

YFD

YingFuDa Micro Motor Co Ltd

盈富达微电机有限公司

Product Specification

Customer Name _____

Model No. YFD385V-18100-57

Specification No. 2208152

Revision A0

Date issued 2022.8.15

**CONFIRMED & ACCEPTED BY CUSTOMER
COMPANY, CHOP & SIGNATURE**

DATE :

PREPARED BY: YWjiang15/8-22 CHECKED BY: _____ APPROVED BY: _____

Product Specification

Model No: YFD385V-18100-57

Sample No: 2208152

1. Motor Type:

Small DC motor

2. Standard Operating Conditions:

- 2-1 Rated Voltage: 32.0V 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: 0.19A max.
4-2 No Load Speed: 20320±8% rpm.
4-3 No Load Starting Voltage: 2.0Vmax
4-4 Rated Load Current: 1.1±12%A .
4-5 Rated Load Speed: 16000±800 rpm.
4-6 Rated Load: Fan load with size 15x50 mm(approximately equivalent to 159.3g-cm.)
4-7 Reference Characteristic Curve: See motor performance curves and characteristics.
4-8 Insulation Resistance: 10 M ohm(min) (DC:500V)
between motor terminal and motor metal housing
4-9 Dielectric Strength: AC 500V/1mA(50Hz to 60Hz) for one minute
between motor terminal and motor metal housing
4-10 Vibration value: ≤4.9mm/s

5. Mechanical Characteristics:

- 5-1 External Appearance: See Motor Outline
5-2 Shaft End Play: 0.05~0.5 mm
5-3 Runout of Shaft Extension: 0.05 mm max. at 2/3 of output shaft side and measured by dial gauge
5-4 Motor Weight: 65.9 g (Approx)

6. Life:

- 6-1 Test voltage: 32.0V (Regulated DC power supply)
6-2 Load: Fan load equivalent to 145.0g.cm
6-3 Test cycle: 30 min on, 30 min off is cycle
6-4 Duration: 400 cycle

7. Noise test

70db(A) max/RMS, with following condition. No load at rated voltage, Set on sponge. Microphone at 30 cm aligned on the motor axis; background noise-level is 30dB(A) max/RMS.

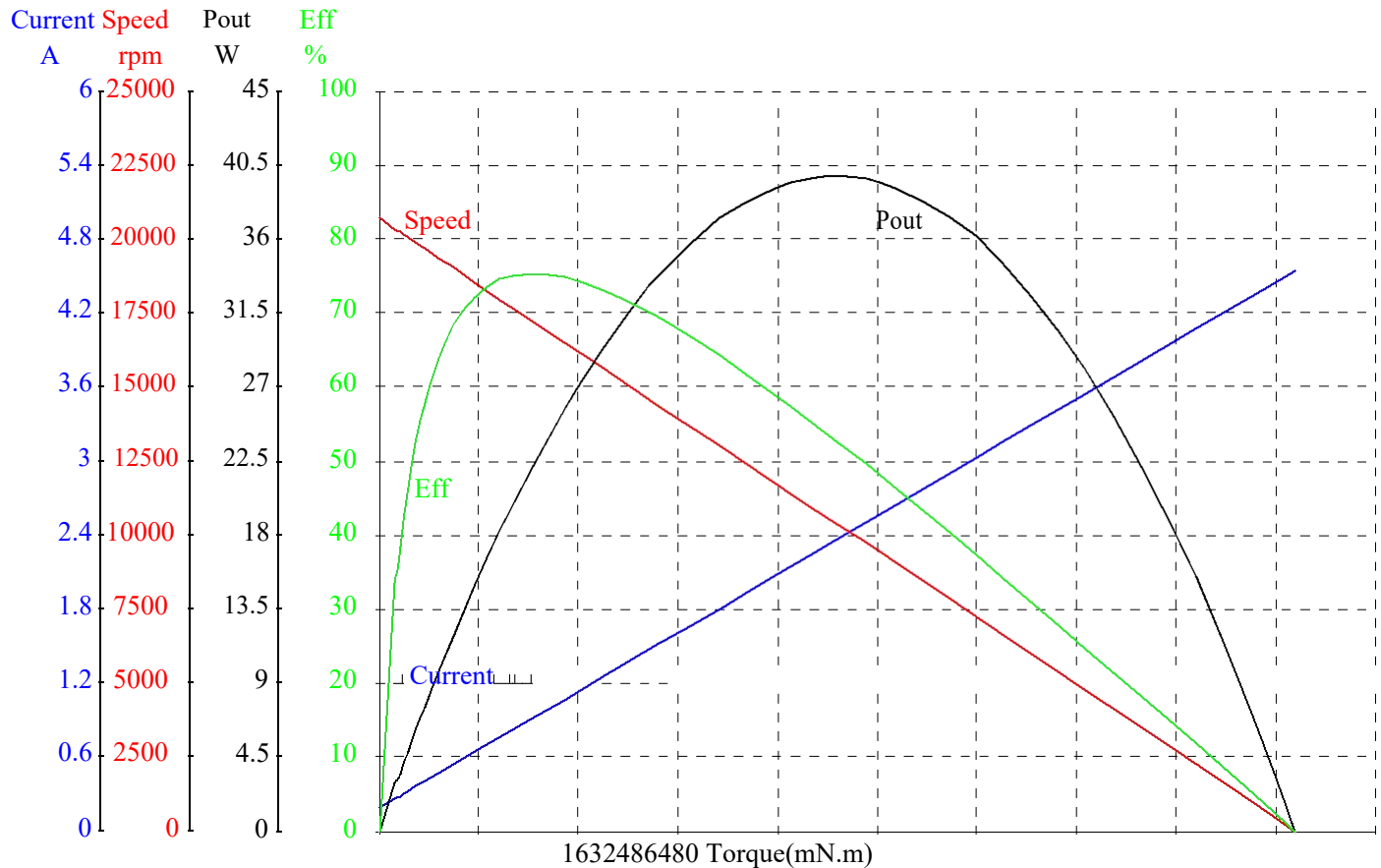
8. Other Characteristics:

- 8-1 Insulation Grade: Class B
8-2 ECP Requirement: Motor conform to 2011/65/EU RoHS Directive

FOSHAN SHUNDE YINGFUDA MICRO MOTOR

Motor performance curves and characteristics:

Customer: Voltage: 32.0V
ProductName: Power rated:
Motor Type: YFD385V-18100-57 Tester: 001
Test Data: 2022.8.15



State	Voltage	Current	Pin	Torque	Speed	Pout	Eff
	V	A	W	mN.m	rpm	W	%
No_Load	32.05	0.280	8.986	1.36	20115	2.864	31.9
Rated							
Eff_max	32.05	1.018	32.62	14.87	16402	25.53	78.3
End	32.05	2.502	80.19	39.12	8885	36.40	45.4

FOSHAN SHUNDE YINGFUDA MICRO MOTOR

Motor performance curves and characteristics:

Customer: Voltage: 32.0V
Product Name: Power rated:
Motor Type: YFD385V-18100-57 Tester: 001

Test Data: 2022.8.15

	Voltage	Current	Pin	Torque	Speed	Pout	Eff
Number	V	A	W	mN.m	rpm	W	%
1	32.05	0.189	6.061	0.00	20693	0.000	0.0
2	32.05	0.270	8.641	1.36	20311	2.892	33.5
3	32.05	0.270	8.641	1.36	20311	2.892	33.5
4	32.05	0.270	8.641	1.36	20311	2.892	33.5
5	32.05	0.278	8.906	1.50	20271	3.184	35.7
6	32.05	0.270	8.660	1.37	20309	2.913	33.6
7	32.05	0.288	9.229	1.67	20224	3.536	38.3
8	32.05	0.299	9.570	1.85	20174	3.907	40.8
9	32.05	0.312	10.01	2.08	20108	4.379	43.8
10	32.05	0.327	10.48	2.33	20038	4.888	46.6
11	32.05	0.354	11.33	2.78	19911	5.796	51.1
12	32.05	0.376	12.05	3.16	19805	6.552	54.4
13	32.05	0.405	12.98	3.65	19668	7.516	57.9
14	32.05	0.454	14.56	4.48	19434	9.115	62.6
15	32.05	0.496	15.90	5.19	19235	10.45	65.7
16	32.05	0.543	17.40	5.98	19012	11.90	68.4
17	32.05	0.609	19.51	7.09	18700	13.88	71.2
18	32.05	0.680	21.78	8.29	18362	15.94	73.2
19	32.05	0.760	24.34	9.64	17983	18.15	74.6
20	32.05	0.858	27.49	11.30	17517	20.72	75.4
21	32.05	0.961	30.79	13.04	17027	23.25	75.5
22	32.05	1.069	34.26	14.87	16512	25.71	75.0
23	32.05	1.198	38.40	17.05	15899	28.38	73.9
24	32.05	1.304	41.79	18.84	15396	30.37	72.7
25	32.05	1.478	47.38	21.78	14568	33.23	70.1
26	32.05	1.486	47.63	21.92	14530	33.35	70.0
27	32.05	1.635	52.40	24.43	13824	35.36	67.5
28	32.05	1.805	57.84	27.30	13017	37.21	64.3
29	32.05	1.962	62.88	29.96	12269	38.49	61.2
30	32.05	2.136	68.47	32.90	11442	39.42	57.6
31	32.05	2.150	68.91	33.14	11375	39.47	57.3
32	32.05	2.324	74.50	36.08	10548	39.85	53.5
33	32.05	2.335	74.83	36.26	10498	39.86	53.3
34	32.05	2.504	80.26	39.12	9694	39.71	49.5
35	32.05	2.678	85.84	42.07	8866	39.05	45.5
36	32.05	2.853	91.43	45.01	8038	37.88	41.4
37	32.05	3.027	97.02	47.96	7210	36.20	37.3
38	32.05	3.201	102.6	50.90	6381	34.01	33.1
39	32.05	3.376	108.2	53.85	5553	31.31	28.9
40	32.05	3.550	113.8	56.79	4725	28.10	24.7
41	32.05	3.724	119.4	59.74	3897	24.37	20.4
42	32.05	3.898	124.9	62.68	3069	20.14	16.1
43	32.05	4.073	130.5	65.63	2241	15.40	11.8
44	32.05	4.247	136.1	68.57	1413	10.14	7.5
45	32.05	4.421	141.7	71.52	584	4.377	3.1
46	32.05	4.544	145.6	73.60	0	0.000	0.0