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Jameco Part Number 1581249

**SPECIFICATION FOR APPROVAL**

**CUSTOMER** :

**DESCRIPTION** : DC BRUSHLESS FAN

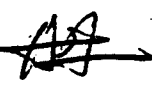
**DIMENSIONS** : 40X40X10 mm

**M O D E L** : KDE0504PFB3-8

**APPROVED NO** :

**APPROVED BY** :  
(AUTHORZIED)



|       |         |       |                                                                                     |       |                                                                                      |             |            |
|-------|---------|-------|-------------------------------------------------------------------------------------|-------|--------------------------------------------------------------------------------------|-------------|------------|
| DAWN. | --- 3/4 | CHKD. |  | APPD. |  | SPEC. NO.   | 042458300  |
|       |         |       |                                                                                     |       |                                                                                      | ISSUE DATE  | 01.04.1996 |
|       |         |       |                                                                                     |       |                                                                                      | EDITION     | 0          |
|       |         |       |                                                                                     |       |                                                                                      | REVISE DATE |            |

**EME Fan & Motor** (949) 583-9785 [Fax]  
**25501 Arctic Ocean Drive** (949) 583-9802  
**Lake Forest, CA. 92630**

## DC BRUSHLESS FAN

MODEL: KDE0504PFB3-8

## CHARACTERISTICS

1. Input power , Current & Speed : Measured after continuous 30 minutes operation at rated voltage in clean air at ambient temperature of 25 degrees C.
2. Noise Level : Measured in an semi-anechoic chamber with background noise level below 15 dBA. The fan is running in free air with microphone at a distance of one meter from the fan intake.
3. Dielectric Strength : Applied AC 500V for one minute or AC 600V for 2 seconds between housing and lead wire(+)
4. Motor Design : Patented single-coil DC brushless 8 poles motor design.
5. Insulation Resistance : More than 500M ohm between internal stator and lead wire(+) measured by DC 500V.
6. Tolerances : +-15% on rated power and current
7. Motor Protection : Polarity protected & Locked rotor protected.
8. Air Performance : Measured by a double chamber. The value are recorded when the fan speed is stabilized at rated voltage.



|                                                                    |            |            |             |   |
|--------------------------------------------------------------------|------------|------------|-------------|---|
| 建準電機工業股份有限公司<br>SUNONWEALTH ELECTRIC<br>MACHINE INDUSTRY CO., LTD. | SPEC. NO.  | 042458300  | REVISE DATE |   |
|                                                                    | ISSUE DATE | 01.04.1996 | EDITION     | 0 |
|                                                                    | PAGE       | 2 OF 5     |             |   |

# SPECIFICATIONS

## MODEL: KDE0504PFB3-8

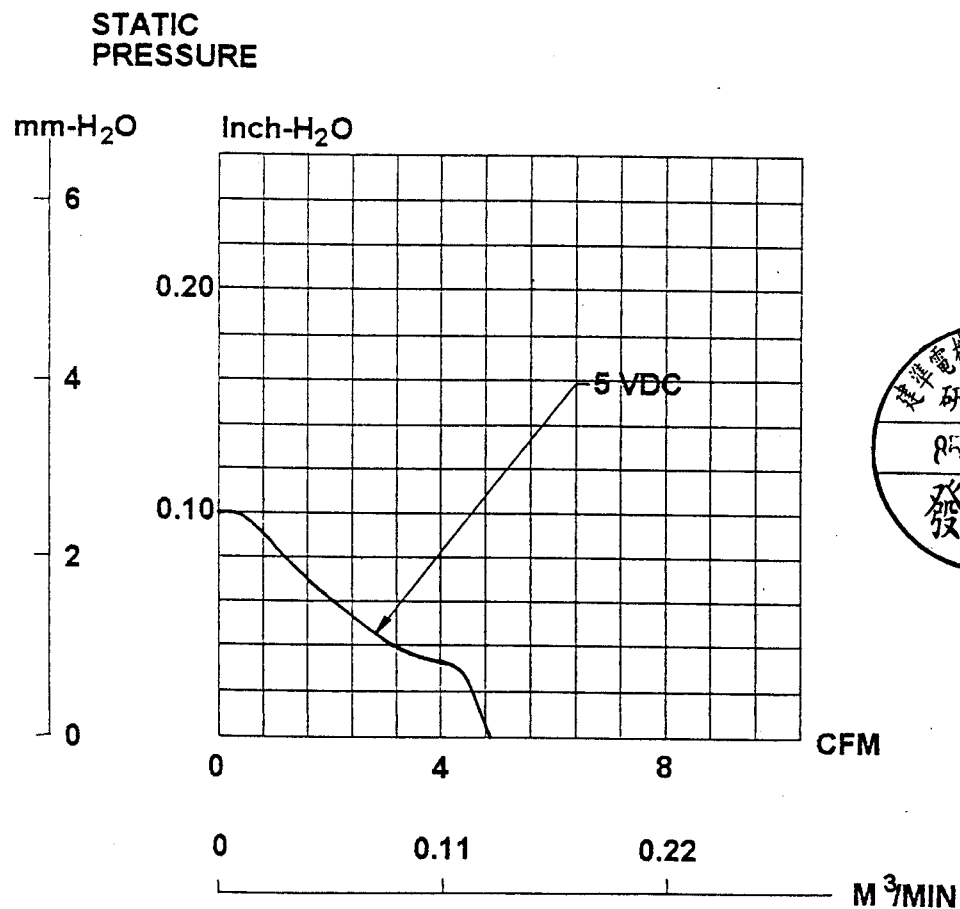
- 1-1. Rated Voltage : 5 VDC
- 1-2. Operating Voltage Range : 4-6 VDC
- 1-3. Starting Voltage : 4 VDC
- 1-4. Rated Speed : 5300 RPM $\pm$ 1000 RPM
- 1-5. Air Delivery : 4.8 CFM
- 1-6. Static Pressure : 0.10 Inch-H<sub>2</sub>O
- 1-7. Rated Current : 0.08 AMP
- 1-8. Rated Power : 0.4 WATTS
- 1-9. Noise Level : 23.5 dB(A)
- 1-10. Direction of Rotation : Clockwies viewed from front face
- 1-11. Operating Temperature : -20 to +80 Deg.C
- 1-12. Storage Temperature : -40 to +80 Deg.C
- 1-13. Bearing System : Precise ball bearing system
- 1-14. Weight : 20g
- 1-15. Safety : UL/CUR Approvals



|                                                                    |            |            |             |   |
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|                                                                    | ISSUE DATE | 01.04.1996 | E.DITION    | 0 |
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MODEL: KDE0504PFB3-8

## PERFORMANCE CURVES



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SPEC. NO.

042458300

REVISE DATE

ISSUE DATE

01.04.1996

E D I T I O N

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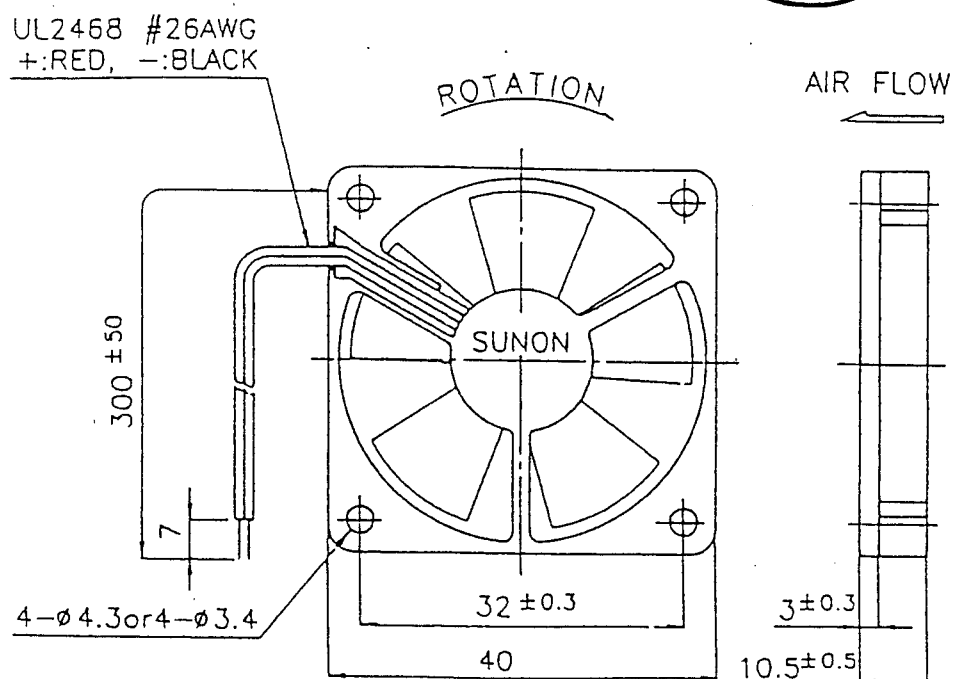
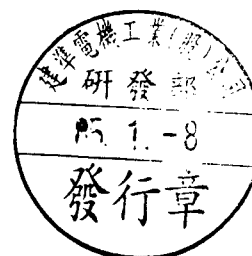
P A G E

4 OF 5

# MATERIAL

- 2-1. Frame : Thermoplastic PBT of UL 94V-0  
 2-2. Impeller : Thermoplastic PBT of UL 94V-0  
 2-3. Bobbin : Thermoplastic PBT of UL 94V-0  
 2-4. Lead Wire : UL2468, 26AWG, +:RED ; -:BLACK

# DIMENSIONS



UNIT : mm

建準電機工業股份有限公司  
 SUNONWEALTH ELECTRIC  
 MACHINE INDUSTRY CO., LTD.

|            |            |             |   |
|------------|------------|-------------|---|
| SPEC. NO.  | 042458300  | REVISE DATE |   |
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# SUNONWEALTH ELECTRIC MACHINE IND. CO., LTD.

## LIFE TEST REPORT

QCF-090701

|                |                    |                |          |       |                   |        |           |
|----------------|--------------------|----------------|----------|-------|-------------------|--------|-----------|
| MODEL NO.      | KDE0504PFB3-E      | TEST CONDITION | A. INPUT | 5 VDC | TEST PERIOD       | START  | 06/23/95  |
| ELEC-SPEC.     | RPM. 5300. mA 0.08 |                | B. TEMP. | 65 °C |                   | FINISH | 09/29/95  |
| TEST SAMPLES   | 50 PCS             |                |          |       | FAILURES          |        | 2         |
| TEST HRS/EA    | 2352 Hrs           |                |          |       | CONF. LEVEL       |        | 90 %      |
| TOTAL TEST HRS | 117600 Hrs         |                |          |       | APPLICATION, MTBF |        | 22096 Hrs |

| FAILURE DEFINITION                                      | TEST RESULT, ( INCLUDING TIME TO FAILURE, DATA, STATISTICS...ETC. ) |            |              |            |
|---------------------------------------------------------|---------------------------------------------------------------------|------------|--------------|------------|
| 1. PAN HOT WORK                                         | CUM. F                                                              | TIME (HRS) | Q'TY AT R(%) | CUM. F(%)  |
| 2. RPM. OVER 20 % OF ORIGIN                             | 1                                                                   | 2352       | 49           | 2.00 %     |
| 3. mA OVER 20 % OF ORIGIN                               | 2                                                                   | 2352       | 48           | 4.00 %     |
| 4. VIBRATION                                            |                                                                     |            |              | DEAD POINT |
| 5. ABNORMAL SOUND                                       |                                                                     |            |              | NOISE      |
| CHECK POINT AT THE HOURS OF<br>168, 336, 504,.....,2352 | TOTAL TEST HRS=2352* 1 + 2352* 1 + 2352* 1 + 2352* 1 = 117600       |            |              |            |
|                                                         | BY CUI-SQUARE TABLE : GET MTBF = 22096                              |            |              |            |

|                            |       |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| MTBF FOR OTHER TEMPERATURE | 25 °C | 30 °C | 35 °C | 40 °C | 45 °C | 50 °C | 55 °C | 60 °C | 65 °C | 70 °C | 75 °C | 80 °C |
| BY A.F COUNTING            | 83204 | 69159 | 57832 | 48336 | 41126 | 34957 | 29881 | 25629 | 22096 | 19133 | 16636 | 14522 |

|              |             |               |
|--------------|-------------|---------------|
| APPROVED by: | CHECKED by: | INSPECTED by: |
|--------------|-------------|---------------|

H2-14