



马达出厂规格 (MOTOR OUTGOING SPECIFICATION)

客户 (CUSTOMER) : _____

型号 (MODEL) : RBE. 1052024-011

版本号 (REV.) : A

日期 (DATE) : 2021. 07. 20

客户确认/日期

CONFIRM BY CUSTOMER/DATE

编制 (PREPARED) : CJ

审核 (CHECKED) : _____

批准 (APPROVED) : _____

1. 适用范围 (SCOPE)

本文规定的测试条件和技术要求适用于深圳市中驱电机有限公司交付的 RBE. 1052024-011 直流无刷电机。

This document defines the test standard and specification for RBE. 1052024-011 BLDC motor which is delivered by CHINA DRIVE MOTORS(SHENZHEN) CO., LTD.

2. 结构形式 (Construction-form)

- 2.1 马达结构 (Motor construction) : 轮毂电机
- 2.2 相数 (Number of phases) : 3相
- 2.3 铁芯槽数 (Core slot number) : 27
- 2.4 磁极数 (Number of magnet poles) : 30
- 2.5 霍尔机械角度 (Hall mechanical Angle) : 40°
- 2.6 硅钢片牌号 (Silicon steel type) : 50H310
- 2.7 永磁体牌号 (Magnet type) : N45SH
- 2.8 滚珠轴承 (Ball BEARING) : 6804-2RS/6903-2RS

3. 标准工作条件 (STANDARD OPERATING CONDITIONS)

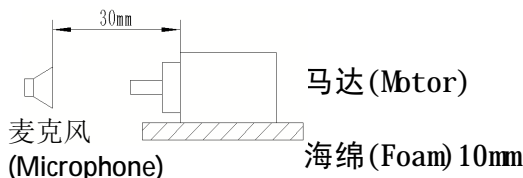
- 3.1 额定电压 (Rated Voltage) : DC 24V
- 3.2 运行条件 (Operating Condition) : 温度 (Temp.) : -10° C ~ +40° C
相对湿度 (Relative Humidity) : 5 ~ 85%
- 3.3 保存条件 (Storage Condition) : 温度 (Temp.) : -20° C ~ +40° C
相对湿度 (Relative Humidity) : 5% ~ 90%
- 3.4 旋转方向 (Direction of Rotation) : CCW&CW

4. 电气性能 (ELECTRICAL CHARACTERISTIC)

- 4.1 空载电流 (No Load Current) : ≤ 800 mA
- 4.2 空载转速 (No Load Speed) : 210 ± 5% RPM
- 4.3 负载电流 (Rated Load Current) : ≤ 5.0 A
- 4.4 负载转速 (Rated Load Speed) : 115 ± 5% RPM
- 4.5 额定负载 (Rated Load) : 5000 mN.m
- 4.6 额定功率 (Rated Power) : 62 W
- 4.7 附性能曲线 (Performance Curve Attached)

5. 机械特性 (MECHANICAL CHARACTERISTIC)

- 5.1 重量 (Weight) : ≈ 2.22 kg
- 5.2 外形 (Outline) : Refer to outline drawing
- 5.3 噪音 (Noise) : ≤ 60 dB(A)

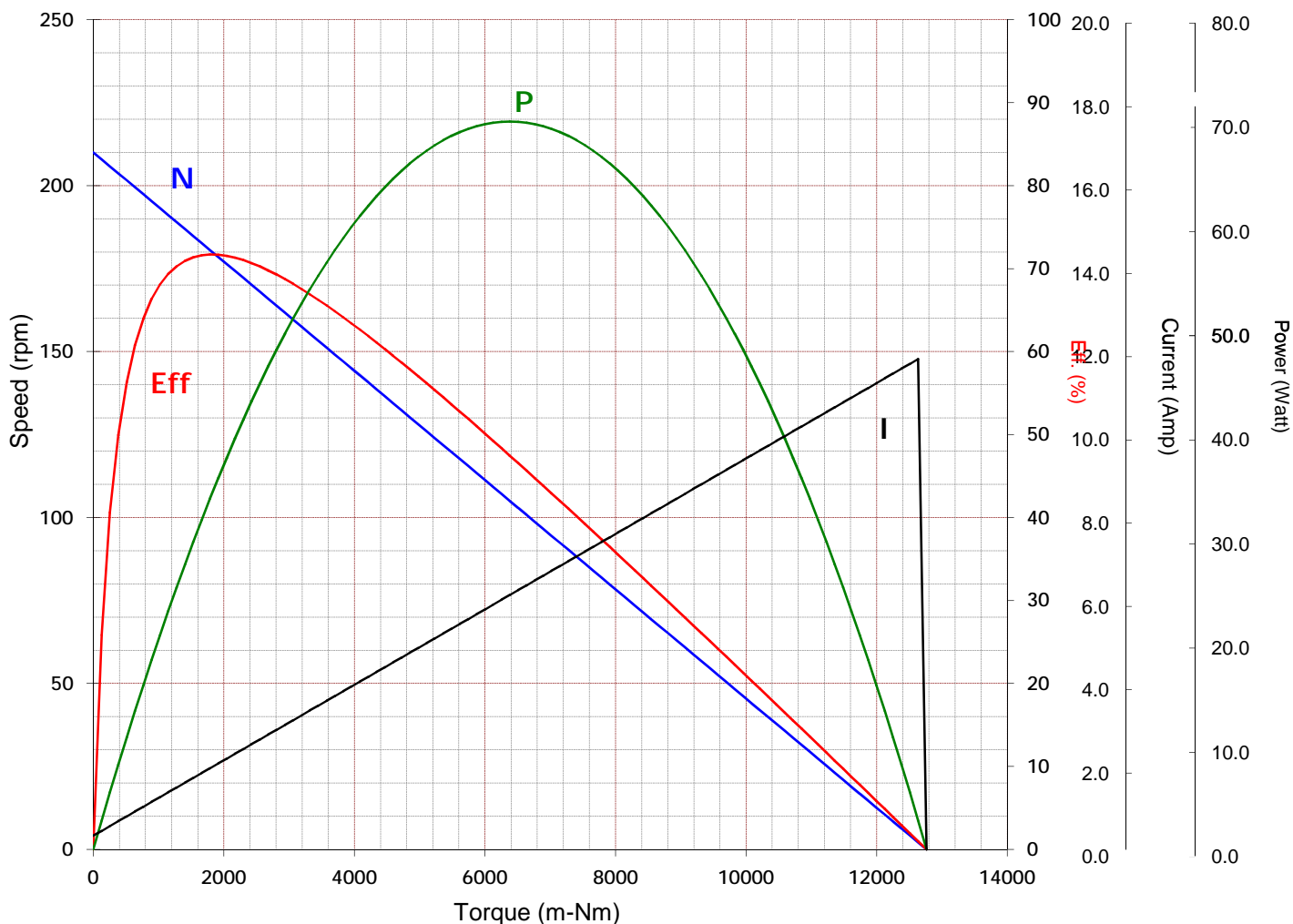


测试条件: 常温常湿, 背景噪音 < 25dB(A), 距离马达端面 30cm, 额定电压空载运行。
Test Condition: Normal temp. and humidity, background noise is 25dB(A) Max., 30cm away from motor mounting surface, rated voltage and no load.

RBE.1052024-011 Performance Curve

SOF NO. : 0
 Proposal No: 0
 Winding : 0.75 - 30
 Motor test reference no : Test

Date : 2021-7-20



Performance (In an ambient temperature of 25 -30 C)
 Motor tested rapidly to prevent significant temperature rise.

At a constant voltage of **24.12** Volts
 With a circuit resistance **0.000** Ohms

AT No Load

Speed : 210 Rpm
 Current: 0.330 Amp

At stall (Extrapolated)

Torque : 12763.343 m-Nm
 Current: 11.933 Amp

At maximum efficiency

Efficiency : 71.69 %
 Torque : 1819.881 m-Nm
 Speed : 180 Rpm
 Current : 1.984 Amp
 Output : 34.315 Watts

At maximum power

Torque : 6381.671 m-Nm
 Speed : 105 Rpm
 Current : 6.131 Amp
 Output : 70.170 Watts

Characteristics

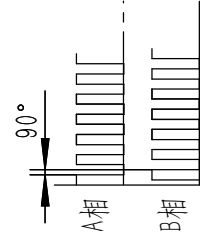
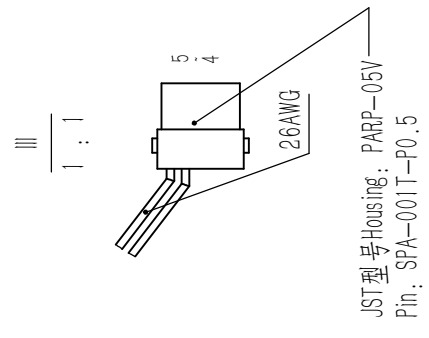
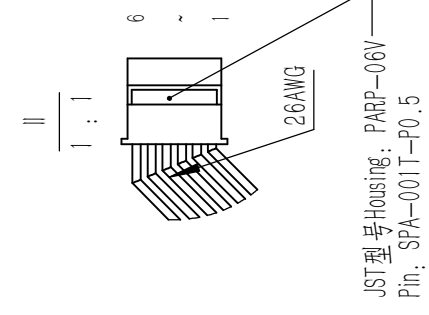
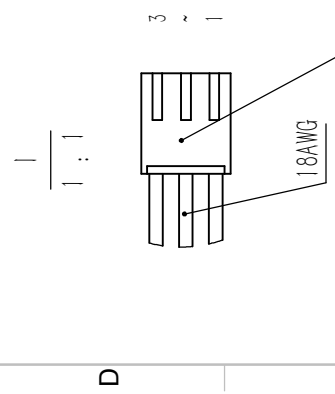
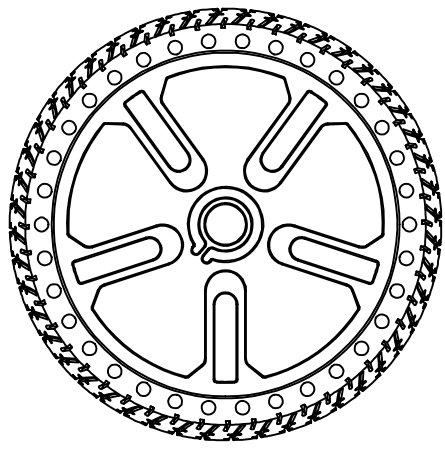
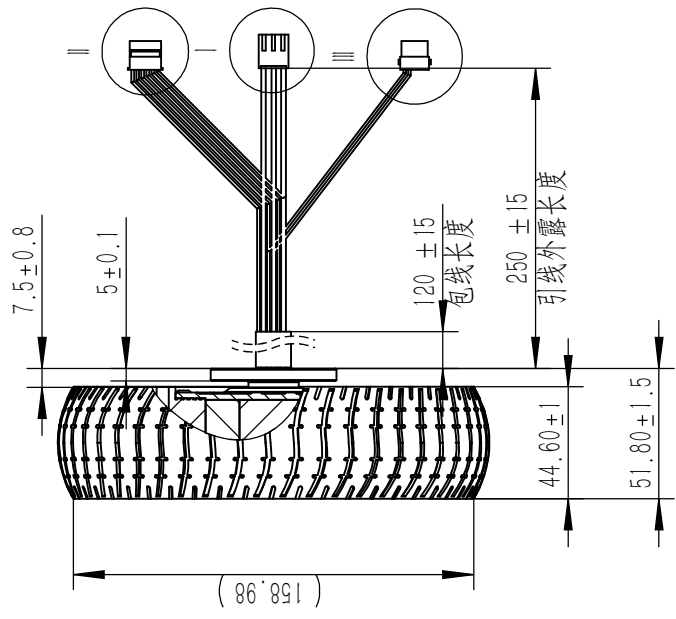
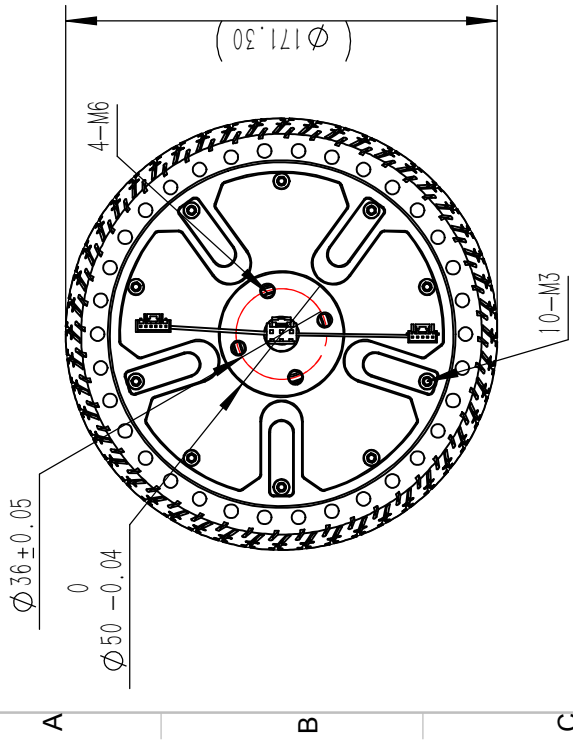
Torque Constant : 1100.036 m-Nm/Amp
 E.M.F Constant : 1100.036 mV/rad/sec
 Dy. Resistance : 2.021 Ohms
 Motor Regulation: 0.016 Rpm/m-Nm

Calculation

At Torque Level: 2000.000 m-Nm

Speed : 177.1 Rpm
 Current : 2.148 Amp
 Efficiency : 71.59 %
 Output : 37.090 Watts

COMPUTER PRINT-OUT NOMINAL MOTOR CURVES.
 Performance and characteristics are measured based on limited motor samples only.



JST型号Housing: VHR-3N
Pin: SVH-21T-P1.1

JST型号Housing: PARP-06V
Pin: SPA-001T-P0.5

JST型号Housing: PARP-05V
Pin: SPA-001T-P0.5

总表

I	1	黄AWG18#	W
	2	绿AWG18#	V
	3	蓝AWG18#	U
II	1	黑AWG26#	GND
	2	黄AWG26#	HALL U
	3	蓝AWG26#	HALL V
	4	绿AWG26#	HALL W
	5	红AWG26#	+5V
	6	紫AWG26#	NTC(20K)
III	4	灰AWG26#	编码器B
	5	白AWG26#	编码器A
IV	编码器线数 800线		

深圳市中驱电机有限公司 China Drive Motors(ShenZhen)Co.Ltd		TITLE 6.5寸轮毂电机外形图 DRAWN 曹建20210720 CHECKED APPROVED SHEET: 1 OF 1 REVISION: A	
SCALE: 1:3	COMPLY WITH DIRECTIVE 2011/65/EU(ROHS).	MATERIAL	
UNIT: mm	Unspecified Tolerance (GB/T 1804 - m)	FINISHING	
Linear Dimensions	0.5~3 >3~6 >6~30 >30~120 >120~400 >400~1000 >1000~2000 >2000~4000		
Dimensions	±0.1 ±0.1 ±0.2 ±0.3 ±0.5 ±0.8 ±1.2 ±2		
Fillet & Chamfer	0.5~3 >3~6 >6~30 >30		
Dimensions	±0.2 ±0.5 ±1 ±2		
Angular Dimensions	Permissible deviations for ranges of lengths of shorter side of the angle concerned		
	-10 >10~50 >50~120 >120~400 >400		
REFERENCE REV.	DATE	DESCRIPTION	
1			
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