

# FOSHAN SHUNDE YINGFUDA MICRO MOTOR CO.,LTD

## MOTOR OUTGOING SPECIFICATION

Model No. :YFD565M-Q04171

REV : 0

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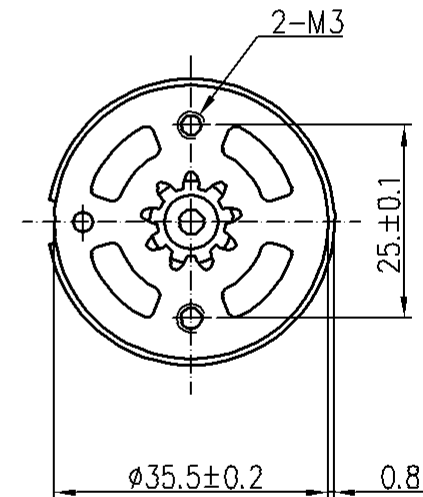
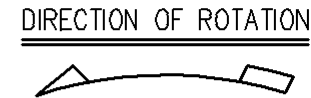
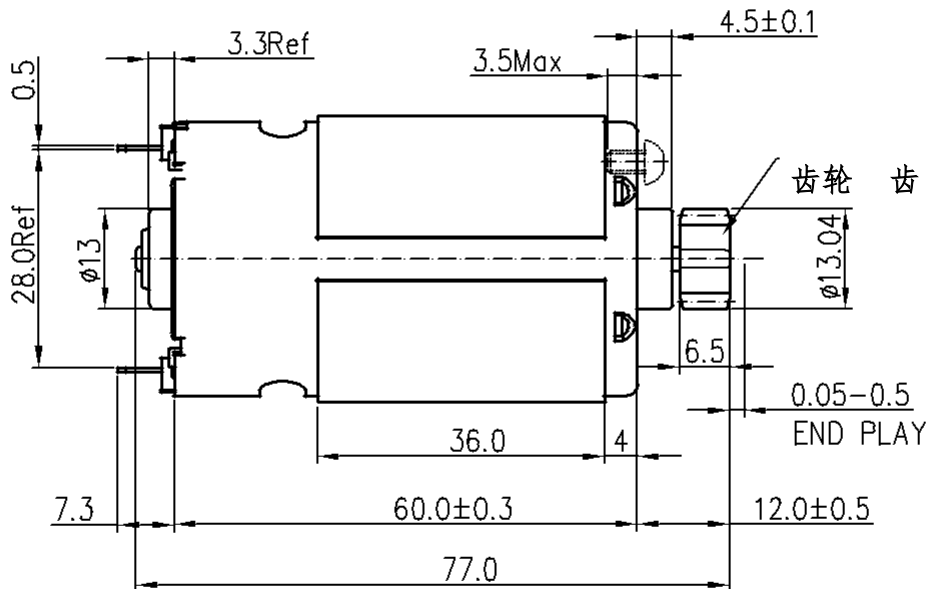
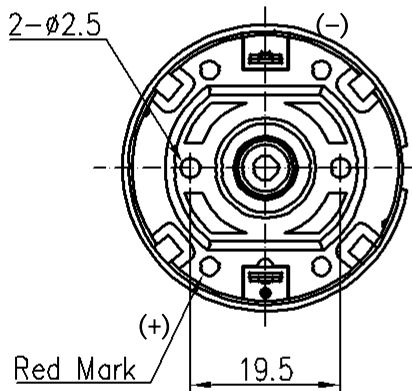
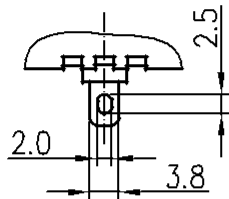
- 1. Motor Type:** Small DC motor
- 2. Standard Operating Conditions:**
- 2-1 Rated Voltage: 21.6V DC CONSTANT between motor terminals.
- 2-2 Direction of Rotation: CCW when viewed from output shaft side.
- 3. Measuring Conditions:**
- 3-1 Motor Position: Motor to be held with shaft horizontally.
- 3-2 Power Supply: Regulated power supply which assures unquestionable measurement.
- 3-3 Environment Temperature and Humidity: The test is made in principle at a temperature between 15°C and 35°C and at a relative humidity 75%.
- 4. Electrical Characteristics (at initial stage after 30 seconds run-in):**
- 4-1 No Load Current: 0.40A max.
- 4-2 No Load Speed: 10300±10% rpm.
- 4-3 No Load Starting Voltage: 2.0Vmax
- 4-4 Rated Load Current: 1.18±12%A .
- 4-5 Rated Load Speed: 9700±10% rpm.
- 4-6 Rated Load: Fan load with size25x59.5mm(approximately equivalent to / g-cm.)
- 4-7 Reference Characteristic Curve: See motor performance curves and characteristics.
- 5. Mechanical Characteristics:**
- 5-1 External Apperance: See Motor Outline
- 5-2 Shaft End Play: 0.05~0.5 mm
- 5-3 Runout of Shaft Extension: 0.05 mm max.
- 6. Insulation Grade:** Class B

CONFIRMED & ACCEPTED BY CUSTOMER

*COMPANY, CHOP & SIGNATURE*

DATE :

|                                                                                                                                                                                                                                                                                                                                                             |  |   |  |   |  |                                                                                                                                        |  |   |  |   |  |                                                                                                                                       |  |   |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---|--|---|--|----------------------------------------------------------------------------------------------------------------------------------------|--|---|--|---|--|---------------------------------------------------------------------------------------------------------------------------------------|--|---|--|
| A                                                                                                                                                                                                                                                                                                                                                           |  | B |  | C |  | D                                                                                                                                      |  | E |  | F |  | G                                                                                                                                     |  | H |  |
| REMARKS:<br>1) WHEN PRESS FITTING A GEAR,PULLEY OR ANYTHING ALIKE ONTO MOTOR OUTPUT SHAFT, DO PUSH THE OTHER SHAFT END VERTICALLY, DON'T PUSH THE REAR BRACKET<br>2) SOLDERING TEMPERATURE AND TIME MUST BE 360°(3SEC) OR 400°(2SEC).<br>3) MEASURING THE DIMENSION OF THE SHAFT EXTENSION WHEN THE OTHER END OF THE SHAFT IS AGAINST THE REAR BRACKET END. |  |   |  |   |  | SERIAL NO : <span style="border: 1px solid black; display: inline-block; width: 100px; height: 1.2em; vertical-align: middle;"></span> |  |   |  |   |  | ISSUE NO : <span style="border: 1px solid black; display: inline-block; width: 100px; height: 1.2em; vertical-align: middle;"></span> |  |   |  |



|      |  |  |  |  |                                  |  |                         |  |       |  |                |  |
|------|--|--|--|--|----------------------------------|--|-------------------------|--|-------|--|----------------|--|
|      |  |  |  |  | CONFIRMED & ACCEPTED BY CUSTOMER |  | TITLE: MOTOR OUTLINE    |  | DES'D |  | YWjiang18/4-24 |  |
|      |  |  |  |  | Company, Chop & Signature        |  | PART NO: YFD565M-Q04171 |  | CHK'D |  |                |  |
|      |  |  |  |  |                                  |  | YingFuDa Micro Motor    |  | APP'D |  |                |  |
|      |  |  |  |  |                                  |  |                         |  | SCALE |  | 1:1 REV A0     |  |
|      |  |  |  |  |                                  |  |                         |  |       |  |                |  |
| ITME |  |  |  |  | WAS                              |  | DATE                    |  | DES'D |  | APP'D          |  |
|      |  |  |  |  |                                  |  | DATE:                   |  |       |  |                |  |

## Motor performance curves and characteristics:

Voltage: 21.6V

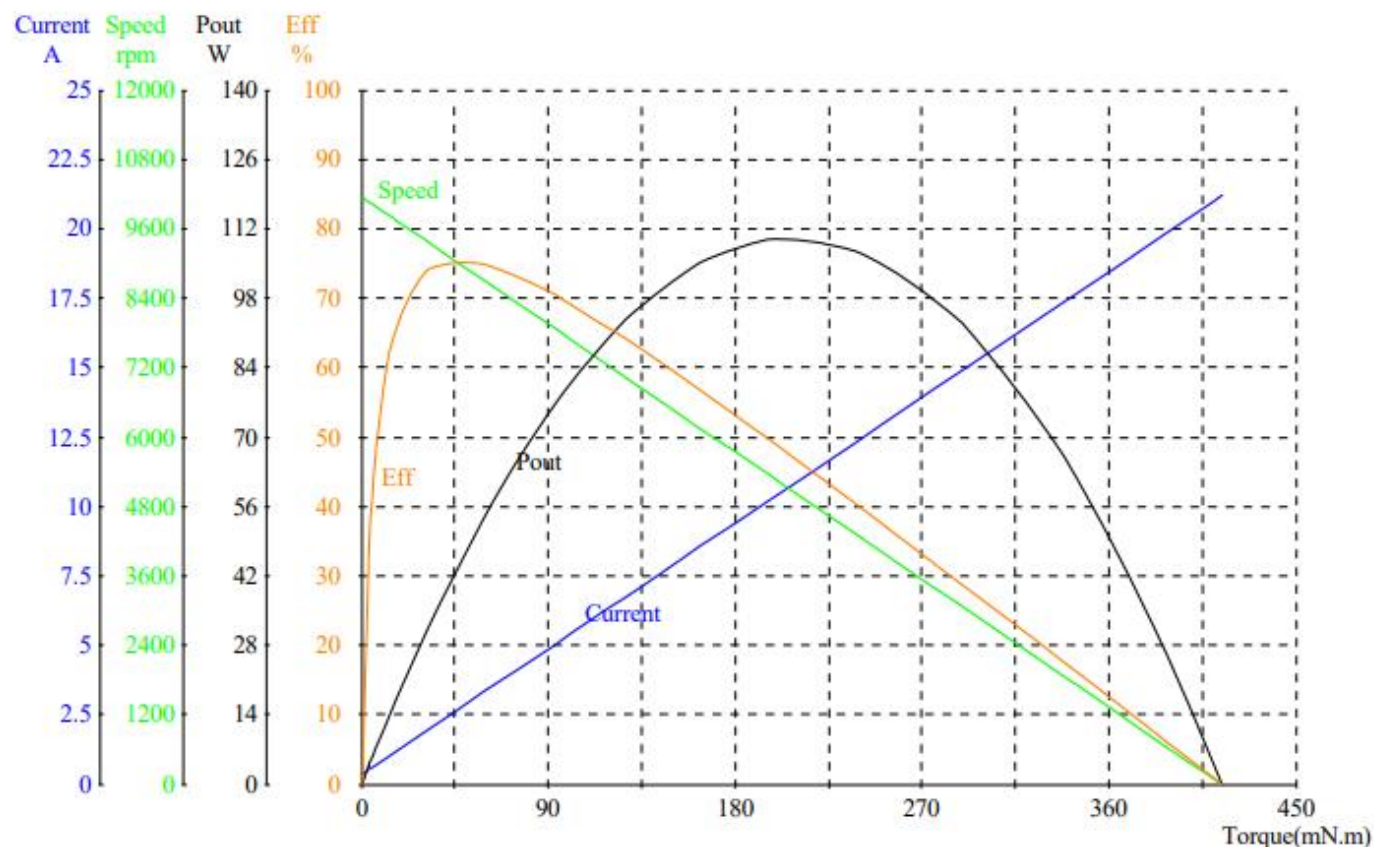
Motor Type: YFD565M-Q04171

Tester: 001

Number: 202404180002

Test Data: 2024.04.18

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| State   | Voltage | Current | Pin   | Torque | Speed | Pout  | Eff  |
|---------|---------|---------|-------|--------|-------|-------|------|
|         | V       | A       | W     | mN.m   | rpm   | W     | %    |
| No_Load | 21.66   | 0.560   | 12.11 | 3.9    | 10056 | 4.123 | 34.1 |
| Rated   |         |         |       |        |       |       |      |
| Eff_max | 21.66   | 3.425   | 74.13 | 59.2   | 8692  | 53.88 | 72.7 |
| End     | 21.66   | 10.57   | 228.6 | 206.1  | 4375  | 94.40 | 41.3 |

# FOSHAN SHUNDE YINGFUDA MICRO MOTOR

## Motor performance curves and characteristics:

|            |            |             |                |
|------------|------------|-------------|----------------|
| Voltage:   | 21.6V      | Motor Type: | YFD565M-Q04171 |
| Tester:    | 001        | Number:     | 202404180002   |
| Test Data: | 2024.04.18 |             |                |
| *****      |            |             |                |

|        | Voltage | Current | Pin   | Torque | Speed | Pout  | Eff  |
|--------|---------|---------|-------|--------|-------|-------|------|
| Number | V       | A       | W     | mN.m   | rpm   | W     | %    |
| 1      | 21.66   | 0.345   | 7.462 | 0.0    | 10148 | 0.000 | 0.0  |
| 2      | 21.66   | 0.541   | 11.71 | 3.9    | 10052 | 4.105 | 35.1 |
| 3      | 21.66   | 0.536   | 11.60 | 3.8    | 10055 | 4.000 | 34.5 |
| 4      | 21.66   | 0.541   | 11.71 | 3.9    | 10052 | 4.105 | 35.1 |
| 5      | 21.66   | 0.541   | 11.71 | 3.9    | 10052 | 4.105 | 35.1 |
| 6      | 21.66   | 0.531   | 11.49 | 3.7    | 10057 | 3.896 | 33.9 |
| 7      | 21.66   | 0.531   | 11.49 | 3.7    | 10057 | 3.896 | 33.9 |
| 8      | 21.66   | 0.541   | 11.71 | 3.9    | 10052 | 4.105 | 35.1 |
| 9      | 21.66   | 0.556   | 12.04 | 4.2    | 10046 | 4.417 | 36.7 |
| 10     | 21.66   | 0.611   | 13.23 | 5.3    | 10018 | 5.559 | 42.0 |
| 11     | 21.66   | 0.681   | 14.76 | 6.7    | 9984  | 7.003 | 47.5 |
| 12     | 21.66   | 0.822   | 17.81 | 9.5    | 9915  | 9.862 | 55.4 |
| 13     | 21.66   | 0.998   | 21.62 | 13.0   | 9829  | 13.38 | 61.9 |
| 14     | 21.66   | 1.265   | 27.39 | 18.3   | 9700  | 18.58 | 67.8 |
| 15     | 21.66   | 1.556   | 33.71 | 24.1   | 9558  | 24.12 | 71.5 |
| 16     | 21.66   | 1.938   | 41.98 | 31.7   | 9372  | 31.10 | 74.1 |
| 17     | 21.66   | 2.341   | 50.70 | 39.7   | 9176  | 38.14 | 75.2 |
| 18     | 21.66   | 2.833   | 61.37 | 49.5   | 8936  | 46.31 | 75.5 |
| 19     | 21.66   | 3.321   | 71.93 | 59.2   | 8698  | 53.91 | 75.0 |
| 20     | 21.66   | 3.889   | 84.24 | 70.5   | 8422  | 62.16 | 73.8 |
| 21     | 21.66   | 4.432   | 96.00 | 81.3   | 8157  | 69.43 | 72.3 |
| 22     | 21.66   | 5.015   | 108.6 | 92.9   | 7873  | 76.58 | 70.5 |
| 23     | 21.66   | 5.568   | 120.6 | 103.9  | 7604  | 82.72 | 68.6 |
| 24     | 21.66   | 6.187   | 134.0 | 116.2  | 7303  | 88.85 | 66.3 |
| 25     | 21.66   | 6.755   | 146.3 | 127.5  | 7026  | 93.79 | 64.1 |
| 26     | 21.66   | 7.394   | 160.1 | 140.2  | 6715  | 98.57 | 61.6 |
| 27     | 21.66   | 7.957   | 172.3 | 151.4  | 6441  | 102.1 | 59.2 |
| 28     | 21.66   | 8.570   | 185.6 | 163.6  | 6142  | 105.2 | 56.7 |
| 29     | 21.66   | 9.103   | 197.2 | 174.2  | 5883  | 107.3 | 54.4 |
| 30     | 21.66   | 9.666   | 209.4 | 185.4  | 5608  | 108.9 | 52.0 |
| 31     | 21.66   | 10.17   | 220.3 | 195.4  | 5364  | 109.7 | 49.8 |
| 32     | 21.66   | 10.71   | 231.9 | 206.1  | 5102  | 110.1 | 47.5 |
| 33     | 21.66   | 11.54   | 250.0 | 222.7  | 4695  | 109.5 | 43.8 |
| 34     | 21.66   | 12.37   | 268.0 | 239.3  | 4289  | 107.5 | 40.1 |
| 35     | 21.66   | 13.21   | 286.1 | 255.9  | 3883  | 104.0 | 36.4 |
| 36     | 21.66   | 14.04   | 304.2 | 272.4  | 3477  | 99.18 | 32.6 |
| 37     | 21.66   | 14.88   | 322.2 | 289.0  | 3071  | 92.93 | 28.8 |
| 38     | 21.66   | 15.71   | 340.3 | 305.6  | 2665  | 85.27 | 25.1 |
| 39     | 21.66   | 16.54   | 358.4 | 322.2  | 2259  | 76.20 | 21.3 |
| 40     | 21.66   | 17.38   | 376.4 | 338.8  | 1853  | 65.72 | 17.5 |
| 41     | 21.66   | 18.21   | 394.5 | 355.4  | 1447  | 53.82 | 13.6 |
| 42     | 21.66   | 19.05   | 412.5 | 372.0  | 1040  | 40.52 | 9.8  |
| 43     | 21.66   | 19.88   | 430.6 | 388.6  | 634   | 25.80 | 6.0  |
| 44     | 21.66   | 20.71   | 448.7 | 405.1  | 228   | 9.678 | 2.2  |
| 45     | 21.66   | 21.18   | 458.8 | 414.5  | 0     | 0.000 | 0.0  |