



马达出厂规格 (MOTOR OUTGOING SPECIFICATION)

客户(CUSTOMER): JWA
型号(MODEL): RBE.1052024-022
版本号(REV.): S1
日期 DATE): 2022.03.30

客户确认/日期 CONFIRM BY CUSTOMER/DATE	
编制(PREPARED): 曹建	
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直流无刷电机。

RBE.1052024-022

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

RBE.1052024-022

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): | 16003-2RS |
| 2.9 编码器类型 (Encoder type): | 磁编码器 (1024线) A/B |

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

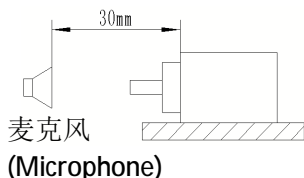
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|-----------------------------------|---|
| 3.1 额定电压 (Rated Voltage): | DC 24V |
| 3.2 运行条件 (Operating Condition): | 温度 (Temp.): -10°C~+40°C
相对湿度 (Relative Humidity): 5~85% |
| 3.3 保存条件 (Storage Condition): | 温度 (Temp.): -20°C~+40°C
相对湿度 (Relative 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 | A |
| 4.4 负载转速 (Rated Load Speed): | 115±5% | RPM |
| 4.5 额定负载 (Rate Load): | 5000 | mN.m |
| 4.6 附性能曲线 (Performance Curve Attached) | | |

5. 机械特性 (MECHANICAL CHARACTERISTIC)

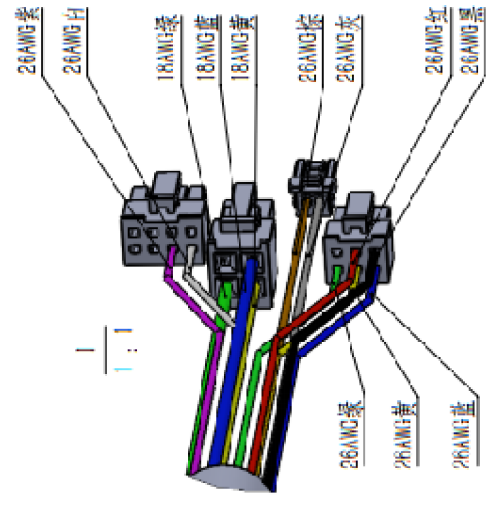
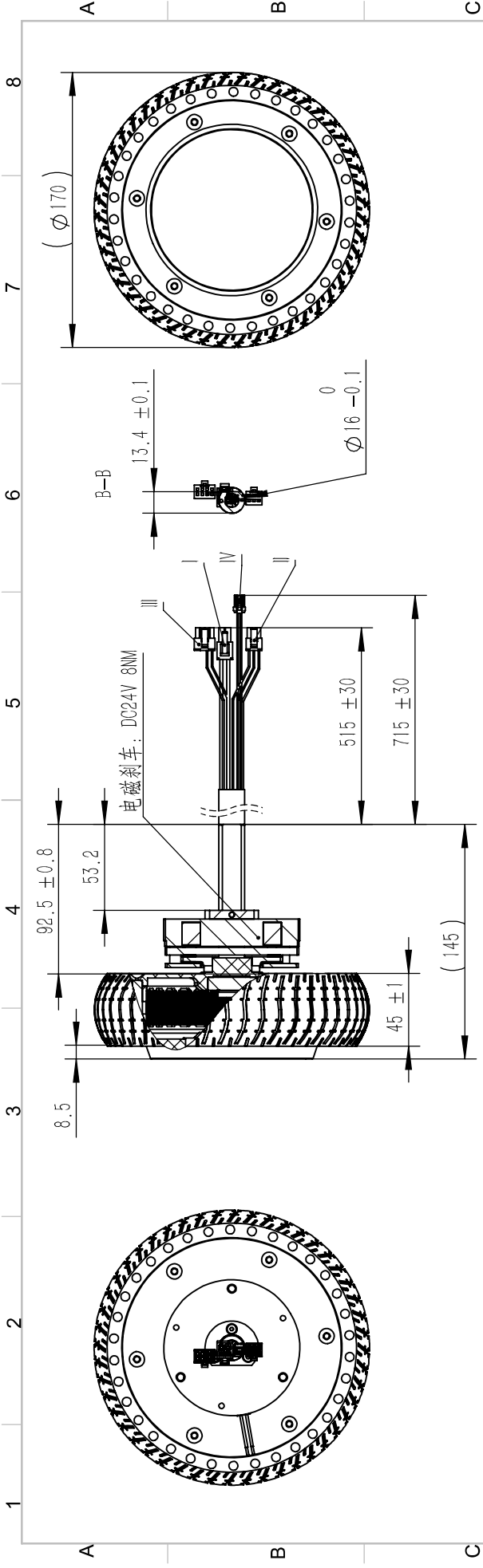
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|-------------------|--------------------------|-------|
| 5.1 重量 (Weight): | ≈3650 | g |
| 5.2 外形 (Outline): | Refer to outline drawing | |
| 5.3 噪音 (Noise): | ≤60 | dB(A) |



马达 (Motor)

海绵 (Foam) 10mm

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.



I	MOLEX: 39012040 (三相线)	18AWG黄 18AWG绿 18AWG蓝	U V W
II	MOLEX: 430250600 (霍尔线)	26AWG红 26AWG黑 26AWG蓝 26AWG黄 26AWG绿	+5V GND HALL U HALL V HALL W
III	MOLEX: 430250800 (磁编信号线)	26AWG白 26AWG紫	A+ B+
IV	MOLEX: 513820200 (温度传感器)	26AWG棕 26AWG灰	10K热敏电阻 10K热敏电阻

深圳市中驱电机有限公司
China Drive Motors (ShenZhen) Co., Ltd.

6.5寸轮毂电机 (带电磁刹车)

曹建 20220330

DRAWN: [Signature]
CHECKED: [Signature]
APPROVED: [Signature]

SHEET: 1 OF 1 REVISION: S1

DRAWING NO.: RBE.1052024-022

SCALE: 1:3 (COMPLY WITH DIRECTIVE 2011/65/EU (RoHS))

UNIT: mm	SCALE: 1:3 (COMPLY WITH DIRECTIVE 2011/65/EU (RoHS))	MATERIAL	FINISHING
Unspecified	Tolerance (GB/T 1804 - m)		
Linear	>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		
Fit & Chamfer	0.5-3 >3-6 >6-30 >30		
Dimensions	±0.2 ±0.5 ±1 ±2		
Angular	Permissible deviations for ranges of lengths of shorter side of the angle concerned		
Dimensions	>10 >10-50 >50-125 >125-400 >400		
	±1° ±30' ±20' ±10' ±5'		

DATE: _____

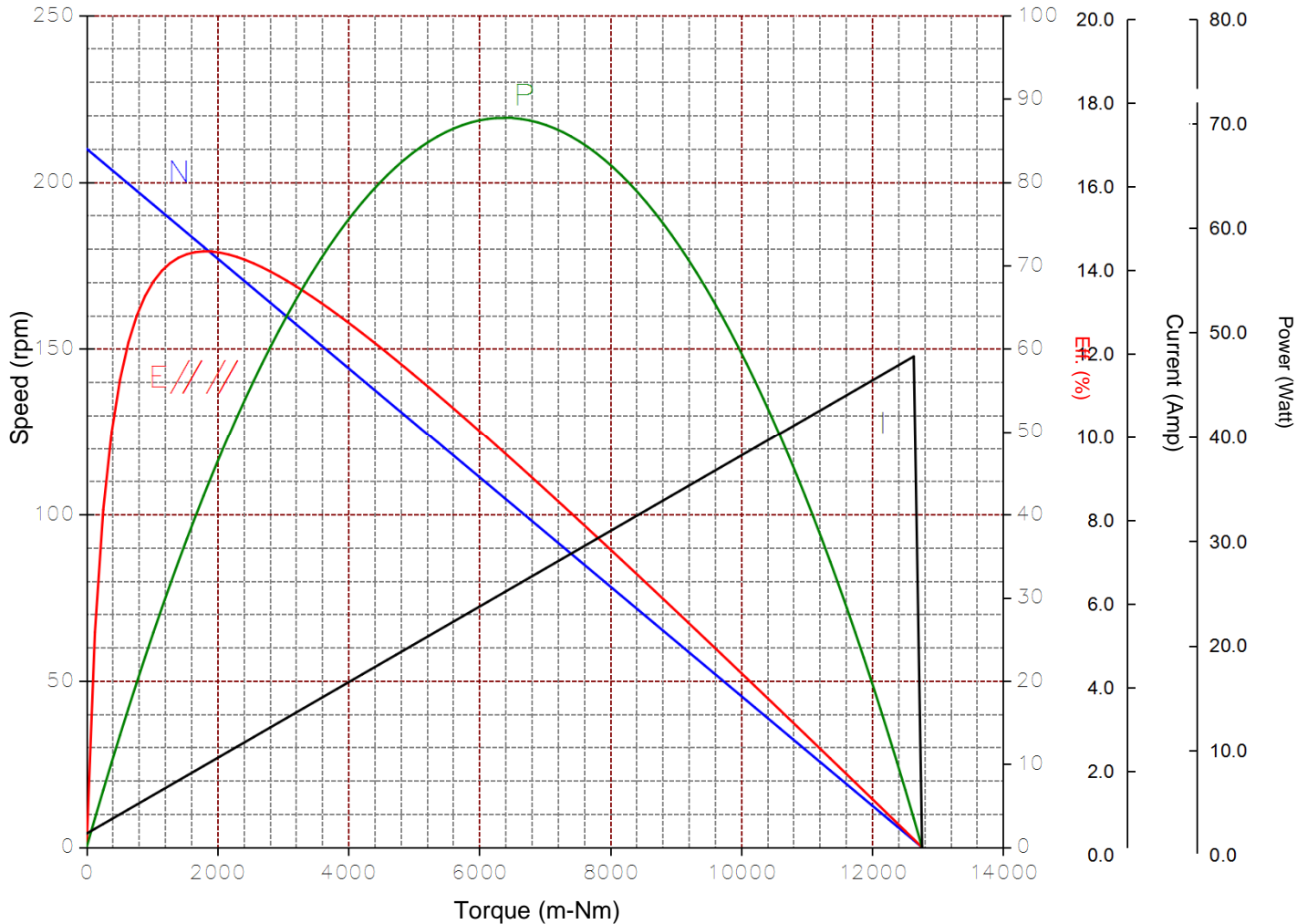
DESCRIPTION: _____

REFERENCE [REV.]: _____

RBE.1052024-022 Performance Curve

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

Date : 2022-3-30



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 : 70.177 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