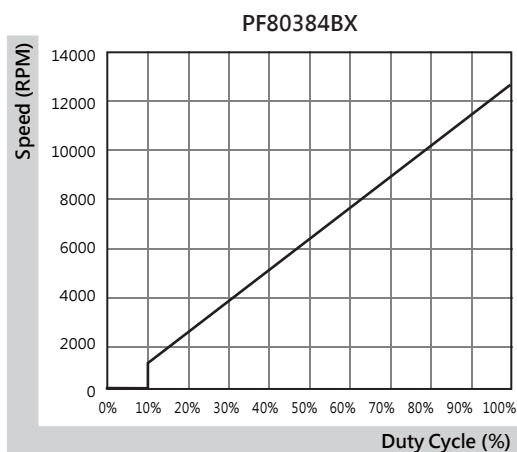
PWM FREQUENCY: 25KHZ

Isorce=0.5mA at PWM Input Voltage 0V

The speed is default to be maximum if PWM input pin is unconnected.

Min. start up duty cycle is 10%.

■ PWM Curve



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*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

80x80x80 mm

122.0~151.5 CFM



■ Specifications

Model	Bearing	Rating Voltage	Power Current	Power Consumption	Speed in / out	Air Flow	Static Pressure	Noise	Weight	Curve
	2BALL Sleeve	(VDC)	(mA)	(WATTS)	(RPM)	(CFM)	(Inch-H ₂ O)	(dB(A))	(g)	
PF80801BX-000U-A9H	☉	12	6800	81.60	15600/14100	151.5	5.44	80.4	464.0	1
PF80801B1-000U-A9H	☉	12	3500	42.00	12600/11300	122.0	3.66	75.1	464.0	2

■ Function

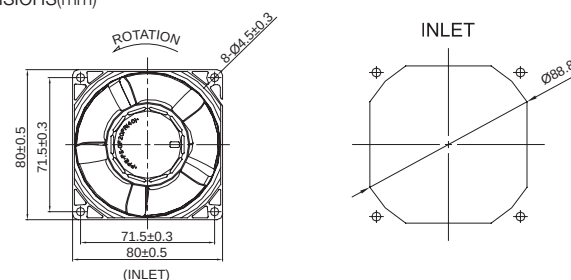
PF80801BX / 1

A9H: AutoRestart

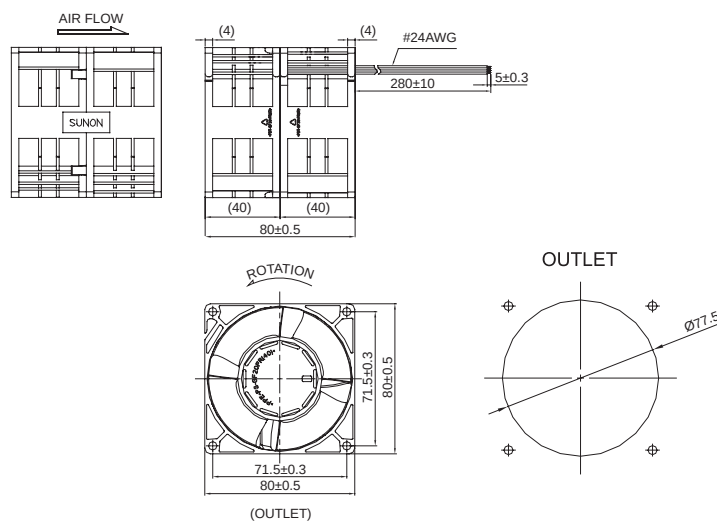
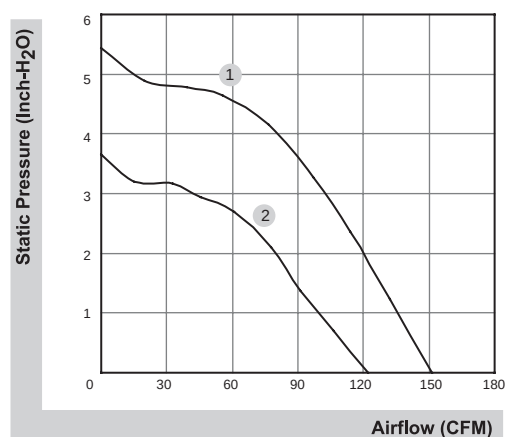
G9H: AutoRestart and F type

S9H: AutoRestart , F type and PWM

■ External dimensions(mm)



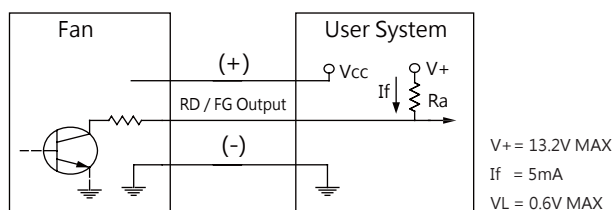
■ Air Flow-Static Pressure Characteristics



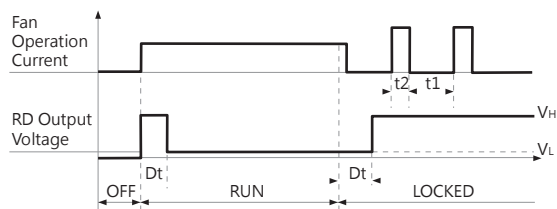
*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

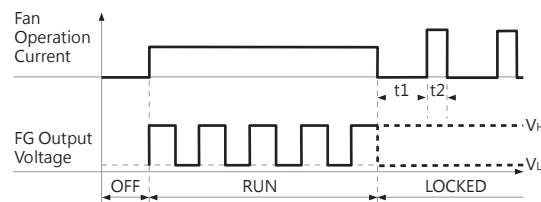
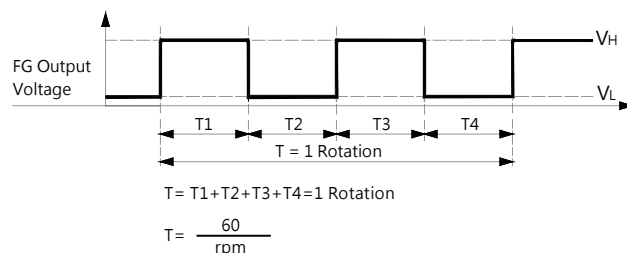
■ FG Signal



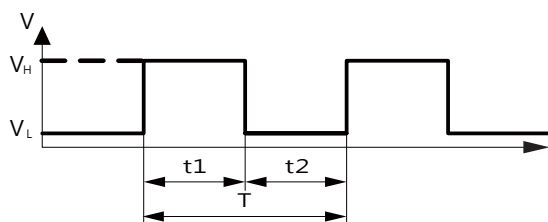
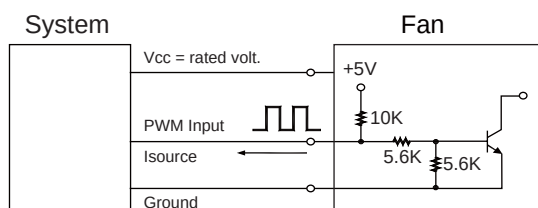
[RD Signal]



[FG Signal]



■ PWM Input Signal



1. Period :

$$T = \frac{1}{f_{\text{PWM}}} = t_1 + t_2 (\text{sec})$$

2. Duty Cycle (D.C.) :

$$\frac{t_1}{t_1 + t_2} * 100 = \frac{t_1}{T} * 100 (\%)$$

VH=2.3~5.5V

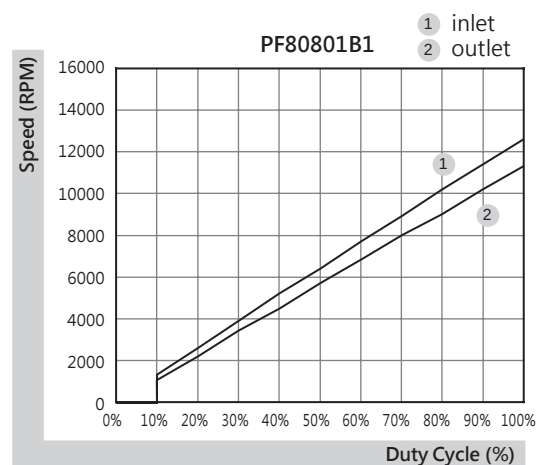
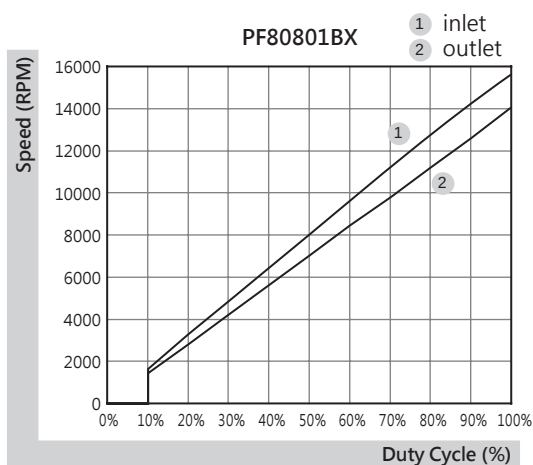
VL=0~0.8V

PWM FREQUENCY: 25KHZ

Isource=0.5mA at PWM Input Voltage 0V

The speed is default to be maximum if PWM input pin is unconnected.
Min. start up duty cycle is 10%.

■ PWM Curve

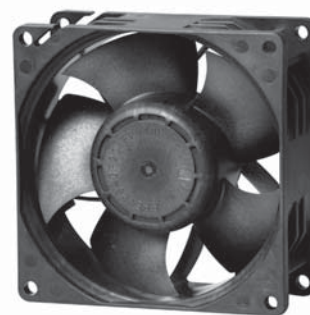


*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

92x92x38 mm

138.1~182.4 CFM



Specifications

Model	Bearing	Rating Voltage	Power Current	Power Consumption	Speed	Air Flow	Static Pressure	Noise	Weight	Curve
	2BALL Sleeve	(VDC)	(mA)	(WATTS)	(RPM)	(CFM)	(Inch-H ₂ O)	(dB(A))	(g)	
PF92381BX-000U-A99	☉	12	4000	48.00	13000	182.4	2.94	72.1	210.0	1
PF92381B1-000U-A99	☉	12	1700	20.40	9800	138.1	1.95	63.7	210.0	2

Function

PF92381BX / 1

A99: AutoRestart

F99: AutoRestart and R type

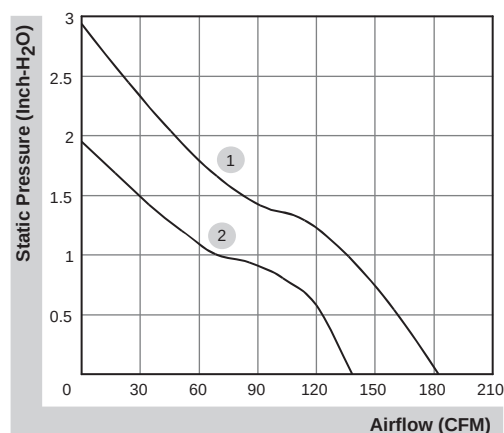
G99: AutoRestart and F type

H99: AutoRestart and PWM

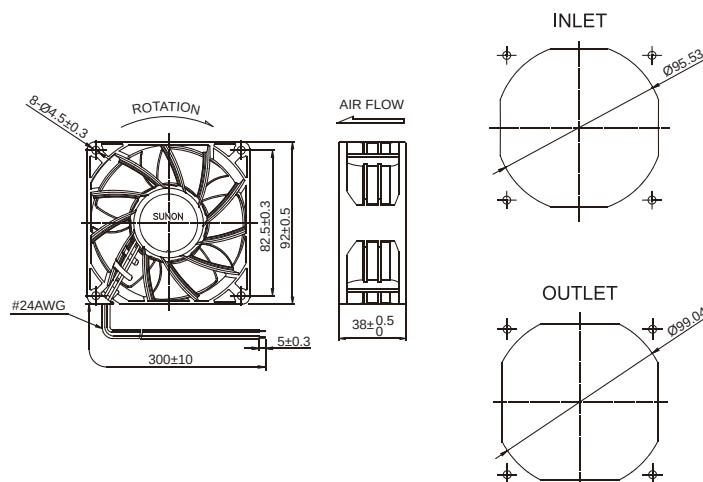
Q99: AutoRestart , R type and PWM

S99: AutoRestart , F type and PWM

Air Flow-Static Pressure Characteristics



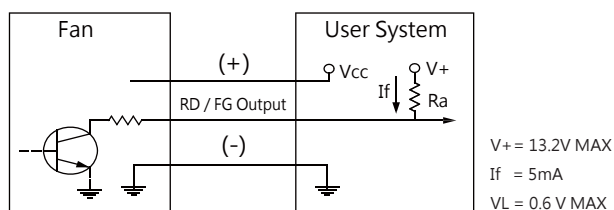
External dimensions(mm)



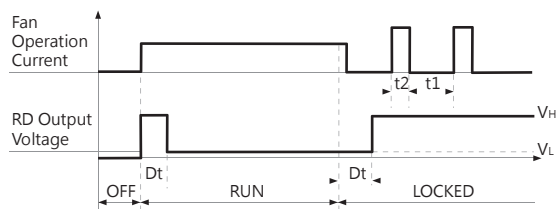
*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

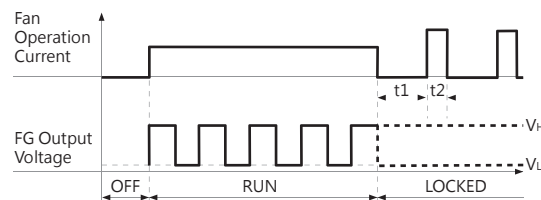
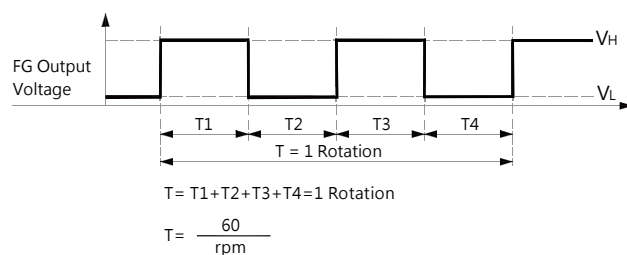
■ FG Signal



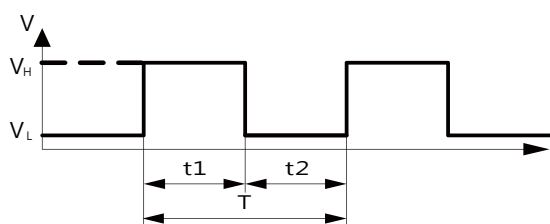
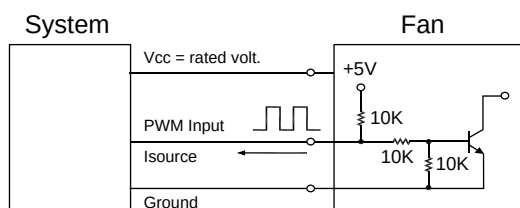
[RD Signal]



[FG Signal]



■ PWM Input Signal



1. Period : $T = \frac{1}{f_{PWM}} = t_1 + t_2 (\text{sec})$

$$2. \text{ Duty Cycle (D.C.) : } \frac{t_1}{t_1+t_2} * 100 = \frac{t_1}{T} * 100(\%)$$

$V_H = 2.3 \sim 5.5V$

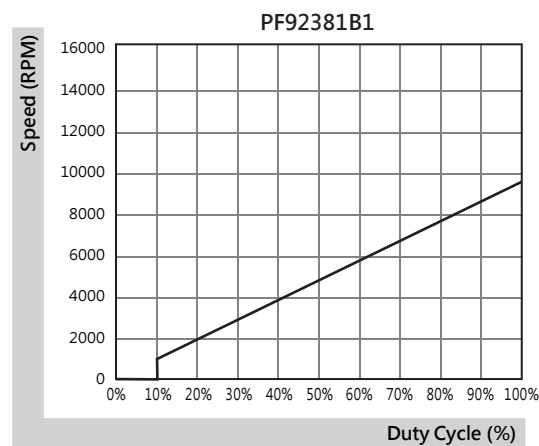
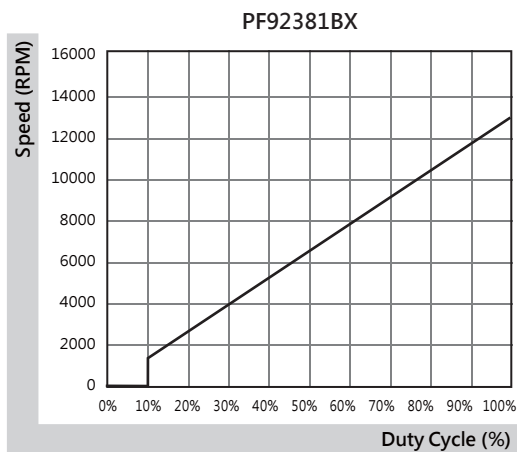
 $V_L = 0 \sim 0.8V$

PWM FREQUENCY: 25KHZ

Isorce=0.5mA at PWM Input Voltage 0V

The speed is default to be maximum if PWM input pin is unconnected.
Min. start up duty cycle is 10%.

■ PWM Curve



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140x140x38 mm

238.5~297.9 CFM



Specifications

Model	Bearing	Rating Voltage	Power Current	Power Consumption	Speed	Air Flow	Static Pressure	Noise	Weight	Curve
	2BALL Sleeve	(VDC)	(mA)	(WATTS)	(RPM)	(CFM)	(Inch-H ₂ O)	(dB(A))	(g)	
PFE0381BX-000U-A99	☉	12	3300	39.60	6800	297.9	2.05	68.3	472.0	1
PFE0381B1-000U-A99	☉	12	1720	20.64	5500	238.5	1.20	62.0	472.0	2

Function

PFE0381BX / 1

A99: AutoRestart

F99: AutoRestart and R type

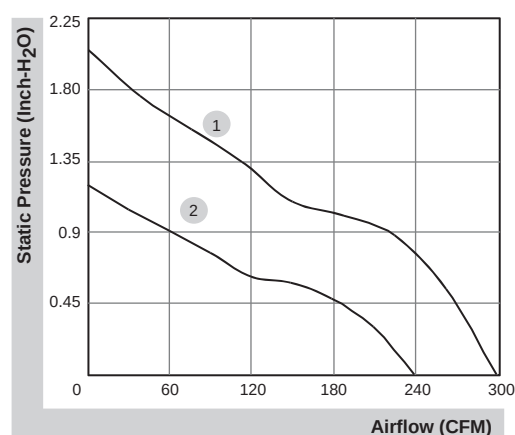
G99: AutoRestart and F type

H99: AutoRestart and PWM

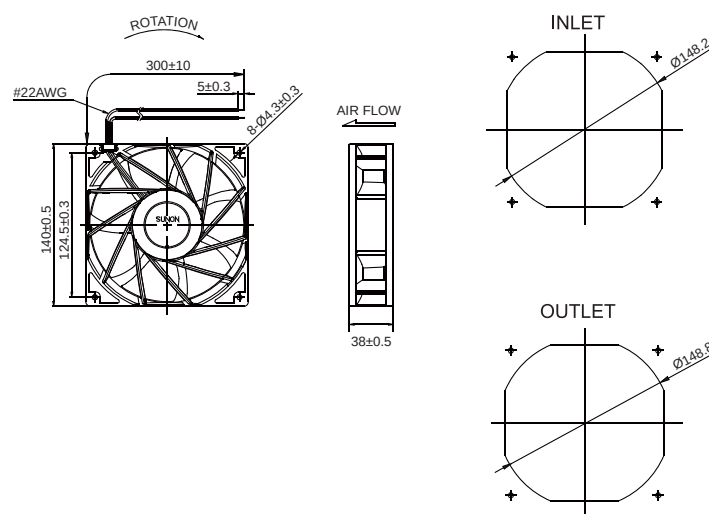
Q99: AutoRestart , R type and PWM

S99: AutoRestart , F type and PWM

Air Flow-Static Pressure Characteristics



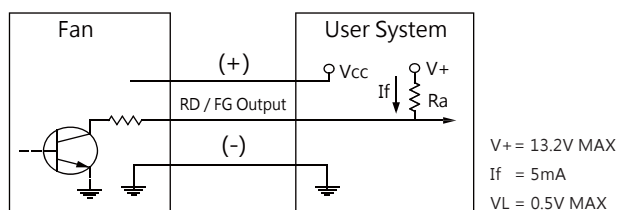
External dimensions(mm)



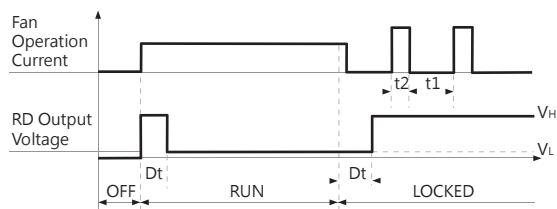
*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

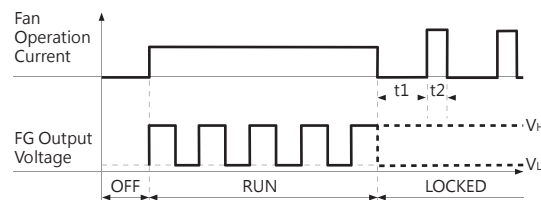
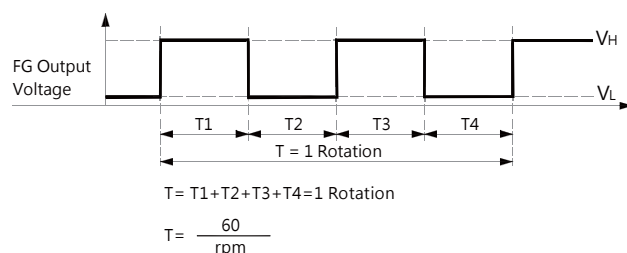
■ FG Signal



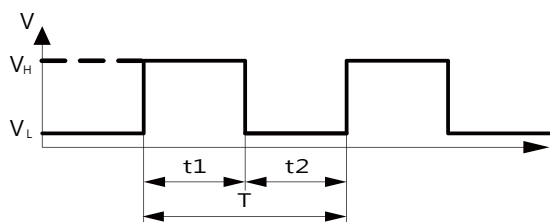
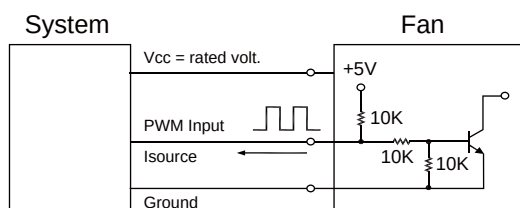
[RD Signal]



[FG Signal]



■ PWM Input Signal



1. Period :
$$T = \frac{1}{f_{PWM}} = t1 + t2(\text{sec})$$

2. Duty Cycle (D.C.) :
$$\frac{t1}{t1+t2} * 100 = \frac{t1}{T} * 100(\%)$$

VH=2.3~5.5V

VL=0~0.8V

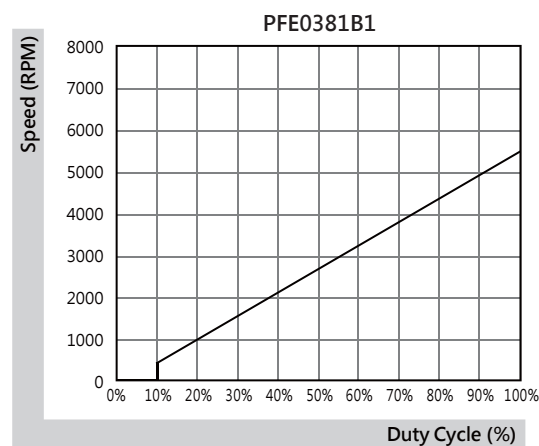
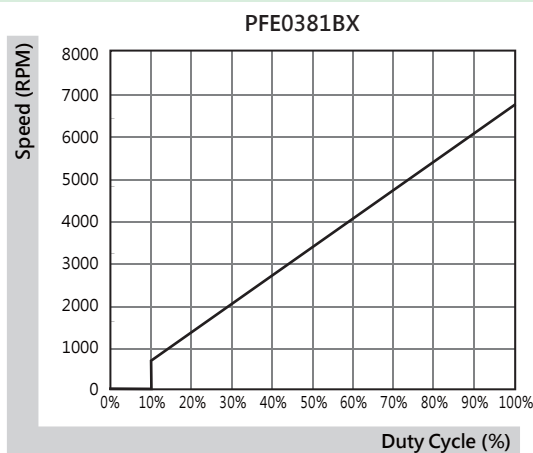
PWM FREQUENCY: 25KHZ

Isource=0.5mA at PWM Input Voltage 0V

The speed is default to be maximum if PWM input pin is unconnected.

Min. start up duty cycle is 10%.

■ PWM Curve



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140x140x38 mm

282.6 CFM



Specifications

Model	Bearing	Rating Voltage	Power Current	Power Consumption	Speed	Air Flow	Static Pressure	Noise	Weight	Curve
	2BALL Sleeve	(VDC)	(mA)	(WATTS)	(RPM)	(CFM)	(inch-H ₂ O)	(dB(A))	(g)	
PFE0384BX-000U-A99	2BALL Sleeve	48	740	35.52	6600	282.6	1.88	65.9	560.0	1

Function

PFE0384BX

A99: AutoRestart

F99: AutoRestart and R type

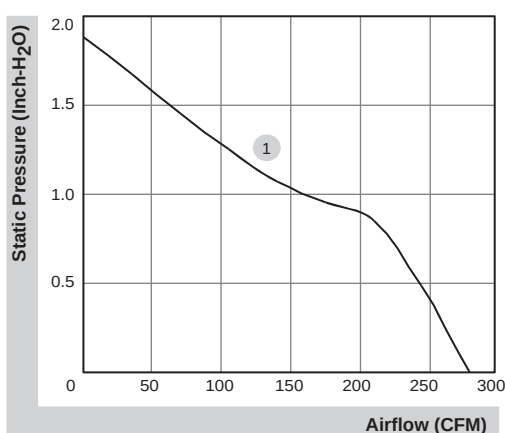
G99: AutoRestart and F type

H99: AutoRestart and PWM

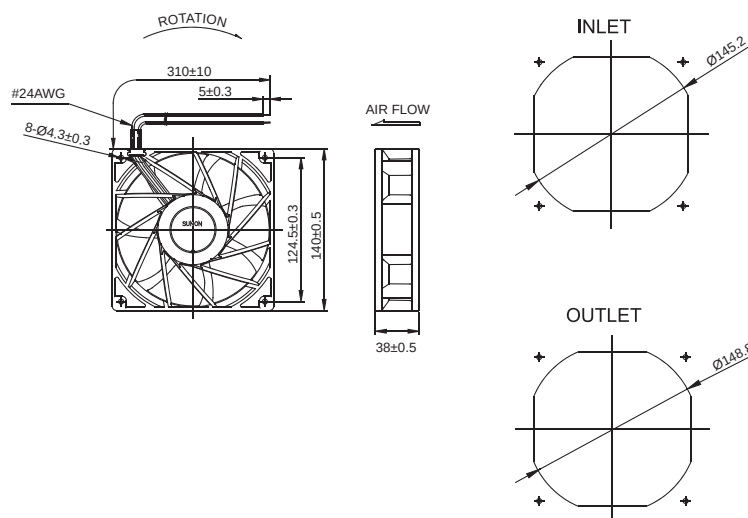
Q99: AutoRestart , R type and PWM

S99: AutoRestart , F type and PWM

Air Flow-Static Pressure Characteristics



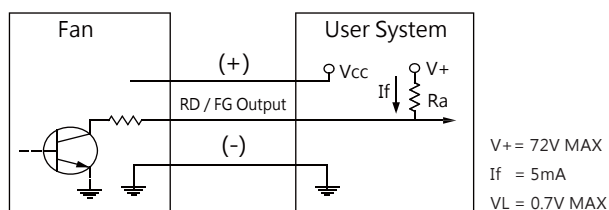
External dimensions(mm)



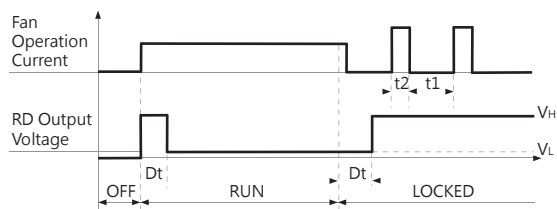
*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

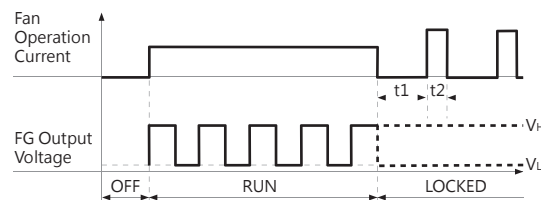
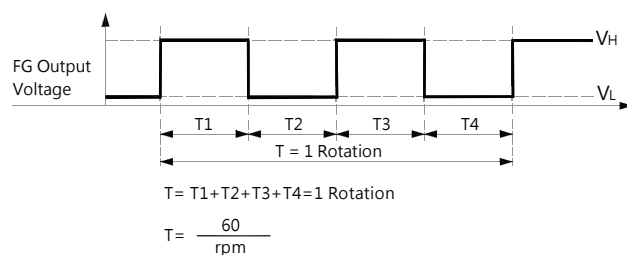
■ FG Signal



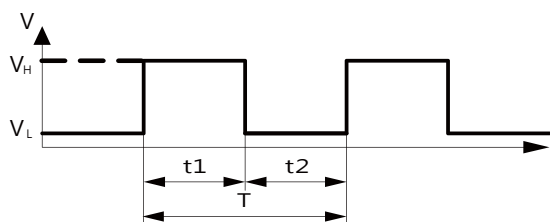
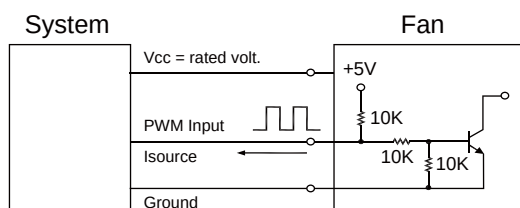
[RD Signal]



[FG Signal]



■ PWM Input Signal



1. Period : $T = \frac{1}{f_{PWM}} = t1 + t2(\text{sec})$

2. Duty Cycle (D.C.) : $\frac{t1}{t1 + t2} * 100 = \frac{t1}{T} * 100(\%)$

VH=2.3~5.5V

VL=0~0.8V

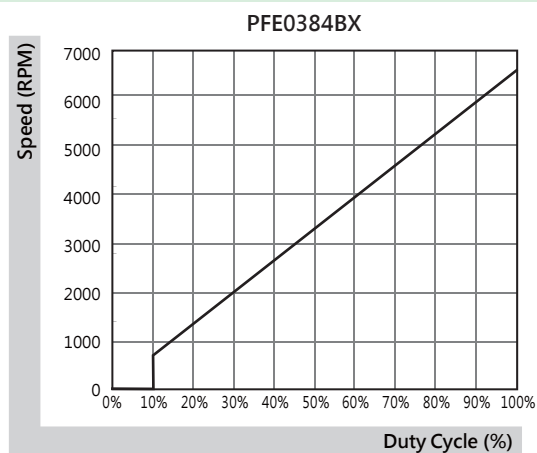
PWM FREQUENCY: 25KHZ

Isource=0.5mA at PWM Input Voltage 0V

The speed is default to be maximum if PWM input pin is unconnected.

Min. start up duty cycle is 10%.

■ PWM Curve



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140x140x51 mm

250.3 CFM



Specifications

Model	Bearing	Rating Voltage	Power Current	Power Consumption	Speed	Air Flow	Static Pressure	Noise	Weight	Curve
	2BALL Sleeve	(VDC)	(mA)	(WATTS)	(RPM)	(CFM)	(inch-H ₂ O)	(dB(A))	(g)	
PFE0514B1-000U-A99	2BALL Sleeve	48	470	22.56	5000	250.3	1.43	61.4	635.0	1

Function

PFE0514B1

A99: AutoRestart

F99: AutoRestart and R type

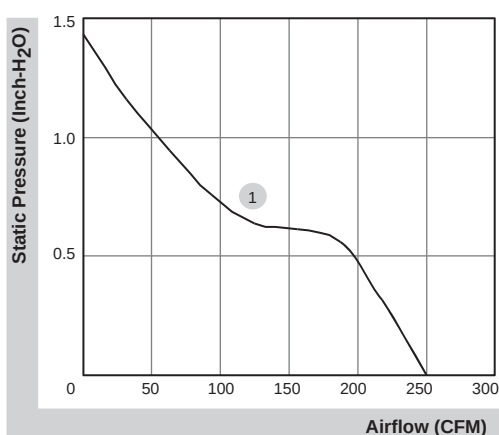
G99: AutoRestart and F type

H99: AutoRestart and PWM

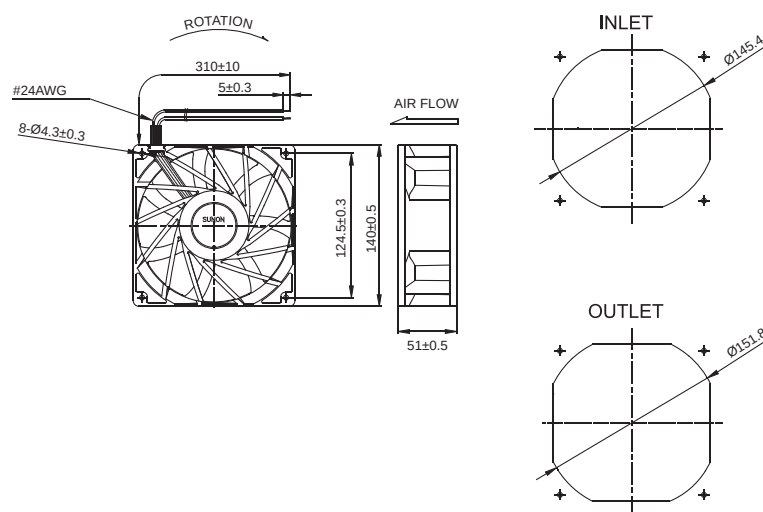
Q99: AutoRestart , R type and PWM

S99: AutoRestart , F type and PWM

Air Flow-Static Pressure Characteristics



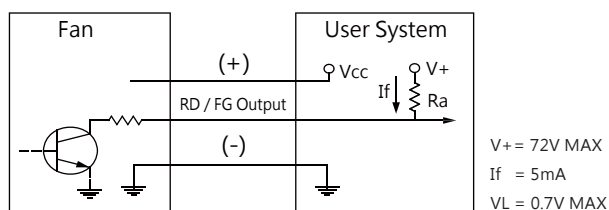
External dimensions(mm)



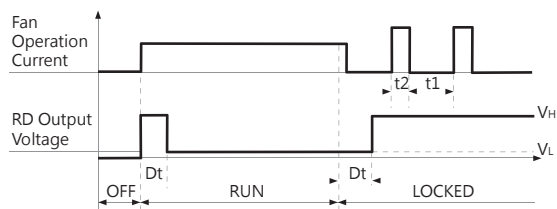
*All model could be customized. Please contact with Sunon Sales.

*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

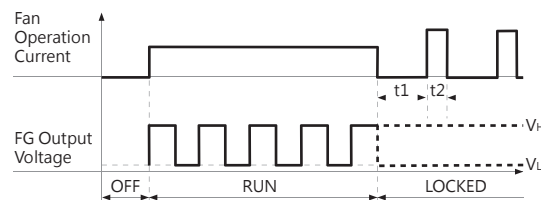
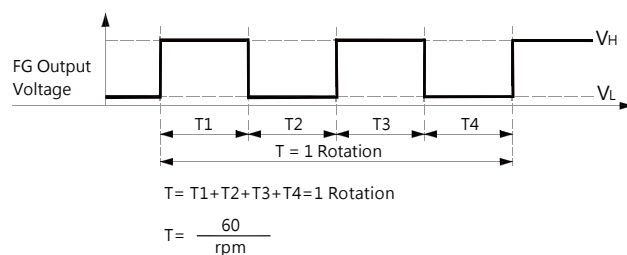
■ FG Signal



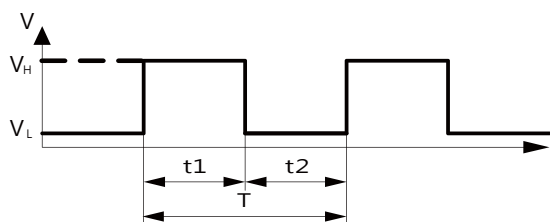
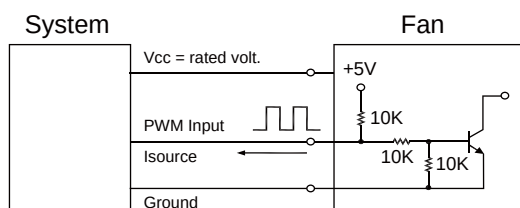
[RD Signal]



[FG Signal]



■ PWM Input Signal



1. Period :
$$T = \frac{1}{f_{PWM}} = t1 + t2(\text{sec})$$

2. Duty Cycle (D.C.) :
$$\frac{t1}{t1+t2} * 100 = \frac{t1}{T} * 100(\%)$$

VH=2.3~5.5V

VL=0~0.8V

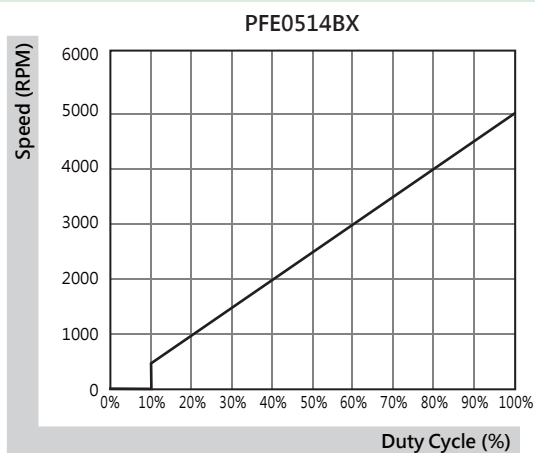
PWM FREQUENCY: 25KHZ

Isource=0.5mA at PWM Input Voltage 0V

The speed is default to be maximum if PWM input pin is unconnected.

Min. start up duty cycle is 10%.

■ PWM Curve



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97x95x33 mm

44.2~54.7 CFM



■ Specifications

Model	Bearing	Rating Voltage	Power Current	Power Consumption	Speed	Air Flow	Static Pressure	Noise	Weight	Curve
	 2BALL Sleeve	(VDC)	(mA)	(WATTS)	(RPM)	(CFM)	(Inch-H ₂ O)	(dB(A))	(g)	
PF97331BX-B00U-A99		12	3500	42.00	6800	54.7	5.22	63.2	184.0	1
PF97331B1-B00U-A99		12	1600	19.20	5400	44.2	3.39	58.0	184.0	2

■ Function

PF97331BX / 1

A99: AutoRestart

F99: AutoRestart and R type

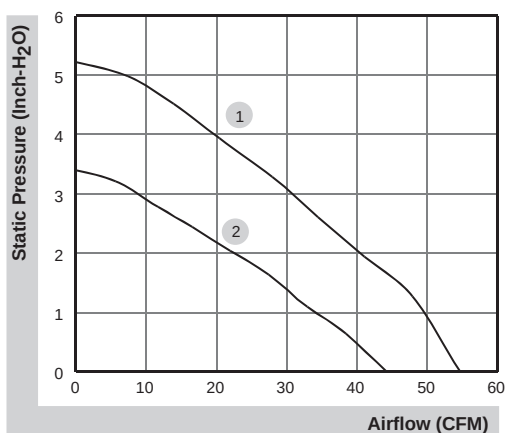
G99: AutoRestart and F type

H99: AutoRestart and PWM

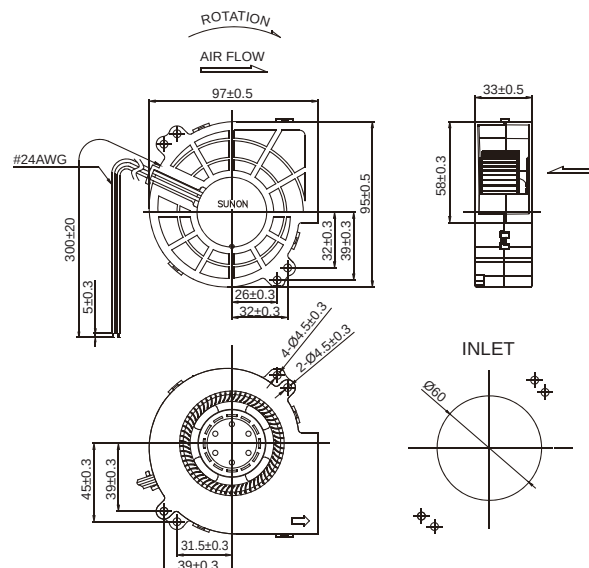
Q99: AutoRestart , R type and PWM

S99: AutoRestart , F type and PWM

■ Air Flow-Static Pressure Characteristics



■ External dimensions(mm)



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2013/09/30 (198-A)

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