

**ZHENGKE**

ZHEJIANG ZHENGKE MOTOR CO. LTD

SAMPLE SPECIFICATION

(Customer Name) : \_\_\_\_\_

(Customer Model): \_\_\_\_\_

(Product Model) : ZGA60RHH 9.2i 12V370R A8044

(Sample NO.) : S191129-01-04

(REV) : A

(PREPARED BY): 向家君 2019.12.14.

(CHECKED BY): 李文辉. 2019.12.14

(APPROVED BY): 孙安华 2019.12.14

(SIGNATURE FOR APPROVAL):

(DATE OF APPROVAL):

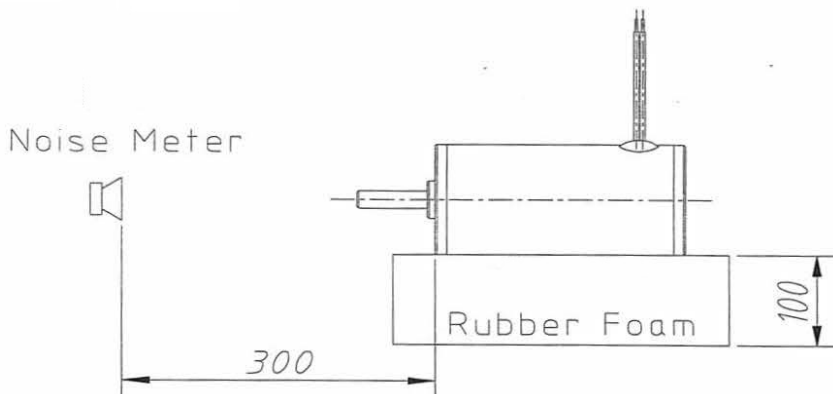
(Motor Specification)

(Motor Model): ZGA60RHH 9.2i 12V370R A8044

1. (Motor Classification): (Micro PMDC Motor).
2. (Standard Operation Conditions):
  - 2-1.(Rated Voltage): 12.0V DC
  - 2-2.(Rotating direction): CCW
  - 2-3.(Environment Temp): -20°C-50°C
  - 2-4.(Environment Humi): 30%-80%RH Without Condensation.
3. (Inspection Conditions):
  - 3-1.(Testing Powersupply): (Stable DC Powersupply).
  - 3-2.(Placement of Motor): (Horizontal).
  - 3-3.(Environment Temp): 15°C-35°C
  - 3-4. (Environment Humi): 35%-75%RH
4. (Electrocal Characteristics):
  - 4-1. (No Load Current): 600mA Max
  - 4-2. (No Load Speed): 370 ± 10%rpm
  - 4-3. (On Load): 400mN.m
  - 4-4. (On Load Current): 1800mA Max
  - 4-5. (On Load Speed): 316 ± 10%rpm
  - 4-6. (Insulation Level): E
  - 4-7. (Insulation Resistance): 500V/10MΩ
  - 4-8. (Performance Characteristics):

(Refer to the Performance Curve Attached).
5. (Mechanical Chararacteristics):
  - 5-1. (External Dimension): (Refer to the Dimension Drawing Attached).
  - 5-2. (Shaft Axial-Play): 0.5mm Max
  - 5-3. (Shaft radial-Play): 0.05mm Max
6. (Motor Noise level):

70dB max; (70dB max; a Background noise of 30dB Max; 300mm Distance From the Flange of Mortor, See the Motor Testing Placement Under).



7. (Motor lifetime):

15°C–35°C /55%–75%RH, CCW, 15 ON, 10 OFF/CW, 15 ON, 10 OFF,

900cycles Min. ( $\geq 900$ Cycles With Load Torque and Load Rated

Voltage. Work Duty: CCW 15 Mins–Poweroff 10 Mins–CW 15 Mins–Poweroff 10 Mins– CCW 15 Mins...; Testing

Temp: 15°C–35°C, Testing Humi.: 55%–75%RH).

(Criterion of Ending of Motor Life):

1) (Rated Speed Varise  $\pm 30\%$  From the Initial Rated Speed Under the Rated Voltage);

2) (Rated Current Varise  $\pm 30\%$  From the Initial Rated Speed Under the Rated Current);

3) (Unstable Performances Which Can Judged by Men' s Sensory System.

8. (Weight of Motor): 670g (Approx).

9. (Matters and attentions):

9-1.(Power-Supply):(Please Do Use Motors at Voltage and Current that We Specify Above, or Else Motors Performance and Lifetime Can' t be Guanranteed).

9-2.(Installation of Motor):(Please Do Pay the Attetion On the Screws You Use to Install the Motor, It Should not to be Too Much Long, In Case of Locking of Rotator & Damages to the Internal Parts; The Ventilative Holes of Motors (if There Are) Are Not Allowed to be Blocked, In Case of Affecting Heat-dispersion of Motor Wich Causes a Declined Performance, Or Even Burnt Winding).

9-3. (Transportation of Motors):(Hnadle With Care, Any Intense Buping Might Cause a Declined Performance).

9-4.(Wiring of Motors):(Red Wires to +Pole, Black Wires to - Pole; Motors Will Run Oppositely If Swiching the Wiring).

9-5. (Overloaded Torque): (Any Continuous Stalling & Continuous Near-stalling is Not Allowed).

9-6. (Storage Conditions of Motor):

(Storage Temp):  $-20^{\circ}\text{C}$ – $70^{\circ}\text{C}$ ;

(Storage Humi): 15%–90%RH;

(Keep Motors Out From Envorinment of High-Humi and Corrosive Gas).

(Max Storage Time): 6( $\leq 6$  Months, the Motor' s Performance Might be Declined After 6 Months Storage).

## GEAR MOTOR CHARACTERISTICS

ZGA60RHH 9.2i 12V370R A8044

S191129-01-04

12VDC :

2019/12/12

CCW :

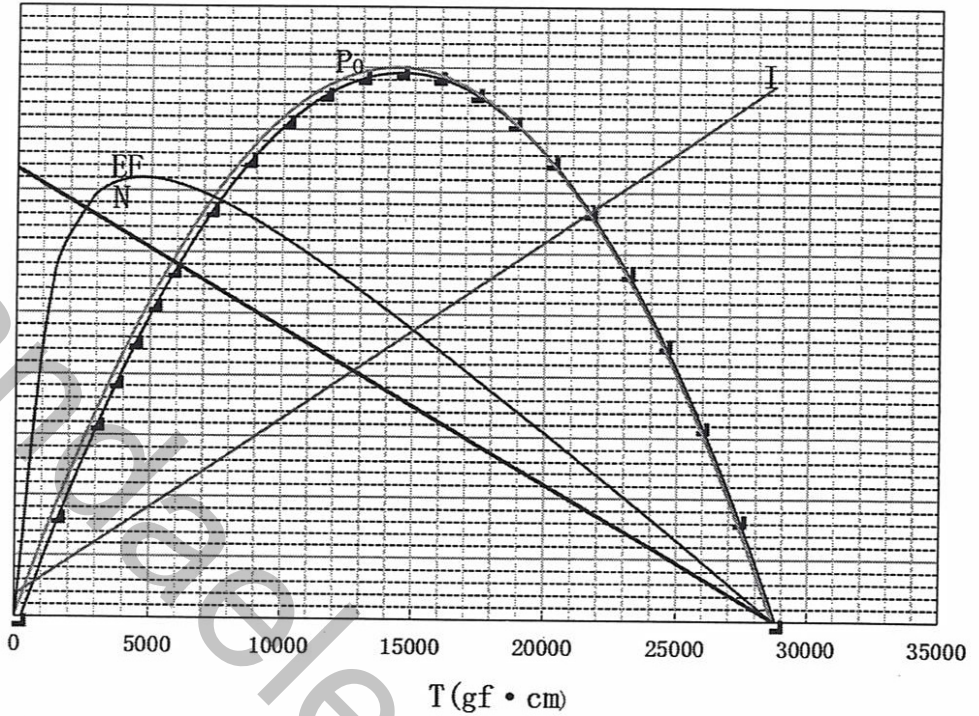
— N:Speed:

— I:Current:

— P:Out power:

— EF: Efficiency:

$P_0$	EF	I	N
30	100	10000	500
15	50	5000	250
[W]	[%]	[mA]	r/min




T:torque

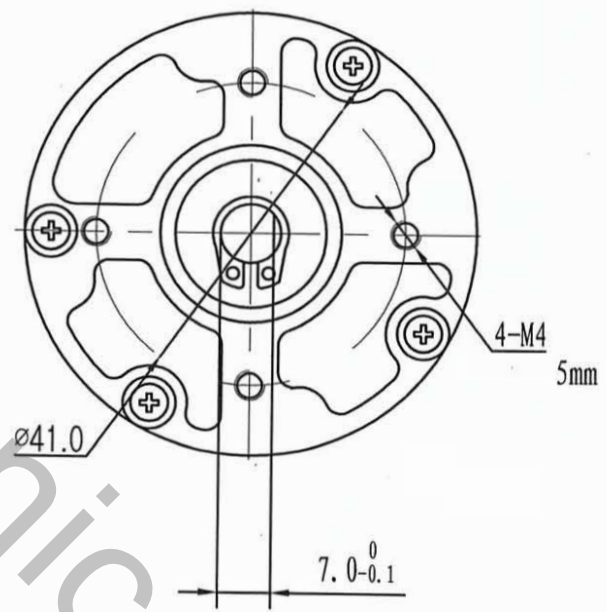
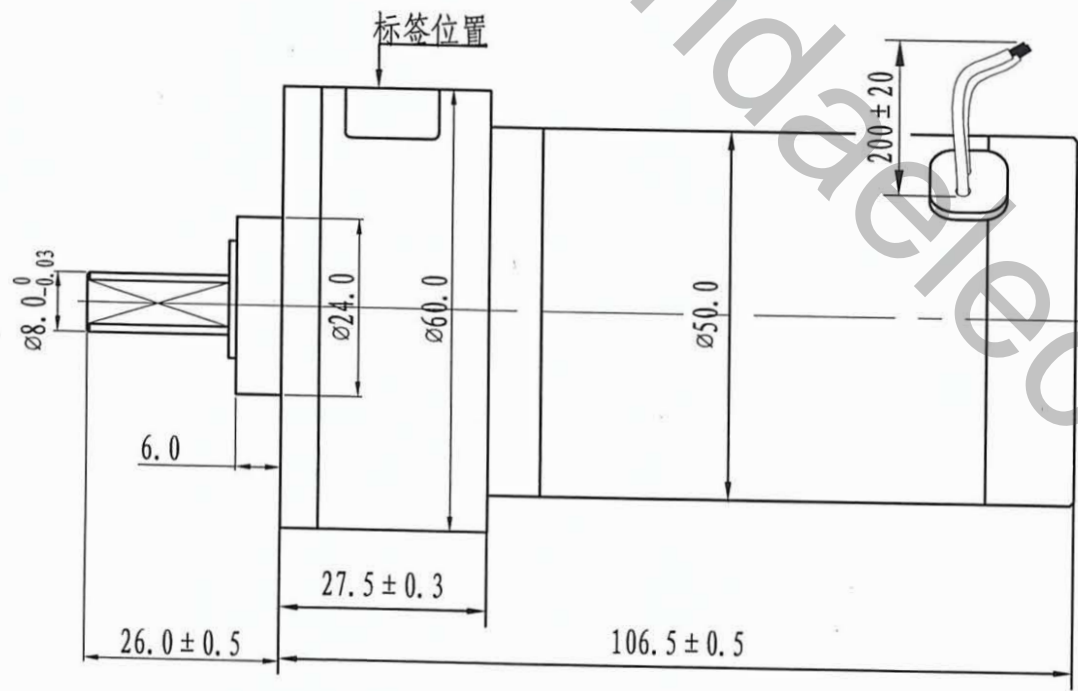
T(gf · cm)

	T (mNm)	(gf. cm)	N(r/min)	I (mA)	$P_0$ [W]	EF[%]
No Load...N, I	0.00	0	367.00	340	0.0	0.00
	98.04	1000	354.20	632	3.6	47.90
	196.08	2000	341.40	924	7.0	63.16
	294.12	3000	328.60	1216	10.1	69.29
Rated...T	392.16	4000	315.80	1508	13.0	71.60
	490.20	5000	303.00	1800	15.5	71.94
	588.24	6000	290.20	2092	17.9	71.14
	686.27	7000	277.40	2384	19.9	69.62
	784.31	8000	264.60	2676	21.7	67.61
	882.35	9000	251.80	2968	23.2	65.26
	980.39	10000	239.00	3260	24.5	62.66
	1078.43	11000	226.20	3552	25.5	59.87
	1176.47	12000	213.40	3844	26.3	56.94
	1274.51	13000	200.60	4136	26.7	53.89
	1372.55	14000	187.80	4428	27.0	50.75
	1470.59	15000	175.00	4720	26.9	47.53
Stop...T	2810.97	28672	0.00	8712	0.0	0.00
Max... $P_0$	1405.48	14336	183.50	4526	27.0	49.68
Max...EF	463.70	4730	306.46	1721	14.9	71.98

REV. 00 DWG NO. ZK-

30  
 15  
**LANDA**  
 GEAR-BOX MOTOR  
 ZGA60RHH 9.2i No. \*\*\*\*\* A8044  
 DC 12V rpm: 370

DIRECTION OF ROTATION  




REV	WAS	DATE
-----	-----	------

X	±0.15	APPD. BY	孙名华 2019.12.20
X.X	±0.10		
X.XX	±0.05	CHKD. BY	李之强 2019.12.14
ANGLE	±1°		
TOLERANCE UNLESS SPECIFIED		DWN. BY	何家良 2019.12.14

MATL.  
 ZHE JIANG ZHENGKE  
 MOTOR CO. LTD

TITLE.	
MODEL.	ZGA60RHH-9.2i
PART NO.	A8044
SCALE: 1:1	LPROJ: 