

# ***Inhere***

## **APPROVAL SHEET**

<b>Customer Name</b>	
<b>Product</b>	<b>DC FAN</b>
<b>Part No.</b>	
<b>Model No.</b>	<b>DF1202524B2MN 2400</b>
<b>Issue Date</b>	<b>JAN.24.2024</b>
<b>Customer No.</b>	
<b>Version</b>	<b>01</b>

<b>CUSTOMER APPROVED</b>	<b>Checked by</b>	<b>Inspected by</b>	<b>Designed by</b>
	<b>James li</b>		<b>pangdehou</b>

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**<http://www.in-here.com.cn>**

Customer No.:
Model:    DF1202524B2MN

History

00	ISSUE SPEC	2024-1-24
01		

Customer No.:

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Rev. 01

## SPECIFICATION FOR APPROVAL

### 1. SCOPE:

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

### 2. CHARACTERS:

	ITEM	SPEC.	
2-1.	RATED VOLTAGE	24	VDC
2-2.	OPERATION VOLTAGE	18 ~ 26.4	VDC
2-3.	RATED CURRENT (IN FREE AIR)	0.2	A (AVERAGE)
2-4.	RATED POWER (IN FREE AIR)	4.8	W
2-5.	SPEED (IN FREE AIR)	2400±10%	R.P.M
2-6.	SPEED CONTROL TYPE	---	---
2-7.	SIGNAL OUTPUT	---	---
2-8.	MAX. AIR FLOW (AT ZERO STATIC PRESSURE)	82.3	CFM
2-9.	MAX. AIR PRESSURE (AT ZERO FLOW)	6.29	mm-H <sub>2</sub> O
2-10.	ACOUSTICAL NOISE	38.2	dB-A

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- 2-11. INSULATION RESISTANCE — 10 MEGA OHM MIN. AT 500 VDC  
(BETWEEN FRAME AND (+) TERMINAL)
- 2-12. DIELECTRIC STRENGTH — 5 mA MAX. AT 500 VAC 60Hz ONE MINUTE,  
(BETWEEN FRAME AND (+) TERMINAL)
- 2-13. LIFE EXPECTANCE — 70,000 HOURS AT 40°C ROOM, AMBIENT 15%~65%RH
- 2-14. ROTATION — COUNTER-CLOCKWISE VIEWED FROM INLET
- 2-15. AIR FLOW DIRECTION — AIR EXHAUST OVER STRUT
- 2-16. INSULATION CLASS — UL: CLASS A
- 2-17. LEAD WIRE — LEAD WIRES: 2468 AWG 24

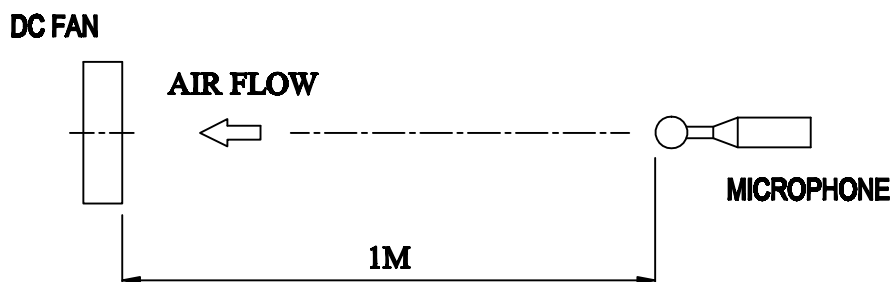
PIN1: BLACK WIRE ..... (—)

PIN2: RED WIRE ..... (+)

**NOTE:**

A. THE VALUES WRITTEN IN PARENTHESIS, ( ), ARE LIMITED SPEC.

B. ACOUSTICAL NOISE MEASURING CONDITION:



NOISE IS MEASURED AT RATED VOLTAGE IN FREE AIR IN ACOUSTICAL CHAMBER WITH LARSON DAVIS TYPE 824S SOUND LEVEL METER.

C. THE AIR FLOW AND AIR PRESSURE MEASURED AT RATED VOLTAGE IN DOUBLE CHAMBER IS MEASURED ACCORDING TO AMCA STANDARD 210-85.

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### 3. MECHANICAL

- 3-1. DIMENSION ———— SEE DIMENSION DRAWING
- 3-2. FRAME ———— THERMOPLASTIC PBT OF UL 94V-0
- 3-3. FAN BLADE ———— THERMOPLASTIC PBT OF UL 94V-0
- 3-4. BEARING SYSTEM ———— TWO BALL BEARINGS
- 3-5. WEIGHT ———— 175g

### 4. ENVIRONMENTAL

- 4-1. OPERATING TEMPERATURE ———— -10 TO +60 °C
- 4-2. STORAGE TEMPERATURE ———— -40 TO +70 °C
- 4-3. OPERATING HUMIDITY ———— 5 TO 90 % RH
- 4-4. STORAGE HUMIDITY ———— 5 TO 95 % RH
- 4-5. DROP TEST ————  
IN MINIMUM PACKING CONDITION FAN WITHSTAND EACH ONE  
DROP OF THREE FACES FROM 30cm DISTANCE HEIGHT ONTO 10mm  
THICKNESS OF WOODEN BOARD
- 4-6. VIBRATION TEST ————  
SINEWAVE  
DISPLACEMENT AMPLITUDE: 0.75 mm (EQUIVALENT 10G)  
FREQUENCY RANGE: 10Hz - 55 Hz / 30 SEC. 55Hz - 10 Hz / 30 SEC.  
LINEAR SCANNING 120 CYCLE  
ENDURANCE TIMER PER AXIS: 2 HOURS  
ORIENTATION: X,Y,Z
- 4-7. SHOCK TEST ————  
APPLY PEAK ACCELERATION 50 g AND KEEP DURATION OF THE  
PLUSES FOR 11MS (HALF SINE WAVE)
- 4-8. RoHS COMPLIANCE ———— SEE RoHS STANDARD

### 5. PROTECTION

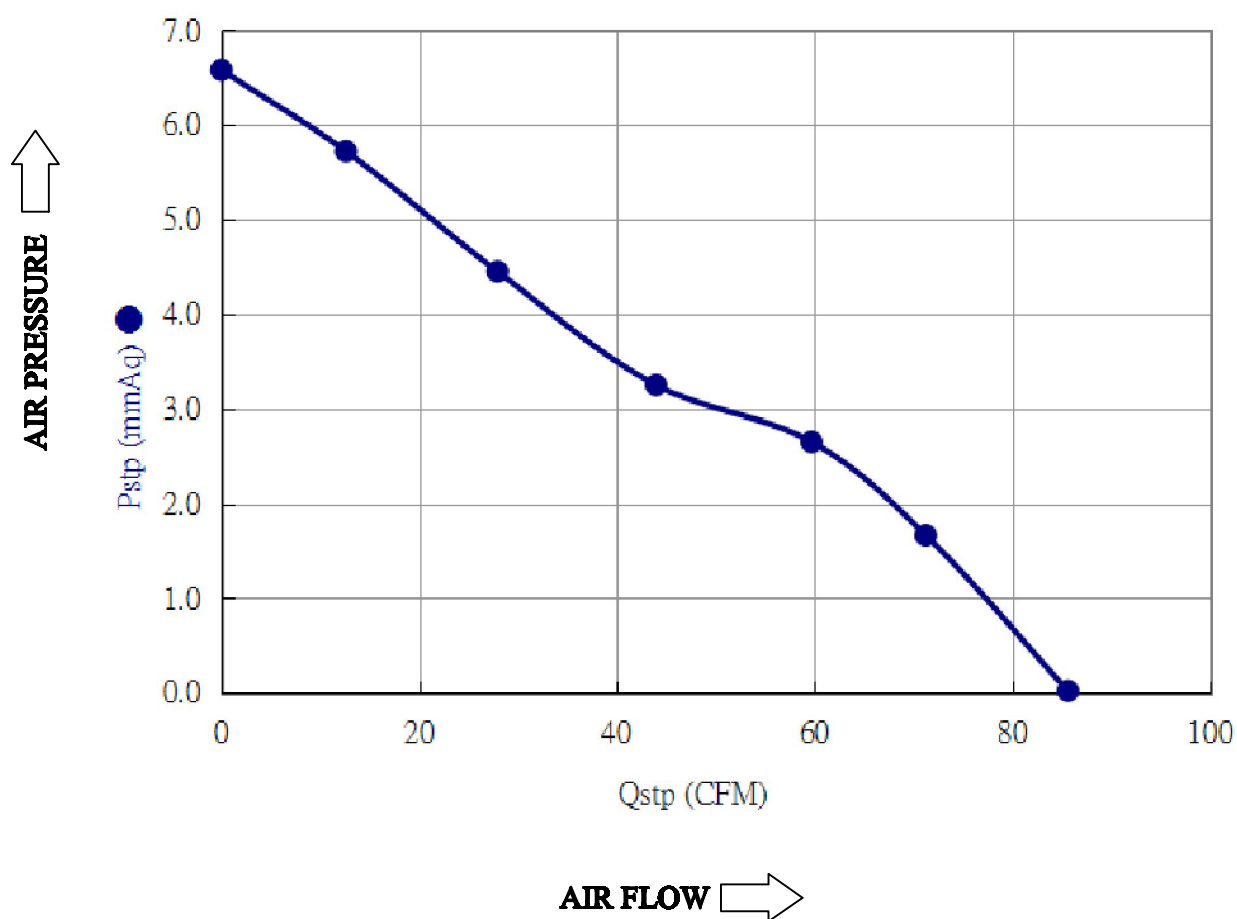
- 5-1. LOCKED ROTOR PROTECTION ————  
IMPEDANCE OF MOTOR WINDING PROTECTS MOTOR FROM DAMAGE IN  
72 HOURS OF LOCKED ROTOR CONDITION AT THE RATED VOLTAGE
- 5-2. POLARITY PROTECTION ————  
BE CAPABLE OF WITHSTANDING IF REVERSE CONNECTION FOR  
POSITIVE AND NEGATIVE LEADS

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## 6. P & Q CURVE



### \* TEST CONDITION:

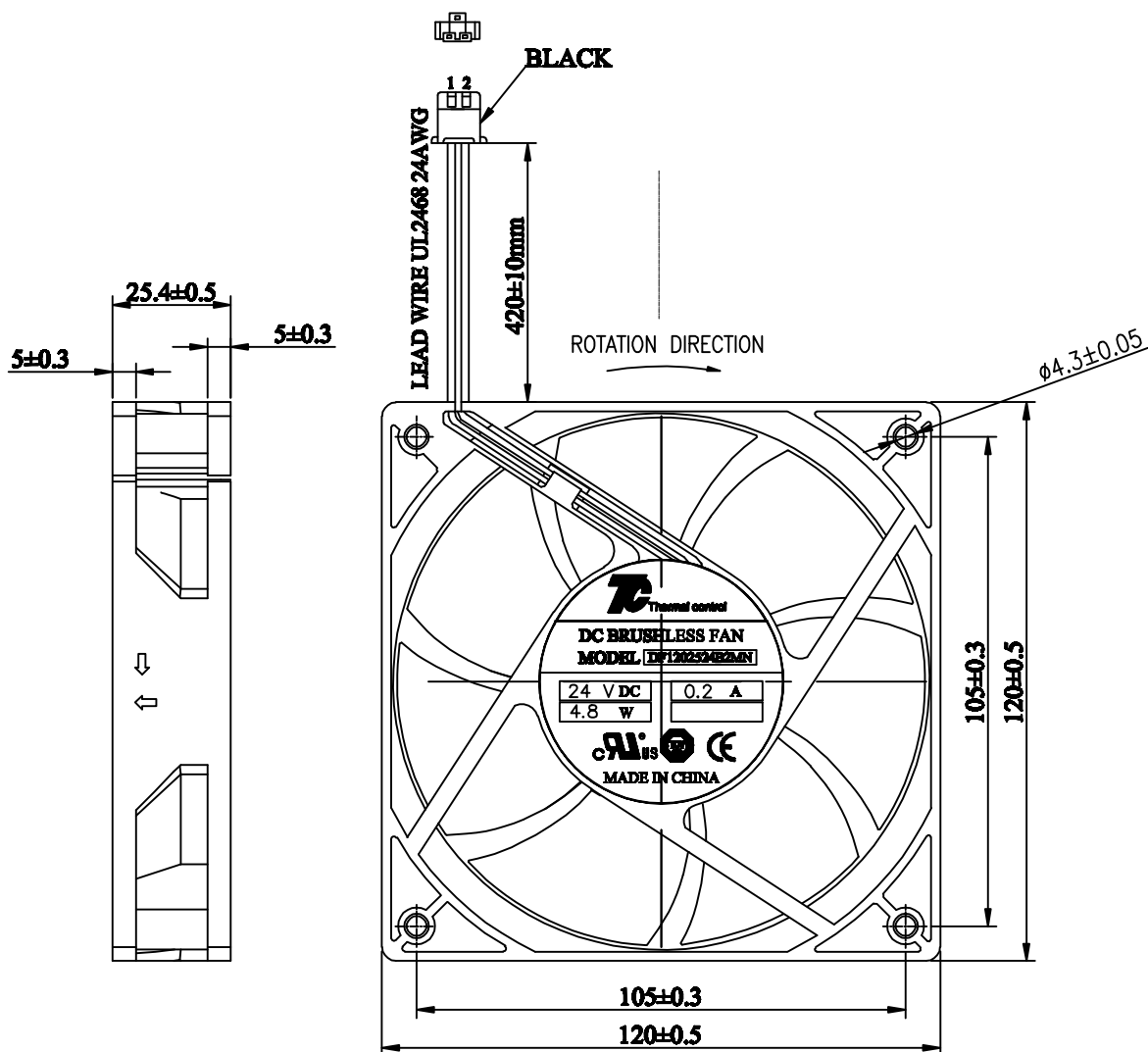
INPUT VOLTAGE	———	OPERATION VOLTAGE
TEMPERATURE	———	ROOM TEMPERATURE
HUMIDITY	———	65%RH

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## 7. DIMENSION DRAWING



### NOTES:

1. LEAD WIRES: 2468 AWG 24  
PIN1: BLACK WIRE ..... (-)  
PIN2: RED WIRE ..... (+)
2. CONNECTOR:  
Housing: JWT A2512H00-2P OR WSTP2-125036 OR EQUIVALENT  
Terminal: JWT A2501TOP-2 OR 125002PS-2

**Terminal over 850 hot wires**