



电机手册

湖南伊米森科技有限公司

Imison(Hunan) Technology Co., Ltd.

www.imison.com

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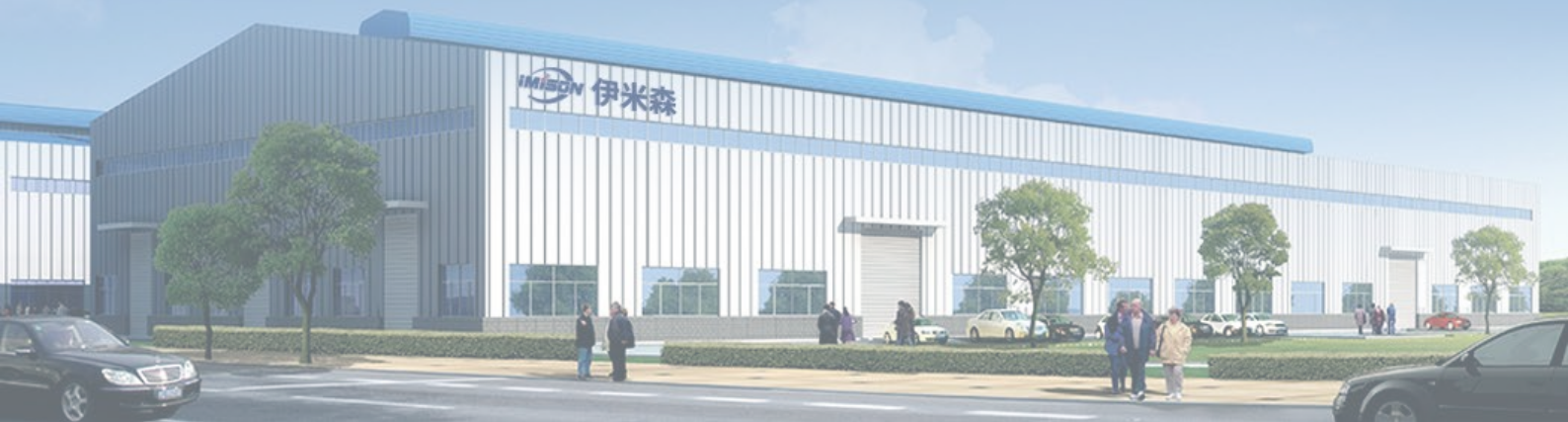
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■ 企业简介 / Enterprise Profile

湖南伊米森科技有限公司成立于2017年，是一家从事精密微特电机研发、生产、销售于一体的高新技术企业。公司拥有资深的机械、电气、自动化设计研发团队和强大的精密加工制造及装配能力，自成立以来，深耕智能制造、3C、汽车制造、食品、医疗、新能源等重点领域，业已形成多领域、全方位产品布局。

公司已通过GB/T19001-2016 质量管理体系认证、GB/T24001-2016 环境管理体系认证、GB/T45001-2020 职业健康安全管理体系认证、IATF16949: 2016 质量管理体系认证。公司核心产品“精密智能抓取系统”和“夹持设备”已获得多项专利，先后被认定为“国家高新技术企业”、“国家专精特新小巨人企业”、“湖南省省级技术中心”、“湖南省智能制造系统解决方案供应商”等荣誉称号，是全球多家行业头部企业的合格供应商。

■ 企业资质 / Enterprise Qualification

强化品质管理, 提高企业效益, 伊米森能持续稳定地向客户提供预期和满意的合格产品。



■ 产品创研 / Innovation

伊米森始终以产品技术创新为发展动力，沉淀创研成果，拥有经验丰富、创新能力强的技术研发团队，现已取得发明专利38项、外观设计专利28项、实用新型专利190项、软件著作权15项。



■ 企业荣誉 / Enterprise Honor



■ 产品介绍 / Product introduction

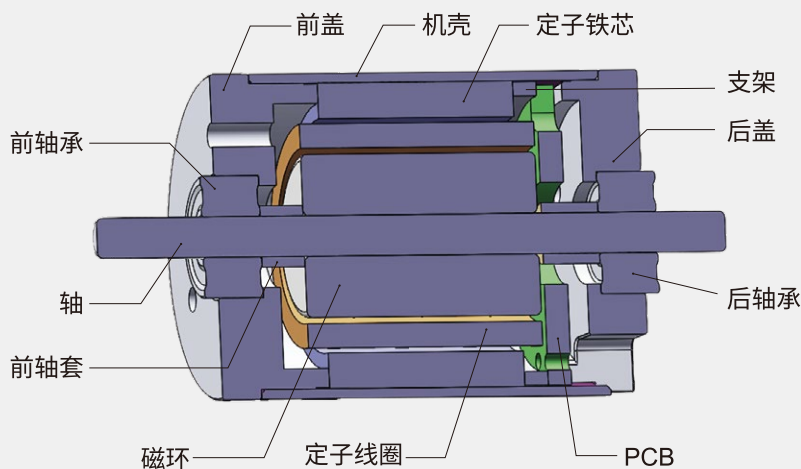


伊米森致力于精密电动驱动系统的研发与制造,掌握空心杯绕组技术、微型机电一体化集成技术与精密制造工艺等核心技术,并通过自研全自动化关键工艺设备,实现电机的高功率密度、高动态响应与性能一致性,满足航空航天、医疗设备、工业自动化及机器人等领域对精密控制的严苛需求。

我们支持电机与行星齿轮箱、传感器、控制器的灵活组合,快速构建紧凑型驱动系统。

我们提供深度定制化服务,从参数定制到功能集成定制,更精准地满足客户需求。依托国际认证的品质体系与持续研发投入,致力于成为推动智能时代前行的精密驱动引领者,赋能未来科技发展。

无刷空心杯电机结构图



电机应用工作场景

航空航天领域

低成本、高可靠性、超低噪音、超长寿命

应用

航空航天等领域,电机部件必须经过特殊设计,不仅能在极端温度下运行 ($-55^{\circ}\text{C}\sim 120^{\circ}\text{C}$),而且能轻松启动,并在工作范围内提供高输出。

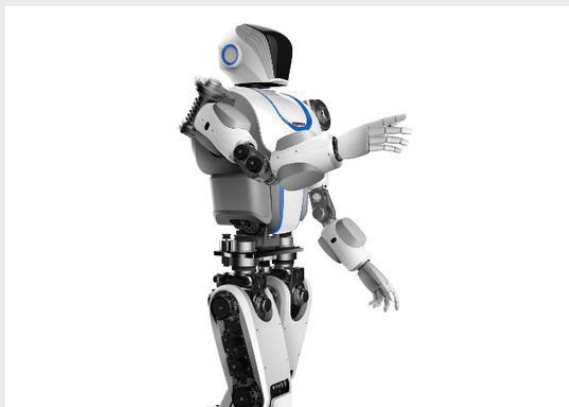
优势

电机驱动系统功耗低且尺寸紧凑,没有齿槽转矩,电磁噪音小,可靠性高,非常适合于对产品质量有极高要求的航空航天行业。



机器人领域

小巧精密、高效灵活、可靠耐用



应用

驱动小型机器人的关节运动,实现精确动作;为微型机器人的末端执行器提供动力,完成精细操作。还可在机器人内部的散热、传感等辅助系统发挥作用。

优势

体积小巧,便于安装在空间有限的机器人内部;具有较高的精度和响应速度,能满足机器人对运动控制的严格要求;同时,结构紧凑、维护成本低,为机器人的高效运行提供有力保障。

电机应用工作场景

医疗器械

高功率输出持续高效

应用

实验室分析设备, 录制设备, 流体泵管理。

可进行实验设备分析用的样品检测和液体抽取, 使打印机辊处于运转状态, 并通过吸泵和吸液管分配和抽取液体。

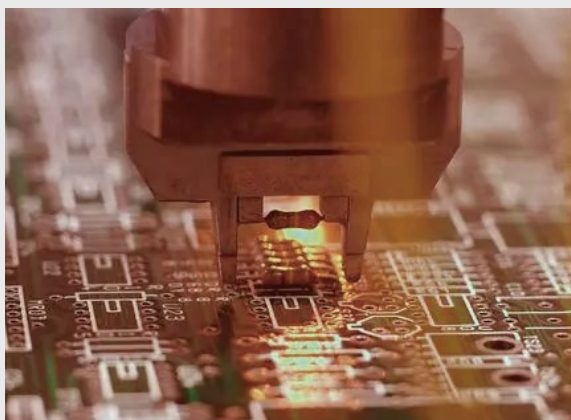
优势

提高了功率密度并降低了电机调节参数, 从而减少了电机的散热量, 使电机在使用期限内可持续高效工作。伊米森电机提供三种框架尺寸, 介于 12 毫米到 22 毫米, 以实现最佳的功率重量比。



半导体与电子装配

无与伦比的加速度, 持久稳定的性能表现



应用

表面贴装设备: 有助于实现电脑芯片组装所要求的晶片传送、分拣、馈送阀驱动和高精准定位等多重操作。

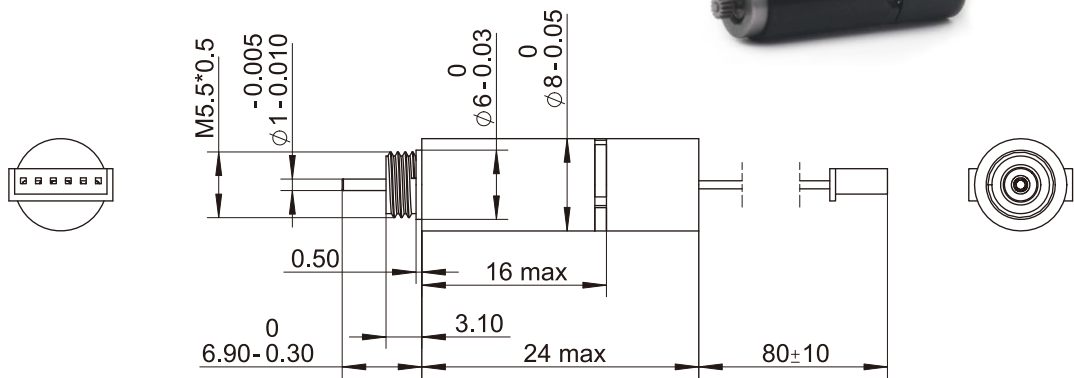
优势

具有低惯性, 可无缝提供高效电子组装设备所需的高加速度、低电磁干扰和频繁的启动——停机操作。由于它以更小尺寸更轻包装提供更低的电机调节参数, 其性能可让您在需要长时间昼夜不停持续运转的设备应用中获得更高的产量、更低的焦耳加热、高速和高效等至关重要的额外性能优势。

空心杯电枢绕组
Φ08*L16mm 有刷电机 Brush DC motor



DC MOTOR

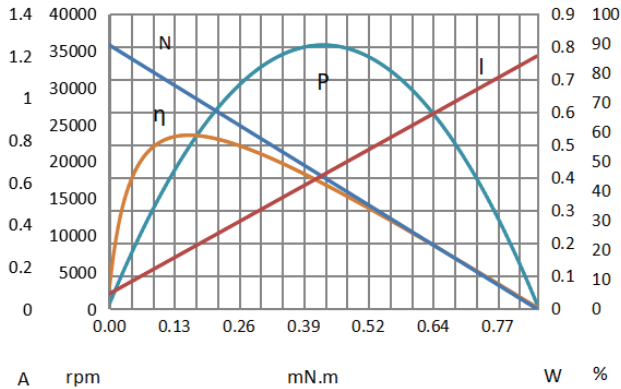


					电机型号Motor Model	
电机参数 Motor Data					DC0816M-24	
1	额定电压	Nominal voltage	V/DC	24		
2	额定转速	Nominal speed	rpm	30240		
3	额定电流	Nominal current	A	0.06		
4	额定转矩	Nominal torque	mNm	0.28		
5	空载转速	No-load speed	rpm	36000		
6	空载电流	No-load current	mA	15		
7	最大效率	Max. efficiency	%	60.3		
8	最大连续转矩	Max continuous torque	mNm	0.43		
9	堵转电流	Stall current	A	0.30		
10	堵转转矩	Stall torque	mNm	1.72		
电机常数 Motor Constants						
11	电机阻抗	Terminal resistance	Ω	80		
12	电机感抗	Terminal inductance	mH	0.16		
13	转矩常数	Torque constant	mNm/A	6.05		
14	转速常数	Speed constant	rpm/V	1500		
15	转数/转矩常数	Speed/torque constant	rpm/mNm	20885.9		
16	机械时间常数	Mechanical time constant	ms			
17	转子惯量	Rotor inetia	gcm ²	0.10		
其它 Others				电机特性曲线 (Motor Characteristics Curve)		
18	极对数	Number of pole pairs		1		
19	相数	Number of phase		7		
20	重量	Weight of motor	g	6.5		
21	噪音	Typical noise level	dB	≤40		
电机端子定义Motor terminal defenition						
红	Red	P1	M+	PVC		
黄	Yellow	P2	VCC	PVC		
白	White	P3	A	PVC		
蓝	Blue	P4	B	PVC		
棕	Palm	P5	GND	PVC		
黑	Black	P6	M-	PVC		

The graph displays four motor characteristics curves plotted against torque (mN.m) on the x-axis (0.00 to 0.77) and speed (rpm) on the left y-axis (0 to 40000). The right y-axis shows efficiency (η) from 0 to 1.0 and power (W) from 0 to 100. The curves are: Efficiency (η, blue line) peaking at ~0.603; Power (P, orange line) peaking at ~0.43 mNm; Torque (T, red line) increasing linearly; and Current (I, green line) increasing linearly. Key points on the torque curve include nominal torque (0.28 mNm) and stall torque (1.72 mNm).

Parameter	Torque (mN.m)	Speed (rpm)	Efficiency (%)	Power (W)
No-load	0.00	36000	~0.55	0
Nominal	0.28	30240	60.3	~10
Max Continuous	0.43	~25000	~0.60	~15
Stall	1.72	0	0	0

电机特性曲线 (Motor Characteristics Curve)



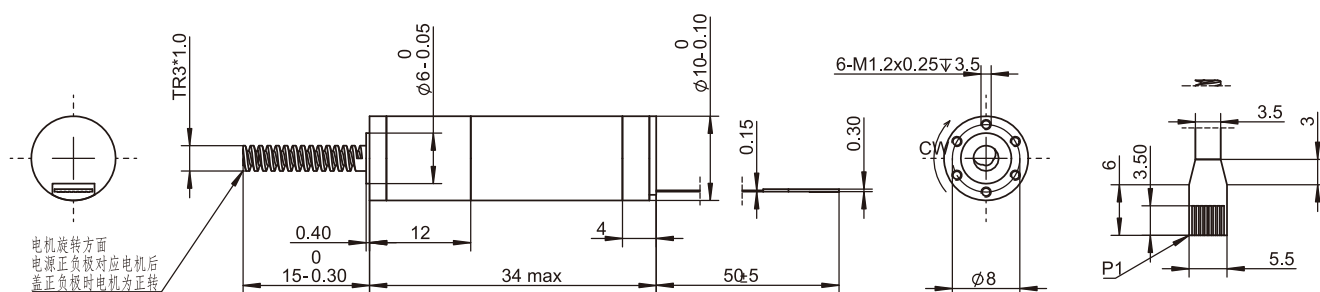
端子型号Terminal model:SH1.0-6Pin

空心杯电枢绕组

Φ10*L18mm 有刷电机 Brush DC motor



DC MOTOR



电机型号 Motor Model

GM10-DC1018M-BX

电机参数 Motor Data

1 额定电压 Nominal voltage	V/DC	12
2 额定转速 Nominal speed	rpm	17050
3 额定电流 Nominal current	A	0.63
4 额定转矩 Nominal torque	mNm	2.41
5 空载转速 No-load speed	rpm	27500
6 空载电流 No-load current	mA	38
7 最大效率 Max. efficiency	%	71.6
8 最大连续转矩 Max continuous torque	mNm	1.59
9 堵转电流 Stall current	A	1.6
10 堵转转矩 Stall torque	mNm	6.35

电机常数 Motor Constants

11 电机阻抗 Terminal resistance	Ω	7.5
12 电机感抗 Terminal inductance	mH	0.16
13 转矩常数 Torque constant	mNm/A	4.07
14 转速常数 Speed constant	rpm/V	2292
15 转数/转矩常数 Speed/torque constant	rpm/mNm	4327.8
16 机械时间常数 Mechanical time constant	ms	20.4
17 转子惯量 Rotor inertia	gcm ²	0.45

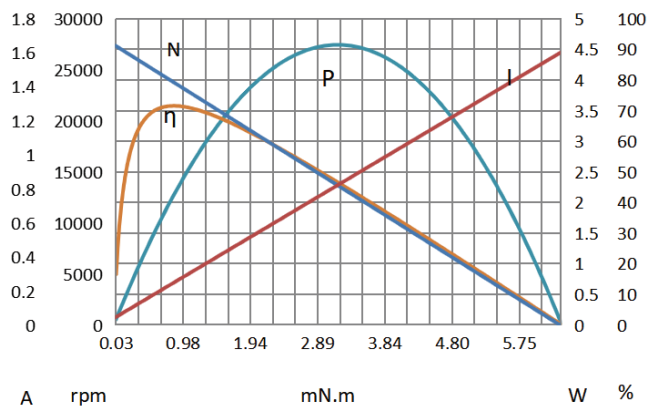
其它 Others

18 极对数	Number of pole pairs		1
19 相数	Number of phase		7
20 重量	Weight of motor	g	18
21 噪音	Typical noise level	dB	≤50

电机端子定义 Motor terminal definition

P1	Motor +	FPC
P2	VCC 3.3V~5V	FPC
P3	GND	FPC
P4	CS SSI	FPC
P5	CLK SSI	FPC
P6	DAT SSI	FPC
P7	NTC 10K	FPC
P8	Motor -	FPC

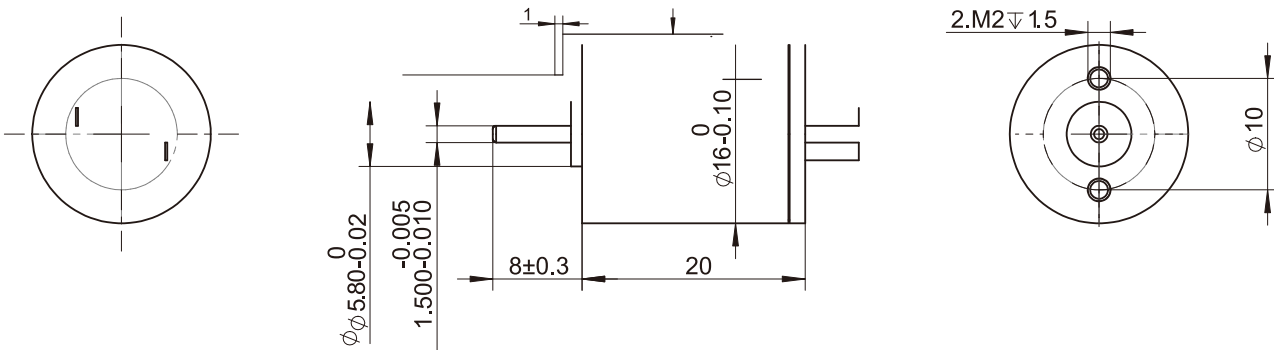
电机特性曲线 (Motor Characteristics Curve)



空心杯电枢绕组-稀有贵金属刷
Φ16*L20mm 有刷电机 Brush DC motor

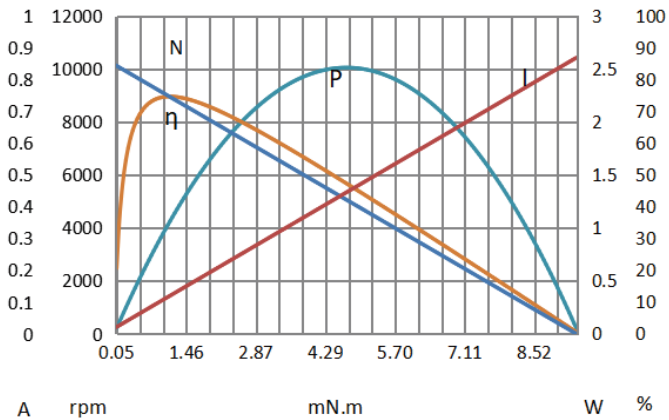


DC MOTOR



电机型号Motor Model		
DC1620M		
电机参数 Motor Data		
1 额定电压 Nominal voltage	V/DC	12
2 额定转速 Nominal speed	rpm	8100
3 额定电流 Nominal current	A	0.2
4 额定转矩 Nominal torque	mNm	2.2
5 空载转速 No-load speed	rpm	10200
6 空载电流 No-load current	mA	16
7 最大效率 Max. efficiency	%	74.7
8 最大连续转矩 Max continuous torque	mNm	2.35
9 堵转电流 Stall current	A	0.87
10 堵转转矩 Stall torque	mNm	9.42
电机常数 Motor Constants		
11 电机阻抗 Terminal resistance	Ω	13.79
12 电机感抗 Terminal inductance	mH	0.16
13 转矩常数 Torque constant	mNm/A	11.03
14 转速常数 Speed constant	rpm/V	850
15 转数/转矩常数 Speed/torque constant	rpm/mNm	1083.1
16 机械时间常数 Mechanical time constant	ms	5.1
17 转子惯量 Rotor inertia	gcm ²	0.45
其它 Others		
18 极对数 Number of pole pairs		1
19 相数 Number of phase		5
20 重量 Weight of motor	g	8.7
21 噪音 Typical noise level	dB	≤42
电机端子定义Motor terminal definition		
T1	VCC 12V	插脚
T2	GND	插脚

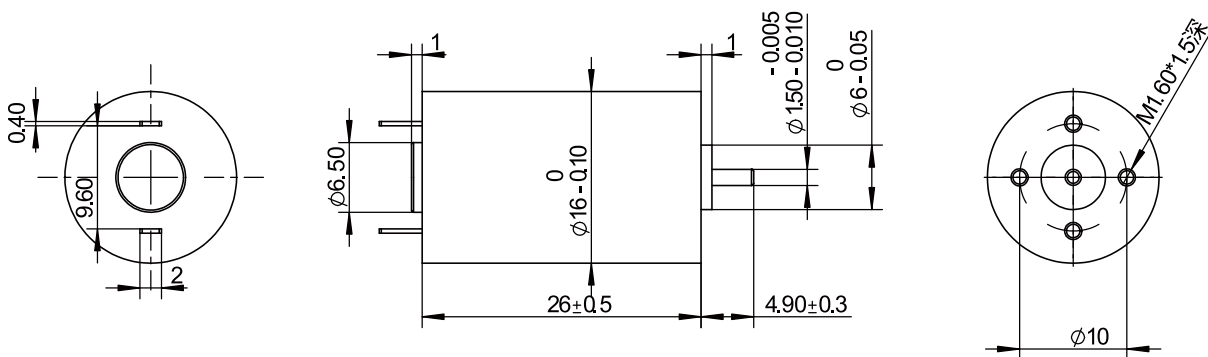
电机特性曲线 (Motor Characteristics Curve)



空心杯电枢绕组-稀有贵金属刷
Φ16*L26mm 有刷电机Brush DC motor



DC MOTOR



电机型号Motor Model

电机参数 Motor Data		DC1626M-12
1 额定电压 Nominal voltage	V/DC	12
2 额定转速 Nominal speed	rpm	11020
3 额定电流 Nominal current	A	0.29
4 额定转矩 Nominal torque	mNm	2.30
5 空载转速 No-load speed	rpm	12700
6 空载电流 No-load current	mA	38
7 最大效率 Max. efficiency	%	75
8 最大连续转矩 Max continuous torque	mNm	4.28
9 堵转电流 Stall current	A	1.97
10 堵转转矩 Stall torque	mNm	17.10

电机常数 Motor Constants

11 电机阻抗 Terminal resistance	Ω	5.80
12 电机感抗 Terminal inductance	mH	0.04
13 转矩常数 Torque constant	mNm/A	8.85
14 转速常数 Speed constant	rpm/V	1058
15 转数/转矩常数 Speed/torque constant	rpm/mNm	740
16 机械时间常数 Mechanical time constant	ms	3.40
17 转子惯量 Rotor inertia	gcm ²	0.40

其它 Others

18 极对数	Number of pole pairs		1
19 相数	Number of phase		5
20 重量	Weight of motor	g	26
21 噪音	Typical noise level	dB	≤50

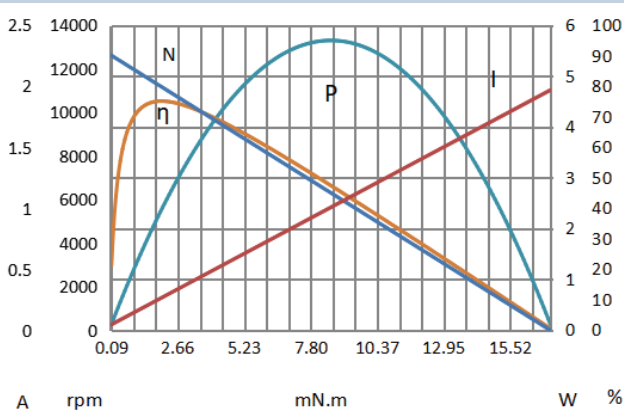
The graph displays four performance metrics over a common x-axis. The left y-axis measures torque (T) in Nm (1.5 to 2.5), and the right y-axis measures speed (n) in rpm (60 to 100). The blue line (T) shows a decreasing trend. The orange curve (η) represents efficiency, peaking at 1.0. The green curve (P) represents power, peaking at 2.5. The red line (n) shows a decreasing trend.

Parameter	Value 1	Value 2	Value 3	Value 4
Torque (T) [Nm]	2.5	2.0	1.5	1.0
Efficiency (η)	0.5	1.0	0.5	0.0
Power (P) [W]	0.5	2.5	1.5	0.5
Speed (n) [rpm]	100	80	60	40

电机端子定义Motor terminal definition

T1	P1	Motor+
T2	P2	Motor-

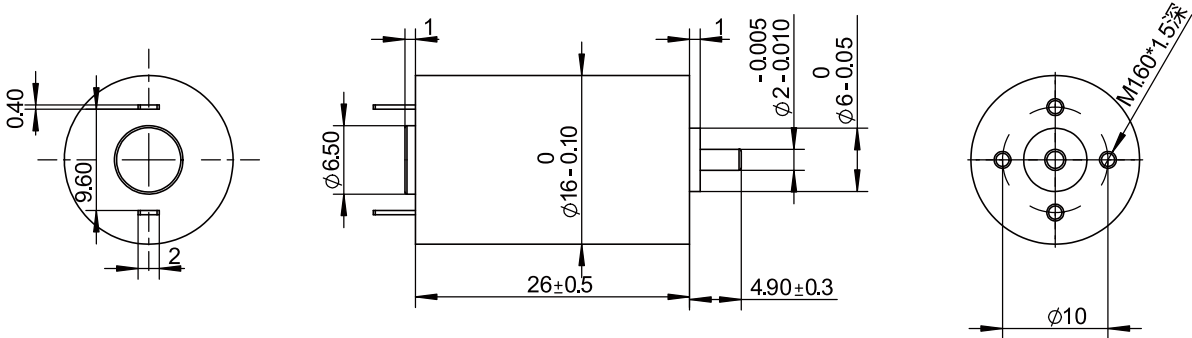
电机特性曲线 (Motor Characteristics Curve)



空心杯电枢绕组-石墨电刷
Φ16*L26mm 有刷电机Brush DC motor

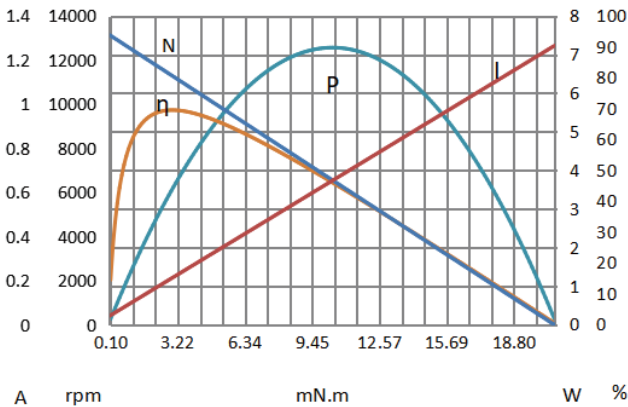


DC MOTOR



电机型号Motor Model		
DC1626T-24		
电机参数 Motor Data		
1 额定电压 Nominal voltage	V/DC	24
2 额定转速 Nominal speed	rpm	9500
3 额定电流 Nominal current	A	0.38
4 额定转矩 Nominal torque	mNm	5.43
5 空载转速 No-load speed	rpm	13200
6 空载电流 No-load current	mA	35
7 最大效率 Max. efficiency	%	69,50
8 最大连续转矩 Max continuous torque	mNm	6.25
9 堵转电流 Stall current	A	1.50
10 堵转转矩 Stall torque	mNm	25
电机常数 Motor Constants		
11 电机阻抗 Terminal resistance	Ω	16
12 电机感抗 Terminal inductance	mH	0.16
13 转矩常数 Torque constant	mNm/A	16.88
14 转速常数 Speed constant	rpm/V	550
15 转数/转矩常数 Speed/torque constant	rpm/mNm	635
16 机械时间常数 Mechanical time constant	ms	3.50
17 转子惯量 Rotor inertia	gcm ²	0.50
其它 Others		
18 极对数 Number of pole pairs		1
19 相数 Number of phase		5
20 重量 Weight of motor	g	26.5
21 噪音 Typical noise level	dB	≤50
电机端子定义Motor terminal definition		
T1	P1	Motor+
T2	P2	Motor-

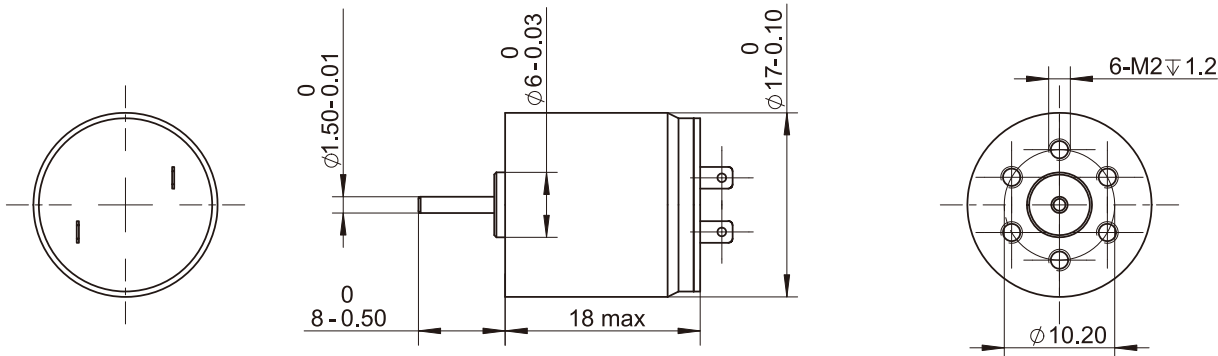
电机特性曲线 (Motor Characteristics Curve)



空心杯电枢绕组
Φ17*L18mm 有刷电机Brush DC motor



DC MOTOR



电机型号Motor Model

电机参数 Motor Data		DC1718M
1 额定电压 Nominal voltage	V/DC	12
2 额定转速 Nominal speed	rpm	6696
3 额定电流 Nominal current	A	0.31
4 额定转矩 Nominal torque	mNm	3.1
5 空载转速 No-load speed	rpm	10800
6 空载电流 No-load current	mA	16
7 最大效率 Max. efficiency	%	73.7
8 最大效率转速 Speed	rpm	9504
9 最大效率电流 Current	A	0.11
10 最大连续转矩 Max continuous torque	mNm	2.04
11 堵转电流 Stall current	A	0.8
12 堵转转矩 Stall torque	mNm	8.15

电机常数 Motor Constants

13 电机阻抗 Terminal resistance	Ω	15
14 电机感抗 Terminal inductance	mH	0.16
15 转矩常数 Torque constant	mNm/A	10.4
16 转速常数 Speed constant	rpm/V	900
17 转速/转矩常数 Speed/torque constant	rpm/mNm	1324.8
18 机械时间常数 Mechanical time constant	ms	6.2
19 转子惯量 Rotor inertia	gcm ²	0.45

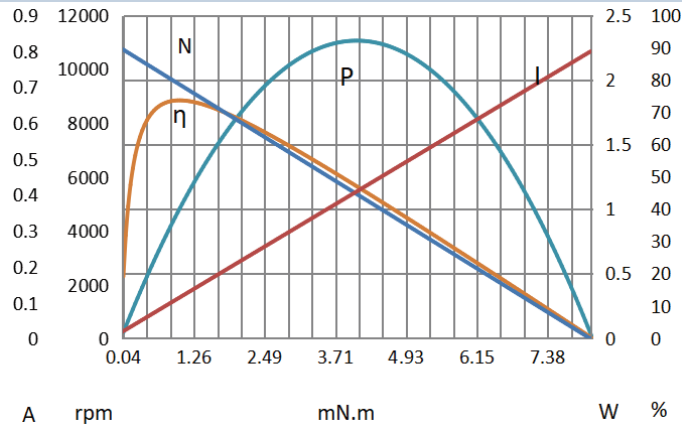
其它 Others

20 极对数	Number of pole pairs		1	0.9	12000		2.5	100
21 相数	Number of phase		5	0.8	10000		90	
22 重量	Weight of motor	g	8.7	0.7	8000		2	80
23 噪音	Typical noise level	dB	≤42	0.6			1.5	60

电机端子定义Motor terminal definition

T1	VCC 12V	插脚
T2	GND	插脚

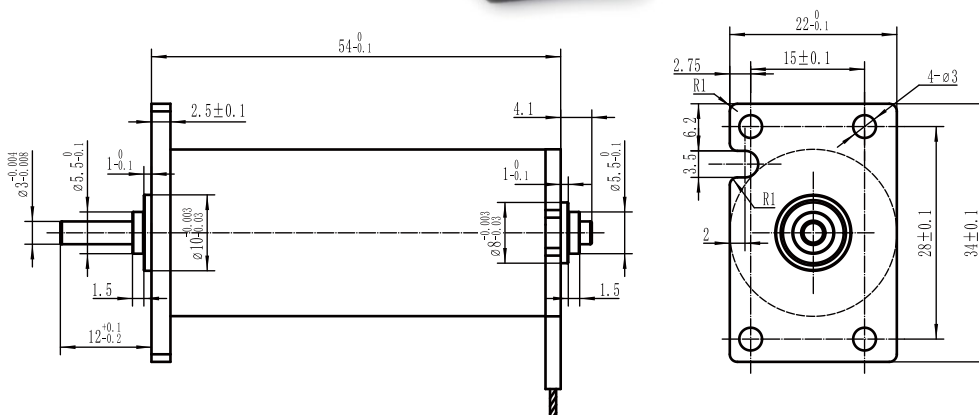
电机特性曲线 (Motor Characteristics Curve)



Φ22*L54mm 有刷电机 Brush DC motor



DC MOTOR

电机型号Motor Model

DC2254-2411

电机参数 Motor Data

1	额定电压	Nominal voltage	V/DC	24
2	额定转速	Nominal speed	rpm	10296
3	额定电流	Nominal current	A	1.67
4	额定转矩	Nominal torque	mNm	30.97
5	空载转速	No-load speed	rpm	11700
6	空载电流	No-load current	mA	80
7	最大效率	Max. efficiency	%	85.10
8	最大连续转矩	Max continuous torque	mNm	64.52
9	堵转电流	Stall current	A	13.33
10	堵转转矩	Stall torque	mNm	258.06

电机常数 Motor Constants

11 电机阻抗	Terminal resistance	Ω	1.80
12 电机感抗	Terminal inductance	mH	0.30
13 转矩常数	Torque constant	mNm/A	19.47
14 转速常数	Speed constant	rpm/V	488
15 转数/转矩常数	Speed/torque constant	rpm/mNm	45.30
16 机械时间常数	Mechanical time constant	ms	4
17 转子惯量	Rotor inertia	gcm ²	2.6

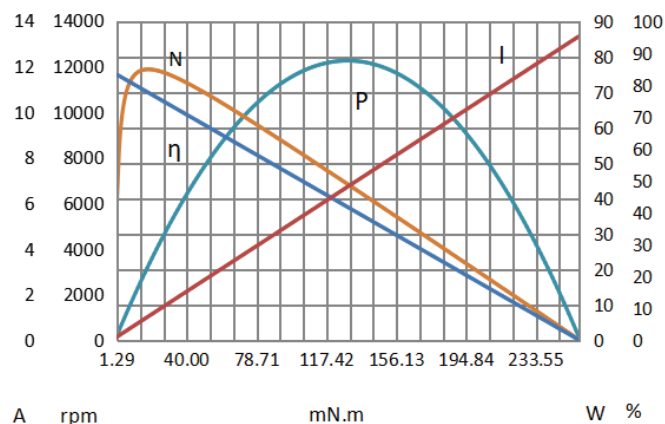
其它 Others

18 极对数	Number of pole pairs	1
19 换向片数	Commutator Bars	11
20 重量	Weight of motor	g 125
21 噪音	Typical noise level	dB ≤45

电机端子定义Motor terminal definition

红	M1	Motor +	铁氟龙
黑	M2	Motor -	铁氟龙

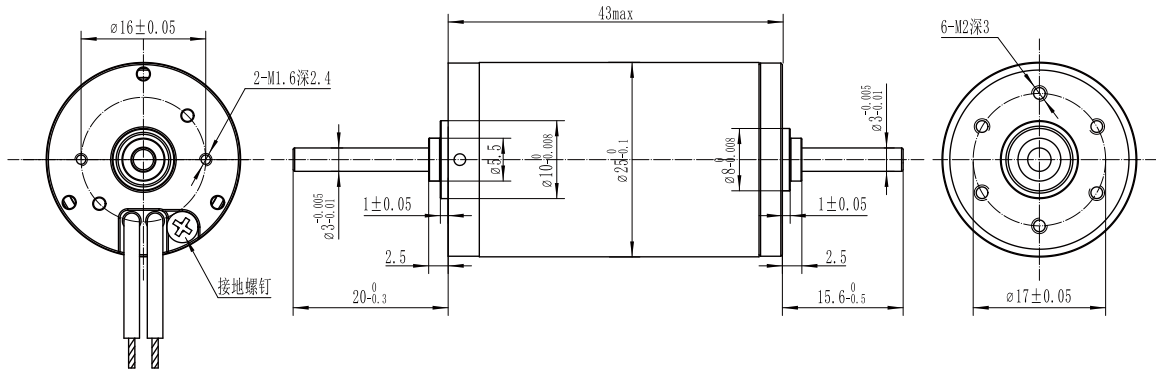
电机特性曲线 (Motor Characteristics Curve)



空心杯电枢绕组
Φ25*L43mm 有刷电机Brush DC motor



DC MOTOR



电机型号Motor Model

DC2543-2411

电机参数 Motor Data

1 额定电压 Nominal voltage	V/DC	24
2 额定转速 Nominal speed	rpm	9845
3 额定电流 Nominal current	A	1.55
4 额定转矩 Nominal torque	mNm	30.52
5 空载转速 No-load speed	rpm	11000
6 空载电流 No-load current	mA	80
7 最大效率 Max. efficiency	%	85.50
8 最大连续转矩 Max continuous torque	mNm	72.68
9 堵转电流 Stall current	A	14.11
10 堵转转矩 Stall torque	mNm	290.70

电机常数 Motor Constants

11 电机阻抗 Terminal resistance	Ω	1.70
12 电机感抗 Terminal inductance	mH	0.20
13 转矩常数 Torque constant	mNm/A	20.71
14 转速常数 Speed constant	rpm/V	458
15 转数/转矩常数 Speed/torque constant	rpm/mNm	37.80
16 机械时间常数 Mechanical time constant	ms	5.50
17 转子惯量 Rotor inertia	gcm ²	15

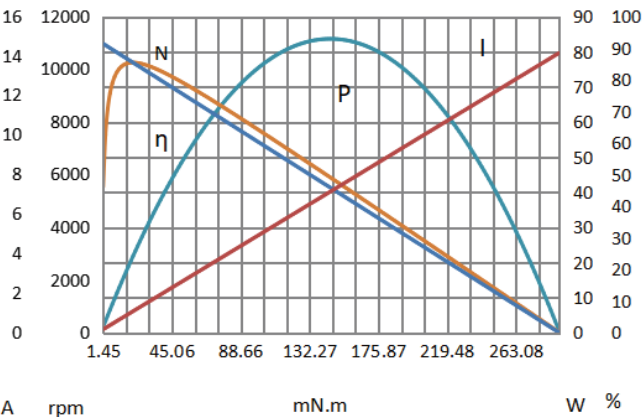
其它 Others

18 极对数	Number of pole pairs		1
19 换向片数	Commutator Bars		11
20 重量	Weight of motor	g	120
21 噪音	Typical noise level	dB	≤45

电机端子定义Motor terminal definition

红	M1 Motor +	铁氟龙
黑	M2 Motor -	铁氟龙

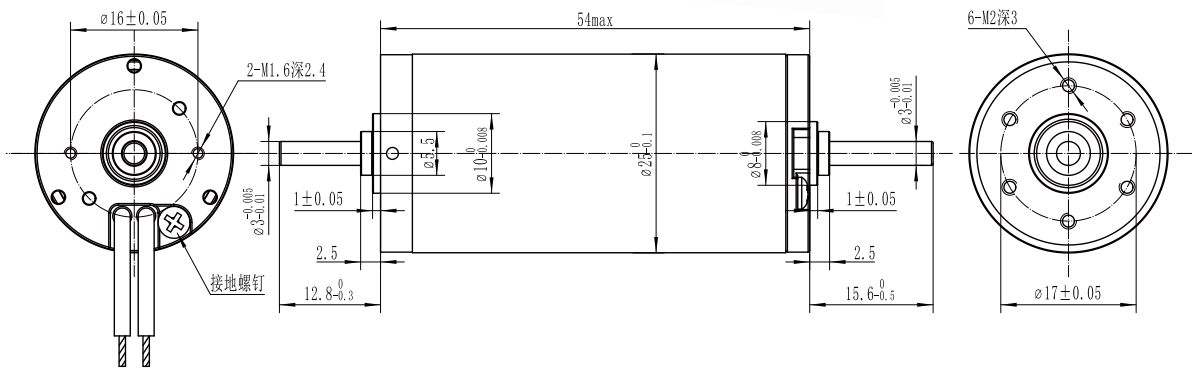
电机特性曲线 (Motor Characteristics Curve)



空心杯电枢绕组
Φ25*L54mm 有刷电机Brush DC motor



DC MOTOR



电机型号Motor Model

DC2554-2410

电机参数 Motor Data

1 额定电压 Nominal voltage	V/DC	24
2 额定转速 Nominal speed	rpm	8700
3 额定电流 Nominal current	A	1.24
4 额定转矩 Nominal torque	mNm	27.20
5 空载转速 No-load speed	rpm	10000
6 空载电流 No-load current	mA	50
7 最大效率 Max. efficiency	%	85.80
8 最大连续转矩 Max continuous torque	mNm	52.32
9 堵转电流 Stall current	A	9.23
10 堵转转矩 Stall torque	mNm	209.26

电机常数 Motor Constants

11 电机阻抗 Terminal resistance	Ω	2.6
12 电机感抗 Terminal inductance	mH	0.372
13 转矩常数 Torque constant	mNm/A	2.79
14 转速常数 Speed constant	rpm/V	417
15 转数/转矩常数 Speed/torque constant	rpm/mNm	47.80
16 机械时间常数 Mechanical time constant	ms	5.10
17 转子惯量 Rotor inertia	gcm ²	11

其它 Others

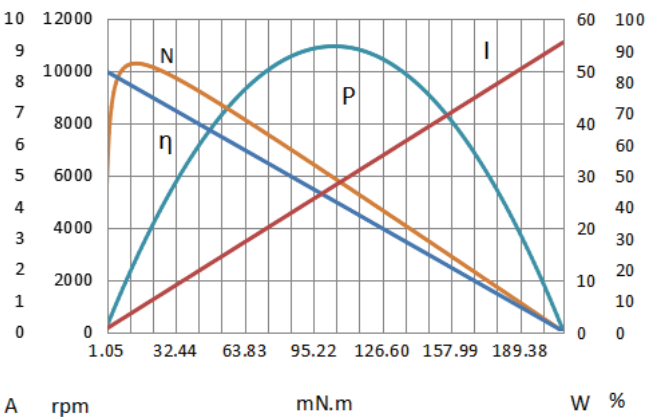
18 极对数	Number of pole pairs		1
19 换向片数	Commutator Bars		11
20 重量	Weight of motor	g	135
21 噪音	Typical noise level	dB	≤45

The graph displays three curves: N (orange), P (teal), and I (red). The left y-axis ranges from 7 to 10, the right y-axis from 40 to 100, and the x-axis from 0 to 10. Curve N peaks at x=2, y=9.5. Curve P peaks at x=5, y=9.5. Curve I is a straight line from (0, 40) to (10, 100).

电机端子定义Motor terminal definition

红	M1 Motor +	铁氟龙
黑	M2 Motor -	铁氟龙

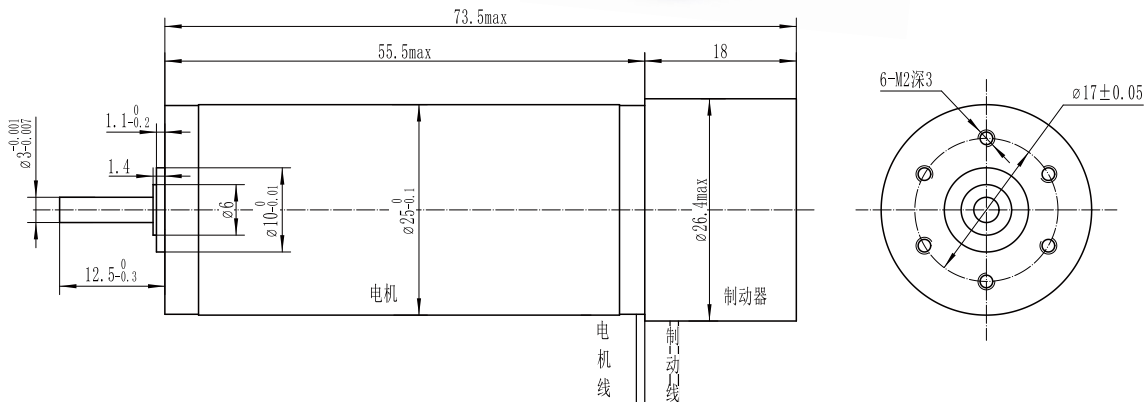
电机特性曲线 (Motor Characteristics Curve)



空心杯电枢绕组
Φ25*L55mm 有刷电机Brush DC motor



DC MOTOR



电机型号Motor Model

DC2555-2411

电机参数 Motor Data

1 额定电压 Nominal voltage	V/DC	24
2 额定转速 Nominal speed	rpm	10296
3 额定电流 Nominal current	A	1.70
4 额定转矩 Nominal torque	mNm	30.77
5 空载转速 No-load speed	rpm	11700
6 空载电流 No-load current	mA	120
7 最大效率 Max. efficiency	%	81.90
8 最大连续转矩 Max continuous torque	mNm	64.11
9 堵转电流 Stall current	A	13.33
10 堵转转矩 Stall torque	mNm	256.43

电机常数 Motor Constants

11 电机阻抗 Terminal resistance	Ω	1.80
12 电机感抗 Terminal inductance	mH	0.20
13 转矩常数 Torque constant	mNm/A	19.41
14 转速常数 Speed constant	rpm/V	488
15 转数/转矩常数 Speed/torque constant	rpm/mNm	45.60
16 机械时间常数 Mechanical time constant	ms	4.80
17 转子惯量 Rotor inertia	gcm ²	11

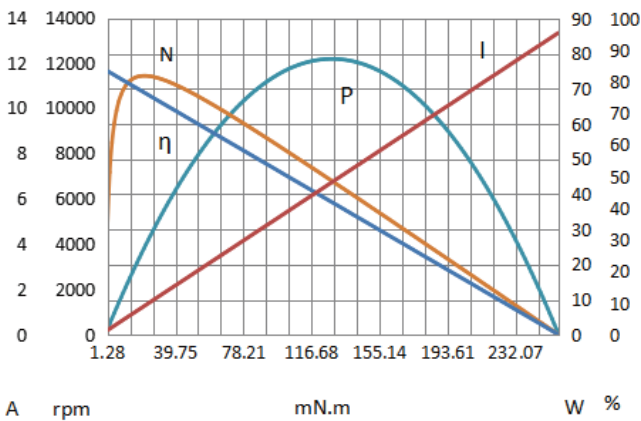
其它 Others

18 极对数	Number of pole pairs		1
19 换向片数	Commutator Bars		11
20 重量	Weight of motor	g	135
21 噪音	Typical noise level	dB	≤45

电机端子定义Motor terminal definition

红	M1 Motor +	铁氟龙
黑	M2 Motor -	铁氟龙

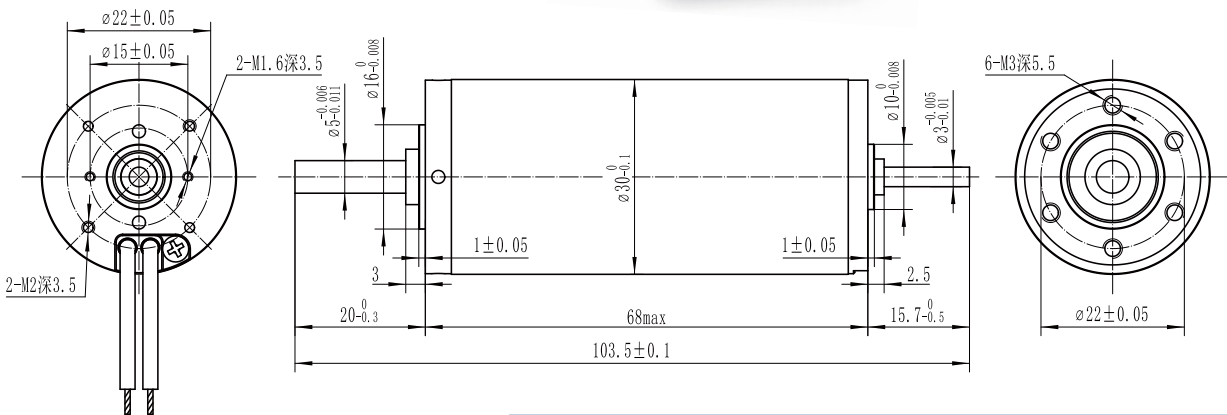
电机特性曲线 (Motor Characteristics Curve)



空心杯电枢绕组
Φ30*L68mm 有刷电机Brush DC motor

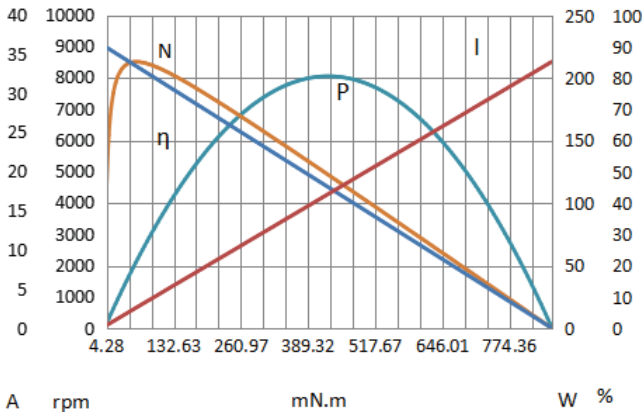


DC MOTOR



电机型号Motor Model		
DC3068-2409		
电机参数 Motor Data		
1 额定电压 Nominal voltage	V/DC	24
2 额定转速 Nominal speed	rpm	8100
3 额定电流 Nominal current	A	3.58
4 额定转矩 Nominal torque	mNm	85.56
5 空载转速 No-load speed	rpm	9000
6 空载电流 No-load current	mA	200
7 最大效率 Max. efficiency	%	85.20
8 最大连续转矩 Max continuous torque	mNm	213.91
9 堵转电流 Stall current	A	34
10 堵转转矩 Stall torque	mNm	855.65
电机常数 Motor Constants		
11 电机阻抗 Terminal resistance	Ω	0.70
12 电机感抗 Terminal inductance	mH	0.20
13 转矩常数 Torque constant	mNm/A	25.32
14 转速常数 Speed constant	rpm/V	375
15 转数/转矩常数 Speed/torque constant	rpm/mNm	10.50
16 机械时间常数 Mechanical time constant	ms	3.30
17 转子惯量 Rotor inertia	gcm ²	34
其它 Others		
18 极对数 Number of pole pairs		1
19 换向片数 Commutator Bars		11
20 重量 Weight of motor	g	270
21 噪音 Typical noise level	dB	≤45
电机端子定义Motor terminal definition		
红	M1 Motor +	铁氟龙
黑	M2 Motor -	铁氟龙

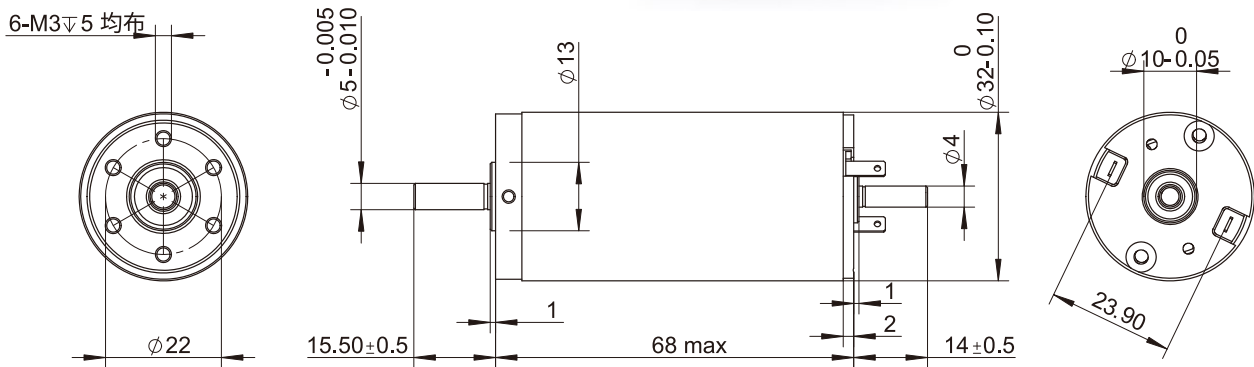
电机特性曲线 (Motor Characteristics Curve)



空心杯电枢绕组-石墨电刷
Φ32*L68mm 有刷电机Brush DC motor



DC MOTOR



电机型号Motor Model

DC3268T-24

电机参数 Motor Data

1 额定电压 Nominal voltage	V/DC	24
2 额定转速 Nominal speed	rpm	7650
3 额定电流 Nominal current	A	9.10
4 额定转矩 Nominal torque	mNm	228.30
5 空载转速 No-load speed	rpm	9000
6 空载电流 No-load current	mA	110
7 最大效率 Max. efficiency	%	91.60
8 最大连续转矩 Max continuous torque	mNm	380.57
9 堵转电流 Stall current	A	60
10 堵转转矩 Stall torque	mNm	1522.30

电机常数 Motor Constants

11 电机阻抗 Terminal resistance	Ω	0.40
12 电机感抗 Terminal inductance	mH	0.16
13 转矩常数 Torque constant	mNm/A	25.40
14 转速常数 Speed constant	rpm/V	375
15 转数/转矩常数 Speed/torque constant	rpm/mNm	5.90
16 机械时间常数 Mechanical time constant	ms	3
17 转子惯量 Rotor inertia	gcm ²	48.90

其它 Others

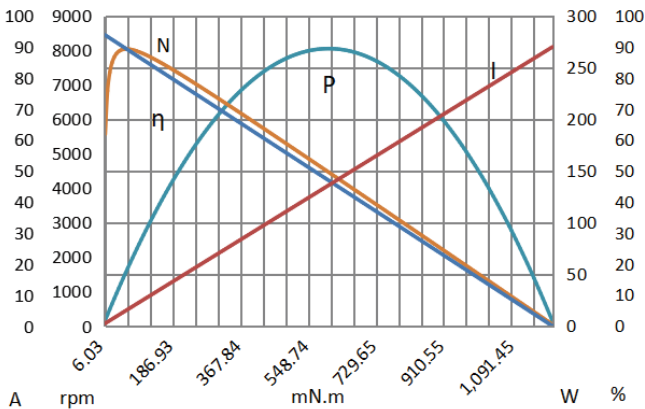
18 极对数	Number of pole pairs		1	
19 相数	Number of phase		13	
20 重量	Weight of motor	g	268	
21 噪音	Typical noise level	dB	≤50	

电机端子定义Motor terminal defination

T1	P1	Motor+
T2	P2	Motor-

端子型号Terminal model: SH1.0-6Pin

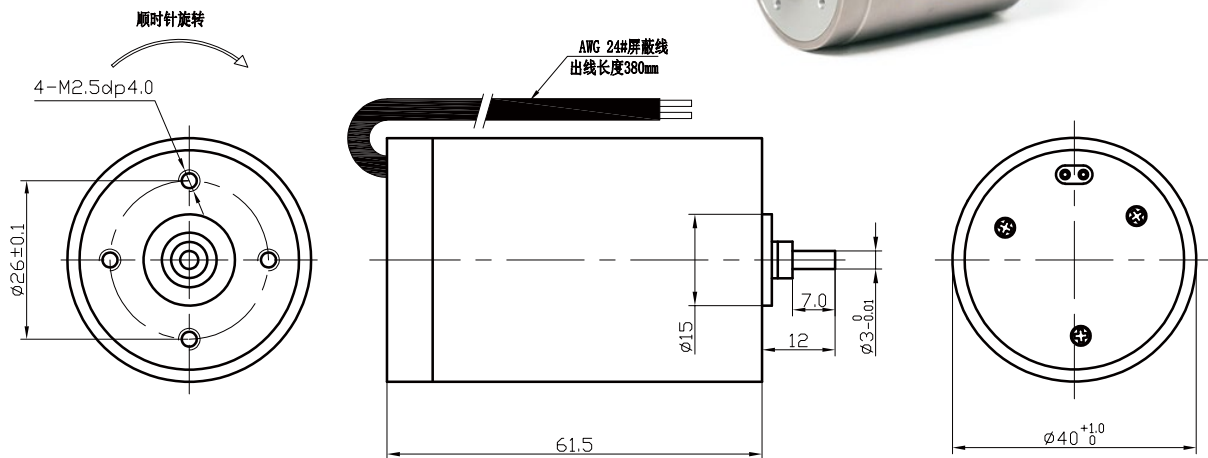
电机特性曲线 (Motor Characteristics Curve)



空心杯电枢绕组
Φ40*L60mm 有刷电机Brush DC motor



DC MOTOR



电机型号Motor Model

电机参数 Motor Data		DC4060-2409
1 额定电压 Nominal voltage	V/DC	24
2 额定转速 Nominal speed	rpm	6205
3 额定电流 Nominal current	A	1.89
4 额定转矩 Nominal torque	mNm	60
5 空载转速 No-load speed	rpm	6700
6 空载电流 No-load current	mA	130
7 最大效率 Max. efficiency	%	85.8
8 最大连续转矩 Max continuous torque	mNm	145
9 堵转电流 Stall current	A	24
10 堵转转矩 Stall torque	mNm	812

电机常数 Motor Constants

11 电机阻抗 Terminal resistance	Ω	0.40
12 电机感抗 Terminal inductance	mH	0.16
13 转矩常数 Torque constant	mNm/A	25.40
14 转速常数 Speed constant	rpm/V	375
15 转数/转矩常数 Speed/torque constant	rpm/mNm	5.90
16 机械时间常数 Mechanical time constant	ms	3
17 转子惯量 Rotor inertia	gcm ²	48.90

其它 Others

18 极对数	Number of pole pairs		1
19 相数	Number of phase		13
20 重量	Weight of motor	g	268
21 噪音	Typical noise level	dB	≤50

The graph displays three performance metrics against speed (rpm) on the top x-axis (60 to 100) and torque (Nm) on the bottom x-axis (60 to 300). The left y-axis represents efficiency (η) and power factor (P) from 60 to 100. The right y-axis represents current (I) from 200 to 300. The efficiency curve (η, blue) starts at ~95% at 60 rpm and decreases to ~80% at 100 rpm. The power factor curve (P, orange) starts at ~80% at 60 rpm, peaks at ~90% around 75 rpm, and then decreases. The current curve (I, red) starts at ~200 A at 60 rpm and increases linearly to ~300 A at 100 rpm.

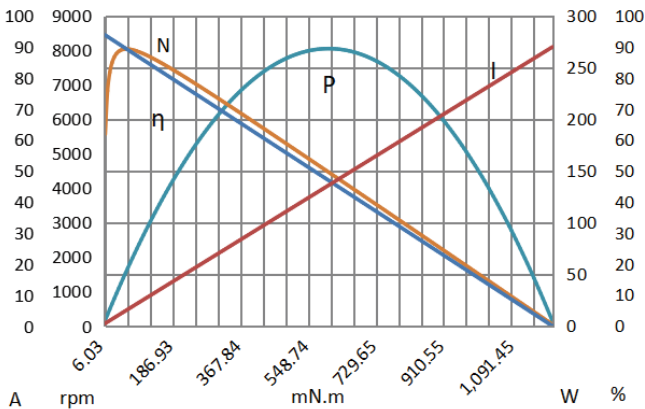
Speed (rpm)	Torque (Nm)	Efficiency (η)	Power Factor (P)	Current (I) [A]
60	60	95	80	200
75	100	90	90	250
100	300	80	80	300

电机端子定义Motor terminal definition

T1	P1	Motor+
T2	P2	Motor-

端子型号Terminal model: SH1.0-6Pin

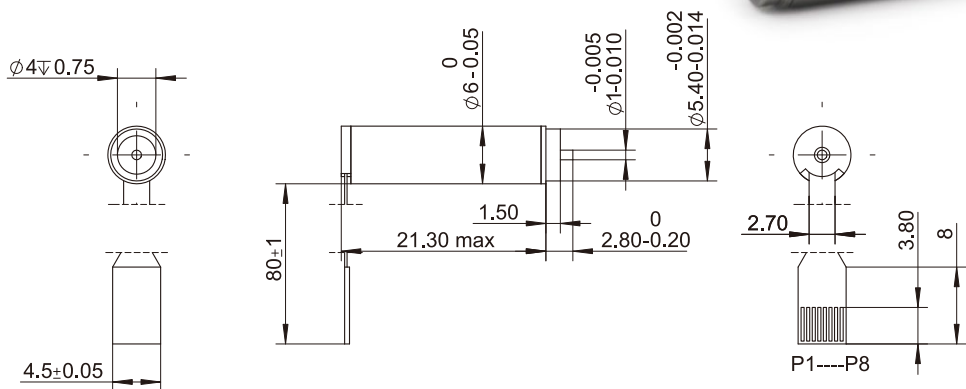
电机特性曲线 (Motor Characteristics Curve)



空心杯电枢绕组-无刷
Φ06*L21mm 无刷电机Brushless DC motor



EC MOTOR



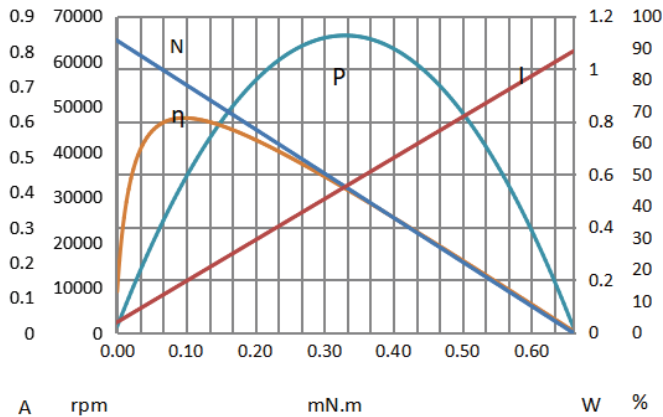
电机型号Motor Model

电机参数 Motor Data		EC0621H-12
1 额定电压 Nominal voltage	V/DC	12
2 额定转速 Nominal speed	rpm	50720
3 额定电流 Nominal current	A	0.22
4 额定转矩 Nominal torque	mNm	0.33
5 空载转速 No-load speed	rpm	63400
6 空载电流 No-load current	mA	30
7 最大效率 Max. efficiency	%	67.90
8 最大连续转矩 Max continuous torque	mNm	0.41
9 堵转电流 Stall current	A	0.97
10 堵转转矩 Stall torque	mNm	1.65

电机常数 Motor Constants		
11 电机阻抗 Terminal resistance	Ω	12.37
12 电机感抗 Terminal inductance	mH	0.16
13 转矩常数 Torque constant	mNm/A	1.75
14 转速常数 Speed constant	rpm/V	5283
15 转数/转矩常数 Speed/torque constant	rpm/mNm	38507.2
16 机械时间常数 Mechanical time constant	ms	
17 转子惯量 Rotor inertia	gcm ²	0.02

其它 Others		电机特性曲线 (Motor Characteristics Curve)
18 极对数 Number of pole pairs		1
19 相数 Number of phase		3
20 重量 Weight of motor	g	6.3
21 噪音 Typical noise level	dB	≤50

电机端子定义Motor terminal definition			
黑	P1	Motor winding U	FPC
黑	P2	Motor winding V	FPC
黑	P3	Motor winding W	FPC
黑	P4	V hall+5 VDC	FPC
黑	P5	GND	FPC
黑	P6	Hall sensor A	FPC
黑	P7	Hall sensor B	FPC
黑	P8	Hall sensor C	FPC

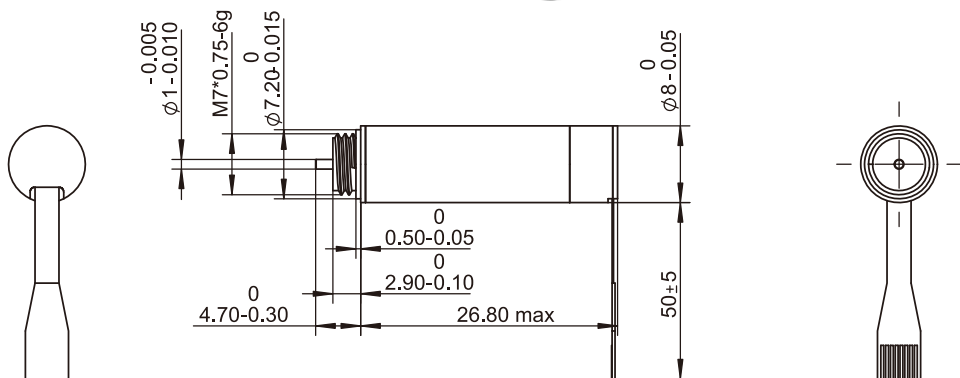


端子型号Terminal model: FPC Flesprint 8Pin~0.5mm

空心杯电枢绕组-无刷
Φ08*L27mm 无刷电机Brushless DC motor



EC MOTOR



				电机型号Motor Model	
电机参数 Motor Data				EC0827BQ-12	
1	额定电压	Nominal voltage	V/DC	12	
2	额定转速	Nominal speed	rpm	24850	
3	额定电流	Nominal current	A	0.45	
4	额定转矩	Nominal torque	mNm	1.21	
5	空载转速	No-load speed	rpm	35000	
6	空载电流	No-load current	mA	65	
7	最大效率	Max. efficiency	%	61.50	
8	最大连续转矩	Max continuous torque	mNm	1.04	
9	堵转电流	Stall current	A	1.40	
10	堵转转矩	Stall torque	mNm	4.17	
电机常数 Motor Constants					
11	电机阻抗	Terminal resistance	Ω	8.57	
12	电机感抗	Terminal inductance	mH	0.16	
13	转矩常数	Torque constant	mNm/A	3.12	
14	转速常数	Speed constant	rpm/V	2917	
15	转数/转矩常数	Speed/torque constant	rpm/mNm	8397.50	
16	机械时间常数	Mechanical time constant	ms	2.2	
17	转子惯量	Rotor inetia	gcm²	0.02	
其它 Others				电机特性曲线 (Motor Characteristics Curve)	
18	极对数	Number of pole pairs		1	
19	相数	Number of phase		3	
20	重量	Weight of motor	g	6.3	
21	噪音	Typical noise level	dB	≤50	
电机端子定义Motor terminal definetion					
黑	P1	Motor winding U	FPC		
黑	P2	Motor winding V	FPC		
黑	P3	Motor winding W	FPC		
黑	P4	V hall+5 VDC	FPC		
黑	P5	GND	FPC		
黑	P6	Hall sensor A	FPC		
黑	P7	Hall sensor B	FPC		
黑	P8	Hall sensor C	FPC		

The graph displays four motor characteristics curves plotted against torque (mN.m) on the x-axis (0 to 4.5) and speed (rpm) on the left y-axis (0 to 40000). The right y-axis shows current (A) from 0 to 1.6 and efficiency (%) from 0 to 100. The curves are: N (No-load speed, decreasing linearly), P (Power, peaking at ~1.9 mN.m), I (Current, increasing linearly), and η (Efficiency, peaking at ~0.65 mN.m).

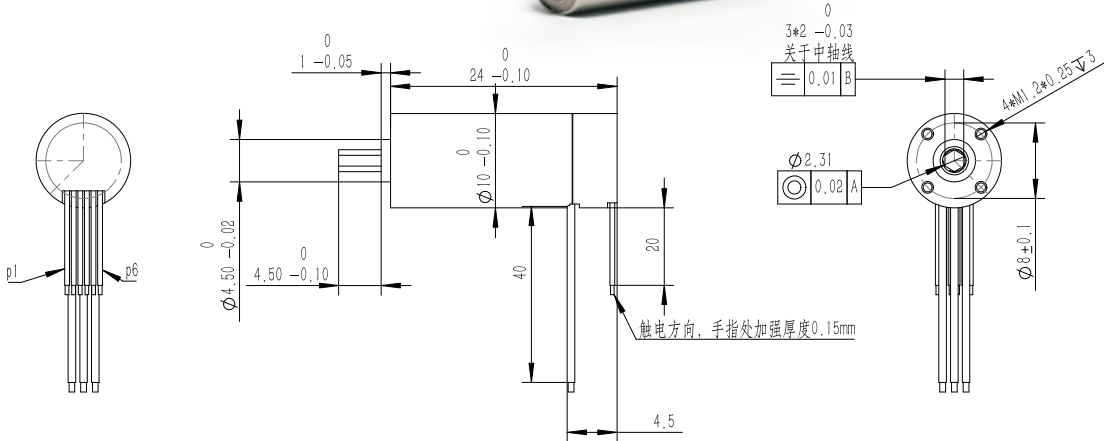
Torque (mN.m)	Speed (rpm)	Current (A)	Power (W)	Efficiency (%)
0.02	35000	0.005	0.001	0
0.65	32000	0.15	0.1	61.5
1.27	29000	0.30	0.4	55
1.90	26000	0.45	1.0	45
2.52	23000	0.60	1.4	35
3.15	20000	0.75	1.6	25
3.77	17000	0.90	1.6	15
4.17	15000	1.00	1.5	10

端子型号Terminal model：FPC Flesprint 8Pin~0.5mm

空心杯电枢绕组-无刷
Φ10*L20mm 无刷电机Brushless DC motor



EC MOTOR



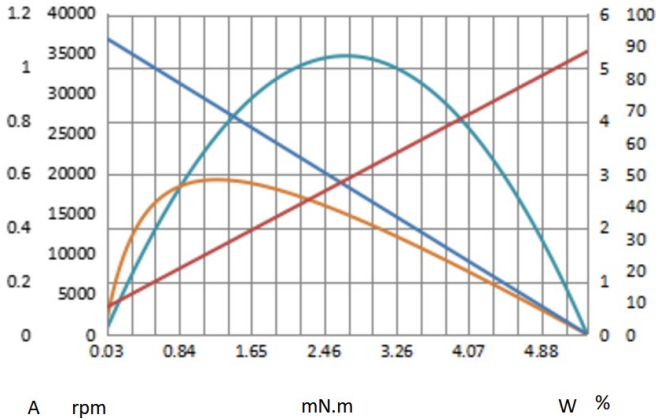
电机型号Motor Model

电机参数 Motor Data			EC1020
1 额定电压 Nominal voltage	V/DC		24
2 额定转速 Nominal speed	rpm		18000
3 额定电流 Nominal current	A		0.58
4 额定转矩 Nominal torque	mNm		3
5 空载转速 No-load speed	rpm		37000
6 空载电流 No-load current	mA		90
7 最大效率 Max. efficiency	%		60
8 最大连续转矩 Max continuous torque	mNm		4
9 堵转电流 Stall current	A		1.06
10 堵转转矩 Stall torque	mNm		6

电机常数 Motor Constants		
11 电机阻抗 Terminal resistance	Ω	22.7
12 电机感抗 Terminal inductance	mH	0.28
13 转矩常数 Torque constant	mNm/A	5.8
14 转速常数 Speed constant	rpm/V	1642
15 转数/转矩常数 Speed/torque constant	rpm/mNm	6856.9
16 机械时间常数 Mechanical time constant	ms	3.3
17 转子惯量 Rotor inertia	gcm ²	0.1

其它 Others		电机特性曲线 (Motor Characteristics Curve)	
18 极对数 Number of pole pairs		2	
19 相数 Number of phase		3	
20 重量 Weight of motor	g	7	
21 噪音 Typical noise level	dB	<42	

电机端子定义Motor terminal definition		
黄	M1	U
白	M2	V
蓝	M3	W
	P1	MISO
	P2	MOSI
	P3	SCK
	P4	CSN
	P5	GND
	P6	VCC

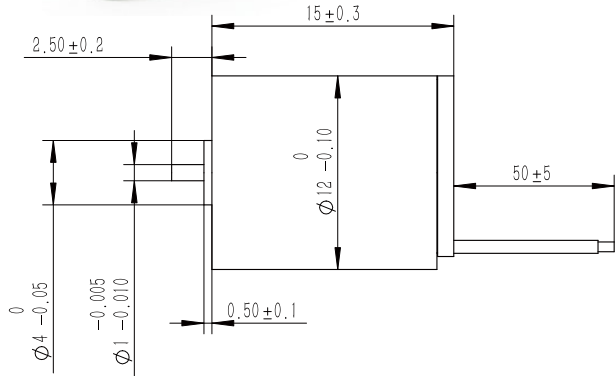
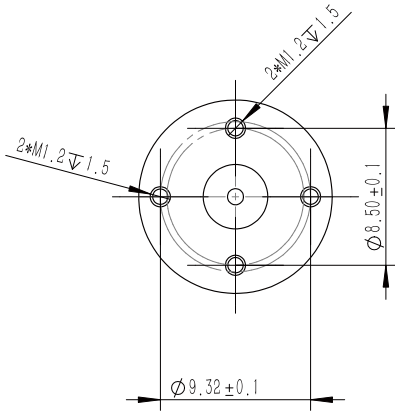


端子型号Terminal model: PH2.0-8Pin 4.9

空心杯电枢绕组-无刷
Φ12*L15mm 无刷电机Brushless DC motor



EC MOTOR



电机型号Motor Model

电机参数 Motor Data			EC1215
1 额定电压 Nominal voltage	V/DC		3.7
2 额定转速 Nominal speed	rpm		21000
3 额定电流 Nominal current	A		1.67
4 额定转矩 Nominal torque	mNm		1.5
5 空载转速 No-load speed	rpm		30000
6 空载电流 No-load current	mA		165
7 最大效率 Max. efficiency	%		65
8 最大连续转矩 Max continuous torque	mNm		2
9 堵转电流 Stall current	A		5
10 堵转转矩 Stall torque	mNm		4.5

电机常数 Motor Constants

11 电机阻抗 Terminal resistance	Ω	0.8
12 电机感抗 Terminal inductance	mH	0.01
13 转矩常数 Torque constant	mNm/A	1.1
14 转速常数 Speed constant	rpm/V	8415
15 转数/转矩常数 Speed/torque constant	rpm/mNm	166868.5
16 机械时间常数 Mechanical time constant	ms	4.1
17 转子惯量 Rotor inertia	gcm ²	0.2

其它 Others

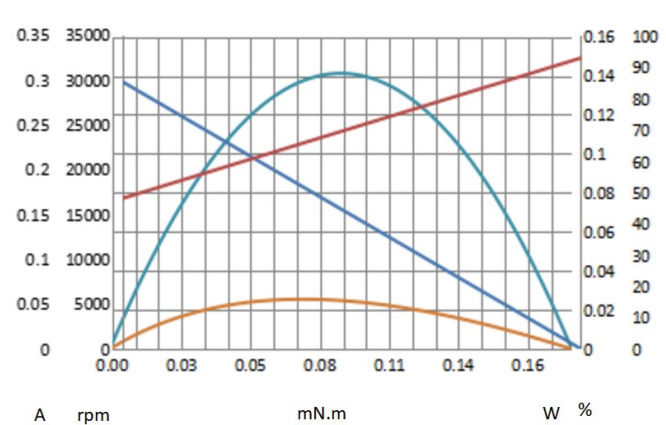
18 极对数 Number of pole pairs		1
19 相数 Number of phase		3
20 重量 Weight of motor	g	7.8
21 噪音 Typical noise level	dB	<42

电机端子定义Motor terminal defination

红	M1	U
白	M2	V
黑	M3	W

端子型号Terminal model: PH2.0-8Pin 4.9

电机特性曲线 (Motor Characteristics Curve)

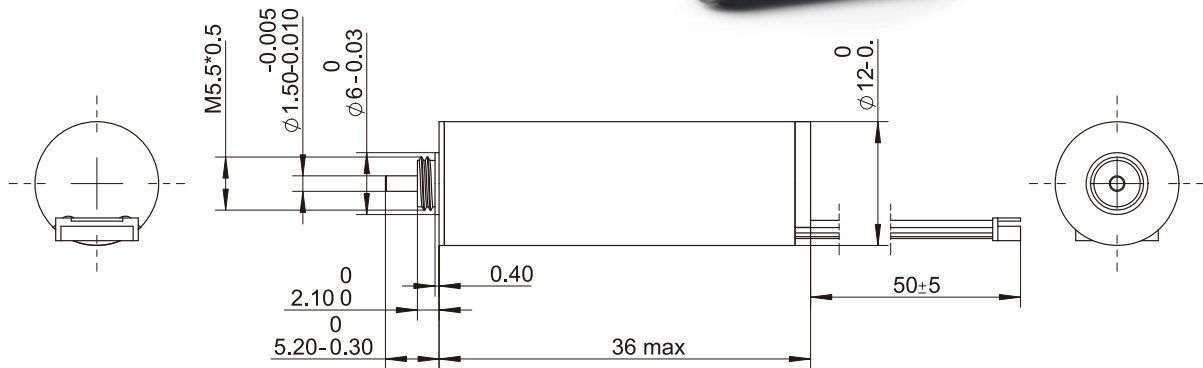


空心杯电枢绕组-无刷

Φ12*L36mm 无刷电机Brushless DC motor



EC MOTOR



				电机型号Motor Model	
电机参数 Motor Data				EC1236H-24	
1	额定电压	Nominal voltage	V/DC	24	
2	额定转速	Nominal speed	rpm	23600	
3	额定电流	Nominal current	A	0.30	
4	额定转矩	Nominal torque	mNm	1.87	
5	空载转速	No-load speed	rpm	29500	
6	空载电流	No-load current	mA	50	
7	最大效率	Max. efficiency	%	64.60	
8	最大连续转矩	Max continuous torque	mNm	2.33	
9	堵转电流	Stall current	A	1.30	
10	堵转转矩	Stall torque	mNm	9.34	
电机常数 Motor Constants					
11	电机阻抗	Terminal resistance	Ω	18.46	
12	电机感抗	Terminal inductance	mH	0.16	
13	转矩常数	Torque constant	mNm/A	7.47	
14	转速常数	Speed constant	rpm/V	1229	
15	转数/转矩常数	Speed/torque constant	rpm/mNm	3159.30	
16	机械时间常数	Mechanical time constant	ms	1.90	
17	转子惯量	Rotor inetia	gcm²	0.06	
其它 Others				电机特性曲线 (Motor Characteristics Curve)	
18	极对数	Number of pole pairs		1	
19	相数	Number of phase		3	
20	重量	Weight of motor	g	13.6	
21	噪音	Typical noise level	dB	≤50	
电机端子定义Motor terminal defination					
红	Red	P1	Hall +5 VDC	FPC	
黄	Yellow	P2	Hall sensor A	FPC	
白	White	P3	Hall sensor B	FPC	
蓝	Blue	P4	Hall sensor C	FPC	
黑	Black	P5	GND	FPC	
黄	Yellow	P6	Motor winding U	FPC	
白	White	P7	Motor winding V	FPC	
蓝	Blue	P8	Motor winding W	FPC	

The graph displays four motor characteristics: Efficiency (η, orange curve), Power (P, teal curve), Torque (T, blue line), and Speed (N, red line). The x-axis represents torque in mN.m (0 to 6.72) and rpm (0 to 35000). The left y-axis shows torque (0 to 2.5 mN.m) and power (0 to 35000 mW). The right y-axis shows efficiency (0 to 70%) and speed (0 to 100 rpm). Key points include maximum efficiency at ~1.15 mN.m and maximum power at ~3.38 mN.m.

Torque (mN.m)	Speed (rpm)	Power (mW)	Efficiency (%)
0.04	29500	0	0
1.15	25000	25000	64.6
3.38	20000	30000	70
6.72	0	0	0

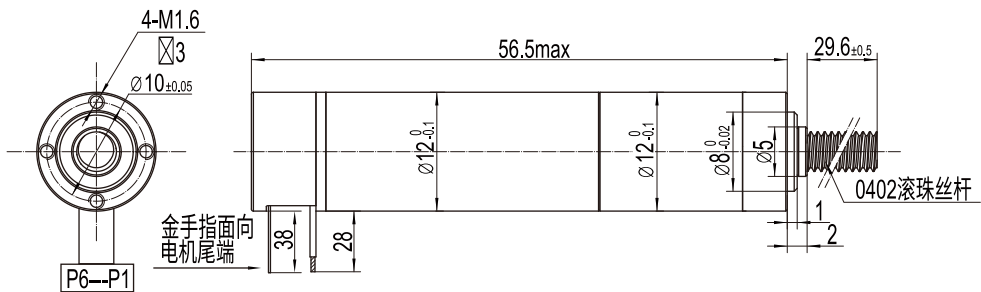
端子型号Terminal model：GH1.25-8P;线材UL1571 AWG30

端子型号Terminal model: GH1.25-8P;线材UL1571 AWG30

空心杯电枢绕组-无刷
Φ12*L56mm 无刷电机 Brushless DC motor



EC MOTOR



电机型号Motor Model

电机参数 Motor Data			EC1256
1 额定电压 Nominal voltage	V/DC		24
2 额定转速 Nominal speed	rpm		5102
3 额定电流 Nominal current	A		0.998
4 额定转矩 Nominal torque	mNm		31.26
5 空载转速 No-load speed	rpm		5700
6 空载电流 No-load current	mA		200
7 最大效率 Max. efficiency	%		70.5
8 最大效率转速 Speed	mNm		5273
9 最大效率电流 Current	A		0.77
10 最大效率转矩 Torque	mNm		22.33
11 最大功率 Max. output powe	W		44.43
12 最大输出转速 Speed	rpm		2850
13 最大输出电流 Current	A		4.0
14 最大输出转矩 Torque	mNm		148.87
15 堵转电流 Stall current	A		7.8
16 堵转转矩 Stall torque	mNm		297.74

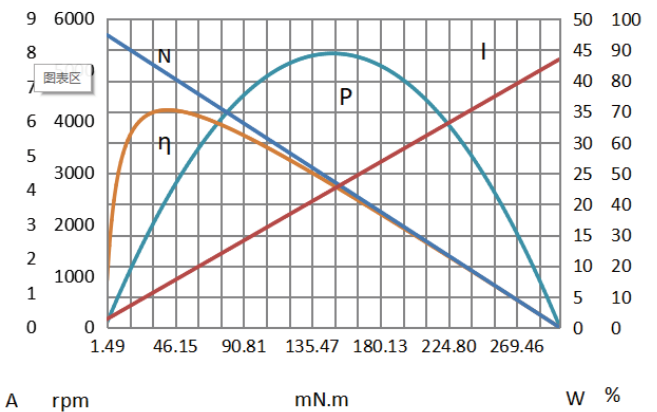
电机常数 Motor Constants

11 电机阻抗 Terminal resistance	Ω	3.1
12 电机感抗 Terminal inductance	mH	0.5
13 转矩常数 Torque constant	mNm/A	39.177
14 转速常数 Speed constant	rpm/V	238
15 转数/转矩常数 Speed/torque constant	rpm/mNm	19.1
16 机械时间常数 Mechanical time constant	ms	0.1
17 转子惯量 Rotor inetia	gcm ²	0.3

其它 Others

18 极对数 Number of pole pairs		1
19 相数 Number of phase		3
20 重量 Weight of motor	g	39
21 噪音 Typical noise level	dB	≤45

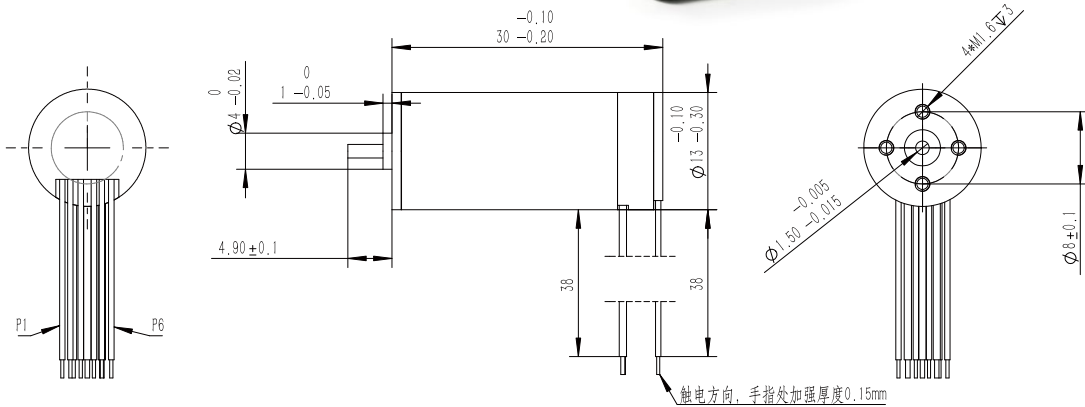
电机特性曲线 (Motor Characteristics Curve)



空心杯电枢绕组-无刷
Φ13*L25mm 无刷电机Brushless DC motor



EC MOTOR



电机型号Motor Model

EC1325

电机参数 Motor Data

1 额定电压 Nominal voltage	V/DC	24
2 额定转速 Nominal speed	rpm	25000
3 额定电流 Nominal current	A	1.7
4 额定转矩 Nominal torque	mNm	10
5 空载转速 No-load speed	rpm	34000
6 空载电流 No-load current	mA	200
7 最大效率 Max. efficiency	%	71
8 最大连续转矩 Max continuous torque	mNm	12
9 堵转电流 Stall current	A	39
10 堵转转矩 Stall torque	mNm	6.23

电机常数 Motor Constants

11 电机阻抗 Terminal resistance	Ω	3.9
12 电机感抗 Terminal inductance	mH	0.12
13 转矩常数 Torque constant	mNm/A	6.4
14 转速常数 Speed constant	rpm/V	1494
15 转数/转矩常数 Speed/torque constant	rpm/mNm	5000.1
16 机械时间常数 Mechanical time constant	ms	4.1
17 转子惯量 Rotor inertia	gcm ²	0.2

其它 Others

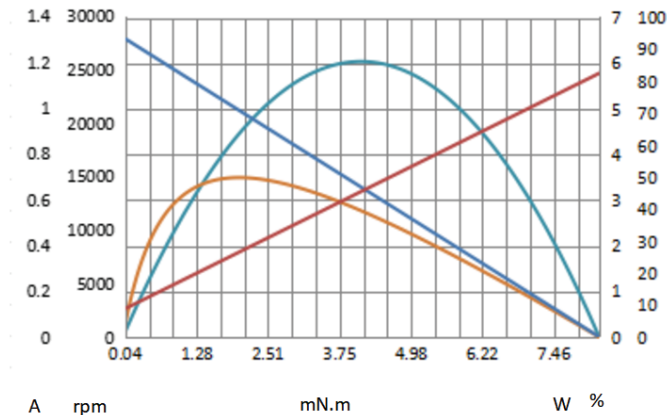
18 极对数	Number of pole pairs		2
19 相数	Number of phase		3
20 重量	Weight of motor	g	15
21 噪音	Typical noise level	dB	<42

X-axis (approx)	Left Y-axis (approx)	Right Y-axis (approx)
0	1.3	75
1	0.95	55
2	1.2	85
3	0.95	55
4	1.1	75

电机端子定义Motor terminal definition

黄	M1	U
白	M2	V
蓝	M3	W
	P1	MISO
	P2	MOSI
	P3	SCK
	P4	CSN
	P5	GND
	P6	VCC

电机特性曲线 (Motor Characteristics Curve)



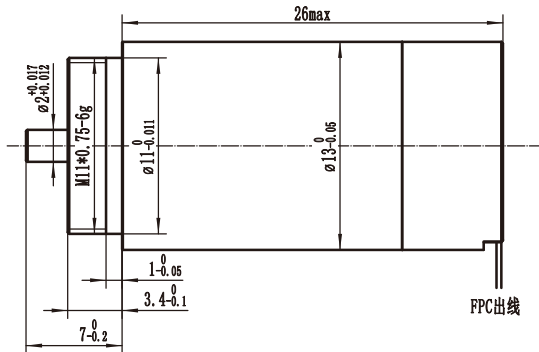
端子型号Terminal model:PH2.0-8Pin

4.9

空心杯电枢绕组-无刷
Φ13*L26mm 无刷电机Brushless DC motor



EC MOTOR



				电机型号Motor Model	
电机参数 Motor Data				EC1326-12	
1	额定电压	Nominal voltage	V/DC	12	
2	额定转速	Nominal speed	rpm	13940	
3	额定电流	Nominal current	A	0.54	
4	额定转矩	Nominal torque	mNm	3.08	
5	空载转速	No-load speed	rpm	17000	
6	空载电流	No-load current	mA	70	
7	最大效率	Max. efficiency	%	70.30	
8	最大连续转矩	Max continuous torque	mNm	4	
9	堵转电流	Stall current	A	2.68	
10	堵转转矩	Stall torque	mNm	17.11	
电机常数 Motor Constants					
11	电机阻抗	Terminal resistance	Ω	4.5	
12	电机感抗	Terminal inductance	mH	0.50	
13	转矩常数	Torque constant	mNm/A	6.56	
14	转速常数	Speed constant	rpm/V	1417	
15	转数/转矩常数	Speed/torque constant	rpm/mNm	993.50	
16	机械时间常数	Mechanical time constant	ms		
17	转子惯量	Rotor inetia	gcm²	2.60	
其它 Others				电机特性曲线 (Motor Characteristics Curve)	
18	极对数	Number of pole pairs		2	
19	相数	Number of phase		3	
20	重量	Weight of motor	g	20	
21	噪音	Typical noise level	dB	≤42	
电机端子定义Motor terminal defination					
绿	Green	M1	Hall +5 VDC	铁氟龙	
黄	Yellow	M2	Hall sensor A	铁氟龙	
棕	Brown	M3	Hall sensor B	铁氟龙	
灰	Grey	M4	Hall sensor C	铁氟龙	
蓝	Blue	M5	GND	铁氟龙	
红	Red	M6	Motor winding A	铁氟龙	
黑	Black	M7	Motor winding B	铁氟龙	
白	White	M8	Motor winding C	铁氟龙	

The graph displays four motor characteristics curves plotted against the speed/torque constant (x-axis, ranging from 0.09 to 15.49). The left y-axes represent speed (N, 0 to 3 rpm) and torque (P, 0 to 2.5 mNm). The right y-axes represent power (W, 0 to 8 W) and efficiency (η, 0 to 100%).

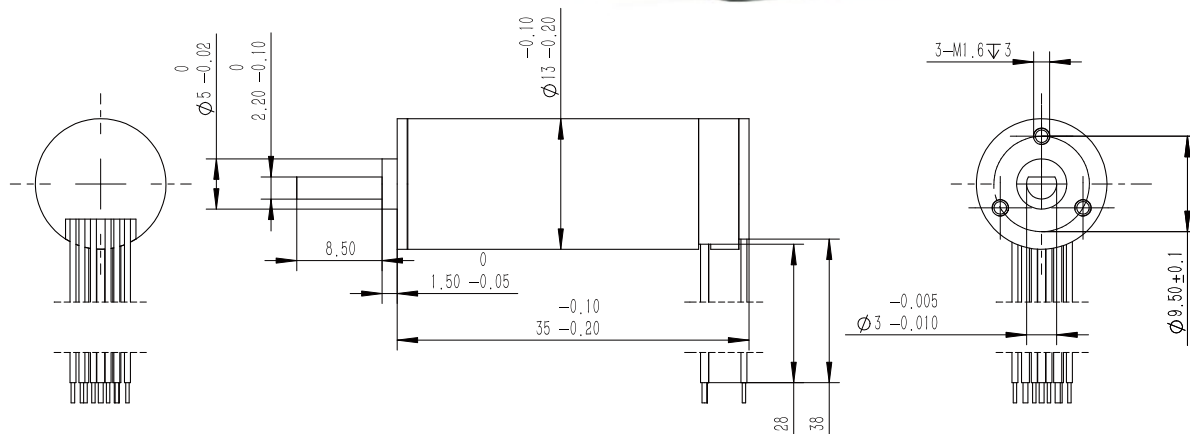
- N (Speed):** A blue line showing speed decreasing linearly from approximately 2.8 rpm at x=0.09 to 0 rpm at x=15.49.
- P (Torque):** A red line showing torque increasing linearly from 0 mNm at x=0.09 to approximately 2.6 mNm at x=15.49.
- η (Efficiency):** An orange curve showing efficiency peaking at approximately 70% around x=2.65.
- I (Current):** A teal curve showing current peaking at approximately 1.8 mNm around x=7.79.

空心杯电枢绕组-无刷

Φ13*L30mm 无刷电机Brushless DC motor



EC MOTOR



电机型号Motor Model

电机参数 Motor Data			EC1330
1 额定电压 Nominal voltage	V/DC		24
2 额定转速 Nominal speed	rpm		20200
3 额定电流 Nominal current	A		1.5
4 额定转矩 Nominal torque	mNm		9.8
5 空载转速 No-load speed	rpm		28000
6 空载电流 No-load current	mA		115
7 最大效率 Max. efficiency	%		73.2
8 最大连续转矩 Max continuous torque	mNm		12
9 堵转电流 Stall current	A		4.8
10 堵转转矩 Stall torque	mNm		37

电机常数 Motor Constants

11 电机阻抗 Terminal resistance	Ω		5
12 电机感抗 Terminal inductance	mH		0.63
13 转矩常数 Torque constant	mNm/A		7.9
14 转速常数 Speed constant	rpm/V		1212
15 转数/转矩常数 Speed/torque constant	rpm/mNm		3398.3
16 机械时间常数 Mechanical time constant	ms		4.1
17 转子惯量 Rotor inertia	gcm ²		0.2

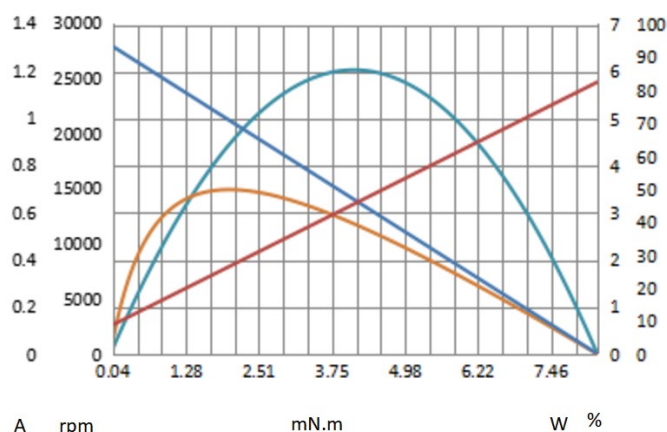
其它 Others

18 极对数 Number of pole pairs			2
19 相数 Number of phase			3
20 重量 Weight of motor	g		15
21 噪音 Typical noise level	dB		<42

电机端子定义Motor terminal definition

黄	M1	U
白	M2	V
蓝	M3	W
	P1	MISO
	P2	MOSI
	P3	SCK
	P4	CSN
	P5	GND
	P6	VCC

电机特性曲线 (Motor Characteristics Curve)



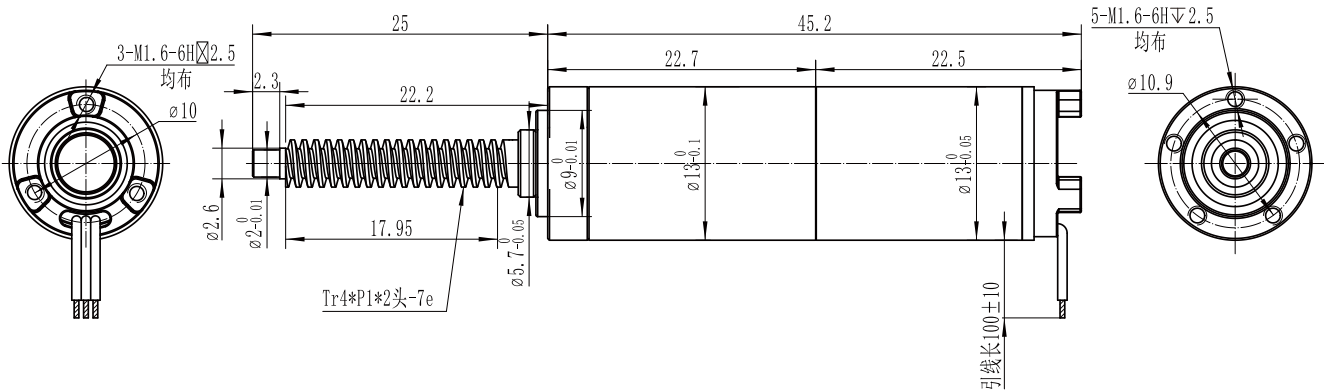
端子型号Terminal model:PH2.0-8Pin

4.9

空心杯电枢绕组-无刷
Φ13*L45mm 无刷电机Brushless DC motor



EC MOTOR



电机型号Motor Model		
EC1345		
电机参数 Motor Data		
1 额定电压 Nominal voltage	V/DC	12
2 额定转速 Nominal speed	rpm	318
3 额定电流 Nominal current	A	0.579
4 额定转矩 Nominal torque	mNm	123.23
5 空载转速 No-load speed	rpm	395
6 空载电流 No-load current	mA	130
7 最大效率 Max. efficiency	%	59.1
8 最大连续转矩 Max continuous torque	mNm	
9 堵转电流 Stall current	A	2.431
10 堵转转矩 Stall torque	mNm	631.92
电机常数 Motor Constants		
11 电机阻抗 Terminal resistance	Ω	4.9
12 电机感抗 Terminal inductance	mH	0.07
13 转矩常数 Torque constant	mNm/A	274.594
14 转速常数 Speed constant	rpm/V	33
15 转数/转矩常数 Speed/torque constant	rpm/mNm	0.6
16 机械时间常数 Mechanical time constant	ms	1
17 转子惯量 Rotor inertia	gcm²	0.3
其它 Others		
18 极对数 Number of pole pairs		2
19 重量 Weight of motor	g	45
20 噪音 Typical noise level	dB	≤45
电机端子定义Motor terminal definition		
红 Red	P1	Hall +5 VDC 铁氟龙
黄 Yellow	P2	Hall sensor A 铁氟龙
白 White	P3	Hall sensor B 铁氟龙
Blue	P4	Hall sensor C 铁氟龙
黑 Black	P5	GND 铁氟龙
黄 Yellow	P6	Motor winding U 铁氟龙
白 White	P7	Motor winding V 铁氟龙
蓝 Blue	P8	Motor winding W 铁氟龙

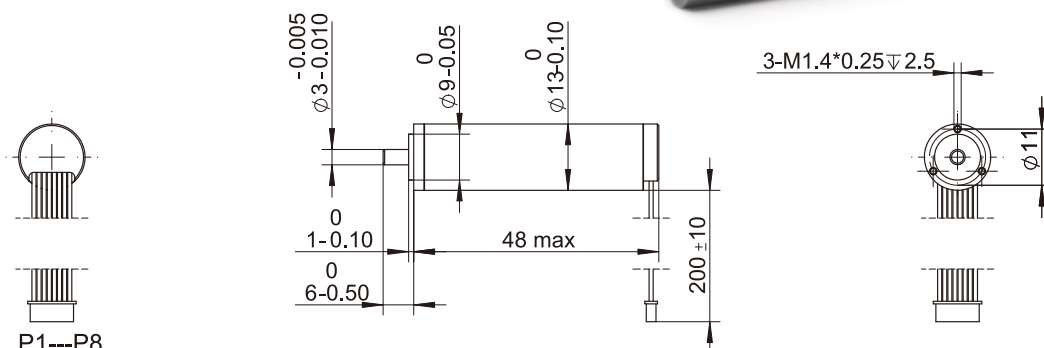
电机特性曲线 (Motor Characteristics Curve)

端子型号Terminal model: SH1.25-8P;线材UL10086 AWG28

Φ13*L48mm 无刷电机Brushless DC motor



EC MOTOR

电机型号Motor Model

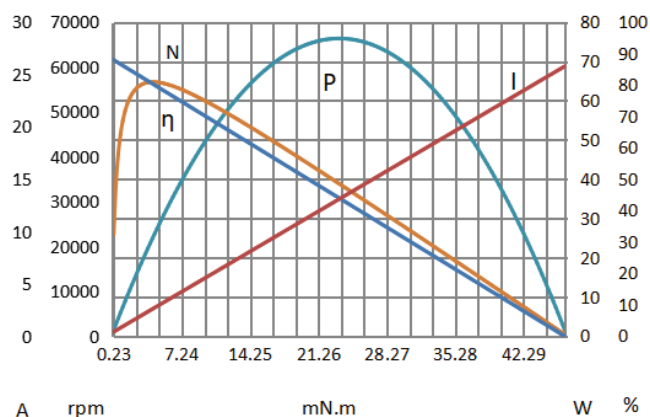
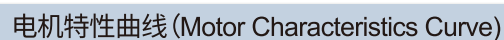
电机参数 Motor Data			EC1348H-24
1	额定电压 Nominal voltage	V/DC	24
2	额定转速 Nominal speed	rpm	28000
3	额定电流 Nominal current	A	1.08
4	额定转矩 Nominal torque	mNm	6.30
5	空载转速 No-load speed	rpm	35000
6	空载电流 No-load current	mA	96
7	最大效率 Max. efficiency	%	74.20
8	最大连续转矩 Max continuous torque	mNm	7.87
9	堵转电流 Stall current	A	5
10	堵转转矩 Stall torque	mNm	31.50

电机常数 Motor Constants			
11 电机阻抗	Terminal resistance	Ω	4.80
12 电机感抗	Terminal inductance	mH	0.16
13 转矩常数	Torque constant	mNm/A	6.42
14 转速常数	Speed constant	rpm/V	1458
15 转数/转矩常数	Speed/torque constant	rpm/mNm	1111.30
16 机械时间常数	Mechanical time constant	ms	5.20
17 转子惯量	Rotor inertia	gcm ²	0.45

其它 Others		电机特性曲线 (Motor Characteristics Curve)	
18 极对数	Number of pole pairs	1	
19 相数	Number of phase	3	
20 重量	Weight of motor	g	
21 噪音	Typical noise level	dB	
			≤50

电机端子定义Motor terminal definition

红	Red	P1	Hall +5 VDC	铁氟龙
黄	Yellow	P2	Hall sensor A	铁氟龙
白	White	P3	Hall sensor B	铁氟龙
蓝	Blue	P4	Hall sensor C	铁氟龙
黑	Black	P5	GND	铁氟龙
黄	Yellow	P6	Motor winding U	铁氟龙
白	White	P7	Motor winding V	铁氟龙
蓝	Blue	P8	Motor winding W	铁氟龙

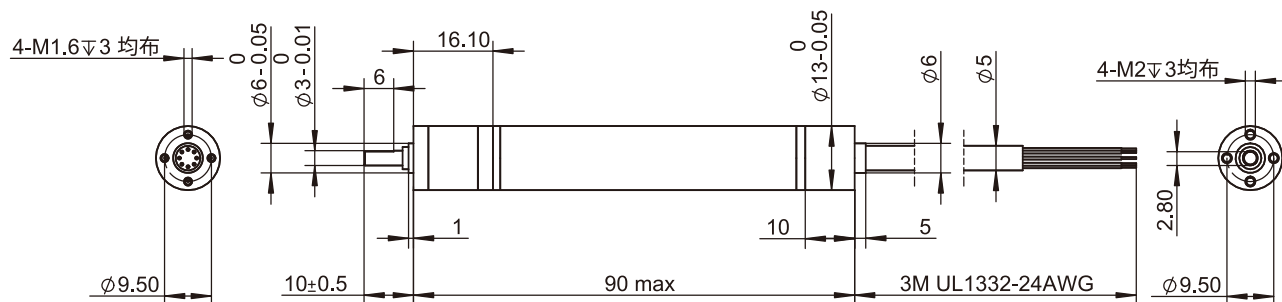


端子型号Terminal model: SH1.25-8P:线材UL10086 AWG28

Φ13*L75mm 无刷电机Brushless DC motor



EC MOTOR

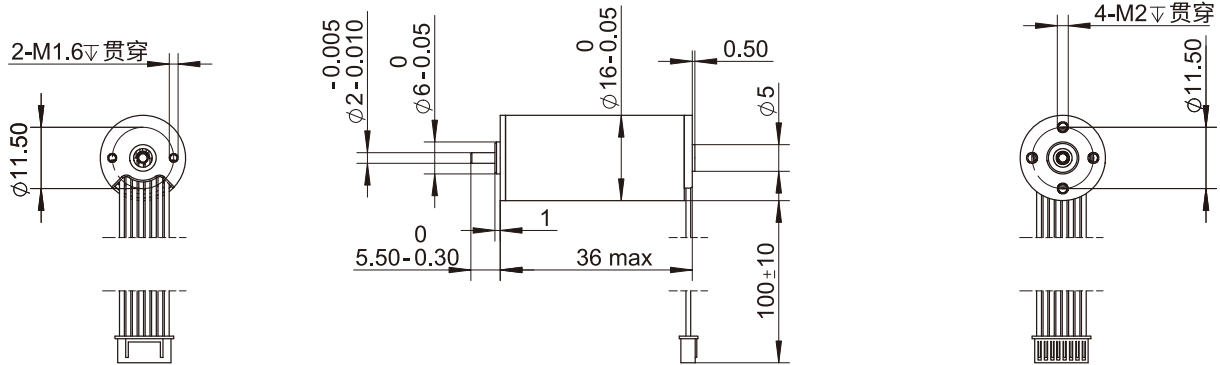
端子型号Terminal model: SH1.25-8P;线材UL10086 AWG28

空心杯电枢绕组-无刷

Φ16*L36mm 无刷电机Brushless DC motor



EC MOTOR



电机型号Motor Model

EC1636H-24

电机参数 Motor Data

1 额定电压 Nominal voltage	V/DC	24
2 额定转速 Nominal speed	rpm	12000
3 额定电流 Nominal current	A	0.34
4 额定转矩 Nominal torque	mNm	4.25
5 空载转速 No-load speed	rpm	15000
6 空载电流 No-load current	mA	55
7 最大效率 Max. efficiency	%	65.40
8 最大连续转矩 Max continuous torque	mNm	5.32
9 堵转电流 Stall current	A	1.50
10 堵转转矩 Stall torque	mNm	21.27

电机常数 Motor Constants

11 电机阻抗 Terminal resistance	Ω	16
12 电机感抗 Terminal inductance	mH	0.16
13 转矩常数 Torque constant	mNm/A	14.72
14 转速常数 Speed constant	rpm/V	625
15 转数/转矩常数 Speed/torque constant	rpm/mNm	705.30
16 机械时间常数 Mechanical time constant	ms	3.70
17 转子惯量 Rotor inertia	gcm ²	0.50

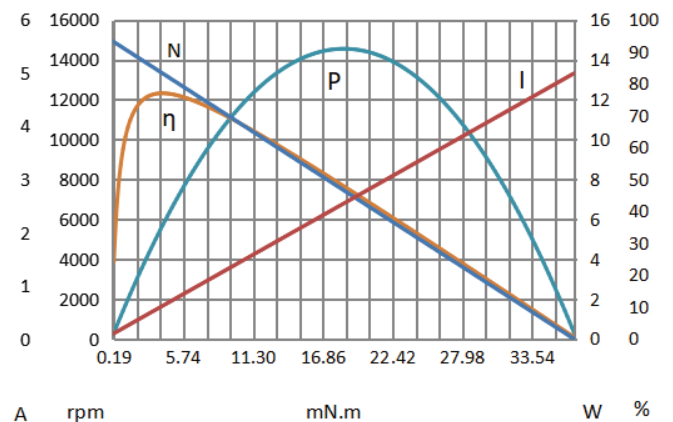
其它 Others

18 极对数	Number of pole pairs		1
19 相数	Number of phase		3
20 重量	Weight of motor	g	32.5
21 噪音	Typical noise level	dB	≤50

电机端子定义Motor terminal definition

红 Red	P1	Hall +5 VDC	铁氟龙
黄 Yellow	P2	Hall sensor A	铁氟龙
白 White	P3	Hall sensor B	铁氟龙
蓝 Blue	P4	Hall sensor C	铁氟龙
黑 Black	P5	GND	铁氟龙
黄 Yellow	P6	Motor winding U	铁氟龙
白 White	P7	Motor winding V	铁氟龙
蓝 Blue	P8	Motor winding W	铁氟龙

电机特性曲线 (Motor Characteristics Curve)

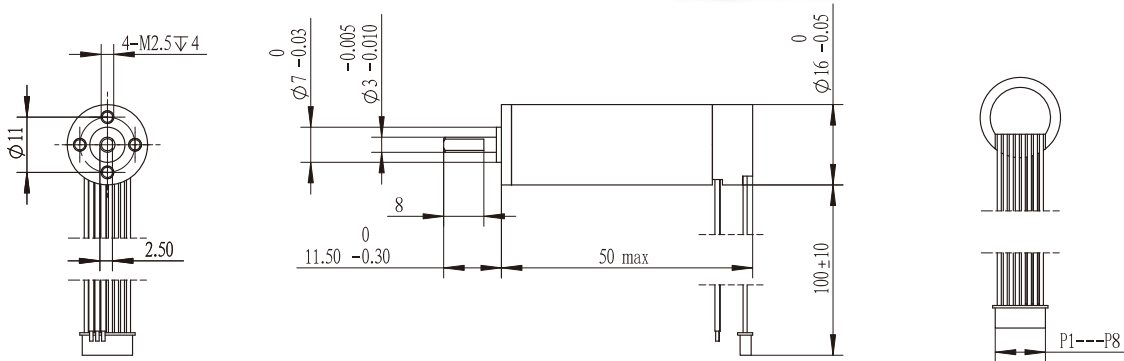


端子型号Terminal model: PH2.0-8P;线材UL10086 AWG26

空心杯电枢绕组-无刷
Φ16*L50mm 无刷电机Brushless DC motor



EC MOTOR



电机型号Motor Model

EC1650H-24

电机参数 Motor Data

1 额定电压 Nominal voltage	V/DC	24
2 额定转速 Nominal speed	rpm	12000
3 额定电流 Nominal current	A	3.70
4 额定转矩 Nominal torque	mNm	54.25
5 空载转速 No-load speed	rpm	15000
6 空载电流 No-load current	mA	123
7 最大效率 Max. efficiency	%	84.10
8 最大连续转矩 Max continuous torque	mNm	67.82
9 堵转电流 Stall current	A	18
10 堵转转矩 Stall torque	mNm	271.27

电机常数 Motor Constants

11 电机阻抗 Terminal resistance	Ω	1.33
12 电机感抗 Terminal inductance	mH	0.16
13 转矩常数 Torque constant	mNm/A	15.17
14 转速常数 Speed constant	rpm/V	625
15 转数/转矩常数 Speed/torque constant	rpm/mNm	55.30
16 机械时间常数 Mechanical time constant	ms	1.80
17 转子惯量 Rotor inertia	gcm ²	3.05

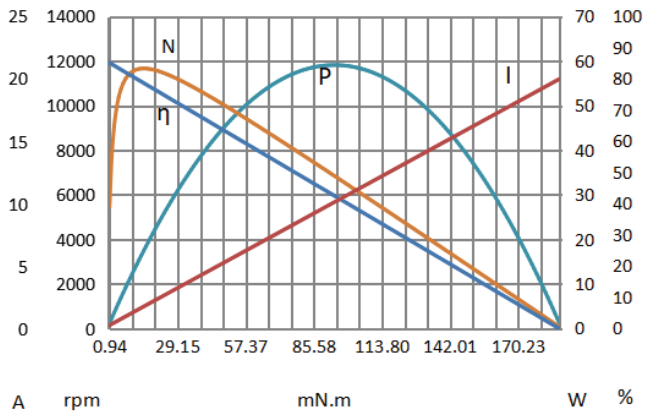
其它 Others

18 极对数	Number of pole pairs		1
19 相数	Number of phase		3
20 重量	Weight of motor	g	36.7
21 噪音	Typical noise level	dB	≤50

电机端子定义Motor terminal definition

红 Red	P1	Hall +5 VDC	铁氟龙
黄 Yellow	P2	Hall sensor A	铁氟龙
白 White	P3	Hall sensor B	铁氟龙
蓝 Blue	P4	Hall sensor C	铁氟龙
黑 Black	P5	GND	铁氟龙
黄 Yellow	P6	Motor winding U	铁氟龙
白 White	P7	Motor winding V	铁氟龙
蓝 Blue	P8	Motor winding W	铁氟龙

电机特性曲线 (Motor Characteristics Curve)

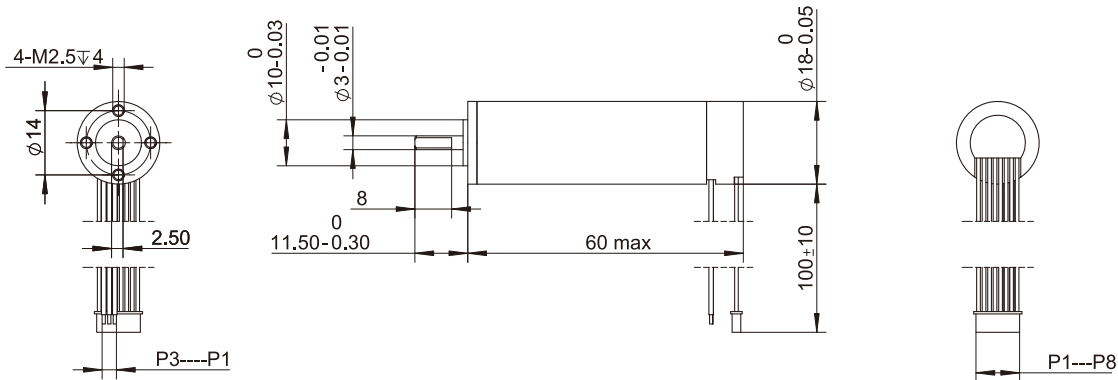


端子型号Terminal model: PH2.0-8P;线材UL10086 AWG26

空心杯电枢绕组-无刷
Φ18*L60mm 无刷电机Brushless DC motor



EC-4P MOTOR



电机型号Motor Model

EC1860H-24

电机参数 Motor Data

1 额定电压 Nominal voltage	V/DC	24
2 额定转速 Nominal speed	rpm	16800
3 额定电流 Nominal current	A	3.76
4 额定转矩 Nominal torque	mNm	38.42
5 空载转速 No-load speed	rpm	21000
6 空载电流 No-load current	mA	200
7 最大效率 Max. efficiency	%	80
8 最大连续转矩 Max continuous torque	mNm	48.03
9 堵转电流 Stall current	A	18
10 堵转转矩 Stall torque	mNm	192.10

电机常数 Motor Constants

11 电机阻抗 Terminal resistance	Ω	1.33
12 电机感抗 Terminal inductance	mH	0.16
13 转矩常数 Torque constant	mNm/A	10.79
14 转速常数 Speed constant	rpm/V	875
15 转数/转矩常数 Speed/torque constant	rpm/mNm	109.30
16 机械时间常数 Mechanical time constant	ms	2.80
17 转子惯量 Rotor inertia	gcm ²	2.44

其它 Others

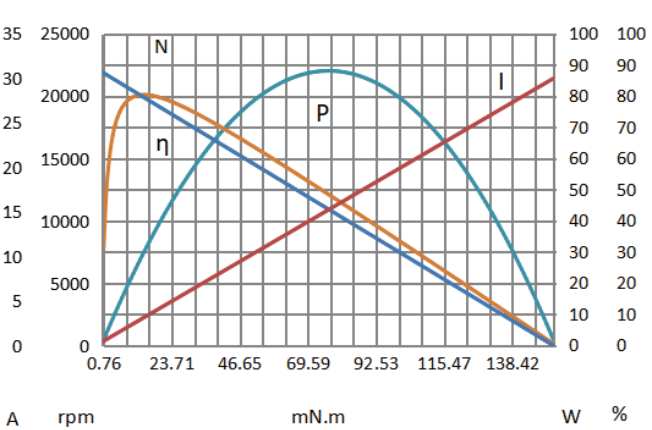
18 极对数	Number of pole pairs		1
19 相数	Number of phase		3
20 重量	Weight of motor	g	46.9
21 噪音	Typical noise level	dB	≤50

The graph displays three performance metrics over a range of speed. The left vertical axis is scaled from 25 to 35, while the right vertical axis is scaled from 70 to 100. The blue curve (N) represents torque, starting at approximately 32 and declining. The orange curve (P) represents power, starting at 0, reaching a peak of about 30, and then falling. The red curve (I) represents efficiency, starting at 0 and rising. The curves are labeled N, P, and I respectively.

电机端子定义Motor terminal definition

红 Red	P1	Hall +5 VDC	铁氟龙
黄 Yellow	P2	Hall sensor A	铁氟龙
白 White	P3	Hall sensor B	铁氟龙
蓝 Blue	P4	Hall sensor C	铁氟龙
黑 Black	P5	GND	铁氟龙
黄 Yellow	P6	Motor winding U	铁氟龙
白 White	P7	Motor winding V	铁氟龙
蓝 Blue	P8	Motor winding W	铁氟龙

电机特性曲线 (Motor Characteristics Curve)

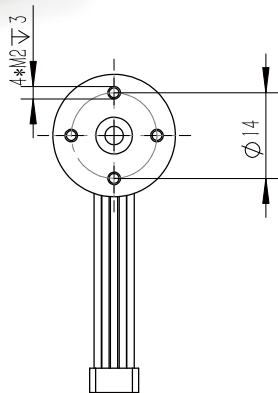
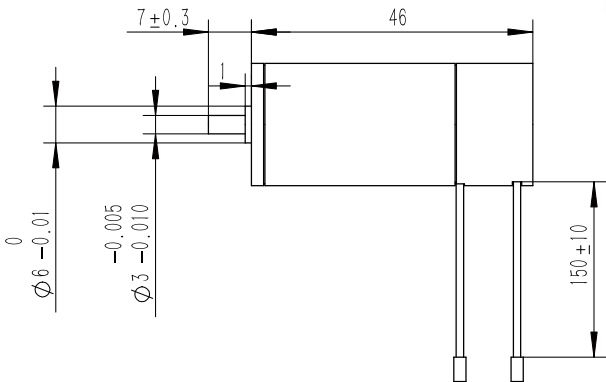


端子型号Terminal model: PH2.0-8P;线材UL10086 AWG26

空心杯电枢绕组-无刷
Φ20*L36mm 无刷电机Brushless DC motor



EC MOTOR



电机型号Motor Model

电机参数 Motor Data			EC2036
1 额定电压 Nominal voltage	V/DC		24
2 额定转速 Nominal speed	rpm		9300
3 额定电流 Nominal current	A		1.27
4 额定转矩 Nominal torque	mNm		14
5 空载转速 No-load speed	rpm		18400
6 空载电流 No-load current	mA		85
7 最大效率 Max. efficiency	%		67
8 最大连续转矩 Max continuous torque	mNm		16
9 堵转电流 Stall current	A		2.47
10 堵转转矩 Stall torque	mNm		29

电机常数 Motor Constants		
11 电机阻抗 Terminal resistance	Ω	9.5
12 电机感抗 Terminal inductance	mH	0.63
13 转矩常数 Torque constant	mNm/A	12
14 转速常数 Speed constant	rpm/V	793
15 转数/转矩常数 Speed/torque constant	rpm/mNm	1515.2
16 机械时间常数 Mechanical time constant	ms	17.6
17 转子惯量 Rotor inertia	gcm ²	2

其它 Others			电机特性曲线 (Motor Characteristics Curve)
18 极对数 Number of pole pairs		2	
19 相数 Number of phase		3	
20 重量 Weight of motor	g	56	
21 噪音 Typical noise level	dB	≤42	

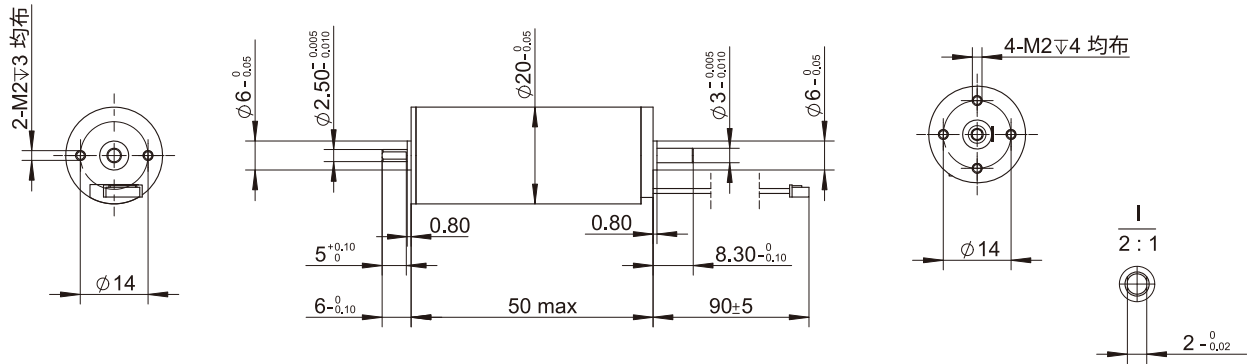
电机端子定义Motor terminal definition		
黄 Yellow	M1	U
白 White	M2	V
蓝 Blue	M3	W
红 Red	P1	VCC
黑 Black	P2	GND
黄 Yellow	P3	MOSI
白 White	P4	MISO
蓝 Blue	P5	SCK
黄 Yellow	P6	CS

端子型号Terminal model: PH2.0-8Pin 4.9

空心杯电枢绕组-无刷
Φ20*L50mm 无刷电机Brushless DC motor



EC-4P MOTOR



				电机型号Motor Model	
电机参数 Motor Data				EC2050H-24	
1	额定电压	Nominal voltage	V/DC	24	
2	额定转速	Nominal speed	rpm	12000	
3	额定电流	Nominal current	A	3.18	
4	额定转矩	Nominal torque	mNm	44.50	
5	空载转速	No-load speed	rpm	15000	
6	空载电流	No-load current	mA	220	
7	最大效率	Max. efficiency	%	77.20	
8	最大连续转矩	Max continuous torque	mNm	55.63	
9	堵转电流	Stall current	A	15	
10	堵转转矩	Stall torque	mNm	222.51	
电机常数 Motor Constants					
11	电机阻抗	Terminal resistance	Ω	1.60	
12	电机感抗	Terminal inductance	mH	0.16	
13	转矩常数	Torque constant	mNm/A	15.10	
14	转速常数	Speed constant	rpm/V	625	
15	转数/转矩常数	Speed/torque constant	rpm/mNm	67.40	
16	机械时间常数	Mechanical time constant	ms	1.60	
17	转子惯量	Rotor inetia	gcm²	2,30	
其它 Others				电机特性曲线 (Motor Characteristics Curve)	
18	极对数	Number of pole pairs		1	
19	相数	Number of phase		3	
20	重量	Weight of motor	g	62.3	
21	噪音	Typical noise level	dB	≤50	
电机端子定义Motor terminal defination					
红	Red	P1	Hall +5 VDC	铁氟龙	
黄	Yellow	P2	Hall sensor A	铁氟龙	
白	White	P3	Hall sensor B	铁氟龙	
蓝	Blue	P4	Hall sensor C	铁氟龙	
黑	Black	P5	GND	铁氟龙	
黄	Yellow	P6	Motor winding U	铁氟龙	
白	White	P7	Motor winding V	铁氟龙	
蓝	Blue	P8	Motor winding W	铁氟龙	

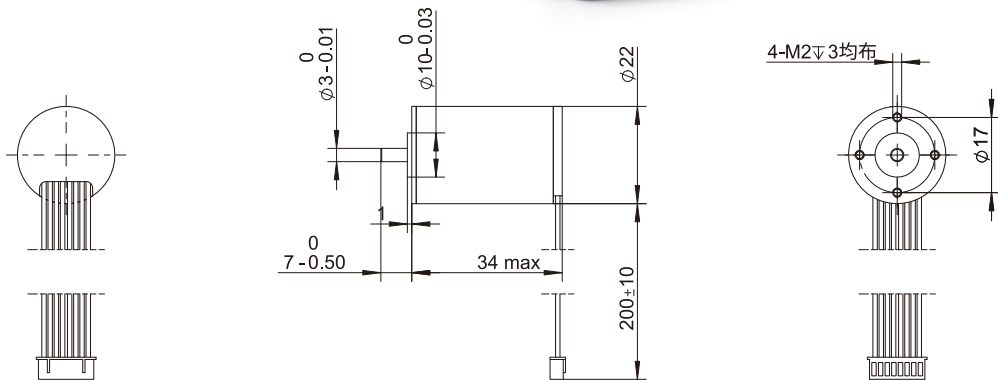
电机特性曲线 (Motor Characteristics Curve)

端子型号Terminal model: PH2.0-8P;线材UL10086 AWG24

空心杯电枢绕组-无刷
Φ22*L34mm 无刷电机Brushless DC motor



EC-4P MOTOR



				电机型号Motor Model	
电机参数 Motor Data				EC2234H-24	
1	额定电压	Nominal voltage	V/DC	24	
2	额定转速	Nominal speed	rpm	5760	
3	额定电流	Nominal current	A	0.40	
4	额定转矩	Nominal torque	mNm	12.30	
5	空载转速	No-load speed	rpm	7200	
6	空载电流	No-load current	mA	35	
7	最大效率	Max. efficiency	%	75.30	
8	最大连续转矩	Max continuous torque	mNm	15.36	
9	堵转电流	Stall current	A	2	
10	堵转转矩	Stall torque	mNm	61.50	
电机常数 Motor Constants					
11	电机阻抗	Terminal resistance	Ω	12	
12	电机感抗	Terminal inductance	mH	0.16	
13	转矩常数	Torque constant	mNm/A	31.27	
14	转速常数	Speed constant	rpm/V	300	
15	转数/转矩常数	Speed/torque constant	rpm/mNm	117.20	
16	机械时间常数	Mechanical time constant	ms	3.90	
17	转子惯量	Rotor inertia	gcm²	3.15	
其它 Others				电机特性曲线 (Motor Characteristics Curve)	
18	极对数	Number of pole pairs		1	
19	相数	Number of phase		3	
20	重量	Weight of motor	g	58	
21	噪音	Typical noise level	dB	≤50	
电机端子定义Motor terminal definition					
红	Red	P1	Hall +5 VDC	铁氟龙	
黄	Yellow	P2	Hall sensor A	铁氟龙	
白	White	P3	Hall sensor B	铁氟龙	
蓝	Blue	P4	Hall sensor C	铁氟龙	
黑	Black	P5	GND	铁氟龙	
黄	Yellow	P6	Motor winding U	铁氟龙	
白	White	P7	Motor winding V	铁氟龙	
蓝	Blue	P8	Motor winding W	铁氟龙	

电机特性曲线 (Motor Characteristics Curve)

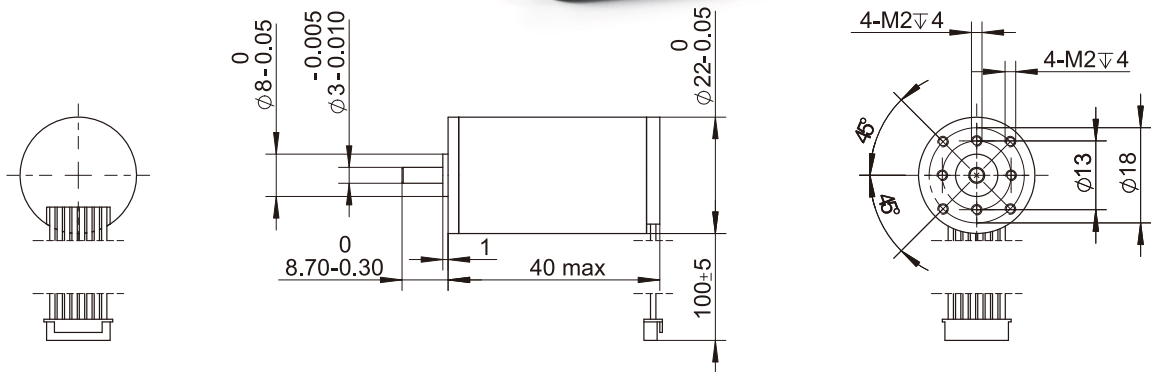
A rpm mN.m W %

端子型号Terminal model: PH2.0-8P;线材UL10086 AWG24

空心杯电枢绕组-无刷
Φ22*L40mm 无刷电机Brushless DC motor



EC-4P MOTOR



				电机型号Motor Model	
电机参数 Motor Data				EC2240H-24	
1	额定电压	Nominal voltage	V/DC	24	
2	额定转速	Nominal speed	rpm	5680	
3	额定电流	Nominal current	A	0.43	
4	额定转矩	Nominal torque	mNm	12.38	
5	空载转速	No-load speed	rpm	7100	
6	空载电流	No-load current	mA	42	
7	最大效率	Max. efficiency	%	73.10	
8	最大连续转矩	Max continuous torque	mNm	15.47	
9	堵转电流	Stall current	A	2	
10	堵转转矩	Stall torque	mNm	61.90	
电机常数 Motor Constants					
11	电机阻抗	Terminal resistance	Ω	12	
12	电机感抗	Terminal inductance	mH	0.16	
13	转矩常数	Torque constant	mNm/A	31.60	
14	转速常数	Speed constant	rpm/V	296	
15	转数/转矩常数	Speed/torque constant	rpm/mNm	114.70	
16	机械时间常数	Mechanical time constant	ms	4.50	
17	转子惯量	Rotor inetia	gcm²	3.74	
其它 Others				电机特性曲线 (Motor Characteristics Curve)	
18	极对数	Number of pole pairs		1	
19	相数	Number of phase		3	
20	重量	Weight of motor	g	62	
21	噪音	Typical noise level	dB	≤50	
电机端子定义Motor terninal definetion					
红	Red	P1	Hall +5 VDC	铁氟龙	
黄	Yellow	P2	Hall sensor A	铁氟龙	
白	White	P3	Hall sensor B	铁氟龙	
蓝	Blue	P4	Hall sensor C	铁氟龙	
黑	Black	P5	GND	铁氟龙	
黄	Yellow	P6	Motor winding U	铁氟龙	
白	White	P7	Motor winding V	铁氟龙	
蓝	Blue	P8	Motor winding W	铁氟龙	

电机特性曲线 (Motor Characteristics Curve)							
14	10000			40	100		
12	9000			35	90		
10	8000			30	80		
8	7000			25	70		
6	6000			20	60		
4	5000			15	50		
2	4000			10	40		
0	3000			5	30		
	2000			0	20		
	1000			0	10		
	0			0	0		
	0.71	22.03	43.34	64.66	85.97	107.29	128.61
A	rpm	mN.m		W		%	

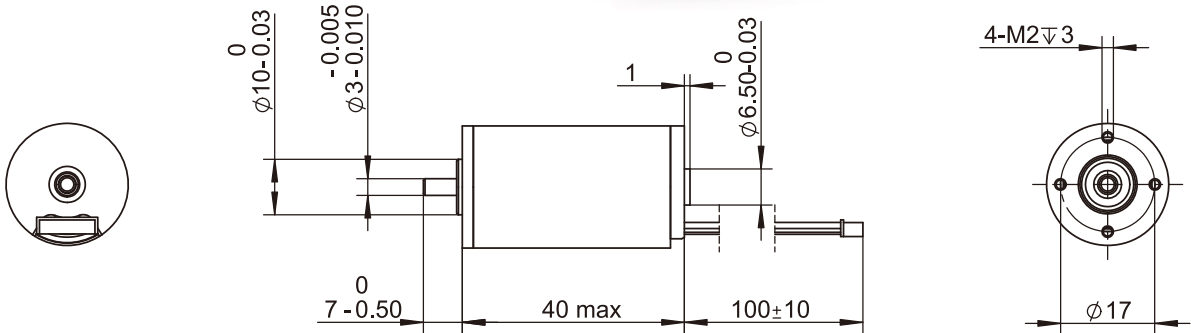
端子型号Terminal model: PH2.0-8P;线材UL10086 AWG24

端子型号Terminal model: PH2.0-8P;线材UL10086 AWG24

空心杯电枢绕组-无刷
Φ22*L40mm 无刷电机Brushless DC motor



EC-4P MOTOR



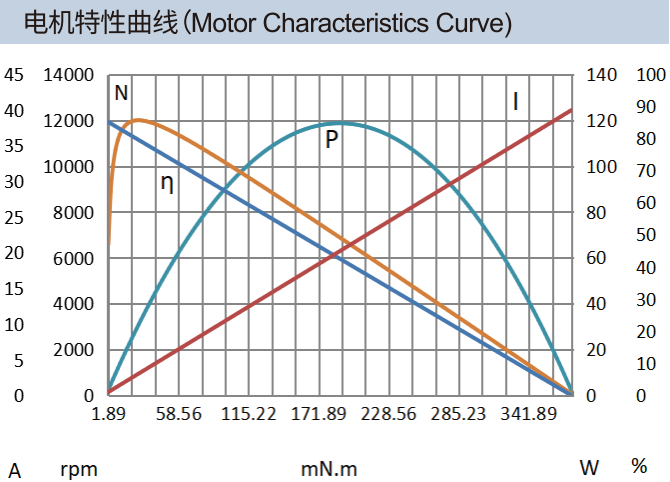
电机型号Motor Model		
EC2240HQ-24		
电机参数 Motor Data		
1 额定电压 Nominal voltage	V/DC	24
2 额定转速 Nominal speed	rpm	12000
3 额定电流 Nominal current	A	0.70
4 额定转矩 Nominal torque	mNm	10.36
5 空载转速 No-load speed	rpm	15000
6 空载电流 No-load current	mA	55
7 最大效率 Max. efficiency	%	76.50
8 最大连续转矩 Max continuous torque	mNm	13
9 堵转电流 Stall current	A	3.50
10 堵转转矩 Stall torque	mNm	51.80

电机常数 Motor Constants		
11 电机阻抗 Terminal resistance	Ω	6.86
12 电机感抗 Terminal inductance	mH	0.16
13 转矩常数 Torque constant	mNm/A	15
14 转速常数 Speed constant	rpm/V	625
15 转数/转矩常数 Speed/torque constant	rpm/mNm	289.50
16 机械时间常数 Mechanical time constant	ms	
17 转子惯量 Rotor inertia	gcm ²	5.36

其它 Others		
18 极对数 Number of pole pairs		1
19 相数 Number of phase		3
20 重量 Weight of motor	g	44.5
21 噪音 Typical noise level	dB	≤50

电机端子定义Motor terminal definition				
红 Red	P1	VCC		铁氟龙
黄 Yellow	P2	BK		铁氟龙
白 White	P3	FG		铁氟龙
蓝 Blue	P4	PWM		铁氟龙
绿 Green	P5	RF		铁氟龙
黑 Black	P6	GNHD		铁氟龙

端子型号Terminal model: PH2.0-6P; 线材UL10086 AWG24

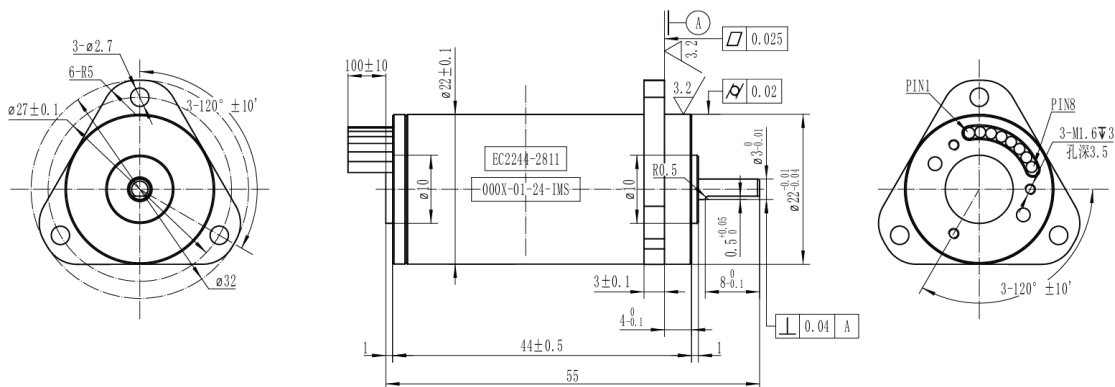


空心杯电枢绕组-无刷

Φ22*L44mm 无刷电机Brushless DC motor



EC MOTOR



电机型号Motor Model

EC2244-2811

电机参数 Motor Data

1 额定电压 Nominal voltage	V/DC	28
2 额定转速 Nominal speed	rpm	9258
3 额定电流 Nominal current	A	1.07
4 额定转矩 Nominal torque	mNm	22.18
5 空载转速 No-load speed	rpm	11500
6 空载电流 No-load current	mA	100
7 最大效率 Max. efficiency	%	73.90
8 最大连续转矩 Max continuous torque	mNm	28.43
9 堵转电流 Stall current	A	5.09
10 堵转转矩 Stall torque	mNm	113.74

电机常数 Motor Constants

11 电机阻抗 Terminal resistance	Ω	5.50
12 电机感抗 Terminal inductance	mH	0.50
13 转矩常数 Torque constant	mNm/A	22.79
14 转速常数 Speed constant	rpm/V	411
15 转数/转矩常数 Speed/torque constant	rpm/mNm	101.10
16 机械时间常数 Mechanical time constant	ms	2.80
17 转子惯量 Rotor inertia	gcm ²	2.60

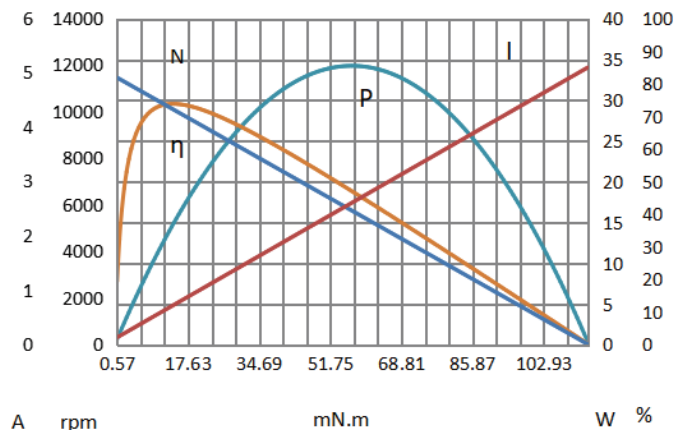
其它 Others

18 极对数 Number of pole pairs		1
19 相数 Number of phase		3
20 重量 Weight of motor	g	78.5
21 噪音 Typical noise level	dB	≤42

电机端子定义Motor terminal definition

绿 Green	M1	V hall+5 VDC	铁氟龙
黄 Yellow	M2	Hall sensor A	铁氟龙
棕 Brown	M3	Hall sensor B	铁氟龙
灰 Ash	M4	Hall sensor C	铁氟龙
蓝 Blue	M5	GND	铁氟龙
红 Red	M6	Motor winding A	铁氟龙
黑 Black	M7	Motor winding B	铁氟龙
白 White	M8	Motor winding C	铁氟龙

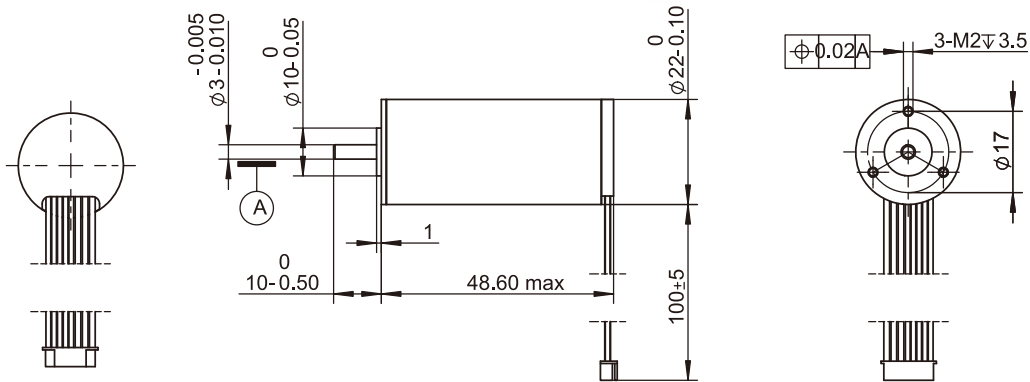
电机特性曲线 (Motor Characteristics Curve)



空心杯电枢绕组-无刷
Φ22*L48mm 无刷电机Brushless DC motor



EC MOTOR



电机型号Motor Model

电机参数 Motor Data			EC2248H-28
1 额定电压 Nominal voltage	V/DC		28
2 额定转速 Nominal speed	rpm		14000
3 额定电流 Nominal current	A		1.8
4 额定转矩 Nominal torque	mNm		25
5 空载转速 No-load speed	rpm		17500
6 空载电流 No-load current	mA		110
7 最大效率 Max. efficiency	%		78.40
8 最大连续转矩 Max continuous torque	mNm		31.30
9 堵转电流 Stall current	A		8.40
10 堵转转矩 Stall torque	mNm		125

电机常数 Motor Constants

11 电机阻抗 Terminal resistance	Ω	3.33
12 电机感抗 Terminal inductance	mH	0.16
13 转矩常数 Torque constant	mNm/A	15.10
14 转速常数 Speed constant	rpm/V	625
15 转数/转矩常数 Speed/torque constant	rpm/mNm	140
16 机械时间常数 Mechanical time constant	ms	8.50
17 转子惯量 Rotor inertia	gcm ²	5.81

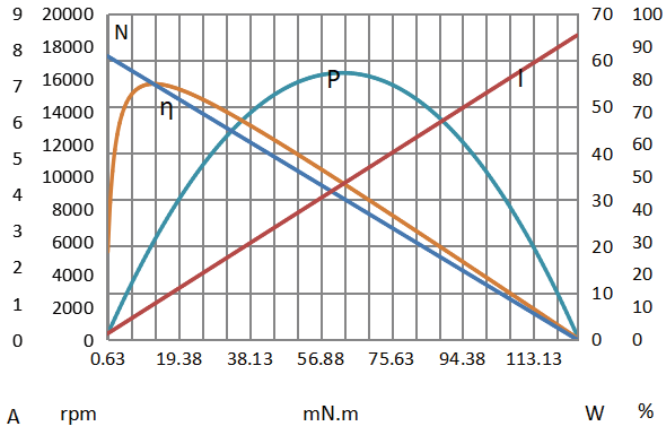
其它 Others

18 极对数 Number of pole pairs		2
19 相数 Number of phase		3
20 重量 Weight of motor	g	72.60
21 噪音 Typical noise level	dB	≤50

电机端子定义Motor terminal definition

红 Red	P1	Hall+5 VDC	铁氟龙
黄 Yellow	P2	Hall sensor A	铁氟龙
白 White	P3	Hall sensor B	铁氟龙
蓝 Blue	P4	Hall sensor C	铁氟龙
黑 Black	P5	GND	铁氟龙
黄 Yellow	P6	Motor winding U	铁氟龙
白 White	P7	Motor winding V	铁氟龙
蓝 Blue	P8	Motor winding W	铁氟龙

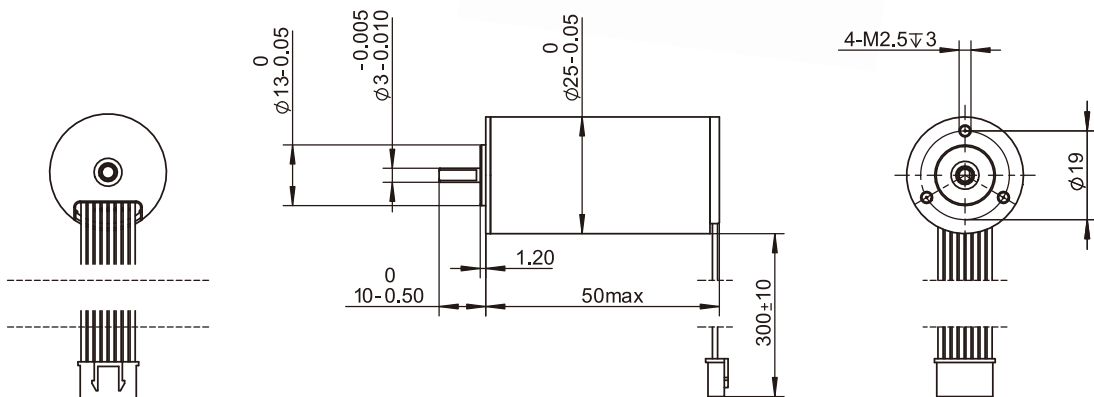
电机特性曲线 (Motor Characteristics Curve)



空心杯电枢绕组-无刷
Φ25*L50mm 无刷电机 Brushless DC motor



EC MOTOR



电机型号Motor Model

电机参数 Motor Data		EC2550H-24
1 额定电压 Nominal voltage	V/DC	24
2 额定转速 Nominal speed	rpm	12000
3 额定电流 Nominal current	A	0.70
4 额定转矩 Nominal torque	mNm	8.77
5 空载转速 No-load speed	rpm	15000
6 空载电流 No-load current	mA	65
7 最大效率 Max. efficiency	%	72.70
8 最大连续转矩 Max continuous torque	mNm	11
9 堵转电流 Stall current	A	3
10 堵转转矩 Stall torque	mNm	43.90

电机常数 Motor Constants

11 电机阻抗 Terminal resistance	Ω	8
12 电机感抗 Terminal inductance	mH	0.16
13 转矩常数 Torque constant	mNm/A	14.90
14 转速常数 Speed constant	rpm/V	625
15 转数/转矩常数 Speed/torque constant	rpm/mNm	341.90
16 机械时间常数 Mechanical time constant	ms	
17 转子惯量 Rotor inertia	gcm ²	9.99

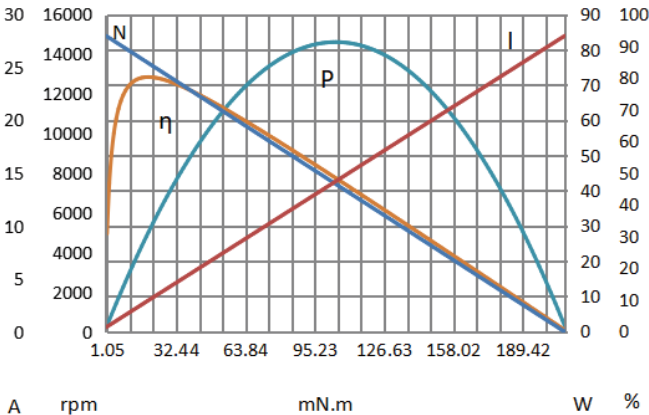
其它 Others

18 极对数 Number of pole pairs		1
19 相数 Number of phase		3
20 重量 Weight of motor	g	87
21 噪音 Typical noise level	dB	≤50

电机端子定义Motor terminal definition

红 Red	M1	V hall+5 VDC	铁氟龙
白 White	M2	Hall sensor A	铁氟龙
橙 Orange	M3	Hall sensor B	铁氟龙
棕 Brown	M4	Hall sensor C	铁氟龙
黑 Black	M5	GND	铁氟龙
黄 Yellow	M6	Motor winding A	铁氟龙
绿 Green	M7	Motor winding B	铁氟龙
蓝 Blue	M8	Motor winding C	铁氟龙

电机特性曲线 (Motor Characteristics Curve)



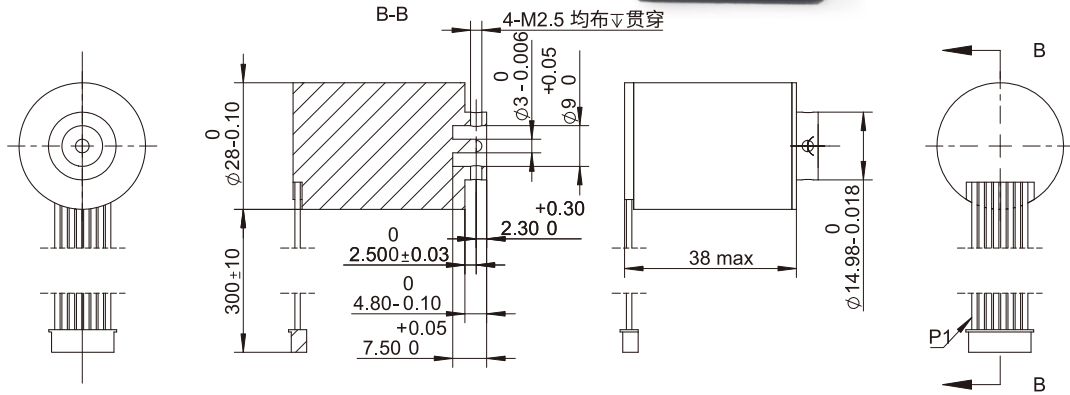
端子型号Terminal model: PH2.0-8P ; 线材UL10086 AWG24

空心杯电枢绕组-无刷

Φ28*L38mm 无刷电机 Brushless DC motor



EC-4P MOTOR



电机型号Motor Model		
EC2838H-28		
电机参数 Motor Data		
1 额定电压 Nominal voltage	V/DC	28
2 额定转速 Nominal speed	rpm	20800
3 额定电流 Nominal current	A	3
4 额定转矩 Nominal torque	mNm	27.90
5 空载转速 No-load speed	rpm	26000
6 空载电流 No-load current	mA	230
7 最大效率 Max. efficiency	%	76
8 最大连续转矩 Max continuous torque	mNm	34.80
9 堵转电流 Stall current	A	14
10 堵转转矩 Stall torque	mNm	139.30
电机常数 Motor Constants		
11 电机阻抗 Terminal resistance	Ω	2
12 电机感抗 Terminal inductance	mH	0.16
13 转矩常数 Torque constant	mNm/A	10.10
14 转速常数 Speed constant	rpm/V	929
15 转数/转矩常数 Speed/torque constant	rpm/mNm	186.70
16 机械时间常数 Mechanical time constant	ms	
17 转子惯量 Rotor inertia	gcm ²	8
其它 Others		
18 极对数 Number of pole pairs		1
19 相数 Number of phase		3
20 重量 Weight of motor	g	82
21 噪音 Typical noise level	dB	≤50
电机端子定义Motor terminal definition		
红 Red	P1	Hall +5 VDC 铁氟龙
黄 Yellow	P2	Hall sensor A 铁氟龙
白 White	P3	Hall sensor B 铁氟龙
蓝 Blue	P4	Hall sensor C 铁氟龙
黑 Black	P5	GND 铁氟龙
黄 Yellow	P6	Motor winding U 铁氟龙
白 White	P7	Motor winding V 铁氟龙
蓝 Blue	P8	Motor winding W 铁氟龙

电机特性曲线 (Motor Characteristics Curve)

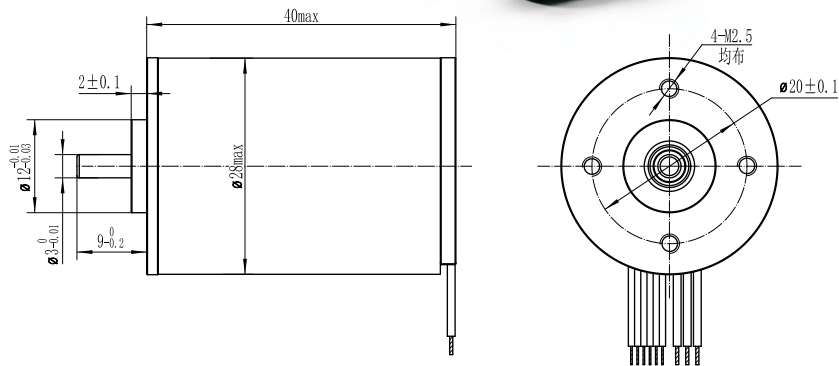
Torque (mN.m)	No-load speed (rpm)	Efficiency (%)	Power (W)	Current (A)
0	26000	0	0	0
10.10	20800	76	27.90	3.00
34.80	15000	70	51.84	5.10
139.30	5000	0	0	14.00

端子型号Terminal model: PH2.0-8P;线材UL10086 AWG24

有齿槽无刷电机-低速大力矩
Φ28*L40mm 无刷电机Brushless DC motor



EC MOTOR



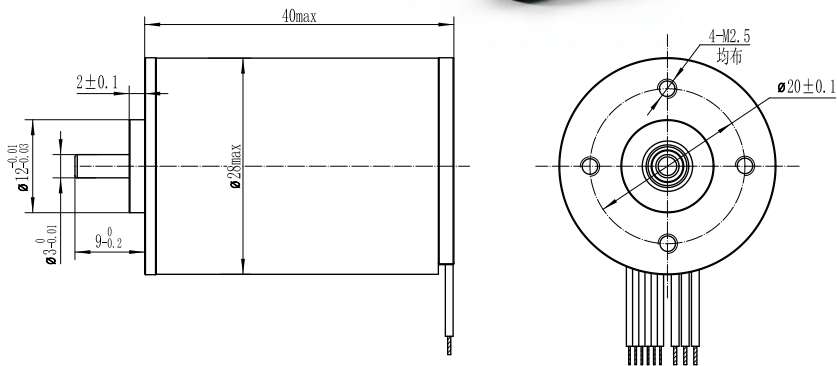
电机型号Motor Model		
EC2840-2804		
电机参数 Motor Data		
1 额定电压 Nominal voltage	V/DC	28
2 额定转速 Nominal speed	rpm	3106
3 额定电流 Nominal current	A	1.719
4 额定转矩 Nominal torque	mNm	100.86
5 空载转速 No-load speed	rpm	4114
6 空载电流 No-load current	mA	135
7 最大效率 Max. efficiency	%	73.4
8 堵转电流 Stall current	A	6.602
9 堵转转矩 Stall torque	mNm	411.69
电机常数 Motor Constants		
10 电机阻抗 Terminal resistance	Ω	4.2
11 电机感抗 Terminal inductance	mH	1.04
12 转矩常数 Torque constant	mNm/A	63.664
13 转速常数 Speed constant	rpm/V	147
14 转数/转矩常数 Speed/torque constant	rpm/mNm	10
15 机械时间常数 Mechanical time constant	ms	1.1
16 转子惯量 Rotor inertia	gcm ²	10.5
其它 Others		
17 极对数 Number of pole pairs		5
18 重量 Weight of motor	g	110
19 噪音 Typical noise level	dB	≤45
电机端子定义Motor terminal definition		
褐 Brown	M1	V ha11+5 VDC
黄 yellow	M2	Ha11 sensor A
绿 Green	M3	Ha11 sensor B
蓝 Blue	M4	Ha11 sensor C
灰 Grey	M5	GND
黑 Black	M6	Motor winding A
红 Red	M7	Motor winding B
白 White	M8	Motor winding C

电机特性曲线 (Motor Characteristics Curve)														
Motor characteristics curve graph showing speed (N), torque (P), and current (I) vs. speed/torque. The graph has three y-axes: Speed (rpm) on the left (0-4500), Torque (mNm) on the bottom (0-450), and Current (A) on the right (0-100). The x-axis represents speed/torque (0-372.58). Three curves are plotted: N (blue), P (orange), and I (red). <table border="1"><caption>Key data points from the motor characteristics curve</caption><thead><tr><th>Speed (rpm)</th><th>Torque (mNm)</th><th>Current (A)</th></tr></thead><tbody><tr><td>4114 (No-load)</td><td>0</td><td>0.135</td></tr><tr><td>3106 (Nominal)</td><td>100.86</td><td>1.719</td></tr><tr><td>0 (Stall)</td><td>411.69</td><td>6.602</td></tr></tbody></table>			Speed (rpm)	Torque (mNm)	Current (A)	4114 (No-load)	0	0.135	3106 (Nominal)	100.86	1.719	0 (Stall)	411.69	6.602
Speed (rpm)	Torque (mNm)	Current (A)												
4114 (No-load)	0	0.135												
3106 (Nominal)	100.86	1.719												
0 (Stall)	411.69	6.602												

空心杯电枢绕组-无刷
Φ28*L40mm 无刷电机Brushless DC motor



EC MOTOR



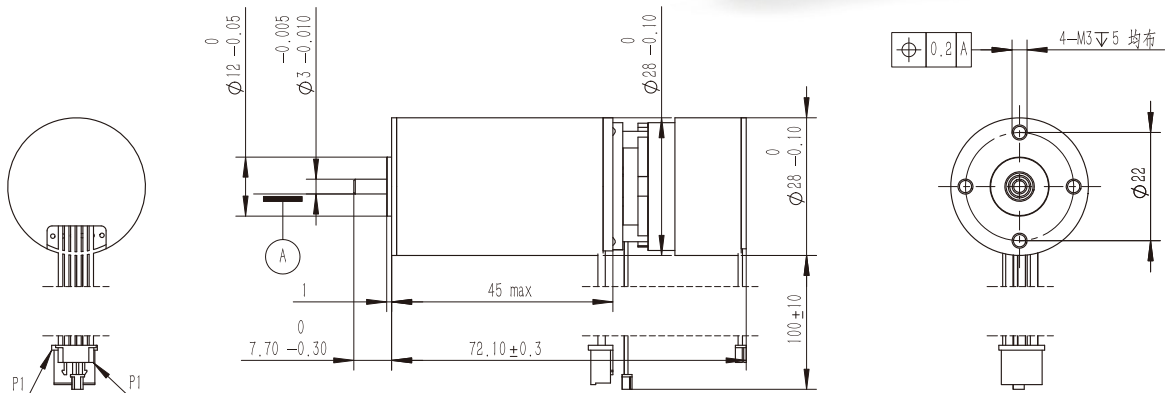
电机型号Motor Model		
EC2840-2809		
电机参数 Motor Data		
1 额定电压 Nominal voltage	V/DC	28
2 额定转速 Nominal speed	rpm	8859
3 额定电流 Nominal current	A	3.015
4 额定转矩 Nominal torque	mNm	69.37
5 空载转速 No-load speed	rpm	10870
6 空载电流 No-load current	mA	165
7 最大效率 Max. efficiency	%	80.5
8 堵转电流 Stall current	A	15.572
9 堵转转矩 Stall torque	mNm	374.98
电机常数 Motor Constants		
10 电机阻抗 Terminal resistance	Ω	1.8
11 电机感抗 Terminal inductance	mH	1.04
12 转矩常数 Torque constant	mNm/A	24.337
13 转速常数 Speed constant	rpm/V	388
14 转数/转矩常数 Speed/torque constant	rpm/mNm	29
15 机械时间常数 Mechanical time constant	ms	3.8
16 转子惯量 Rotor inertia	gcm ²	14
其它 Others		
17 极对数 Number of pole pairs		2
18 重量 Weight of motor	g	110
19 噪音 Typical noise level	dB	≤45
电机端子定义Motor terminal definition		
褐 Brown	M1	V ha11+5 VDC
黄 yellow	M2	Ha11 sensor A
绿 Green	M3	Ha11 sensor B
蓝 Blue	M4	Hal1 sensor C
灰 Grey	M5	GND
黑 Black	M6	Motor winding A
红 Red	M7	Motor winding B
白 White	M8	Motor winding C

电机特性曲线 (Motor Characteristics Curve)		
18	12000	120
16	10000	90
14	8000	80
12	6000	70
10	4000	60
8	2000	50
6		40
4		30
2		20
0		10
0		0
1.87	58.12	114.37
170.61	226.86	283.11
339.35		
A rpm	mN.m	W %

空心杯电枢绕组-无刷
Φ28*L45mm 无刷电机 Brushless DC motor



EC MOTOR



电机型号Motor Model

电机参数 Motor Data

EC2845N-S0.2-BX

1 额定电压 Nominal voltage	V/DC	24
2 额定转速 Nominal speed	rpm	9600
3 额定电流 Nominal current	A	2.49
4 额定转矩 Nominal torque	mNm	45
5 空载转速 No-load speed	rpm	12000
6 空载电流 No-load current	mA	110
7 最大效率 Max. efficiency	%	81.8
8 最大连续转矩 Max continuous torque	mNm	56.25
9 堵转电流 Stall current	A	12
10 堵转转矩 Stall torque	mNm	225

电机常数 Motor Constants

11 电机阻抗 Terminal resistance	Ω	2
12 电机感抗 Terminal inductance	mH	0.16
13 转矩常数 Torque constant	mNm/A	18.92
14 转速常数 Speed constant	rpm/V	500
15 转数/转矩常数 Speed/torque constant	rpm/mNm	53.3
16 机械时间常数 Mechanical time constant	ms	7.4
17 转子惯量 Rotor inertia	gcm ²	13.16

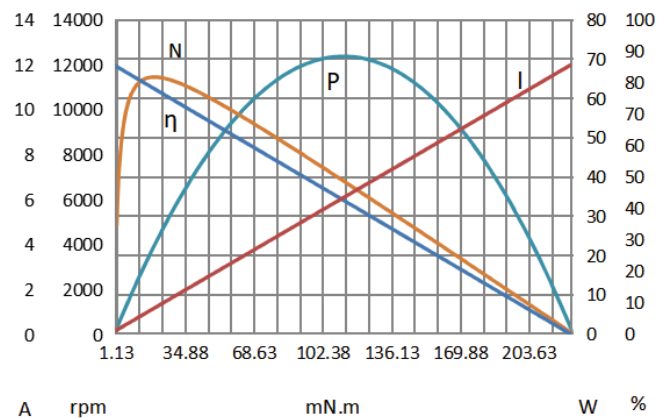
其它 Others

电机特性曲线 (Motor Characteristics Curve)

18 极对数	Number of pole pairs		2
19 相数	Number of phase		3
20 重量	Weight of motor	g	19
21 噪音	Typical noise level	dB	≤5

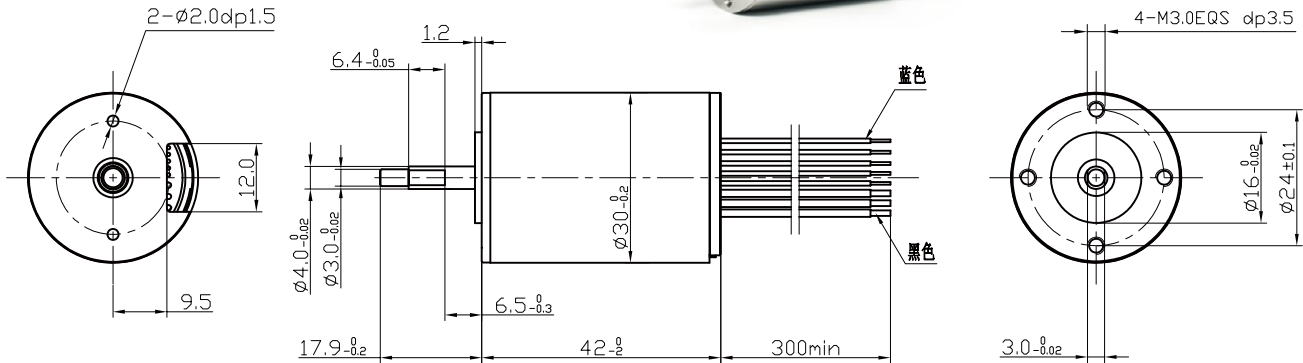
电机端子定义Motor terminal definition

红 Red	P1	Hall +5 VDC	铁氟龙
黄 Yellow	P2	Hall sensor A	铁氟龙
白 White	P3	Hall sensor B	铁氟龙
蓝 Blue	P4	Hall sensor C	铁氟龙
黑 Black	P5	GND	铁氟龙
黄 Yellow	P6	Motor winding U	铁氟龙
白 White	P7	Motor winding V	铁氟龙
蓝 Blue	P8	Motor winding W	铁氟龙



端子型号Terminal model: PH1.25-8P;线材UL10086 AWG24

空心杯电枢绕组-无刷
Φ30*L42mm 无刷电机Brushless DC motor



EC MOTOR

电机型号Motor Model

EC3042-2409

电机参数 Motor Data

1 额定电压 Nominal voltage	V/DC	12.4
2 额定转速 Nominal speed	rpm	12680
3 额定电流 Nominal current	A	8.227
4 额定转矩 Nominal torque	mNm	63.7
5 空载转速 No-load speed	rpm	14300
6 空载电流 No-load current	mA	48
7 最大效率 Max. efficiency	%	84
8 最大连续转矩 Max continuous torque	mNm	54
9 堵转电流 Stall current	A	68.89
10 堵转转矩 Stall torque	mNm	563

电机常数 Motor Constants

11 电机阻抗 Terminal resistance	Ω	0.17
12 电机感抗 Terminal inductance	mH	0.013
13 转矩常数 Torque constant	mNm/A	8.2
14 转速常数 Speed constant	rpm/V	1161
15 转数/转矩常数 Speed/torque constant	rpm/mNm	25.4
16 机械时间常数 Mechanical time constant	ms	5.3
17 转子惯量 Rotor inertia	gcm ²	16

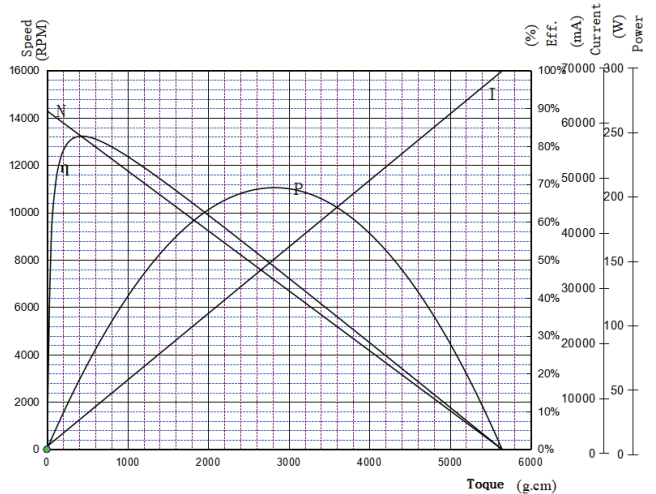
其它 Others

18 极对数	Number of pole pairs		2
19 相数	Number of phase		3
20 重量	Weight of motor	g	17
21 噪音	Typical noise level	dB	≤4

电机端子定义Motor terminal definition

黑 Black	Pin1	电机绕组1	AWG 18
红 Red	Pin2	电机绕组2	AWG 18
白 White	Pin3	电机绕组3	AWG 18
灰 Grey	Pin4	VHall 4.5...24 V	AWG 28
褐 Brown	Pin5	接地	AWG 28
黄 yellow	Pin6	霍尔传感器 1	AWG 28
绿 Green	Pin7	霍尔传感器 2	AWG 28
蓝 Blue	Pin8	霍尔传感器 3	AWG 28

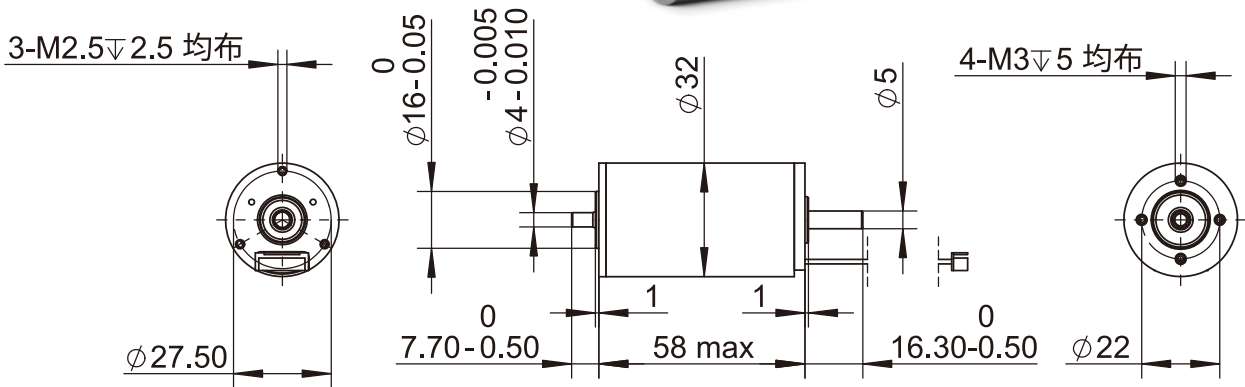
电机特性曲线 (Motor Characteristics Curve)



空心杯电枢绕组-无刷
Φ32*L58mm 无刷电机Brushless DC motor



EC-4P MOTOR



				电机型号Motor Model	
电机参数 Motor Data				EC3258H-28	
1	额定电压	Nominal voltage	V/DC	28	
2	额定转速	Nominal speed	rpm	9600	
3	额定电流	Nominal current	A	7.30	
4	额定转矩	Nominal torque	mNm	159.36	
5	空载转速	No-load speed	rpm	12000	
6	空载电流	No-load current	mA	88.80	
7	最大效率	Max. efficiency	%	86.50	
8	最大连续转矩	Max continuous torque	mNm	199.20	
9	堵转电流	Stall current	A	36	
10	堵转转矩	Stall torque	mNm	796.80	
电机常数 Motor Constants					
11	电机阻抗	Terminal resistance	Ω	0.78	
12	电机感抗	Terminal inductance	mH	0.16	
13	转矩常数	Torque constant	mNm/A	22.20	
14	转速常数	Speed constant	rpm/V	429	
15	转数/转矩常数	Speed/torque constant	rpm/mNm	15.10	
16	机械时间常数	Mechanical time constant	ms	6.50	
17	转子惯量	Rotor inetia	gcm ²	41.36	
其它 Others				电机特性曲线 (Motor Characteristics Curve)	
18	极对数	Number of pole pairs		2	
19	相数	Number of phase		3	
20	重量	Weight of motor	g	110	
21	噪音	Typical noise level	dB	≤50	
电机端子定义Motor terninal definetion					
红	Red	P1	Hall +5 VDC	铁氟龙	
黄	Yellow	P2	Hall sensor A	铁氟龙	
白	White	P3	Hall sensor B	铁氟龙	
蓝	Blue	P4	Hall sensor C	铁氟龙	
黑	Black	P5	GND	铁氟龙	
黄	Yellow	P6	Motor winding U	铁氟龙	
白	White	P7	Motor winding V	铁氟龙	
蓝	Blue	P8	Motor winding W	铁氟龙	

Speed (rpm)	Current (A)	Power (W)
2.35	0	0
72.95	10	100
143.54	20	400
214.13	30	900
284.72	40	1600
355.31	50	2500
425.91	60	3600

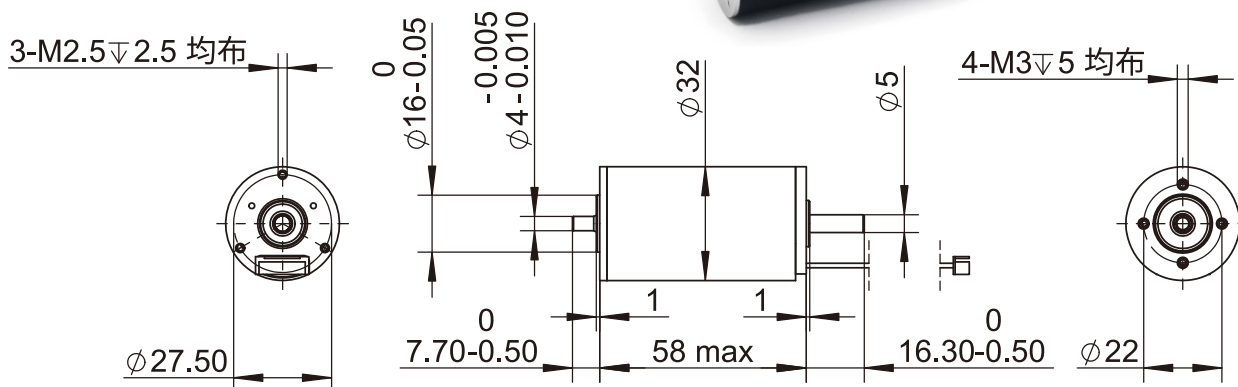
A rpm mNm W %

端子型号Terminal model: PH2.0-8P ; 线材UL10086 AWG22

Φ36*L74mm 无刷电机Brushless DC motor



EC MOTOR

电机型号Motor Model

电机参数 Motor Data

EC3674H-48

1	额定电压	Nominal voltage	V/DC	48
2	额定转速	Nominal speed	rpm	8000
3	额定电流	Nominal current	A	12.40
4	额定转矩	Nominal torque	mNm	541.27
5	空载转速	No-load speed	rpm	10000
6	空载电流	No-load current	mA	480
7	最大效率	Max. efficiency	%	82.90
8	最大连续转矩	Max continuous torque	mNm	676.60
9	堵转电流	Stall current	A	60
10	堵转转矩	Stall torque	mNm	2706.40

电机常数 Motor Constants

11	电机阻抗	Terminal resistance	Ω	0.80
12	电机感抗	Terminal inductance	mH	0.16
13	转矩常数	Torque constant	mNm/A	45.50
14	转速常数	Speed constant	rpm/V	208
15	转数/转矩常数	Speed/torque constant	rpm/mNm	3.70
16	机械时间常数	Mechanical time constant	ms	3.30
17	转子惯量	Rotor inertia	gcm ²	84.55

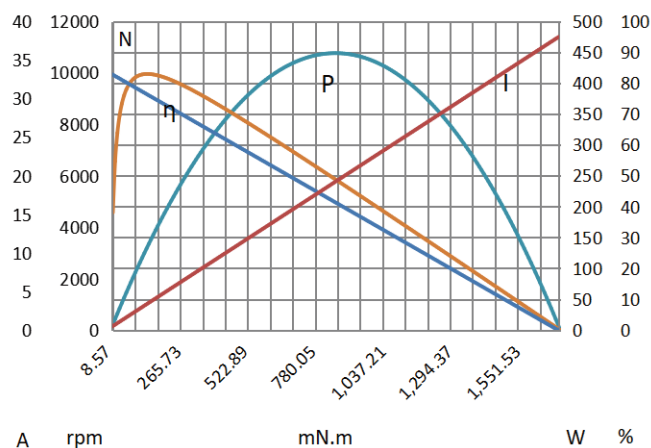
其它 Others

18	极对数	Number of pole pairs	1
19	相数	Number of phase	3
20	重量	Weight of motor	g 18
21	噪音	Typical noise level	dB ≤5

电机端子定义Motor terminal definition

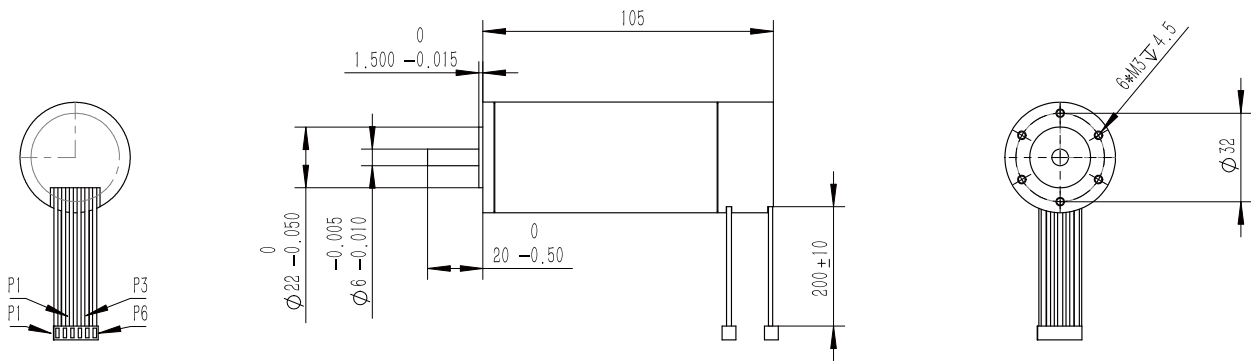
红 Red	P1	Hall +5 VDC	铁氟龙
黄 Yellow	P2	Hall sensor A	铁氟龙
白 White	P3	Hall sensor B	铁氟龙
蓝 Blue	P4	Hall sensor C	铁氟龙
黑 Black	P5	GND	铁氟龙
黄 Yellow	P6	Motor winding U	铁氟龙
白 White	P7	Motor winding V	铁氟龙
蓝 Blue	P8	Motor winding W	铁氟龙

电机特性曲线 (Motor Characteristics Curve)



端子型号Terminal model: PH2.0-8P; 线材UL10086 AWG22

空心杯电枢绕组-无刷
Φ40*L90mm 无刷电机Brushless DC motor



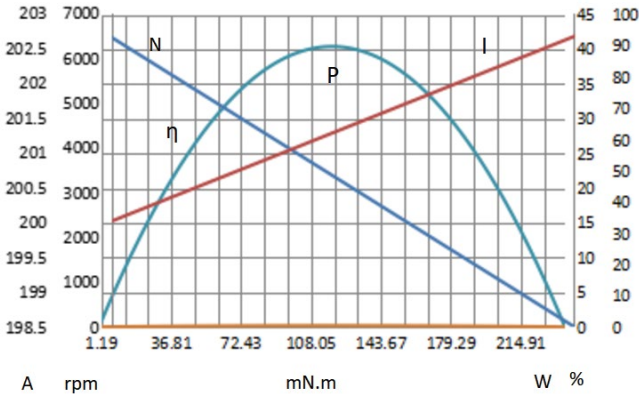
EC MOTOR

电机型号Motor Model		
EC4090		
电机参数 Motor Data		
1 额定电压 Nominal voltage	V/DC	48
2 额定转速 Nominal speed	rpm	5200
3 额定电流 Nominal current	A	7.8
4 额定转矩 Nominal torque	mNm	500
5 空载转速 No-load speed	rpm	6500
6 空载电流 No-load current	mA	350
7 最大效率 Max. efficiency	%	86.4
8 最大连续转矩 Max continuous torque	mNm	600
9 堵转电流 Stall current	A	40
10 堵转转矩 Stall torque	mNm	2793

电机常数 Motor Constants		
11 电机阻抗 Terminal resistance	Ω	1.2
12 电机感抗 Terminal inductance	mH	0.24
13 转矩常数 Torque constant	mNm/A	70.2
14 转速常数 Speed constant	rpm/V	793
15 转数/转矩常数 Speed/torque constant	rpm/mNm	27.4
16 机械时间常数 Mechanical time constant	ms	4.8
17 转子惯量 Rotor inertia	gcm²	98

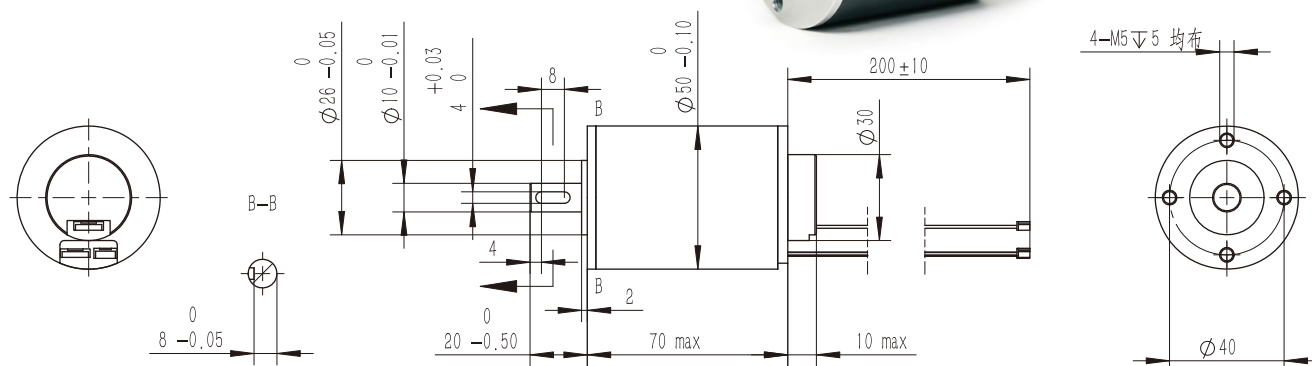
其它 Others		电机特性曲线 (Motor Characteristics Curve)	
18 极对数 Number of pole pairs		2	
19 相数 Number of phase		3	
20 重量 Weight of motor	g	675	
21 噪音 Typical noise level	dB	≤42	

电机端子定义Motor terminal definition		
黄 Yellow	M1	U
白 White	M2	V
蓝 Blue	M3	W
红 Red	P1	VCC
黑 Black	P2	GND
黄 Yellow	P3	MOSI
白 White	P4	MISO
蓝 Blue	P5	SCK
黄 Yellow	P6	CS



端子型号Terminal model: PH2.0-8Pin 4.9

Φ50*L70mm 无刷电机Brushless DC motor



EC MOTOR

电机型号Motor ModelEC5070N-BX

电机参数 Motor Data

1	额定电压	Nominal voltage	V/DC	48
2	额定转速	Nominal speed	rpm	9600
3	额定电流	Nominal current	A	20.28
4	额定转矩	Nominal torque	mNm	758.61
5	空载转速	No-load speed	rpm	12000
6	空载电流	No-load current	mA	350
7	最大效率	Max. efficiency	%	88.5
8	最大连续转矩	Max continuous torque	mNm	948.26
9	堵转电流	Stall current	A	100
10	堵转转矩	Stall torque	mNm	3793.03

电机常数 Motor Constants

11 电机阻抗	Terminal resistance	Ω	0.48
12 电机感抗	Terminal inductance	mH	0.16
13 转矩常数	Torque constant	mNm/A	38.06
14 转速常数	Speed constant	rpm/V	250
15 转数/转矩常数	Speed/torque constant	rpm/mNm	3.2
16 机械时间常数	Mechanical time constant	ms	14.2
17 转子惯量	Rotor inertia	gcm ²	427.56

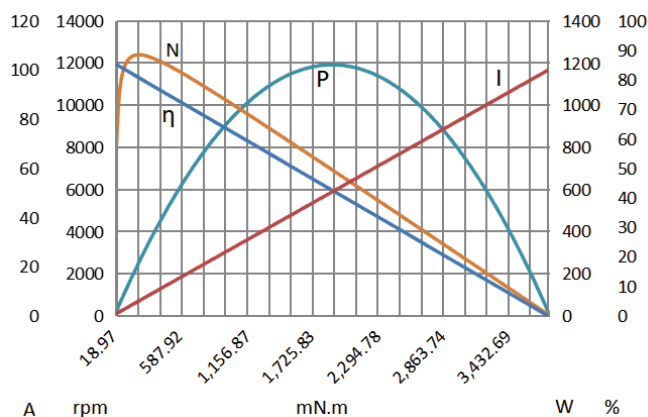
其它 Others

18 极对数	Number of pole pairs	2
19 相数	Number of phase	3
20 重量	Weight of motor	9 576
21 噪音	Typical noise level	≤50 dB

电机端子定义Motor terminal definition

红 Red	P1	ha11+5 VDC	铁氟龙
黄 Yellow	P2	Ha11 sensor A	铁氟龙
白 White	P3	Ha11 sensor B	铁氟龙
蓝 Blue	P4	Ha11 sensor C	铁氟龙
黑 Black	P5	GND	铁氟龙
黄 Yellow	P6	Motor winding U	铁氟龙
白 White	P7	Motor winding V	铁氟龙
蓝 Blue	P8	Motor winding W	铁氟龙

电机特性曲线 (Motor Characteristics Curve)

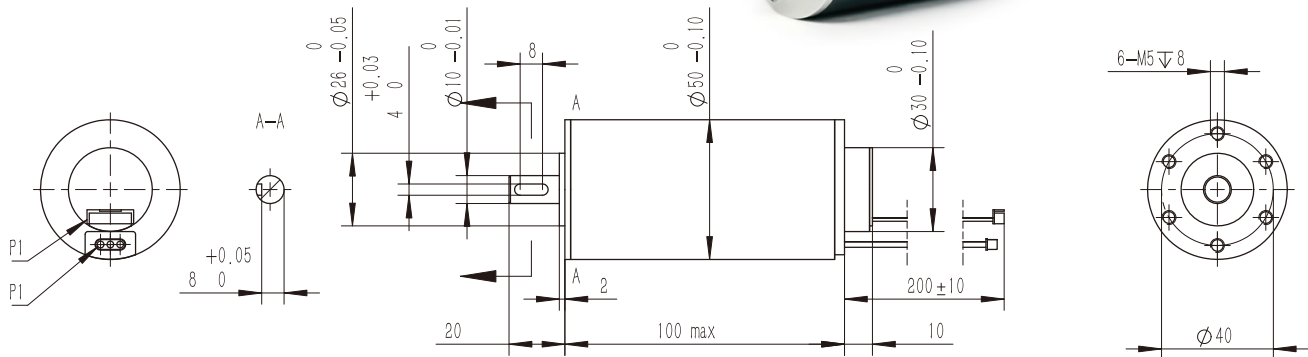


端子型号Terminal model:SH1.25-BP;线材UL10086 AWG16

空心杯电枢绕组-无刷
Φ50*L100mm 无刷电机Brushless DC motor



EC MOTOR

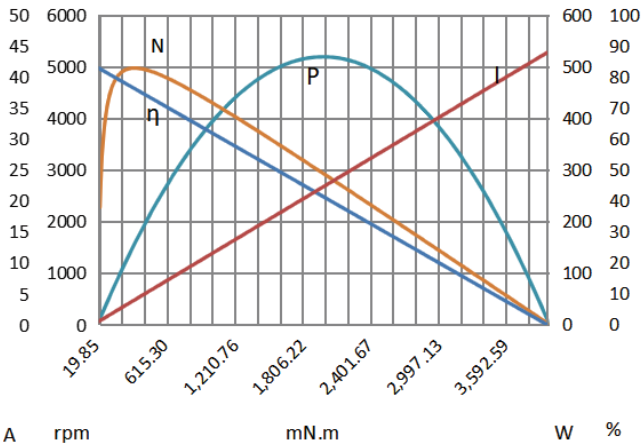


电机型号Motor Model		
EC50100N-BX		
电机参数 Motor Data		
1 额定电压 Nominal voltage	V/DC	48
2 额定转速 Nominal speed	rpm	3100
3 额定电流 Nominal current	A	16.94
4 额定转矩 Nominal torque	mNm	1508.49
5 空载转速 No-load speed	rpm	5000
6 空载电流 No-load current	mA	350
7 最大效率 Max. efficiency	%	83
8 最大连续转矩 Max continuous torque	mNm	992.43
9 堵转电流 Stall current	A	44
10 堵转转矩 Stall torque	mNm	3969.71

电机常数 Motor Constants		
11 电机阻抗 Terminal resistance	Ω	1.09
12 电机感抗 Terminal inductance	mH	0.16
13 转矩常数 Torque constant	mNm/A	90.94
14 转速常数 Speed constant	rpm/V	104
15 转数/转矩常数 Speed/torque constant	rpm/mNm	1.3
16 机械时间常数 Mechanical time constant	ms	1.5
17 转子惯量 Rotor inertia	gcm ²	116.61

其它 Others		电机特性曲线 (Motor Characteristics Curve)	
18 极对数 Number of pole pairs	1		
19 相数 Number of phase	7		
20 重量 Weight of motor	g		
21 噪音 Typical noise level	dB	≤50	

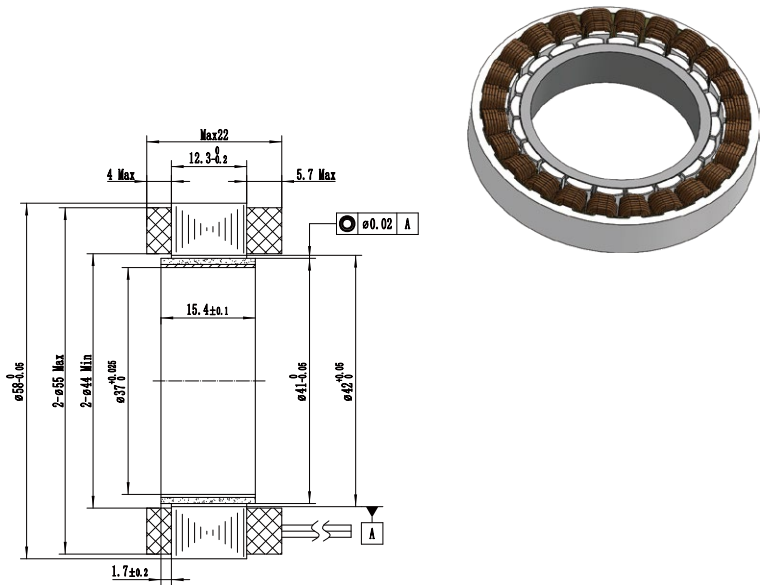
电机端子定义Motor terminal definition		
P1	U	AWG16
P2	V	AWG16
P3	W	AWG16



无框力矩电机
Φ58*L22mm



EC MOTOR



				电机型号Motor Model	
电机参数 Motor Data				EC5822-5822	
1	额定电压	Nominal voltage	V/DC	24	
2	额定转速	Nominal speed	rpm	1995	
3	额定电流	Nominal current	A	4	
4	额定转矩	Nominal torque	mNm	297	
5	空载转速	No-load speed	rpm	3000	
6	空载电流	No-load current	mA	223	
7	最大效率	Max. efficiency	%	74.1	
8	堵转电流	Stall current	A	11.554	
9	堵转转矩	Stall torque	mNm	848.92	
电机常数 Motor Constants					
10	电机阻抗	Terminal resistance	Ω	1.46	
11	电机感抗	Terminal inductance	mH	0.65	
12	转矩常数	Torque constant	mNm/A	74.9	
13	转速常数	Speed constant	rpm/V	125	
14	转数/转矩常数	Speed/torque constant	rpm/mNm	3.5	
15	机械时间常数	Mechanical time constant	ms	11	
16	转子惯量	Rotor inetia	gcm²	10.5	
其它 Others				电机特性曲线 (Motor Characteristics Curve)	
17	极对数	Number of pole pairs		8	
18	相数	Number of phase			
19	重量	Weight of motor	g	240	
20	噪音	Typical noise level	dB	≤45	
电机端子定义Motor terminal defination					
褐	Brown	M1	V hall+5 VDC	铁氟龙	
黄	yellow	M2	Hall sensor A	铁氟龙	
绿	Green	M3	Hall sensor B	铁氟龙	
蓝	Blue	M4	Hall sensor C	铁氟龙	
灰	Grey	M5	GND	铁氟龙	
黑	Black	M6	Motor winding A	铁氟龙	
红	Red	M7	Motor winding B	铁氟龙	
白	White	M8	Motor winding C	铁氟龙	

电机特性曲线 (Motor Characteristics Curve)						
14	3500		80 100			
12	3000		70 90			
10	2500		60 80			
8	2000		50 70			
6	1500		40 60			
4	1000		30 50			
2	500		20 40			
0	0		10 30			
0	0		0 20			
0	0		0 10			
0	0		0 0			
4.24	131.58	258.92	386.26	513.60	640.93	768.27
A rpm		mN.m		W %		



微信公众号



官方抖音号

☎ 131-0025-1085 / 180-1885-1098

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