

# SPECIFICATION FOR APPROVAL

客 戶

CUSTOMER:

客 戶 料 號

CUSTOMER PARTS NO.:

品 名

AC AXIAL FAN

DESCRIPTION:

機種

4E-230S-17T

MODEL NO.:

檔案序號

A4E0023LS-C1

FILE NO.:

核示	研發	品保	版數
ISSUE	R&D	QA	REVISION

客 戶 承 認

CUSTOMER APPROVAL

**BI-SONIC TECHNOLOGY CO., LTD**

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# PERFORMANCE SPECIFICATION

PRODUCT TITLE : AC AXIAL FAN

MODEL NO : 4E-230S-17T

**1、SCOPE :**

THIS SPECIFICATION DEFINES THE ELECTRICAL AND MECHANICAL CHARACTERISTICS OF THE AC AXIAL FLOW FAN THE FAN MOTOR IS SHADED POLE MOTOR WITH EXTERNAL ROTOR.

**2、ELECTRICAL CHARACTERISTICS :**

ALL MEASUREMENTS PERFORMED AT 20~30°C ROOM TEMPERATURE & 50~70%R.H. UNLESS OTHERWISE SPECIFIED. SPEED MEASURED AFTER CONTINUOUS 10 MINUTE OPERATION AT RATED VOLTAGE IN CLEAN AIR

ITEM	DESCRIPTION	UNIT	SYMBOL	SPEC.		CONDITION
				50Hz	60Hz	
1	RATED VOLTAGE	VOLTS	V	230	AC	
2	OPERATION VOLTAGE	VOLTS	V	215~245	AC	
3	INPUT CURRENT	AMP	A	0.12MAX	0.11MAX	AT RATED VOLTAGE
4	INPUT POWER	WATTS	W	19MAX	18MAX	AT RATED VOLTAGE
5	ROTATION SPEED	RPM	RPM	1600 <sup>+20%</sup> -10%	1700 <sup>+20%</sup> -10%	AT RATED VOLTAGE FREE AIR
6	ACOUSTICAL NOISE (AVG)	dB(A)	dB(A)	25 <sup>+20%</sup> -10%	30 <sup>+20%</sup> -10%	DETAILS SEE ATTACHED PAGE.
7	MAX. AIR-FLOW	CFM	Q	52.3 <sup>+20%</sup> -10%	58.4 <sup>+20%</sup> -10%	TWO-CHAMBER METHODS DETAILS SEE ATTACHED PAGE.
8	MAX. AIR-PRESSURE	mmHzO	P	2.4 <sup>+20%</sup> -10%	2.7 <sup>+20%</sup> -10%	TWO-CHAMBER METHODS DETAILS SEE ATTACHED PAGE.
9	INSULATION RESISTANCE	MEG. OHM	MΩ	100MΩ MIN. AT 500V DC		BETWEEN FRAME AND TERMINAL.
10	DIELECTRIC STRENGTH			WITHSTANDING AT 1400V AC 60Hz. FOR 1 MINUTE		BETWEEN FRAME AND TERMINAL.

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ITEM	DESCRIPTION	SPEC.	
11	ROTATION	CW VIEW FROM NAME PLATE SIDE	
12	AIR-FLOW DIRECTION	AIR INTAKE OVER THE STRUTS	
13	INSULATION CLASS	CLASS B	
14	LIFE EXPECTANCY	20000 HOURS CONTINUOUS	<input type="checkbox"/>
15	SAFETY APPROVAL	UL. CSA. TUV. CE. IP54.	

LIFE IS DEFINED AS THE TIME MOTOR SPEED DECREASED MORE THAN 30% COMPARED WITH INITIAL VALUE.

### 3、MECHANICAL

- 3-1. DIMENSIONS ----- SEE SECTION 8
- 3-2. FRAME----- METAL CONSTRUCTION WITH ALUMINUM DIE-CASTING.
- 3-3. IMPELLER ----- MADE OF METAL MATERIAL SPOT WELDING ON ROTOR SHELL.
- 3-4. COATING----- CED ( CATHONIC ELECTRODEPOSITION COATING WITH EPOXY ) COATING ON METAL SURFACE BE CAPABLE OF IMPACT RESISTANT AND ABRASION RESISTANT.
- 3-5. BEARING SYSTEM ----- SLEEVE BEARING
- 3-6. WEIGHT ----- 600 GRAMS
- 3-7. LEAD WIRE ----- 1007 AWG # 22
- 3-8. TYPE OF OUTPUT : TERMINAL
- 3-9. PLASTIC PARTS ----- UNFLAMABLE MATERIAL , MEET UL 94V-0 RATING.

### 4、ENVIRONMENTAL :

- 4-1. OPERATING TEMPERATURE ----- -10 TO +70°C
- 4-2. STORAGE TEMPERATURE ----- -30 TO +75°C

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4.3. OPERATING HUMIDITY ----- RH 20% ~ 85%

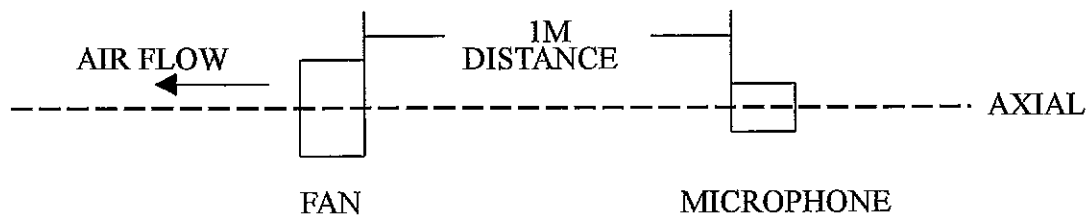
5 、 PROTECTION :

5-1. IMPEDANCE PROTECTION

IMPEDANCE OF MOTOR COIL WINDING PROTECTS MOTOR FROM FLAMING IN THE CONDITION OF 72 Hrs LOCKED ROTOR AT RATED VOLTAGE .

6 、 ACOUSTICAL NOISE :

6-1. MEASUREMENT SET-UP



6-2. MEASUREMENT PERFORMED IN ANECHOIC TEST CHAMBER UNDER FREE AIR CONDITION .

6-3. CHAMBER BACKGROUND NOISE 17dB MAX .

6-4. READING TAKEN FROM SPECTRUM ANALYZER .

6-5. NOISE DISTRIBUTION CURVE SEE ATTACHED PAGE .

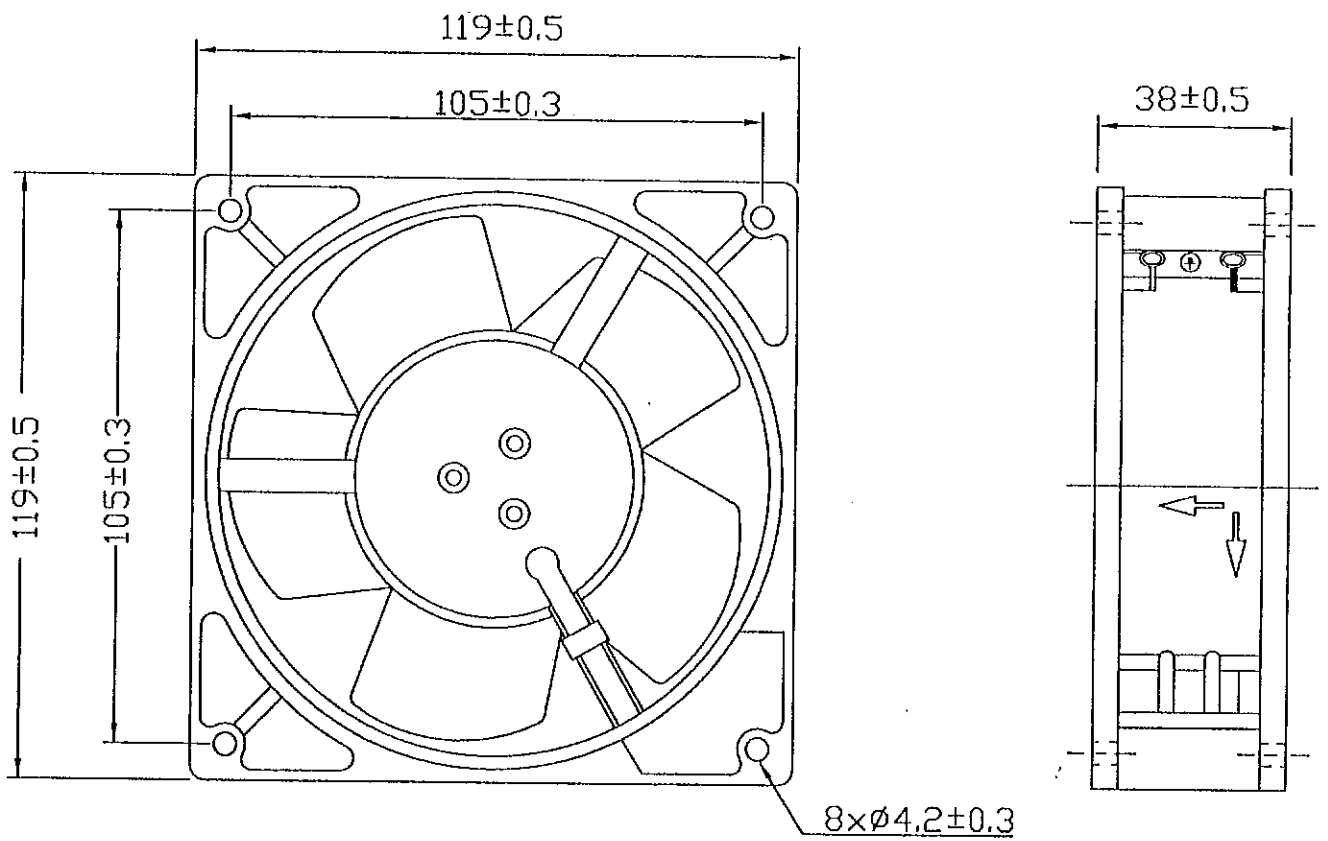
7 、 STATICS PRESSURE VS AIR FLOW CURVE :

MEASURED PER TWO CHAMBER METHOD .

DATA-CURVE SEE ATTACHED PAGE .

8、DIMENSIONS DRAWING：

UNIT:mm



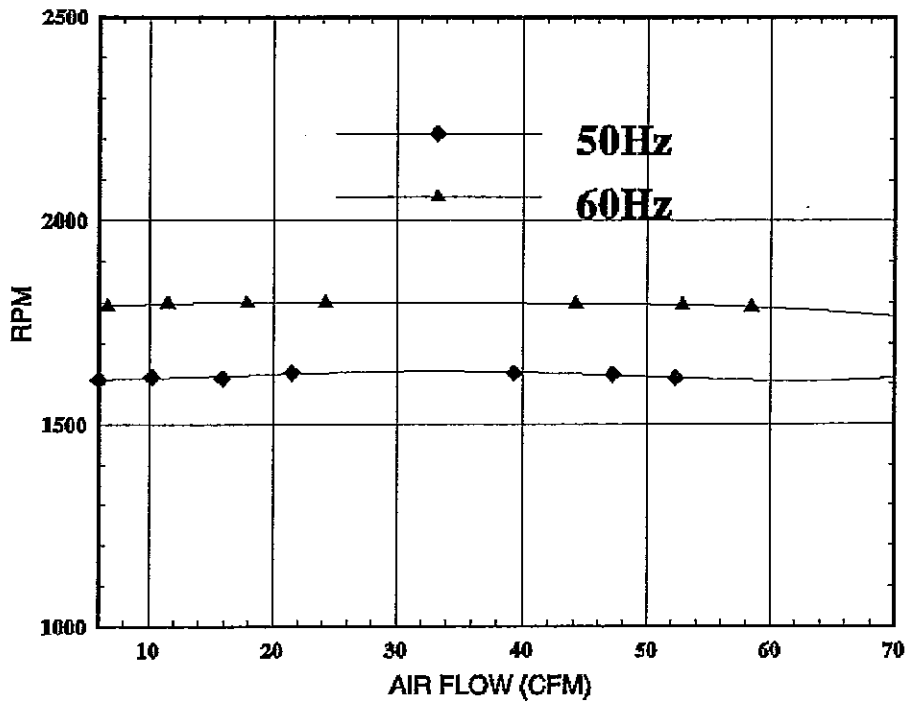
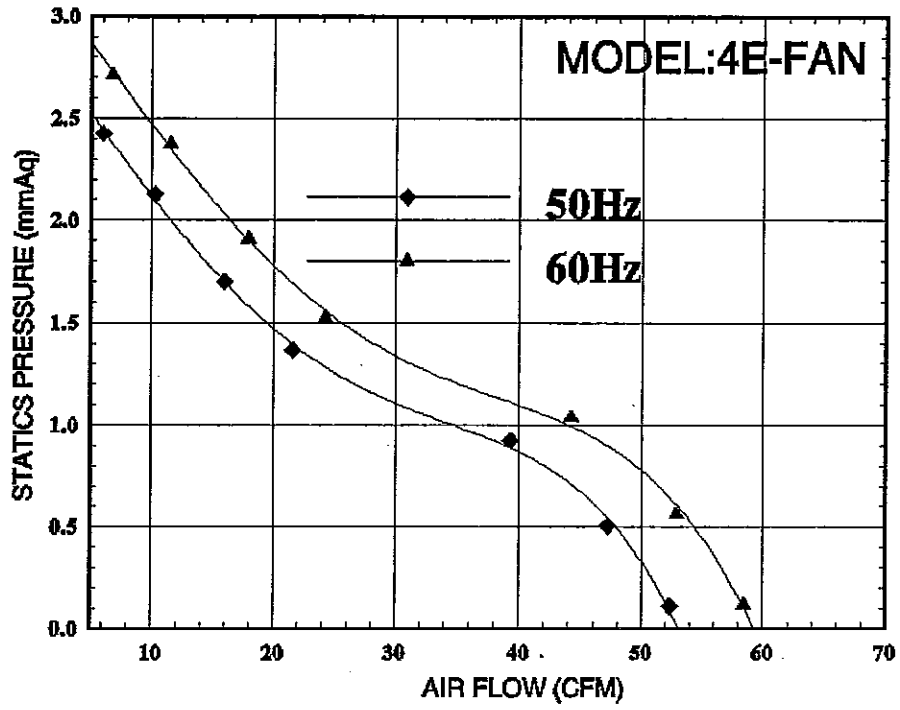
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CO., LTD.

FILE NO：

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REVISIONS：

# BI-SONIC FAN PERFORMANCE CURVES



## BI-SONIC FAN PERFORMANCE DATA SHEET

Customer: Fan Mode:4E FAN Testing Method: Constant Voltage Testing Voltage: AC 230 V,50/60Hz Barometric Pressure (cmHg): Dry Bulb Temperature ( C):23.5 Relative Humidity (%) 70 File Name:4E FAN	Test No: 4E FAN System Setup:outlet Chamber Testing Date:11-17-1998 Barometric Density (kg/m3):1.14 Testing Engineer:Chen Jr Wei Remark:
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No	CFM	mmAq	inAq	A	RPM	Watt
1	52.32	0.111	0.004	0.12	1625	19
2	47.17	0.504	0.019	0.12	1623	19
3	39.32	0.925	0.036	0.12	1627	19
4	21.53	1.366	0.053	0.12	1628	19
5	15.92	1.701	0.067	0.12	1614	19
6	10.24	2.126	0.083	0.12	1616	19
7	6.02	2.424	0.095	0.12	1611	19
No	CFM	mmAq	inAq	A	RPM	Watt
1	58.46	0.12	0.004	0.11	1788	18
2	52.86	0.564	0.022	0.11	1793	18
3	44.16	1.035	0.04	0.11	1797	18
4	24.2	1.526	0.06	0.11	1799	18
5	17.9	1.91	0.075	0.11	1799	18
6	11.49	2.376	0.093	0.11	1796	18
7	6.73	2.714	0.106	0.11	1791	18

# BI-SONIC TECHNOLOGY CORP NOISE TEST REPORT

測試機種: \_\_\_\_\_

測試目的:  Evaluation 評估

工 令: \_\_\_\_\_

IPQC

取 樣: \_\_\_\_\_ pcs

QA

資料代碼:

4E17T50H

測試頻率:

10KHz

測試感度:

0dB

觸發感度:

0/128

觸發位置:

100點

Y軸上限:

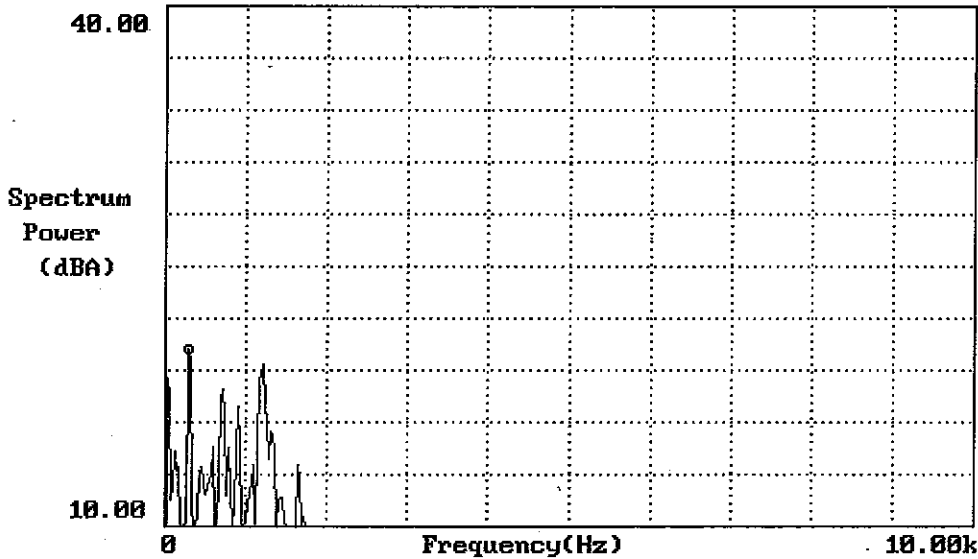
40.00

Y軸下限:

10.00

平均次數:

3次



OV. AL	_____	25.66016dB	MAXIM	275.00Hz	20.14893dB
LEFT	0.00000Hz	18.46741dB	MINIM	3.100kHz	-13.3673dB

結果分析: \_\_\_\_\_

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\_\_\_\_\_

- (1) Background Noise : 17dBA
  - (2) FFT Analyzer
  - (3) Sound Pressure Level Meter
- No. RR01.04A

Reporter: \_\_\_\_\_

Date : 1998/12/21



百瑞科技 — 噪音測試報告

測試機種: \_\_\_\_\_

測試目的:  Evaluation 評估

工 令: \_\_\_\_\_

IPQC

取 樣: \_\_\_\_\_ pcs

QA

資料代碼:

4E17T60H

測試頻率:

10KHz

測試感度:

0dB

觸發感度:

0/128

觸發位置:

100點

Y軸上限:

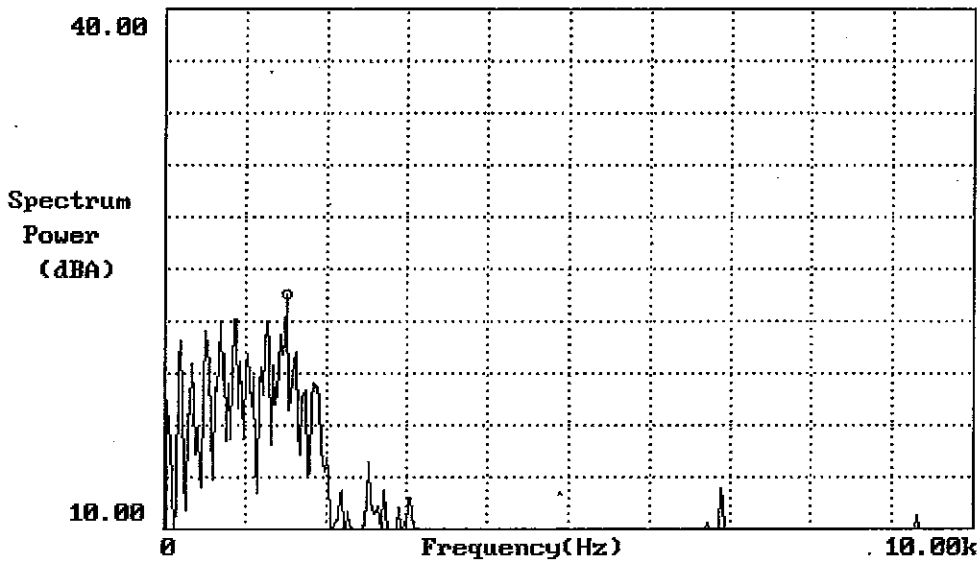
40.00

Y軸下限:

10.00

平均次數:

3次



OV. AL	———	30.46606dB	MAXIM	1.500kHz	23.49121dB
LEFT	0.0000Hz	17.37915dB	MINIM	5.000kHz	-4.76013dB

結果分析:

- (1) Background Noise : 17dBA
  - (2) FFT Analyzer
  - (3) Sound Pressure Level Meter
- No. RR01.04A

Reporter: \_\_\_\_\_  
Date : 1998/12/21