PERFORMANCE SPECIFICATION

PRODUCT TITLE: DC BRUSHLESS FAN

MODEL NO: **VE1A0Q1**

1? SCOPE:

THIS SPECIFICATION DEFINES THE ELECTRICAL AND MECHANICAL CHARACTERISTICS OF THE DC BRUSHLESS 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 SPECIFID.

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	0.21MAX	AT RATED VOLTAGE
4	INPUT POWER	WATTS	W	2.52MAX	AT RATED VOLTAGE
5	ROTATION SPEED	RPM	RPM	4700 ±10%	AT RATED VOLTAGE FREE AIR
6	ACOUSTICAL NOISE (AVG)	dB(A)	dB(A)	36.8 ±10%	DETAILS SEE ATTACHED PAGE.
7	MAX. AIR-FLOW	CFM	Q	23.3 ±10%	TWO-CHAMBER METHODS DETAILS SEE ATTACHED PAGE.
8	MAX. AIR-PRESSURE	mmH_2O	P	3.3±10%	TWO-CHAMBER METHODS DETAILS SEE ATTACHED PAGE.
9	STARTING VOLTAGE	VOLTS	V	7	AT RATED VOLTAGE
10	INSULATION RESISTANCE	MEG. OHM	MO	10MO MIN. AT 500V DC	BETWEEN FRAME AND (+)LEAD WIRE.
11	DIELECTRIC STRENGTH	MILLI-AMP	mA	5mA MAX. AT 500V AC 60Hz. FOR 1 MINUTE	BETWEEN FRAME AND (+)LEAD WIRE.

ITEM	DESCRIPTION	SPEC.	
12	ROTATION	CW VIEW FROM NAME PLATE SIDE	
13	AIR-FLOW DIRECTION	AIR INTAKE OVER THE STRUTS	
14	INSULATION RANK	UL: CLASS A	
15	LIFE EXPECTANCY	50000 HOURS CONTINUOUS	
16	SAFETY	CE, UL, cUL.	

? 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 --------- BALL BEARING
3-5. WEIGHT ---------- 30 GRAMS
3-6. LEAD WIRE ---------- 1095 AWG # 28
+ 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

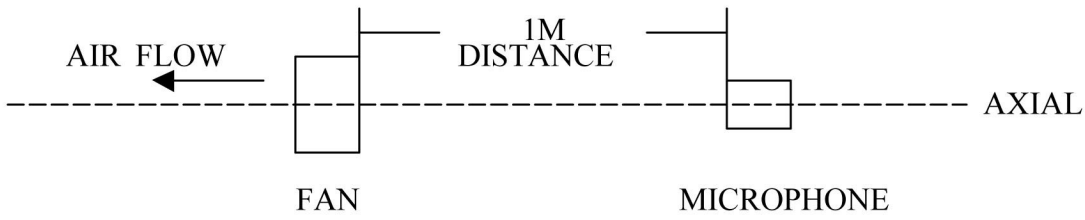
BUILT-IN ELECTRONIC CIRCUIT PROTECTS THE FAN AGAINST REVERSE CONNECTION OF POSITIVE AND REVERSE LEADS·

5-2. LOCKED ROTOR 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 SPECTRUN ANALYZER.

6-5. NOISE DISTRIBUTION CURVE SEE ATTACHED PAGE.

7? STATICS PRESSURE VS AIR FLOW CURVE:

MEASURED PER TWO CHAMBER METHOD

DATA-CURVE: SEE THE WEB PAGE