

PRODUCT SPECIFICATION / APPROVAL SHEET

A. General Specification

| Item |                         | Specification / Condition |                     |
|------|-------------------------|---------------------------|---------------------|
| 01   | Part No.                | FD126025HB                | (2A7)               |
| 02   | Outline Dimension       | 60 X 60 X 25              | mm                  |
| 03   | Rated Voltage           | DC 12.0                   | V                   |
| 04   | Operating Voltage       | DC 7.0 V ~ DC 13.2        | V                   |
| 05   | Starting Voltage        | DC 7.0                    | V                   |
| 06   | Rated Current           | 0.18                      | A                   |
| 07   | Rated Power Consumption | 2.16                      | W                   |
| 08   | Rotational Speed        | 4300                      | R.P.M. ± 10%        |
| 09   | Max. Airflow            | 25.4                      | CFM (ft3/min)       |
|      |                         | 0.719                     | m3/min              |
| 10   | Max. Static Pressure    | 0.217                     | in-H <sub>2</sub> O |
|      |                         | 5.5                       | mm-H <sub>2</sub> O |
| 11   | Noise Level             | 34.0                      | dB(A)               |
|      |                         |                           |                     |
| 12   | Life Expectancy         | 75000                     | hrs at 40°C         |
| 13   | No. of Pole             | 4                         | Poles               |
| 14   | Rotational Direction    | Counter-Clockwise         |                     |

B. Electrical Specification

| Item |                         | Specification / Condition           |  |
|------|-------------------------|-------------------------------------|--|
| 01   | Locked Rotor Protection | <input type="radio"/>               | Safety Condition   |
|      |                         | <input checked="" type="checkbox"/> | 1. Auto power off after locked at rated voltage for 1 sec.<br>2. After auto power off, circuit attempt to restart in 2 to 6 sec. |
| 02   | Polarity Protection     | <input type="radio"/>               | Open circuit when Vcc & GND are exchanged  |
|      |                         | <input type="radio"/>               | Circuit won't be burned within 5 seconds when Vcc & GND are exchanged  |
| 03   | Insulation Resistance   | 10 MΩ/                              | Between unshielded wire and frame at 500 VDC/min   |
| 04   | Dielectric Strength     | 5 mA Max. /                         | Measured b/w lead wire (+) and frame at 500 VAC/min  |

C. Main Materials / Parts Specification

| Materials / Parts |   | Specification   |
|-------------------|---|---|
| 01                | Plastic Material/Blade, Housing, Bobbin | a. UL 94V-0 b. P.B.T. + 30% GF Black  |
| 02                | Bearing                                 | Two Ball Bearing  |
| 03                | Lead Wire - <b>G. P.</b>                | Red ( + ), Black ( - ): UL 1007 \ 24 AWG<br>Yellow ( FG ): UL 1007 \ 24 AWG |
| 04                | Connector                               | 2510-3PIN   |

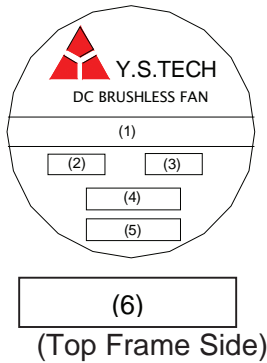
D. Safety Approvals

| Safety  | UL      | CUL     | TUV       |  |
|---|---------|---------|-----------|--|
| File No.  | E187205 | E187205 | R50027591 |  |
| 0.18 A + 10% ( Approved current is 0.18 A with tolerance of 10% ) |         |         |           |  |

E. Environmental Specification

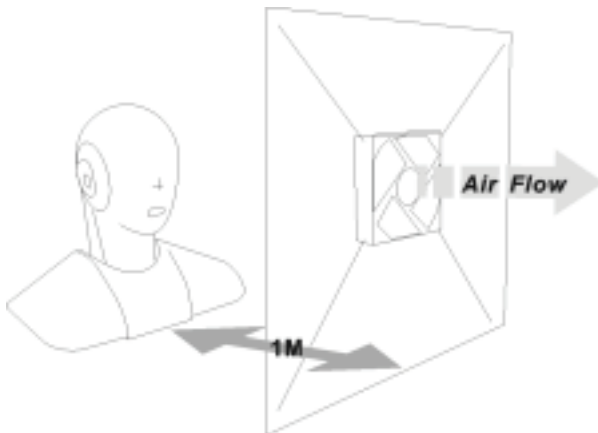
| Item |                       | Specification / Condition                    |
|------|-----------------------|--|
| 01   | Operating Temp. Range | Temperature: -10 °C - 70 °C                  |
|      |                       | Humidity: 15 % - 90 % RH ( Frost Eliminated) |
| 02   | Storage Temp. Range   | Temperature: -20 °C - 75 °C                  |
|      |                       | Humidity: 15 % - 90 % RH ( Frost Eliminated) |

F. Label Marking



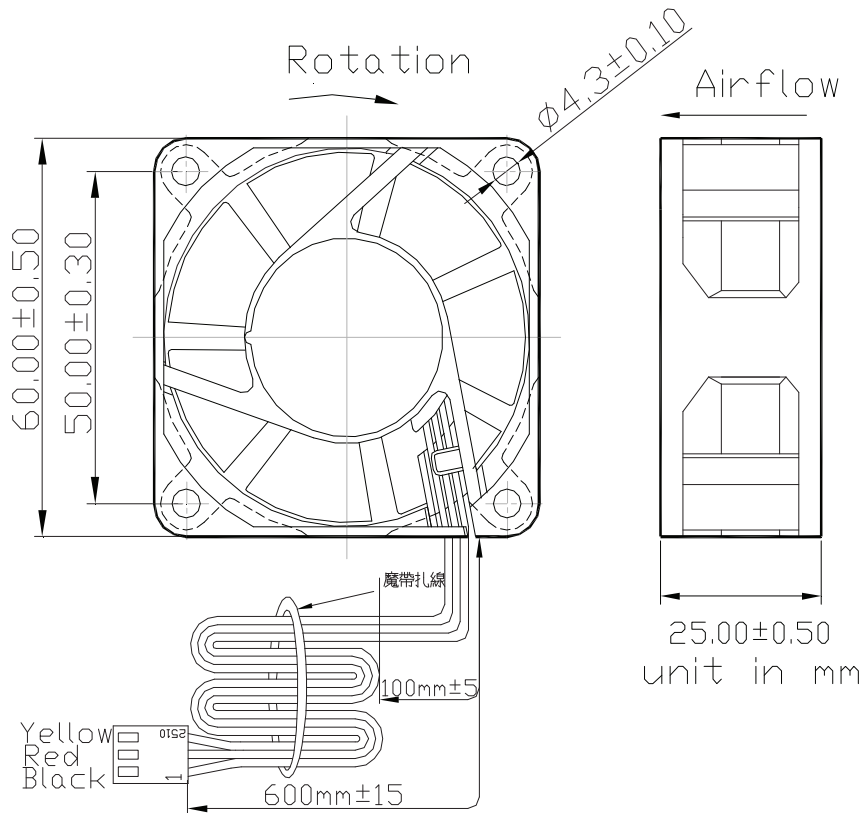
|       |                  |
|-------|------------------|
| ( 1 ) | Model No.        |
| ( 2 ) | Rated Voltage    |
| ( 3 ) | Current          |
| ( 4 ) | Safety Approvals |
| ( 5 ) | Location         |
| ( 6 ) | Appendix Code    |

G. Noise Measure Condition



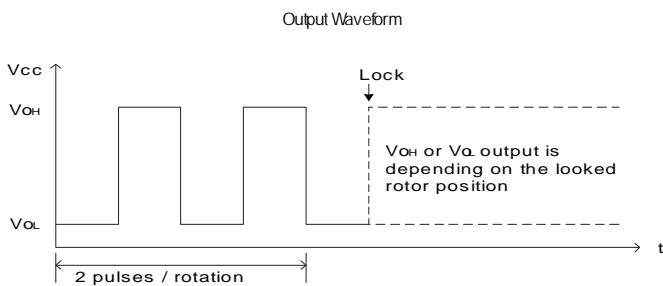
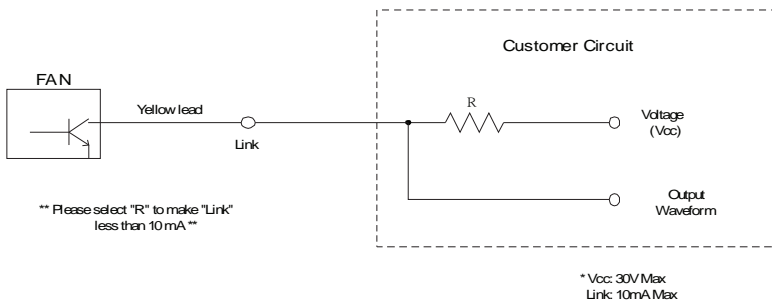
| Measurement Systems :  |
|--|
| 1.ANECHOIC Room Noise Measurement System.                            |
| 2.Digital Head Measurement System, 16-bits version.                  |
| 3.SQlab III, Mobile Multichannel Analysis System.                    |
| 4.Specifications:ISO 3744, ISO 3745, ISO 7779,<br>CNS 6753, JIS 8346 |
| 5.Background Noise: < 17dB(A)  |

## G. Outline Dimensions



## H: Sensor Circuit System

### 3rd Pulse Wire ( FG/A )





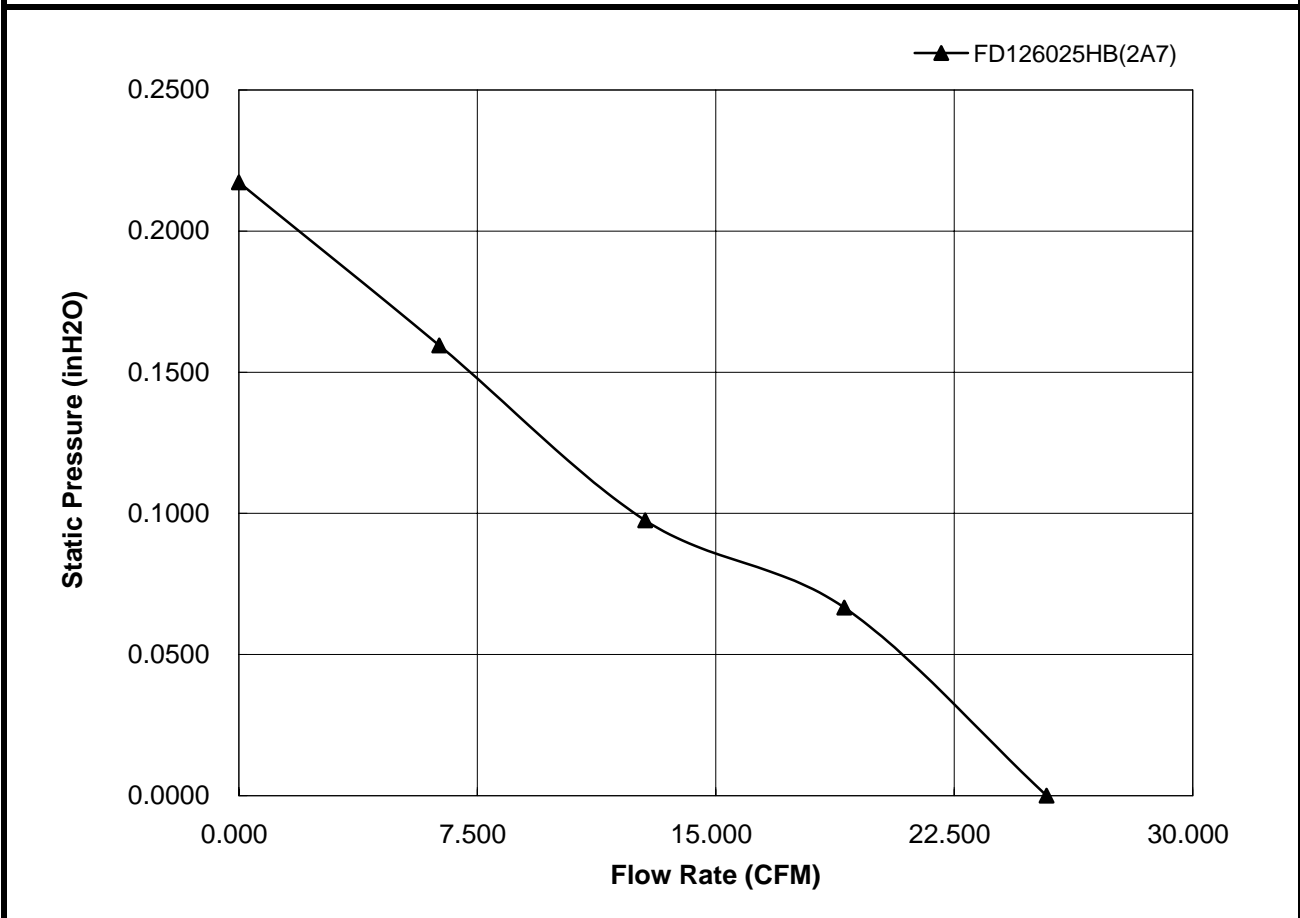
# Yen Sun Technology Corp.

## Fan Performance Test Report

|   |  |
|---|--|
| Fan Model : FD126025HB(2A7)<br>Key Point : FD126025HB(2A7)<br>Blade No. : 7<br>Motor Poles : 4<br>Rating Voltage(V) : 12 VDC<br>Rating Current(A) : 0.18<br>Rating Speed(rpm) : 4300<br>Test Voltage(V) : 12 VDC<br>Max. Flow rate(CFM) : 25.403<br>Max. Flow rate(m <sup>3</sup> /min) : 0.719<br>Max. Pressure(in-H <sub>2</sub> O) : 0.217<br>Max. Pressure(mm-H <sub>2</sub> O) : 5.519 | Test Date : 2001/11/03<br>Order No. : 6025-3<br>Test No. : 0<br>Method : Constant Voltage<br>Tunnel Setup : Inlet Chamber Type<br>Temperature( ) : 30 R.H.(%) : 40<br>Barometric Pressure(mmHg) : 754.2<br>Acoustic ( dB(A)/1M ):34.0dB(A)<br>Mea. Distance(M) : 1<br>Background Noise:10.0dB(A)<br>Vibration Level (mm/sec <sup>2</sup> ): N / A<br>Remark: |
|---|--|

| Curve | Pts | Flowrate |        | Static Pressure     |                     | Voltage | Current | Power | Speed |
|-------|-----|----------|--------|---------------------|---------------------|---------|---------|-------|-------|
|       |     | CFM      | m3/min | in-H <sub>2</sub> O | mm-H <sub>2</sub> O | V       | A       | W     | rpm   |
| 1     | 1   | 25.403   | 0.7192 | 0.0000              | 0.000               | 12.00   | 0.170   | 2.04  | 4428  |
|       | 2   | 19.041   | 0.5391 | 0.0666              | 1.692               | 12.00   | 0.168   | 2.01  | 4441  |
|       | 3   | 12.780   | 0.3618 | 0.0975              | 2.477               | 12.00   | 0.159   | 1.91  | 4649  |
|       | 4   | 6.302    | 0.1784 | 0.1595              | 4.051               | 12.00   | 0.163   | 1.96  | 4553  |
|       | 5   | 0.000    | 0.0000 | 0.2173              | 5.519               | 12.00   | 0.168   | 2.01  | 4405  |

**Fan Performance Curve**



|           |     |           |     |         |     |
|-----------|-----|-----------|-----|---------|-----|
| Approver: | 劉智光 | Examiner: | 許志聰 | Tester: | 張馥怡 |
|-----------|-----|-----------|-----|---------|-----|

## REMARKS

1. All specifications are measured after 5 min. rotating. Y.S. Tech will not assume responsibility for performance of products if application condition is outside of parameters stated forth in the specification.
2. A written request should be submitted to Y.S. Tech prior to approval if abnormality and deviation from this specification is required.
3. Please be cautious when fan is being exercised or handled. Applying pressure to the impeller, handling the fan by lead wire, or dropping the fans to the production platform is resulting in damage.
4. The operating voltage and temperature were defined after fan rotating continually at rated voltage.
5. If fan was stocked at an ambient temperature under 5°C and over 24 hrs. Please stock fans to an ambient temperature over 20°C and remained over 24 hrs before using. All specifications include abnormal noise have to be measured after 30 minute running.
6. Noise Level is different from abnormal noise. Please send abnormal samples to Y.S. TECH to analyze. We estimate noise level by equation when noise level is lower than background noise (17dB).
7. Starting Voltage was defined on power on/off condition. Rotational speed was defined on full speed by its rated value.
8. The correct polarity, Positive(+) and Negative(-), has to be clearly identified before connecting the fan to the power. Be aware of the connection with reverse polarity may lead to damage since no effective protection can be introduced against such errors.
9. L10 of Life test is a deductive value under statistical method and it is different from product warranty.
10. All general specifications and quality values are measured under condition of free air and fan vertical set up. Y.S. TECH highly suggests to practic a test when fan apply to a special application.
11. With exception of suitability of some particular designs, any failure and problems regarding safety of the product caused by the introduction of powder, droplets of water or encroachment of insert in the hub are not guaranteed.
12. Y.S. Tech fans are not well suited for corrosive environments. This includes liquids, gases, or matters.
13. Except for the feature of the Lock Rotor Protection specifically stated, this feature is not applied to all fans. Y.S. Tech highly suggests not to stop the impellers of the working fans such interruption will cause adverse effect.
14. Fans are to be stored in a dry/cool place. High levels of humidity are harmful to products.
15. Please be cautious. Y.S. Tech is not responsible for any excess resonance, vibration and subsequent noise caused by incorrect mounting of fans.
16. Take necessary precaution handling fans when in operation. Fingre guards are recommended to prevent personal injury.
17. All test environments are conducted under the condition of relative(ambient) temperature and humidity at 25°C, 65%. The test result stated above is effective only for unique fan performance.
18. To avoid any unstable power, an "over 4.7  $\mu$  F" capacitor has definitely be connected to fan externally whatever multiple fans are applied in parallel.
19. The above conditions are examples of extreme application. However they are very important and should receive top priority.