



深圳市蜀美科技有限公司

SPECIFICATION FOR APPROVAL

规格承认书

To: 2108261766

产品型号 Par No. : BA7050H24B

类别 Category: ☐ Fan ☒ Blower ☐ Centrifugal

认证 Certification: ☒ CE ☒ ROHS ☐ UL ☐ TUV

编号 SpecNo: BA7050H24B-B2103-02 版次 Version: 06

样品数 Quantity: 3PCS 日期 Date: 2025-09-26

Company Stamp	CUSTOMER APPROVAL Stamp
	
制作: 薛雨均	承认:
复核: 张友桥	核准:
核准:	日期:

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規格參數

Item 項目	Unit 單位	Specification 參數	Condition 條件
Dimension 尺寸	Mm 毫米	70X65.5X45.4	LxWxThickness 长宽高
Bearing System 轴承类型	----	Two Ball Bearing	----
Rated Voltage 额定电压	VDC	24	----
Operating Voltage Range 操作电压范围	VDC	18~26.5	At 25℃
Start-up Voltage 启动电压	VDC	≤18	At 25℃
Rated Current 额定电流	Amp 安培	2.7±10%	At Rated 1~3minutes
Lock Rotor Current 锁定电流	Amp 安培	0.00	Locked 锁死
Rated Power 额定功耗	Watt 瓦特	64.8±10%	At Rated 在额定电压下
Rated Speed 额定转速	RPM 圈/分钟	35000±10%	AT Rated Voltage 30℃
Air Flow 风量	CFM	17.6	In Free Air 无风阻条件
Static Air Pressure 静压	mmH ₂ O	937.8	When Air Flow=0
Noise Level 噪音	dBA	70.10	At Rated Speed 额定速
Polarity protection 反向保护	--	Reverse protection	YES
Other Spec.	Tachometer Output 转速反馈	YES	
	Soft-restart function 软启动	YES	
	Lock Protection 锁定保护	YES	
	Lock Rotor Alarm 锁定报警	NO	
	PWM Control 速度控制	YES	
	Thermal Control 过热保护	NO	
	Over voltage protection 过压保护	NO	
	Over current protection 过流保护	NO	
	fixed constant speed Function 恒速功能	NO	
Connection Lead Type 连接方式	Lead Wire 导线型号	200mm1007#24AWG (霍尔线) 200mm1332#24AWG (三相线) 300mm1007#20AWG (电源正负极) 300mm1007#24AWG (PWM+FG)	See Page 2 见图纸
	Connector 端子	VH3.96-8P (三相+霍尔) VH3.96-2P (电源正负) 2.54-6P (PWM+FG)	See Page 2 见图纸
Life Expectancy 预期寿命	Hours 小时	15004hrs	At 25℃ 在 25℃条件下, 35000RPM
		30000hrs	At 25℃ 在 25℃条件下, 15000RPM
Net Weight 净重	g 克	172.4g	1PCS
絕緣耐壓 Dielectric Strength	5mA Max./導線与外框間測量, 500VAC/min 5mA Max./Measured between lead wire(+)and frame at 500VAC/min		
定子極數 Number of Pole	6 極 6Poles		
转子極數 Rotor Pole	2 極 2Poles		
運轉溫/濕度範圍 Operating temp. Range	溫度/temperature: -40℃~+50℃ 濕度/Humidity: 35%~85%RH		

MTBF REPOPT

STARTED DATE: 2009.5.16

FINISHED DATE: 2009.10.20

TEST CONDITIONTEST (1) VOLTAGE:24VDC (2) TEMPERATURE: 75℃	ITEM	SPECIFICATION	TEST SAMPLES	20
	OPERATION VOLTAGE	24VDC	TEST HRS/EA	2,200
	CUPPENT DPAIN	MAX ≤2.7A±10%	TOTAL TEST HRS	44,000
	SPEED	34700RPM±10%	FAILURE Q'TY	0
	ACOUSTICAL NOISE		CONFIDENCE LEVEL	90%
			MTBF	15004hours

FAILURE DEFINITION Over (1) CURRENT:= 10%/-30%of Original value Over (2) RPM: 30%/-15%of Original value Over±10% of origin (3) NOISE LEVEL:	ITEM	CHECK POINT AT THE HOURS							
	TEST DURATION(HRS)	250	500	1k	1.5k	2k	2.2k		
	ACCUMULATED FAILURE Q'TY	0	0	0	0	0	0		
	SURVIVAL Q'TY	20	20	20	20	20	20		
	ACCUMULATED FAILURE RATIO	0%	0%	0%	0%	0%	0%		
	FAILNO.TEST TIME(HRS)SURVIVAL Q'TY								
	ACCUMULATED FAIL RATIO								
DESCRIPTION		TEST RESULT: 1. FORMULA OF FIGURING OUT ACCELERATION FACTOR: Tu: Required Temp (25℃) Ta: Experiment Temp.(65℃) AF = $2 \wedge [(Ta-Tu)]$ = $2 \wedge [65-25]/10]$ =16 MTBF=[ACTUAL TEST TIME*SAMPLE Q'TY]*AF/TR/SAMPLE Q'TY MTBF=[(2200*20)*16]/2.346/20=15004HOURS				2. CONFIDENCE LEVEL: ACCORDING TO GEM TABLE90% ZERO FAILURE TR=2.346			

APPROVED BY: BOPING GONG

CHECKED BY: SHU LIN XIE

TESTED BY: JUN ZHANG

风扇特性曲线风量风压测试报告

The Report of Fan Performance P-Q Curve Test

1. 产品特性依照 AMCA-210 标准在双箱里包括风量与风压的测试。

The performance including air flow and air pressure measured in Double Chamber is measured according to AMCA210-92 standard.

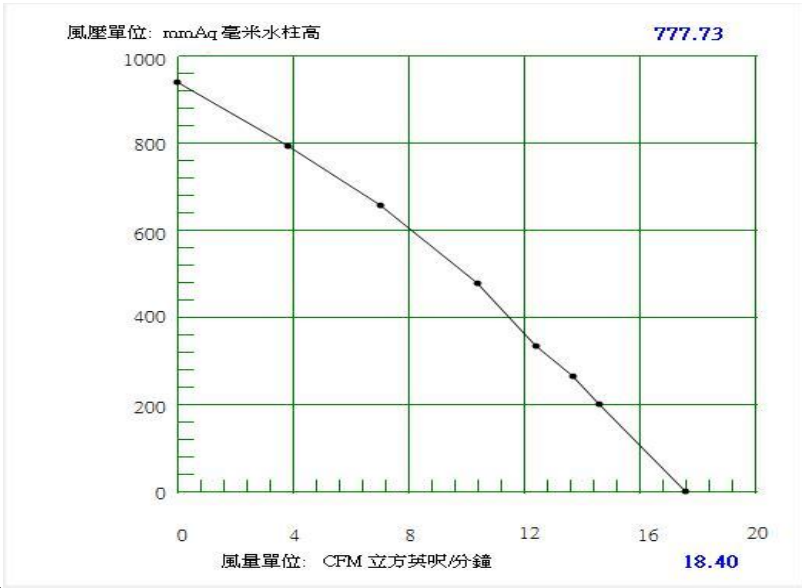
测试编号(No.): 5179 测试日期(Date) : 2022/04/30

2.测试数据:

序号 No.	项目 Item	规格 Specification	单位 Unit
1	测试电压 Test Voltage	24	VDC
2	转速 Speed	34700	RPM
3	大气压力 Barometric Pressure	761.5	mmHg
4	相对湿度 Relative Humidity	50	%
5	最大风量(零静压时)Max.Air Flow(At Zero Static Pressure)	17.6	CFM
6	最大风压（零风量时）Max. Air Pressure(At Zero Air Flow)	937.8	mmH ₂ O

3.P-Q 数据及曲线 P-Q Data and Curve

序号	mmAq	CFM	A	Watt	RPM
1	937.75	0	1.66	39.9	
2	792	3.77	2.08	49.8	
3	655	7.01	2.36	56.7	
4	477	10.36	2.62	62.9	
5	332	12.36	2.74	65.6	
6	263.75	13.65	2.79	66.9	
7	200.5	14.58	2.82	67.6	
8	0	17.56	2.89	69.3	



风扇特性曲线 PWM 测试报告

The Report of Fan Performance PWM Curve Test

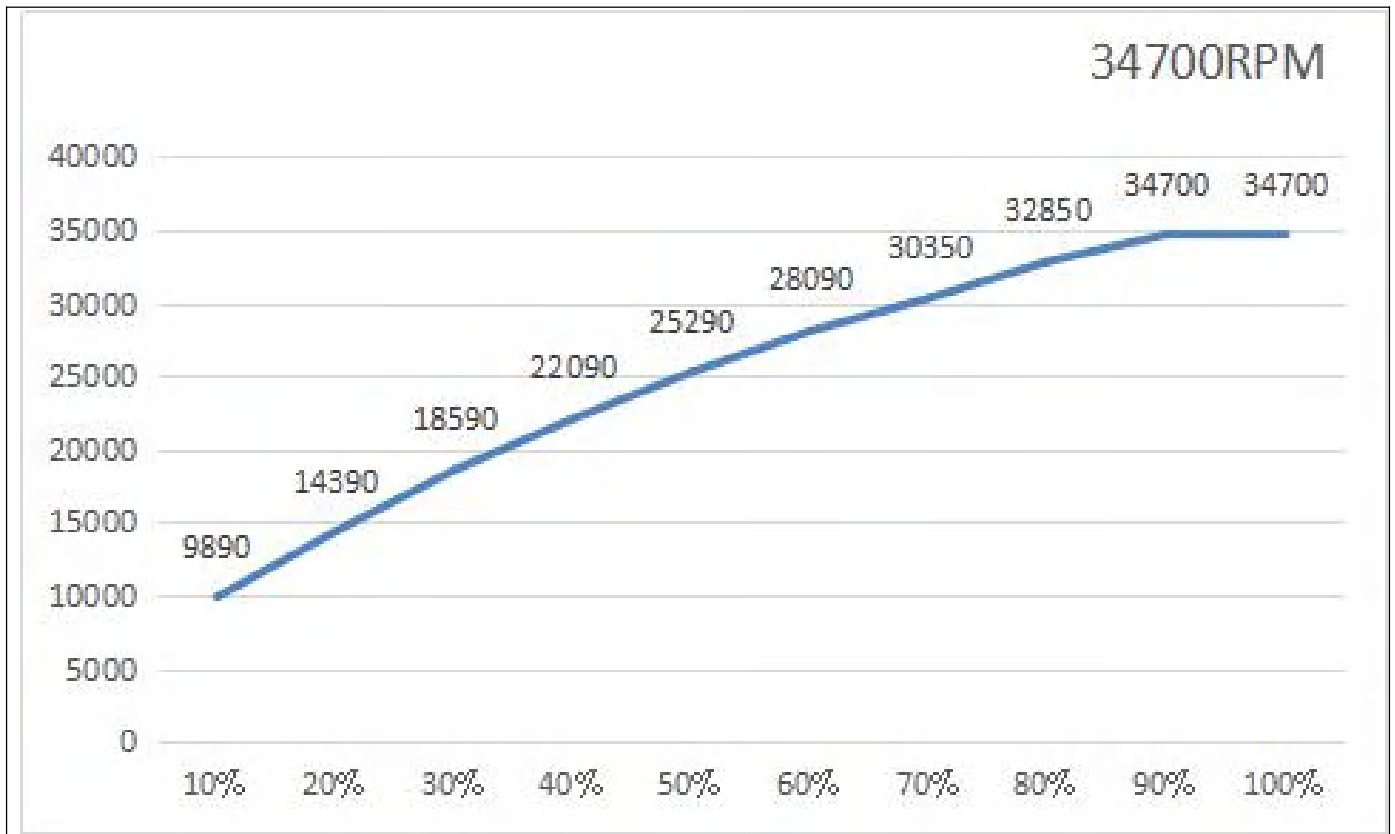
测试编号(No.):

测试日期(Date) : 2022-04-28

1.测试数据:

序号	百分比	转速	单位 Unit
1	10 %	9890	RPM
2	20 %	14390	RPM
3	30 %	18590	RPM
4	40 %	22090	RPM
5	50 %	25290	RPM
6	60 %	28090	RPM
7	70 %	30350	RPM
8	80 %	32850	RPM
9	90 %	34700	RPM
10	100 %	34700	RPM

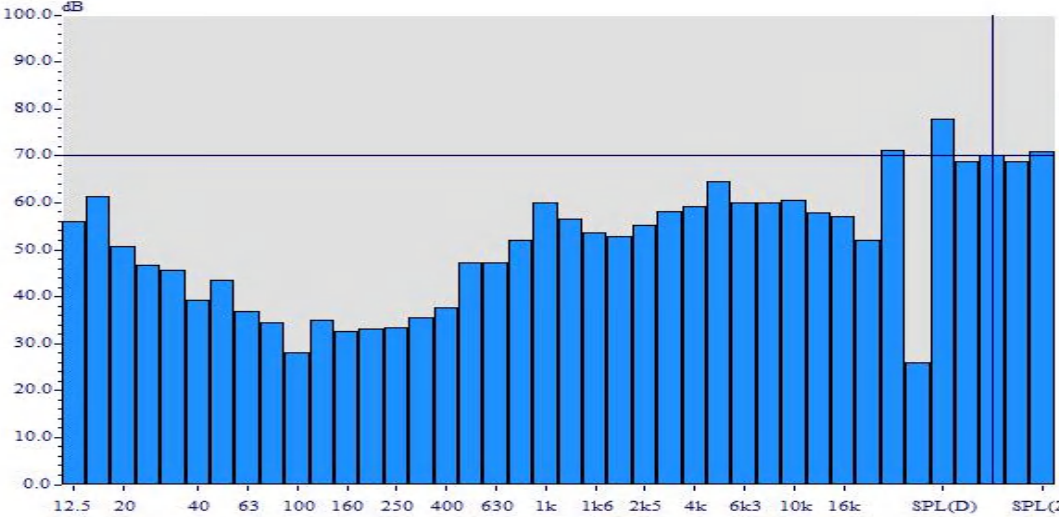
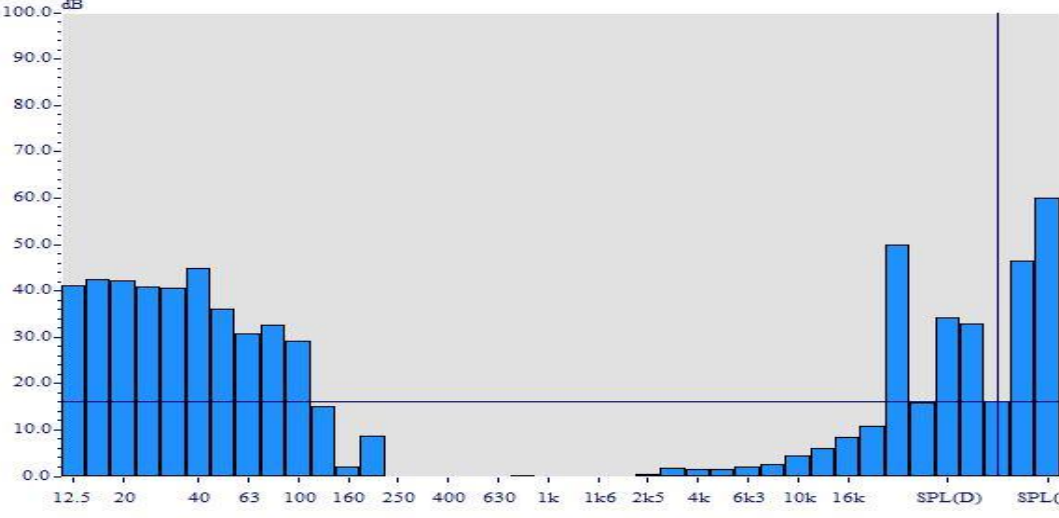
3.PWM 数据及曲线 PWM Data and Curve



噪音测试报告

The Report of Acoustic Noise Test

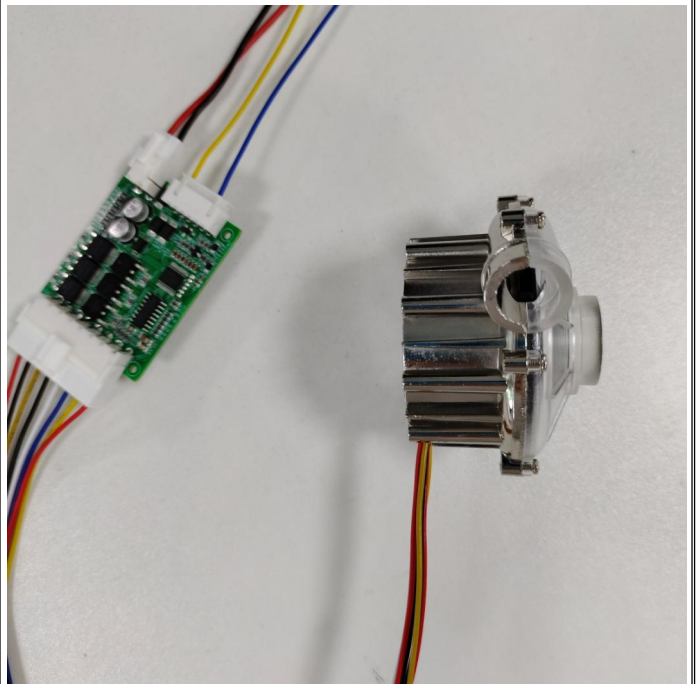
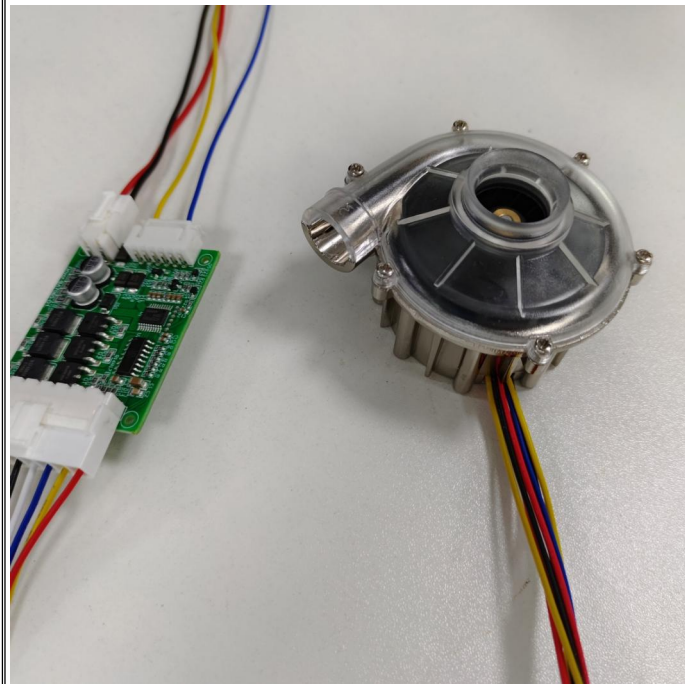
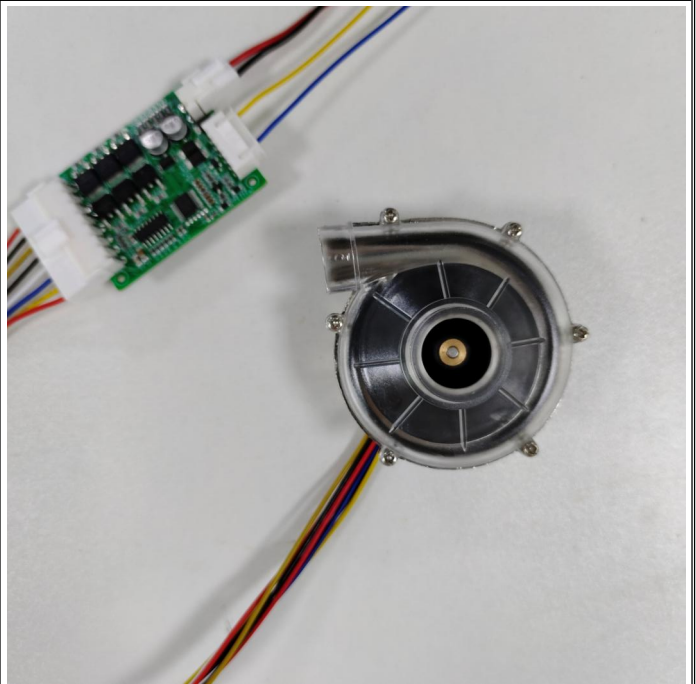
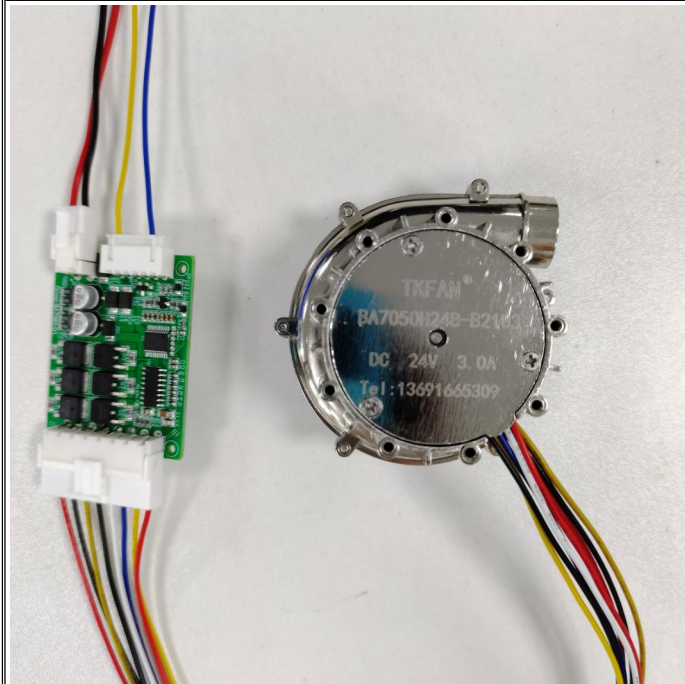
报告编号 Report No.TN1511309

样品名称 Sample Name	Brushless Fan / Blower
测试条件 Test Condition	测试方法 Test Method
1.温度 Temperature: 31 °C 2.湿度 Humidity: 75 %RH	1.测试位置 Test Position : 180° 2.测试距离 Test Distance:1.0M From the fan intake 3.背景噪音 Background Noise: 16.1dB(A) 4.测试依照标准 ISO3745 执行 This test executes according to ISO3745 standard
测试设备 Test Equipment: 声望 VA-Lab2 二通道噪声频谱分析仪 BSWA VA-Lab2 double channels noise Spectrum Analyzer	
测试结果 Test Result: Leq:70.10dB(A); 测试距离 Test distance: 1 meter	
倍频段频谱图 Octave-Band(1m)	
 坐标 X: SPL(A)O Y: 70.10dB 中心频率	
测试结果 Test Result: Leq:16.1dB(A); 背景噪音 Background Noise	
 坐标 X: SPL(A)O Y: 16.10dB 中心频率	

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※报告无主检、审核人签字无效 The test report is invalid without the signatures of Author and Reviewer.

实物图

The pictures

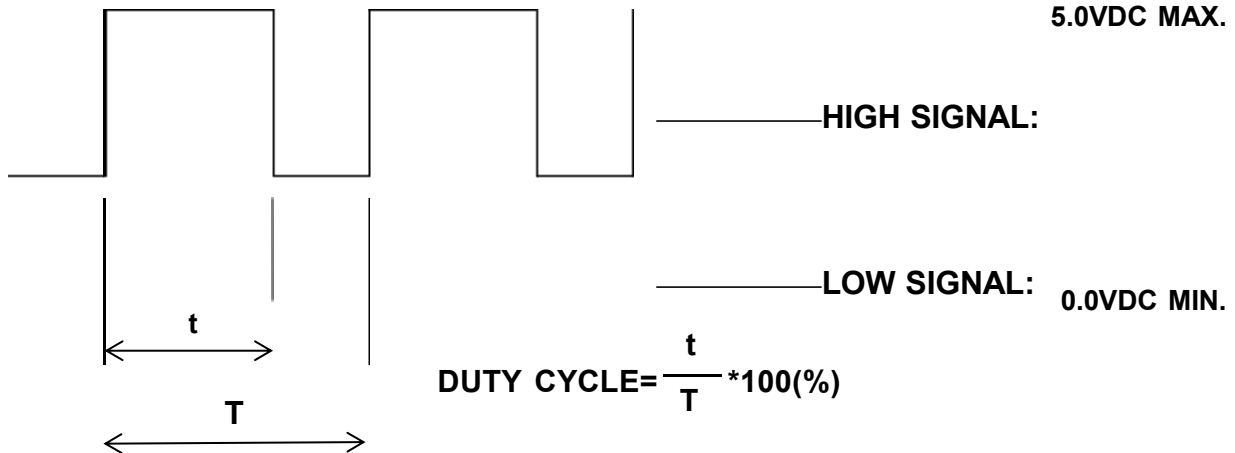


功能描述

Functional description

一. PWM CONTROL SIGNAL PWM 控制信号:

SIGNAL VOLTAGE RANGE 控制电压输入范围:0.0~+5.0VDC



- THE FREQUENCY FOR CONTROL SIGNAL OF THE FAN SHALL BE ABLE TO ACCEPT 16K~32 KHZ.
- THE PREFERRED OPERATING POINT FOR THE FAN IS 25K HZ.
- AT 100% DUTY CYCLE,THE ROTOR WILL SPIN AT MAXIMUM SPEED.
- AT 0% DUTY CYCLE,THE ROTOR WILL STOP.
- WHEN CONTROL SIGNAL LEAD DISCONNECTED,THE FAN WILL MAXIMUM SPEED.
- AT 25K 3%~5% DUTY CYCLE,THE FAN WILL BE ABLE TO START FROM A DEAD STOP.
- THE FAN SPEED CONTROL IS CLOSED-LOOP.

转速信号反馈介绍

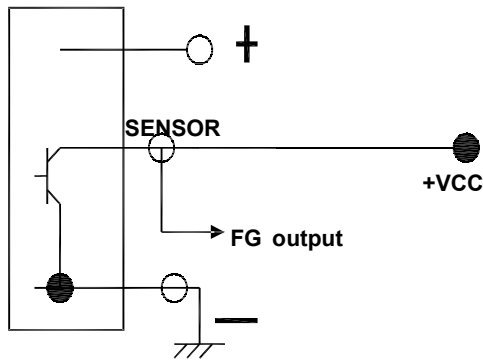
FG speed feedback signal is introduced

FG (Tach output type) Connection Diagram

Fan with FG function will create a square wave output. You can know fan speed by sensing the output wave Frequency. Most dc fan have four pole. So when fan run for one round, there will be two high level pulse. About other Multipole brushless fan, high level pulse will be different.

But please notice if you want to sense it's output wave, there is an external circuit. Please check the circuit Diagram below. There is no pull-up and VCC value limit. But please notice the Max I_{in} have to be small than 20mA.

Inside of DC fan



One revolution

