

伺服电机简要说明 (The Brief introduction of Servo Motor)

110、130、150、180 机座号 (Frame size):

动力插座 Power sockets (4P):

绕组引线 Winding leads	U	V	W	PE
插座编号 Socket Number	2	3	4	1

反馈元件插座 Feedback element socket:

省线增量式编码器插座 (15P 插座) Provincial line incremental encoder socket (15P socket)

信号引线 Signal leads	5V	GND	A+	B+	Z+	A-	B-	Z-							PE
插座编号 Socket Number	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1

非省线增量式编码器插座 (15P 插座) Non-Provincial-line incremental encoder socket (15P socket)

信号引线 Signal leads	5V	0V	A+	B+	Z+	A-	B-	Z-	U+	V+	W+	U-	V-	W-	PE
插座编号 Socket Number	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1

绝对式多圈编码器插座 (7P 插座) Multi-turn absolute encoder socket (7P socket)

信号引线 Signal leads	GND	VB	SD-	0V	SD+	+5V	PE
插座编号 Socket Number	2	3	4	5	6	7	1

60、80、90 机座号 (Frame size)

动力插座 (4P 对接) Power socket (4P butt):

绕组引线 Winding leads	U	V	W	PE
插座编号 Socket Number	1	2	3	4

反馈元件插座 Feedback element socket:

省线增量式编码器插座 (9P 对接) Provincial line incremental encoder socket (9P butt)

信号引线 Signal leads	5V	GND	A+	B+	Z+	A-	B-	Z-	PE
插座编号 Socket Number	2	3	4	5	6	7	8	9	1

非省线增量式编码器插座 (15P 对接) Non-Provincial-line incremental encoder socket (15P docking)

信号引线 Signal leads	5V	0V	B+	Z-	U+	Z+	U-	A+	V+	W+	V-	A-	B-	W-	PE
插座编号 Socket Number	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1

绝对式多圈编码器插座 (9P 对接) Multi-turn absolute encoder socket (9P butt)

信号引线 Signal leads	GND	VB	SD-	0V	SD+	+5V			PE
插座编号 Socket Number	2	3	4	5	6	7	8	9	1

● **LB 型号命名 (model named)**

电动机的型号由机座号、产品名称代号、性能参数代号等部分组成

Frame motor model from the product name code, code and other components performance parameters

80 ST — M 013 30 L B Z (T X)
 (1) (2) (3) (4) (5) (6) (7) (8) (9) (10)

- (1) 机座号 Frame (2) 交流永磁同步伺服电机 AC permanent magnet synchronous servo motor
 (3) 反馈元件代号 (M 代表代表光电编码器)

Feedback element code (M representatives photoelectric encoder)

(4) 额定转矩: 三位数×0.1Nm Rated torque: three-digit × 0.1Nm

(5) 额定转速: 二位数×100rpm Rated speed: two-digit × 100rpm

(6) 驱动器工作电压 (VAC): L 代表: 220V Drive Voltage (VAC): L representatives: 220V

(7) 中惯量 Inertia

(8) 失电制动器: Z 代表: 有 无 代表: 无

Loss of power brake: Z Representative: Have representatives: No

(9) 输出轴: T 代表: 特殊 无 代表: 无

Output shaft: T Representative: No special representatives: No

(10) 出线方式: X 代表线缆直接式 无: 工业 (航空) 插座式

And outlet: X on behalf of direct cable-free: Industrial (aviation) socket

ST_LB 系列 (Series)

机座号 (mm): 60、80、90、110、130、180

Frame size: 60、80、90、110、130、180

额定转矩 (Nm) :0.637~~48

Rated torque (Nm) :0.637~~48

额定功率 (Kw) :0.2~~7.5

Rated power (Kw) :0.2~~7.5

额定转速 (rpm) :1000、1500、2000、3000

Rated speed (rpm) :1000、1500、2000、3000

转子惯量: 中惯量

Rotor inertia: inertia

反馈元件: 可选

Feedback components: Optional

失电制动器: 可配

Loss of power brake: can be equipped with

适配驱动器工作电压 (VAC): 220

Adapter driver operating voltage (VAC): 220

60 系列伺服电机参数

Item: NAZHI 60 series

⊙ 规格 Specifications

电机型号 Motor model	60ST-M00630LBX(□□)	60ST-M01330LBX(□□)	60ST-M01930LBX(□□)
额定功率 Rated power(KW)	200	400	600
额定线电压 Rated line voltage(V)	220	220	220
额定线电流 Rated line current(A)	1.2	2.8	3.5
额定转速 Rated speed(rpm)	3000	3000	3000
额定力矩 Rated torque(N.m)	0.637	1.27	1.91
峰值力矩 Peak torque(N.m)	1.91	3.9	5.73
反电势 Voltageconstant(V/1000r/min)	30.9	29.6	34
力矩系数 Torque coeffcient(N.m/A)	0.53	0.45	0.55
转子惯量 Rotor inertia(kg.m ²)	0.175×10^{-4}	0.29×10^{-4}	0.39×10^{-4}
绕组(线间)电阻 Line-Line Resistance(Ω)	6.18	2.35	1.93
绕组(线间)电感 Line-Line Inductance(mH)	29.3	14.5	10.7
电气时间常数 Electrical time constant(ms)	4.74	6.17	5.5
重量 Weight(kg)	1.16	1.63	2.07
编码器线数 Encoder line number(PPR)	2500		
电机绝缘等级 Insulation class	Class F		
防护等级 Safety class	IP64		
使用环境 Environment	环境温度: -20℃ ~ +50℃ 环境湿度: 相对湿度<90% (不结霜条件) Temperature: -20℃ ~ +50℃ Humidity: <90% (non-condensing conditions)		

● 其它要求请联系我们的技术部

Other special requirements please contact the NAZHI Technology to negotiate

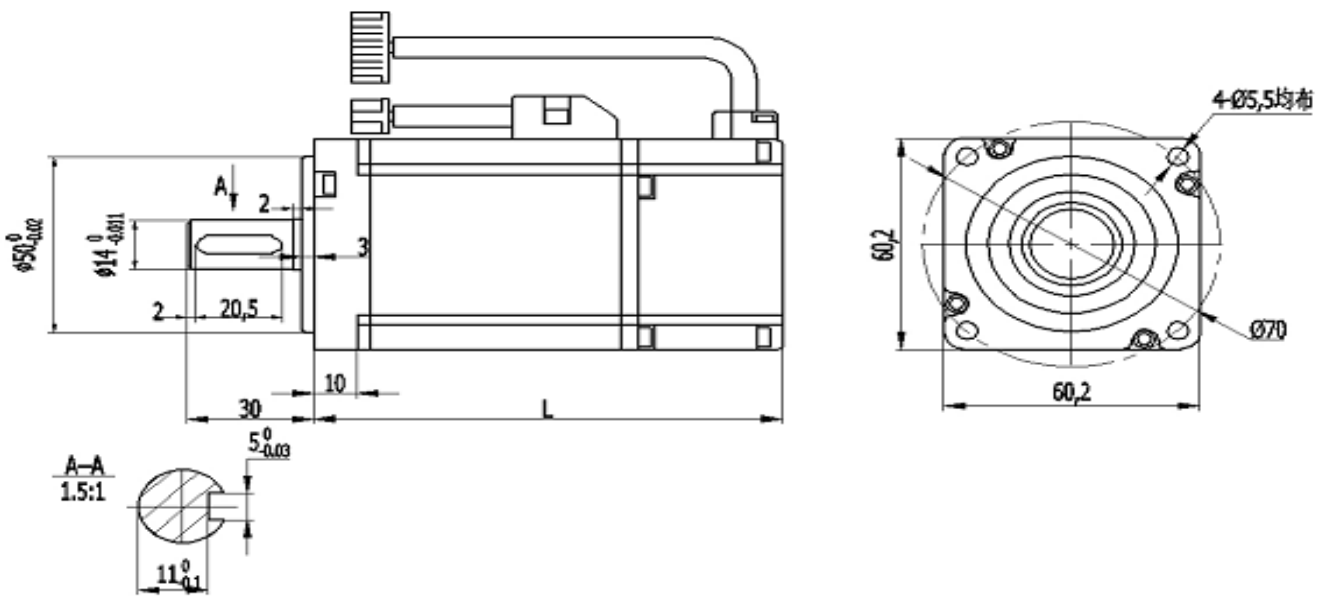
⊙ 安装注意 Installation precaution

- 1、 安装/拆卸部位到电机轴末端时, 请不要用力敲打轴, 以防止敲坏轴另一端的编码器。
- 2、 尽量防止轴座振动, 以防止轴承的损坏。

1. Installation/disassembly components coupled to the motor shaft end ,do not hit shaft hard To prevent the other side of motor shaft encoder was knocked out bad.
2. Striving to make the best of its shaft to prevent vibration and bearing damage.

◎ 安装尺寸 Installation Dimension: unit=mm

型号 Model	60ST-M00630LBX (□□)	60ST-M01330LBX (□□)	60ST-M01930LBX (□□)
不带刹车尺寸 (L) Without brake size (L)	116	141	169
带刹车尺寸 (L) With brake size (L)	164	189	217



* 以上为标准安装尺寸，可根据客户要求改动

The above is a standard installation dimensions, can alter according to customer requirements

80 系列伺服电机参数

Item: NAHI 80 series

◎ 规格 Specifications

电机型号 Motor model	80ST-M01330LBX (□□)	80ST-M02430LBX (□□)	80ST-M03520LBX (□□)	80ST-M04025LBX (□□)
额定功率 Rated power (KW)	0.4	0.75	0.73	1.0
额定线电压 Rated line voltage (V)	220	220	220	220
额定线电流 Rated line current (A)	2.0	3.0	3.0	4.4
额定转速 Rated speed (rpm)	3000	3000	2000	2500
额定力矩 Rated torque (N.m)	1.27	2.39	3.5	4.0
峰值力矩 Peak torque (N.m)	3.8	7.1	10.5	12
峰值电流 Peak Current (A)	6.0	9.0	9.0	13.2
反电势 Voltage constant (V/1000r/min)	40	48	71	56
力矩系数 Torque coefficient (N.m/A)	0.64	0.8	1.17	0.9
转子惯量 Rotor inertia (kg.m ²)	1.05×10^{-4}	1.82×10^{-4}	2.63×10^{-4}	2.97×10^{-4}
绕组 (线间) 电阻 Line-Line Resistance (Ω)	4.44	2.88	3.65	1.83
绕组 (线间) 电感 Line-Line Inductance (mH)	7.93	6.4	8.8	4.72
电气时间常数 Electrical time constant (ms)	1.66	2.22	2.4	2.58
重量 Weight (kg)	1.78	2.9	3.9	4.1
编码器线数 Encoder line number (PPR)	2500			
电机绝缘等级 Insulation class	Class F			
防护等级 Safety class	IP65			
使用环境 Environment	环境温度: -20℃ ~ +50℃ 环境湿度: 相对湿度 < 90% (不结霜条件) Temperature: -20℃ ~ +50℃ Humidity: < 90% (non-condensing conditions)			

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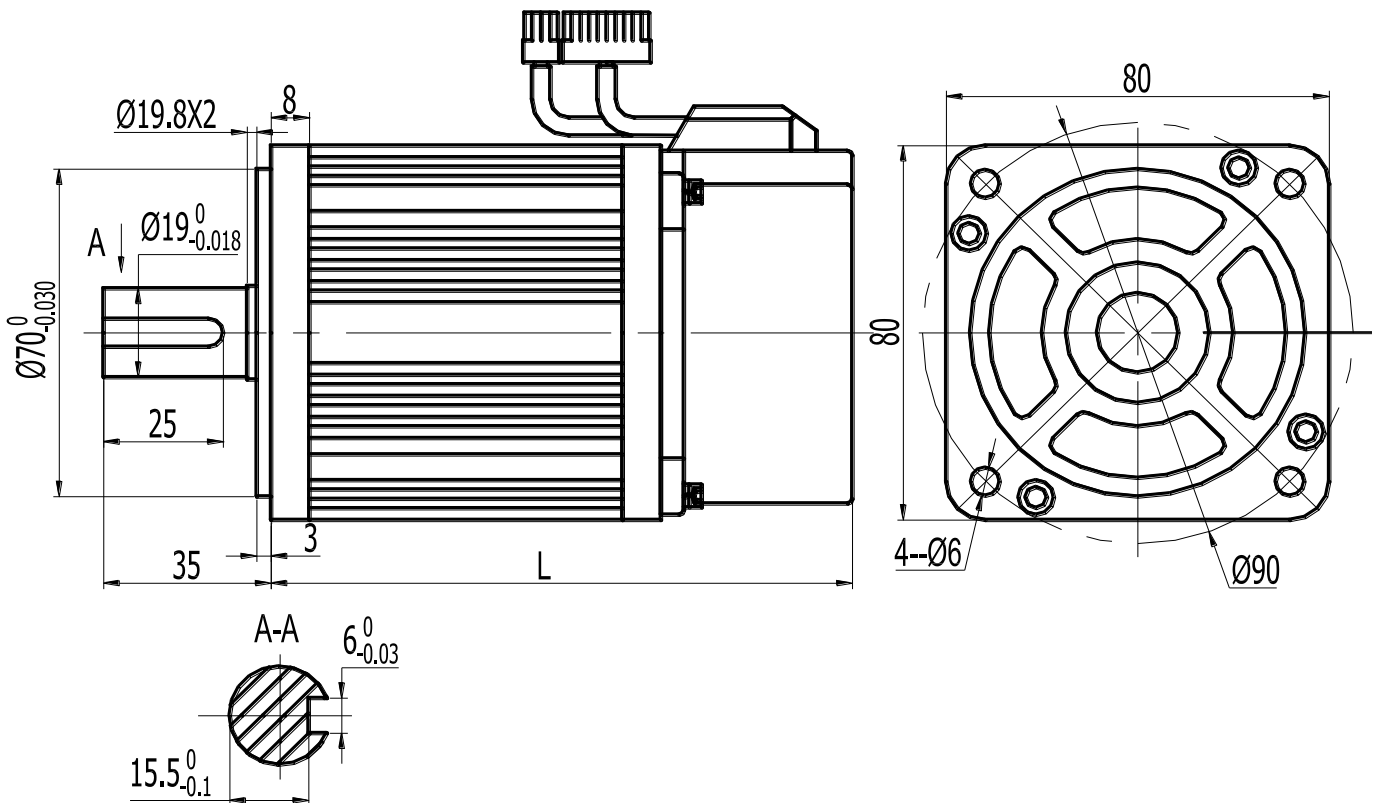
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2. 尽量防止轴座振动，以防止轴承的损坏。

1. Installation/disassembly components coupled to the motor shaft end ,do not hit shaft hard To prevent the other side of motor shaft encoder was knocked out bad.
2. Striving to make the best of its shaft to prevent vibration and bearing damage.

⊙ 安装尺寸 Installation Dimension: unit=mm

型号 Model	不带刹车尺寸 (L) Without brake size (L)	带电磁抱闸 (L) With electromagnetic brake (L)	带永磁包闸 (L) With permanent magnet brake package (L)
80ST-M01330LBX (□□)	124	164	178
80ST-M02430LBX (□□)	151	191	205
80ST-M03520LBX (□□)	179	219	233
80ST-M04025LBX (□□)	191	231	245



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90 系列伺服电机参数

Item: NAHI 90 series

◎ 规格 Specifications

电机型号 Motor model	90ST-M02430LBX (□□)	90ST-M03520LBX (□□)	90ST-M04025LBX (□□)
额定功率 Rated power (KW)	0.75	0.75	1.0
额定线电压 Rated line voltage (V)	220	220	220
额定线电流 Rated line current (A)	3	3.0	4
额定转速 Rated speed (rpm)	3000	2000	2500
额定力矩 Rated torque (N.m)	2.4	3.5	4
峰值力矩 Peak torque (N.m)	7.1	10.5	12
峰值电流 Peak Current (A)	9	9	12
反电势 Voltage constant (V/1000r/min)	51	67	60
力矩系数 Torque coefficient (N.m/A)	0.8	1.2	1.0
转子惯量 Rotor inertia (kg.m ²)	2.45×10^{-4}	3.4×10^{-4}	3.7×10^{-4}
绕组 (线间) 电阻 Line-Line Resistance (Ω)	3.2	4.06	2.69
绕组 (线间) 电感 Line-Line Inductance (mH)	7.0	9.7	6.21
电气时间常数 Electrical time constant (ms)	2.2	2.39	2.3
重量 Weight (kg)	3.1	3.9	4.2
编码器线数 Encoder line number (PPR)	2500	2500	2500
电机绝缘等级 Insulation class	Class F		
防护等级 Safety class	IP65		
使用环境 Environment	环境温度: -20℃ ~ +50℃ 环境湿度: 相对湿度 < 90% (不结霜条件) Temperature: -20℃ ~ +50℃ Humidity: < 90% (non-condensing conditions)		

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⊙ 安装注意 Installation precaution

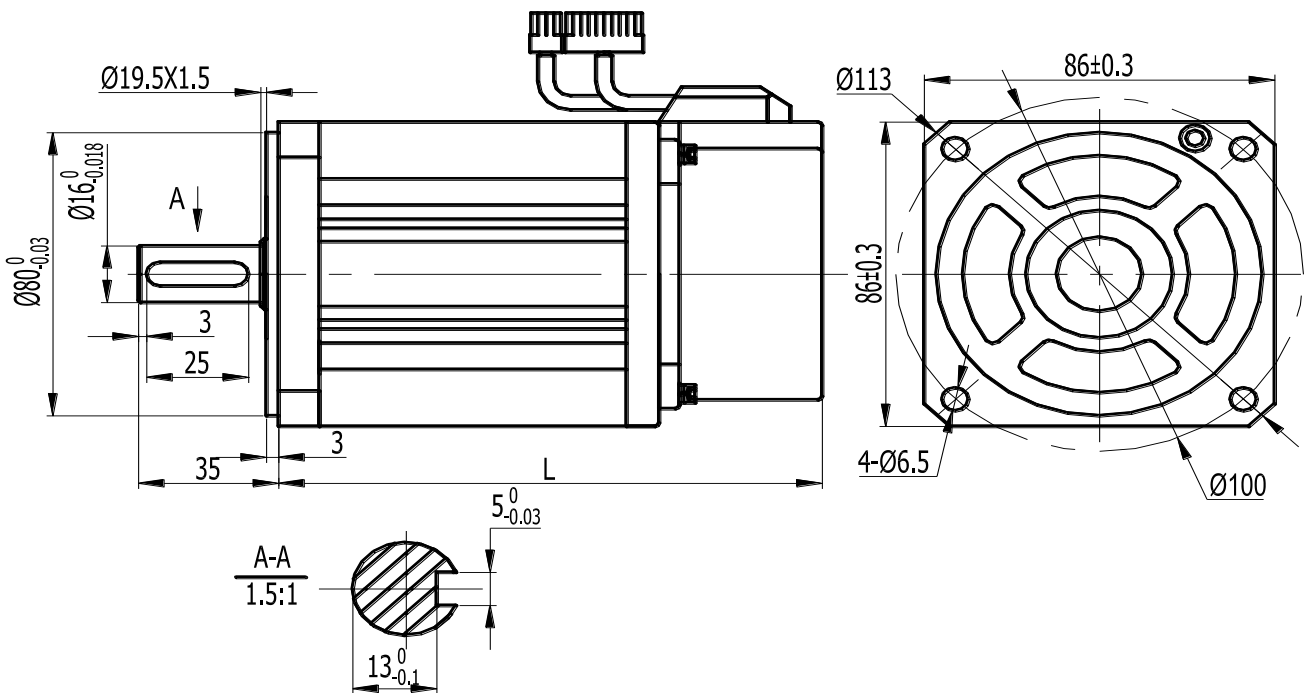
1. 安装/拆卸部位到电机轴末端时，请不要用力敲打轴，以防止敲坏轴另一端的编码器。
2. 尽量防止轴座振动，以防止轴承的损坏。

1. Installation/disassembly components coupled to the motor shaft end ,do not hit shaft hard To prevent the other side of motor shaft encoder was knocked out bad.

2. Striving to make the best of its shaft to prevent vibration and bearing damage.

⊙ 安装尺寸 Installation Dimension: unit=mm

型号 Model	不带刹车尺寸 (L) Without brake size (L)	带电磁抱闸 (L) With electromagnetic brake (L)	带永磁包闸 (L) With permanent magnet brake package (L)
90ST-M02430LBX (□□)	150	198	201
90ST-M03520LBX (□□)	172	220	229
90ST-M04025LBX (□□)	182	230	239



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110 系列伺服电机参数

Item: NAHI 110 series

◎ 规格 Specifications

电机型号 Motor model	110ST-M02030LB (□□)	110ST-M04020LB (□□)	110ST-M04030LB (□□)
额定功率 Rated power (KW)	0.6	0.8	1.2
额定线电压 Rated line voltage (V)	220	220	220
额定线电流 Rated line current (A)	2.5	3.5	5.0
额定转速 Rated speed (rpm)	3000	2000	3000
额定力矩 Rated torque (N.m)	2	4	4
峰值力矩 Peak torque (N.m)	6	12	12
反电势 Voltage constant (V/1000r/min)	56	79	54
力矩系数 Torque coefficient (N.m/A)	0.8	1.14	0.8
转子惯量 Rotor inertia (kg.m ²)	0.31×10^{-3}	0.54×10^{-3}	0.54×10^{-3}
绕组 (线间) 电阻 Line-Line Resistance (Ω)	3.6	2.41	1.09
绕组 (线间) 电感 Line-Line Inductance (mH)	8.32	7.3	3.3
电气时间常数 Electrical time constant (ms)	2.3	3	3.0
重量 Weight (kg)	4.5	6	6
编码器线数 Encoder line number (PPR)	2500		
电机绝缘等级 Insulation class	Class F		
防护等级 Safety class	IP65		
使用环境 Environment	环境温度: -20℃ ~ +50℃ 环境湿度: 相对湿度 < 90% (不结霜条件) Temperature: -20℃ ~ +50℃ Humidity: < 90% (non-condensing conditions)		

● 其它要求请联系我们的技术部

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110 系列伺服电机参数

Item: NAHI 110 series

◎ 规格 Specifications

电机型号 Motor model	110ST-M05030 LB (□□)	110ST-M06020 LB (□□)	110ST-M06030 LB (□□)
额定功率 Rated power (KW)	1.5	1.2	1.8
额定线电压 Rated line voltage (V)	220	220	220
额定线电流 Rated line current (A)	6.0	4.5	6.0
额定转速 Rated speed (rpm)	3000	2000	3000
额定力矩 Rated torque (N.m)	5	6	6
峰值力矩 Peak torque (N.m)	15	12	18
反电势 Voltage constant (V/1000r/min)	62	83	60
力矩系数 Torque coefficient (N.m/A)	0.83	1.3	1.0
转子惯量 Rotor inertia (kg.m ²)	0.63 × 10 ⁻³	0.76 × 10 ⁻³	0.76 × 10 ⁻³
绕组 (线间) 电阻 Line-Line Resistance (Ω)	1.03	1.46	0.81
绕组 (线间) 电感 Line-Line Inductance (mH)	3.43	4.7	2.59
电气时间常数 Electrical time constant (ms)	3.33	3.2	3.2
重量 Weight (kg)	6.8	7.9	7.9
编码器线数 Encoder line number (PPR)	2500		
电机绝缘等级 Insulation class	Class F		
防护等级 Safety class	IP65		
使用环境 Environment	环境温度: -20℃ ~ +50℃ 环境湿度: 相对湿度 < 90% (不结霜条件) Temperature: -20℃ ~ +50℃ Humidity: < 90% (non-condensing conditions)		

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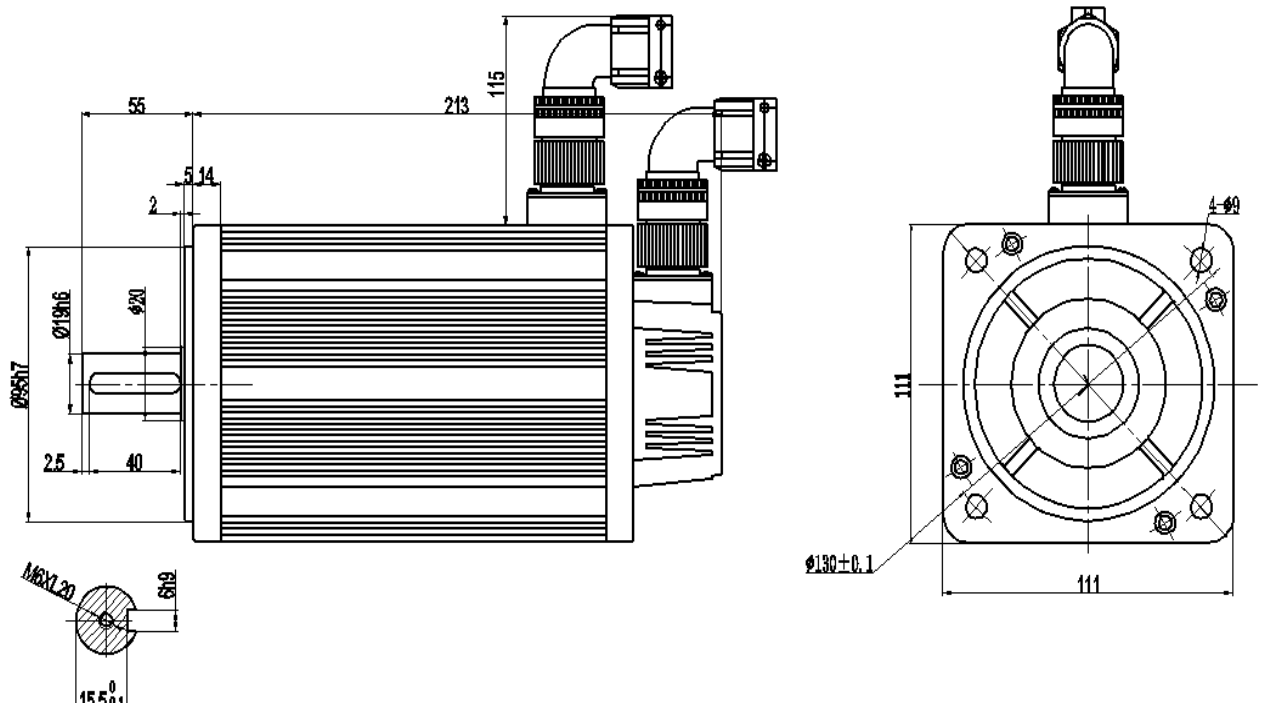
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2. 尽量防止轴座振动, 以防止轴承的损坏。

1. Installation/disassembly components coupled to the motor shaft end ,do not hit shaft hard To prevent the other side of motor shaft encoder was knocked out bad.
2. Striving to make the best of its shaft to prevent vibration and bearing damage.

⊙ 安装尺寸 Installation Dimension: unit=mm

额定力矩 Rated torque(N.m)	110 系列 (series)			
	2 N.m	4 N.m	5 N.m	6 N.m
不带刹车尺寸 (L) Without brake size(L)	159	189	204	219
带电磁抱闸 (L) With electromagnetic brake (L)	233	263	278	293
带永磁包闸 (L) With permanent magnet brake package (L)	215	245	260	275



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The above is a standard installation dimensions, can alter according to customer requirements

130 L 系列伺服电机参数

Item: NAHI 130 L series

◎ 规格 Specifications

电机型号 Motor model	130ST-M04025 LB (□□)	130ST-M05025 LB (□□)	130ST-M06025 LB (□□)	130ST-M07725 LB (□□)
额定功率 Rated power (KW)	1.0	1.3	1.5	2.0
额定线电压 Rated line voltage (V)	220	220	220	220
额定线电流 Rated line current (A)	4.0	5.0	6.0	7.5
额定转速 Rated speed (rpm)	2500	2500	2500	2500
额定力矩 Rated torque (N.m)	4	5.0	6	7.7
峰值力矩 Peak torque (N.m)	12	15	18	22
反电势 Voltage constant (V/1000r/min)	72	68	65	68
力矩系数 Torque coefficient (N.m/A)	1.0	1.0	1.0	1.03
转子惯量 Rotor inertia (kg.m ²)	0.85×10^{-3}	1.06×10^{-3}	1.26×10^{-3}	1.53×10^{-3}
绕组(线间)电阻 Line-Line Resistance (Ω)	2.76	1.84	1.21	1.01
绕组(线间)电感 Line-Line Inductance (mH)	6.42	4.9	3.87	2.94
电气时间常数 Electrical time constant (ms)	2.32	2.66	3.26	3.80
重量 Weight (kg)	6.2	6.6	7.4	8.3
编码器线数 Encoder line number (PPR)	2500			
电机绝缘等级 Insulation class	Class F			
防护等级 Safety class	IP65			
使用环境 Environment	环境温度: -20℃ ~ +50℃ 环境湿度: 相对湿度<90% (不结霜条件) Temperature: -20℃ ~ +50℃ Humidity: <90% (non-condensing conditions)			

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130 L 系列伺服电机参数

Item: NAHI 130 L series

◎ 规格 Specifications

电机型号 Motor model	130ST-M10010 LB (□□)	130ST-M10015 LB (□□)	130ST-M10025 LB (□□)	130ST-M15015 LB (□□)	130ST-M15025 LB (□□)
额定功率 Rated power (KW)	1.0	1.5	2.6	2.3	3.8
额定线电压 Rated line voltage (V)	220	220	220	220	220
额定线电流 Rated line current (A)	4.5	6.0	10	9.5	13.5
额定转速 Rated speed (rpm)	1000	1500	2500	1500	2500
额定力矩 Rated torque (N.m)	10	10	10	15	15
峰值力矩 Peak torque (N.m)	20	25	25	30	30
反电势 Voltage constant (V/1000r/min)	140	103	70	114	67
力矩系数 Torque coefficient (N.m/A)	2.2	1.67	1.0	1.58	1.11
转子惯量 Rotor inertia (kg.m ²)	1.94×10 ⁻³	1.94×10 ⁻³	1.94×10 ⁻³	2.77×10 ⁻³	2.77×10 ⁻³
绕组(线间)电阻 Line-Line Resistance (Ω)	2.7	1.5	0.73	1.1	0.49
绕组(线间)电感 Line-Line Inductance (mH)	8.8	4.37	2.45	4.45	1.68
电气时间常数 Electrical time constant (ms)	3.26	2.91	3.36	4.05	3.43
重量 Weight (kg)	10.2	10.2	9.8	12.6	11.7
编码器线数 Encoder line number (PPR)	2500				
电机绝缘等级 Insulation class	Class F				
防护等级 Safety class	IP65				
使用环境 Environment	环境温度: -20℃ ~ +50℃ 环境湿度: 相对湿度<90% (不结霜条件) Temperature: -20℃ ~ +50℃ Humidity: <90% (non-condensing conditions)				

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◎ 安装注意 Installation precaution

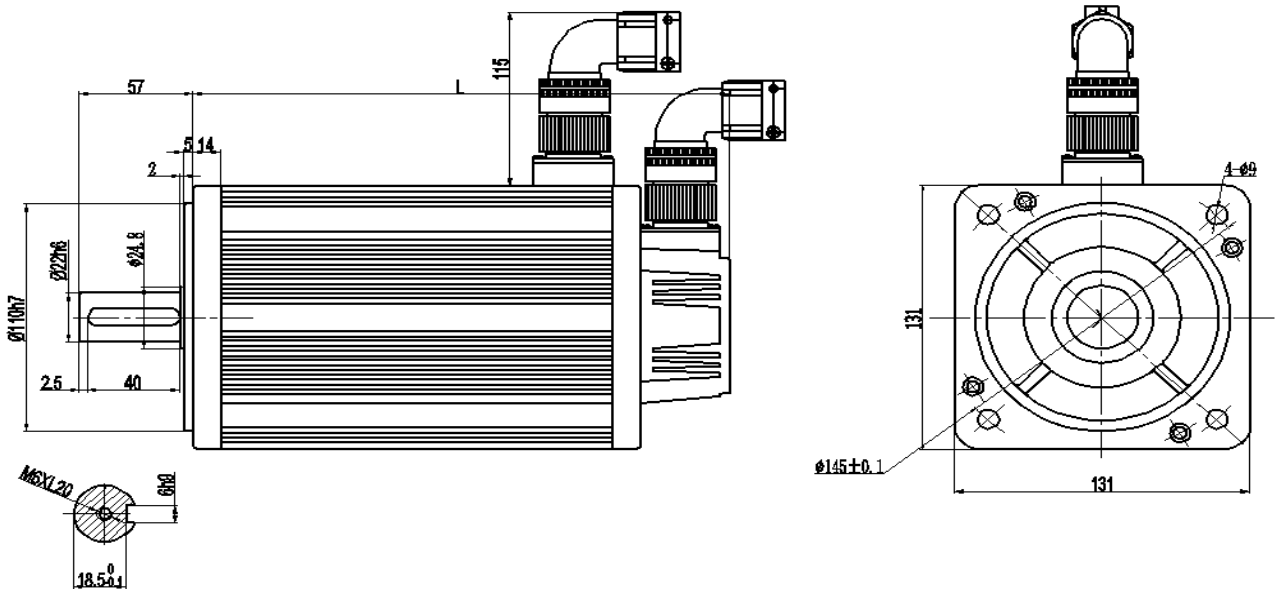
1. 安装/拆卸部位到电机轴末端时, 请不要用力敲打轴, 以防止敲坏轴另一端的编码器。
2. 尽量防止轴座振动, 以防止轴承的损坏。

1. Installation/disassembly components coupled to the motor shaft end, do not hit shaft hard To prevent the other side of motor shaft encoder was knocked out bad.

2. Striving to make the best of its shaft to prevent vibration and bearing damage.

⊙ 安装尺寸 Installation Dimension: unit=mm

额定力矩 Rated torque (N.m)	130 系列 (series)									
	4 N.m	5 N.m	6 N.m	7.7 N.m	10 N.m			15 N.m		
					1000rpm	1500rpm	2500rpm	1500rpm	2500rpm	
不带刹车尺寸 (L) Without brake size(L)	166	171	179	192	213			209	241	231
带电磁抱闸 (L) With electromagnetic brake (L)	223	228	236	249	294			290	322	312
带永磁抱闸 (L) With permanent magnet brake package (L)	236	241	249	262	283			279	311	301



* 以上为标准安装尺寸，可根据客户要求改动

The above is a standard installation dimensions, can alter according to customer requirements

180 L 系列伺服电机参数

Item: NAHI 180 L series

◎ 规格 Specifications

电机型号 Motor model	180ST-M17215LB (□□)	180ST-M19015LB (□□)	180ST-M21520LB (□□)	180ST-M27010LB (□□)
额定功率 Rated power(KW)	2.7	3.0	4.5	2.9
额定线电压 Rated line voltage(V)	220	220	220	220
额定线电流 Rated line current(A)	10.5	12	16	12
额定转速 Rated speed(rpm)	1500	1500	2000	1000
额定力矩 Rated torque(N.m)	17.2	19	21.5	27
峰值力矩 Peak torque(N.m)	43	47	53	67
反电势 Voltageconstant (V/1000r/min)	112	97	84	138
力矩系数 Torque coefficient(N.m/A)	1.64	1.58	1.34	2.25
转子惯量 Rotor inertia(kg.m ²)	3.4×10^{-3}	3.8×10^{-3}	4.7×10^{-3}	6.1×10^{-3}
绕组(线间)电阻 Line-Line Resistance(Ω)	0.7	0.4	0.24	0.48
绕组(线间)电感 Line-Line Inductance(mH)	3.5	2.42	1.45	3.26
电气时间常数 Electrical time constant (ms)	5	6	6	6.79
重量 Weight(kg)	19.5	20.5	22.2	25.5
编码器线数 Encoder line number(PPR)	2500			
电机绝缘等级 Insulation class	Class F			
防护等级 Safety class	IP65			
使用环境 Environment	环境温度: $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$ 环境湿度: 相对湿度<90% (不结霜条件) Temperature: $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$ Humidity: <90% (non-condensing conditions)			

● 其它要求请联系我们的技术部

Other special requirements please contact the NAZHI Technology to negotiate

180 L 系列伺服电机参数

Item: NAHI 180 L series

◎ 规格 Specifications

电机型号 Motor model	180ST-M27015LB (□□)	180ST-M35010LB (□□)	180ST-M35015LB (□□)	180ST-M48015LB (□□)
额定功率 Rated power (KW)	4.3	3.7	5.5	7.5
额定线电压 Rated line voltage (V)	220	220	220	220
额定线电流 Rated line current (A)	16	16	19	32
额定转速 Rated speed (rpm)	1500	1000	1500	1500
额定力矩 Rated torque (N.m)	27	35	35	48
峰值力矩 Peak torque (N.m)	67	70	70	96
反电势 Voltage constant (V/1000r/min)	103	134	113	94
力矩系数 Torque coefficient (N.m/A)	1.69	2.2	1.84	1.5
转子惯量 Rotor inertia (kg.m ²)	6.1×10^{-3}	8.6×10^{-3}	8.6×10^{-3}	9.5×10^{-3}
绕组(线间)电阻 Line-Line Resistance (Ω)	0.28	0.31	0.21	0.104
绕组(线间)电感 Line-Line Inductance (mH)	1.74	3.28	1.57	0.77
电气时间常数 Electrical time constant (ms)	6.2	10.58	7.47	7.4
重量 Weight (kg)	25.5	30.5	30.5	40
编码器线数 Encoder line number (PPR)	2500			
电机绝缘等级 Insulation class	Class F			
防护等级 Safety class	IP65			
使用环境 Environment	环境温度: -20℃ ~ +50℃ 环境湿度: 相对湿度<90% (不结霜条件) Temperature: -20℃ ~ +50℃ Humidity: <90% (non-condensing conditions)			

- 其它要求请联系我们的技术部

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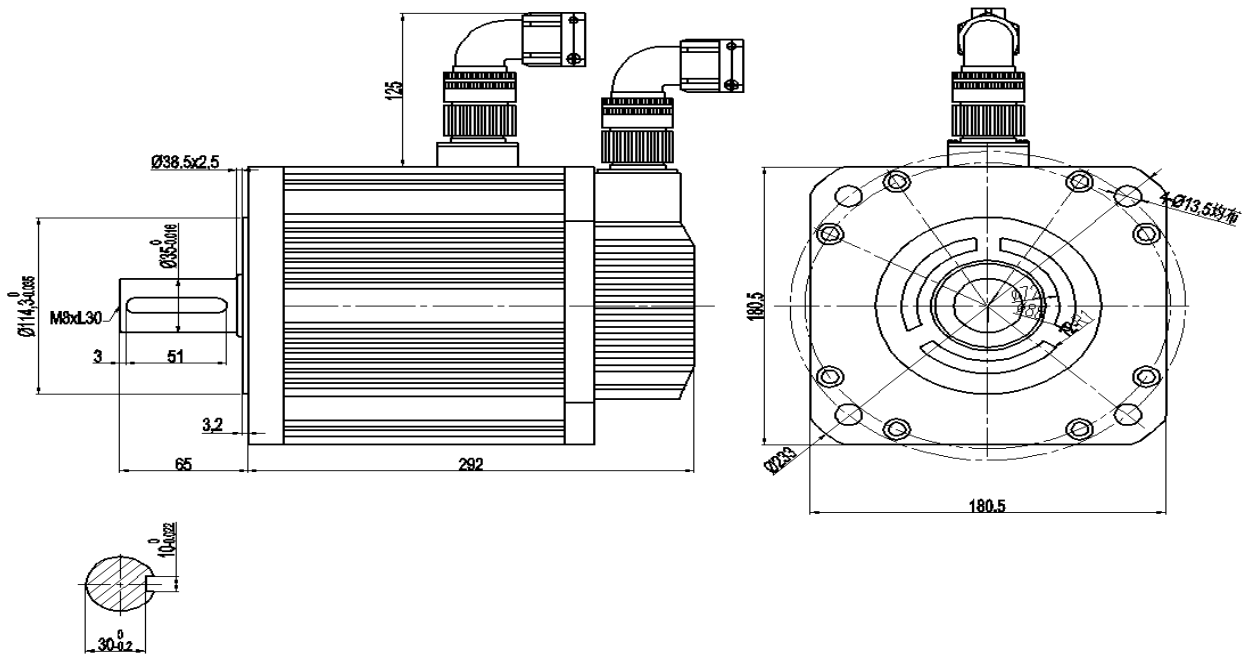
◎ 安装注意 Installation precaution

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1. Installation/disassembly components coupled to the motor shaft end ,do not hit shaft hard To prevent the other side of motor shaft encoder was knocked out bad.
2. Striving to make the best of its shaft to prevent vibration and bearing damage.

⊙ 安装尺寸 Installation Dimension: unit=mm

	180 系列 (series)					
额定力矩 Rated torque (N.m)	17.2N.m	19 N.m	21.5 N.m	27 N.m	35 N.m	48 N.m
不带刹车尺寸 (L) Without brake size(L)	226	232	243	262	292	346
带电磁抱闸 (L) With electromagnetic brake (L)	298	304	315	334	364	418
带永磁抱闸 (L) With permanent magnet brake package (L)	308	314	325	344	382	436



* 以上为标准安装尺寸，可根据客户要求改动

The above is a standard installation dimensions, can alter according to customer requirements

● HB 系列型号命名 (model named)

电动机的型号由机座号、产品名称代号、性能参数代号等部分组成

Frame motor model from the product name code, code and other components performance parameters

80 ST — M 013 30 H B Z (T X)
 (1) (2) (3) (4) (5) (6) (7) (8) (9) (10)

(1) 机座号 Frame

(2) 交流永磁同步伺服电机 AC permanent magnet synchronous servo motor

(3) 反馈元件代号 (M 代表代表光电编码器)

Feedback element code (M representatives photoelectric encoder)

(4) 额定转矩: 三位数 $\times 0.1\text{Nm}$ Rated torque: three-digit $\times 0.1\text{Nm}$

(5) 额定转速: 二位数 $\times 100\text{rpm}$ Rated speed: two-digit $\times 100\text{rpm}$

(6) 驱动器工作电压 (VAC): H 代表: 220V Drive Voltage (VAC): H representatives: 380V

(7) 中惯量 Inertia

(8) 失电制动器: Z 代表: 有 无 代表: 无

Loss of power brake: Z Representative: Have representatives: No

(9) 输出轴: T 代表: 特殊 无 代表: 无

Output shaft: T Representative: No special representatives: No

(10) 出线方式: X 代表线缆直接式 无: 工业 (航空) 插座式

And outlet: X on behalf of direct cable-free: Industrial (aviation) socket

ST_HB 系列 (Series)

机座号 (mm): 130、180 Frame size: : 130、180

额定转矩 (Nm) : 4.0~48 Rated torque (Nm) : 4.0~48

额定功率 (Kw) : 1.0~7.5 Rated power (Kw) : 1.0~7.5

额定转速 (rpm) : 1000、1500、2000、3000

Rated speed (rpm) : 1000、1500、2000、3000

转子惯量: 中惯量 Rotor inertia: inertia

反馈元件: 可选 Feedback components: Optional

失电制动器: 可配 Loss of power brake: can be equipped with

适配驱动器工作电压 (VAC): 380

Adapter driver operating voltage (VAC): 380

130 H 系列伺服电机参数

Item: NAHI 130 H series

◎ 规格 Specifications

电机型号 Motor model	130ST-M04025 HB (□□)	130ST-M05025 HB (□□)	130ST-M06025 HB (□□)	130ST-M07725 HB (□□)
额定功率 Rated power (KW)	1.0	1.3	1.5	2.0
额定线电压 Rated line voltage (V)	380	380	380	380
额定线电流 Rated line current (A)	2.6	3.0	3.7	7.5
额定转速 Rated speed (rpm)	2500	2500	2500	2500
额定力矩 Rated torque (N.m)	4.0	5.0	6.0	7.7
峰值力矩 Peak torque (N.m)	12	15	18	22
反电势 Voltage constant (V/1000r/min)	113	114	110	111
力矩系数 Torque coefficient (N.m/A)	1.54	1.67	1.62	1.64
转子惯量 Rotor inertia (kg.m ²)	0.85×10^{-3}	1.06×10^{-3}	1.26×10^{-3}	1.53×10^{-3}
绕组(线间)电阻 Line-Line Resistance (Ω)	6.27	5.1	3.4	2.49
绕组(线间)电感 Line-Line Inductance (mH)	15.53	12.31	9.23	7.08
电气时间常数 Electrical time constant (ms)	2.48	2.41	2.7	2.84
重量 Weight (kg)	6.2	6.6	7.4	8.3
编码器线数 Encoder line number (PPR)	2500			
电机绝缘等级 Insulation class	Class F			
防护等级 Safety class	IP65			
使用环境 Environment	环境温度: -20℃ ~ +50℃ 环境湿度: 相对湿度<90% (不结霜条件) Temperature: -20℃ ~ +50℃ Humidity: <90% (non-condensing conditions)			

● 其它要求请联系我们的技术部

Other special requirements please contact the NAZHI Technology to negotiate

130 H 系列伺服电机参数

Item: NAHI 130 H series

◎ 规格 Specifications

电机型号 Motor model	130ST-M10010 HB (□□)	130ST-M10015 HB (□□)	130ST-M10025 HB (□□)	130ST-M15015 HB (□□)	130ST-M15025 HB (□□)
额定功率 Rated power (KW)	1.0	1.5	2.6	2.3	3.8
额定线电压 Rated line voltage (V)	380	380	380	380	380
额定线电流 Rated line current (A)	2.5	3.5	5.9	5	7.4
额定转速 Rated speed (rpm)	1000	1500	2500	1500	2500
额定力矩 Rated torque (N.m)	10	10	10	15	15
峰值力矩 Peak torque (N.m)	20	25	25	30	30
反电势 Voltage constant (V/1000r/min)	243	177	115	188	125
力矩系数 Torque coefficient (N.m/A)	4	2.85	1.69	3	2.03
转子惯量 Rotor inertia (kg.m ²)	1.94×10^{-3}	1.94×10^{-3}	1.94×10^{-3}	2.77×10^{-3}	2.77×10^{-3}
绕组(线间)电阻 Line-Line Resistance (Ω)	8.17	4.37	1.986	3.27	1.41
绕组(线间)电感 Line-Line Inductance (mH)	26.7	13.12	6.2	12.36	5.5
电气时间常数 Electrical time constant (ms)	3.27	3	3.12	3.78	3.9
重量 Weight (kg)	10.2	10.2	9.8	12.6	11.7
编码器线数 Encoder line number (PPR)	2500				
电机绝缘等级 Insulation class	Class F				
防护等级 Safety class	IP65				
使用环境 Environment	环境温度: -20℃ ~ +50℃ 环境湿度: 相对湿度<90% (不结霜条件) Temperature: -20℃ ~ +50℃ Humidity: <90% (non-condensing conditions)				

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◎ 安装注意 Installation precaution

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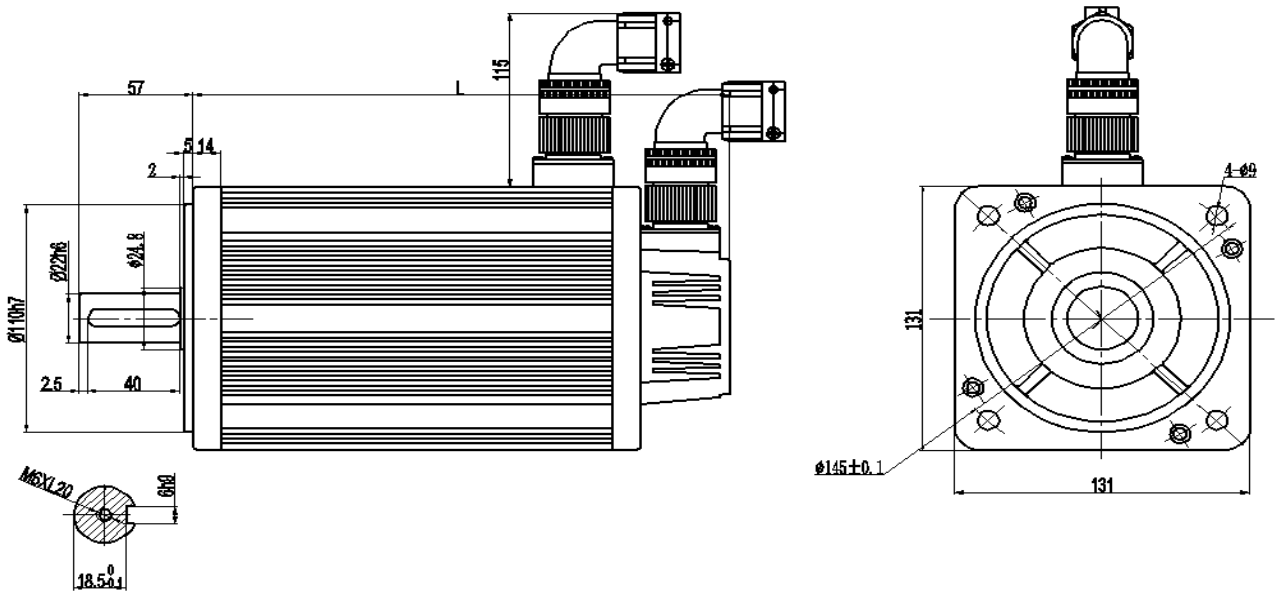
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To prevent the other side of motor shaft encoder was knocked out bad.

2. Striving to make the best of its shaft to prevent vibration and bearing damage.

⊙ 安装尺寸 Installation Dimension: unit=mm

额定力矩 Rated torque (N.m)	130 系列 (series)									
	4 N.m	5 N.m	6 N.m	7.7 N.m	10 N.m			15 N.m		
					1000rpm	1500rpm	2500rpm	1500rpm	2500rpm	
不带刹车尺寸 (L) Without brake size (L)	166	171	179	192	213			209	241	231
带电磁抱闸 (L) With electromagnetic brake (L)	223	228	236	249	294			290	322	312
带永磁抱闸 (L) With permanent magnet brake package (L)	236	241	249	262	283			279	311	301



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The above is a standard installation dimensions, can alter according to customer requirements

180 H 系列伺服电机参数

Item: NAHI 180 H series

◎ 规格 Specifications

电机型号 Motor model	180ST-M17215HB (□□)	180ST-M19015HB (□□)	180ST-M21520HB (□□)	180ST-M27010HB (□□)
额定功率 Rated power(KW)	2.7	3.0	4.5	2.9
额定线电压 Rated line voltage(V)	380	380	380	380
额定线电流 Rated line current(A)	6.5	7.5	9.5	7.5
额定转速 Rated speed(rpm)	1500	1500	2000	1000
额定力矩 Rated torque(N.m)	17.2	19	21.5	27
峰值力矩 Peak torque(N.m)	43	47	53	67
反电势 Voltageconstant (V/1000r/min)	167	170	140	224
力矩系数 Torque coefficient(N.m/A)	2.65	2.5	2.26	3.6
转子惯量 Rotor inertia(kg.m ²)	3.4×10^{-3}	3.8×10^{-3}	4.7×10^{-3}	6.1×10^{-3}
绕组(线间)电阻 Line-Line Resistance(Ω)	1.47	1.23	0.71	1.37
绕组(线间)电感 Line-Line Inductance(mH)	7.8	7.3	4	8.6
电气时间常数 Electrical time constant (ms)	5.3	5.93	5.6	6.27
重量 Weight(kg)	19.5	20.5	22.2	25.5
编码器线数 Encoder line number(PPR)	2500			
电机绝缘等级 Insulation class	Class F			
防护等级 Safety class	IP65			
使用环境 Environment	环境温度: $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$ 环境湿度: 相对湿度<90% (不结霜条件) Temperature: $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$ Humidity: <90% (non-condensing conditions)			

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180 H 系列伺服电机参数

Item: NAHI 180 H series

◎ 规格 Specifications

电机型号 Motor model	180ST-M27015HB (□□)	180ST-M35010HB (□□)	180ST-M35015HB (□□)	180ST-M48015HB (□□)
额定功率 Rated power(KW)	4.3	3.7	5.5	7.5
额定线电压 Rated line voltage(V)	380	380	380	380
额定线电流 Rated line current(A)	10	10	12	20
额定转速 Rated speed(rpm)	1500	1000	1500	1500
额定力矩 Rated torque(N.m)	27	35	35	48
峰值力矩 Peak torque(N.m)	67	70	70	96
反电势 Voltageconstant(V/1000r/min)	172	223	181	156
力矩系数 Torque coefficient(N.m/A)	2.7	3.5	2.9	2.4
转子惯量 Rotor inertia(kg.m ²)	6.1×10^{-3}	8.6×10^{-3}	8.6×10^{-3}	9.5×10^{-3}
绕组(线间)电阻 Line-Line Resistance(Ω)	0.796	0.93	0.62	0.273
绕组(线间)电感 Line-Line Inductance(mH)	4.83	9.1	4	2.14
电气时间常数 Electrical time constant(ms)	6	9.78	6.45	7.8
重量 Weight(kg)	25.5	30.5	30.5	40
编码器线数 Encoder line number(PPR)	2500			
电机绝缘等级 Insulation class	Class F			
防护等级 Safety class	IP65			
使用环境 Environment	环境温度: -20℃ ~ +50℃ 环境湿度: 相对湿度<90% (不结霜条件) Temperature: -20℃ ~ +50℃ Humidity: <90% (non-condensing conditions)			

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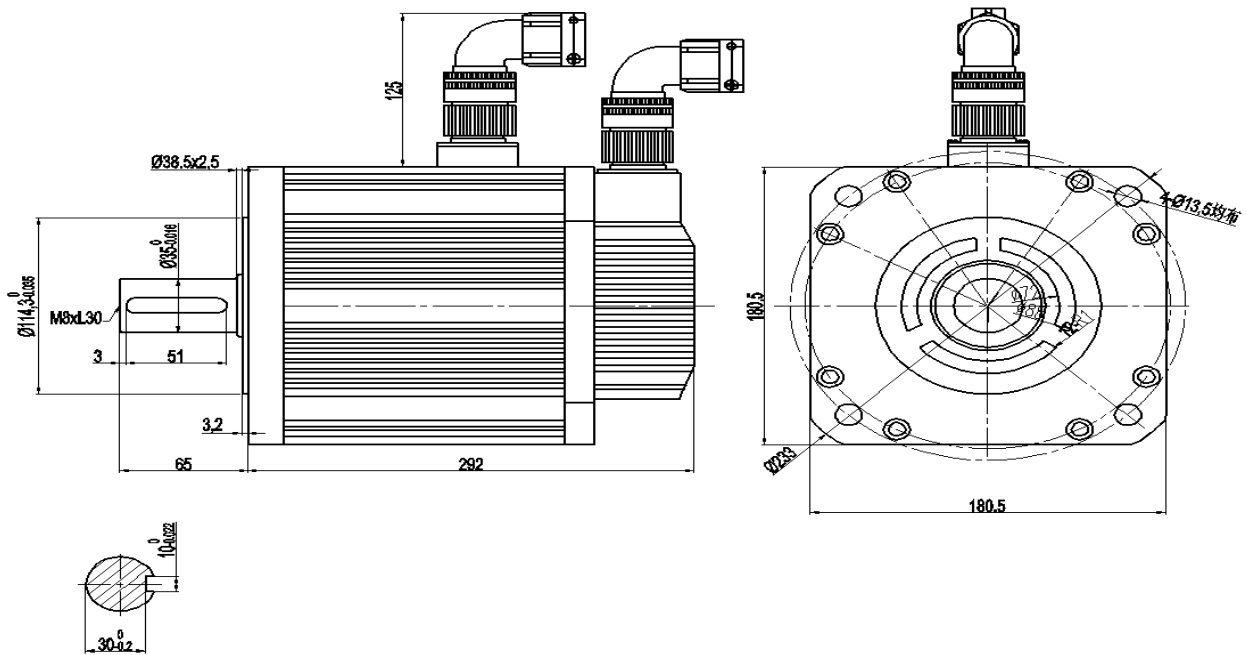
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2. Striving to make the best of its shaft to prevent vibration and bearing damage.

⊙ 安装尺寸 Installation Dimension: unit=mm

	180 系列 (series)					
额定力矩 Rated torque (N.m)	17.2N.m	19 N.m	21.5 N.m	27 N.m	35 N.m	48 N.m
不带刹车尺寸 (L) Without brake size(L)	226	232	243	262	292	346
带电磁抱闸 (L) With electromagnetic brake (L)	298	304	315	334	364	418
带永磁抱闸 (L) With permanent magnet brake package (L)	308	314	325	344	382	436



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步进电机简要说明 (The Brief introduction of Motor)

二相步进电机 TWO phase stepping motors

例：57 HB 56 04

↑ ↑ ↑ ↑
① ② ③ ④

①电机机座号 Frame Size [mm]

②混合式步进电机 Hybrid Stepping Motor

③机身长度 Motor Length [mm]

④引线数 Number of leads

三相步进电机 Three phase stepping motors

例：FHB 3 11 18

↑ ↑ ↑ ↑
① ② ③ ④

①混合式步进电机 Hybrid Stepping Motor

② 3 为三相 Three Phase

③电机机座号 Frame Size [cm]

④电机机身长度 Motor Length [cm]

⊙安装注意

应安装于少尘埃、无腐蚀性气体、易燃气体的地方，应避免金属粉尘等导电体，避免油、水进入壳体的地方。避免有强烈振动的地方。

所有信号线均采用双绞线或屏蔽线，输出相线线芯截面 $S > 1 \text{ mm}^2$ ，输入输出信号线应与电机线电源线分开，因为接近高压电源、电磁开关、高频电源等噪声源是产生误动作的原因。

驱动器之间及其他设备之间至少应保持 4 公分以上，以利通风。

电机需高速运行时，必须进行升降频处理，升降频曲线处理不好往往是电机高速上不去的主要原因。

电机的温升根据电压、电机转速及驱动负载的不同而不同。通常，在长时间高速运转时，电机易发热，请务必保持电机的温度不超过 100 度。

驱动电源发生故障，可直接与本公司联系，一年内给予保修，经拆装后，本公司不予负责，请用户谅解。

⊙Installation Precaution:

To be installed in clear areas without corrosive and flammable objects but strong vibration-proof place; To keep it away from conductor like dust, metals etc. To avoid any oil or water come into the motor.

To insure all the signal wires of twisted pair cable or shielded wire with Wire core section of output phase line $s > 1 \text{ mm}^2$; To separate the signal wires from the motor & power wire, preventing any malfunctions due to noise from voltage power supply, electromagnetic switch, high frequency power source and so on.

To ensure good ventilation, the distance among driver or other equipments must be more than 4 cm.

To degrade/upgrade frequency when the motor needs running up and the mismanagement of frequency process manipulation is the main factor for high speed.

To remember that the temperature is indispensable with voltage, motor speed and driver load. Given in the fact that motor would be hot after long time operation, please make sure the temperature of motor at no more than 100°C .

To feel free to contact us directly whenever the drive has any problem please rest assured upon our one- year guarantee.

At last, to kindly remind you that any dismounting of the products is beyond our responsibility.

28MM 两相混合式步进电机参数



Item: NAHIZ 28 Series

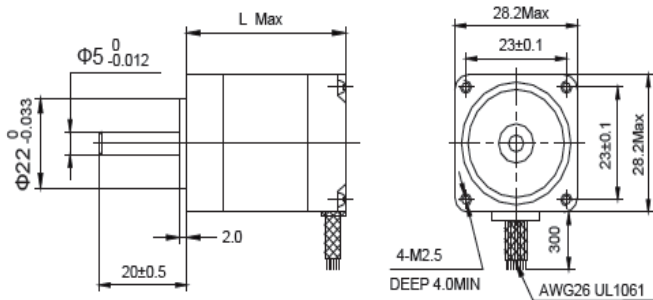
⊙技术数据 (Specifications)

型号 Model	步距角 Step Angle (°)	机身長 Length(L) (mm)	额定电流 Rated Current (A/phase)	电阻 Phase Resistance (Ω)	电感 Phase Inductance (mH)	静力矩 Holding Torque (N.com.Min)	定位力矩 Detent Torque (N.cm.Max)	转动惯量 Rotor Inertia (g.cm ²)	引线数 Lead Wire (No.)	重量 Motor Weight (g)
28HB2804	1.8	28	0.6	4.2	2.2	4.5	0.3	6	4	105
28HB5004	1.8	50	0.6	9.0	7.2	10	0.8	13	4	180

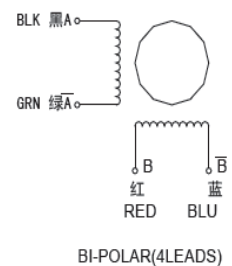
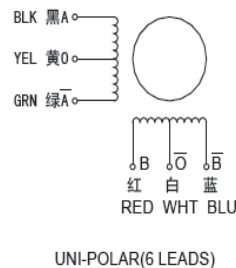
*以上仅为代表性产品，派生产品可根据客户要求制作！

The above is only representative of the product, We can design according to clients' requirement.

⊙外形图 (Dimension) : unit=mm



⊙接线图 (Wiring Diagram)



!注意事项

1. 电机安装时务必用电机前端盖安装止口定位，并注意公差配合，严格保证电机轴与负载的同心度。
2. 电机与驱动器连接时，请勿接错相。

Installation precaution:

1. When motor mounted, be sure its front cover should be installed to the seam allowance position and attention to the fit tolerance and strictly ensure that the concentricity of electrical motor axis with the load.
2. Please do not connect wrong phase when fitting the motor and drive.

42MM 两相混合式步进电机参数



Item: NAHIZ 42 Series

步进精度:	$\pm 5\%$ (full step, no load)
Step Angle Accuracy:	$\pm 5\%$ (full step, no load)
温度:	80° C Max
Temperature Rise:	80° C Max
环境温度:	-20° C ~ +50° C
Ambient Temperature:	-20° C ~ +50° C
绝缘电阻:	100M Ω Min. 500VDC
Insulation Resistance:	100M Ω Min. 500VDC
耐压:	500V AC 1 minute
Dielectric Strength:	500V AC 1 minute
径向跳动:	0.02mm Max. (450g-load)
Shaft Radial Play:	0.02mm Max. (450g-load)
轴向跳动:	0.08mm Max. (450g-load)

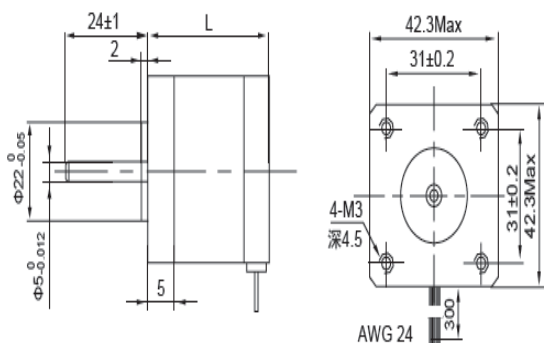
◎技术数据 (Specifications)

型号 Model	步距角 Step Angle (°)	机身長 Length(L) (mm)	保持转矩 Holding torque (N.m)	额定电流 Rated Current (A/phase)	电阻 Phase Resistance (Ω)	电感 Phase Inductance (mH)	转动惯量 Rotor Inertia (g.cm ²)	轴径 Shaft diameter (mm)	引线数 Lead Wire (No.)	重量 Motor Weight (kg)
42HB3304	1.8	33	0.16	0.95	4.2	2.5	35	5.0	4	0.22
42HB3804	1.8	38	0.26	1.2	3.3	3.2	54	5.0	4	0.28
42HB4804	1.8	48	0.32	1.2	3.3	2.8	68	5.0	4	0.35

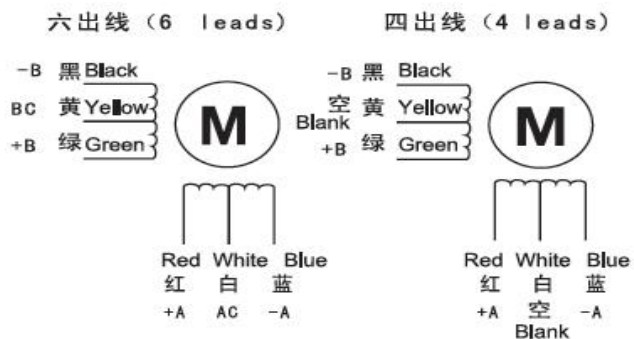
*以上仅为代表性产品，派生产品可根据客户要求制作！

The above is only representative of the product, We can design according to clients' requirement.

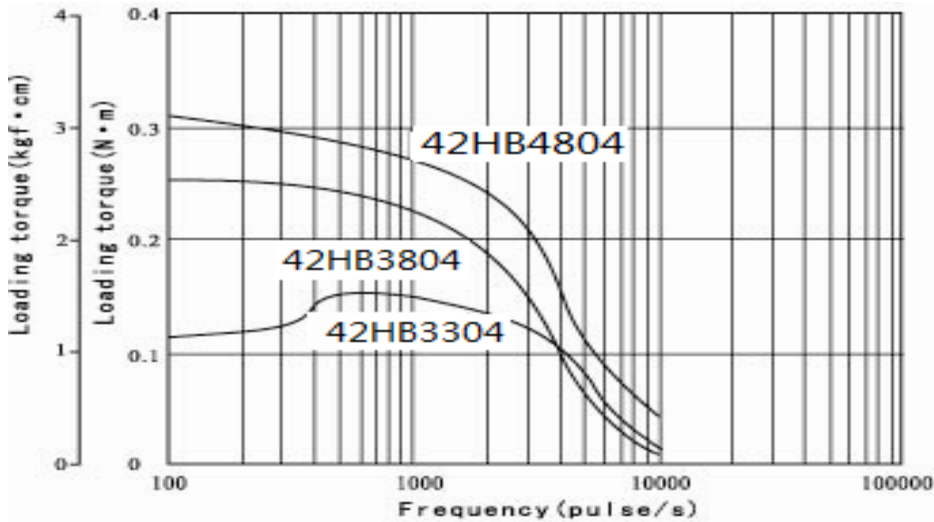
◎外形图 (Dimension) : unit=mm



◎接线图 (Wiring Diagram)



◎矩频特性图 (Frequency-torque Characteristics)



! 注意事项

1. 电机特性数据和技术数据都是在 YKA2404 驱动器的情况下测得，测试电压为 DC28V。
2. 电机安装时务必用电机前端盖安装止口定位，并注意公差配合，严格保证电机轴与负载的同心度。
3. 电机与驱动器连接时，请勿接错相。

Installation precaution:

1. Data of electrical characteristics and technical data are both measured by YKA2404 drive, testing voltage DC28V.
2. When motor mounted, be sure its front cover should be installed to the seam allowance position and attention to the fit tolerance and strictly ensure that the concentricity of electrical motor axis with the load.
3. Please do not connect wrong phase when fitting the motor and drive.

57MM 两相混合式步进电机参数



Item: NAHIZ 57 Series

步进精度:	±5% (full step, no load)
Step Angle Accuracy:	
温度:	80° C Max
Temperature Rise:	
环境温度:	-20° C ~ +50° C
Ambient Temperature:	
绝缘电阻:	100M Ω Min. 500VDC
Insulation Resistance:	
耐压:	500V AC 1 minute
Dielectric Strength:	
径向跳动:	0.02mm Max. (450g-load)
Shaft Radial Play:	
轴向跳动:	0.08mm Max. (450g-load)

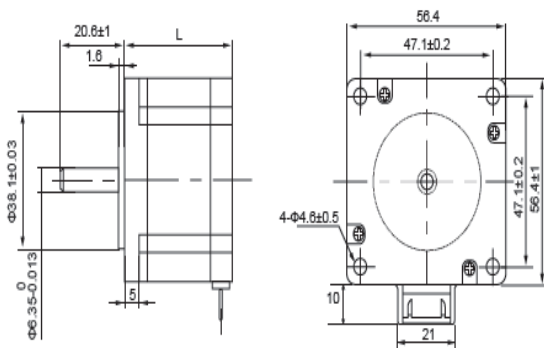
◎技术数据 (Specifications)

型号 Model	步距角 Step Angle (°)	机身長 Length(L) (mm)	保持转矩 Holding torque (N.m)	额定电流 Rated Current (A/phase)	电阻 Phase Resistance (Ω)	电感 Phase Inductance (mH)	转动惯量 Rotor Inertia (g.cm ²)	轴径 Shaft diameter (mm)	引线数 Lead Wire (No.)	重量 Motor Weight (kg)
57HB4104	1.8	41	0.39	2.0	1.4	1.4	120	6.35	4	0.45
57HB5104	1.8	51	0.72	3.0	0.74	0.9	275	6.35	4	0.65
57HB5604	1.8	56	0.9	3.0	0.75	1.1	300	6.35	4	0.7
57HB7604	1.8	76	1.35	3.0	1.0	1.6	480	6.35	4	1.0

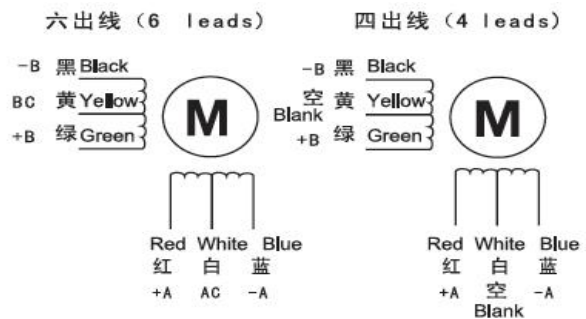
*以上仅为代表性产品，派生产品可根据客户要求制作！

The above is only representative of the product, We can design according to clients' requirement.

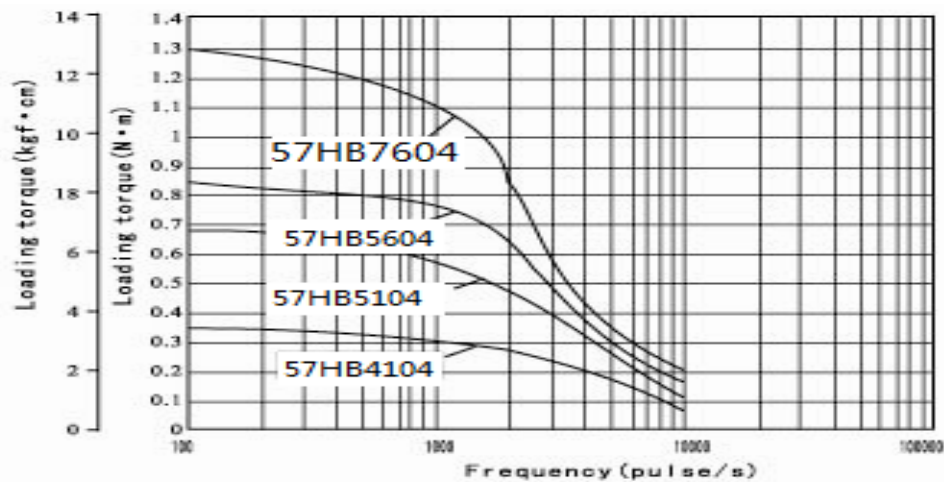
◎外形图 (Dimension) : unit=mm



◎接线图 (Wiring Diagram)



◎矩频特性图 (Frequency-torque Characteristics)



! 注意事项

1. 电机特性数据和技术数据都是在 YKA2404 驱动器的情况下测得，测试电压为 DC28V。
2. 电机安装时务必用电机前端盖安装止口定位，并注意公差配合，严格保证电机轴与负载的同心度。
3. 电机与驱动器连接时，请勿接错相。

Installation precaution:

1. Data of electrical characteristics and technical data are both measured by YKA2404 drive, testing voltage DC28V.
2. When motor mounted, be sure its front cover should be installed to the seam allowance position and attention to the fit tolerance and strictly ensure that the concentricity of electrical motor axis with the load.
3. Please do not connect wrong phase when fitting the motor and drive

86MM 两相混合式步进电机参数



Item: NAHIZ 86 Series

步进精度:	$\pm 5\%$ (full step, no load)
Step Angle Accuracy:	$\pm 5\%$ (full step, no load)
温度:	80°C Max
Temperature Rise:	80°C Max
环境温度:	$-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$
Ambient Temperature:	$-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$
绝缘电阻:	$100\text{M } \Omega \text{ Min. } 500\text{VDC}$
Insulation Resistance:	$100\text{M } \Omega \text{ Min. } 500\text{VDC}$
耐压:	$500\text{V AC } 1 \text{ minute}$
Dielectric Strength:	$500\text{V AC } 1 \text{ minute}$
径向跳动:	$0.02\text{mm Max. (450g-load)}$
Shaft Radial Play:	$0.02\text{mm Max. (450g-load)}$
轴向跳动:	$0.08\text{mm Max. (450g-load)}$

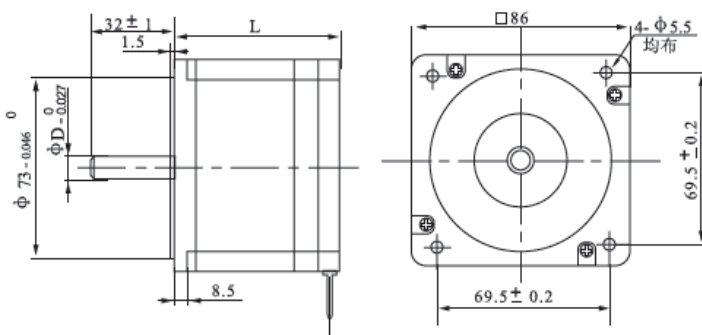
◎技术数据 (Specifications)

型号 Model	步距角 Step Angle ($^{\circ}$)	机身長 Length (L) (mm)	保持转矩 Holding torque (N.m)	额定电流 Rated Current (A/phase)	电阻 Phase Resistance (Ω)	电感 Phase Inductance (mH)	转动惯量 Rotor Inertia (g.cm ²)	轴径 Shaft diameter (mm)	引线数 Lead Wire (No.)	重量 Motor Weight (kg)
86HB6504	1.8	65	3.3	2.8	1.4	3.9	1000	9.5	4	1.7
86HB8004	1.8	78	4.5	4.2	0.8	3.4	1400	12.7	4	2.3
86HB11404	1.8	114	8.5	4.2	1.2	6.0	2700	12.7	4	3.8
86HB15004	1.8	150	12	4.2	1.25	8.0	4000	14	4	5.4

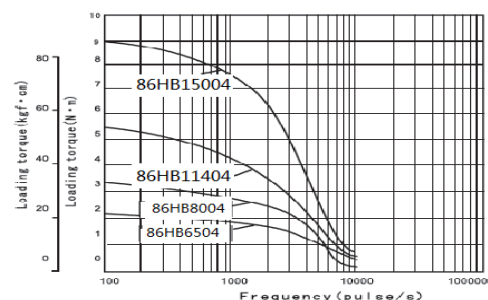
*以上仅为代表性产品，派生产品可根据客户要求制作！

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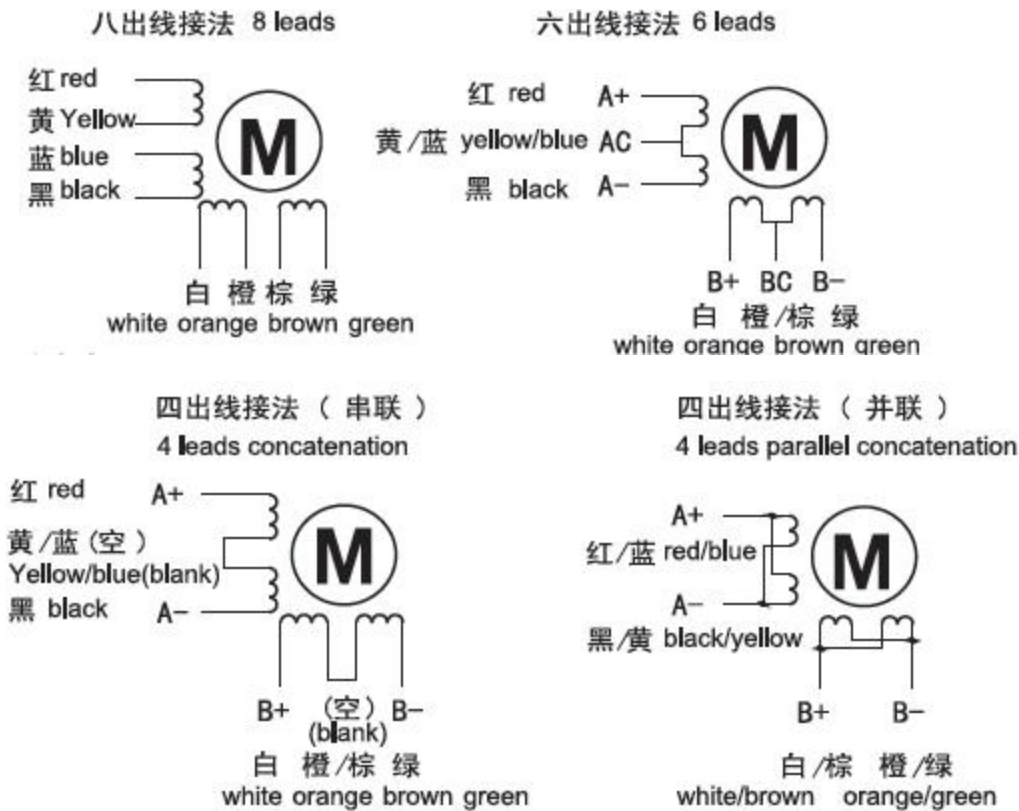
◎外形图 (Dimension) : unit=mm



◎矩频特性图 (Frequency-torque Characteristics)



◎接线图 (Wiring Diagram)



! 注意事项

1. 电机特性数据和技术数据都是在 YKA2608 驱动器的情况下测得，测试电压为 DC28V。
2. 电机安装时务必用电机前端盖安装止口定位，并注意公差配合，严格保证电机轴与负载的同轴度。
3. 电机与驱动器连接时，请勿接错相。

Installation precaution:

1. Data of electrical characteristics and technical data are both measured by YKA2608 drive, testing voltage DC48V.
2. When motor mounted, be sure its front cover should be installed to the seam allowance position and attention to the fit tolerance and strictly ensure that the concentricity of electrical motor axis with the load.
3. Please do not connect wrong phase when fitting the motor and drive

110MM 两相混合式步进电机参数



Item: NAHIZ 110 Series

步进精度:	$\pm 5\%$ (full step, no load)
Step Angle Accuracy:	
温度:	80° C Max
Temperature Rise:	
环境温度:	-20° C ~ +50° C
Ambient Temperature:	
绝缘电阻:	100M Ω Min. 500VDC
Insulation Resistance:	
耐压:	500V AC 1 minute
Dielectric Strength:	
径向跳动:	0.02mm Max. (450g-load)
Shaft Radial Play:	
轴向跳动:	0.08mm Max. (450g-load)

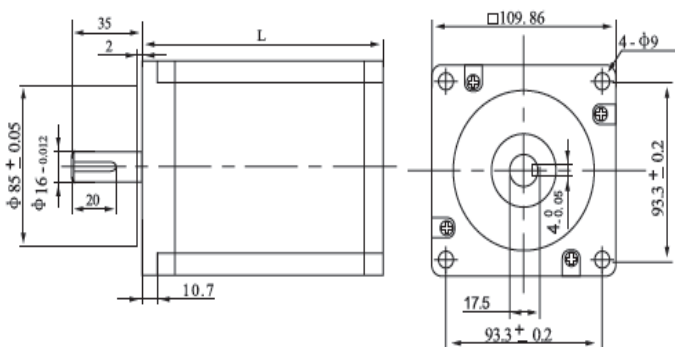
◎ 技术数据 (Specifications)

型号 Model	步距角 Step Angle (°)	机身長 Length (L) (mm)	保持转矩 Holding torque (N.m)	额定电流 Rated Current (A/phase)	电阻 Phase Resistance (Ω)	电感 Phase Inductance (mH)	转动惯量 Rotor Inertia (g.cm ²)	轴径 Shaft diameter (mm)	引线数 Lead Wire (No.)	重量 Motor Weight (kg)
110HB9904	1.8	102	8.5	5.5	0.9	1.0	5500	16	4	5.0
110HB11504	1.8	126	12	6.0	0.33	1.1	7200	16	4	6.0
110HB15004	1.8	150	21	6.5	0.58	1.3	10900	16	4	8.4
110HB20104	1.8	194	28	8.0	0.64	1.98	16200	16	4	11.7

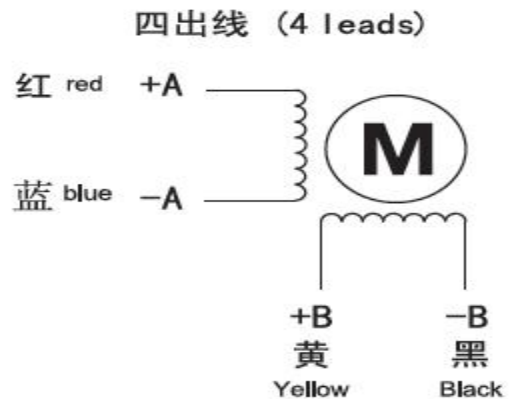
*以上仅为代表性产品，派生产品可根据客户要求制作！

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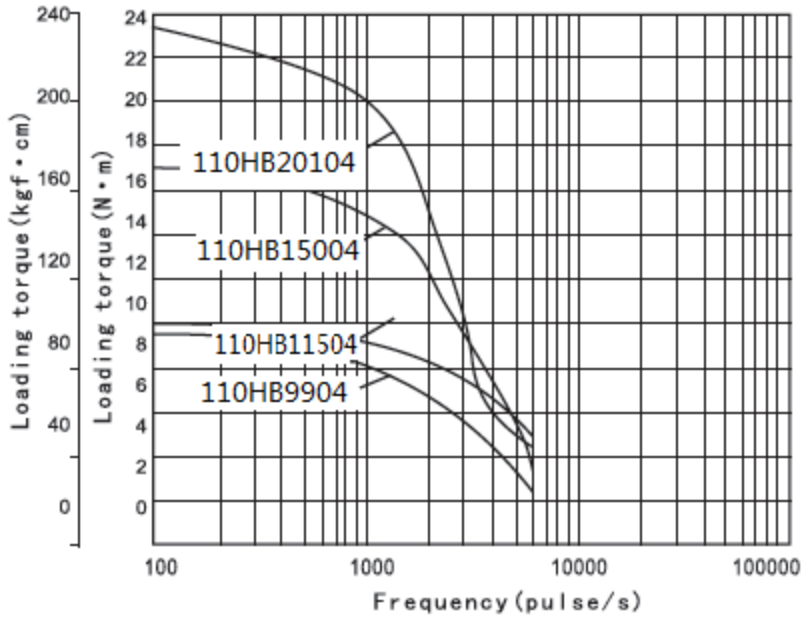
◎ 外形图 (Dimension) : unit=mm



◎ 接线图 (Wiring Diagram)



◎ 矩频特性图 (Frequency-torque Characteristics)



! 注意事项

1. 电机特性数据和技术数据都是在 YKA2811 驱动器的情况下测得，测试电压为 DC90V。
2. 电机安装时务必用电机前端盖安装止口定位，并注意公差配合，严格保证电机轴与负载的同心度。
3. 电机与驱动器连接时，请勿接错相。

Installation precaution:

1. Data of electrical characteristics and technical data are both measured by YKA2811 drive, testing voltage DC90V.
2. When motor mounted, be sure its front cover should be installed to the seam allowance position and attention to the fit tolerance and strictly ensure that the concentricity of electrical motor axis with the load.
3. Please do not connect wrong phase when fitting the motor and drive

57MM 三相混合式步进电机参数



Item: NAHIZ 57 Series

步进精度:	$\pm 5\%$ (full step, no load)
Step Angle Accuracy:	
温度:	80° C Max
Temperature Rise:	
环境温度:	-20° C ~ +50° C
Ambient Temperature:	
绝缘电阻:	100M Ω Min. 500VDC
Insulation Resistance:	
耐压:	500V AC 1 minute
Dielectric Strength:	
径向跳动:	0.06mm Max. (450g-load)
Shaft Radial Play:	
轴向跳动:	0.08mm Max. (450g-load)

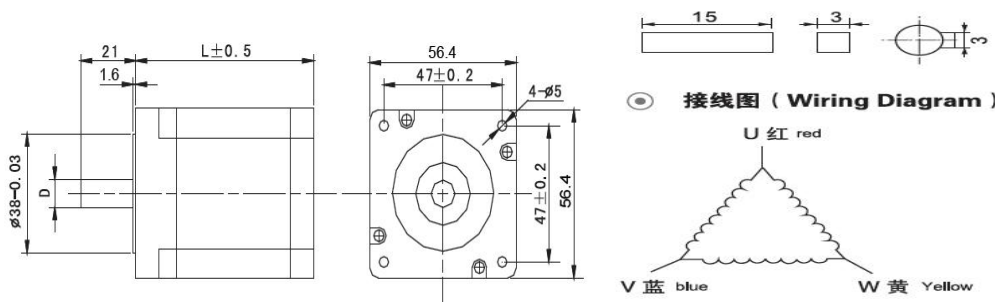
◎技术数据 (Specifications)

型号 Model	步距角 Step Angle (°)	机身長 Length (L) (mm)	保持转矩 Holding torque (N.m)	额定电流 Rated Current (A/phase)	线电阻 Resistance (Ω)	线电感 Inductance (mH)	转子惯量 Rotor Inertia (g.cm ²)	轴径 Shaft diameter (mm)	轴伸 shaft extension (mm)	重量 Motor Weight (kg)
FHB364	1.2	40.5	0.45	5.2	0.242	0.22	100	6.35	双平台 0.85	0.5
FHB366	1.2	53.5	0.9	5.6	0.24	0.267	220	6.35	×8 double plate 0.85 ×8	0.75
FHB368	1.2	76.4	1.5	5.8	0.29	0.39	380	8	平键 3×15	1.1
FHB3610	1.2	102	2.0	5.8	0.376	0.5	530	8	feather key 3x15	1.57

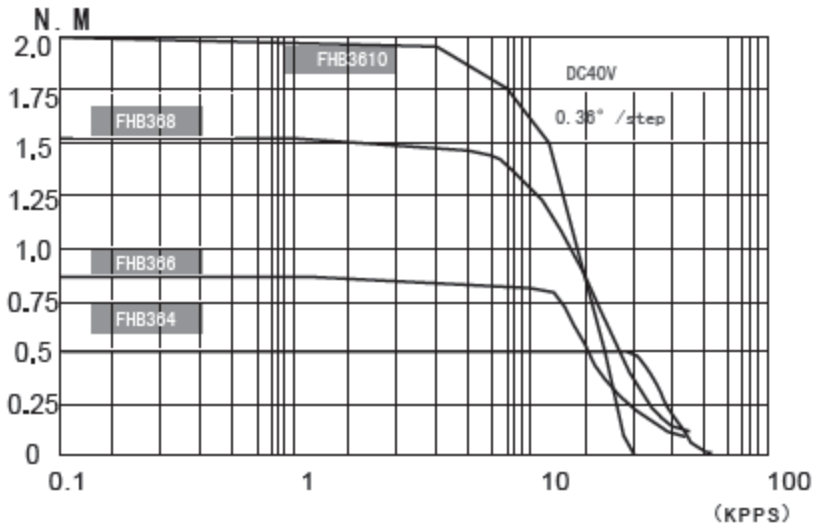
*以上仅为代表性产品，派生产品可根据客户要求制作！

The above is only representative of the product, We can design according to clients' requirement.

◎外形图 (Dimension) : unit=mm



◎矩频特性图 (Frequency-torque Characteristics)



! 注意事项

1. 电机特性数据和技术数据都是在 YKA3606 驱动器的情况下测得，测试电压为 DC40V。
2. 电机安装时务必用电机前端盖安装止口定位，并注意公差配合，严格保证电机轴与负载的同心度。
3. 电机与驱动器连接时，请勿接错相。

Installation precaution:

1. Data of electrical characteristics and technical data are both measured by YKA3606 drive, testing voltage DC40V.
2. When motor mounted, be sure its front cover should be installed to the seam allowance position and attention to the fit tolerance and strictly ensure that the concentricity of electrical motor axis with the load.
3. Please do not connect wrong phase when fitting the motor and drive

85MM 三相混合式步进电机参数



Item: NAHIZ 85 Series

步进精度:	±5% (full step, no load)
Step Angle Accuracy:	
温度:	80° C Max
Temperature Rise:	
环境温度:	-20° C ~ +50° C
Ambient Temperature:	
绝缘电阻:	100M Ω Min. 500VDC
Insulation Resistance:	
耐压:	500V AC 1 minute
Dielectric Strength:	
径向跳动:	0.06mm Max. (450g-load)
Shaft Radial Play:	
轴向跳动:	0.08mm Max. (450g-load)

◎ 技术数据 (Specifications)

型号 Model	步距角 Step Angle (°)	机身長 Length (L) (mm)	保持转矩 Holding torque (N.m)	额定电流 Rated Current (A/phase)	线电阻 Resistance (Ω)	线电感 Inductance (mH)	转子惯量 Rotor Inertia (g.cm ²)	轴径 Shaft diameter (mm)	轴伸 shaft extension (mm)	重量 Motor Weight (kg)
FHB397-H	1.2	69	2.0	1.75	3.77	11.6	1320	12	平键 4×20 feather key 4x20	1.8
FHB397	1.2	69	2.0	5.8	0.5	0.9	1320	12		1.8
FHB3910-H	1.2	97	4.0	2.0	4.65	14.6	2400	12		2.8
FHB3910	1.2	97	4.0	5.8	0.7	1.5	2400	12		2.8
FHB3913-H	1.2	125	6.0	3.0	2.0	8.0	3480	14		3.8
FHB3913	1.2	125	6.0	5.8	0.9	2.17	3480	14		3.8
FHB3915-H	1.2	145	7.5	3.2	2.6	9.57	4560	14		4.7
FHB3915	1.2	145	7.5	5.8	0.88	2.63	4560	14		4.7

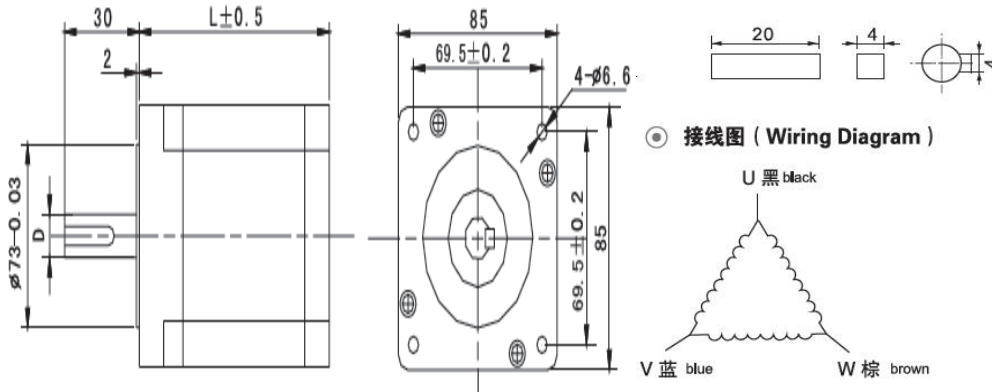
*以上仅为代表性产品，派生产品可根据客户要求制作！

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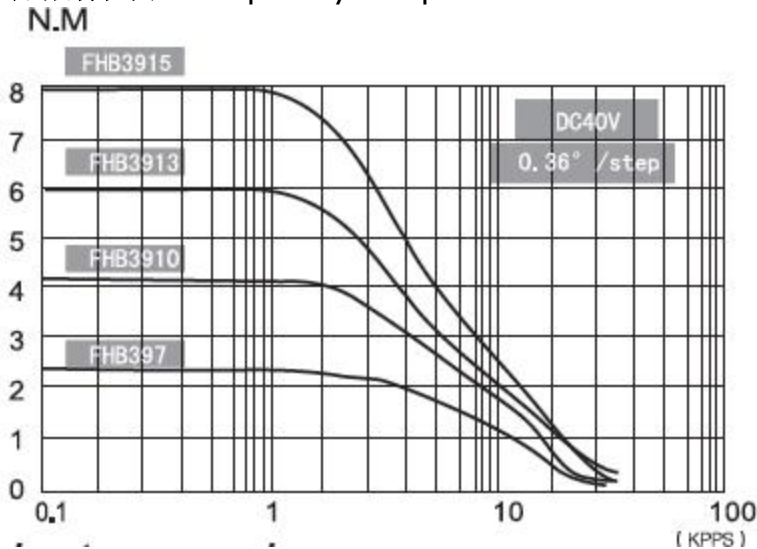
*带 H 表示高压型，适用于高速；不带 H 表示低压，适用于低速。

H-type means high voltage; suitable for high-speed; without H-type means low voltage, suitable for low-speed

◎外形图 (Dimension) : unit=mm



◎矩频特性图 (Frequency-torque Characteristics)



! 注意事项

1. 电机特性数据和技术数据都是在 YKA3606 驱动器的情况下测得，测试电压为 DC40V。
2. 电机安装时务必用电机前端盖安装止口定位，并注意公差配合，严格保证电机轴与负载的同心度。
3. 电机与驱动器连接时，请勿接错相。

Installation precaution:

1. Data of electrical characteristics and technical data are both measured by YKA3606 drive, testing voltage DC40V.
 2. When motor mounted, be sure its front cover should be installed to the seam allowance position and attention to the fit tolerance and strictly ensure that the concentricity of electrical motor axis with the load.
- Please do not connect wrong phase when fitting the motor and drive

110MM 三相混合式步进电机参数



Item: NAHIZ 110 Series

步进精度:	$\pm 5\%$ (full step, no load)
Step Angle Accuracy:	
温度:	80° C Max
Temperature Rise:	
环境温度:	-20° C ~ +50° C
Ambient Temperature:	
绝缘电阻:	100M Ω Min. 500VDC
Insulation Resistance:	
耐压:	500V AC 1 minute
Dielectric Strength:	
径向跳动:	0.06mm Max. (450g-load)
Shaft Radial Play:	
轴向跳动:	0.08mm Max. (450g-load)

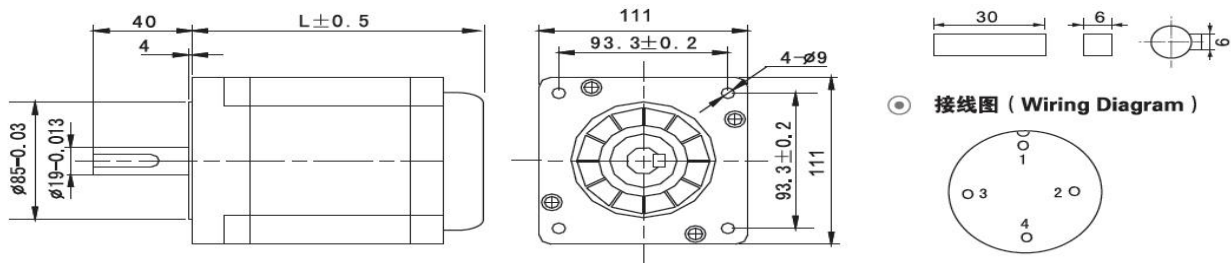
◎技术数据 (Specifications)

型号 Model	步距角 Step Angle (°)	机身長 Length (L) (mm)	保持转矩 Holding torque (N.m)	额定电流 Rated Current (A/phase)	线电阻 Resistance (Ω)	线电感 Inductance (mH)	转子惯量 Rotor Inertia (g.cm ²)	轴径 Shaft diameter (mm)	轴伸 shaft extension (mm)	重量 Motor Weight (kg)
FHB31112	1.2	127	8.0	4.3	1.04	4.3	6000	19	平键 6×30	5.0
FHB31115	1.2	151	12	6.0	0.6	2.67	9720	19	feather key	6.3
FHB31118	1.2	185	16	6.4	0.7	2.96	13560	19	6x30	8.5
FHB31122	1.2	219	20	6.9	0.57	2.46	17400	19		10.7

*以上仅为代表性产品，派生产品可根据客户要求制作！

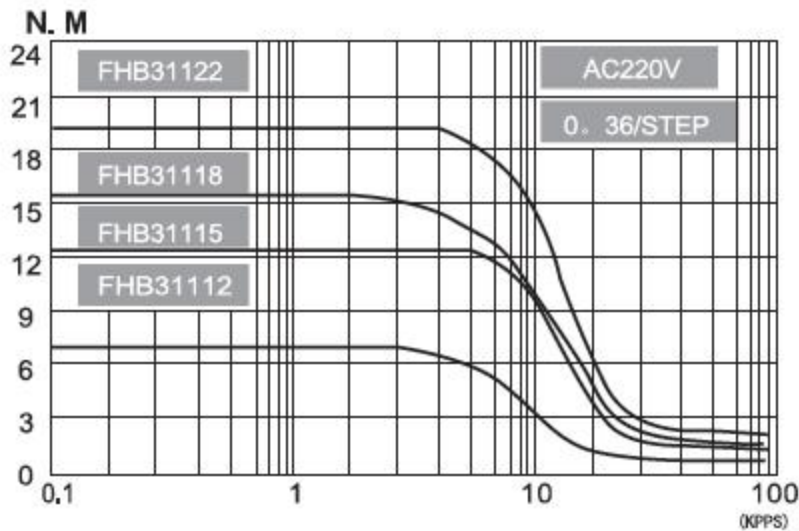
The above is only representative of the product, We can design according to clients' requirement.

◎外形图 (Dimension) : unit=mm



序号 serial number	1	2	3	4	备注 remarks
相序 phase sequence	U	V	W	GND	四芯插座 four-core socket

◎矩频特性图 (Frequency-torque Characteristics)



！ 注意事项

- 1.电机特性数据和技术数据都是在 YKA3722 驱动器的情况下测得，测试电压为 AC220V。
- 2.电机安装时务必用电机前端盖安装止口定位，并注意公差配合，严格保证电机轴与负载的同轴度。
- 3.电机与驱动器连接时，请勿接错相。

Installation precaution:

1. Data of electrical characteristics and technical data are both measured by YKA3722 drive, testing voltage AC220V.
2. When motor mounted, be sure its front cover should be installed to the seam allowance position and attention to the fit tolerance and strictly ensure that the concentricity of electrical motor axis with the load.
3. Please do not connect wrong phase when fitting the motor and drive

130MM 三相混合式步进电机参数



Item: NAHIZ 130 Series

步进精度:	$\pm 5\%$ (full step, no load)
Step Angle Accuracy:	$\pm 5\%$ (full step, no load)
温度:	80°C Max
Temperature Rise:	80°C Max
环境温度:	$-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$
Ambient Temperature:	$-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$
绝缘电阻:	$100\text{M } \Omega \text{ Min. } 500\text{VDC}$
Insulation Resistance:	$100\text{M } \Omega \text{ Min. } 500\text{VDC}$
耐压:	$500\text{V AC } 1 \text{ minute}$
Dielectric Strength:	$500\text{V AC } 1 \text{ minute}$
径向跳动:	$0.25\text{mm Max. (450g-load)}$
Shaft Radial Play:	$0.25\text{mm Max. (450g-load)}$
轴向跳动:	$0.1 \sim 0.3\text{mm Max. (450g-load)}$
Shaft Axial Play:	$0.1 \sim 0.3\text{mm Max. (450g-load)}$

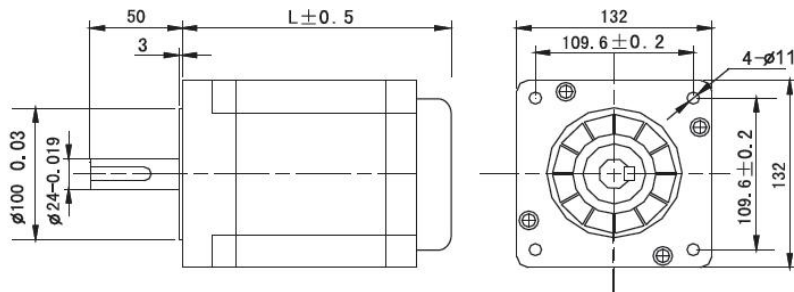
◎技术数据 (Specifications)

型号 Model	步距角 Step Angle (°)	机身長 Length (L) (mm)	保持转矩 Holding torque (N.m)	额定电流 Rated Current (A/phase)	线电阻 Resistance (Ω)	线电感 Inductance (mH)	转子惯量 Rotor Inertia (g.cm ²)	轴径 Shaft diameter (mm)	轴伸 shaft extension (mm)	重量 Motor Weight (kg)
FHB31315	1.2	161	15	6.9	0.55	3.5	20000	24	平键 8×30	11
FHB31318	1.2	190	20	6.9	0.72	4.7	26700	24	feather key	14.1
FHB31322	1.2	222	28	6.9	0.95	6.1	33970	24	8x30	17.2
FHB31325	1.2	254	35	6.9	1.1	7.4	41240	24		19.8
FHB31332	1.2	318	50	6.9	1.4	9.82	55780	24		26

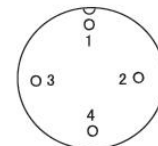
*以上仅为代表性产品，派生产品可根据客户要求制作！

The above is only representative of the product, We can design according to clients' requirement.

◎外形图 (Dimension) : unit=mm

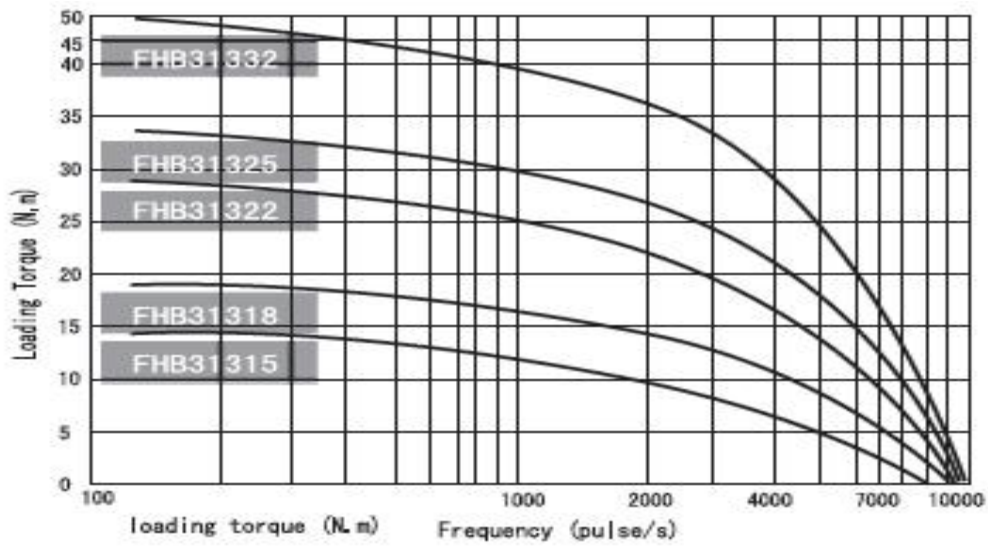


◎接线图 (Wiring Diagram)



序号 serial number	1	2	3	4	备注 remarks
相序 phase sequence	U	V	W	GND	四芯插座 four-core socket

◎ 矩频特性图 (Frequency-torque Characteristics)



! 注意事项

1. 电机特性数据和技术数据都是在 YKA3722 驱动器的情况下测得，测试电压为 AC220V。
2. 电机安装时务必用电机前端盖安装止口定位，并注意公差配合，严格保证电机轴与负载的同心度。
3. 电机与驱动器连接时，请勿接错相。

Installation precaution:

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