

受 控 文 件

直流无刷无齿槽电机规格书
SLOTLESS BRUSHLESS DC MOTOR SPECIFICATIONS

鸣志电器(太仓)有限公司

规格 Specifications		Values	Tolerance	Unit
1. 电机参数 Motor parameters				
1.1	轴承类型 Bearings type of motor	Ball bearing		
1.2	电机极数 Number of poles	2		
1.3	相数 Number of phases	3		
1.4	绝缘等级 Insulation class	F (155°C)		
1.5	相间电阻 Terminal resistance phase to phase	0.551	±8%	Ω
1.6	相间电感 Terminal inductance phase to phase	104	Typical	μH
1.7	速度常数 Speed constant	418.6	±10%	rpm/V
1.8	转矩常数 Torque constant	22.81	Typical	mNm/A
1.9	速度/转矩斜率 Speed/torque gradient	10.1	Typical	rpm/mNm

2. 齿轮箱参数 Gearhead data				
2.1	齿轮箱类型 Type of gearhead	Planetary gearhead		
2.2	轴承类型 Bearings type of gearhead	Ball bearing		
2.3	名义减速比 Nominal reduction ratio	34.98	Nominal	X:1
2.4	精确减速比 Absolute reduction ratio	3078/88		
2.5	级数 Number of stages	2		
2.6	平均空载回差 Average backlash no load	2	Typical	°
2.7	旋转方向 Rotation direction(input/output)	=		
2.8	轴向间隙 Axial play	≤0.3		mm
2.9	径向间隙 Radial play[mm from flange]	≤0.1[12]		mm
2.10	最大轴向负载 Max. axial load(dynamic)	30		N
2.11	最大径向负载 Max. radial load[mm from flange]	120[12]		N
2.12	最大允许安装力 Max. force for press fits	30		N

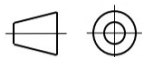
规格 Specifications		Values	Tolerance	Unit
3. 整机常规特性 Overall General Data				
3.1	额定电压 Nominal voltage	24		V dc
3.2	空载转速 No load speed	285	±10%	rpm
3.3	空载电流 No load current	560	±50%	mA
3.4	额定转矩 Rated torque	1.65	Typical	Nm
3.5	额定电流 Rated current	2.43	±10%	A
3.6	额定转速 Rated speed	245.9	±10%	rpm
3.7	最大效率 Maximun efficiency	68	Typical	%
3.8	堵转转矩 Stall torque	27	Typical	Nm
3.9	堵转电流 Stall current	43.6	Typical	A
3.10	重量 Weight	427	±5%	g
3.11	使用温度范围 Ambient temperature	-40~+80		°C

4. 其他 Others				
4.1				
4.2				
4.3				
4.4				

备注 Notes:

- 所有参数均在20°C给定。大部分参数随温度变化。
All parameters are given at 20°C. Most of parameters will vary with temperature.
- 当电机固定在导热支架上时，热阻通常可降低50%。
The thermal resistance can be typically decreased of 50% when motor is fixed on a thermally conductive support.
- 电机电气安全标准符合<GB/T 21418中6.6介电性能>的要求。
The electrical safety standard of the motor shall meet the requirements of <GB/T21418 6.6 Dielectric properties>.

Unit:mm

第一角画法
First angle method未注线性与角度尺寸公差
Tolerances for linear and angular dimensions
without individual tolerance indications
GB/T 1804-m eqv ISO 2768-1:m未注形状与位置尺寸公差
Geometrical tolerance for features without
individual tolerance indications
GB/T 1184-K eqv ISO 2768-2:K

批准 Approve

标准化 Standardize

工艺 Process Review

审核 Check

设计 Design

MOONS'
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A0	原始版本 Original revision	2023.04.23	UNLESS OTHERWISE SPECIFIED	NAMES	SIGNATURE	DATE	Drawing No: 4611180000878	Rev. A0	SCALE: 1:1	Sheet 1 of 2
REV.	版本记录 REVISION RECORD	DATE								

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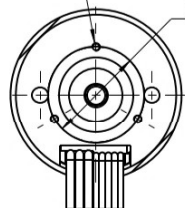
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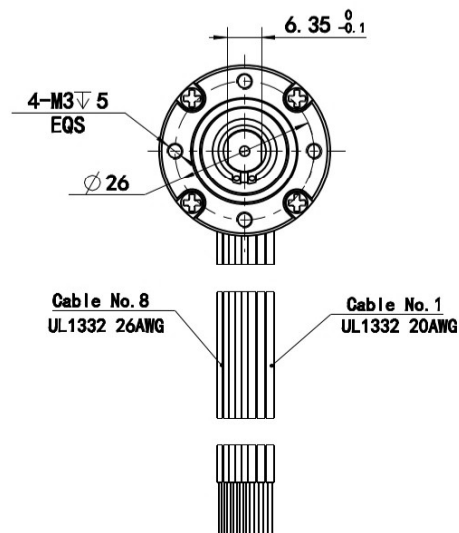
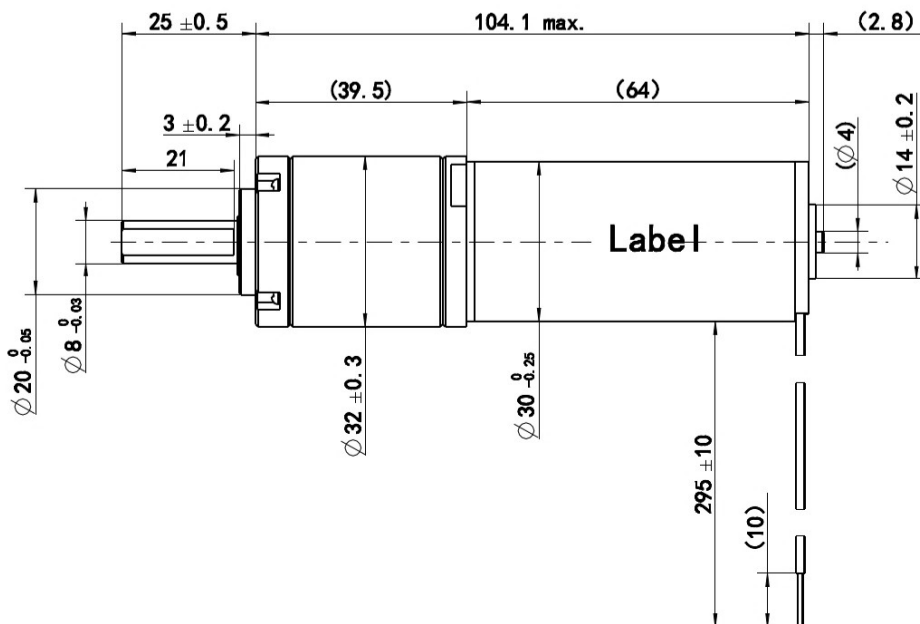
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3-M1.6-6H▽3EQS

Ø18



Encoder Cable

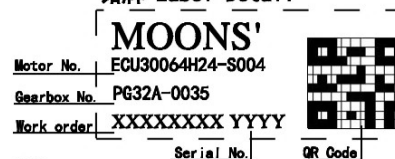


线束相对于前盖安装孔角度偏差: $\leq \pm 45^\circ$
Alignment of cable relative to front mounting holes: $\leq \pm 45^\circ$

Connection of Motor

Cable No.	信号/Signal	颜色/Color
1	U	红/red
2	V	黑/black
3	W	白/white
4	V_{hall} 3~24 VDC	绿/green
5	GND	蓝/blue
6	Hall 1	黄/yellow
7	Hall 2	棕/brown
8	Hall 3	灰/grey

铭牌 Label Detail



备注/Note:
1. 铭牌用激光标刻在电机机壳表面, 目视水平居中;
The label is laser engraved on the motor housing in middle.
2. 二维码为含整机型号、生产工单号和序列号。
The QR code includes motor model No., work order and serial No.

Unit:mm

第一角画法

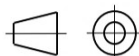
First angle method

未注线性与角度尺寸公差

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NAMES

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SCALE: 1:1

Sheet 2 of 2

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