HeTai 合泰

伺服电机

精准控制位置与速度的利器

High Performance ----Servo Motor

HETAI



HETAI（jiangsu)

CHANGZHOU HETAI ELECTRIC MOTORS & APPLIANCE CO., LTD.

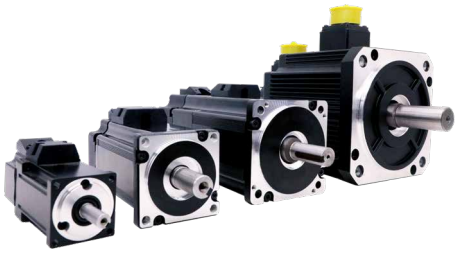
产品范围



直流无刷电机
DC Brushless Motor



步进电机
Stepping Motor



伺服电机
Servo Motor



高精密行星减速机
High Precision Planetary Reducer



行星减速电机
Gearbox Motor



行星减速箱
Planetary Gearbox



驱动器
Driver



无框电机
Frameless Motor

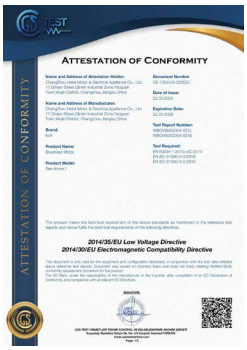


滚筒电机
Electric Roller Motor

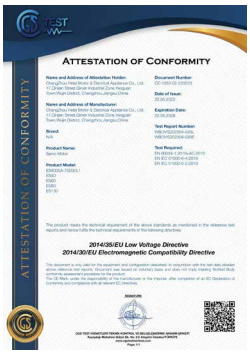
公司荣誉

品质保障.值得信赖

Quality Assurance. Trustworthy.



CE





ROHS



REACH



ISO 14001



ISO 9001



ISO 45001







ISO/IATF

CE ROHS ISO9001 IATF16949



公司简介

常州合泰电机电器股份有限公司(股票代码834300)，是一家具有新型管理模式和强大技术实力的微电机生产制造企业，专业生产伺服电机、直流无刷电机、混合式步进电机、驱动器…等产品。

为用户提供专业的机电一体化产品与自动化系统解决方案。产品主要应用于机器人、包装机械、纺织机械、医疗器械、印刷机械、智能物流…等各行各业的自动化设备仪器中，产品主要销往欧美、东南亚及全国各地。

合泰电机位于江苏省常州市，厂房建筑面积为35000多平方米。公司自1998年重组以来，已形成一定的产销规模，具有年生产300多万台电机的生产能力。

2003年开始导入质量管理体系，先后获得了ISO9001/IATF 16949体系证书，并顺利通过换版审核和历年的监督审核，获得了国家外经贸部核准的外贸自营进出口权。

2005年获得了出口产品安全许可证-欧盟“CE”认证；发明专利4项,实用新型专利7项，外观设计专利1项。

公司股票于2015年在全国股份转让系统挂牌 (新三版)。
2016年通过了安全标准化管理体系的认证。
2018年被评为高新技术企业。
2019年成立工程技术研究中心。
2021年继续被评为江苏省高新技术企业。
2023年与大连理工大学达成校企合作签订联合创新中心 。

建筑面积 Ares

35000+ 平方米

公司历史 History

27+ 年

年产量 Production

3000000+ 台

发明专利 Patents

14+ 项



About Us

ChangZhou Hetai (Stock code:834300) is a leading manufacturer with advanced technology and innovative management mode. Hetai specializes in producing servo motors, DC Motors, hybrid stepping motors, drivers and so on.

Hetai dedicates to professional electrical integration and automation strategies for customers. The products are almost applied in robots, packing machinery, textile machinery, medical instruments, printing machinery, intelligent logistics equipment... Hetai also sends its products to USA, Europe, Southeast Asia and all-around China.

Hetai is located in ChangZhou, JiangSu province and its workshop area is over 35,000 m^2. Since Hetai reformed in 1998, the specialization, scale of production has ensured to manufacture 3,000,000 motors every year.

In the year 2003, Hetai was qualified by ISO9001/IATF 16949 Certificate, and passed supervision successfully. The company also attained import and export right of external trade of self-management.

In 2005, Hetai has qualified by EU Type Examination Certificate and get four Invention Patent, seven Utility Patent, and one Appearance Design Patent.

Hetai was quoted on the stock market in 2015.

Hetai was authenticated by safety standardization management system in next year.

The company was qualified as high-tech enterprise in 2018.

Establishment of Engineering Technology Research Center in 2019.
Continuously rated as a high-tech enterprise in Jiangsu Province in 2021.
Entered into university-enterprise cooperation with Dalian University of Technology and signed a joint innovation centre in 2023.

应用案例

割草电机
劲动力 静运行

lawn mower motor













无刷电机优势：

- 效率高 High efficiency
- 运行平稳 Stable operation
- 精准定位 Precise positioning

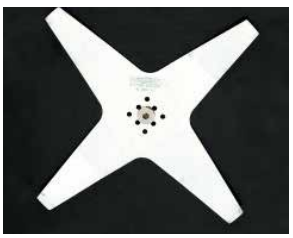
行星减速电机优势：

- 力矩大 High torque
- 低噪音 Lower noise
- 体积小 Small volume

轮毂电机 Wheel Motor



刀头电机 Blade Motor



应用案例

闸机电机
为智慧通行赋能

Motor for Automatic Gate Systems



精准控制
Precise Control

24V 安全电压
24V Safety Voltage

耐用可靠
Durable and Reliable

高效节能
High Efficiency and Energy Saving



Cooperative Client

合作客户

感谢与我们一起
并肩作战的伙伴们!

30+



CONTENTS

目录

低压伺服电机系列 LOW VOLTAGE SERVO MOTOR

1.40 Series P.15

2.60 Series P.16

3.80 Series P.17

4.130 Series P.18, 19

高压伺服电机系列 HIGH VOLTAGE SERVO MOTOR

5.40 Series P.20.21

6.60 Series P.22.23

7.80 Series P.24.25

8.130 Series P.26.27.28

TS 伺服电机系列 TS SERIES SERVO MOTOR

9.TS 60 Series P.29,30

10.TS 80 Series P.31,32

驱动 DRIVER

1.高压伺服驱动器 P.33
High-Voltage Servo Driver

2.低压伺服驱动器 P.34
Low-Voltage Servo Driver

伺服电机型号命名规则

例：TS4005A-05S30 / For example:TS4005A-05S30

TS 40 05 A -05 S 30 A I -001

系列 Series	
TS	太阳花伺服 TS Series motor
ES	高效伺服 High efficiency servo motor

机座号 Seat NO.	
40	40*40mm
60	60*60mm
80	80*80mm
130	130*130mm
180	180*180mm

极对数 Polar logarihm	
04	4极对
05	5极对
08	8极对

电压 Voltage	
A	220V
B	380V
D	110V
G	48V
K	24V

功率 Power	
05	50W
10	100W
75	750W
100	1KW
...	...
550	5.5KW

同参数派生 Derivation of the same parameter

结构 Structure	
1	No Brake
2	Brake

编码器 Encoder	
A	单圈绝对值17bit 17BiT Abs. S/T Enc.
B	增量式2500ppr Incremental 2500ppr
L	多圈17bit 17BiT Multi-turn
M	旋转变压器 Rotary transformer
P	多圈23bit 23BiT Multi-turn
R	单圈17bit 17BiT S/T Mag. Enc.
RM	多圈17bit 23BiT Multi-turn
N	尼康多圈24bit Nikon M/T Abs. 24BiT

转速 Speed	
10	1000rpm
20	2000rpm
30	3000rpm

惯量 Inertia	
S	小 Small
D	中 Medium
E	大 Large

接线图 Connection Details

1.1 40;60;80 系列 40:60:80 Series

电机出线 Motor Wire：4 PIN

PIN	FUNCTION	COLOUR
1	U	红 Red
2	V	白 White
3	W	黑 Black
4	GND	黄/绿 Yellow/Green



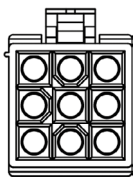
4 PIN



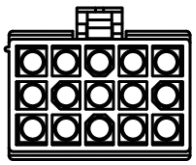
6 PIN

电机出线+刹车 Motor Wire with Brake：6 PIN

PIN	FUNCTION	COLOUR
1	U	红 Red
2	V	白 White
3	W	黑 Black
4	GND	黄/绿 Yellow/Green
5	刹车 Brake	黄 Yellow
6	刹车 Brake	蓝 Blue



9 PIN



15 PIN

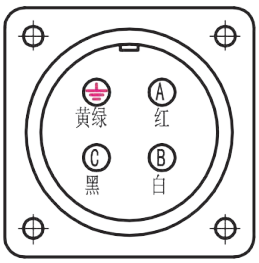
1.2 130 系列 130 Series

电机出线: 4芯航空插座正面 Motor Wire：4 PIN

PIN	FUNCTION	COLOUR
A	U	红 Red
B	V	白 White
C	W	黑 Black
⏚	接地 Motor PE	黄/绿 Yellow/Green

4 PIN（Resolver）

4芯航空插座正面



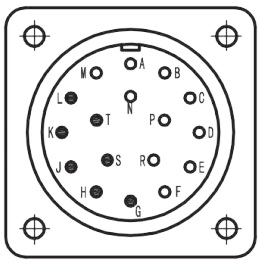
电机出线+刹车:九芯航空插座正面

Motor Wire + Brake : 9 PIN

PIN	FUNCTION	COLOUR
F	U	红 Red
I	V	白 White
B	W	黑 Black
H	刹车 Brake	黑 Black
G	刹车 Brake	黑 Black
E	接地 Motor PE	黄/绿 Yellow/Green
D	接地 Motor PE	黄/绿 Yellow/Green

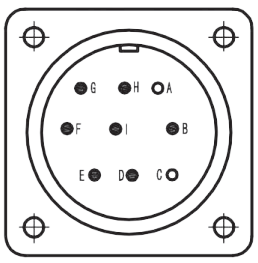
17 PIN（Encoder）

17芯航空插座正面



9 PIN（Resolver）

9芯航空插座正面



2. 编码器接线图 Encoder Connection

A型编码器 Encoder Type A：6 PIN

PIN	FUNCTION	COLOUR
1	NC	
2	SD	蓝 Blue
3	SD-	紫 Purple
4	Vcc	白 White
5	GND	黑 Black
6	屏蔽 Shield	/

B型编码器 Encoder Type B：15 PIN

PIN	FUNCTION	COLOUR
1	屏蔽 Shield	NC
2	DC+5V	红 Red
3	GND	黑 Black
4	B	绿 Green
5	Z-	黄/白 Yellow/White
6	U	棕 Brown
7	Z	黄 Yellow
8	U-	棕/白 Brown/White
9	A	灰 Grey
10	W	橙 Orange
11	V	蓝 Blue
12	W-	橙/白 Orange/White
13	A-	灰/白 Grey/White
14	B-	绿/白 Green/White
15	V-	蓝/白 Blue/White

L型编码器 Encoder Type L：9 PIN

PIN	FUNCTION	COLOUR
1	OV	黑 Black
2		/
3	SD+	蓝 Blue
4	+5V	红 Red
5	BAT-	棕/黑 Brown/Black
6	BAT+	棕 Brown
7	SD-	蓝/黑 Blue/Black
8		/
9	GND	灰（屏蔽）Grey（Shield）

L型编码器：17芯航空插座正面
Encoder Type L：17 PIN

PIN	FUNCTION	COLOUR
H	+5V	红 Red
G	0V	黑 Black
T	BAT+	棕 Brown
S	BAT-	棕/黑 Brown/Black
K	SD+	蓝 Blue
L	SD-	蓝/黑 Blue/Black
J	GND	灰 Grey

N型编码器 Encoder Type N：9 PIN

PIN	FUNCTION	COLOUR
1	SD+	蓝 Blue
2	SD-	紫 Purple
3	BAT+	橙 Orange
4		/
5		/
6	+5V	白 White
7	0V	黑 Black
8	BAT-	棕 Brown
9	屏蔽 Shield	屏蔽层 Shield

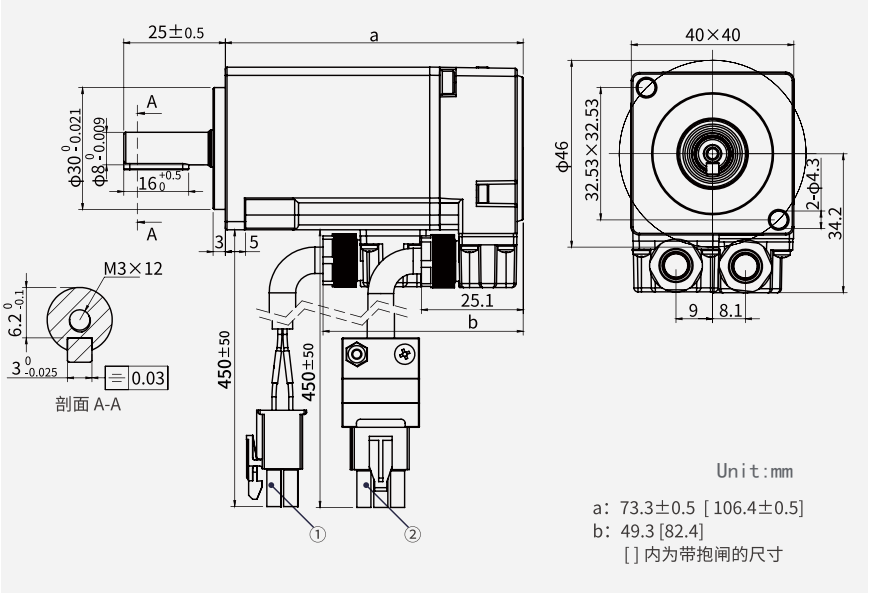
40 Series

低压伺服电机系列
LOW VOLTAGE SERVO MOTOR

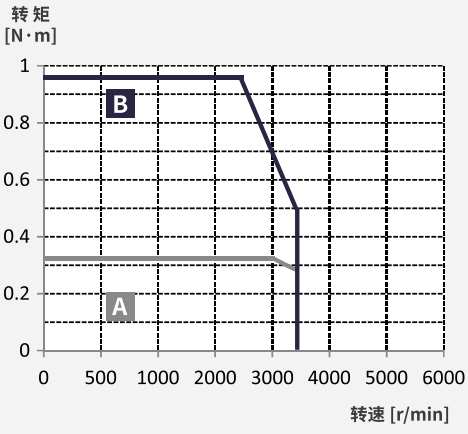
技术数据 Technical Specifications

参数 Technical Specifications / 型号 Model	ES4005K-05		ES4005K-10		ES4005G-10	
额定电压 Rated Voltage (VDC)	24				48	
额定功率 Rated Power (W)	50	50	100	100	100	100
额定电流 Rated Current (Amps)	3.70	3.70	6.0	6.0	3.60	3.60
额定力矩 Rated Torque (N.m)	0.159	0.159	0.318	0.318	0.318	0.318
峰值力矩 Peak Torque (N.m)	0.477	0.477	0.954	0.954	0.954	0.954
额定转速 Rated Speed (RPM)	3000	3000	3000	3000	3000	3000
最高转速 Peak Speed (RPM)	3300	3300	3300	3300	3300	3300
反电势 Back EMF Constant (V/1000rpm)	2.90	2.90	3.20	3.20	6.20	6.20
力矩常数 Torque Coefficient (N.M/A)	0.04	0.04	0.05	0.05	0.09	0.09
线电阻 Line-line Resistance (Ω)	0.95	0.95	0.52	0.52	1.60	1.60
线电感 Line-line Inductance (mH)	0.90	0.90	0.76	0.76	1.85	1.85
电气时间常数 Mechanical time-constant (ms)	0.95	0.95	1.46	1.46	1.16	1.16
转子惯量 Rotor Inertia ($Kg.m^2$)	0.034×10^{-4}	0.037×10^{-4}	0.065×10^{-4}	0.068×10^{-4}	0.065×10^{-4}	0.068×10^{-4}
重量 Weight (Kg)	0.40	0.50	0.50	0.60	0.50	0.60
长度 Lenght (mm)	59.3	92.4	73.3	106.4	73.3	106.4
级数 No. of Poles	10					
绝缘等级 Insulation Class	F(155°C)					
防护等级 Protection Level	IP65					
工作环境温度 Ambient Temperature	0~ +40°C					
工作环境湿度 Environment Humidity	<90%RH无凝露)					

外型图 Mechanical Dimension



转矩特性 Torque Curve



A 连续动作区域

B 瞬时动作区域

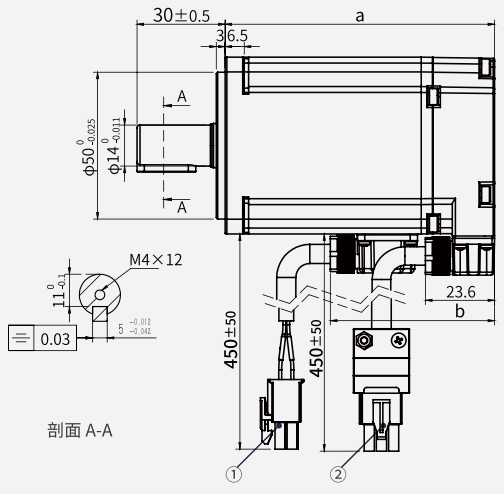
60 Series

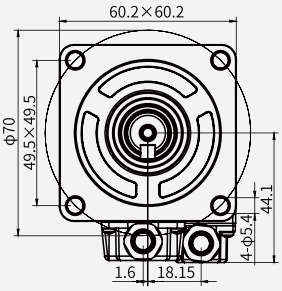
低压伺服电机系列
LOW VOLTAGE SERVO MOTOR

技术数据 Technical Specifications

参数 Technical Specifications / 型号 Model	ES6005G-20		ES6005G -40	
额定电压 Rated Voltage (VDC)	48			
额定功率 Rated Power (W)	200	200	400	400
额定电流 Rated Current (Amps)	5.20	5.20	11.4	11.4
额定力矩 Rated Torque (N.m)	0.64	0.64	1.27	1.27
峰值力矩 Peak Torque (N.m)	1.91	1.91	3.81	3.81
额定转速 Rated Speed (RPM)	3000	3000	3000	3000
最高转速 Peak Speed (RPM)	3600	3600	3600	3600
反电势 Back EMF Constant (V/1000rpm)	6.80	6.80	6.90	6.90
力矩常数 Torque Coefficient (N.M/A)	0.12	0.12	0.11	0.11
线电阻 Line-line Resistance (Ω)	0.52	0.52	0.20	0.20
线电感 Line-line Inductance (mH)	0.76	0.76	0.29	0.29
电气时间常数 Mechanical time-constant (ms)	1.46	1.46	1.45	1.45
转子惯量 Rotor Inertia ($Kg.m^2$)	0.25×10^{-4}	0.34×10^{-4}	0.53×10^{-4}	0.55×10^{-4}
重量 Weight (Kg)	0.90	1.20	1.32	1.62
长度 Lenght (mm)	74.31	103.8	91.8	120.8
级数 No. of Poles	10			
绝缘等级 Insulation Class	F(155°C)			
防护等级 Protection Level	IP65			
工作环境温度 Ambient Temperature	0~ +40°C			
工作环境湿度 Environment Humidity	<90%RH无凝露)			

外型图 Mechanical Dimension

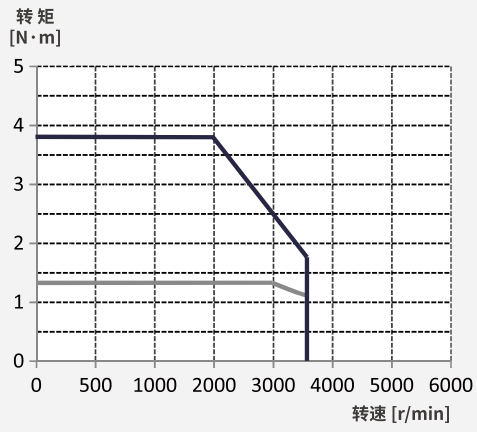




Unit:mm

a: 91.8±0.5 [120.8±0.5]
b: 56 [85]
[ ] 内为带抱闸的尺寸

转矩特性 Torque Curve



A 连续动作区域

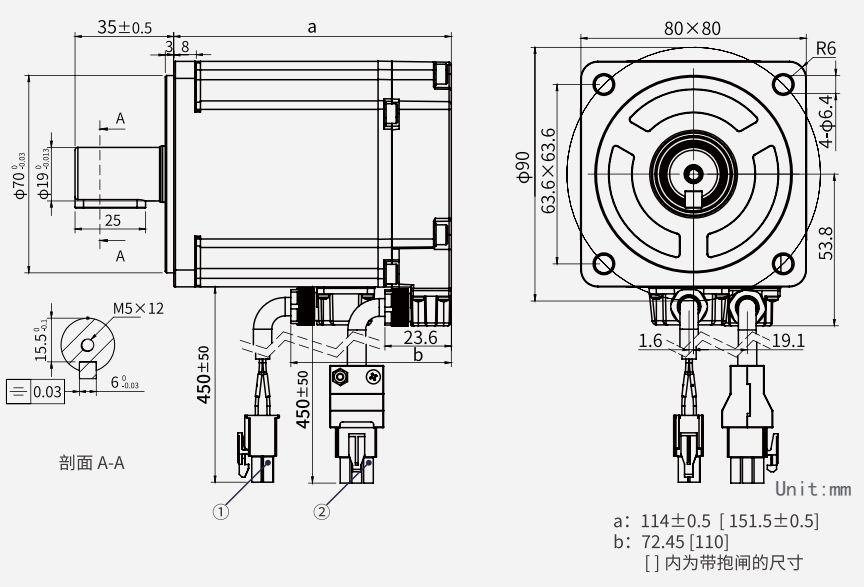
B 瞬时动作区域

低压伺服电机系列
LOW VOLTAGE SERVO MOTOR

技术数据 Technical Specifications

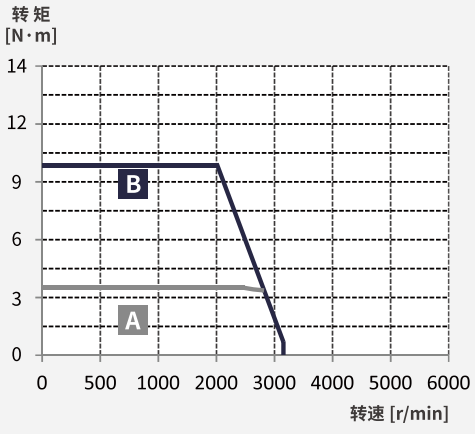
参数 Technical Specifications / 型号 Model	ES8005G-75		ES8005G-100	
额定电压 Rated Voltage (VDC)	48			
额定功率 Rated Power (W)	750	750	1000	1000
额定电流 Rated Current (Amps)	17.0	17.0	21.0	21.0
额定力矩 Rated Torque (N.m)	2.39	2.39	3.18	3.18
峰值力矩 Peak Torque (N.m)	7.17	7.17	9.54	9.54
额定转速 Rated Speed (RPM)	3000	3000	3000	3000
最高转速 Peak Speed (RPM)	3100	3100	3100	3100
反电势 Back EMF Constant (V/1000rpm)	9.60	9.60	9.70	9.70
力矩常数 Torque Coefficient (N.M/A)	0.14	0.14	0.15	0.15
线电阻 Line-line Resistance (Ω)	0.09	0.09	0.06	0.06
线电感 Line-line Inductance (mH)	0.29	0.29	0.61	0.61
电气时间常数 Mechanical time-constant (ms)	3.22	3.22	10.0	10.0
转子惯量 Rotor Inertia ($Kg.m^2$)	1.49×10^{-4}	1.54×10^{-4}	1.93×10^{-4}	1.98×10^{-4}
重量 Weight (Kg)	2.40	3.10	2.90	3.60
长度 Lenght (mm)	98.5	136	114	151.5
级数 No. of Poles	10			
绝缘等级 Insulation Class	F(155°C)			
防护等级 Protection Level	IP65			
工作环境温度 Ambient Temperature	0~ +40°C			
工作环境湿度 Environment Humidity	<90%RH无凝露)			

外型图 Mechanical Dimension



a: 114±0.5 [151.5±0.5]
b: 72.45 [110]
[ ] 内为带抱闸的尺寸

转矩特性 Torque Curve



A 连续动作区域
B 瞬时动作区域

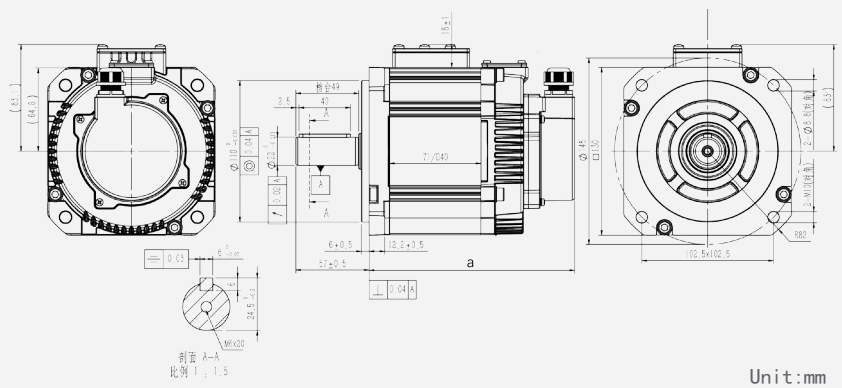
130 Series

低压伺服电机系列
LOW VOLTAGE SERVO MOTOR

技术数据 Technical Specifications

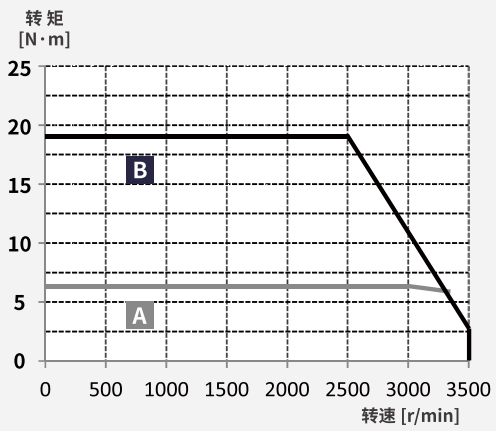
参数 Technical Specifications / 型号 Model		ES13005G-150		ES13005G-200		ES13005G-220	
额定电压	Rated Voltage (VDC)	48					
额定功率	Rated Power (W)	1500	1500	2000	2000	2200	2200
额定电流	Rated Current (Amps)	37.0	37.0	58.0	58.0	58.0	58.0
额定力矩	Rated Torque (N.m)	4.80	4.80	6.40	6.40	7.16	7.16
峰值力矩	Peak Torque (N.m)	14.40	14.40	19.20	19.20	21.48	21.48
额定转速	Rated Speed (RPM)	3000	3000	3000	3000	3000	3000
最高转速	Peak Speed (RPM)	3500	3500	3500	3500	3500	3500
反电势	Back EMF Constant (V/1000rpm)	8.70	8.70	7.10	7.10	7.80	7.80
力矩常数	Torque Coefficient (N.M/A)	0.13	0.13	0.11	0.11	0.12	0.12
线电阻	Line-line Resistance (Ω)	0.03	0.03	0.02	0.02	0.02	0.02
线电感	Line-line Inductance (mH)	0.25	0.25	0.12	0.12	0.13	0.13
电气时间常数	Mechanical time-constant (ms)	8.33	8.33	8.77	8.77	5.91	5.91
转子惯量	Rotor Inertia ($Kg.m^2$)	1.49×10^{3}	1.68×10^{3}	1.52×10^{3}	1.73×10^{3}	2.03×10^{-3}	2.22×10^{-3}
重量	Weight (Kg)	5.70	7.10	6.50	7.90	7.10	8.50
长度	Lenght (mm)	154	183	160	189	165	194
级数	No. of Poles	10					
绝缘等级	Insulation Class	F(155°C)					
防护等级	Protection Level	IP65					
工作环境温度	Ambient Temperature	0~ +40°C					
工作环境湿度	Environment Humidity	<90%RH无凝露)					

外型图 Mechanical Dimension



机身长度：a=160±1[189±1]
[ ] 内为带抱闸的尺寸

转矩特性 Torque Curve



A 连续动作区域

B 瞬时动作区域

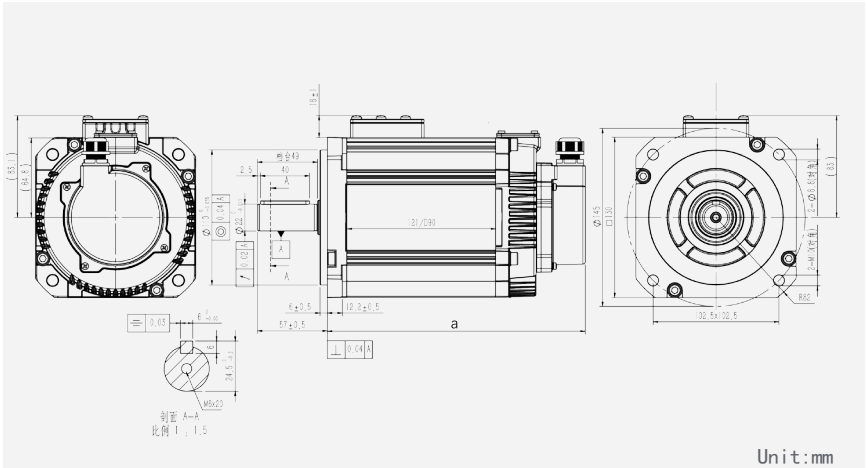
130 Series

低压伺服电机系列
LOW VOLTAGE SERVO MOTOR

技术数据 Technical Specifications

参数 Technical Specifications / 型号 Model	ES13005G-300		ES13005G-300		ES13005G-300	
额定电压 Rated Voltage (VDC)	48					
额定功率 Rated Power (W)	3000	3000	3000	3000	3000	3000
额定电流 Rated Current (Amps)	82.0	82.0	80.0	80.0	79.0	79.0
额定力矩 Rated Torque (N.m)	9.50	9.50	14.3	14.3	19.0	19.0
峰值力矩 Peak Torque (N.m)	28.5	28.5	42.9	42.9	57.0	57.0
额定转速 Rated Speed (RPM)	3000	3000	2000	2000	1500	1500
最高转速 Peak Speed (RPM)	3500	3500	2500	2500	1900	1900
反电势 Back EMF Constant (V/1000rpm)	7.20	7.20	10.8	10.8	15.3	15.3
力矩常数 Torque Coefficient (N.M/A)	0.12	0.12	0.18	0.18	0.24	0.24
线电阻 Line-line Resistance (Ω)	0.008	0.008	0.012	0.012	0.012	0.012
线电感 Line-line Inductance (mH)	0.085	0.085	0.12	0.12	0.156	0.156
电气时间常数 Mechanical time-constant (ms)	10.63	10.63	10.0	10.0	13.0	13.0
转子惯量 Rotor Inertia ($Kg.m^2$)	2.65×10^{3}	2.84×10^{3}	3.39×10^{-3}	3.59×10^{-3}	4.47×10^{3}	4.47×10^{3}
重量 Weight (Kg)	8.60	10.0	10.5	12.8	13.5	15.8
长度 Lenght (mm)	177	206	210	239	240	269
级数 No. of Poles	10					
绝缘等级 Insulation Class	F(155°C)					
防护等级 Protection Level	IP65					
工作环境温度 Ambient Temperature	0~ +40°C					
工作环境湿度 Environment Humidity	<90%RH无凝露)					

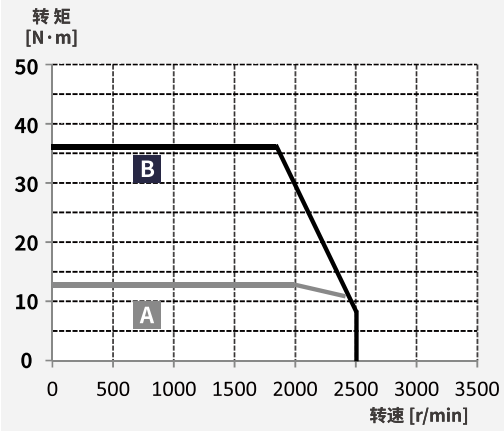
外型图 Mechanical Dimension



Unit:mm

机身长度：a=210±1[239±1]
[ ] 内为带抱闸的尺寸

转矩特性 Torque Curve



A 连续动作区域

B 瞬时动作区域

40 Series

高压伺服电机系列
HIGH VOLTAGE SERVO MOTOR



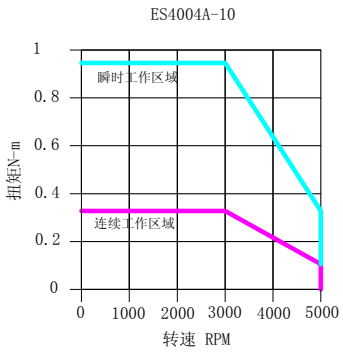
详细说明 General Specifications

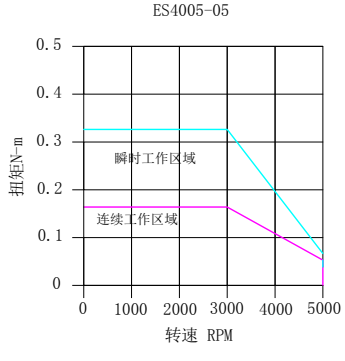
绝缘等级	Insulation Class	F
防护等级	Protection Level	IP65
环境要求	Environment Requirement	工作/Work: 0°C～+55°C 保存/Preserve：20°C～80°C 工作或保存/Work or Preserve: 90%RH（无结露/No Condensation) 海拔1000米/ Above Sea Level 1000m 振动/ Vibration：5.88/S 2.10-60Hz

技术数据 Technical Specifications

电机型号 Model	ES4004A-10	ES4005A-05
额定功率 Rated Power (Watts)	100	50
额定电压 Rated Voltage (VDC)	310	310
额定电流 Rated Current (Amps)	1.2	0.56
额定转速 Rated Speed (RPM)	3000	3000
额定力矩 Rated Torque (N.M)	0.32	0.16
峰值力矩 Peak Torque (N.M)	0.96	0.48
反电势常数 Back EMF Constant (V/kRPM)	16	16
力矩系数 Torque Coefficient (N.M/Amps)	0.265	0.265
转子惯量 Rotor Inertia ($Kg.cm^2$)	0.045	0.03
绕线(线间)电阻 Line-line Resistance (Ω)	11	23
绕线(线间)电感 Line-line Inductance (mH)	8	16
电气时间常数 Mechanical time-constant (Ms)	0.86	0.86

T-N 曲线 T-N Curve

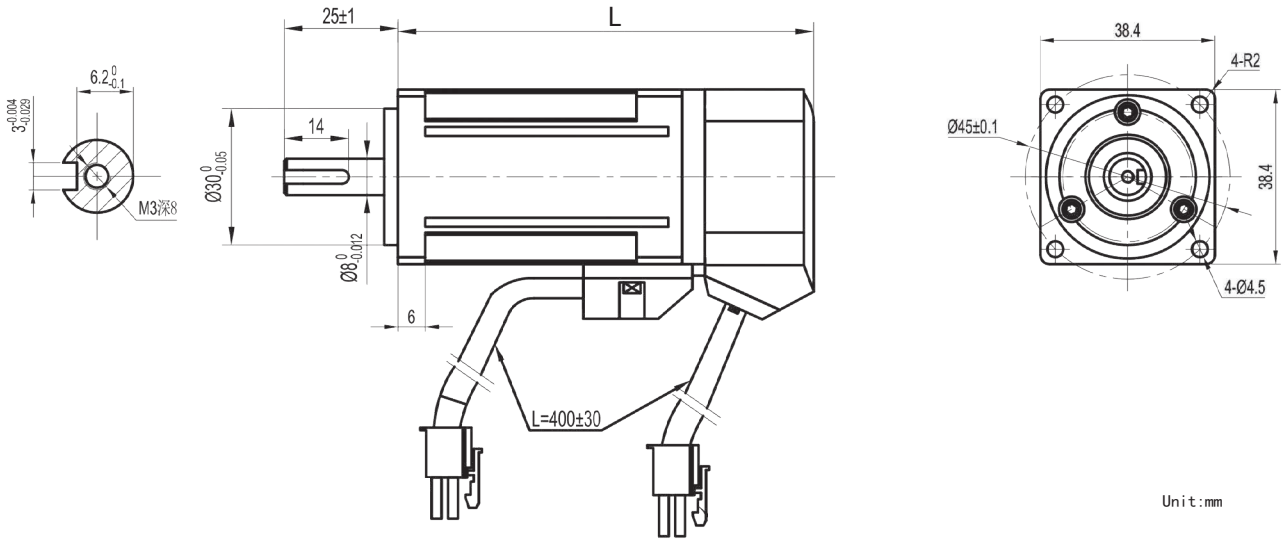




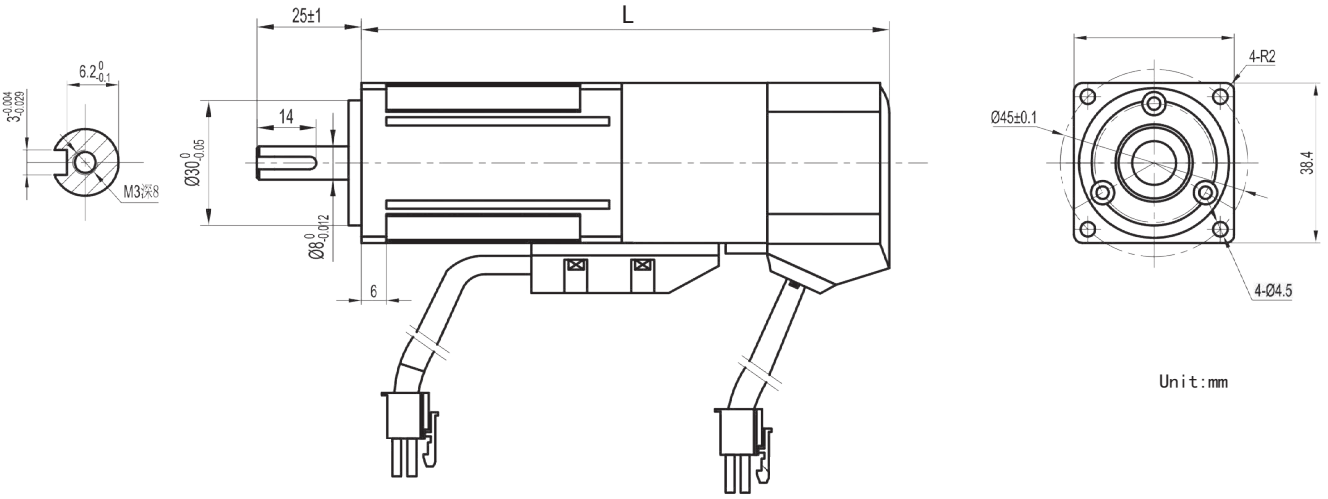
	编码器 Encoder	功率 Power	50W	100W
无刹车 Without Brake	A	L(mm)	72±1	92±1
		kg	0.36	0.50
	L	L(mm)	77±1	97±1
		kg	0.35	0.52
	B	L(mm)	65±1	80±1
		kg	0.35	0.65
	M	L(mm)	77±1	92±1
		kg	0.62	0.77
	N	L(mm)	77±1	97±1
		kg	0.42	0.60

	编码器 Encoder	功率 Power	50W	100W
刹车 With Brake	A	L(mm)	102±1	127±1
		kg	0.62	0.50
	L	L(mm)	107±1	127±1
		kg	0.62	0.72
	B	L(mm)	95±1	110±1
		kg	0.65	0.65
	M	L(mm)	107±1	127±1
		kg	0.83	1.00
	N	L(mm)	107±1	127±1
		kg	0.70	0.80

1.无刹车系列 Without Brake Series



2.有刹车系列 With Brake Series



60 Series

高压伺服电机系列
HIGH VOLTAGE SERVO MOTOR



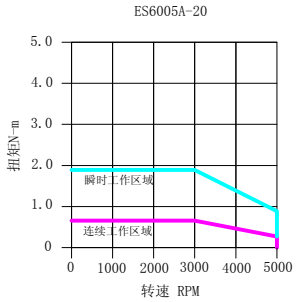
详细说明 General Specifications

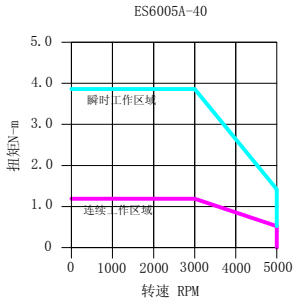
绝缘等级	Insulation Class	F
防护等级	Protection Level	IP65
环境要求	Environment Requirement	工作/Work: 0°C～+55°C 保存/Preserve：20°C～80°C 工作或保存/Work or Preserve: 90%RH（无结露/No Condensation） 海拔1000米/ Above Sea Level 1000m 振动/ Vibration：5.88/S 2.10-60Hz

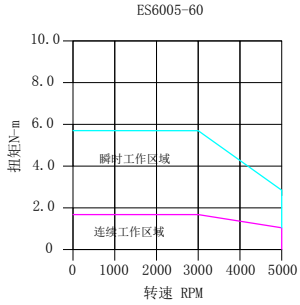
技术数据 Technical Specifications

电机型号 Model	ES6004A-40	ES6005A-40	ES6005A-20
额定功率 Rated Power (Watts)	400		200
额定电压 Rated Voltage (VDC)	310		310
额定电流 Rated Current (Amps)	2.65		1.6
额定转速 Rated Speed (RPM)	3000		3000
额定力矩 Rated Torque (N.M)	1.27		0.64
峰值力矩 Peak Torque (N.M)	3.81		1.92
反电势常数 Back EMF Constant (V/kRPM)	32		32
力矩系数 Torque Coefficient (N.M/Amps)	0.48		0.45
转子惯量 Rotor Inertia ($Kg.cm^2$)	0.67		0.42
绕线（线间）电阻 Line-line Resistance（Ω）	3.5	3.7	8.8
绕线（线间）电感 Line-line Inductance（mH）	8.0	12.0	24.0
电气时间常数 Mechanical time-constant (Ms)	1.3		1.3

T-N 曲线 T-N Curve



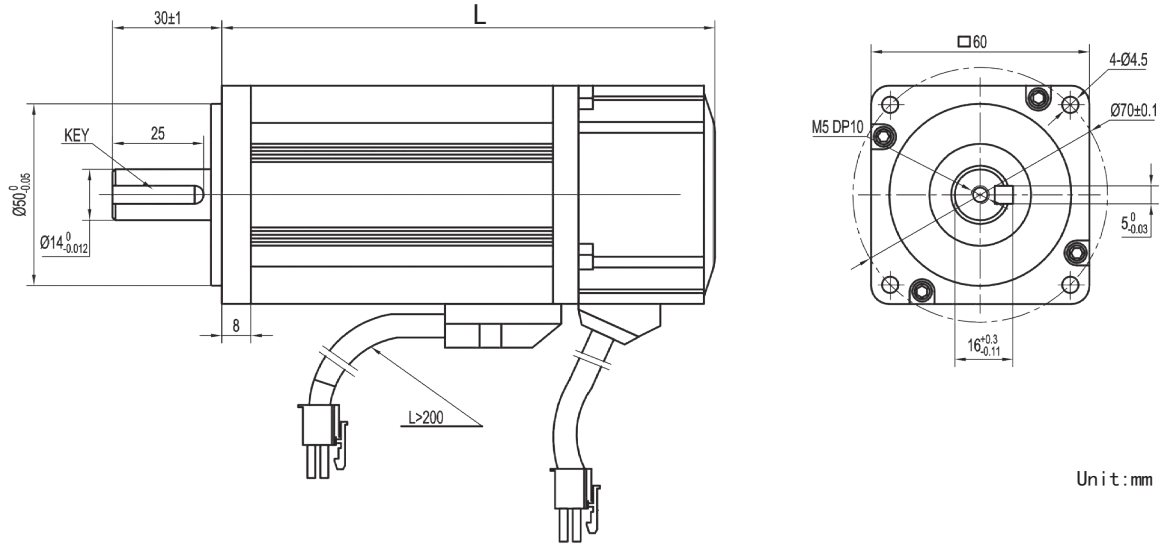




	编码器 Encoder	功率 Power	100W	200W	400W	600W
无刹车 Without Brake	A	L(mm)	91±1	101±1	121±1	141±1
		kg	0.51	1.00	1.28	2.00
	L	L(mm)	106±1	116±1	136±1	156±1
		kg	0.57	1.10	1.42	2.10
	B	L(mm)	106±1	116±1	136±1	156±1
		kg	0.63	1.05	1.35	2.10
	M	L(mm)	91±1	101±1	121±1	141±1
		kg	0.77	1.26	1.63	2.00
	N	L(mm)	91±1	101±1	121±1	141±1
		kg	0.50	0.85	1.23	1.23

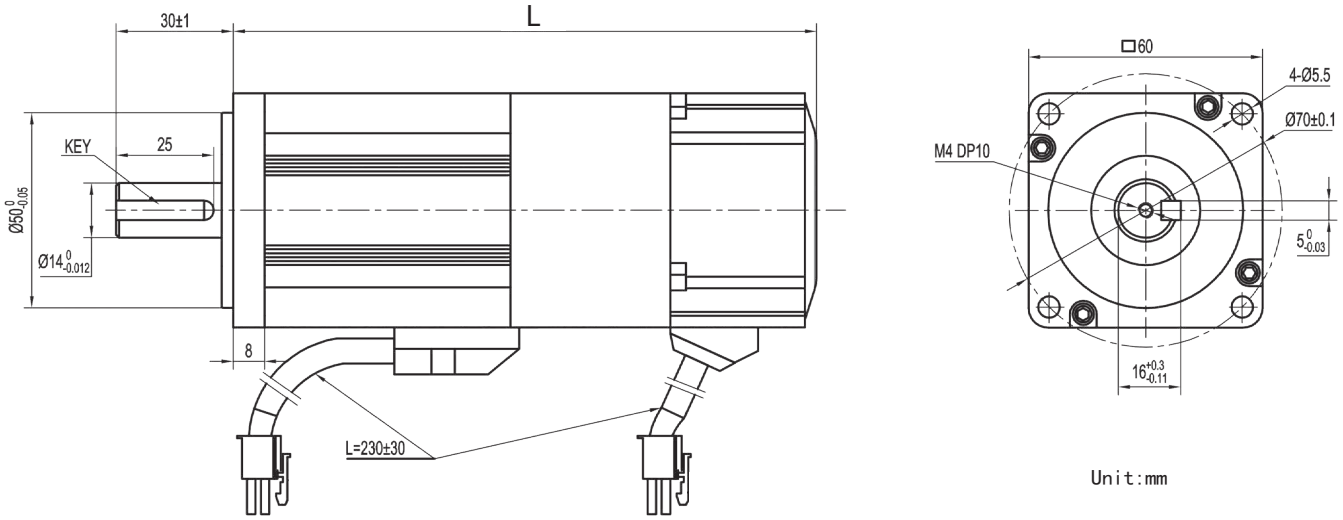
	编码器 Encoder	功率 Power	100W	200W	400W	600W
刹车 With Brake	A	L(mm)	125±1	135±1	155±1	175±1
		kg	0.95	1.46	1.85	2.50
	L	L(mm)	140±1	150±1	170±1	190±1
		kg	1.00	1.50	1.86	1.86
	B	L(mm)	140±1	150±1	170±1	190±1
		kg	1.00	1.25	1.80	2.70
	M	L(mm)	125±1	135±1	155±1	175±1
		kg	1.20	1.68	2.00	2.50
	N	L(mm)	125±1	135±1	155±1	175±1
		kg	0.94	1.23	1.65	2.50

1.无刹车系列 Without Brake Series



Unit:mm

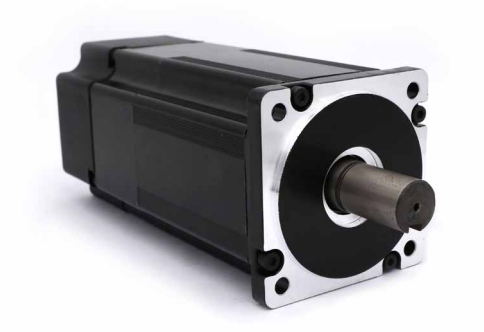
2.有刹车系列 With Brake Series



Unit:mm

80 Series

高压伺服电机系列
HIGH VOLTAGE SERVO MOTOR



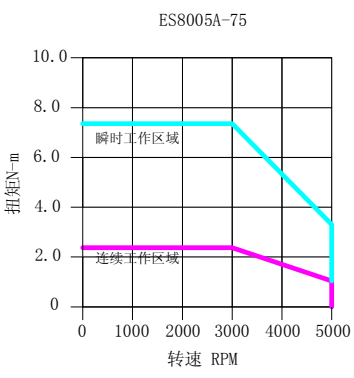
详细说明 General Specifications

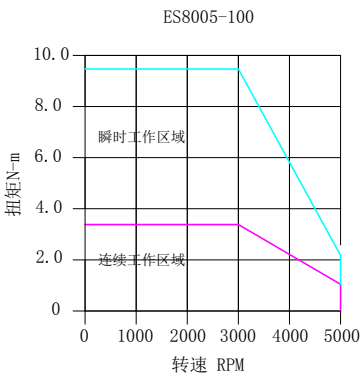
绝缘等级	Insulation Class	F
防护等级	Protection Level	IP65
环境要求	Environment Requirement	工作/Work: 0°C～+55°C 保存/Preserve：20°C～80°C 工作或保存/Work or Preserve: 90%RH（无结露/No Condensation） 海拔1000米/ Above Sea Level 1000m 振动/ Vibration：5.88/S 2.10-60Hz

技术数据 Technical Specifications

电机型号 Model	ES8004A-75	ES8005A-75
额定功率 Rated Power (Watts)	750	750
额定电压 Rated Voltage (VDC)	310	310
额定电流 Rated Current (Amps)	4.0	4.0
额定转速 Rated Speed (RPM)	3000	3000
额定力矩 Rated Torque (N.M)	2.4	2.4
峰值力矩 Peak Torque (N.M)	7.2	7.2
反电势常数 Back EMF Constant (V/kRPM)	39	39
力矩系数 Torque Coefficient (N.M/Amps)	0.6	0.6
转子惯量 Rotor Inertia ($Kg.cm^2$)	1.51	1.51
绕线(线间)电阻 Line-line Resistance (Ω)	1.4	1.5
绕线(线间)电感 Line-line Inductance (mH)	9.0	11.0

T-N 曲线 T-N Curve

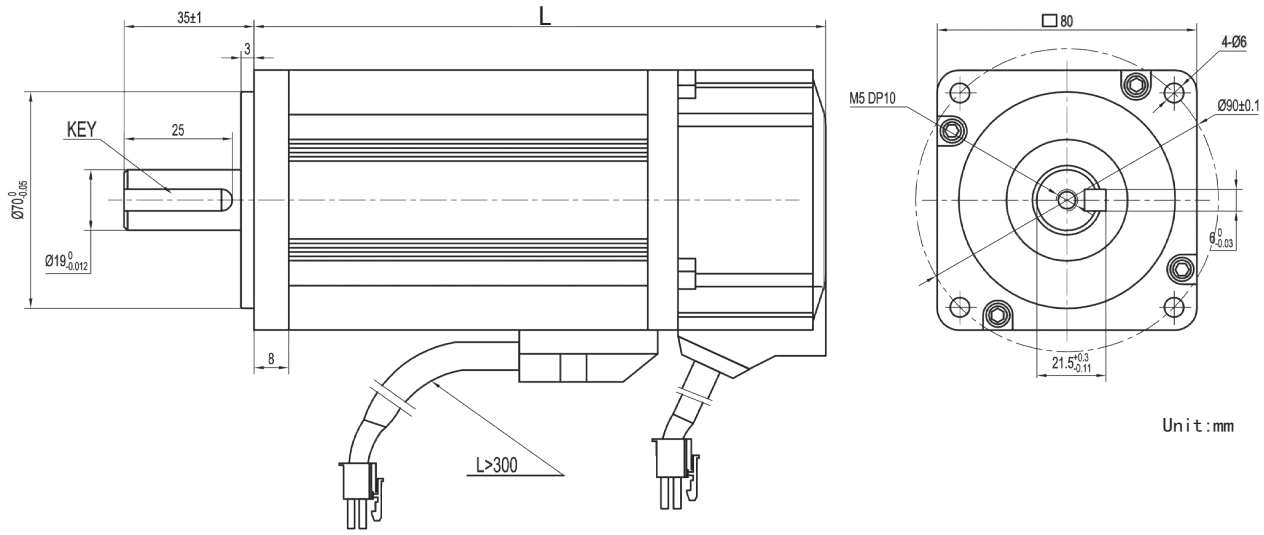




	编码器 Encoder	功率 Power	750W	1000W
无刹车 Without Brake	A	L(mm)	125±1	140±1
		kg	2.42	3.00
	L	L(mm)	141±1	156±1
		kg	2.42	3.00
	B	L(mm)	141±1	156±1
		kg	2.43	3.00
	M	L(mm)	125±1	140±1
		kg	2.63	3.20
	N	L(mm)	125±1	140±1
		kg	2.37	2.93

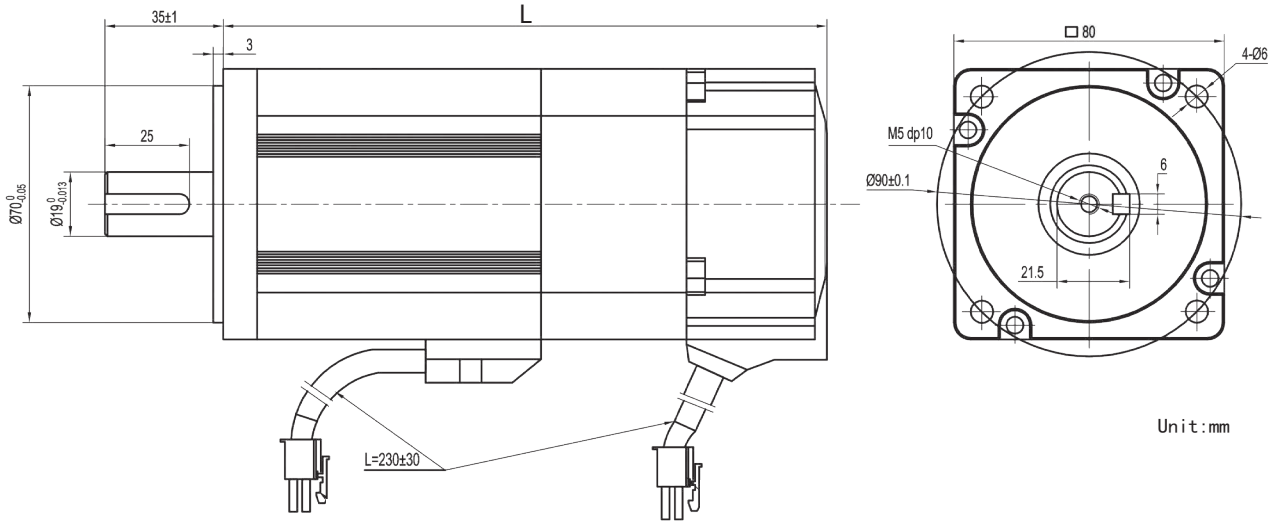
	编码器 Encoder	功率 Power	750W	1000W
刹车 With Brake	A	L(mm)	163±1	178±1
		kg	3.50	4.00
	L	L(mm)	179±1	194±1
		kg	3.50	4.05
	B	L(mm)	179±1	194±1
		kg	3.50	4.06
	M	L(mm)	163±1	178±1
		kg	3.70	4.27
	N	L(mm)	163±1	178±1
		kg	3.43	4.00

1.无刹车系列 Without Brake Series



Unit:mm

2.有刹车系列 With Brake Series



Unit:mm

130 Series

》高压伺服电机系列
HIGH VOLTAGE SERVO MOTOR



详细说明 General Specifications

绝缘等级	Insulation Class	F
防护等级	Protection Level	IP65
环境要求	Environment Requirement	工作/Work: 0°C～+55°C 保存/Preserve:20°C～80°C 工作或保存/Work or Preserve: 90%RH（无结露/No Condensation） 海拔1000米/ Above Sea Level 1000m 振动/ Vibration:5.88/S 2.10-60Hz

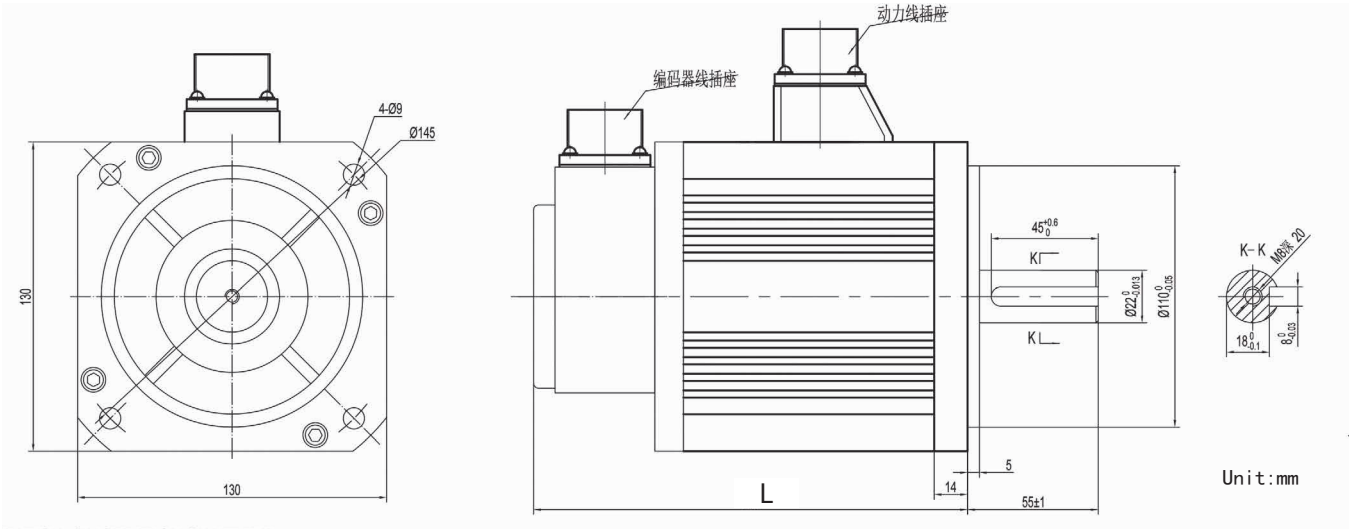
技术数据 Technical Specifications

电机型号 Model	ES13005				
额定功率 Rated Power (Watts)	1000	1500	2000		2000
额定电压 Rated Voltage (VDC)	310				
额定电流 Rated Current (Amps)	5.5	8.8	12.0		9.5
额定转速 Rated Speed (RPM)	2000				1000
额定力矩 Rated Torque (N.M)	4.70	7.20	9.55		20.00
峰值力矩 Peak Torque (N.M)	14.1	21.60	28.65		40.00
反电势常数 Back EMF Constant (V/kRPM)	55	62	80	55	153
力矩系数 Torque Coefficient (N.M/Amps)	0.6	0.6	0.79	0.6	1.5
转子惯量 Rotor Inertia ($Kg.cm^2$)	4.5	6.7	8.9		17.8
绕线（线间）电阻 Line-line Resistance (Ω)	1.20	0.80	0.50	0.46	1.10
绕线（线间）电感 Line-line Inductance (mH)	12.0	8.4	5.4	6.5	13.7

外型图 Mechanical Dimension

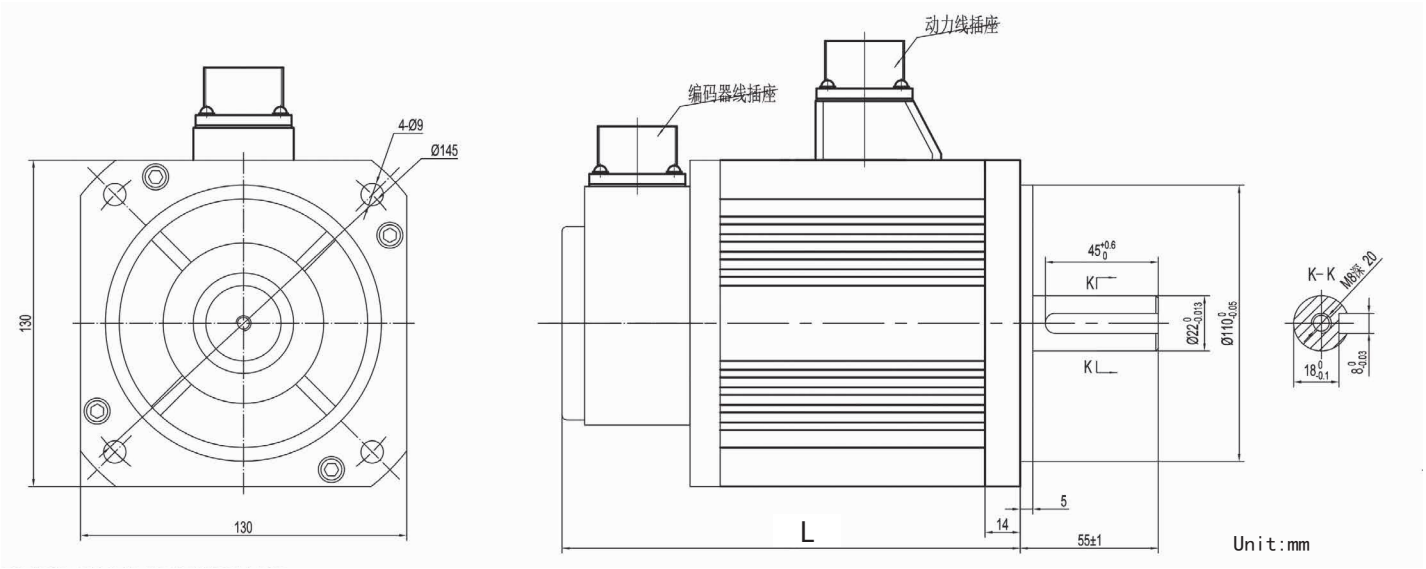
1.无刹车系列 Without Brake Series

130系列 130 Series



2.有刹车系列 With Brake Series

130系列 130 Series



130 Series

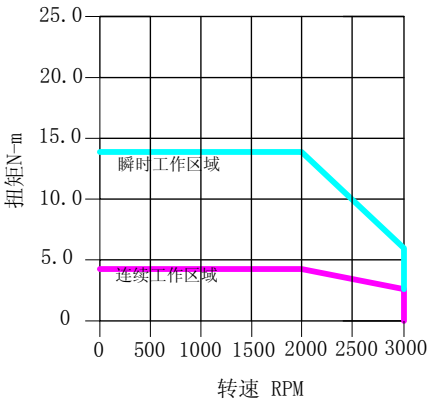
长度&重量 Length & Weight

编码器 Encoder		功率 Power	1000W	1500W	2000W 2200W
机身高度 Length (mm)	L	No Brake	144±1	157±1	171±1
		Brake	183±1	196±1	210±1
	M	No Brake	144±1	157±1	171±1
		Brake	183±1	196±1	210±1
	B	No Brake	144±1	157±1	171±1
		Brake	183±1	196±1	210±1

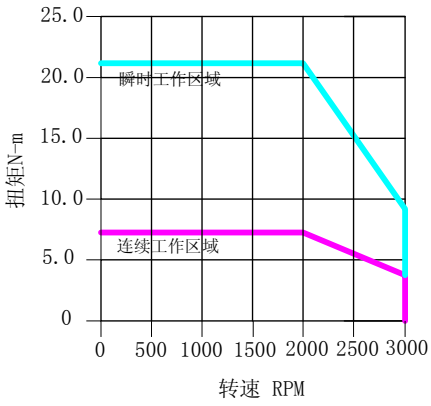
编码器 Encoder		功率 Power	1000W	1500W	2000W 2200W
机身重量 Weight (Kg)	L	No Brake	5.0	6.1	7.2
		Brake	7.3	8.4	9.5
	M	No Brake	5.2	6.3	7.4
		Brake	7.4	8.6	9.7
	B	No Brake	5.0	6.1	7.2
		Brake	7.3	8.4	9.5

T-N 曲线（2000 RPM） T-N Curve (2000 RPM)

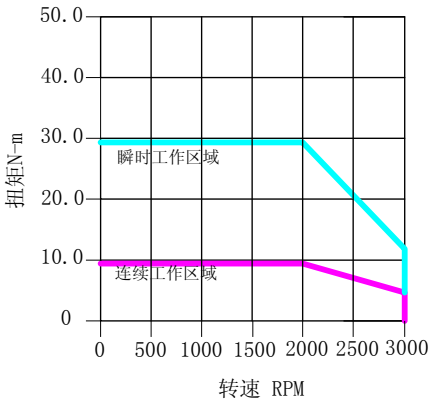
ES13005A-100



ES13005A-150

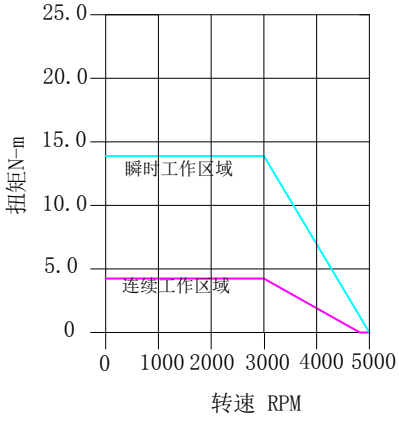


ES13005A-200

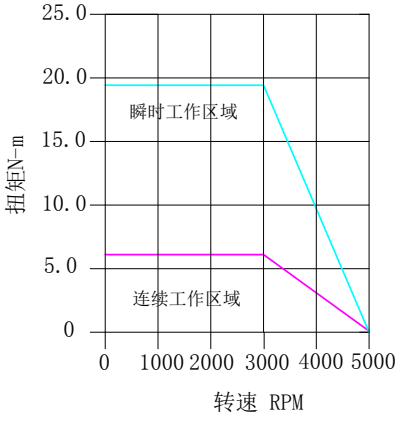


T-N 曲线（3000 RPM） T-N Curve (3000 RPM)

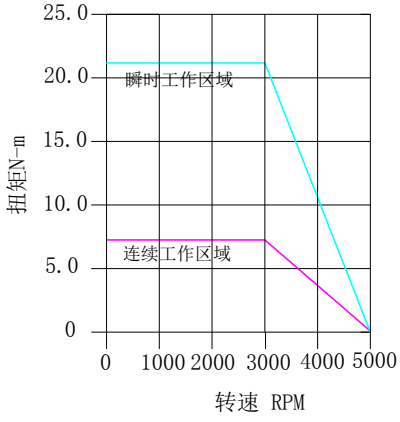
ES13005-150



ES13005-200



ES13005-220



TS 60 Series

伺服电机系列
TS SERIES SERVO MOTOR



详细说明 General Specifications

绝缘等级	Insulation Class	F
防护等级	Protection Level	IP65
最大径向负荷	Maximum radial load	180N
最大轴向负荷	Maximum axial load	90N
环境要求	Environment Requirement	工作/Work: 0°C~+55°C 保存/Preserve: 20°C～80°C 工作或保存/Work or Preserve: 90%RH（无结露/No Condensation) 海拔1000米/ Above Sea Level 1000m 振动/ Vibration: 5.88/S 2.10-60Hz

技术数据 Technical Specifications

电机型号 Model	TS6005A
极数 No. of Poles	10
直流电压 DC link Voltage (VDC)	310
额定功率 Rated Power (W)	400
额定扭矩 Rated torque (N.m)	1.27
额定转速 Rated Speed (RPM)	3000
额定电流 Rated Current (Amps)	2.6
最大扭矩 Maximum Torque (N.M)	3.81
电阻线路 Resistor lines (Ω)	3.3
绕线(线间)电感 Line-line Inductance(mH)	5.8
电压常数 Voltage Constant (V/KRPM)	34
转矩常数 Torque Constant (Nm/A)	0.51
转子惯量 Rotor Inertia ($Kg.cm^2$)	$0.53*10^{-4}$

TS 60 Series

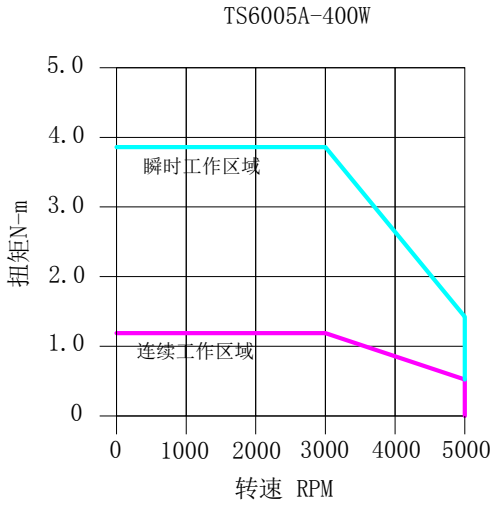
长度&重量 Length & Weight

机座 Type		60
机身重量(包含编码器) (Encoder included) Weight KG	Brake	1.46
	No Brake	1.30
机身高度 Length (MM)	Brake	121±1
	No Brake	92±1

刹车电压:24 VDC
Brake Voltage

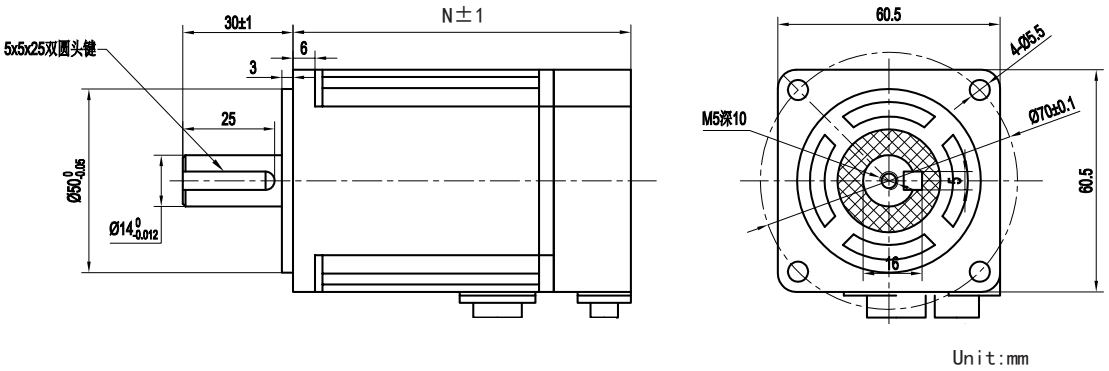
制动力矩:＞1.3 N.m
Braking torque

T-N 曲线（3000 RPM） T-N Curve (3000 RPM)



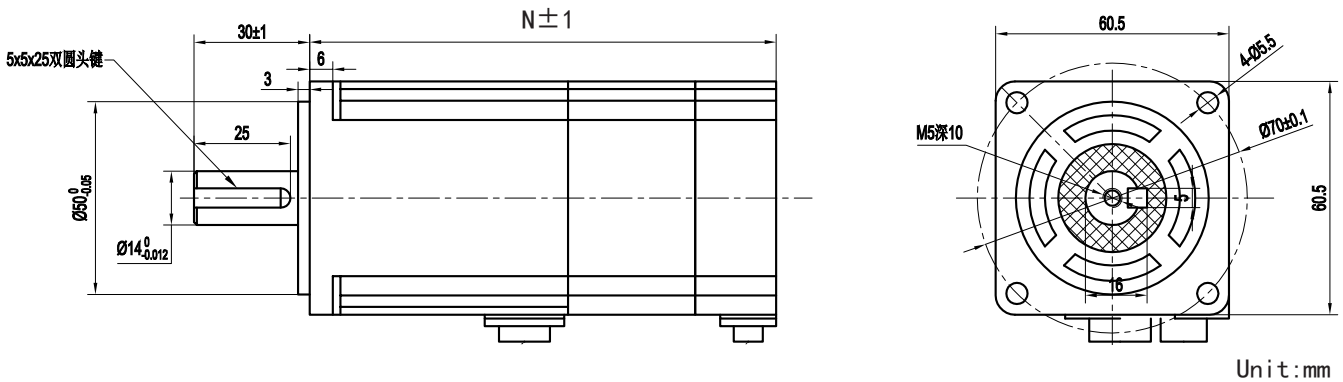
外型图 Mechanical Dimension

无刹车系列 Without Brake Series



Unit:mm

有刹车系列 With Brake Series

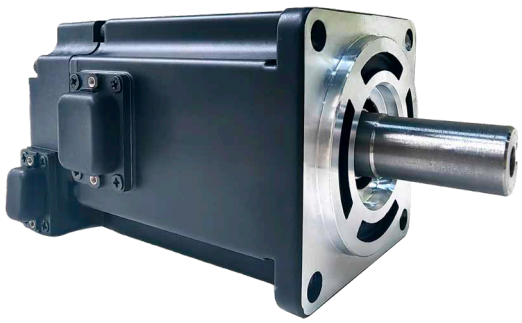


Unit:mm

TS 80 Series

伺服电机系列

TS SERIES SERVO MOTOR



详细说明 General Specifications

绝缘等级	Insulation Class	F
防护等级	Protection Level	IP65
最大径向负荷	Maximum radial load	180N
最大轴向负荷	Maximum axial load	90N
环境要求	Environment Requirement	工作/Work: 0°C~+55°C 保存/Preserve: 20°C～80°C 工作或保存/Work or Preserve: 90%RH（无结露/No Condensation） 海拔1000米/ Above Sea Level 1000m 振动/ Vibration: 5.88/S 2.10-60Hz

技术数据 Technical Specifications

电机型号 Model	TS8005A
极数 No. of Poles	10
直流电压 DC link Voltage (VDC)	310
额定功率 Rated Power (W)	750
额定扭矩 Rated torque (N.m)	2.4
额定转速 Rated Speed (RPM)	3000
额定电流 Rated Current (Amps)	4.8
最大扭矩 Maximum Torque (N.M)	7.2
电阻线路 Resistor lines (Ω)	1.0
绕线(线间)电感 Line-line Inductance(mH)	3.9
电压常数 Voltage Constant (V/KRPM)	33
转矩常数 Torque Constant (Nm/A)	0.51
转子惯量 Rotor Inertia ($Kg.cm^2$)	$1.49*10^{-4}$

TS 80 Series

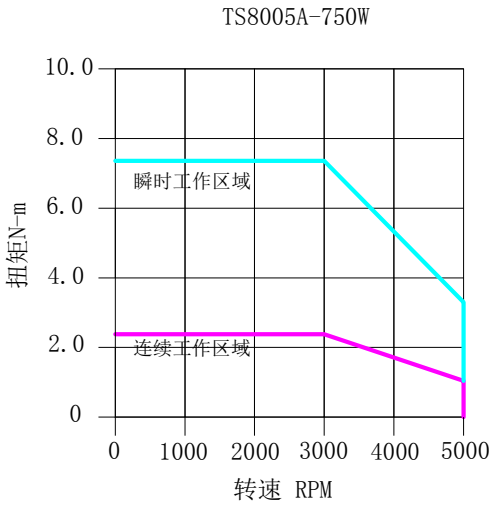
长度&重量 Length & Weight

机座 Type		80
机身重量(包含编码器) (Encoder included) Weight KG	Brake	2.91
	No Brake	2.40
机身高度 Length (MM)	Brake	137.5±1
	No Brake	100±1

刹车电压:24 VDC
Brake Voltage

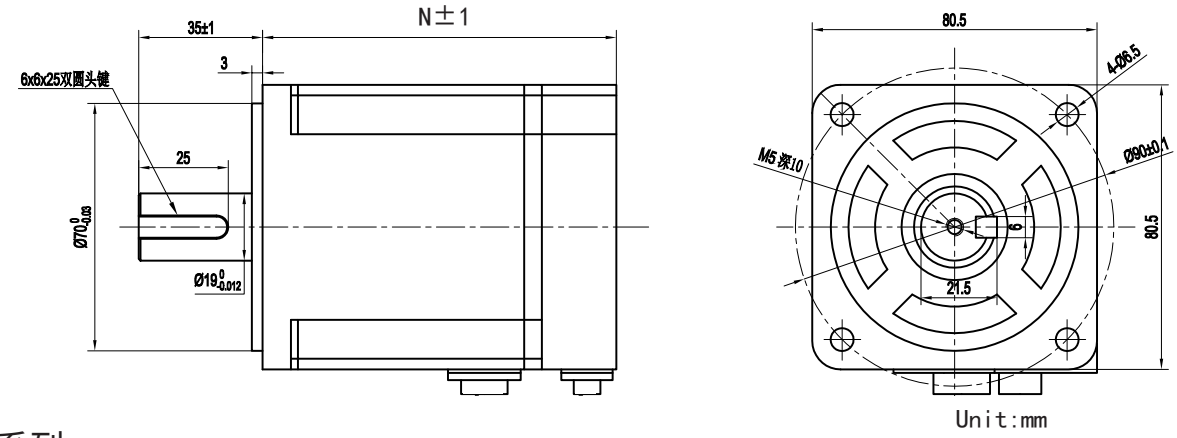
制动力矩:>2.5 N.m
Braking torque

T-N 曲线 (3000 RPM) T-N Curve (3000 RPM)



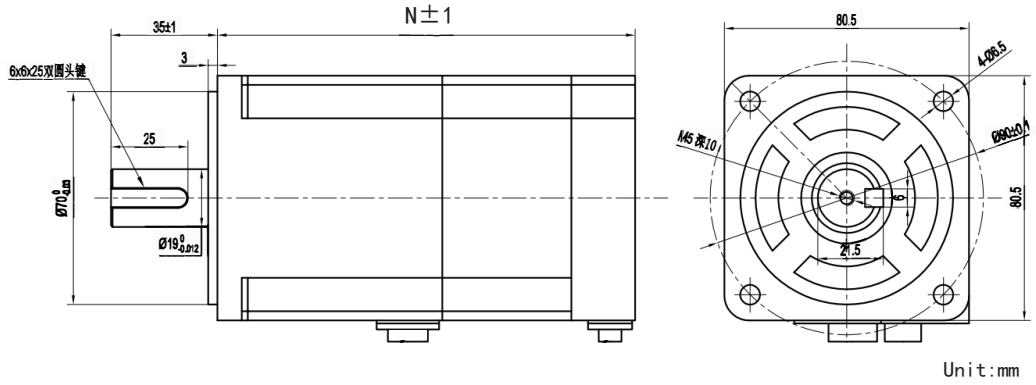
外型图 Mechanical Dimension

无刹车系列 Without Brake Series



Unit:mm

有刹车系列 With Brake Series



Unit:mm

高压伺服电机驱动

HIGH VOLTAGE SERVO MOTOR DRIVER



技术参数 Technical Specifications

型号 Model	电压 Voltage (VDC)	额定电流 Rated Current (Amps)	最大电流 Maximum current (Amps)	适配电机功率 Motor power (Watts)	重量 Weight (kg)	EtherCAT/485通讯 EtherCAT/485 communication
X7P2R8-20ARA	AC220	2.8	8.40	400	0.80	脉冲 Drive Pulses
X7P5R5-20ARA		5.5	16.5	750	0.85	
X7P010-20ARA		10	30.0	1500	1.15	
X5P2R8-20ARA		2.8	8.40	400	0.80	
X5P5R5-20ARA		5.5	16.5	750	0.85	
X5P010-20ARA		10	30.0	1500	1.15	
X5S2R8-20ARA		2.8	8.40	400	0.80	EtherCAT
X5S5R5-20ARA		5.5	16.5	750	0.85	
X5S010-20ARA		10	30.0	1500	1.15	
X7P015-20ARA		15	45.0	3000	1.80	脉冲 Drive Pulses
X7P012-40ARA		12	36.0	3000	1.80	
X7P026-40ARA		26	78.0	5000	3.85	

低压伺服电机驱动

LOW VOLTAGE SERVO MOTOR DRIVER



技术参数 Technical Specifications

型号 Model	电压 Voltage (VDC)	额定电流 Rated Current (Amps)	最大电流 Maximum current (Amps)	适配电机功率 Motor power (Watts)	控制模式 Operating Mode
DSL200	24	5	10	100	脉冲,485,CAN总线 Drive Pulses, 485, CAN
	48	5	10	200	
DSL500	24	10	15	250	
	48	10	15	500	
DSL1000	24	25	40	500	
	48	25	40	1000	
DSL1500	24	35	50	750	
	48	35	50	1500	

合泰足迹Places
HeTai Has Been



合泰致力于为用户提供专业的机电一体化系统解决方案。

Hetai motors, Dedicated in providing professional automation strategies for customers.

单位转换 Unit Coversion

长度 Length

A \ B	mm	cm	m	Inch	Feet
mm	1	0.1	0.001	0.03937	0.003281
cm	10	1	0.01	0.3937	0.03281
m	1000	100	1	39.37	3.281
Inch	25.4	2.54	0.0254	1	0.08333
Feet	304.8	30.48	0.3048	12	1

力 Force

A \ B	g	kgf	oz	lb	Newton
g	1	0.001	0.03527	0.002205	0.0098
kgf	1000	1	35.27	2.205	9.807
oz	28.35	0.02835	1	39.37	0.278
lb	453.6	0.4536	16	1	4.448
Newton	102	0.102	3.597	0.2248	1

转矩 Torque

A \ B	Nm	Ncm	mNm	kgm*	kgcm*	gcm*	oz-in	lb-ft	lb-in
Nm	1	100	1000	0.102	10.2	10200	141.6	0.7376	8.851
Ncm	0.01	1	10	0.00102	0.102	102	1.416	0.007376	0.08851
mNm	0.001	0.1	1	0.000102	0.0102	10.2	0.1416	0.000738	0.008851
kgm*	9.807	980.7	9807	1	100	100000	1389	7.233	86.8
kgcm*	0.09807	9.807	98.07	0.01	1	1000	13.89	0.07233	0.868
gcm*	0.00009807	0.009807	0.009807	0.00001	0.001	1	0.01389	7.23E-05	0.000868
oz-in	0.007062	0.7062	7.062	0.0007201	0.07201	72.01	1	0.00521	0.0625
lb-ft	1.356	135.6	1356	0.1383	13.83	13830	192	1	12
lb-in	0.113	11.3	113	0.01152	1.152	1152	16	0.0833	1

惯量 Intertia

A \ B	kgm^2	$kgcm^2$	gcm^2	$oz\text{-}in^2$	$oz\text{-}in\text{-}sec^2$	$lb\text{-}in^2$	$lb\text{-}in\text{-}sec^2$	$lb\text{-}ft^2$	“$lb\text{-}ft\text{-}sec^2$ (slug ft^2)”
kgm^2	1	10000	10000000	54,700	142	3420	8.85	23.7	0.738
$kgcm^2$	0.0001	1	1,000	5.47	0.0142	0.342	0.000885	0.00237	7.38E-05
gcm^2	0.0000001	0.001	1	0.00547	1.42E-05	0.000342	8.85E-07	2.37E-06	7.38E-08
$oz\text{-}in^2$	0.00001829	0.1829	183	1	0.00259	0.0625	0.000162	0.000434	1.35E-05
$oz\text{-}in\text{-}sec^2$	0.00706	70.62	70,600	386	1	24.1	0.0625	0.168	0.00521
$lb\text{-}in^2$	0.0002926	2.926	2,930	16	0.0414	1	0.00259	0.00694	0.000216
$lb\text{-}in\text{-}sec^2$	0.113	1,130	1130000	6,180	16	386	1	2.68	0.0833
$lb\text{-}ft^2$	0.0421	421.4	421,000	2,300	5.97	144	0.373	1	0.0318
“$lb\text{-}ft\text{-}sec^2$ (slug	1.36	13,600	13600000	74,100	192	4,630	12	32.2	1

常州合泰电机电器股份有限公司
CHANGZHOU HETAI ELECTRIC MOTORS & APPLIANCE CO., LTD.

电话/Telephone:0519-88369920

邮箱/Email: info@ht-motor.com

网址/Website:http://www.ht-motor.com

EN:http://www.hetaimotor.com

地址/Address：江苏省常州市武进区遥观镇勤新村工业集中区

Qinxin Industrial Zone, Yaoguan Town,Wujin District, Changzhou,Jiangsu,China.

官方网站
Official Account

选型小程序
Selection Applet