

Product Data Sheets

Customer: _____

Part No. : _____

CoolerMaster Model No.: ECC-01025-01-GP

Edition: A2

Issued Date: 2012/05/07

Revision History :			
Date of Release	Revision No.	Description	
2012.02.13	A1		
2012.05.07	A2	變更風扇資訊	
Customer		Cooler Master	
Approved by		DCC	Checked by
		李彩華	甘雪暉
		Date: 2012/05/07	Date: 2012/05/07
			Drafted by
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			Date: 2012/05/07



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BOM

NO.	PART NO	PART NAME	QTY
1	600020400-GP	HEAT SINK	1/1
2	150007410-GP	SCREW- M3*5.5	4/1
3	450001570-GP	SPRING	4/1
4	500001371-GP	WASHER	4/1
5	300002012-GP	E-RING	4/1
6	330007772-GP	BACK-PLATE	1/1
7	520000080-GP	X-23-7762	0.36G
8	150000740-GP	SCREW- ϕ 3*16-自攻	4/1
9	359000530-GP	FAN-LB	1/1
10	200013322-GP	FAN	1/1

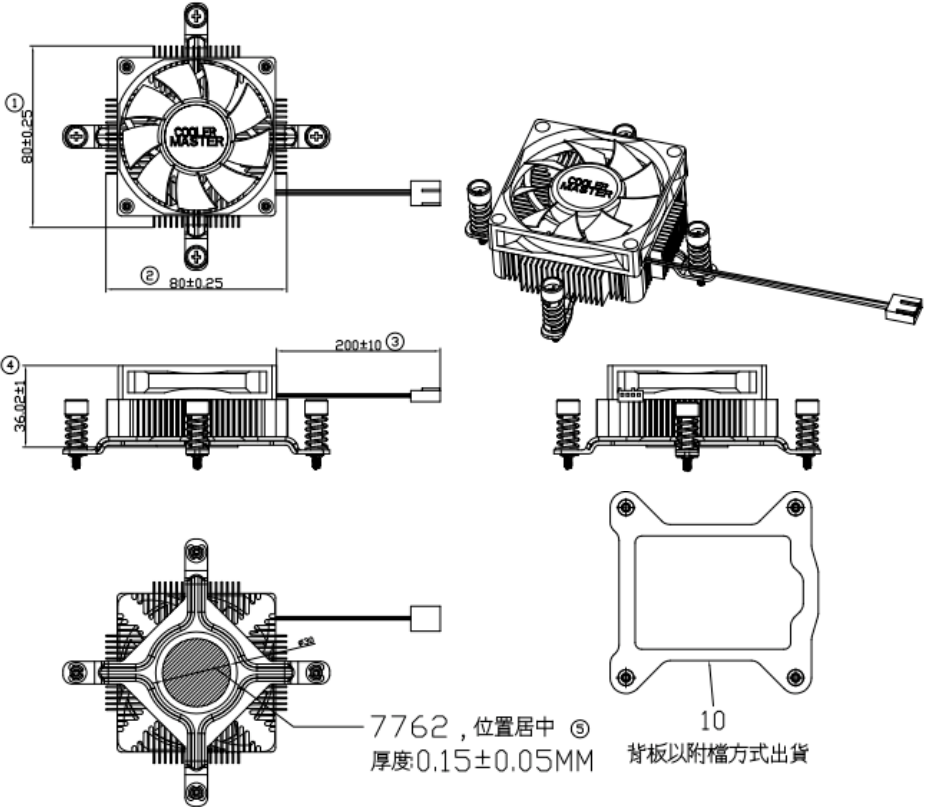


WHOLE PHOTO





ASSY



General Dimension Tolerances(Unit:mm)

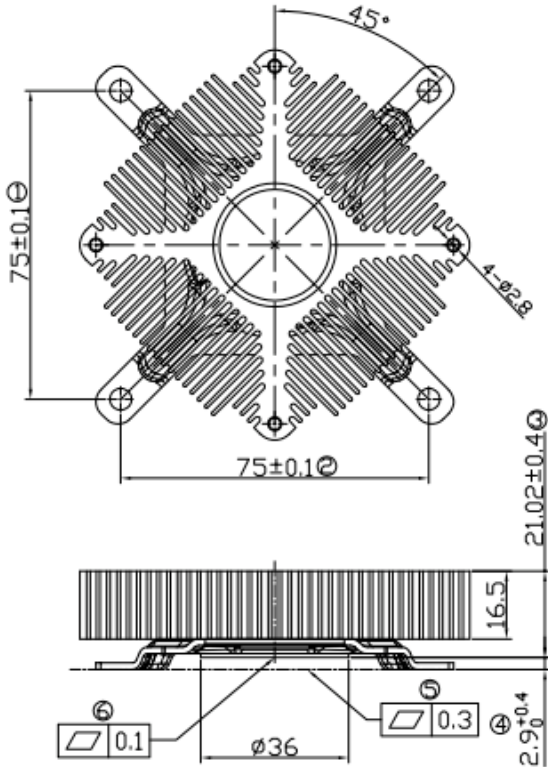
0	—	30	± 0.3
31	—	60	± 0.4
61	—	100	± 0.5
101	and	Over	± 0.6
Angles			$\pm 2^\circ$



HEAT SINK ASM

Material: AL6063+CU1100

Finished: Anti-Oxidation



General Dimension Tolerances(Unit:mm)

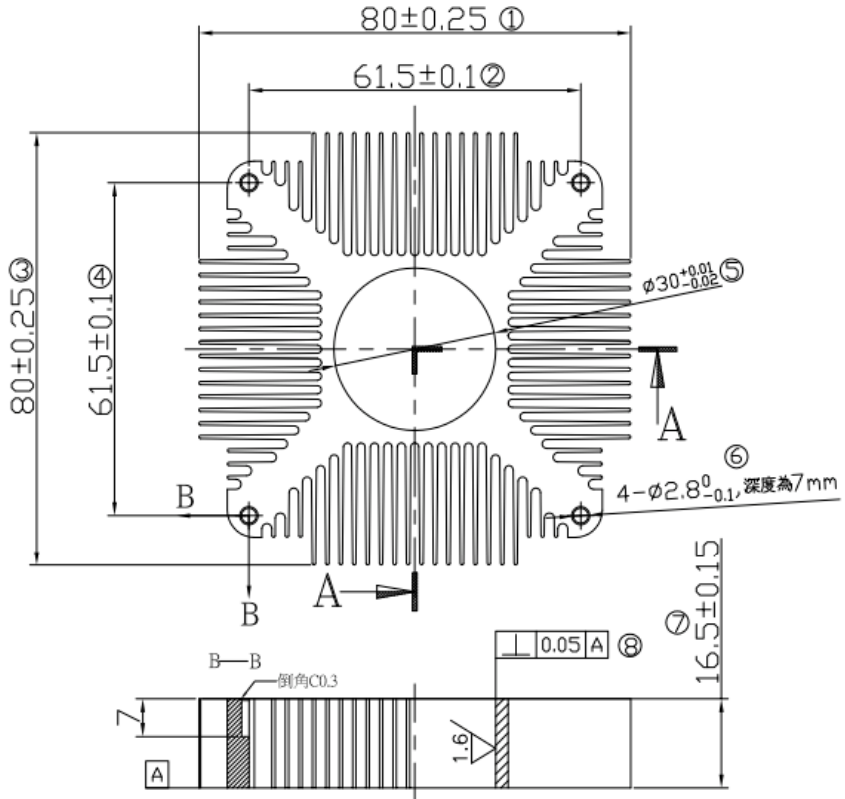
0	—	30	± 0.3
31	—	60	± 0.4
61	—	100	± 0.5
101	and	Over	± 0.6
Angles			$\pm 2'$



HEAT SINK

Material:AL6063

Finished: Clear Chromate



General Dimension Tolerances(Unit:mm)

0	—	30	± 0.3
31	—	60	± 0.4
61	—	100	± 0.5
101	and	Over	± 0.6
Angles			$\pm 2^\circ$



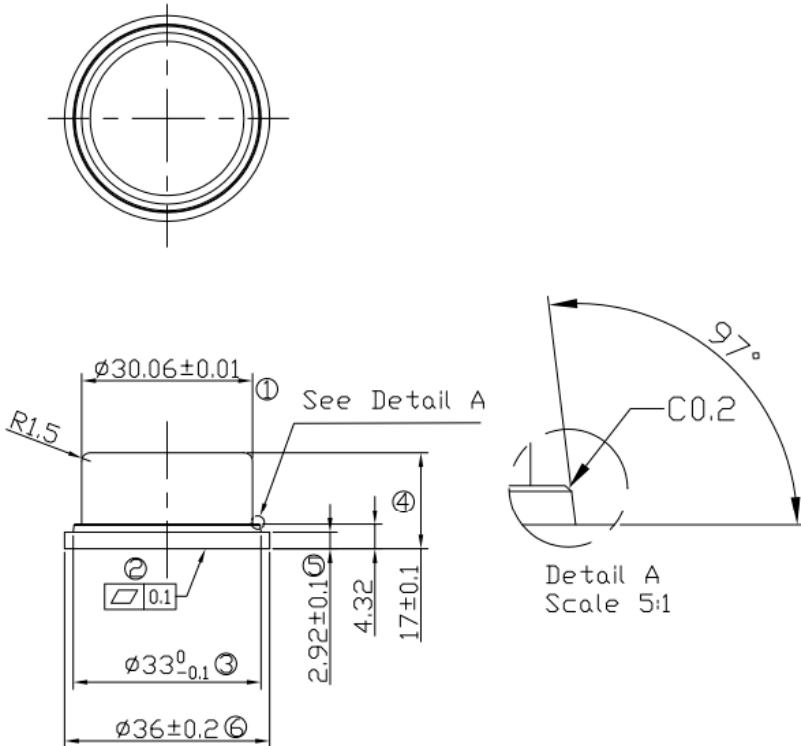
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CU BOSS

Material: CU1100

Finished: Anti-Oxidation



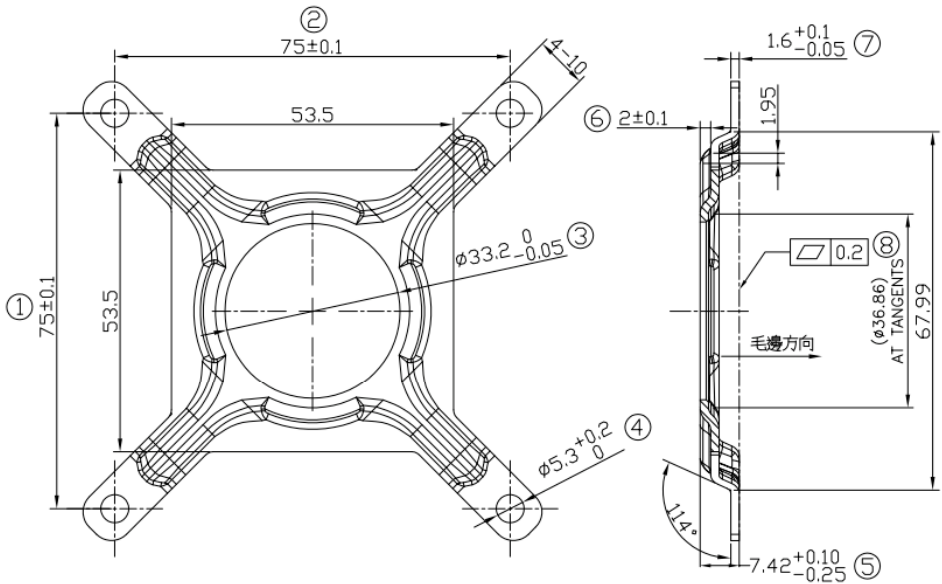
General Dimension Tolerances(Unit:mm)

0	—	30	± 0.3
31	—	60	± 0.4
61	—	100	± 0.5
101	and	Over	± 0.6
Angles			$\pm 2^\circ$



PLATE

Material: S50C Finished: Nickel Plating



General Dimension Tolerances(Unit:mm)

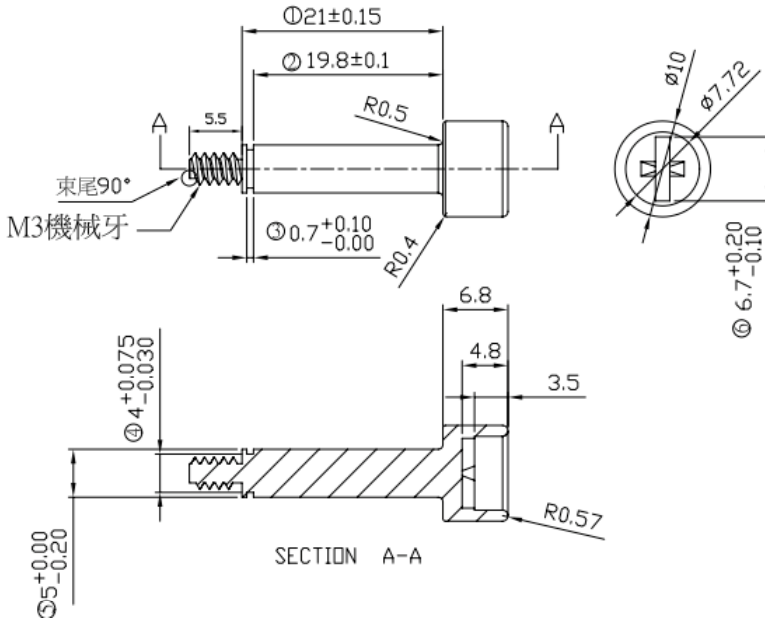
0	—	30	± 0.3
31	—	60	± 0.4
61	—	100	± 0.5
101	and	Over	± 0.6
Angles			$\pm 2^\circ$



SCREW M3*5.5

Material: AISI1018

Finished: Nickel Plating



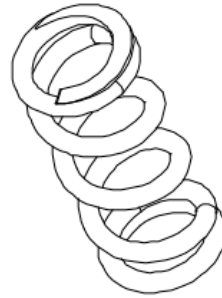
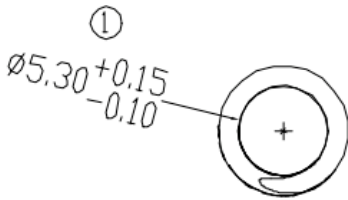
General Dimension Tolerances(Unit:mm)

0	—	30	± 0.3
31	—	60	± 0.4
61	—	100	± 0.5
101	and	Over	± 0.6
Angles			$\pm 2^\circ$



SPRING

Material: SWP-B Finished: Nickel Plating



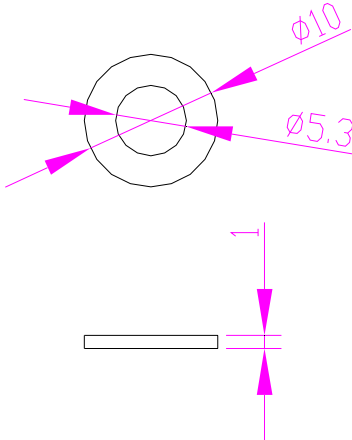
General Dimension Tolerances(Unit:mm)

0	—	30	±0.3
31	—	60	±0.4
61	—	100	±0.5
101	and	Over	±0.6
Angles			±2°



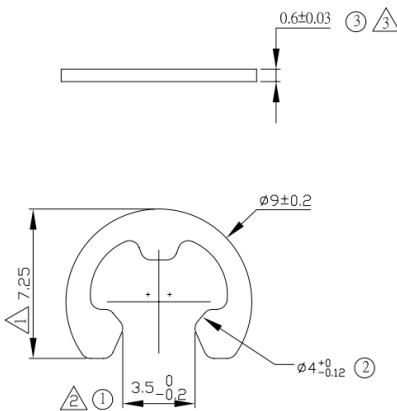
WASHER

Material: SPCC Finished: Blue Zinc-Plated



E-RING

Material: SK5 Finished: Nickel Plated



General Dimension Tolerances(Unit:mm)

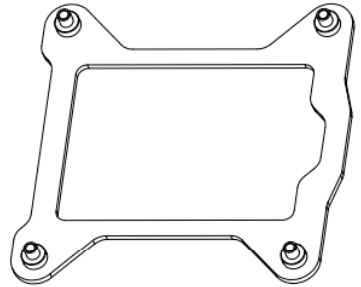
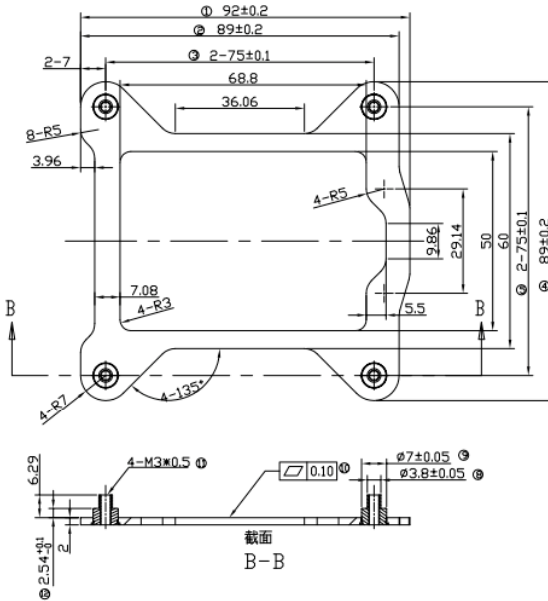
0	—	30	± 0.3
31	—	60	± 0.4
61	—	100	± 0.5
101	and	Over	± 0.6
Angles			$\pm 2^\circ$



BACK PLATE

Material: SPCC+SAE1215

Finished: Nickel Plating



General Dimension Tolerances(Unit:mm)

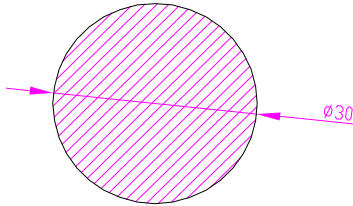
0	—	30	± 0.3
31	—	60	± 0.4
61	—	100	± 0.5
101	and	Over	± 0.6
Angles			$\pm 1^\circ$



INTERFACE

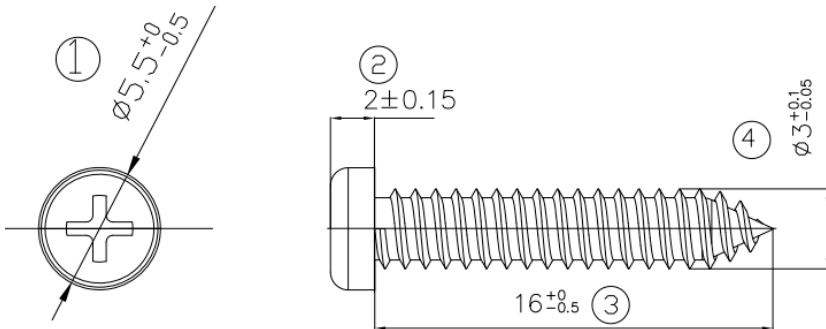
Material: X-23-7762 Size(mm): $\phi 30$

Thickness : 0.1 ~ 0.2 mm



SCREW

Material: AISI1018 Finished: Black Zinc-Plating



General Dimension Tolerances(Unit:mm)

0	—	30	± 0.3
31	—	60	± 0.4
61	—	100	± 0.5
101	and	Over	± 0.6
Angles			$\pm 2'$



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FAN LAB

Material: 25#消銀龍

Color: Pantone 320C



材質：25#消銀龍,耐高溫
顏色：PANTONE 320C,表面加護膜
圖面尺寸公差為 0.1
單重:0.1g

General Dimension Tolerances(Unit:mm)

0	—	30	±0.3
31	—	60	±0.4
61	—	100	±0.5
101	and	Over	±0.6
Angles			±2°



FAN SPEC

Table of Contents 目录		
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规格承认书

SPECIFICATION FOR APPROVAL

1. 普通规格 (General Specification)

项目 (Item)	规格/条件 (Specification/Condition)	
1.1 编号 (Products NO.)	DF07015120HNS-GP (P9M)	
1.2 外形尺寸 (Outline)	70*70*15MM	
1.3 额定电压 (Rated Voltage)	DC 12V	
1.4 操作电压 (Operating Voltage Range)	10.8~13.2V	
1.5 启动电压 (Starting Voltage)	DC 7V MAX (占空比100%)	
1.6 额定电流 (Rated Current)	0.22A±10%MAX	a. 额定电压 (Rated Voltage) b. 25° C, 60% RH
1.6 制动电流 (Locked Current)	0.40A±10%MAX	
1.6 安规电流 (Safety Current)	0.34A±10%MAX	
1.7 额定电流消耗功率 (Power Consumption)	2.64W	a. 25° C, 60%RH b. 自由空气 (Free Air) c. 额定电压 (Rated Voltage)
1.8 安规电流消耗功率 (Power Consumption)	4.06W	
1.9 转速 (Speed)	空载1200RPM 3000±10% P.M 25±2KHZ	a. 额定电压 (Rated Voltage) b. AACA标准 (Standard) c. 额定电流 (Rated Current)
1.10 噪音值	27.6CFM (ft ³ /min)	
1.11 最大风量 (Max. Airflow)	3.06mm H ₂ O	a. 额定电压 (Rated Voltage) b. 无音室测试 (Measured in a Non-Echo Chamber) c. CNS 8753 标准 (Standard) d. ISO 3744 测试条件 (Test Condition)
1.12 最大静压 (Max. Static Pressure)	35.8dB (A)	
1.13 噪音水准 (Noise Level)	70,000/hrs 25° C	MTBF (Mean Time to Failure) Conf. Level 90%
1.14 寿命 (Life)	11叶 (Blades)	
1.15 扇叶数 (No. of Blade)	4极 (Poles)	
1.16 磁极数 (No. of Pole)	逆时针	
1.17 运转方向 (Rotating Direction)		

2. 电气规格 (Electrical Specification)

项目 (Item)	规格/条件 (Specification/Condition)
2.1 风扇反转锁定 (Fan leaf spins to lock)	在额定电压下锁住扇叶24小时, 当额定解除后风扇仍阻止正常运转. (After specified voltage locks fan leaf for 24 hours, will lock to relieve, fan can still operate normally.)
2.2 极性保护 (Polarity Protection)	Vcc与GND反接时, 回路不烧损. (Circuit is protected when Vcc & GND are exchanged)
2.3 绝缘阻抗 (Insulation Resistance)	10MΩ / 绝缘与外框间测量, 600VDC/min. (10MΩ / b/w unshielded wire and frame at 600VDC/min)
2.4 绝缘耐压 (Dielectric Strength)	0.05mA MAX / 绝缘与外框间测量, 500VAC/min. (0.05 mA MAX / Measured b/w lead wire (-) and frame at 500VAC/Min)



3. 主要材料/零件规格 (Main Materials/parts Specification)

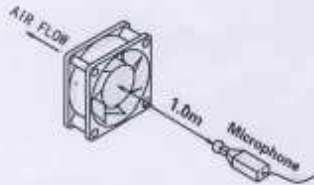
材料/零件 (Materials/Parts)	材质规格 (Specification)	实规编号 (File No)	备注 (Remarks)
3.1 外壳 (Plastic Material)	a. 94-V0 黑色D2因数方形 b. P. B. T-306GF Black		
3.2 扇叶 (Fan blade housing)	a. 94-V0 黑色R2弯十一叶 b. P. B. T-150GF Black		
3.3 绝缘架 (Insulin)	a. 94-V0 b. P. B. T-306GF Black		
3.4 轴芯 (stator core)	不锈钢 Stainless steel (SUS420J2)		
3.5 轴承 (Bearing)	双滚珠轴承 Two Ball Bearing		
3.6 橡胶磁铁 (Rubber magnet)	铁磁粉末化合物 Strontium ferrite (DGB14W)		
3.7 矽钢片 (Silicon steel strip)	DR60		
3.8 漆包线 (Enamelled copper wires)	MS-232F		
3.9 印刷电路板 (Printed Circuit Board)	半玻纤单层印刷电路板 94V0 Wiring printed single layer board		
3.10 电源线 (Lead Wire)	UL1002#24AWG, 0.75mm, C-Black, 0.5Yellow 0.8MM Dia. 分线 总长度 Total Length: 200±10mm, 线径公差 (Outside dia. length): 200±10mm		
3.11 LED灯	NA		
3.12 连接器 (Connector housing)	2.54-4Pin 白色端子		
3.13 贴纸 (Label)	多元酯 Polyester		

4. 环境测试 (Environmental Specification)

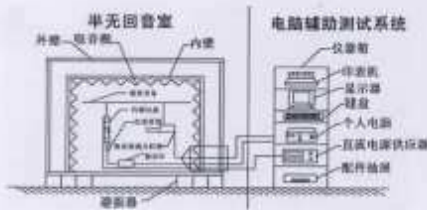
项目 (Item)	规格/条件 (Specification/Condition)
4.1 工作温度/湿度范围 (Operation Temp Range)	温度/Temperature: -10° C ~ +45° C 湿度/Humidity: 35% ~ 85%RH
4.2 保存温度/湿度范围 (Storage Temperature)	温度/Temperature: -20° C ~ +75° C 湿度/Humidity: 35% ~ 85%RH
4.3 耐湿性 (Humidity)	试验后, 电气绝缘依IEC61010-53D 302F Method 103b, 寿命: 96小时; 湿度: 95%; 温度: 40±2° C (For MIL-STD 202F Method 103b; Life: 96hours; Humidity: 95%RH; Temperature: 40±2° C)
4.4 热冲击 (Thermal Shock)	试验后, 电气绝缘依IEC61010-53D 202F Method 107D (For MIL-STD 202F Method 107D; Condition 3)
4.5 绝缘等级 (Insulation Class)	IIA级 (II, Class A)
4.6 包装耐振动的实验 (Packaging Vibration Test)	包装后, XYZ三方共振1.10加速度20分钟, 无异常; (Packaging Condition: X, Y, Z3directions, 1.10 load vibration test for 20 min.)
4.7 包装耐冲击实验 (Packaging impulse withstand to Test)	解包状态下, 高60cm, 3棱角3边6面自然落下, 无异常; (Unpack is high 60cm high under state, in 1 edge and 3 sides, 6 surfaces fall naturally, is the same as frequently phenomenon occur.)

5. 噪音测试说明 Acoustic sound level test descriptions

以额定电压在隔音实验室中测试背景噪音为17dB(A)。At rated voltage in sound proof room Background proof room background noise:17dB(A).

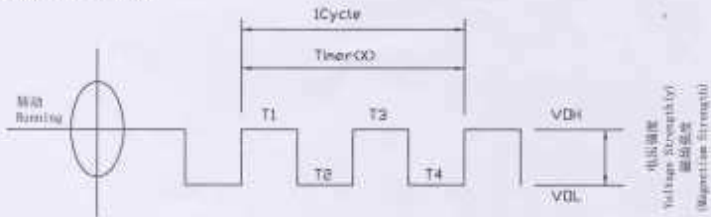


噪音测试方法图示



噪音测试系统图示

6. 转速侦测 RPM detection



$$T = T1 + T2 + T3 + T4$$

[说明]

1. 输出波形:方波 Output waveform:square wave.
2. 当电压值越高(值),则输出波形越高。When the voltage is higher(voltage) then output waveform is higher.
3. 当风扇不转动,则输出波形为一水平线。When the fan is shutdown then output.
4. 循环距离越长(值),则转速越慢。The cyclic distance is longer then the RPM is slower.
5. 转速计算公式如下:RPM formula as follows:

$$RPM = 60000 / X (1/d)$$



7. 标签 (Label)

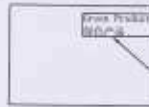
安规认证:

CE: File No.: HTS 20100701 001

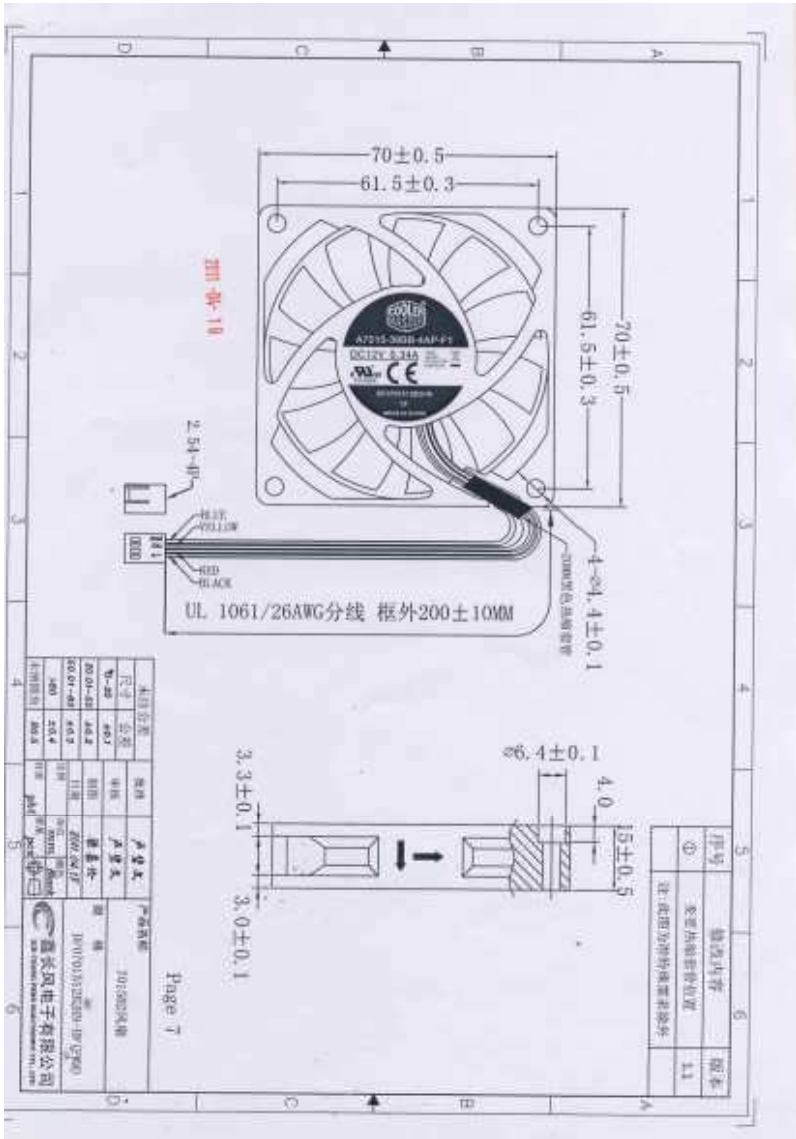
UL: File No.: E295588-CE






8. 包材 (Packaging)



此标签贴在
外箱顶部且
标签为醒目的字



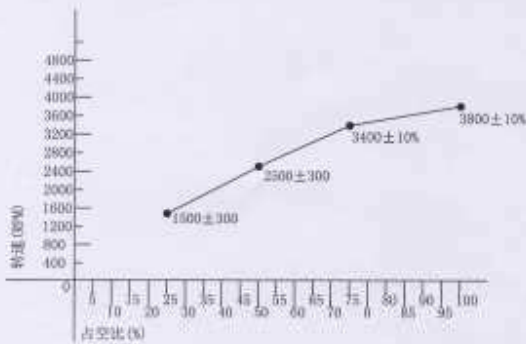


标准工程表			
客户: 讯源	机种: DF0701512B2B8-CP(P96)	制表日期: 2011-03-30	版次: 1.1
工程别	零件管制规格		<input checked="" type="checkbox"/> 试产/样品用(暂定规格)
PCB组	主基板: IC型号(供应商): 11901		<input type="checkbox"/> 量产用
定子组	定子外径	= 23mm 5片	
	线径	= 0.12mm 190T	
	阻值	单边阻抗 12.5 ± 3% 总阻抗 35 ± 5%	
外框组	轴承深度	1.0 ± 0.1mm	外框
	轴承内径	3.004 ± 0.002mm	
	磁石强度	Gauss	
	充磁电压	650V	
	轴芯外径	10.5 ± 0.1mm	
	磁石高度	9 ± 0.1mm	
	摆动等级	A(10毫克)级	
<input checked="" type="checkbox"/> FeedIn1 			
外框组	启动电压	7V MAX (占空比100%时)	标签: <input checked="" type="checkbox"/> 一般 <input type="checkbox"/> 特殊 
	额定电压	12V	
	制动电流	0.40A ± 10% MAX	
	工作电流	0.22A ± 10% MAX	
	消耗功率	2.64W	
	6秒转速	3500 ± 10% RPM	
	3分转速	3800 ± 10% RPM	
	电源线	UL1061/26AWG	
	颜色	红色+/黑色-	
	信号线	UL1061/26AWG	
颜色	黄色(PG)/蓝色(PNB)		
端子	2.54-4Pin 白色端子		
松外线长	200MM		
端子简图: 			
变 更 记 录			
版次	变 更 记 录	修正者	确认者
确认			



PWM 机种占空比规格表

客户: 讯强	机种: DF0701512R3HS-GP09M0	制表日期: 2011-03-30	版次: 1.1
启动电压	TV MAX (占空比100%) 自动重启时间 1~7秒		
额定电压	12V		
PWM频率	25±2002		
占空比	转速(RPM)	工作电流(mA)	
25%	1500±300	60mA±20%MAX	
50%	2500±300	100mA±15%MAX	
75%	3400±10%	160mA±10%MAX	
100%	3800±10%	220mA±10%MAX	





客户名称: 台军仕(中国)		物料号: 25±0.00		料号: 080701520205-02(1) (M)		转速: 3000±100RPM		工作电压: 220±10VAC		启动电压: 400±10VAC		测试日期: 2011-03-30	
规格书: 25±0.00		转速(RPM)											
公差	1380	1600	1800	2000	2400	2800	3000	3200	3400	3500	3700	3700	3700
公差	20%	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
1.外观检查	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
2.运转检查	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
3.噪音	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
4.异音	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
5.震动	低于感	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
6.漏油检查	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
7.外置风压测试	70±0.5	70.02	69.95	69.99	69.00	69.95	69.95	70.00	69.99	69.99	70.00	69.99	69.99
8.外置电压测试	10±0.1	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05	10.05
9.外置尺寸测试	18±0.3	15.05	15.02	15.98	15.05	15.05	15.05	15.05	15.05	15.05	15.05	15.05	15.05
10.沉孔深度测试	4.0±0.1	4.02	4.05	4.08	4.05	4.05	4.05	4.05	4.05	4.05	4.05	4.05	4.05
11.总长度测试	3.0±0.1	3.20	3.11	3.32	3.10	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12
12.总长度测试	3.0±0.1	3.03	3.01	3.02	3.00	3.02	3.02	3.02	3.02	3.02	3.02	3.02	3.02
13.螺孔直径测试	61.5±0.3	61.54	61.58	61.32	61.54	61.48	61.48	61.48	61.48	61.48	61.48	61.48	61.48
14.螺孔直径测试	64.4±0.1	64.39	64.43	64.40	64.39	64.43	64.43	64.43	64.43	64.43	64.43	64.43	64.43
15.导电性测试	200±10mm	202	199	198	202	199	198	198	198	198	198	198	198
16.叶片厚度	3±.5mm	2.0	1.9	2.2	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
17.平衡面垂直度	0.1mm	0.2	0.3	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
18.自动启动时间	1~7秒	4.5	5	3.5	6	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5

测试结果:

Access

Imp

审核: 内部文

制表: 张其华

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CERTIFICATE **HTS**

of Conformity

EC Council Directive 2004/108/EC
Electromagnetic Compatibility

Registration No.: HTS 20100701 001
Report No. : 201007001 001

Holder : Chang Feng Electronics Co., Ltd
West Longqiqo ROAD, longxi Town, Boluo Hsien, Huizhou city, Guangdong Province

Product : DC Component Fan

Identification : Type Designation : DF0701505X1Y3N, DF0701512X1Y3N, DF0702505X1Y1N, DF0702512X1Y1N, DF0801505X1Y1N, DF0801512X1Y1N, DF0802505X1Y2N, DF0802512X1Y2N, DF0902505X1Y2N, DF0902512X1Y2N, DF0922505X1Y2N, DF0922512X1Y2N, DF1202505X1Y2N, DF1202512X1Y2N, DF1402505X1Y2N, DF1402512X1Y2N Series.
(X1 may be 8E, B1, B2, RF; Y1 may be U, H, M, L; Y2 may be U, H, M, L, D; Y3 may be H, M, L, D.)

Tested acc. To : **EN55022: 2006+A1:2007**
EN55024: 1998 + A1: 2001 + A2: 2003 (IEC61000-4-2: 2001 IEC61000-4-3: 2008 IEC61000-4-8: 2001)

This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Licence Holder's disposal. This is to certify that the tested sample is in conformity with all provisions of Annex III of Council Directive 2004/108/EC in its latest amended version, referred to EMC Directive. This certificate does not imply assessment of the production and does not permit the use of HTS's logo. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Annex III of the directive.

Jul. 19, 2010
Issue Date



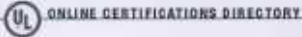
Certification Body


Jack Li

Honesty Technology Service Ltd

3F, 135 Mawu, Qianli District, Changping Town, Dongguan City, China
Tel.: 86-769-87708451 Fax: 86-769-87708450 Postcode: 523586 <http://www.hts-hd.com>

CE The CE marking may be used if all relevant and effective EC Directives are complied with. CE



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Fans, Electric - Component

See General Information for Fans, Electric - Component

XIN CHANGPENG ELECTRONICS CO LTD
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HUZZHOU, GUANGDONG CHINA

E255988

UL ENEC Models DF0401012(X)(A)(N), DF0601012(X)(D)(W), DF0701522(X)(W), DF0702012(X)(C)(W), DF0802012(X)(D)(W), DF0922012(X)(D)(W), DF0922512(X)(D)(W), DF1002012(X)(D)(W) series, where (X) may be SE, BL, B2 or RF, (A) may be H, M or L, (C) may be H, M, L or D, (D) may be U, H, M or L, (E) may be U, H, M, L or D.

Models DF0801512(X)(Y)(N), DF0803212(X)(D), DF0803212(X)(Y)(N), DF0902512(X)(D)(W), DF0902512(X)(Y)(N), DF1402012(X)(D)(W), DF1402512(X)(Y)(N) series, where (X) may be SE, BL, B2 or RF, (Y) may be L, M, H or U.

Models DF0201012(X)(Y)(N), DF0301012(X)(Y)(N), DF0801012(X)(Y)(N), DF0801012(X)(Z)(N), DF0402512(X)(W)(N), DF0701500(X)(T)(N), DF0701500(X)(T)(M), DF0802012(X)(Z)(M), DF0802512(X)(Z)(N)-1, DF0902512(X)(Y)(N)-2, DF1202012(X)(W)(N)-1, DF1202512(X)(Y)(N)-2, DF1302512(X)(W)(N), DF1803212(X)(Y)(N), DF2003012(X)(Y)(N), where X may be RF, SE, BL or B2, Y may be L, M or H, Z may be D, L, M, H or U, W may be L, M, H or U, T may be L or H, Y may be D, L, M or H.

Marking: Company name and model designation.
Last updated on 2009-03-23

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