

# PERFORMANCE SPECIFICATION

PRODUCT TITLE: DC BLOWER FAN

MODEL NO: DC8030

**1? SCOPE:**

THIS SPECIFICATION DEFINES THE ELECTRICAL AND MECHANICAL CHARACTERISTICS OF THE DC BURSHLESS AXIAL FLOW FAN. THE FAN MOTOR IS WITH TWO PHASES AND FOUR POLES.

**2? ELECTRICAL CHARACTERISTICS:**

ALL MEASUREMENTS PERFORMED AT 20~30? ROOM TEMPERATURE & 50~70% R.H.UNLESS OTHERWISE SPECIFIED.

ITEM	DESCRIPTION	UNIT	SYMBOL	SPEC.	CONDITION
1	RATED VOLTAGE	VOLTS	V	12	
2	OPERATION VOLTAGE	VOLTS	V	10.2~ 13.8	
3	INPUT CURRENT	AMP	A	0.20 MAX	AT RATED VOLTAGE
4	INPUT POWER	WATTS	W	2.4 MAX	AT RATED VOLTAGE
5	ROTATION SPEED	RPM	RPM	2600±10%	AT RATED VOLTAGE FREE AIR
6	ACOUSTICAL NOISE (AVG)	dB(A)	dB(A)	35±10%	
7	MAX. AIR-FLOW	CFM	Q	8.94±10%	TWO-CHAMBER METHODS
8	MAX. AIR-PRESSURE	mmH <sub>2</sub> O	P	6.33±10%	TWO-CHAMBER METHODS
9	STARTING VOLTAGE	VOLTS	V	7	AT RATED VOLTAGE
10	INSULATION RESISTANCE	MEG. OHM	MO	10MO MIN. AT 500V DC	BETWEEN FRAME AND (+)LEADWIRE.
11	DIELECTRIC STRENGTH	MILLI-AMP	mA	5mA MAX. AT 500V AC 60Hz. FOR 1 MINUTE	BETWEEN FRAME AND (+)LEADWIRE.

ITEM	DESCRIPTION	SPEC.	
12	ROTATION	CW VIEW FROM ROTER	
13	AIR-FLOW DIRECTION	AIR INTAKE OVER THE STRUTS	
14	INSULATION RANK	UL: CLASS A	
15	LIFE EXPECTANCY	20000 HOURS CONTINUOUS	?

? 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----- PLASTIC PBT UL: 94V-0 RATING + FIBRE GLASS.
- 3-3. FAN BLADE----- PLASTIC PBT UL: 94V-0 RATING + FIBRE GLASS.
- 3-4. BEARING SYSTEM ----- SLEEVE BEARING
- 3-5. WEIGHT ----- 95 GRAMS
- 3-6. LEAD WIRE----- 1007 AWG # 24
  - + POSITIVE ..... RED
  - NEGATIVE ..... BLACK

### 4? ENVIRONMENTAL:

- 4-1. OPERATING TEMPERATURE ----- -10 TO +70?
- 4-2. STORAGE TEMPERATURE ----- -40 TO +75?
- 4-3. DROP TEST
 

IN MINIMUM PACKAGING CONDITION FAN WITHSTANDS EACH ONE DROP OF THREE FACES FROM 30CM DISTANCE HEIGHT ONTO 10mm THICKNESS OF WOODEN BOARD.
- 4-4. VIBRATION TEST
 

FREQUENCY: 10- 55Hz      AMPLITUDE: 4MM  
X , Y , Z    DIRECTION EACH FOR 1 HR

#### 4-5. SHOCK TEST

APPLY PEAK ACCELERATION 50g AND KEEP DURATION OF THE PULSE FOR 11ms (HALF SINE WAVE)

#### 5? PROTECTION:

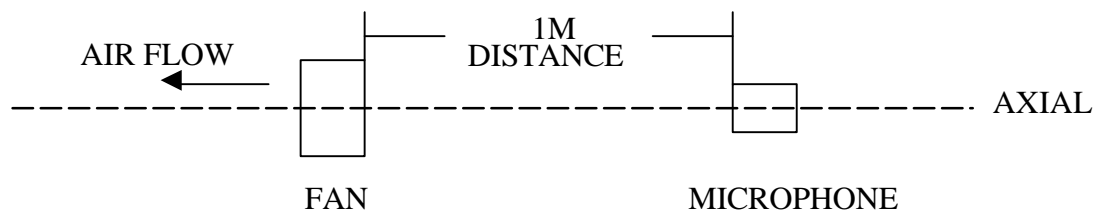
##### 5-1. POLARITY PROTECTION

BUILT-IN ELECTRONIC CIRCUIT PROTECTS THE FAN AGAINST REVERSE CONNECTION OF POSITIVE AND REVERSE LEADS

##### 5-2. 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.

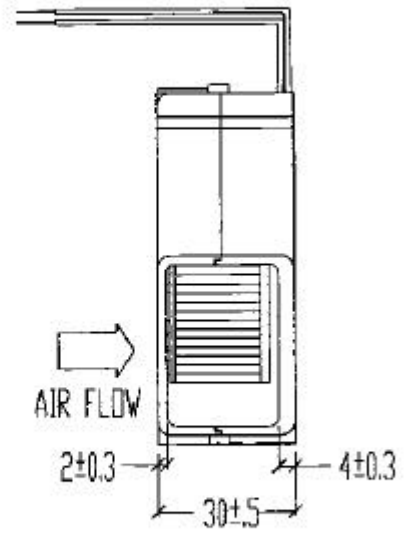
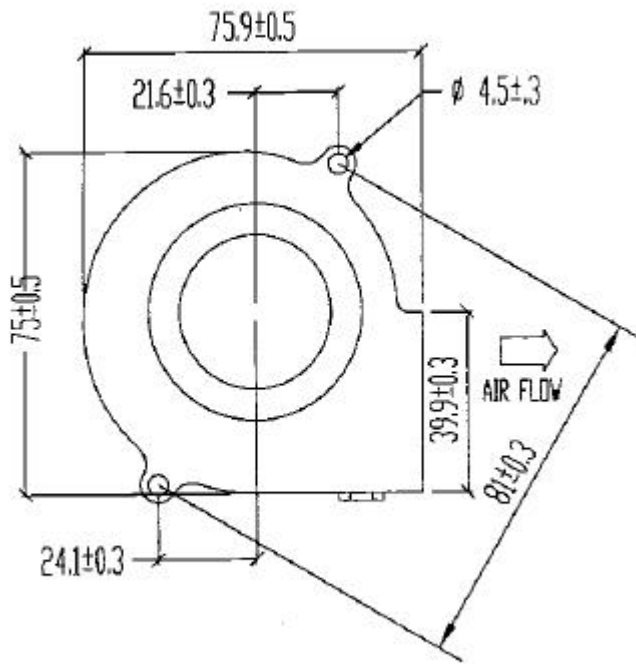
##### 6-5. NOISE DISTRIBUTION CURVE SEE ATTACHED PAGE.

#### 7? STATICS PRESSURE VS AIR FLOW CURVE:

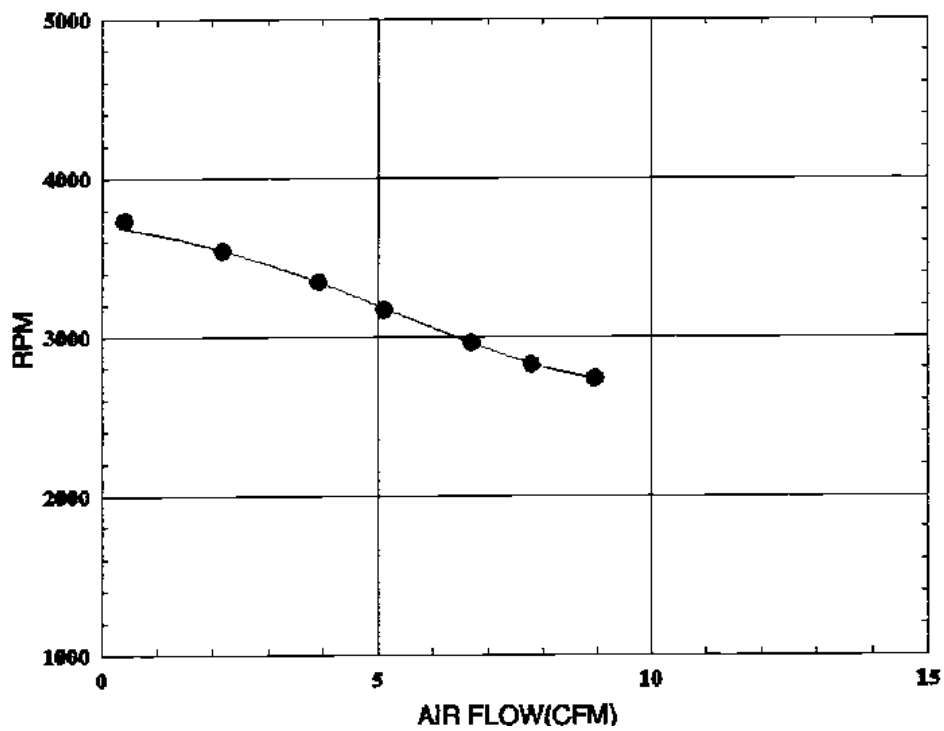
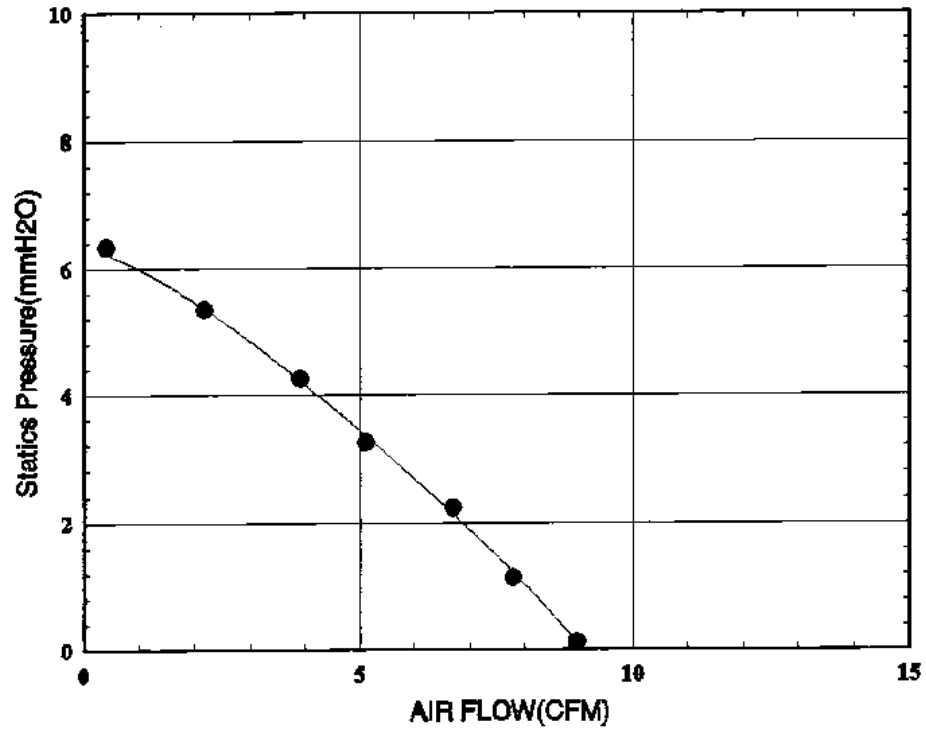
MEASURED PER TWO CHAMBER METHOD  
DATA-CURVE SEE ATTACHED PAGE

7? DIMENSION AND DRAWING

UNIT: mm

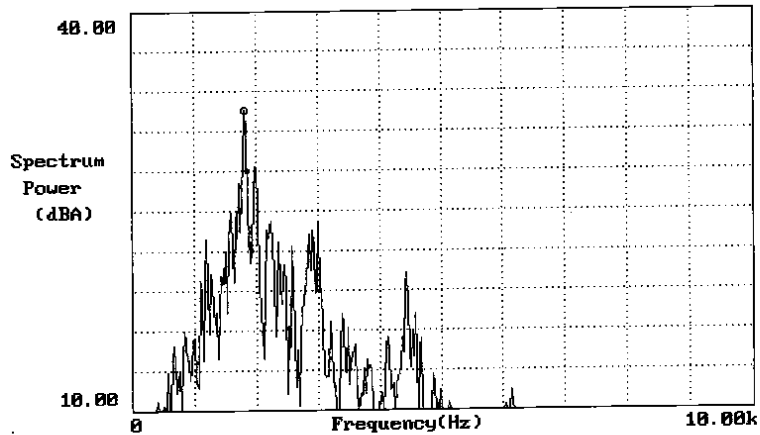


## 8? PERFORMANCE CURVE



# 9? TEST NOISE REPORT

MODEL NO:  
 TEST FREQ  
 10KHz  
 TEST SENS  
 0dB  
 TRIG SENS  
 0/128  
 TRIG LOCA  
 100  
 Y AXIS UP  
 40.00  
 Y AXIS LM  
 10.00  
 AVERAGE  
 3



OU. AL	34.69946dB	MAXIM	1.800kHz	32.58610dB	
LEFT	5.000kHz	9.89136 dB	MINIM	0.0000Hz	-289.418dB

ANALYSIS:

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