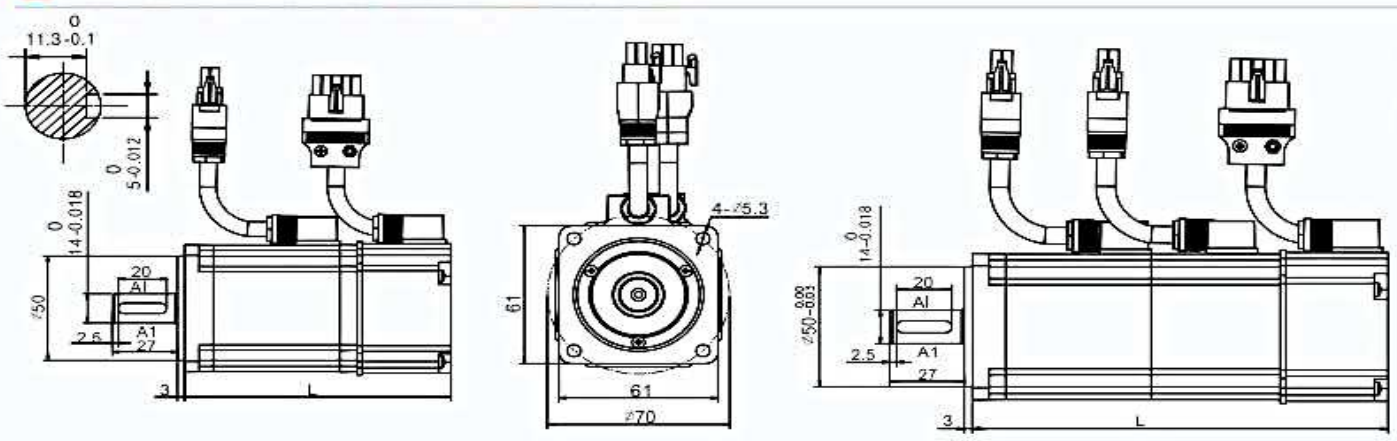
SERVO MOTORS

60 SY series AC servo motor

Temperature	0℃-55℃
Number of pole pairs	4
Incremental encoder line	2500/5000PPR
Absolute encoder	17/33bit、22/38bit、 23/39bit
Humidity is less than	0.9
Insulation class	B
Safety Class	IP65
Insulation and voltage resistance	AC 1500V, 1 Minute
Insulation resistance	DC500v, 10Ωabove
Structure	Plastic packaging,Self-cooling
Vibration	Under 2.5G
Altitude	Under 1000m
Work system	Continuous
Installation Method	Flange installation

Installation Dimension unit=mm



MODEL	L(mm) Incremental encoder	LA(mm) with brake	L(mm) Absolut eoncoder
60SY-M00630	110	148	115
60SY-M01330	133	171	138
60SY-M019301	154	192	159

*All above is the standard install ation dimension,can be changed according to the custorners'requirments
*Not hit the shaft ,or the encoder in the other end would be damaged.

Specifications

Motor Model	60SY-M00630S	60SY-M01330S	60SY-M01930S
Rated Power(w)	200	400	600
Rated Torque(N.m)	0.637	1.27	1.91
Max Torgue(N.m)	1.91	3.81	5.4
Rated Speed(rpm)	3000	3000	3000
Max Speed(rpm)	3600	3600	3600
Input Voltage (V)		(AC 220)	
Rated Current(A)	1.3	2.7	3.7
Rotor inertia(KG.㎡)	$0.264*10^{4}$	$0.407*10^{4}$	$0.526*10^{4}$
Motor Weight (Kg)	1.18	1.7	2.1

winding connection table

Winding wire	U	V	W
Socket Number	1	2	3

Brake Wiring	Brake	Brake
Socket number	1	2
Brake voltage	DC24V	

Note: Brake voltage is DC 24V (Non polar requirement)

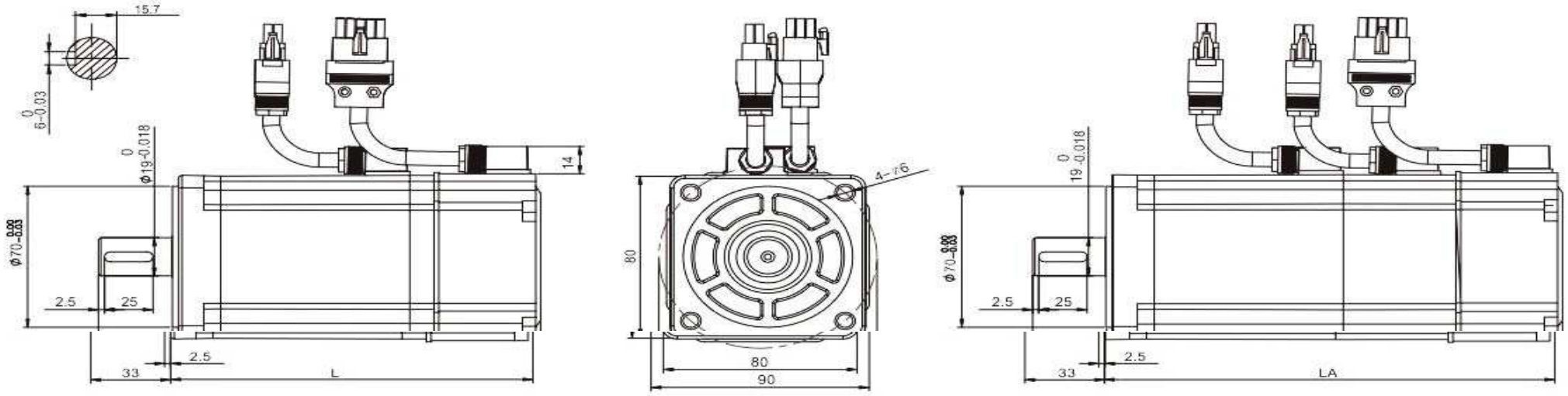
The encoder connection table

Signal Definitions	5V	OV	A+	B+	Z+	A-	B-	Z-	U+	V+	W+	U-	V-	W-	PE
Socket Number	2	3	9	4	7	13	14	5	6	10	11	8	12	15	1
Absolute signal definitions	PE		GND		VB		SD-		GND DV		SD		Vcc 5V		
Socket Number	1		2		3		4		5		6		7		

80 SY series AC servo motor (Plastic plug)

Temperature	0℃-55℃
Number of pole pairs	4
Incremental encoder line	2500/5000PPR
Absolute encoder	17/33bit、22/38bit、 23/39bit
Humidity is less than	0.9
Insulation class	B
Safety Class	IP65
Insulation and voltage resistance	AC 1500V, 1 Minute
Insulation resistance	DC500v, 10Ωabove
Structure	Plastic packaging,Self-cooling
Vibration	Under 2.5G
Altitude	Under 1000m
Work system	Continuous
Installation Method	Flange installation

Installation Dimension unit=mm



MODEL	L(mm)	LA(mm) with brake
80SY-M01630S	132	168
80SY-M02430S	150	186
80SY-M02425S	178	214

*All above is the standard install ation dimension,can be changed according to the custorners'requirments
*Not hit the shaft ,or the encoder in the other end would be damaged.

Specifications

Motor Model	80SY-M01630S	80SY-M02430S	80SY-M04025S
Rated Power(w)	500	750	1000
Rated Torque(N.m)	1.59	2.39	3.82
Max Torgue(N.m)	4.77	7.17	11.46
Rated Speed(rpm)	3000	3000	2500
Max Speed(rpm)	220	220	220
Input Voltage (V)	2.7	3.8	4.2
Rated Current(A)	8.1	11.4	12.6
Rotor inertia(KG.㎡)	$0.61*10^{4}$	$0.86*10^{4}$	$1.26*10^{4}$
Motor Weight (Kg)	2.2	3	4

The encoder connection table

Winding wire	U	V	W	PE
Socket Number	1	2	3	4

Note: Brake voltage is DC 24V (Non polar requirement)

Brake Wiring	Brake	Brake
Socket number	1	2
Brake voltage	DC24V	

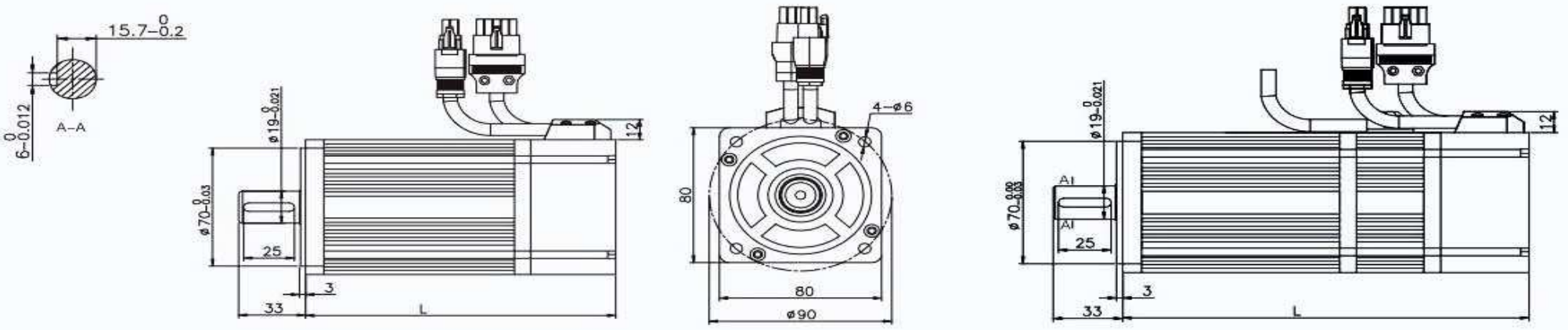
Encoder wiring table

Signal Definitions	5V	OV	A+	B+	Z+	A-	B-	Z-	U+	V+	W+	U-	V-	W-	PE
Socket Number	2	3	9	4	7	13	14	5	6	10	11	8	12	15	1
Absolute signal definitions	PE		GND		VB		SD-		GND DV		SD		Vcc 5V		
Socket Number	1		2		3		4		5		6		7		

80 SY series
AC servo motor (Aerial plug)

Temperature	0℃-55℃
Number of pole pairs	4
Incremental encoder line	2500/5000PPR
Absolute encoder	17/33bit、22/38bit、 23/39bit
Humidity is less than	0.9
Insulation class	B
Safety Class	IP65
Insulation and voltage resistance	AC 1500V, 1 Minute
Insulation resistance	DC500v, 10Ωabove
Structure	Plastic packaging,Self-cooling
Vibration	Under 2.5G
Altitude	Under 1000m
Work system	Continuous
Installation Method	Flange installation

Installation Dimension unit=mm



MODEL	L(mm)	LA(mm) with brake
80SY-M01330	123	163
80SY-M02430	158	198
80SY-M04025	197	237

*All above is the standard install ation dimension,can be changed according to the custorners'requirments
*Not hit the shaft ,or the encoder in the other end would be damaged.

Specifications

Motor Model	80SY-M01330	80SY-M02430	80SY-M04025
Rated Power(w)	400	750	1000
Rated Torque(N.m)	1.3	2.4	4
Max Torgue(N.m)	4.8	7.2	10
Rated Voltage (V)	220	220	220
Rated Speed(rpm)	3000	3000	2500
Max Speed(rpm)	3600	3600	3000
Rated Current(A)	2.2	3.5	4.2
Rotor inertia(KG.㎡)	$1.22*10^{4}$	$1.96*10^{4}$	$2.8*10^{4}$
Motor Weight (Kg)	2	2.85	3.8

The encoder connection table

Winding wire	U	V	W	PE
Socket Number(Aerial plu)	2	3	4	1
Socket Number(lead type)	1	2	3	4

Note: Brake voltage is DC 24V (Non polar requirement)

Brake Wiring	Brake	Brake
Socket number	1	2
Brake voltage	DC24V	

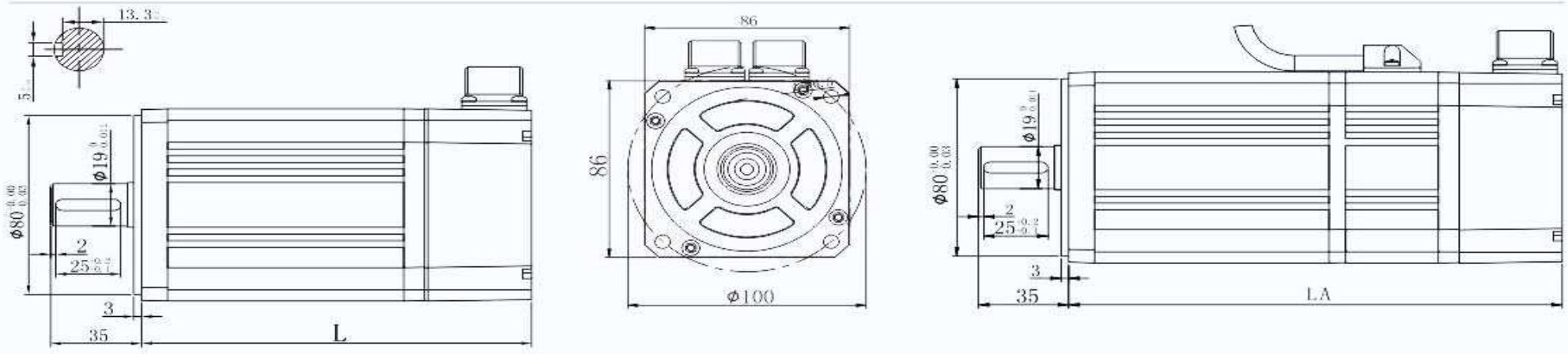
Encoder wiring table

Signal Definitions	5V	OV	A+	B+	Z+	A-	B-	Z-	U+	V+	W+	U-	V-	W-	PE
Socket Number(Aerial plug)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1
Socket Number(lead type)	2	3	9	4	7	13	14	5	6	10	11	8	12	15	1
Absolute signal definitions	PE		GND		VB		SD-		GND DV		SD		Vcc 5V		
Socket Number	1		2		3		4		5		6		7		

90 SY series AC servo motor

Temperature	0℃-55℃
Number of pole pairs	4
Incremental encoder line	2500/5000PPR
Absolute encoder	17/33bit、22/38bit、 23/39bit
Humidity is less than	0.9
Insulation class	B
Safety Class	IP54
Insulation and voltage resistance	AC 1500V, 1 Minute
Insulation resistance	DC500v, 10Ωabove
Vibration	Under 2.5G
Altitude	Under 1000m
Work system	Continuous
Installation Method	Flange installation

Installation Dimension unit=mm



MODEL	L(mm)	LA(mm) with brake
90SY-M02430	149	190
90SY-M03520	171	212
90SY-M04025	181	222

*All above is the standard install ation dimension,can be changed according to the custorners'requirments
*Not hit the shaft ,or the encoder in the other end would be damaged.

Specifications

Motor Model	90SY-M02430	90SY-M04025
Rated Power(w)	750	1000
Rated Torque(N.m)	2.4	4
Max Torque(N.m)	7.1	12
Rated Voltage (V)	220	220
Rated Speed(rpm)	3000	2500
Max Speed(rpm)	3600	3000
Rated Current(A)	3	4
Rotor inertia(KG.㎡)	$2.45*10^{4}$	$3.7*10^{4}$
Motor Weight (Kg)	3.1	4.13

The encoder connection table

Winding wire	U	V	W	PE
Socket Number(Aerial plug)	2	3	4	1
SocketNumber(Lead type)	1	2	3	4

Brake Wiring	Brake	Brake
Socket number	1	2
Brake voltage	DC24V	

Note: Brake voltage is DC 24V (Non polar requirement)

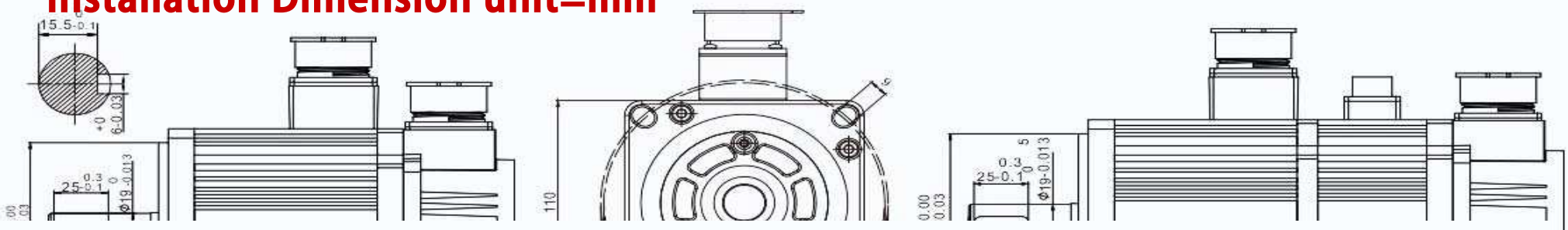
Encoder wiring table

Signal Definitions	5V	OV	A+	B+	Z+	A-	B-	Z-	U+	V+	W+	U-	V-	W-	PE
Socket Number(Aerial plug)	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1
Socket Number(lead type)	2	3	9	4	7	13	14	5	6	10	11	8	12	15	1
Absolute signal definitions	PE		GND		VB		SD-		GND OV		SD		Vcc 5V		
Socket Number	1		2		3		4		5		6		7		

110 SY series AC servo motor

Temperature	0℃-55℃
Number of pole pairs	4
Incremental encoder line	2500/5000PPR
Absolute encoder	17/33bit、22/38bit、 23/39bit
Humidity is less than	90%
Insulation class	B
Safety Class	IP65
Insulation and voltage resistance	AC 1500V, 1 Minute
Insulation resistance	DC500v, 10M above
Vibration	Under 2.5G
Altitude	Under 1000m
Work system	Continuous
Installation Method	Flange installation

Installation Dimension unit=mm



Specifications	2N.m	4N.m	5N.m	6N.m	8N.m
L	160	190	205	220	250
L1	220	250	265	280	310

*All above is the standard install ation dimension,can be changed according to the custorners'requirments
*Not hit the shaft ,or the encoder in the other end would be damaged.

Specifications

Motor Model	110SY-M02030	110SY-M04020	110SY-M04030	110SY-M05020	110SY-M05030	110SY-M06020	110SY-M06030	110SY-M08025
Rated Power(Kw)	0.6	0.8	1.2	1.0	1.5	1.2	1.8	2
Rated Torque(N.m)	2	4	4	5	5	6	6	8
Max Torque(N.m)	6	12	12	15	15	18	18	24
Rated Speed(rpm)	3000	2000	3000	2000	3000	2000	3000	2500
Max Speed(rpm)	3300	2500	3300	2500	3300	2500	3300	3000
Rated Current(A)	4	3.2	5	4	5	4.5	6	7
Rotor Inertia(Kg.㎡)	$0.33*10^{-3}$	$0.65*10^{-3}$	$0.65*10^{-3}$	$0.82*10^{-3}$	$0.82*10^{-3}$	$1.0*10^{-3}$	$1.0*10^{-3}$	$1.28*10^{-3}$
Motor Weight (Kg)	250	6.2	6.2	6.9	6.9	7.8	7.8	9.5

power line

110SY-M series motor's winding by the 4-core connector,for the corresponding please check the following form 1

The encoder connection table

Winding wire	U	V	W	PE
Socket Number	2	3	4	1

Note: Brake voltage is DC 24V (Non polar requirement)

Brake Wiring	Brake	Brake
Socket number	1	2
Brake voltage	DC24V	

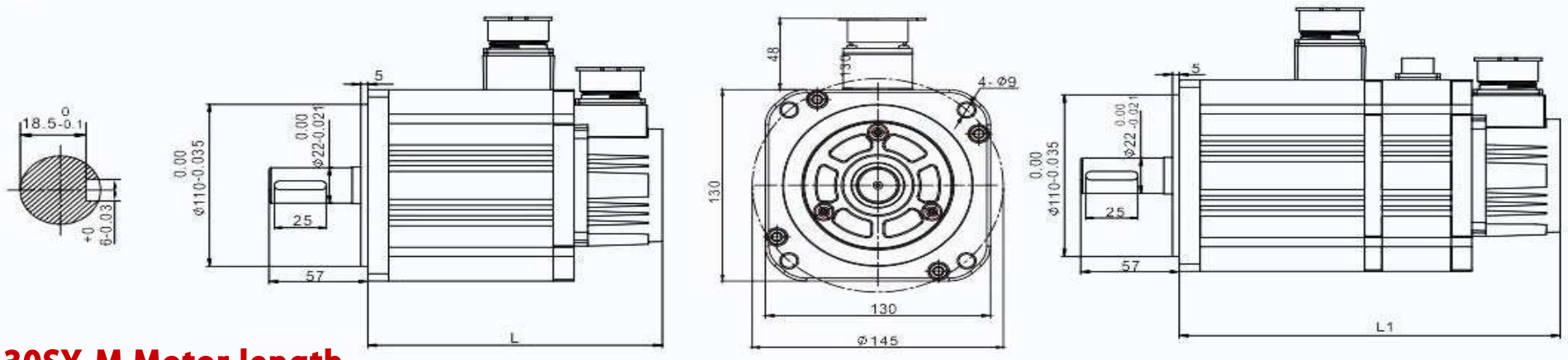
Encoder wiring table

Signal Definitions	5V	OV	A+	B+	Z+	A-	B-	Z-	U+	V+	W+	U-	V-	W-	PE
Socket Number	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1
Absolute signal definitions	PE		GND		VB		SD-		GND OV		SD		Vcc 5V		
Socket Number	1		2		3		4		5		6		7		

130 SY Series
AC servo motor

Temperature	0℃-55℃
Number of pole pairs	4
Incremental encoder line	2500/5000PPR
Absolute encoder	17/33bit、22/38bit、 23/39bit
Humidity is less than	90%
Insulation class	B
Safety Class	IP65
Insulation and voltage resistance	AC 1500V, 1 Minute
Insulation resistance	DC500v, 10M above
Vibration	Under 2.5G
Altitude	Under 1000m
Work system	Continuous
Installation Method	Flange installation

Installation size chart unit=mm



130SY-M Motor length

Specifications	4N.m	5N.m	6N.m	7.7N.m	10N.m	15N.m	20N.m
L	169	175	182	195	212	234	269
L1	219	225	232	245	262	299	334

*All above is the standard install ation dimension,can be changed according to the custorners'requirments
*Not hit the shaft ,or the encoder in the other end would be damaged.

Specifications

Motor Model	130SY-M04025	130SY-M05025	130SY-M06025	130SY-M07720	130SY-M07725	130SY-M10010	130SY-M10015	130SY-M10025	130SY-M15015	130SY-M15025	130SY-M20015
Rated Power(Kw)	1	1.3	1.5	1.6	2	1	1.5	2.6	2.3	3.8	3
Rated Torque(N.m)	4	5	6	7.7	7.7	10	10	10	15	15	20
Max Torque(N.m)	12	15	18	22	22	25	25	25	30	30	40
Rated Speed(rpm)	2500	2500	2500	2000	2500	1000	1500	2500	1500	2500	1500
Max Speed(rpm)	2800	2800	2800	2500	2800	1500	1800	2800	1800	2800	1800
Rated Current(A)	4	5	6	5.5	7.5	4.5	6	10	9.5	17	15
Rotor Inertia(Kg.㎡)	$0.82*10^{-3}$	$1.20*10^{-3}$	$1.26*10^{-3}$	$1.53*10^{-3}$	$1.53*10^{-3}$	$1.94*10^{-3}$	$1.94*10^{-3}$	$1.94*10^{-3}$	$1.94*10^{-3}$	$2.77*10^{-3}$	$3.67*10^{-3}$
Motor Weight (Kg)	6.5	7	7.5	8.5	8.5	10	10	10	12	12	15

Power line

130SY-M series motor's winding by the 4-core connector,for the corresponding please check the following form 1

The encoder connection table

Winding wire	U	V	W	PE
Socket Number	2	3	4	1

Note: Brake voltage is DC 24V (Non polar requirement)

Brake Wiring	Brake	Brake
Socket number	1	2
Brake voltage	DC24V	

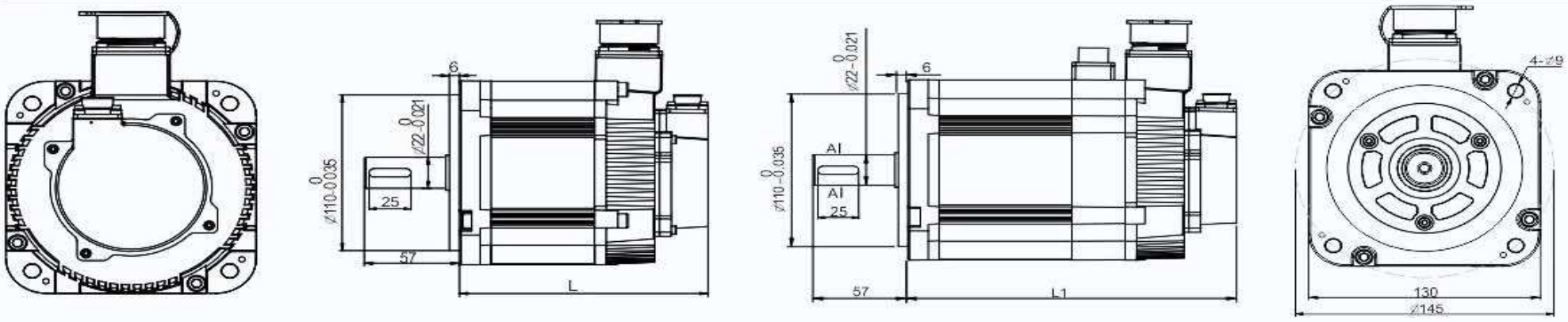
Encoder wiring table

Signal Definitions	5V	OV	A+	B+	Z+	A-	B-	Z-	U+	V+	W+	U-	V-	W-	PE
Socket Number	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1
Absolute signal definitions	PE		GND		VB		SD-		GND OV		SD		Vcc 5V		
Socket Number	1		2		3		4		5		6		7		

130 SY-S Series
AC servo motor

Temperature	0℃-55℃
Number of pole pairs	4
Incremental encoder line	2500/5000PPR
Absolute encoder	17/33bit、22/38bit、 23/39bit
Humidity is less than	90%
Insulation class	B
Safety Class	IP65
Insulation and voltage resistance	AC 1500V, 1 Minute
Insulation resistance	DC500v, 10M above
Vibration	Under 2.5G
Altitude	Under 1000m
Work system	Continuous
Installation Method	Flange installation

Installation size chart unit=mm



Specifications	1KW	1.5KW	2KW
L	149	174	199
L1(Built-in With brake)	180.5	205.5	230.5
L1(External With brake)	201.5	226.5	251.5

*All above is the standard install ation dimension,can be changed according to the custorners'requirments
*Not hit the shaft ,or the encoder in the other end would be damaged.

Specifications

Motor Model	130SY-M05020-S	130SY-M07220-S	130SY-M10020-S
Rated Power(Kw)	1	1.5	2
Rated voltage(V)	220	220	220
Rated Current(A)	5	7.5	10
Peak current(A)	15	22.5	30
Rated Torque(N.m)	4.77	7.16	9.55
Max Torgue(N.m)	14.31	21.48	28.65
Rated Speed(rpm)	2000	2000	2000
Max Speed(rpm)	4500	4500	4500
Rotor Inertia(Kg.㎡)	$1.08*10^{-3}$	$1.54*10^{-3}$	$1.98*10^{-3}$
Motor Weight (Kg)	7.8	8.9	10.2

power line

130SY-M series motor's winding by the 4-core connector,for the corresponding please check the following form 1

The encoder connection table

Winding wire	U	V	W	PE
Socket Number	2	3	4	1

Note: Brake voltage is DC 24V (Non polar requirement)

Brake Wiring	Brake	Brake	Brake Voltage
External brake socket number	1	2	DC24V
Brake voltage	5	6	

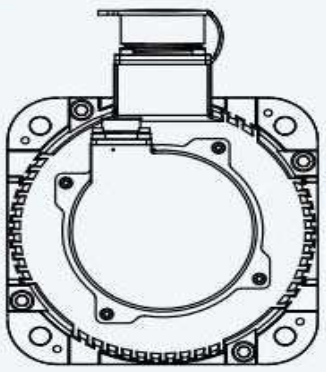
Encoder wiring table

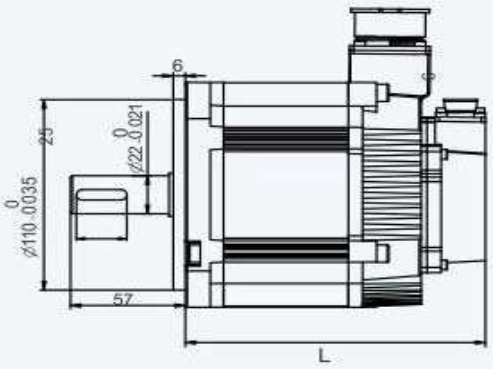
Signal definition	5V	0V	A+	B+	Z+	A-	B-	Z-	PE
Socket Number	2	3	4	5	6	7	8	9	1
Absclute signal definitions	PE	GND	VB	SD-	GND 0V		SD	VCC 5V	
Socket Number	1	2	3	4	5		6	7	

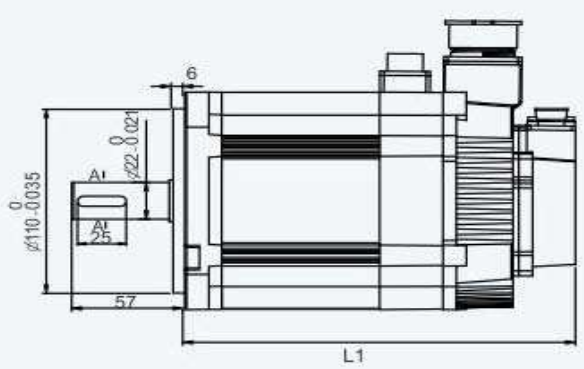
130 SY-S1 Series
AC servo motor

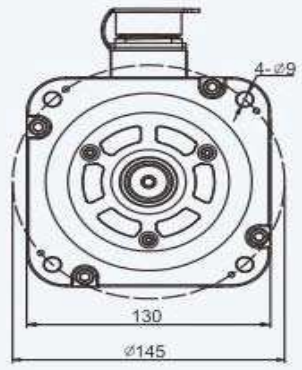
Temperature	0℃-55℃
Number of pole pairs	4
Incremental encoder line	2500/5000PPR
Absolute encoder	17/33bit、22/38bit、23/39bit
Humidity is less than	90%
Insulation class	B
Safety Class	IP65
Insulation and voltage resistance	AC 1500V, 1 Minute
Insulation resistance	DC500v, 10M above
Vibration	Under 2.5G
Altitude	Under 1000m
Work system	Continuous
Installation Method	Flange installation

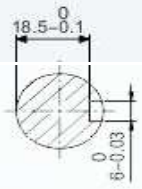
Installation size chart unit=mm











Specifications	0.85KW	1.3KW	1.8KW	2.4KW
L	138	154	174	199
L1(B. ilt-in With brake)	169.5	185.5	205.5	230.5
L1(External With brake)	190.5	206.5	226.5	251.5

*All above is the standard install ation dimension,can be changed according to the custorners'requirments
*Not hit the shaft ,or the encoder in the other end would be damaged.

Specifications

Motor Model Rated	130SY-M05415S1	130SY-M08415S1	130SY-M11515S1	130SY-M15215S1	130SY-M11510S1	130SY-M10020-S
Power(Kw) Rated	0.85	1.3	1.8	2.4	1.2	1.6
Torque(N.m) Max	5.4	8.4	11.5	15.2	11.5	15.2
Torque(N.m) Rated	13.8	23.3	28.7	38.2	28.7	37.7
Speed(rpm) Max	1500	1500	1500	1500	1000	1000
Speed(rpm) Rated	3000	3000	3000	3000	2300	1800
Voltage (V) Rated	220 380	220 380	220 380	220 380	220	220
Current(A) Peak	6.4 3.75	9.5 5.5	13 7.5	20 9.7	9.6	14.5
current(A) Rotor	16 9.5	24.9 14.2	33.8 18	52 24	25	37.1
Inertia(Kg.㎡) Motor	1.92*10^{-3}	2.68*10^{-3}	3.53*10^{-3}	4.46*10^{-3}	3.35*10^{-3}	4.46*10^{-3}
Weight (Kg)	5.86	7.32	9.02	11.06	9.02	11.06

power line

130SY-M series motor's winding by the 4-core connector.for the corresponding please check the following form 1

The encoder connection table

Winding wire	U	V	W	PE
Socket Number	2	3	4	1

Note: Brake voltage is DC 24V (Non polar requirement)

Brake Wiring	Brake	Brake	Brake Voltage
External brake socket number	1	2	DC24V
Brake voltage	5	6	

Encoder wiring table

Signal definition	5V	0V	A+	B+	Z+	A-	B-	Z-	PE
Socket Number	2	3	4	5	6	7	8	9	1
Absclute signal definitions	PE	GND	VB	SD-	GND 0V		SD	VCC 5V	
Socket Number	1	2	3	4	5		6	7	

180 SY Series
AC servo motor

Temperature	0℃-55℃
Number of pole pairs	4
Incremental encoder line	2500/5000PPR
Absolute encoder	17/33bit、22/38bit、 23/39bit
Humidity is less than	90%
Insulation class	B
Safety Class	IP65
Insulation and voltage resistance	AC 1500V, 1 Minute
Insulation resistance	DC500v, 10M above
Vibration	Under 2.5G
Altitude	Under 1000m
Work system	Continuous
Installation Method	Flange installation

Specifications

Motor Model	130SY-M04025	130SY-M05025	130SY-M06025	130SY-M07720	130SY-M07725	130SY-M10010	130SY-M10015	130SY-M10025	130SY-M15015	130SY-M15025	130SY-M20015
Rated Power(Kw)	1	1.3	1.5	1.6	2	1	1.5	2.6	2.3	3.8	3
Rated Torque(N.m)	4	5	6	7.7	7.7	10	10	10	15	15	20
Max Torque(N.m)	12	15	18	22	22	25	25	25	30	30	40
Rated Speed(rpm)	2500	2500	2500	2000	2500	1000	1500	2500	1500	2500	1500
Max Speed(rpm)	2800	2800	2800	2500	2800	1500	1800	2800	1800	2800	1800
Rated Current(A)	4	5	6	5.5	7.5	4.5	6	10	9.5	17	15
Rotor Inertia(Kg.㎡)	0.82*10¯3	1.20*10¯3	1.26*10¯3	1.53*10¯3	1.53*10¯3	1.94*10¯3	1.94*10¯3	1.94*10¯3	1.94*10¯3	2.77*10¯3	3.67*10¯3
Motor Weight (Kg)	6.5	7	7.5	8.5	8.5	10	10	10	12	12	15

The encoder connection table

Winding wire	U	V	W	PE
Socket Number	2	3	4	1

Brake Wiring	Brake	Brake
Socket number	1	2
Brake voltage	DC24V	

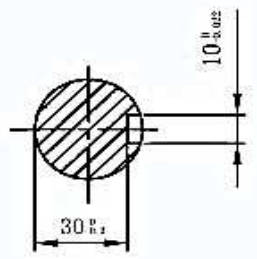
Note: Brake voltage is DC 24V (Non polar requirement)

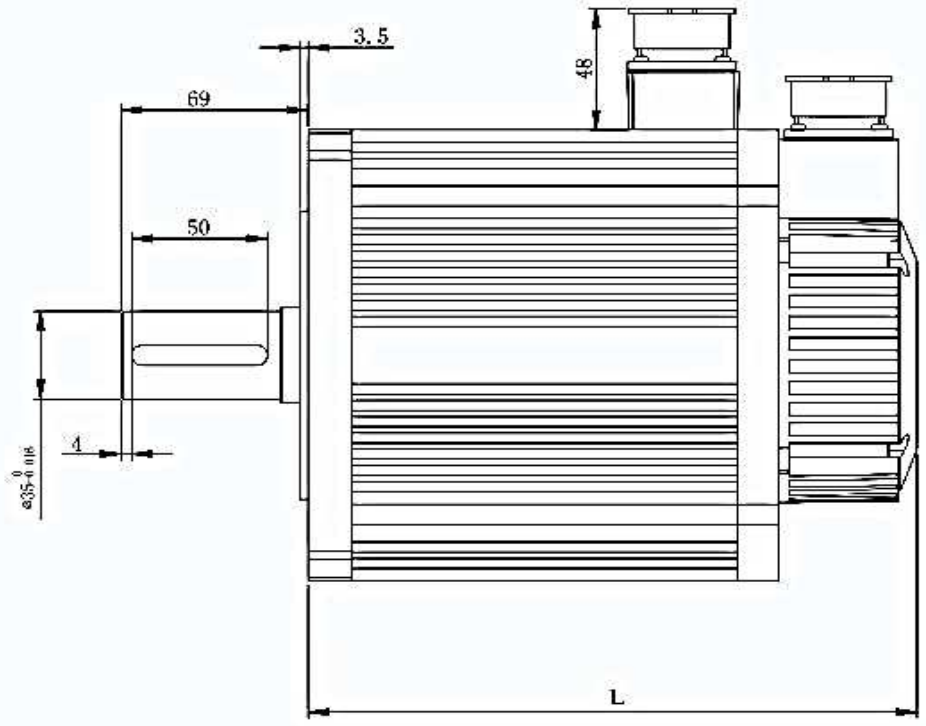
Encoder wiring table

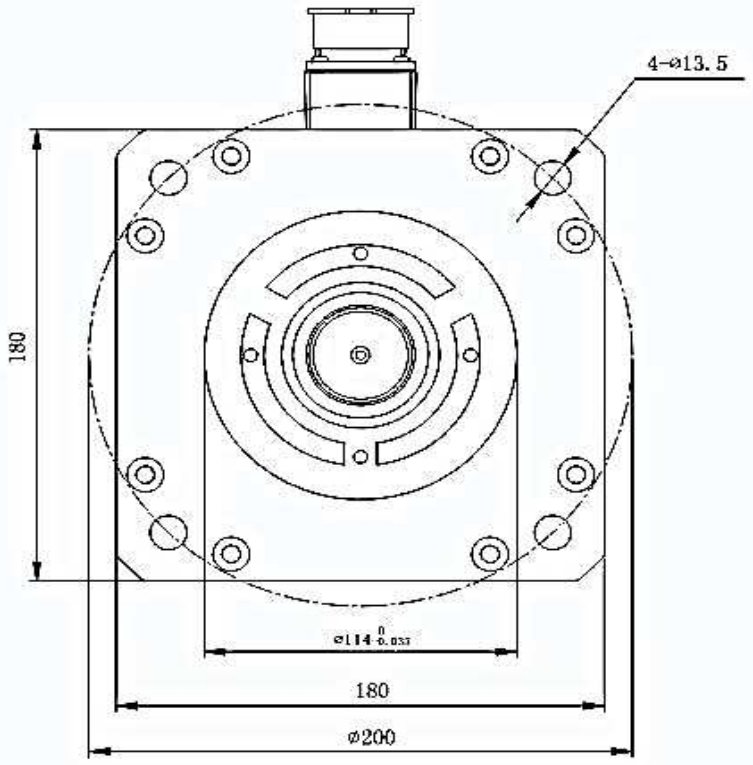
Signal Definitions	5V	OV	A+	B+	Z+	A-	B-	Z-	U+	V+	W+	U-	V-	W-	PE
Socket Number	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1
Absolute signal definitions	PE		GND		VB		SD-		GND OV		SD		Vcc 5V		
Socket Number	1		2		3		4		5		6		7		

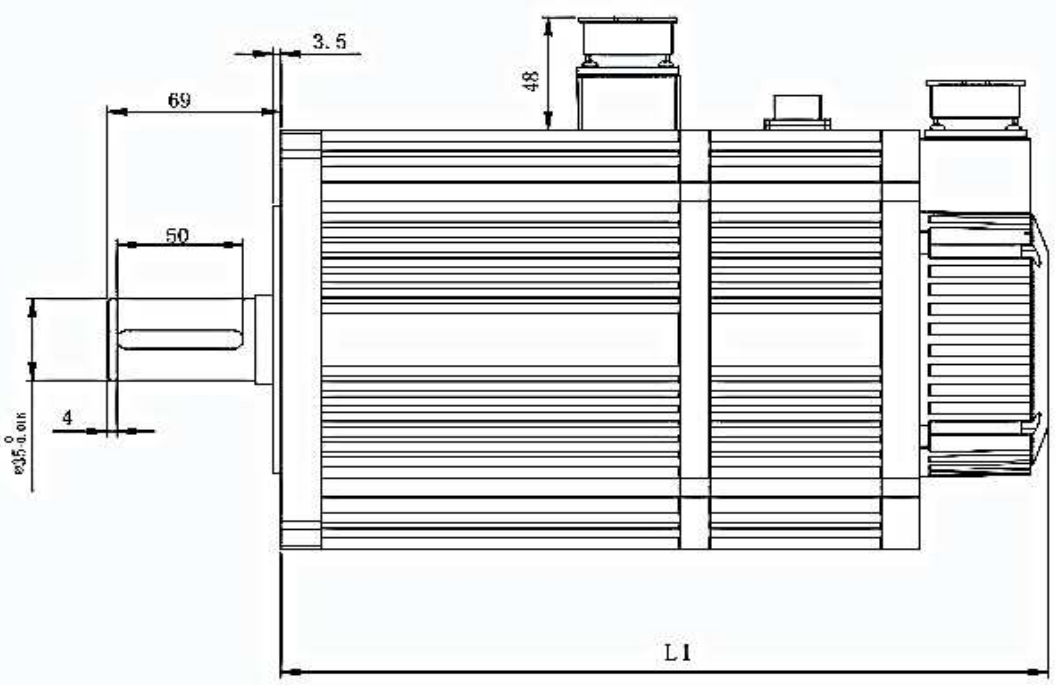
DIMENSION:

Installation Dimension unit=mm









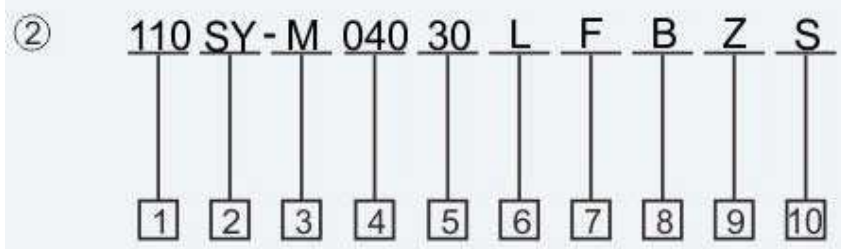
Specifications	17N.m	19N.m	27N.m	35N,m
L	226	232	262	292
L1	306	312	342	372

NOTE:

*All above is the standard install ation dimension,can be changed according to the custorners'requirments

*Not hit the shaft ,or the encoder in the other end would be damaged.

Name pattern of ATO servo motors:



Permanent magnet AC servo motor

① Flange size:60mm、80mm、90mm、110mm、130mm、180mm
② AC synchronization servo motor
③ Feedback element:M: Optical-electricity encoderX:Rotary encoder
④ Rated torque:(x0.1NM)
⑤ Rated speed: (x100RPM)
⑥ Driver matched voltage: L:AC220V H:AC380V
⑦ Encoder type:
F:Combined incremental encoder(2500PPR)
F1 :Saving line incremental encoder(2500PPR)
F2:Combined incremental encoder(5000PPR)
E:TAMAGAWA single circle (17bit) bus encoder
En:NIKON single circle(22bit) bus encoder
M:TAMAGAWA multi-circle(17/33bit) bus encoder
M1: TAMAGAWA multi-circle(23/39bit) bus encoder
Mn: NIKON multi-circle(22/38bit) bus encoder
Mn1:NIKON multi-circle(24/40bit) bus encoder
⑧ Motor basic type
⑨ Z: Brake
⑩ Inner winding type: No:Distributed winding
S:Centralization winding

Installation tips:

Notice for installation:

1.The place of installation should be no dust, corrosive gas or liquid, a void metal dust, oil, water getting into the inner motor. if have special requirments, pls add the protection device
2.Installation spigot must be concentric with the axle load. use the flexible coupling to prevent the shaft being broken.
3.Ensure the radiation, high speed running of the motor will produce high temperature.
4.It is the inherent characteristics that the motor will produce high voltage when switched on.
5.When Motor or driver don't work, pis contact us or the distributors.