

<b>MODEL NO. NEW</b>	<b>4010M12C NF3</b>
<b>MODEL NO. OLD</b>	<b>MW-410M12C</b>

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## SPECIFICATION

ITEM	STANDARD	CONDITION
<b>1.Rating</b>		
1-1.Rated voltage	12V	
1-2.Operating voltage range	9.5~13.8V	At 25 ,
1-3.Starting voltage	9V	At 25 , power ON/OFF
1-4.1. Rated current	0.16A Maximum	At 25 , In free air rated
1-4.2 Operating current	0.07A	voltage (Fan alone)
1-5.Rated input power	1.92W Maximum	At 25 , In rated voltage
1-6.Rated speed (Range)	5000RPM±10% 4500RPM~5500RPM	At 25 , After 10 minutes rotating. (Fan alone)
1-7.Operating temperature	-10 ,~+70 , /66%(RH)	
1-8.Storage temperature	-40 ,~+70 , /66%(RH)	
1-9.Maximum air flow	0.151 CMM 5.35 CFM	At zero static pressure and 25 , rated speed.
1-10.Maximum static pressure	2 mmH2O	At zero air flow and 25 , rated speed.
1-11.Environment humidity	Less than 85%(RH)	
<b>2. Insulation resistance</b>		
At least 10MΩ at 500VDC between housing and both lead wires.		
<b>3. Dielectric strength</b>		
Withstand 600VAC 1 minute 1Ma between housing and both lead wires.		
<b>4. Temperature life expectancy</b>		
Mean time until the speed becomes 30% drop from initial level at 66% humidity.		
Ambient TEMP.		45 ,
Life Expectance		40000 Hours

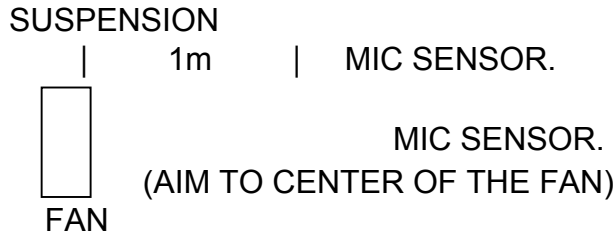
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## SPECIFICATION

**5. Sound level** 23.2 dBA

Sound level test description at rated voltage in sound proof room  
Background noise: 20 dBA maximum



**6. Shock test**

Test condition:  
Pulse shape: Half sine wave, shock duration time: 3 ms  
Velocity: 60 in/s  
Number of shock: One shock for each faces, total six shocks.

**7. Material**

Major components	Material & SPEC.	Grade	Remark
Bearing	Ball and Sleeve Bearing		
Housing & Blade	Plastic	UL94V-0	
Lead wires	UL1007/1095#28 Single Wir	ULVW-1	Red wire: +Polar Black wire: -Polar Yellow wire: Signal
Connector Housing	JPHR-3P 1B2R3W		
Weight			
Splash proof	NO		

Environment Commitment  
All material (including packing material) shall completely in accordance with the related regulation of MinQuan YHHB-01 and YHHB-02

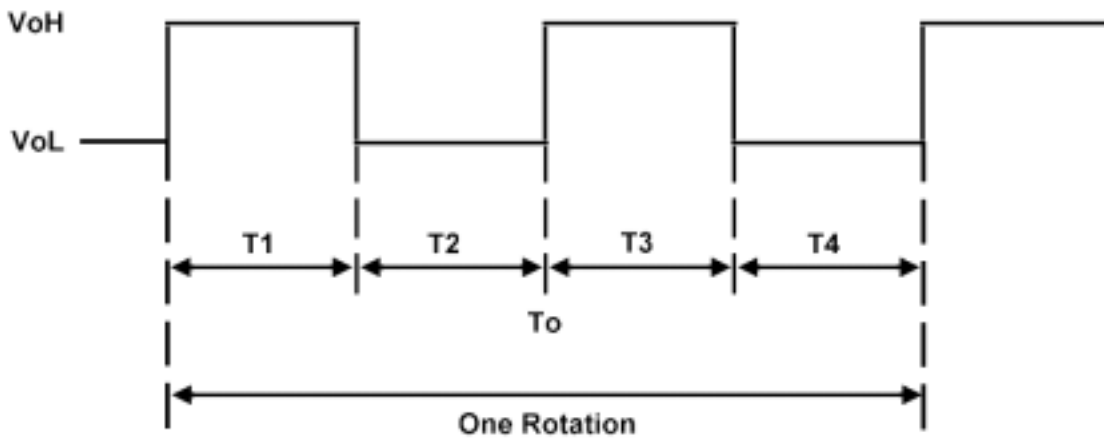
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### 8. Pulse Sensor ( 2 Pulse per revolution signal)

Pulse sensors are used for detecting the rotational speed of the fan motor.

Output Waveform



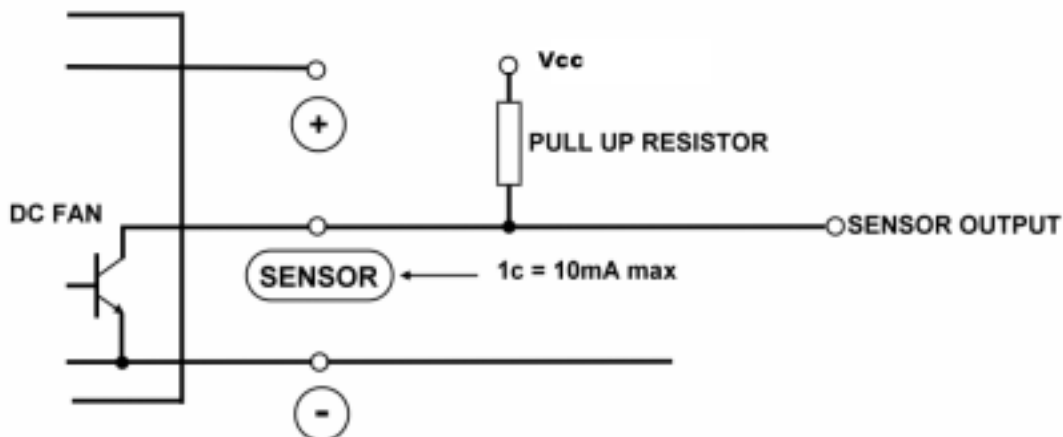
$$T_{1-4} = (1/4) T_o$$

$$T_{1-4} = (1/4) T_o = 60/4 N(s)^{-1}$$

$N = \text{Fan Rotational Speed (min}^{-1}\text{)}$

Output Circuit

Open Collector



If fan locks on VH, signal stays locked. If fan locks on VL, signal stays at VL for a few hundred MS, then moves to VH.

Vcc : Rated Voltage

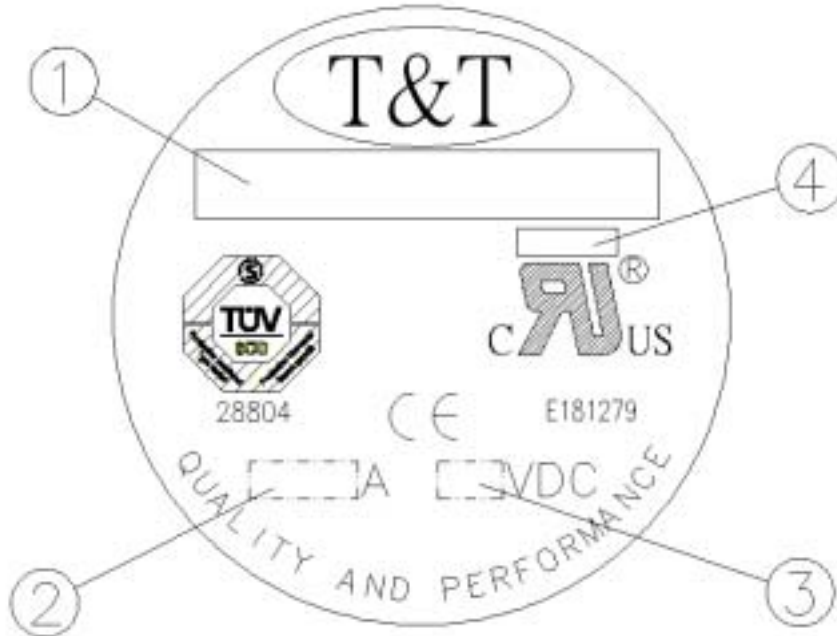
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## SPECIFICATION

### 9. Label



① MODEL NO.

② Rated Current

③ Rated Voltage

④ Date Code.

### 10. Fan Performance Curve

See attached page 7

### 11. SPEC. Drawing

See attached page 8

REMARK: ESTIMATED NEW MODEL NUMBER EFFECTIVE DATE: Apr, 2003

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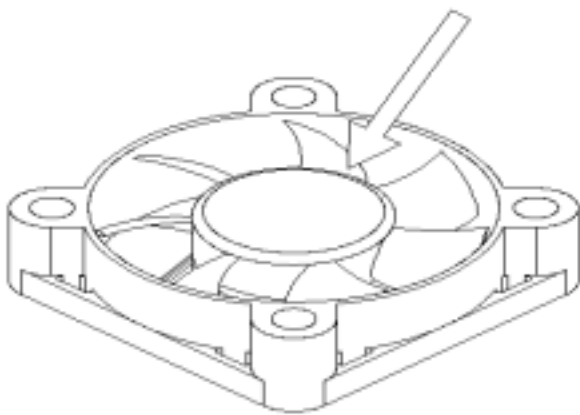
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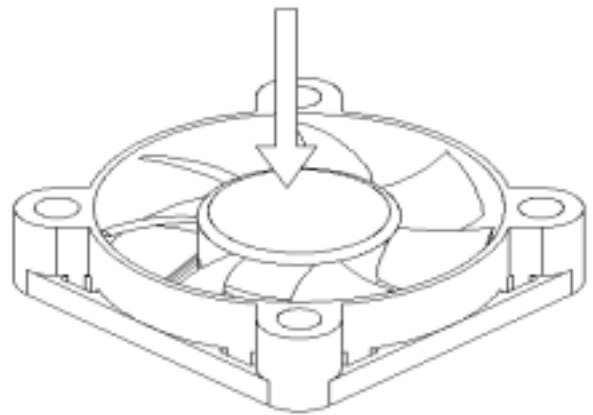
## IMPORTANT HANDLING PRECAUTIONS

01. Please do not touch or push fan blade with fingers or any other object.  
Fan blade and bearings may be damaged and a noise defect may result.

**DON'T TOUCH !**



**DON'T PUSH !**



02. Do not exert excessive force on the back of the fan when applying adhesive mounting tape.  
Fan blade extends beyond the front face of the frame.

03. Do not lay the fan face down on a flat surface to apply adhesive mounting tape.  
Allow a space for the clearance of the blade.

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### **! WARNING ON PRODUCT SAFETY**

01. We can not guarantee our products if your application exceeds the limitations mentioned in our specification.
02. Please check the safety of your product carefully when installing into your machine.
  - a. Check the safety of the motor in compliance with the application standard of your machine.
  - b. Check the safety of the motor performance in error use under the installed situation, and also check the safety by reliability test.

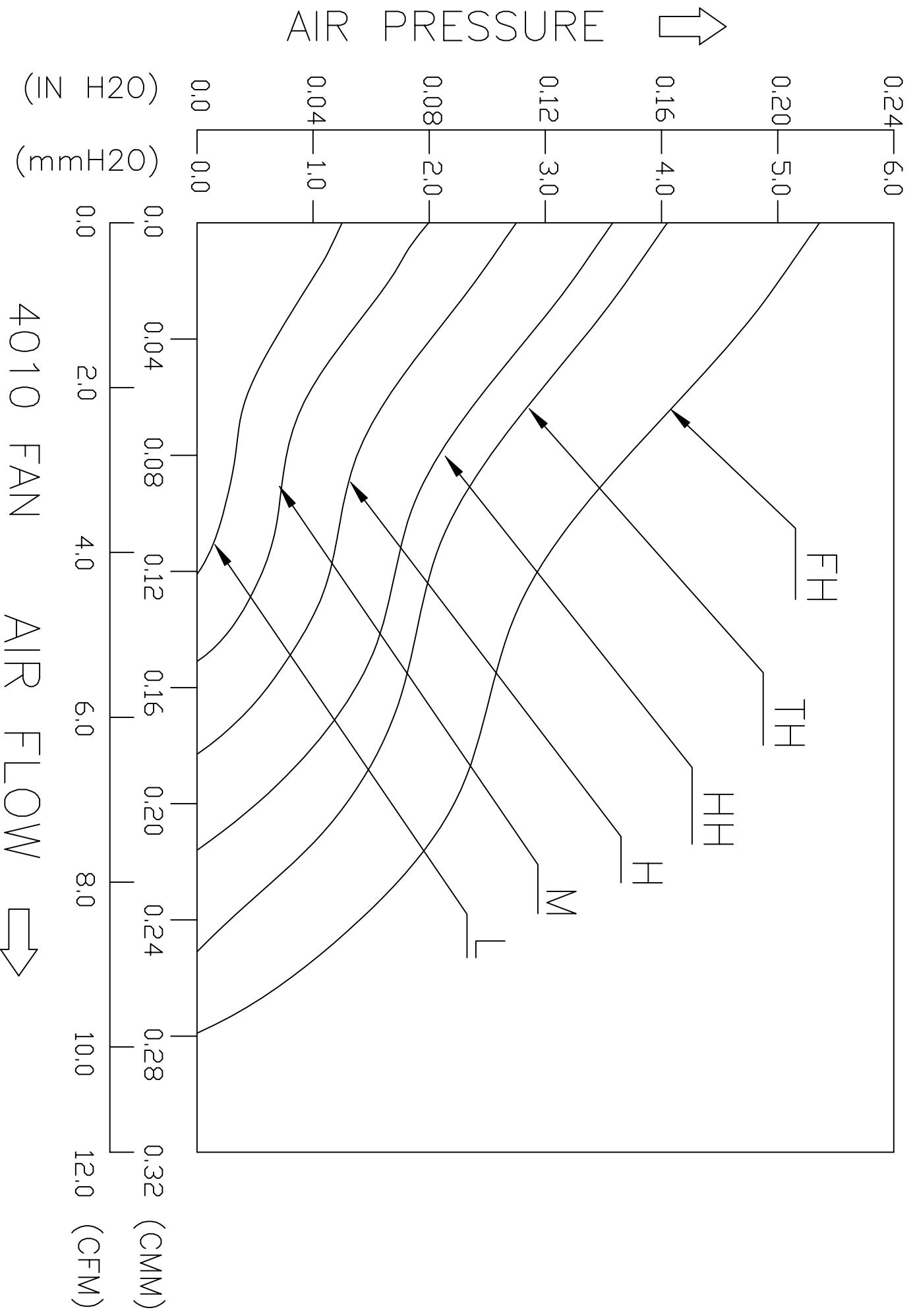
If problem occurred, please report it to us before the shipment of your machines into the market.
03. This motor is not equipped with a thermoprotector such as thermo fuse, or current-fuse or thermo protector.

There may be smoking, ignition or electric shock by insulation degradation in cases of motor lock, motor lead short circuit, over load, over voltage or other failure.  
Please add the protection circuit on your machine.
04. This product has no alarm signal when the motor is locked.

Make the proper design to your product against the motor lock.
05. Please do not touch the live and rotation parts during operation.

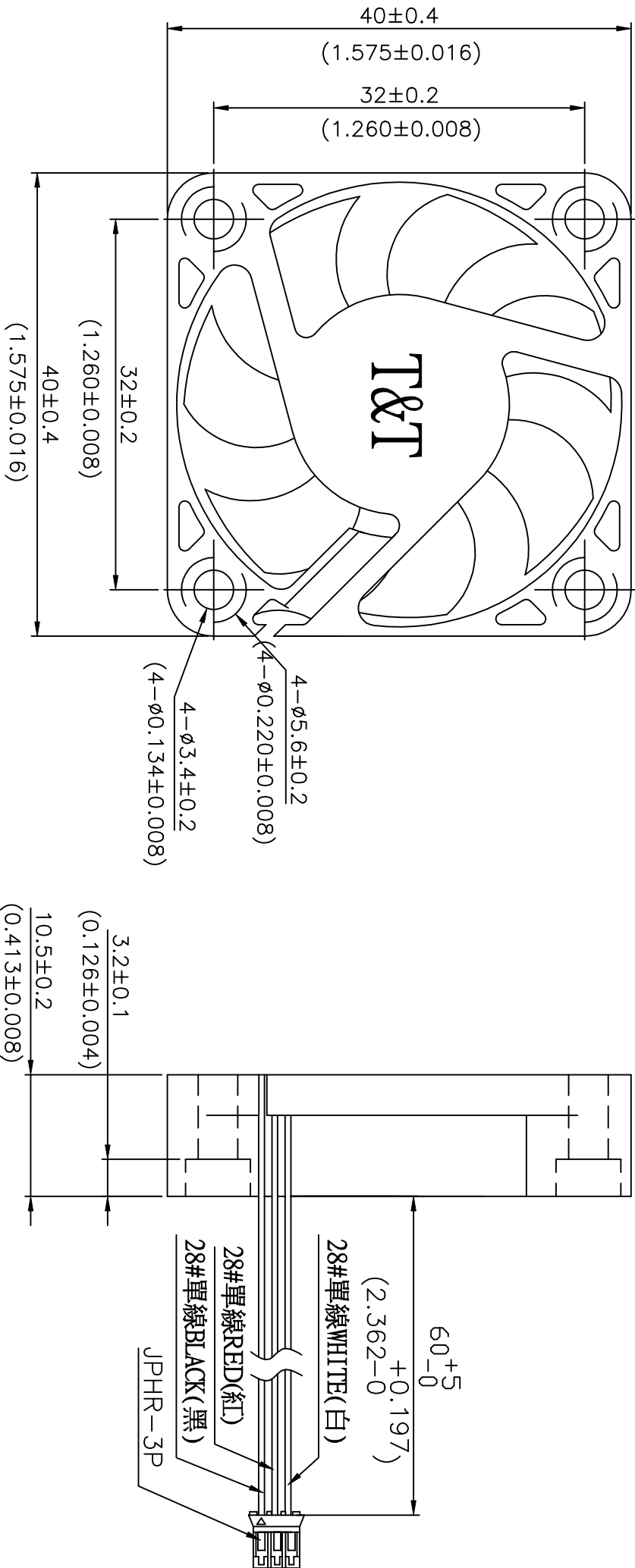
There may be struck by electricity or injury.
06. Please be careful when handling the product.
07. If you hit or drop this product, the product may be damaged. Please be careful when handling and installing this product.
08. Please do not injure this product including coil and lead wires when installing or wiring.

There may be smoking or fire.
09. If a certain item is not mentioned in the specification and you think it is necessary to discuss the item, please advise us in advance. Otherwise we will consider there is no specification problem and start shipment as per our specification.



ROTATION

AIR FLOW



UNIT:  $\frac{MM}{(INCH)}$