

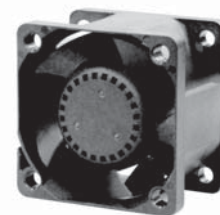
Server and Storage Cooling Solution

*All products are RoHS compliant.




38x38x28 mm

11.3~23.0 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)	
PF38281V1-0000-A99	●	12	574	6.89	16000	18.1	1.42	53.8	43.0	1

Other Function

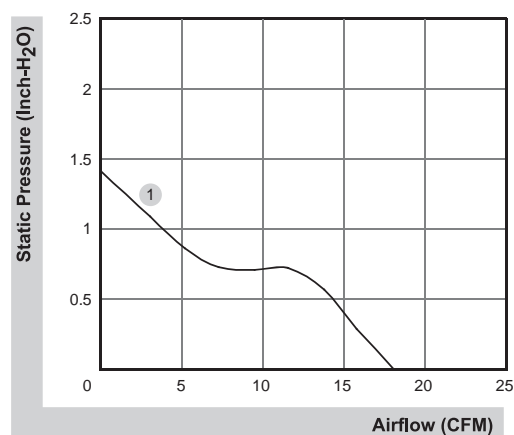
PF38281V1

A99: AutoRestart

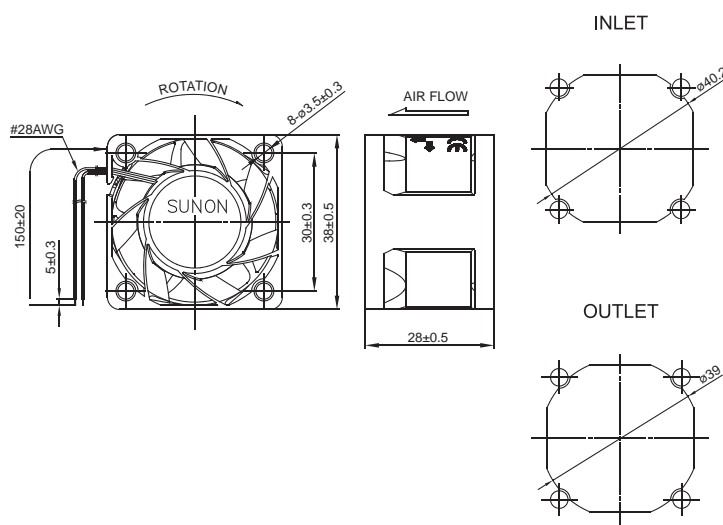
G99: AutoRestart and F type

S99: AutoRestart , F type and with PWM

Air Flow-Static Pressure Characteristics



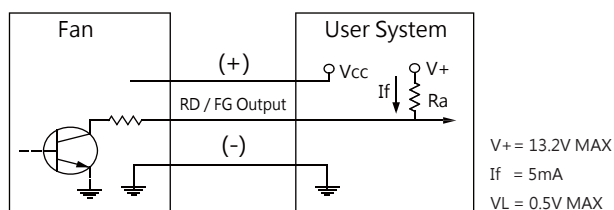
External dimensions(mm)



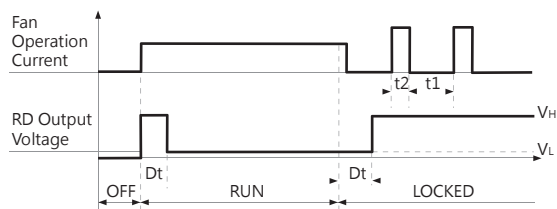
*All model could be customized. Please contact with Sunon Sales.

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

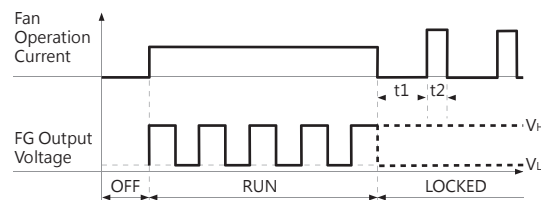
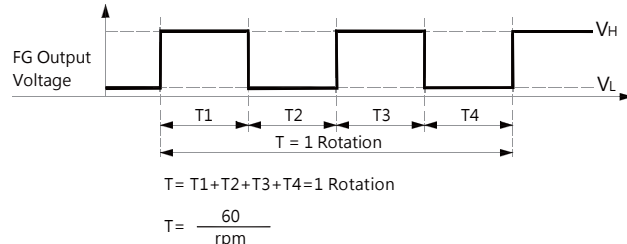
■ RD / FG Signal



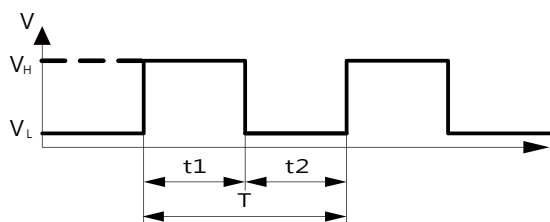
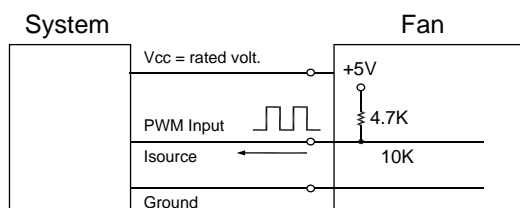
[RD Signal]



[FG Signal]



■ PWM Input Signal



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

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

VH=2.3~5.5V

VL=0~0.8V

PWM FREQUENCY: 25KHZ

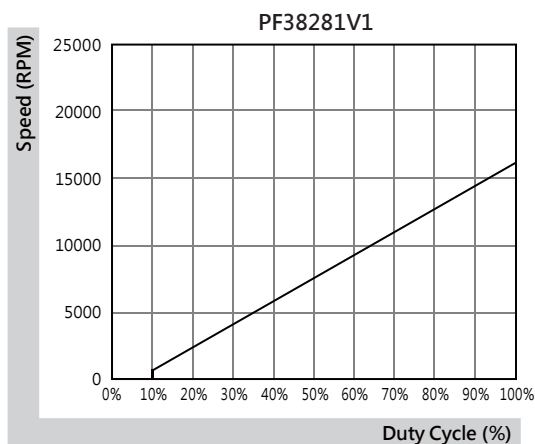
Isource=0.5mA at PWM Input Voltage 0V

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

Min. start up duty cycle is 5%.

Please don't apply 1 ~ 4% duty cycle to prevent the unstable fan speed.

■ PWM Curve

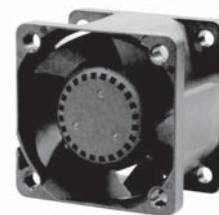


*All model could be customized. Please contact with Sunon Sales.

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

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-0000-A99	☉	12	520	6.24	20000	23.0	2.23	59.0	41.0	1
PF38281B1-0000-A99	☉	12	315	3.78	16000	18.1	1.42	53.8	41.0	2
PF38281B2-0000-A99	☉	12	290	3.48	15000	16.9	1.26	55.0	40.0	3
PF38281B3-0000-A99	☉	12	194	2.33	13000	14.9	1.00	49.3	40.0	4
PF38281B4-0000-A99	☉	12	115	1.38	10000	11.3	0.60	42.8	40.0	5

■ Other Function

PF38281BX / 1

A99: AutoRestart

F99: AutoRestart and R type

G99: AutoRestart and F type

H99: AutoRestart and with PWM

Q99: AutoRestart , R type and with PWM

S99: AutoRestart , F type and with PWM

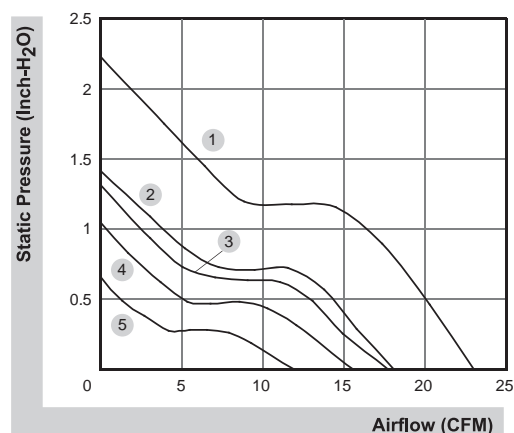
PF38281B2 / 3 / 4

A99: AutoRestart

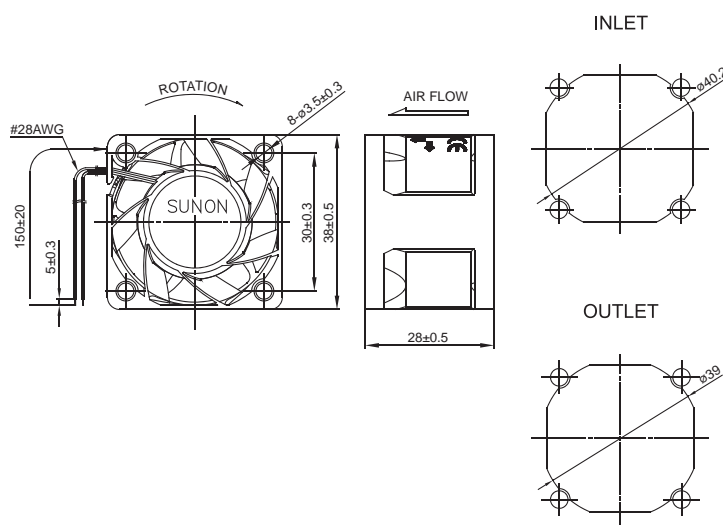
F99: AutoRestart and R type

G99: AutoRestart and F type

■ Air Flow-Static Pressure Characteristics



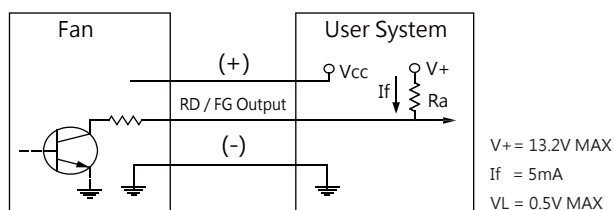
■ External dimensions(mm)



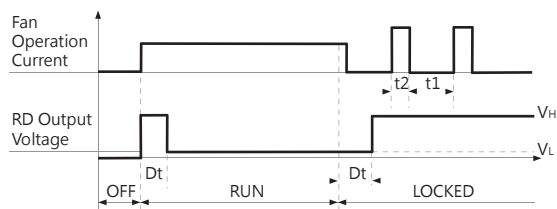
*All model could be customized. Please contact with Sunon Sales.

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

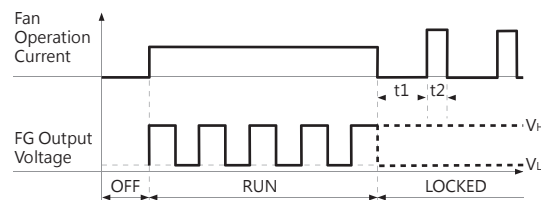
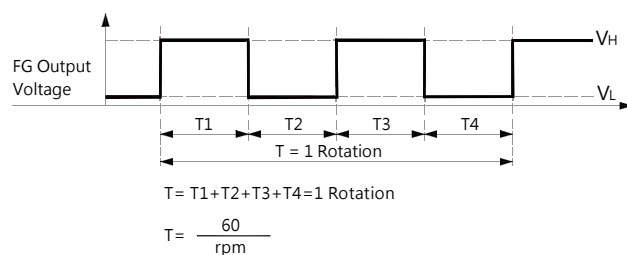
■ RD / FG Signal



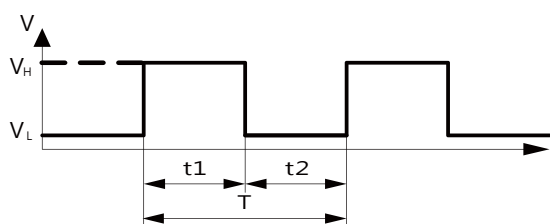
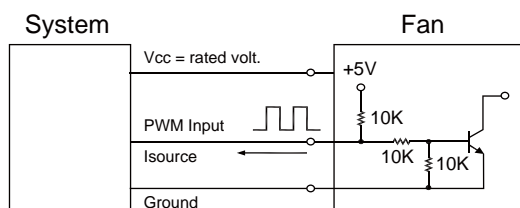
[RD Signal]



[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

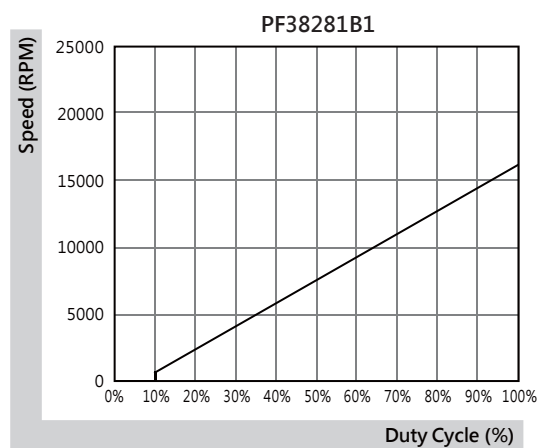
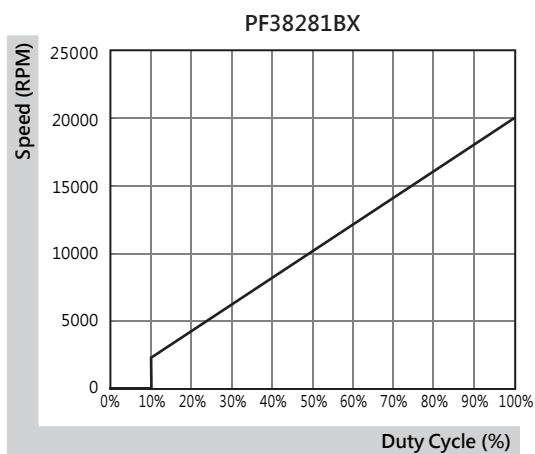
Source=0.5mA at PWM Input Voltage 0V

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

Min. start up duty cycle is 5%.

Please don't apply 1 ~ 4% duty cycle to prevent the unstable fan speed.

■ PWM Curve



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


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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)	
PF40281V1-0000-A99	●	12	740	8.88	17600	24.9	1.95	58.8	45.0	1

■ Other Function

PF40281V1

A99: AutoRestart

F99: AutoRestart and R type

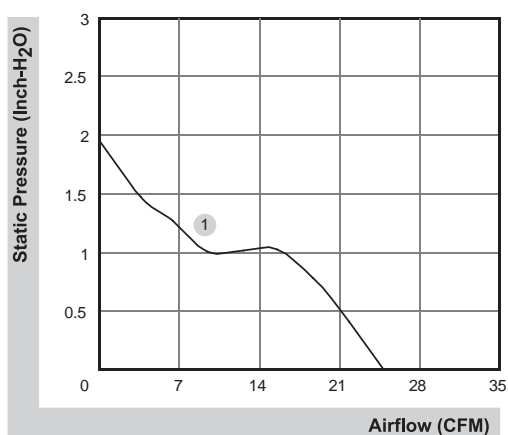
G99: AutoRestart and F type

H99: AutoRestart and with PWM

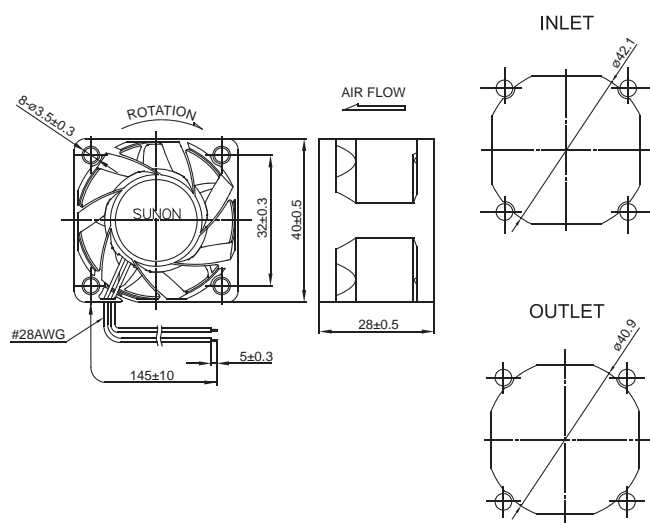
Q99: AutoRestart , R type and with PWM

S99: AutoRestart , F type and with PWM

■ Air Flow-Static Pressure Characteristics



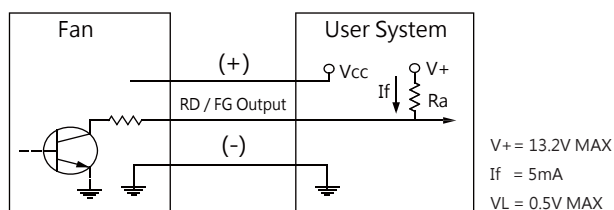
■ External dimensions(mm)



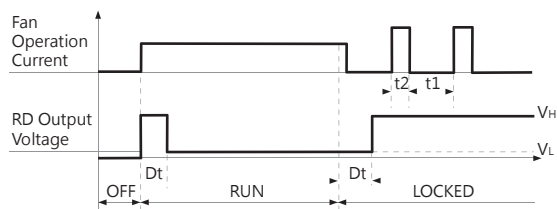
*All model could be customized. Please contact with Sunon Sales.

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

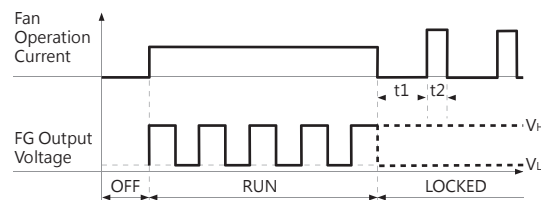
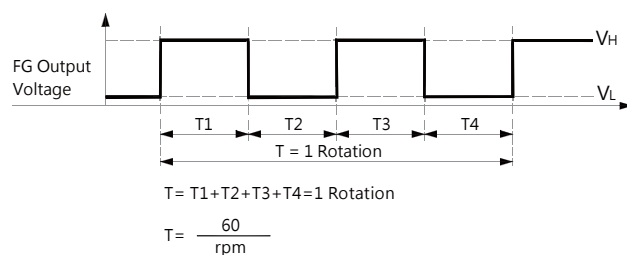
■ FG Signal



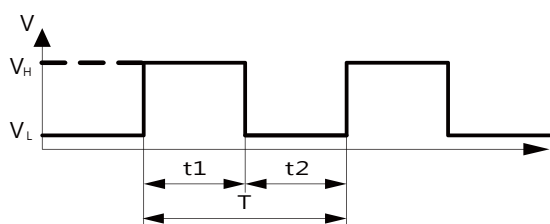
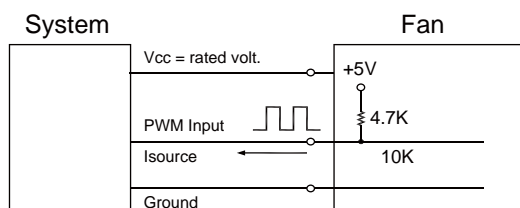
[RD Signal]



[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

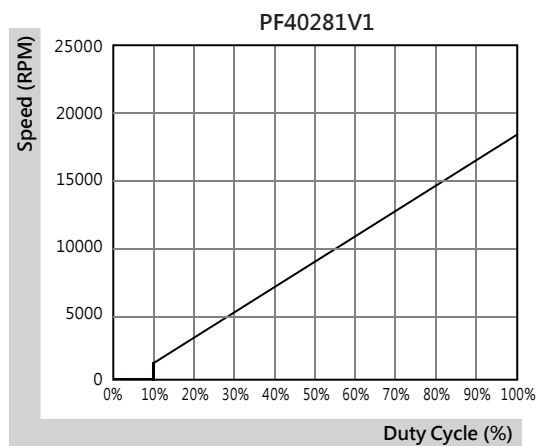
Isource=0.5mA at PWM Input Voltage 0V

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

Min. start up duty cycle is 5%.

Please don't apply 1 ~ 4% duty cycle to prevent the unstable fan speed.

■ PWM Curve

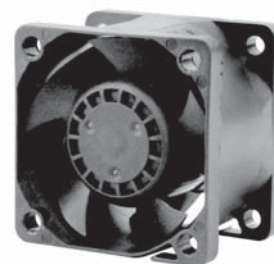


*All model could be customized. Please contact with Sunon Sales.

*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-0000-A99	☉	12	900	10.80	22000	31.3	2.81	66.6	42.0	1
PF40281B1-0000-A99	☉	12	510	6.12	17600	24.9	1.95	58.8	42.0	2
PF40281B2-0000-A99	☉	12	246	2.96	13000	18.0	1.10	50.7	45.0	3
PF40281B3-0000-A99	☉	12	162	1.95	11000	15.4	0.78	45.9	45.0	4
PF40281B4-0000-A99	☉	12	116	1.40	9200	12.8	0.54	41.9	45.0	5

■ Other Function

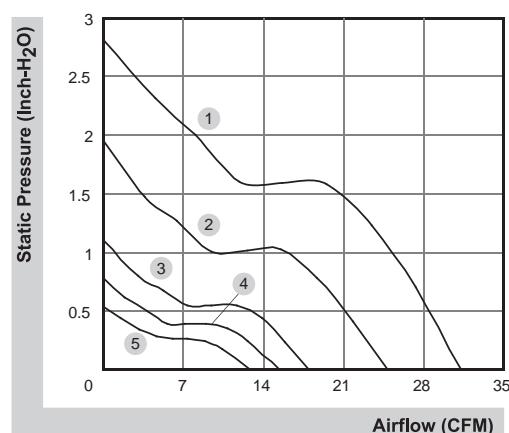
PF40281BX / 1

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

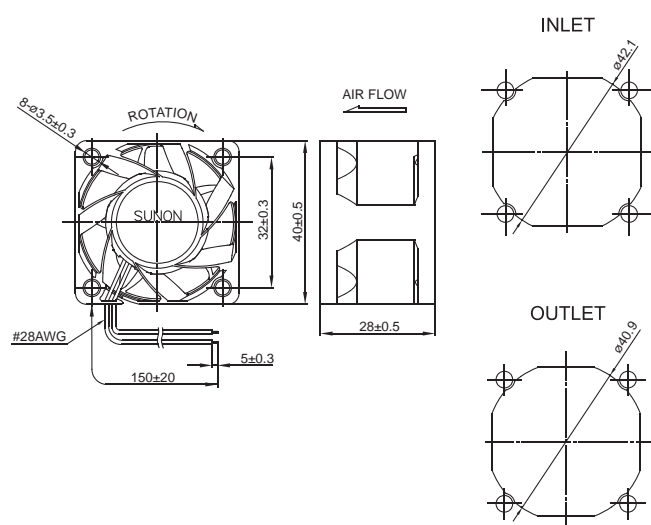
PF40281B2 / 3 / 4

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

■ Air Flow-Static Pressure Characteristics



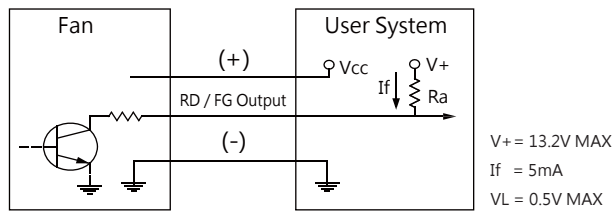
■ External dimensions(mm)



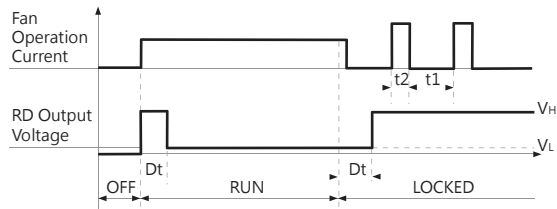
*All model could be customized. Please contact with Sunon Sales.

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

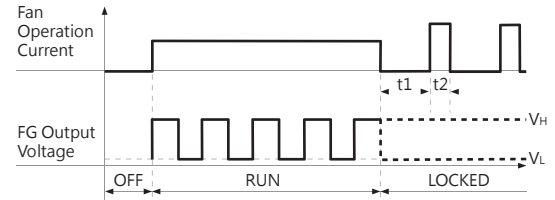
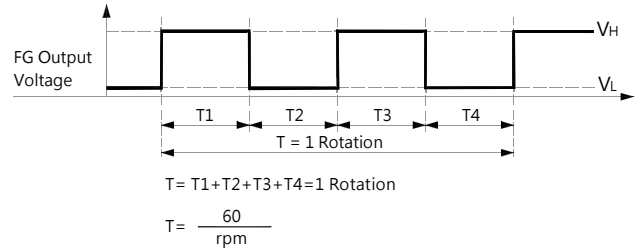
■ FG Signal



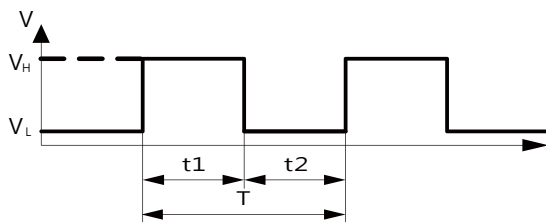
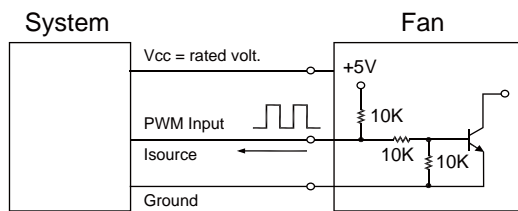
[RD Signal]



[FG Signal]



■ PWM Input Signal



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

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

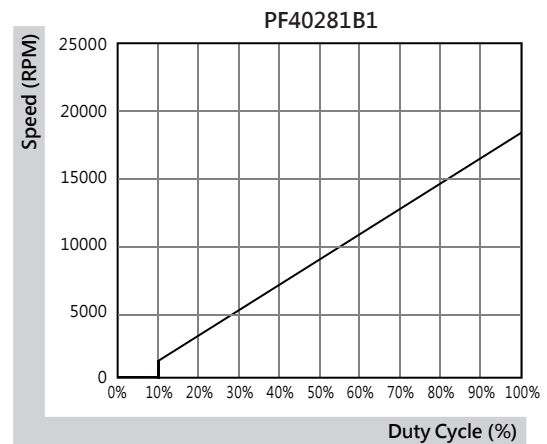
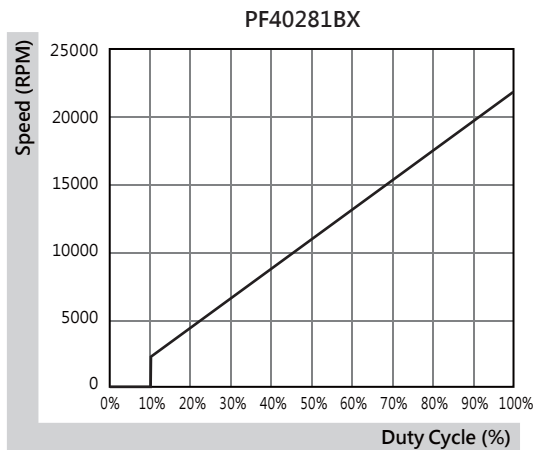
Isource=0.5mA at PWM Input Voltage 0V

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

Min. start up duty cycle is 5%.

Please don't apply 1 ~ 4% duty cycle to prevent the unstable fan speed.

■ PWM Curve

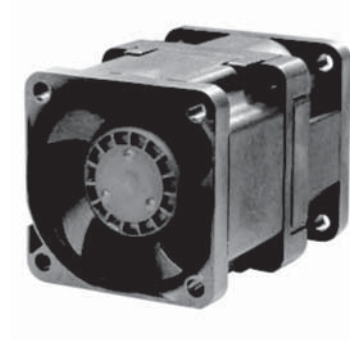


*All model could be customized. Please contact with Sunon Sales.

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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-0000-A99	●	12	1390	16.68	21500/18000	31.7	3.60	67.9	87.0	1
PF40561B1-0000-A99	●	12	890	10.68	18000/15000	26.9	2.56	64.3	87.0	2

Other Function

PF40561BX / 1

A99: AutoRestart

F99: AutoRestart and R type

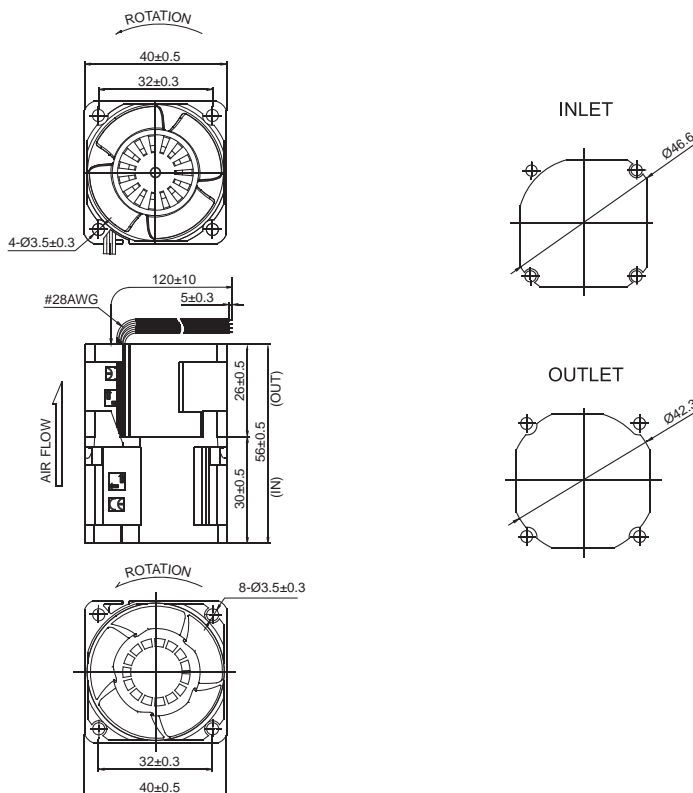
G99: AutoRestart and F type

H99: AutoRestart and with PWM

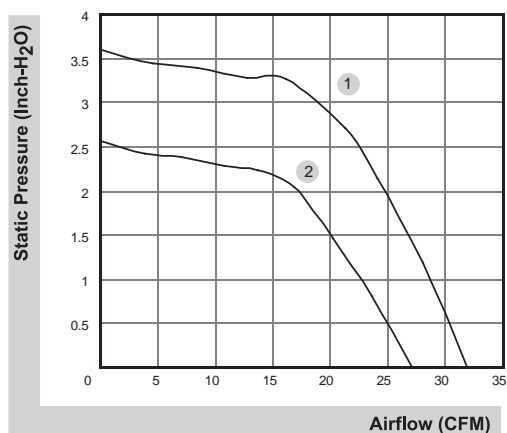
Q99: AutoRestart , R type and with PWM

S99: AutoRestart , F type and with PWM

External dimensions(mm)



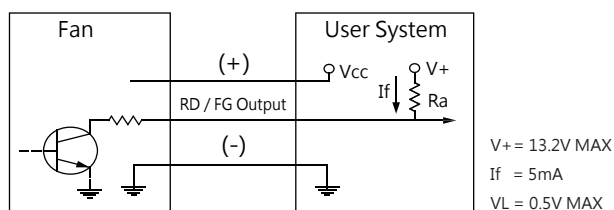
Air Flow-Static Pressure Characteristics



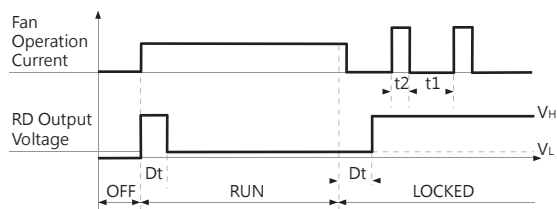
*All model could be customized. Please contact with Sunon Sales.

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

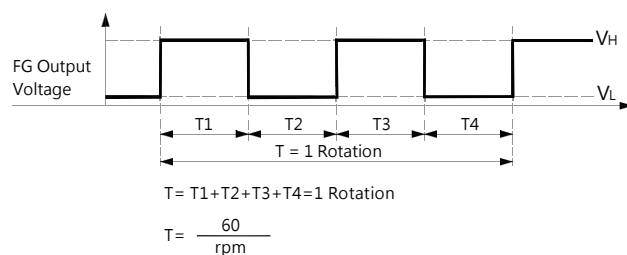
■ FG Signal



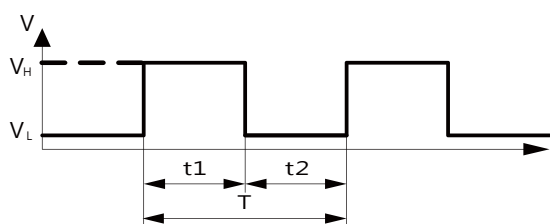
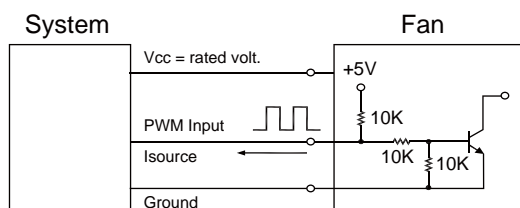
[RD Signal]



[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

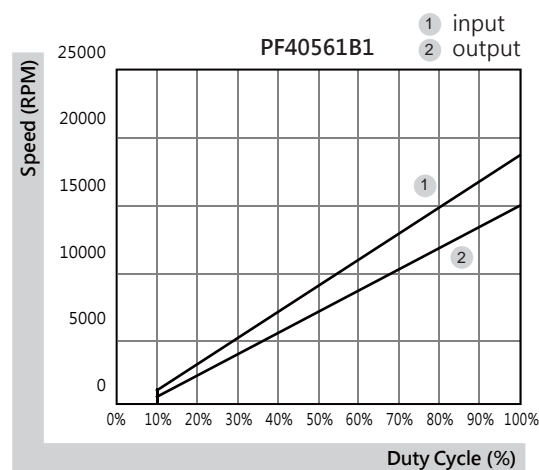
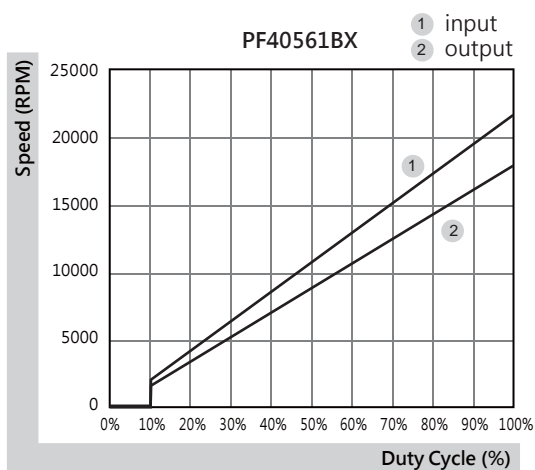
Isource=0.5mA at PWM Input Voltage 0V

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

Min. start up duty cycle is 10%.

Please don't apply 1 ~ 9% duty cycle to prevent the unstable fan speed.

■ 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-0000-A99	☉	12	2500	30.00	16500	75.2	3.28	69.6	127.0	1
PF60381B1-0000-A99	☉	12	1200	14.40	13200	60.6	2.13	63.2	127.0	2

Other Function

PF60381BX / 1

A99: AutoRestart

F99: AutoRestart and R type

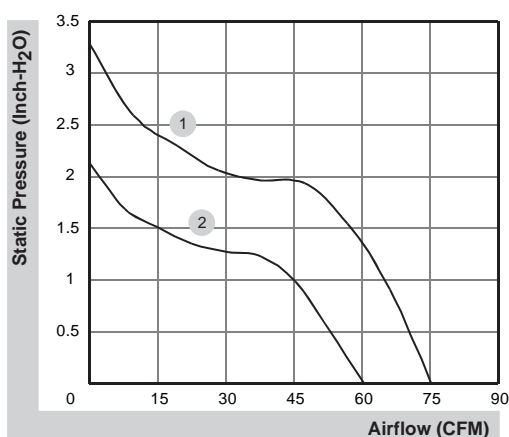
G99: AutoRestart and F type

H99: AutoRestart and with PWM

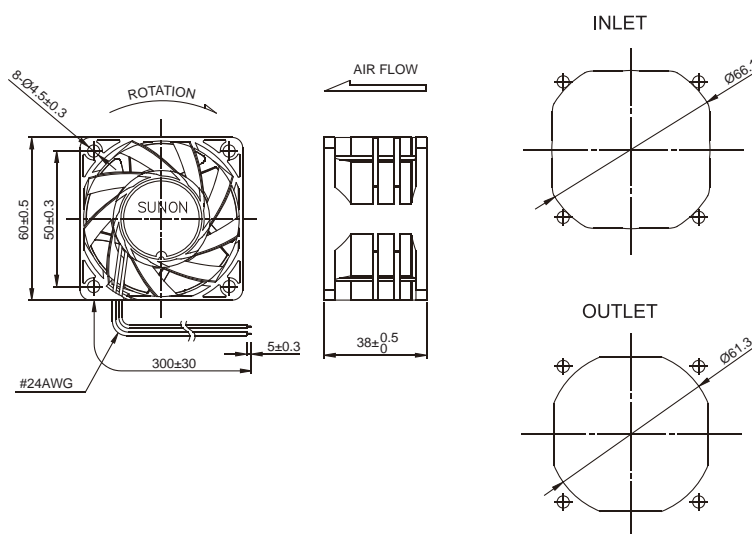
Q99: AutoRestart , R type and with PWM

S99: AutoRestart , F type and with PWM

Air Flow-Static Pressure Characteristics



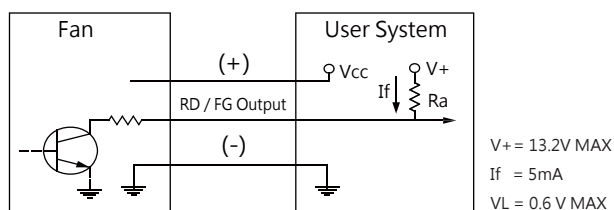
External dimensions(mm)



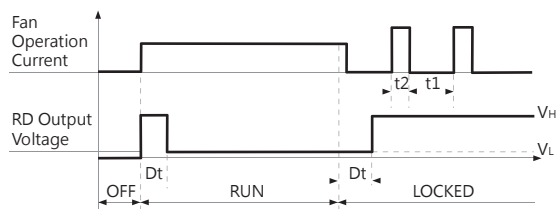
*All model could be customized. Please contact with Sunon Sales.

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

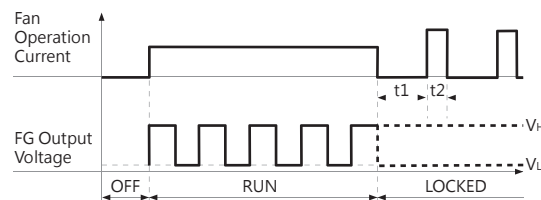
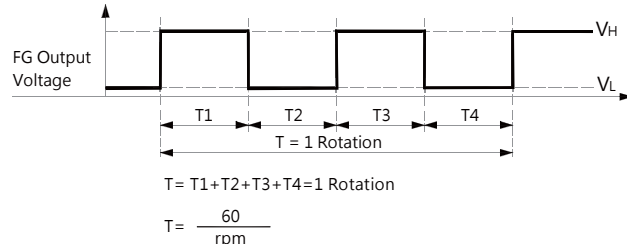
■ FG Signal



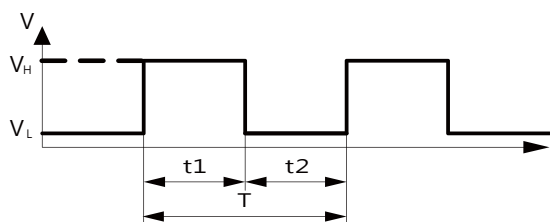
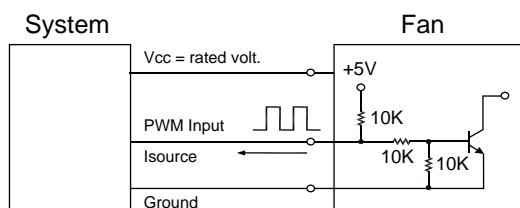
[RD Signal]



[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

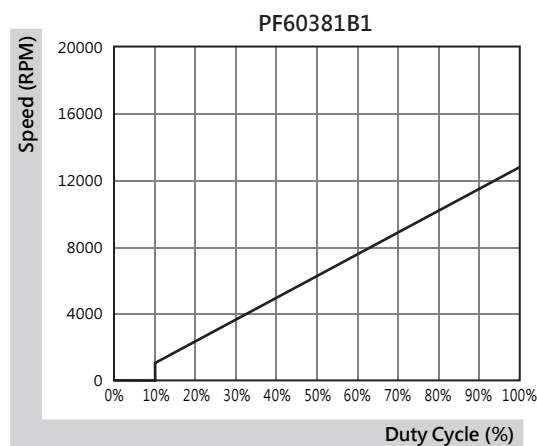
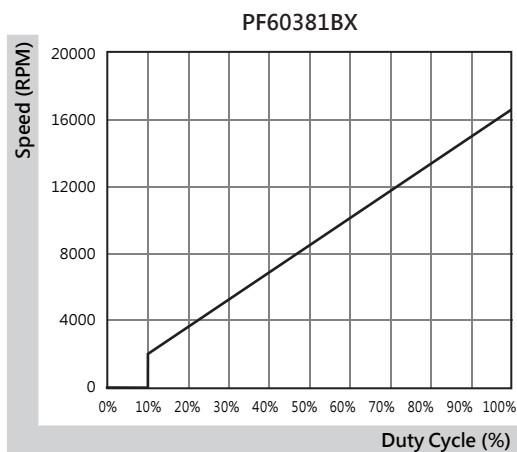
Isource=0.5mA at PWM Input Voltage 0V

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

Min. start up duty cycle is 10%.

Please don't apply 1 ~ 9% duty cycle to prevent the unstable fan speed.

■ PWM Curve



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

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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-0000-A99	☉	12	4000	48.00	14000	141.9	3.20	74.1	195.0	1
PF80381B1-0000-A99	☉	12	2000	24.00	11200	113.9	2.23	66.8	195.0	2

Other Function

PF80381BX / 1

A99: AutoRestart

F99: AutoRestart and R type

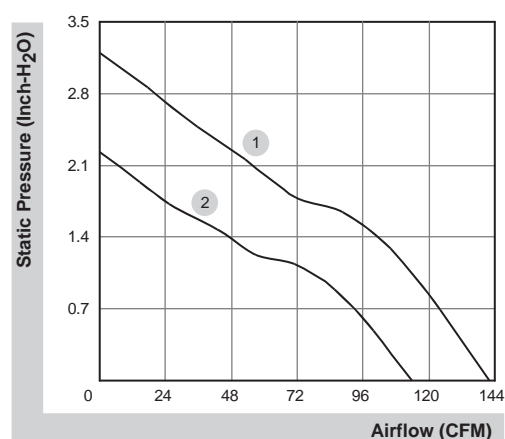
G99: AutoRestart and F type

H99: AutoRestart and with PWM

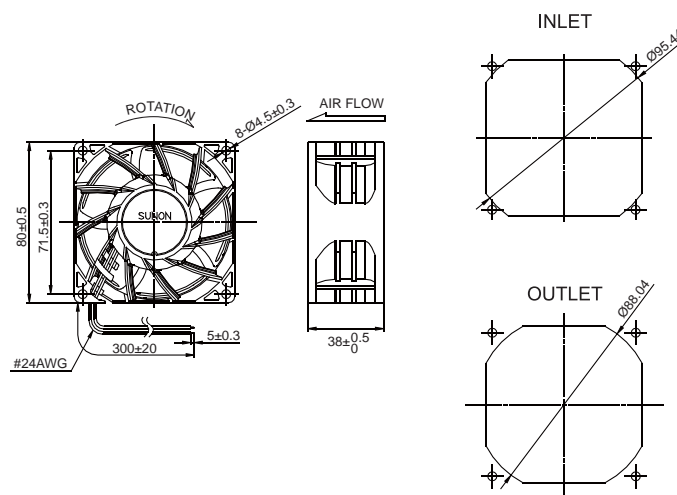
Q99: AutoRestart , R type and with PWM

S99: AutoRestart , F type and with PWM

Air Flow-Static Pressure Characteristics



External dimensions(mm)



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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-0000-A99	☉	12	4000	48.00	13000	182.4	2.94	74.1	210.0	1
PF92381B1-0000-A99	☉	12	1700	20.40	9800	138.1	1.95	65.7	210.0	2

Other Function

PF92381BX / 1

A99: AutoRestart

F99: AutoRestart and R type

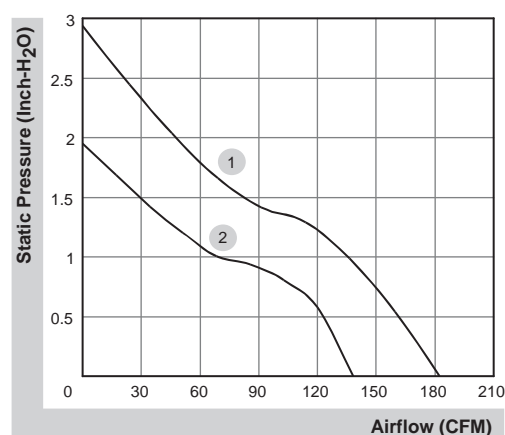
G99: AutoRestart and F type

H99: AutoRestart and with PWM

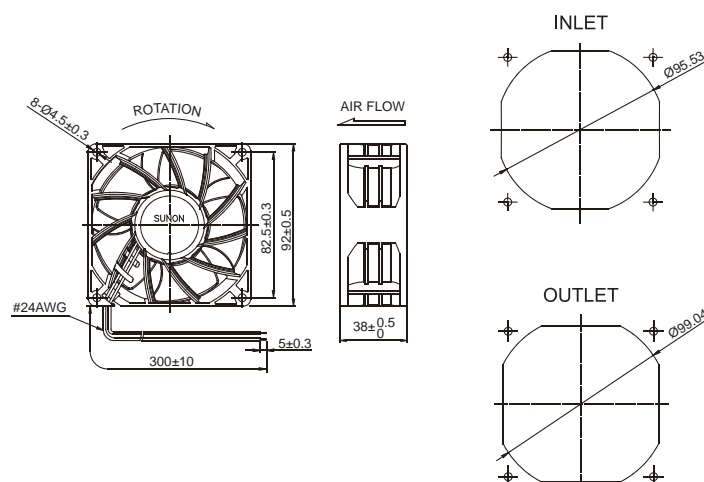
Q99: AutoRestart , R type and with PWM

S99: AutoRestart , F type and with PWM

Air Flow-Static Pressure Characteristics



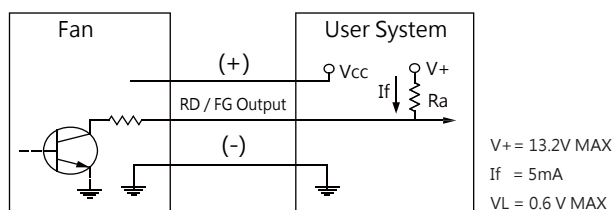
External dimensions(mm)



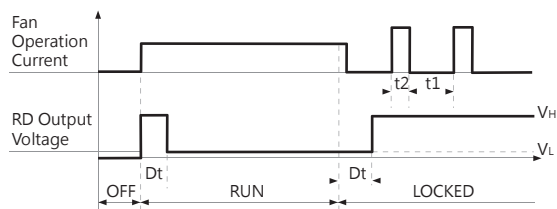
*All model could be customized. Please contact with Sunon Sales.

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

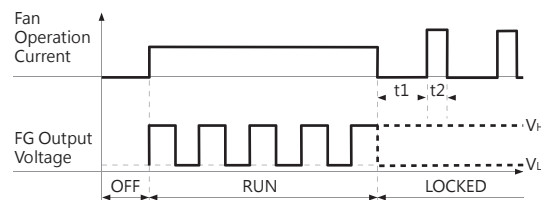
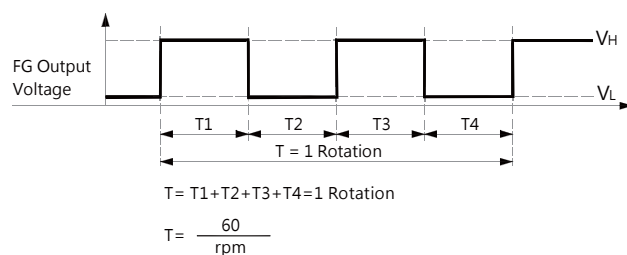
■ FG Signal



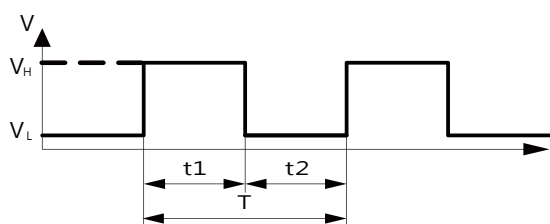
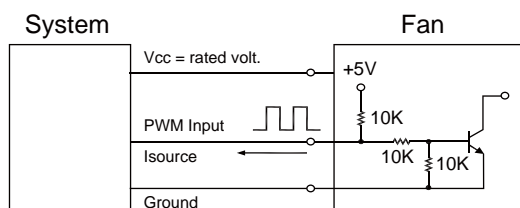
[RD Signal]



[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

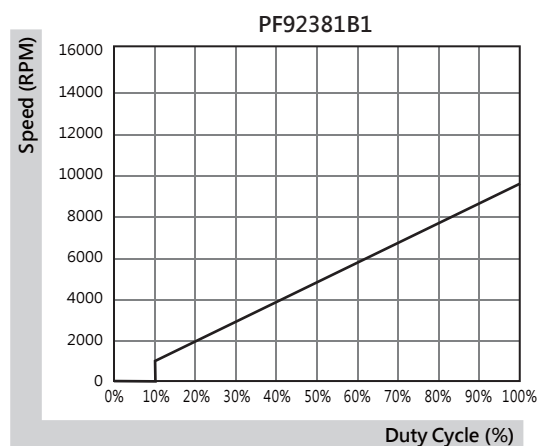
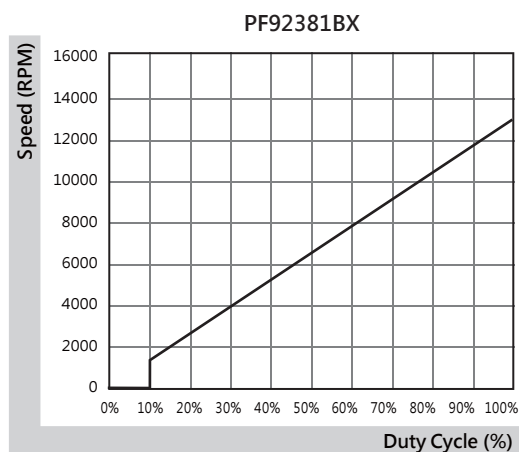
Isource=0.5mA at PWM Input Voltage 0V

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

Min. start up duty cycle is 10%.

Please don't apply 1 ~ 9% duty cycle to prevent the unstable fan speed.

■ 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.

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-B000-A99	☉	12	3500	42.00	6800	54.7	5.22	65.2	184.0	1
PF97331B1-B000-A99	☉	12	1600	19.20	5400	44.2	3.39	60.0	184.0	2

■ Other Function

PF97331BX / 1

A99: AutoRestart

F99: AutoRestart and R type

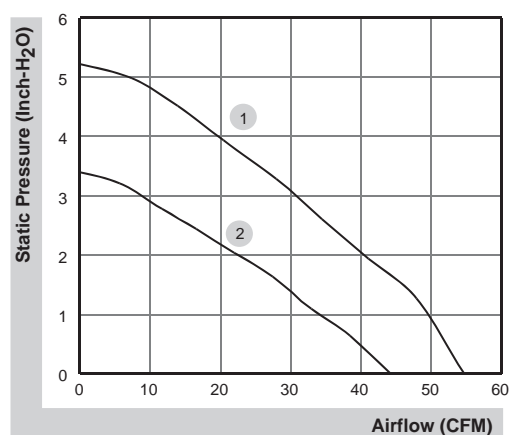
G99: AutoRestart and F type

H99: AutoRestart and with PWM

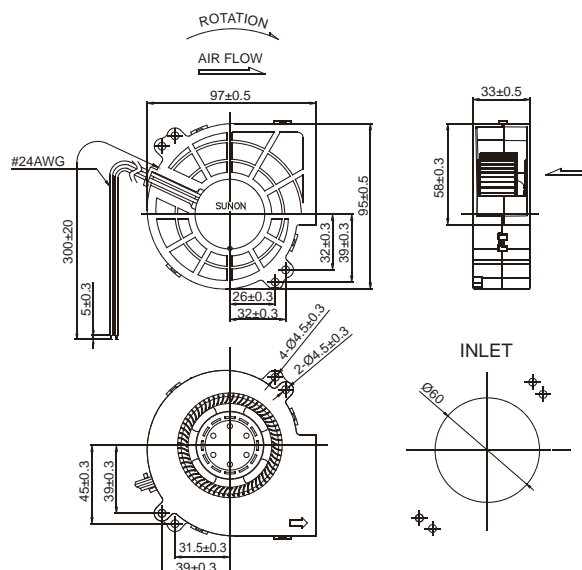
Q99: AutoRestart , R type and with PWM

S99: AutoRestart , F type and with PWM

■ Air Flow-Static Pressure Characteristics



■ External dimensions(mm)

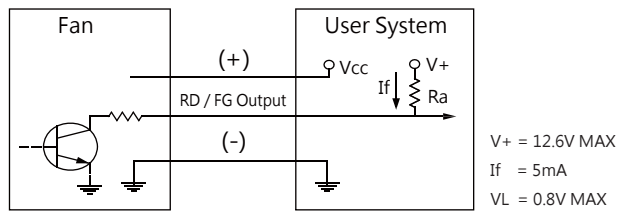


*All model could be customized. Please contact with Sunon Sales.

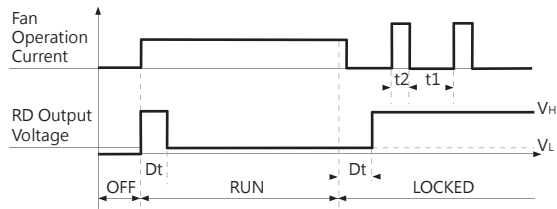
*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

2013/09/30 (198-A)

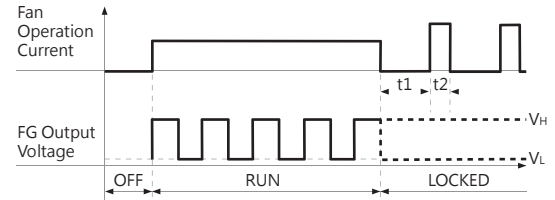
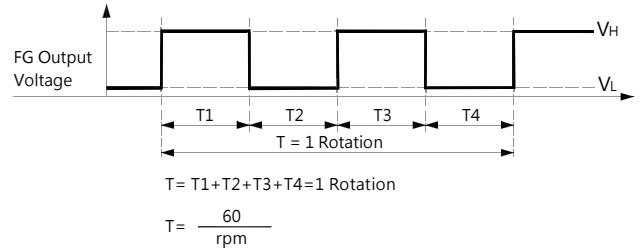
■ FG Signal



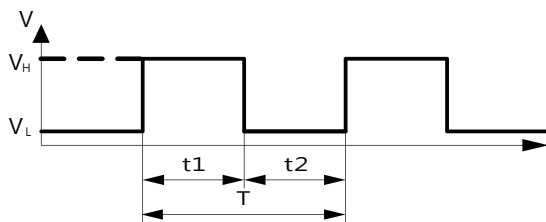
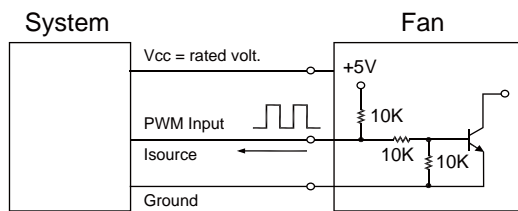
[RD Signal]



[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

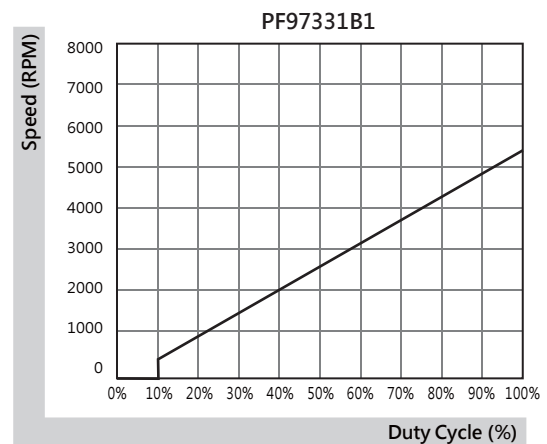
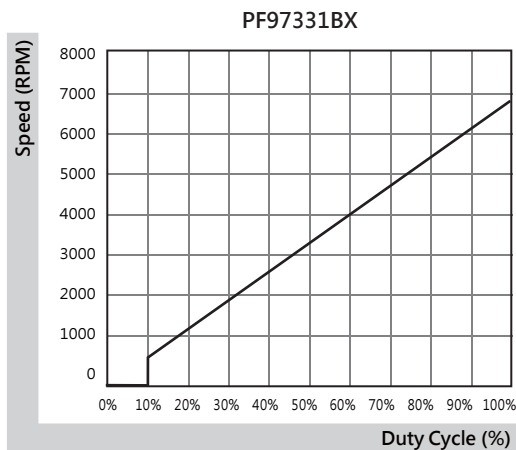
Isource=0.5mA at PWM Input Voltage 0V

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

Min. start up duty cycle is 10%.

Please don't apply 1 ~ 9% duty cycle to prevent the unstable fan speed.

■ 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-0000-A99	☉	12	3300	39.60	6800	297.9	2.05	70.3	472.0	1
PFE0381B1-0000-A99	☉	12	1720	20.64	5500	238.5	1.20	64.0	472.0	2

Other Function

PFE0381BX / 1

A99: AutoRestart

F99: AutoRestart and R type

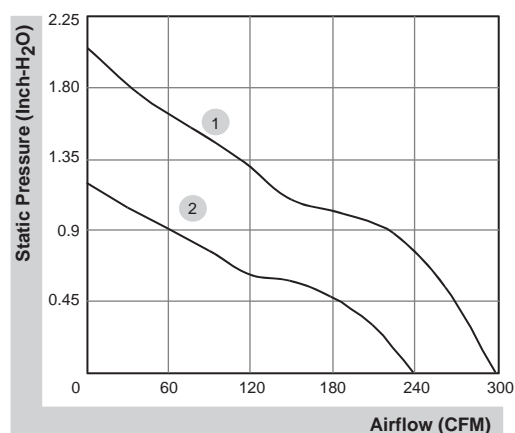
G99: AutoRestart and F type

H99: AutoRestart and with PWM

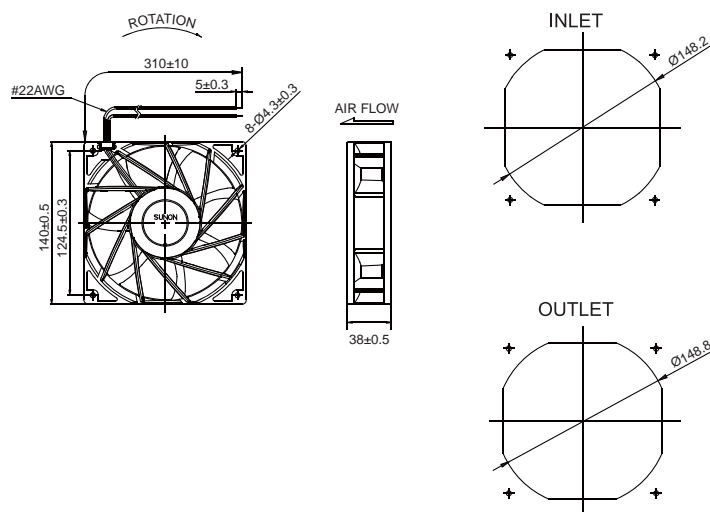
Q99: AutoRestart , R type and with PWM

S99: AutoRestart , F type and with PWM

Air Flow-Static Pressure Characteristics



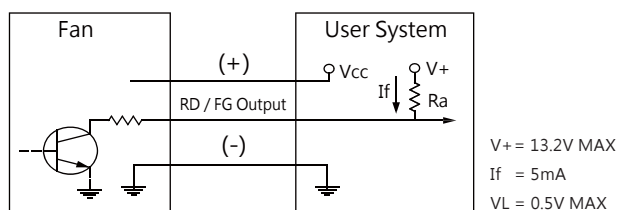
External dimensions(mm)



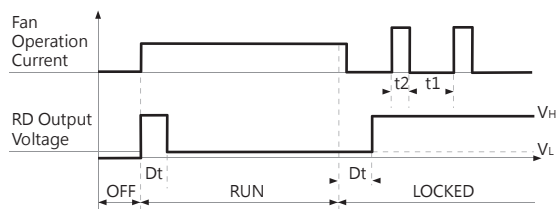
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*Specifications are subject to change without notice. Please Visit SUNON website at www.sunon.com for update information.

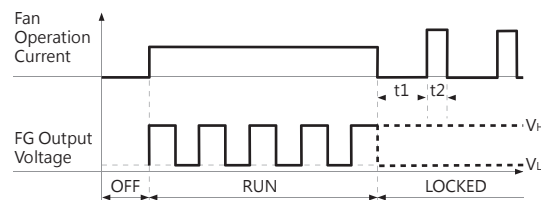
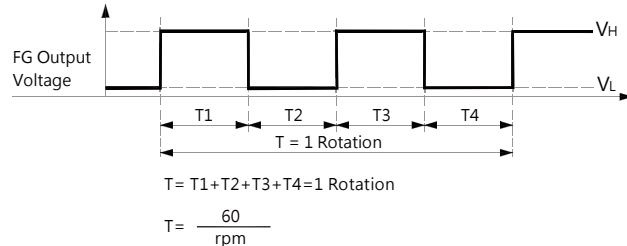
■ FG Signal



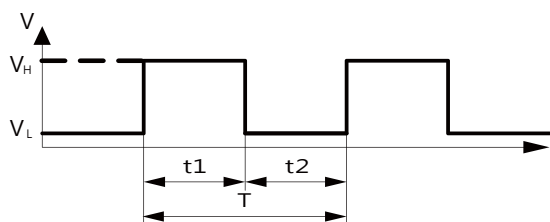
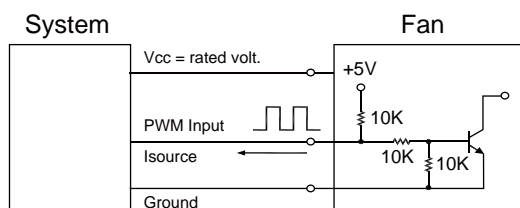
[RD Signal]



[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

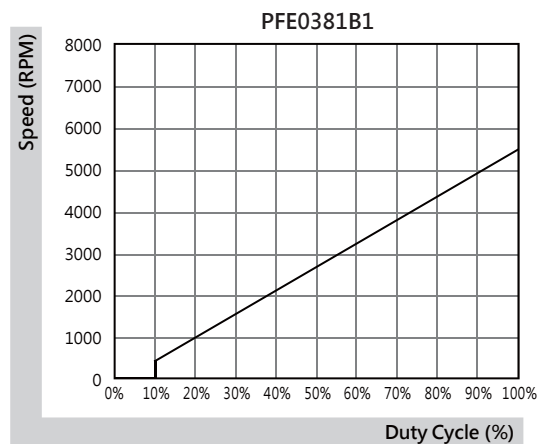
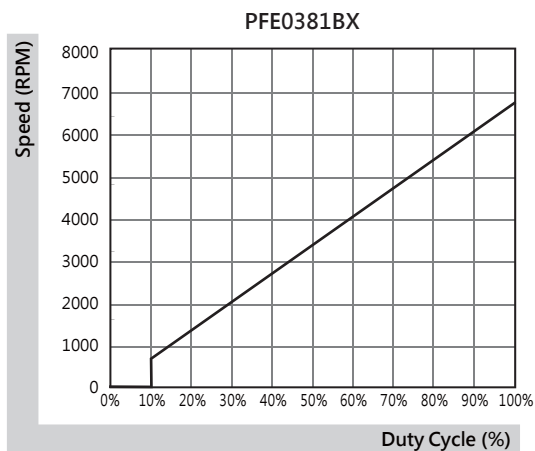
Isource=0.5mA at PWM Input Voltage 0V

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

Min. start up duty cycle is 10%.

Please don't apply 1 ~ 9% duty cycle to prevent the unstable fan speed.

■ PWM Curve



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Sunonwealth Electric Machine Industry Co., Ltd. (Headquarters)

TEL : +886-7-8135888

E-mail : sunon@email.sunon.com.tw

Sunon Inc. (U.S.A.)

TEL : +1-714-255-0208

E-mail : info@sunon.com

Sunon SAS (Europe)

TEL : +33-1-46154515

E-mail : info@sunoneurope.com

Sunon China (Shen Zhen Office)

TEL : +86-755-26880688

E-mail : sunon@email.sunon.com.tw

Sunon Taipei Office (Taipei)

TEL : +886-2-27992383