

**YAKOTEC®**



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Version No: V1.0

- Cost-effective
- High Reliability
- Fast Response

AS2 Series AC Servo System

Version No: V1.0

Make equipment smarter, more efficient and reliable

YAKO has been the main provider of Chinese motion control products and solutions for more than ten years, with our spirit of independent innovation.

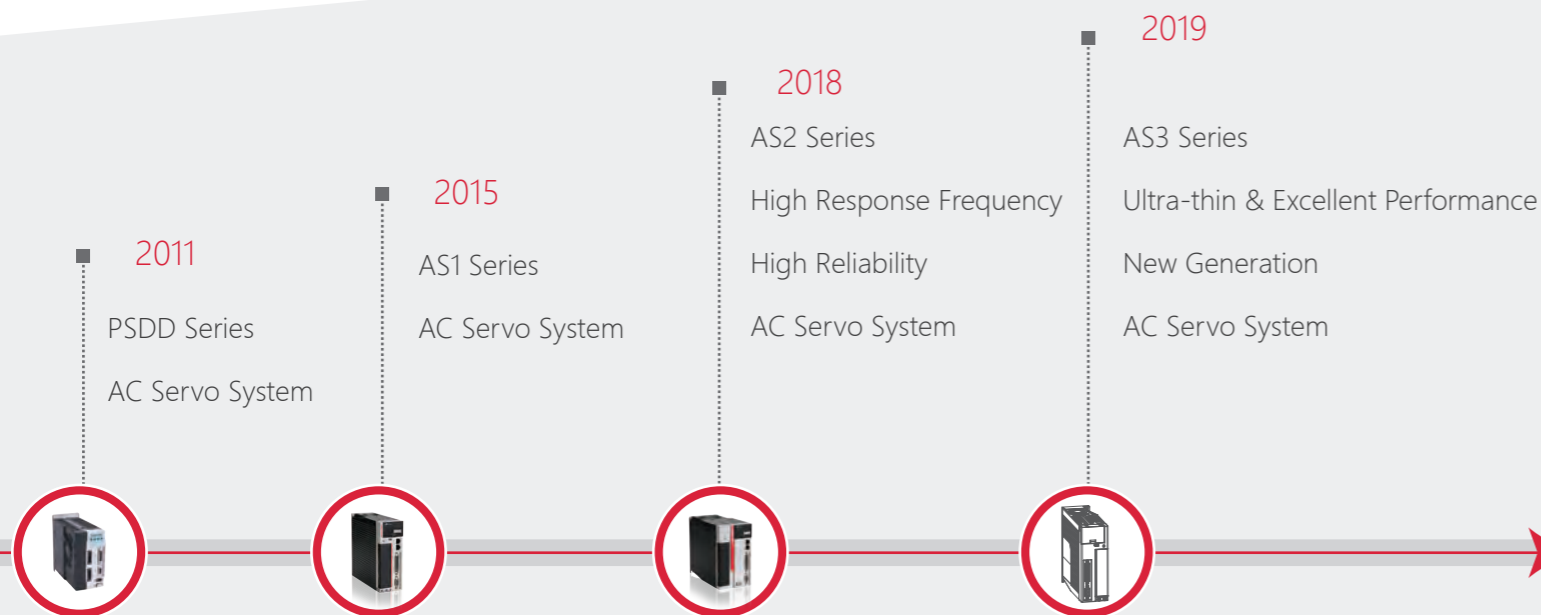
We effectively improve the performance of key components of motion control and save design costs for customers:

- Established long-term partnership with 3,000+ automation equipment manufacturers and distributors among the world.
- More than 3 million sets of products are stable running in all kinds of high-precision grasping, conveying, feeding and other automation equipment and production lines.

Based on precision-controlled stepping and servo motor drive technology, YAKO integrates the most advanced precision control algorithms, multi-axis cooperative communication technology, pulse signal optimization technology, reliability design method, testing and whole process quality control technology into products and services. We continuously developed a series of motion control solutions and products with various precision and multiple control processes.

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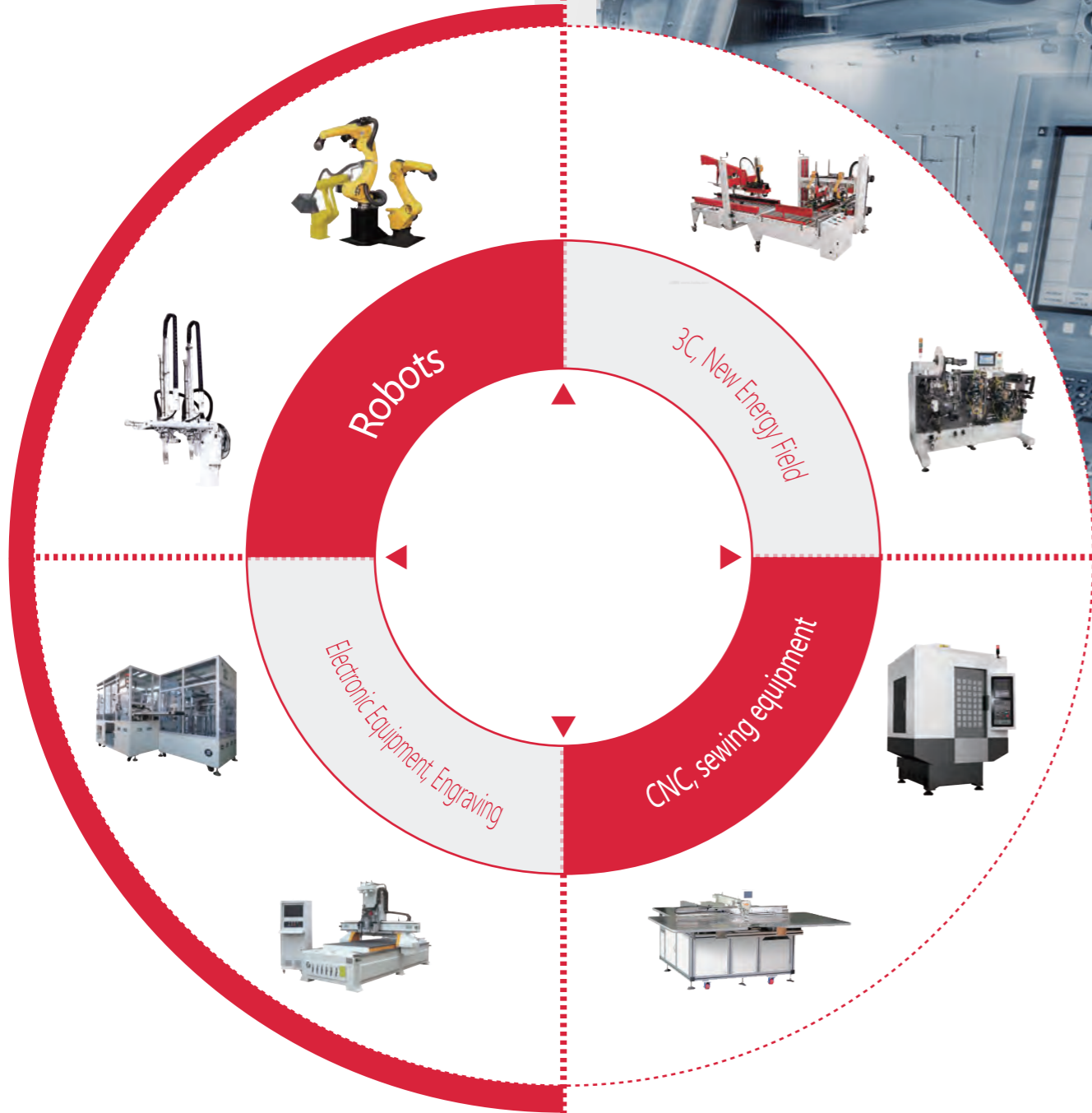
## History of YAKO Servo



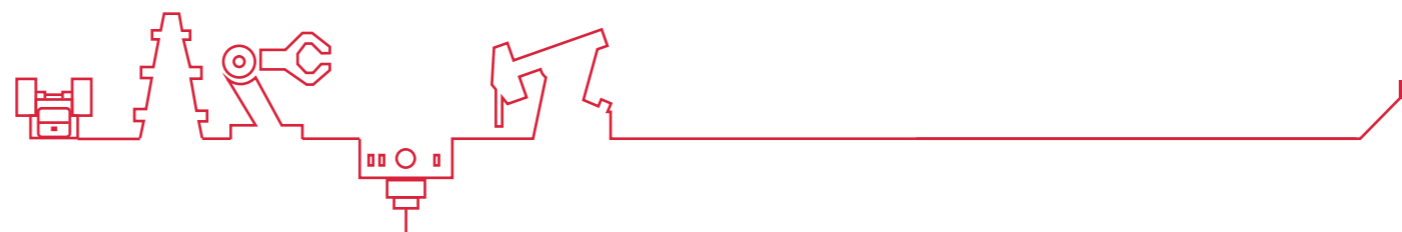


# AS2

New Generation AC Servo System



Robots, new energy, 3C electronic equipment, advertising spray carving equipment, laser equipment, electronic processing, labeling machines, wire equipment, CNC machines, LED equipment, printing machinery, food production lines, etc.



## Features

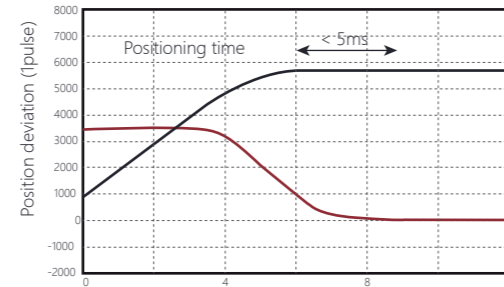
### High Precision Positioning

- ASM servo motor can be matched with high-precision 23-bit (8388608p/rev) encoder to improve positioning accuracy and low-speed operation stability.
- Record absolute position of 65535 rounds, support absolute position control and software position limit, save the cost of limit switch and home switch. Easy for wiring and reducing faults.



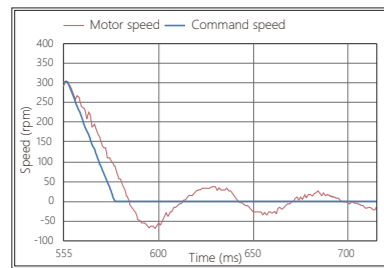
### Fast Response Performance

- 1.2K speed loop response bandwidth
- Command positioning time within 5ms
- 0r/min to 3000r/min acceleration time within 7ms

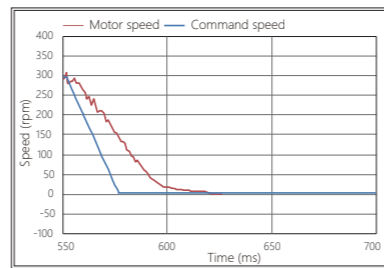


### Excellent High and Low Frequency Vibration Suppression

Built-in type-A / type-B of low-frequency vibration suppression algorithms to suppress mechanical low-frequency resonance and peripheral vibration

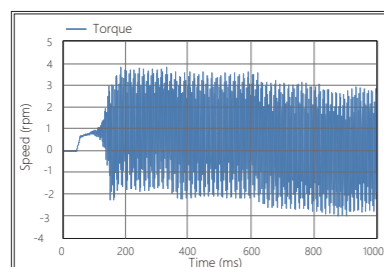


Before suppressing vibration

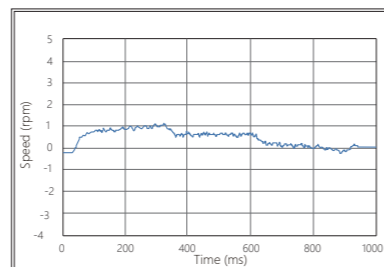


After suppressing vibration

Built-in four sets of notch filters can effectively suppress mechanical high frequency resonance and reduce mechanical noise



Torque command before notch



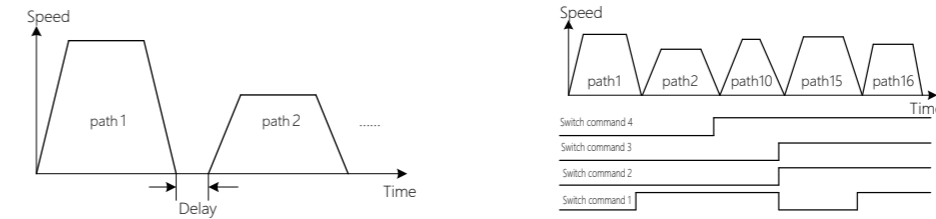
Torque command after notch

## Features

### Multi-segment Position Control

Up to 16 internal position control can be performed by function code internal setting or external DI terminal switching.

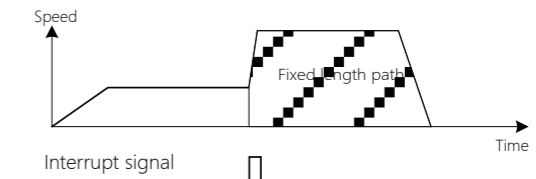
In the multi-segment position execution, each segment has a position arrival signal output, thus to realize multiple servo series motion.



### Interrupted Position Fixed Length Control

- Two high-speed DI interrupt fixed length function
- Interruption trigger servo continues to run a set length in previous speed direction. This function has the highest priority, the fastest execution and guaranteed minimum delay. It can make up for PLC processing and response delay.

The interrupt execution does not respond to any other positional instructions, preventing other instructions from affecting it.

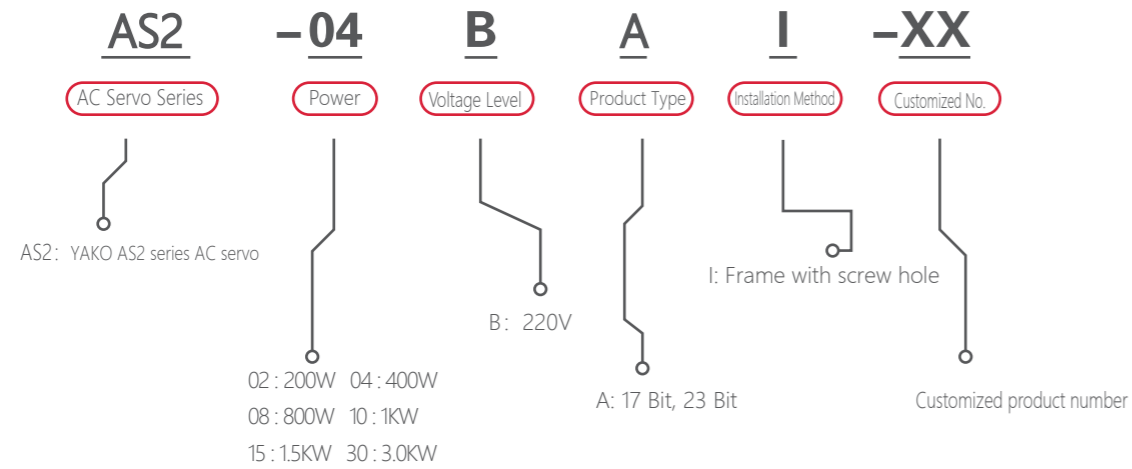


### Multiple Internal Homing Mode

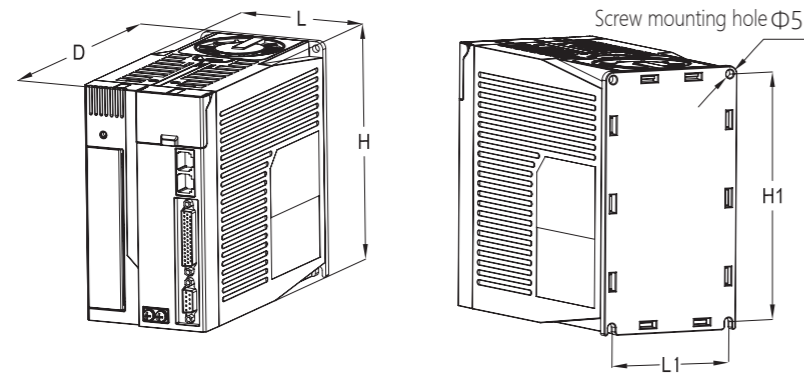
- Simplify the design of host computer, servo can actively find the home point to complete the positioning function through the limit switch or home switch.
- There are 16 kinds of homing modes for users to choose, and the repeating homing precision can reach  $\pm 1$  pulse.



## Servo Drive Naming Rules



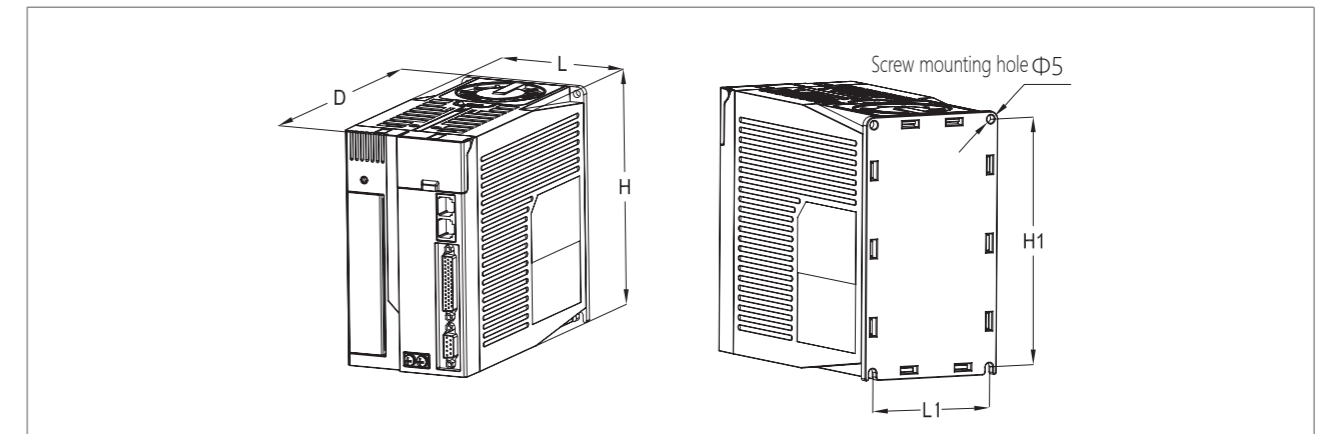
## AS2 Series Drive Specs and Dimensions



Model	L(mm)	H(mm)	D(mm)	L1(mm)	H1(mm)	D1(mm)	Screw Hole
AS2 Frame B	58	160	177	48	150	75	2-M4
AS2 Frame C	90	160	188	80	150	75	2-M4

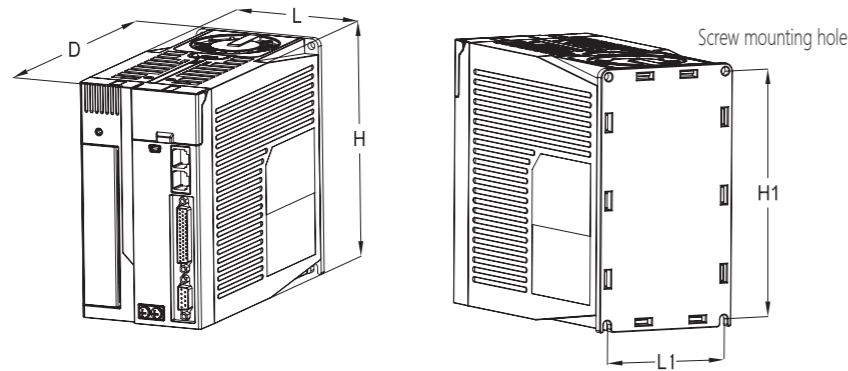
Structure Size	SIZE B			SIZE C	
Drive Model	AS2-02B	AS2-04B	AS2-10B	AS2-15B	AS2-30B
Output Current Arms	1.6	2.8	5.5	7.6	11.6
Maximum Output Current Arms	5.8	10	17	17	28
Main Circuit Power Supply	Single-phase AC200V-240V		3-phase AC200V-240V, +10% ~ -10%, 50/60Hz		
Regenerative Loop Function	External brake resistor		Built-in braking resistor		
Control Circuit Power Supply	Single-phase AC200V-240V, +10% ~ -10%, 50/60Hz				

## Servo Drive Basic Specifications



Basic Specifications		
Working Environment	Temperature	Operating: 0°C ~ 50°C Storage: -20°C ~ 85°C
	Humidity	< 0 ~ 90% RH (No dew environment)
	Working Altitude	<1000m above sea level
	Vibration/Shock	<1G
	IP Rating/Pollution degree	IP20/ Pollution degree 2
Control Method		IGBT PWM space vector control
Encoder		17-bit incremental / 23-bit absolute
Input and output port	IO Signal	Input: 8 (General)
		Output: 5 (General)
	Analog Signal	Input: 2 (12 bit)
		Output: 2 (Analog monitoring signal output)
Pulse Signal	Input: 4 (Low speed pulse, high speed pulse)	
	Output: 4 (3 frequency divide outputs, 1 open collector output)	
Communication Function	RS232, RS-485	Multiple sets of parallel, connect to PC
Panel Operator		LED display
Regenerative Loop Function		Built-in braking resistor for ≥800W models
Protect Function		Over current, overload, over voltage, low voltage, over speed, over temperature, encoder abnormality, communication abnormality, excessive position deviation, etc.
Control mode		Position control; speed control; torque control

## Servo Drive Function Specifications



### Functions Specifications

Position Control Mode	Position Command Format	PULSE/DIR
		CW/CCW
		A, B phase orthogonal pulse
	Position Input Circuit	Line drive; open collector
	Maximum Input Frequency	Line drive low speed 1Mpps
		Line drive high speed 4Mpps
		Open collector 200Kpps
Smoothing Filter	Smoothing the position command to make the motor run smoother and more stable	
Electronic Gear	Provide 2 sets of electronic gear ratio	
Vibration Suppression Filter	It can effectively suppress external signal interference and system resonance frequency, to ensure stable operation of equipment	
Speed Control Mode	Command Form	Analog voltage command input, internal speed command
	Speed Change Rate	Voltage Fluctuation: Rated voltage $\pm 10\%$ : 0.5% (Rated speed)
		Load Fluctuation: 0-100% load: $\leq 0.5\%$ (Rated speed)
		Temperature Fluctuation: $25 \pm 25^\circ\text{C}$ : $\leq 0.5\%$ (Rated speed)
	Acceleration Deceleration Setting Range	0-10s
Analog Speed Command Input	-10V ~ +10V	
Torque Control Mode	Command Form	Analog torque command, internal torque command
	Analog Torque Command Input	-10V ~ +10V
Common	Self-tuning Function	Inertia identification, rigidity tuning
	Notch filter	Resonance suppression
	Encoder Feedback Electronic Gear	Setting freely
	Abnormal Information Record	8 groups of historical information records

## Servo Drive Connection to Peripheral Devices



### Main Circuit Terminal Definition

Name	Terminal Mark	Function Specification
Main Circuit Power Input Terminal	R, S	Single-phase AC220V power input
	R, S, T	Three-phase AC220V power input
Control Power Input Terminal	L1C, L2C	Control circuit power input terminal
External Regenerative Resistor Connection Terminal	P $\oplus$ , D, C	The external regenerative resistor defaults to short wiring between P $\oplus$ -D. When the braking capacity is insufficient, make an open circuit between P $\oplus$ -D (remove the short wiring) and connect an external braking resistor between P $\oplus$ -C. Please purchase an external braking resistor separately.
Common DC Bus Terminal	P $\oplus$ , $\ominus$	Common bus connection when multiple units are connected in parallel
Servo Motor Connection Terminal	U, V, W	Servo motor connection terminal, connected to U, V, W.
Ground Terminal	PE	Two grounding terminals are connected to the power grounding terminal and the motor grounding terminal. Be sure to ground the entire system.

# Servo Drive Terminal Definition

## CN1 Control Terminal - Position Command Definition

Definition	Pin	Function
PULS+	41	Low speed pulse command (<500Kpps) Pulse, CW, A Phase
PULS-	43	
SIGN+	37	Low speed pulse command (<500Kpps) Dir, CCW, B phase
SIGN-	39	
HPULS+	42	High speed pulse direction input, must be division input
HPULS-	36	
HSIGN+	38	High speed pulse direction input, must be division input
HSIGN-	40	
PULLHI	35	COM+, power input port, internal current limiting resistor connected
GND	29	Differential signal ground

## CN1 Control Terminal - General Input and Output Signal

Definition	Pin	Function
DI1	9	P-OT Forward drive forbidden
DI2	10	N-OT Backward drive forbidden
DI3	34	INHIBIT Pulse inhibit
DI4	8	ALM-RST Alarm reset (edge valid function)
DI5	33	S-ON Servo enable
DI6	32	ZCLAMP Zero fixed
DI7	31	GAIN-SEL Gain select
DI8	30	Home Switch Home switch
+24	17	Internal 24V power supply, voltage range +20~28V, Maximum output current 200mA
COM-	14	Internal 24V ground; open collector pulse input ground
COM+	11	Power input, 12~24V
DO1+	7	S-RDY+ Servo ready
DO1-	6	
DO2+	5	COIN+ Position reached
DO2-	4	
DO3+	3	ZERO+ Zero speed
DO3-	2	
DO4+	1	ALM+ Error output
DO4-	26	
DO5+	28	BKOFF+ Brake output
DO5-	27	

## CN1 Control Terminal - Encoder Output

Definition	Pin	Function
PAO+	21	Encoder pulse division output
PAO-	22	
PBO+	25	
PBO-	23	
PZO+	13	
PZO-	24	
PZ-OUT	44	Home point pulse open collector output
GND	29	Home point pulse collector open circuit output signal ground: differential signal ground
+5V	15	Internal 5V power supply, maximum output current 200mA
GND	16	Maximum output current 200mA
PE	Shell	

## CN1 Control Terminal - Analog Signal Input

Definition	Pin	Function
AI1	20	Speed, torque and analog command input, up to ±12V
AI2	18	
GND	19	Analog signal ground

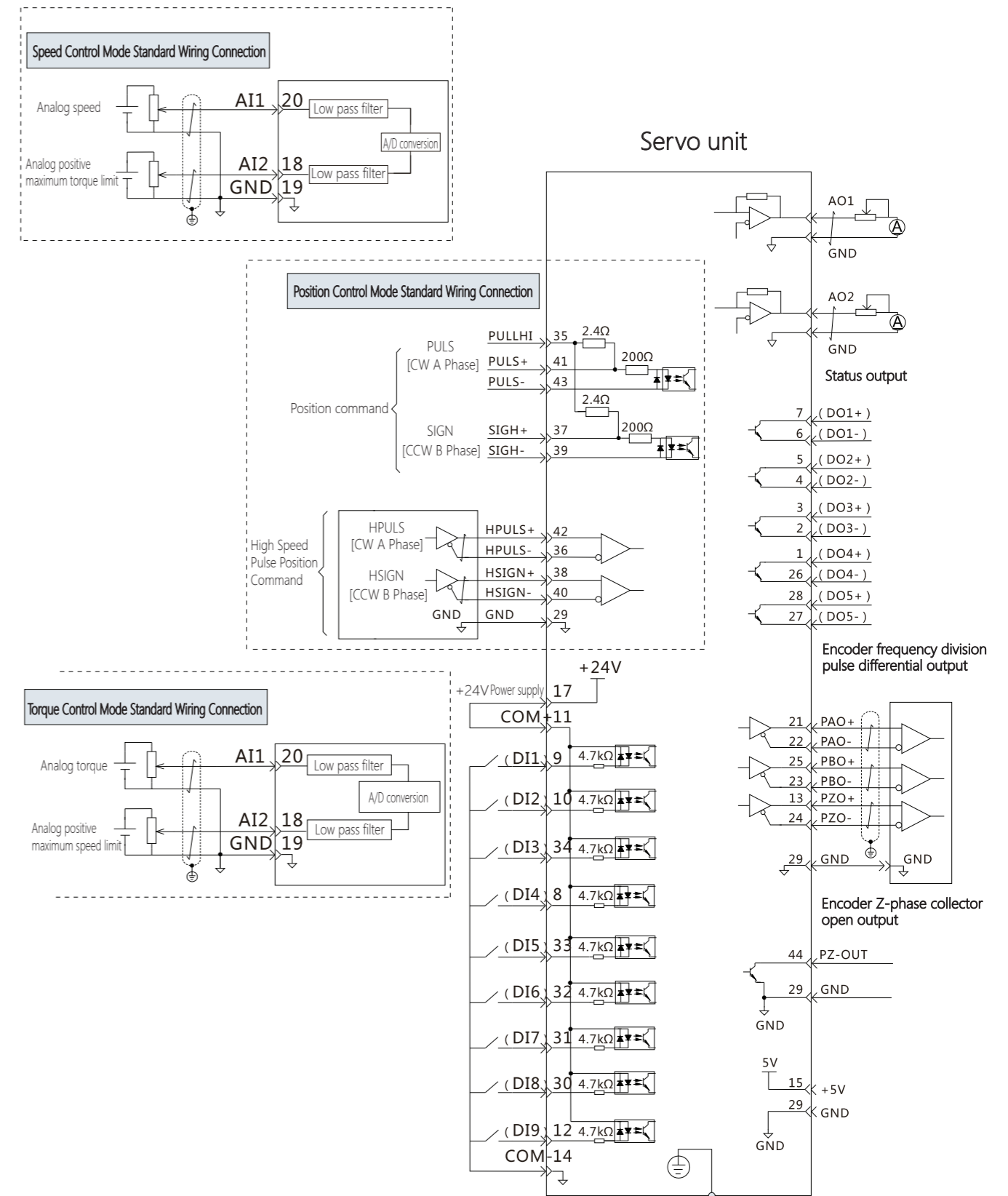
## CN2 Encoder Cable Servo Driver Side Terminal Pin Distribution

Pin	Encoder Signal	Function
1	--	Encoder signal
2	--	
3	SD+	
4	SD-	
5	--	
6	--	
7	+5V	+5V power output
8	GND	Power GND output
9	--	
Shell	PE	

## CN3 and CN4 - Industrial Bus and Host Computer Communication Port Uses

Pin	Definition	Function	Pin Distribution
1	--		
2	--		
3	GND-ISO	RS485 communication port	
4	RS485+		
5	RS485-		
6	RS232-TXD	RS232 communication port	
7	RS232-RXD		
8	GND		
Shell	PE	Shield	

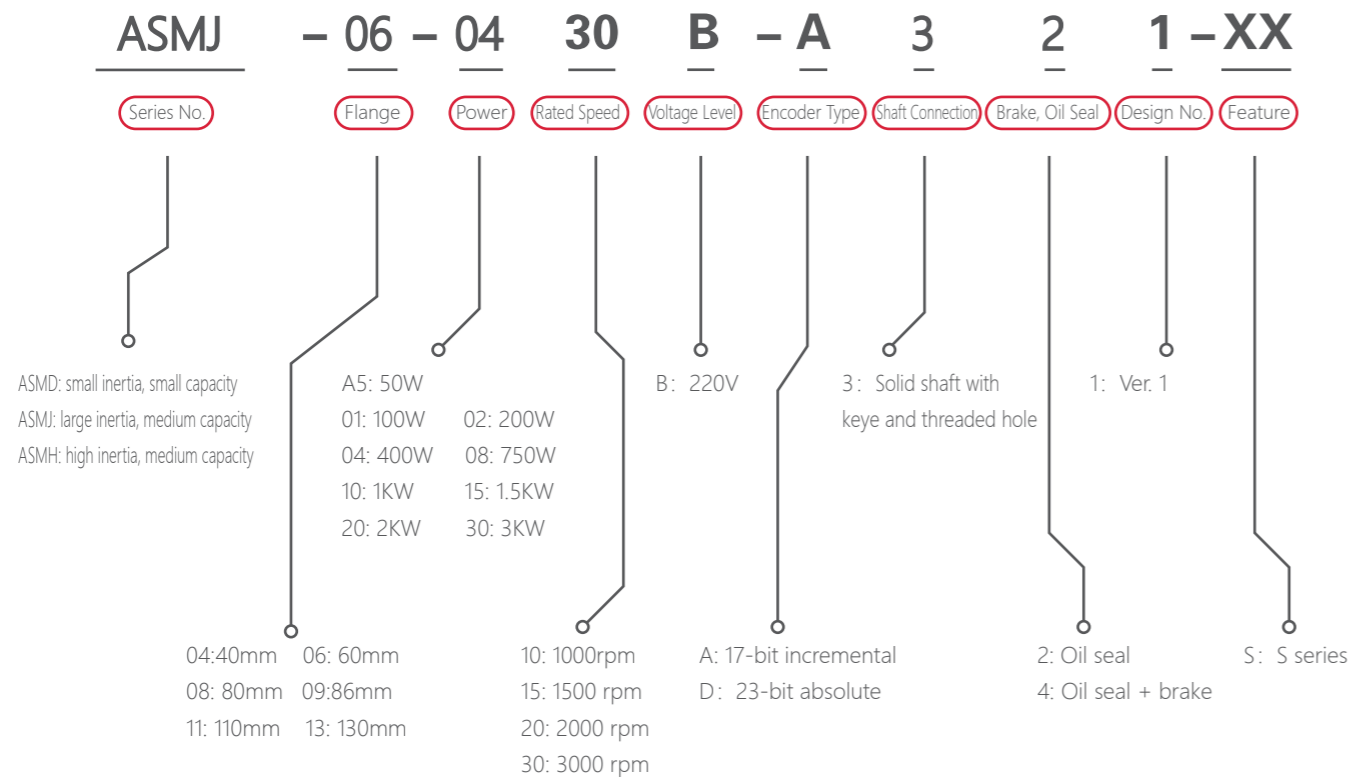
# Position Control Mode Wiring



## Servo System Configuration Table

Single-phase 220V		Three-phase 220V		Three-phase 220V	
 Size B		 Size B		 Size C	
AS2-02BAI	AS2-04BAI	AS2-10BAI	AS2-15BAI		AS2-30BAI
					
ASMD-04-A530B ASMD-04-0130B	ASMJ-06-0430B	ASMJ-08-0830B ASMJ-08-1030B	ASMJ-11-1230B ASMJ-11-1530B ASMJ-11-1830B	ASMJ-13-1525B ASMJ-13-0915B ASMJ-13-1025B	ASMJ-13-2025B ASMJ-13-2625B ASMJ-13-1315B

## Motor Naming Rules



## Motor Parameters

### 17-bit Encoder Motor Parameters

Parameters Model	Rated Output (KW)	Rated Torque (Nm)	Maximum Torque (Nm)	Rated Current (Arms)	Maximum Current (Arms)	Rated Speed (min <sup>-1</sup> )	Maximum Speed (min <sup>-1</sup> )	Rotor Inertia (10 <sup>-4</sup> Kgm <sup>2</sup> )	Voltage (V)	Matched Drive Model
40 Flange										
ASMD-04-A530B-A321	0.05	0.159	0.477	0.69	2.07	3000	5000	0.025	220	AS2-02BAI
ASMD-04-0130B-A321	0.1	0.318	0.954	1.27	3.81	3000	5000	0.046	220	AS2-02BAI
ASMD-04-0130B-A341	0.1	0.318	0.954	1.27	3.81	3000	5000	0.048	220	AS2-02BAI
ASMJ-04-0130B-A321-S	0.1	0.32	1.12	0.97	3.3	3000	6000	0.061	220	AS2-02BAI
ASMJ-04-0130B-A341-S	0.1	0.32	1.12	0.97	3.3	3000	6000	0.069	220	AS2-02BAI
60 Flange										
ASMJ-06-0230B-A321	0.2	0.64	1.92	1.7	5.1	3000	5000	0.42	220	AS2-02BAI
ASMJ-06-0230B-A341	0.2	0.64	1.92	1.7	5.1	3000	5000	0.44	220	AS2-02BAI
ASMJ-06-0430B-A321	0.4	1.27	3.81	2.8	8.4	3000	5000	0.68	220	AS2-04BAI
ASMJ-06-0430B-A341	0.4	1.27	3.81	2.8	8.4	3000	5000	0.7	220	AS2-04BAI
ASMD-06-0230B-A321-S	0.2	0.64	1.91	1.7	5.2	3000	6000	0.14	220	AS2-02BAI
ASMD-06-0230B-A341-S	0.2	0.64	1.91	1.7	5.2	3000	6000	0.17	220	AS2-02BAI
ASMD-06-0430B-A321-S	0.4	1.27	3.82	2.7	8.5	3000	6000	0.23	220	AS2-04BAI
ASMD-06-0430B-A341-S	0.4	1.27	3.82	2.7	8.5	3000	6000	0.26	220	AS2-04BAI
ASMJ-06-0430B-A321-S	0.4	1.27	3.82	2.7	8.5	3000	6000	0.71	220	AS2-04BAI
80 Flange										
ASMJ-08-0830B-A321	0.75	2.39	7.17	4.5	13.5	3000	4500	1.53	220	AS2-10BAI
ASMJ-08-0830B-A341	0.75	2.39	7.17	4.5	13.5	3000	4500	1.59	220	AS2-10BAI



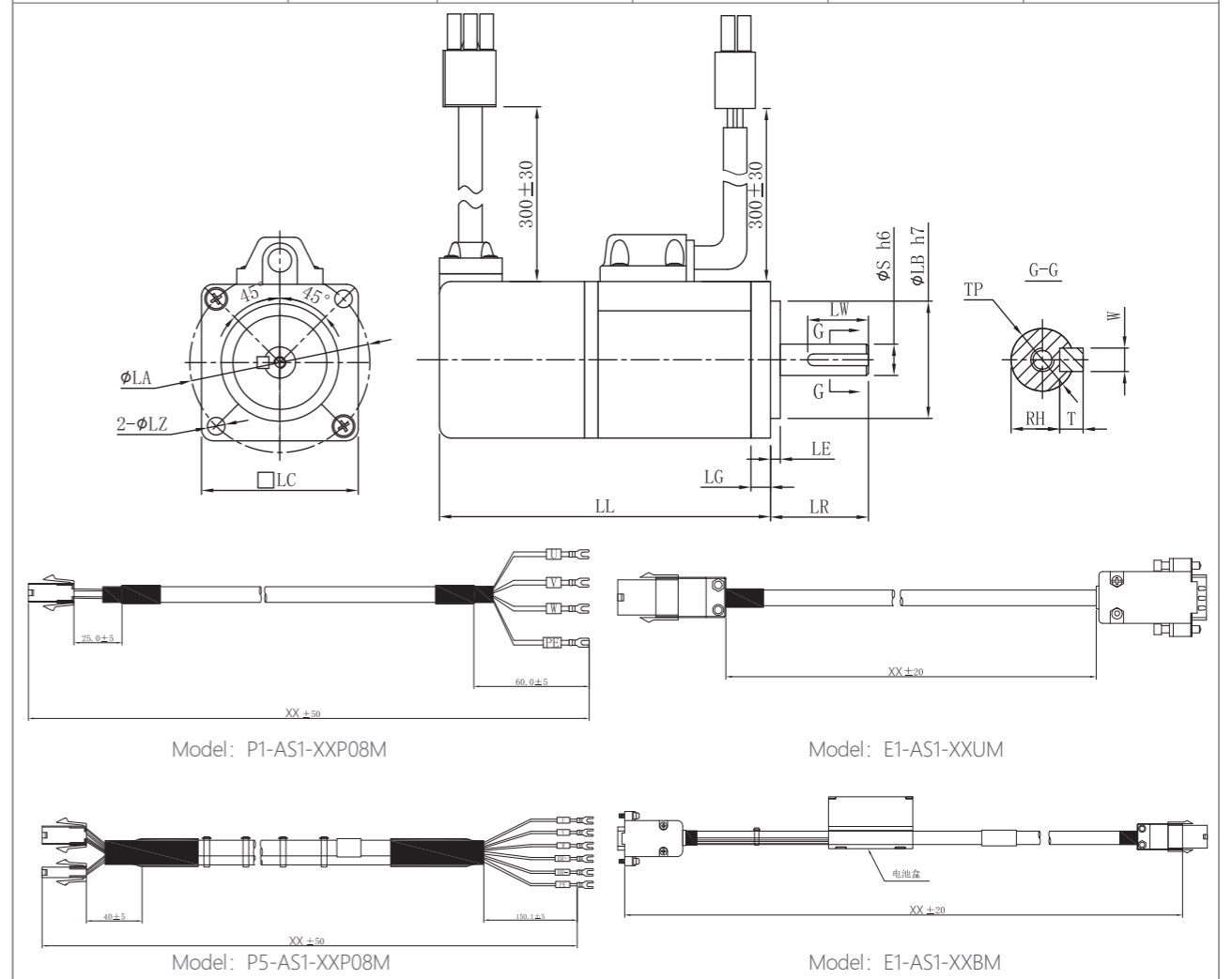
## Motor Parameters

### 23-bit Encoder Motor Parameters

Parameters Model	Rated Output (KW)	Rated Torque (Nm)	Maximum Torque (Nm)	Rated Current (Arms)	Maximum Current (Arms)	Rated Speed (min <sup>-1</sup> )	Maximum Speed (min <sup>-1</sup> )	Rotor Inertia (10 <sup>-4</sup> Kgm <sup>2</sup> )	Voltage (V)	Matched Drive Model
40 Flange										
ASMD-04-0130B-D321	0.1	0.318	0.954	1.27	3.81	3000	5000	0.046	220	AS2-02BAI
60 Flange										
ASMJ-06-0430B-D321	0.4	1.27	3.81	2.8	8.4	3000	5000	0.68	220	AS2-04BAI
80 Flange										
ASMJ-08-0830B-D321	0.75	2.39	7.17	4.5	13.5	3000	4500	1.53	220	AS2-10BAI
ASMJ-08-0830B-D341	0.75	2.39	7.17	4.5	13.5	3000	4500	1.59	220	AS2-10BAI
110 Flange										
ASMJ-11-1230B-D321	1.2	4.0	12.0	5.0	15.0	3000	3500	5.4	220	AS2-15BAI
ASMJ-11-1530B-D321	1.5	5.0	15.0	6.0	18.0	3000	3100	6.3	220	AS2-15BAI
ASMJ-11-1830B-D321	1.8	6.0	18.0	6.0	18.0	3000	3200	7.6	220	AS2-15BAI
130 Flange										
ASMJ-13-1025B-D321	1.0	4.0	12.0	4.0	12.0	2500	2600	8.5	220	AS2-15BAI
ASMJ-13-1525B-D321	1.5	6.0	18.0	6.0	18.0	2500	2900	12.6	220	AS2-15BAI
ASMJ-13-2025B-D321	2.0	7.7	22.0	7.5	22.5	2500	2700	15.3	220	AS2-30BAI
ASMJ-13-2625B-D321	2.6	10.0	25.0	10.0	25.0	2500	2700	19.4	220	AS2-30BAI
ASMH-13-0915B-D321-N	0.85	5.4	16.2	6.5	20.5	1500	3000	13.8	220	AS2-15BAI
ASMH-13-0915B-D341-N	0.85	5.4	16.2	6.5	20.5	1500	3000	13.9	220	AS2-15BAI
ASMH-13-1315B-D321-N	1.3	8.4	25.2	9.5	30.0	1500	3000	20.6	220	AS2-30BAI
ASMH-13-1315B-D341-N	1.3	8.4	25.2	9.5	30.0	1500	3000	20.6	220	AS2-30BAI

## 40mm Flange Motors Specifications and Installation Dimensions

Parameter Model	Encoder Accuracy	Drive Model	Power Cable Model (Standard 3m)	Batteryless Encoder Cable Model (Standard 3m)	With Battery Encoder Cable Model (Standard 3m)
ASMD-04-A530B-A321	17 bit	AS2-02BAI	P1-AS1-03P08M	E1-AS1-03UM	/
ASMD-04-0130B-A321		AS2-02BAI	P1-AS1-03P08M	E1-AS1-03UM	
ASMD-04-0130B-A341		AS2-02BAI	P5-AS1-03P08M	E1-AS1-03UM	
ASMD-04-0130B-D321	23 bit	AS2-02BAI	P1-AS1-03P08M	E1-AS1-03UM	E1-AS1-03BM

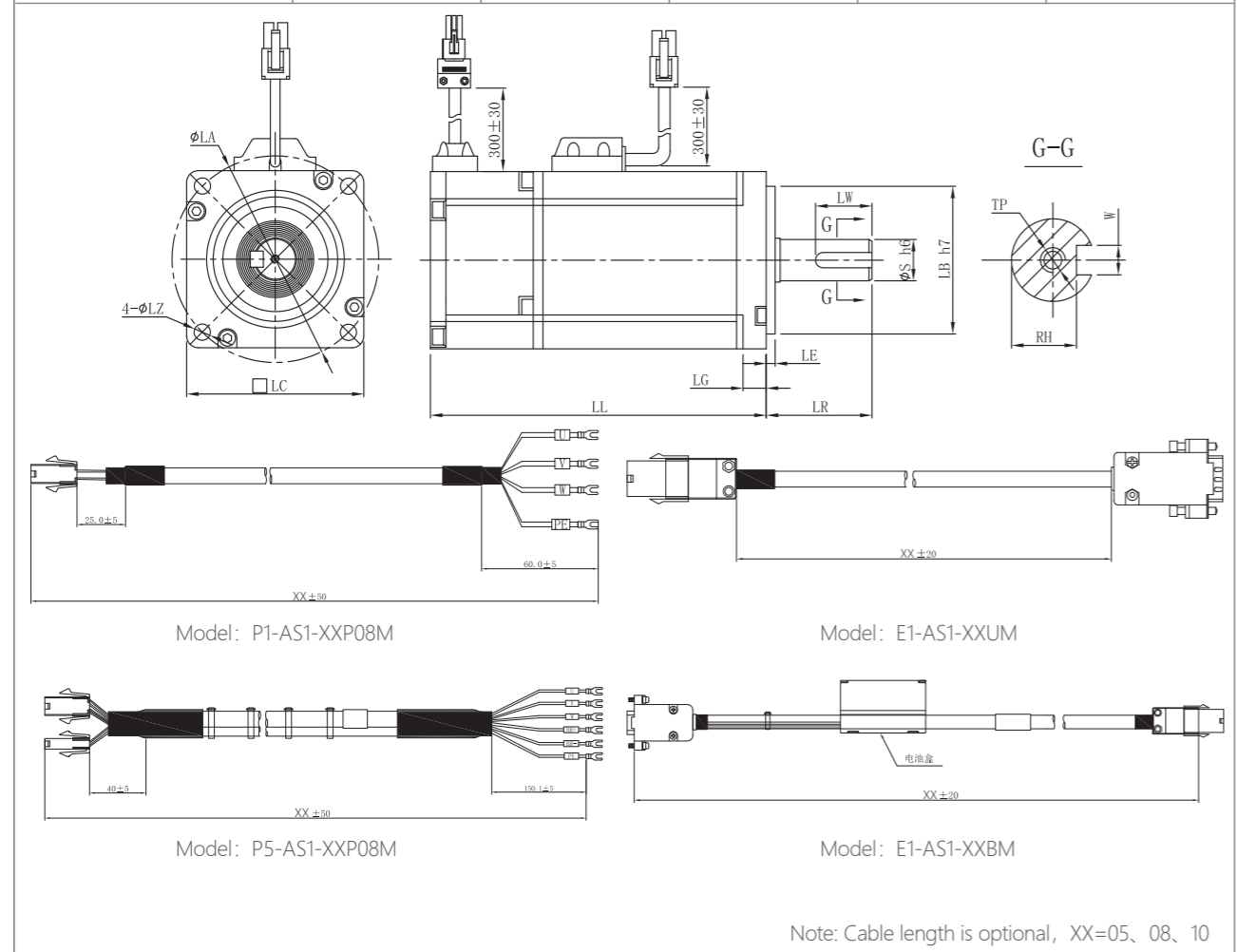


Note: Cable length is optional, XX=05, 08, 10

Model	LC	LZ	LA	S	LB	LL	LR	LE	LG	LW	RH	W	T	TP
ASMD-04-A530B-A321	40	4.5	46	8	30	84.5	25	2.5	5	15.5	6.2	3	3	M3*6
ASMD-04-0130B-A321	40	4.5	46	8	30	102.5	25	2.5	5	15.5	6.2	3	3	M3*6
ASMD-04-0130B-A341	40	4.5	46	8	30	135.6	25	2.5	5	15.5	6.2	3	3	M3*6
ASMD-04-0130B-D321	40	4.5	46	8	30	102.5	25	2.5	5	15.5	6.2	3	3	M3*6

## 60mm Flange Motors Specifications and Installation Dimensions

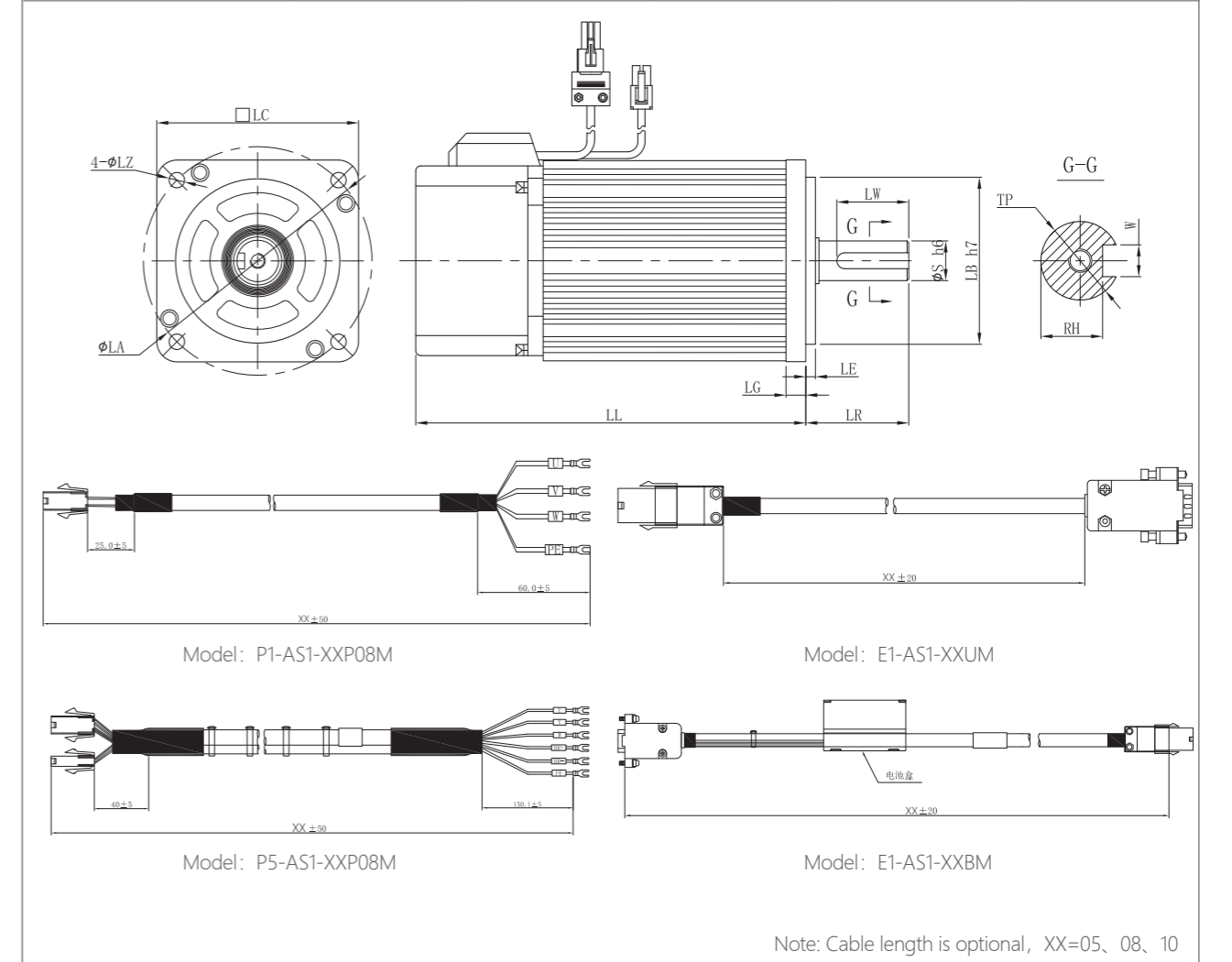
Parameter Model	Encoder Accuracy	Drive Model	Power Cable Model (Standard 3m)	Batteryless Encoder Cable Model (Standard 3m)	With Battery Encoder Cable Model (Standard 3m)
ASMJ-06-0230B-A321	17 bit	AS2-02BAI	P1-AS1-03P08M	E1-AS1-03UM	/
ASMJ-06-0230B-A341		AS2-02BAI	P5-AS1-03P08M	E1-AS1-03UM	
ASMJ-06-0430B-A321		AS2-04BAI	P1-AS1-03P08M	E1-AS1-03UM	
ASMJ-06-0430B-A341		AS2-04BAI	P5-AS1-03P08M	E1-AS1-03UM	
ASMJ-06-0430B-D321	23 bit	AS2-04BAI	P1-AS1-03P08M	E1-AS1-03UM	E1-AS1-03BM



Model	LC	LZ	LA	S	LB	LL	LR	LE	LG	LW	RH	W	T	TP
ASMJ-06-0230B-A321	60	5.5	70	14	50	112	30	3	7	16.5	11	5	5	M5×8
ASMJ-06-0230B-A341	60	5.5	70	14	50	144	30	3	7	16.5	11	5	5	M5×8
ASMJ-06-0430B-A321	60	5.5	70	14	50	134	30	3	7	16.5	11	5	5	M5×8
ASMJ-06-0430B-A341	60	5.5	70	14	50	166	30	3	7	16.5	11	5	5	M5×8
ASMJ-06-0430B-D321	60	5.5	70	14	50	134	30	3	7	16.5	11	5	5	M5×8

## 80mm Flange Motors Specifications and Installation Dimensions

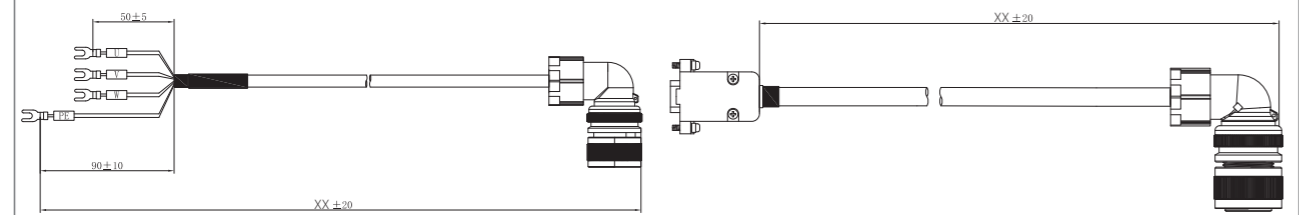
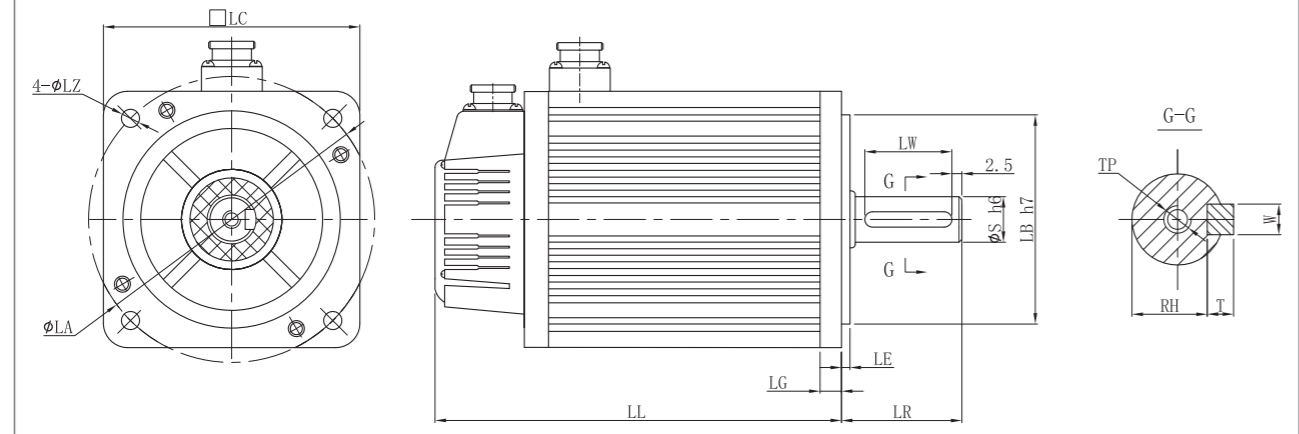
Parameter Model	Encoder Accuracy	Drive Model	Power Cable Model (Standard 3m)	Batteryless Encoder Cable Model (Standard 3m)	With Battery Encoder Cable Model (Standard 3m)
ASMJ-08-0830B-A321	17 bit	AS2-10BAI	P1-AS1-03P08M	E1-AS1-03UM	/
ASMJ-08-0830B-A341		AS2-10BAI	P5-AS1-03P08M	E1-AS1-03UM	
ASMJ-08-0830B-D321	23 bit	AS2-10BAI	P1-AS1-03P08M	E1-AS1-03UM	E1-AS1-03BM
ASMJ-08-0830B-D341		AS2-10BAI	P5-AS1-03P08M	E1-AS1-03UM	E1-AS1-03BM



Model	LC	LZ	LA	S	LB	LL	LR	LE	LG	LW	RH	W	T	TP
ASMJ-08-0830B-A321	80	6.5	90	19	70	142.2	35	3	8	25	15.5	6	6	M6×10
ASMJ-08-0830B-A341	80	6.5	90	19	70	175	35	3	8	25	15.5	6	6	M6×10
ASMJ-08-0830B-D321	80	6.5	90	19	70	142.2	35	3	8	25	15.5	6	6	M6×10
ASMJ-08-0830B-D341	80	6.5	90	19	70	175	35	3	8	25	15.5	6	6	M6×10

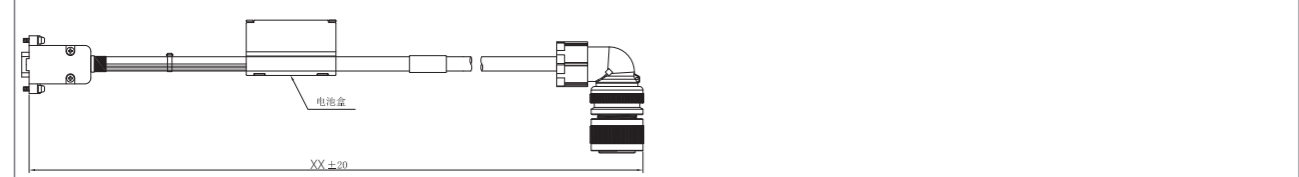
## 110mm Flange Motors Specifications and Installation Dimensions

Parameter Model	Encoder Accuracy	Drive Model	Power Cable Model (Standard 3m)	Batteryless Encoder Cable Model (Standard 3m)	With Battery Encoder Cable Model (Standard 3m)
ASMJ-11-1230B-D321	23 bit	AS2-15BAI	P2-AS1-03P15F	E2-AS1-03UM	E2-AS1-03BM
ASMJ-11-1530B-D321		AS2-15BAI	P2-AS1-03P15F	E2-AS1-03UM	E2-AS1-03BM
ASMJ-11-1830B-D321		AS2-15BAI	P2-AS1-03P15F	E2-AS1-03UM	E2-AS1-03BM



Model: P2-AS1-XXP15F, P2-AS1-XXP30F

Model: E2-AS1-XXUM



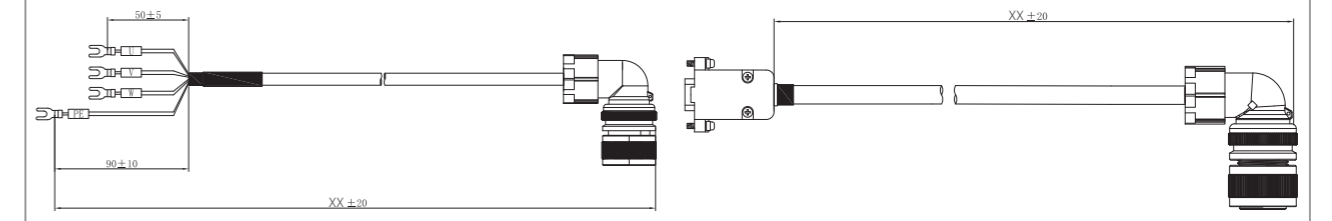
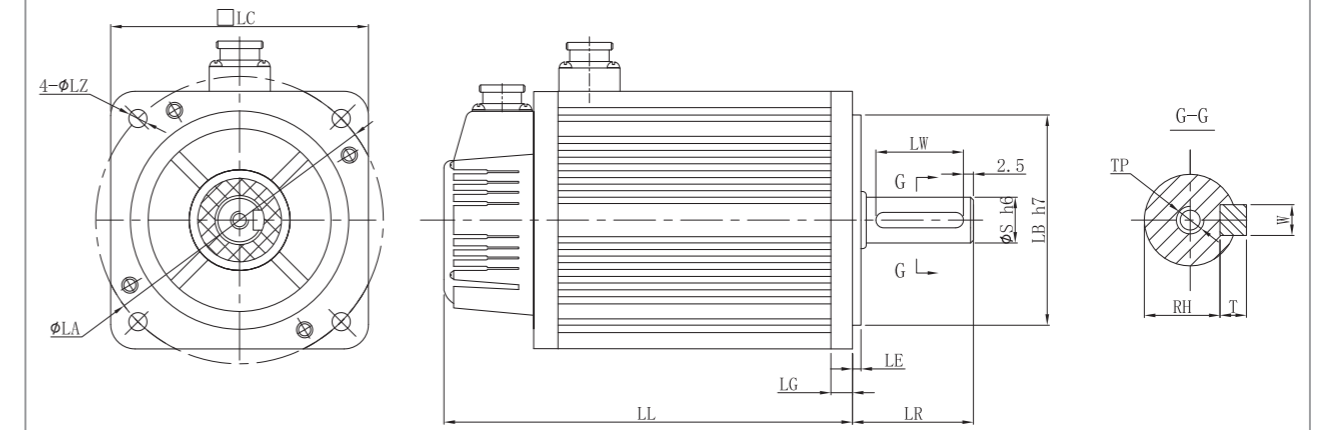
Model: E2-AS1-XXBM

Note: Cable length is optional, XX=05, 08, 10

Model	LC	LZ	LA	S	LB	LL	LR	LE	LG	LW	RH	W	T	TP
ASMJ-11-1230B-D321	111.2	9	130	19	95	189	55	5	12	40	15.5	6	6	M6×25
ASMJ-11-1530B-D321	111.2	9	130	19	95	204	55	5	12	40	15.5	6	6	M6×25
ASMJ-11-1830B-D321	111.2	9	130	19	95	219	55	5	12	40	15.5	6	6	M6×25

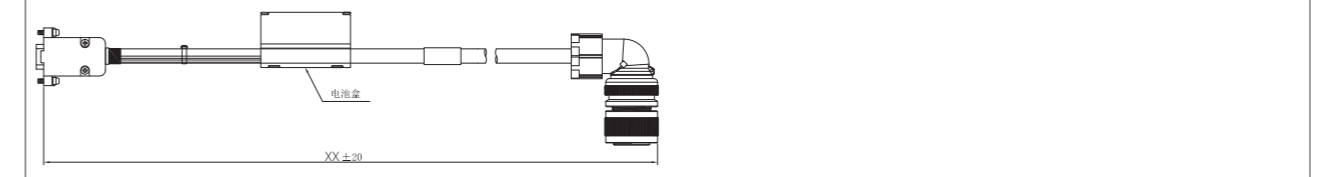
## 130mm Flange Motors Specifications and Installation Dimensions

Parameter Model	Encoder Accuracy	Drive Model	Power Cable Model (Standard 3m)	Batteryless Encoder Cable Model (Standard 3m)	With Battery Encoder Cable Model (Standard 3m)
ASMJ-13-1025B-D321	23 bit	AS2-15BAI	P2-AS1-03P15F	E2-AS1-03UM	E2-AS1-03BM
ASMJ-13-1525B-D321		AS2-15BAI	P2-AS1-03P15F	E2-AS1-03UM	E2-AS1-03BM
ASMJ-13-2025B-D321		AS2-30BAI	P2-AS1-03P30F	E2-AS1-03UM	E2-AS1-03BM
ASMJ-13-2625B-D321		AS2-30BAI	P2-AS1-03P30F	E2-AS1-03UM	E2-AS1-03BM



Model: P2-AS1-XXP15F, P2-AS1-XXP30F

Model: E2-AS1-XXUM



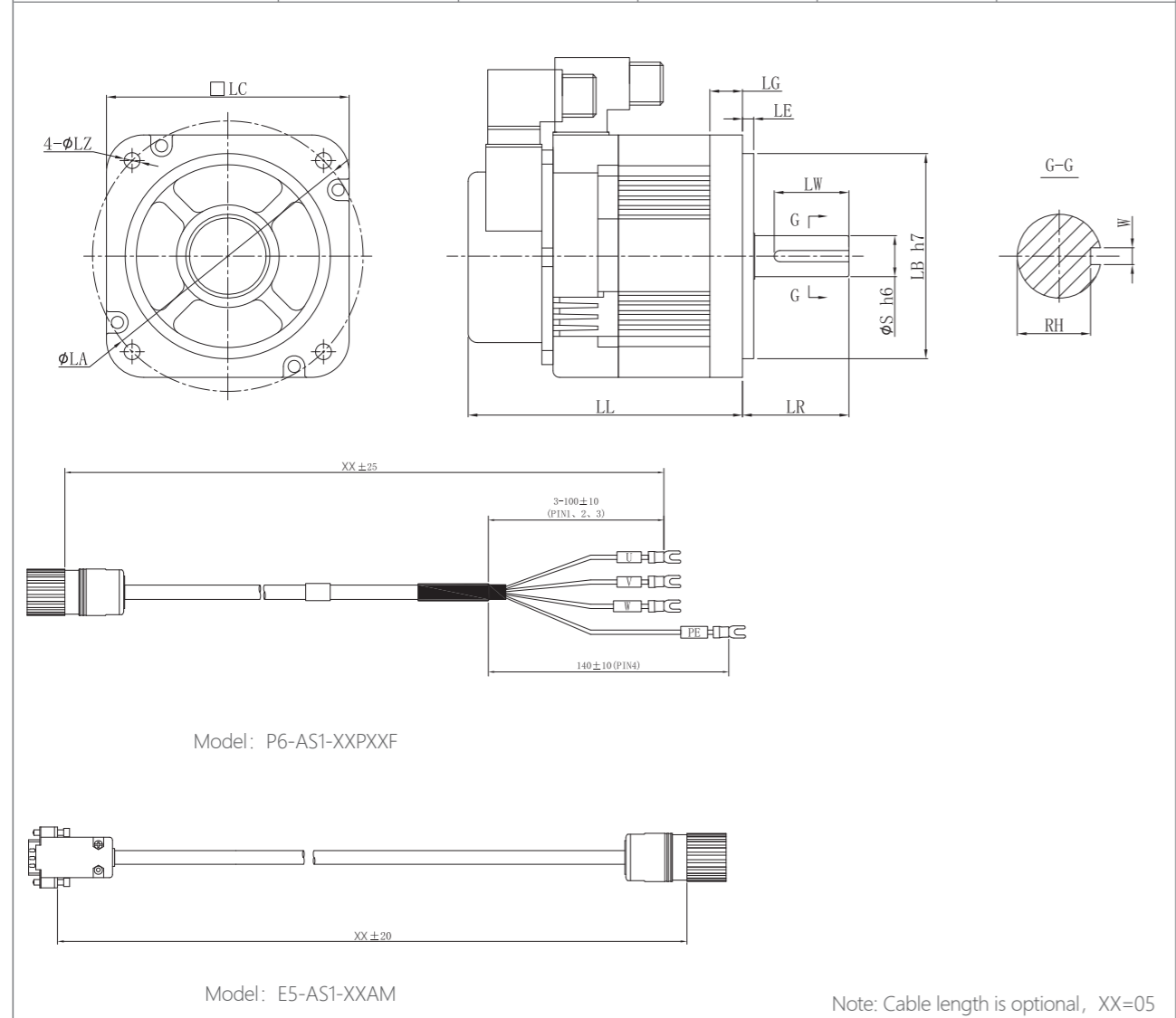
Model: E2-AS1-XXBM

Note: Cable length is optional, XX=05, 08, 10

Model	LC	LZ	LA	S	LB	LL	LR	LE	LG	LW	RH	W	T	TP
ASMJ-13-1025B-D321	131	9	145	22	110	166	57	5	14	40	18.5	6	6	M6×22
ASMJ-13-1525B-D321	131	9	145	22	110	179	57	5	14	40	18.5	6	6	M6×22
ASMJ-13-2025B-D321	131	9	145	22	110	192	57	5	14	40	18.5	6	6	M6×22
ASMJ-13-2625B-D321	131	9	145	22	110	209	57	5	14	40	18.5	6	6	M6×22

## 130mm Flange Motors Specifications and Installation Dimensions

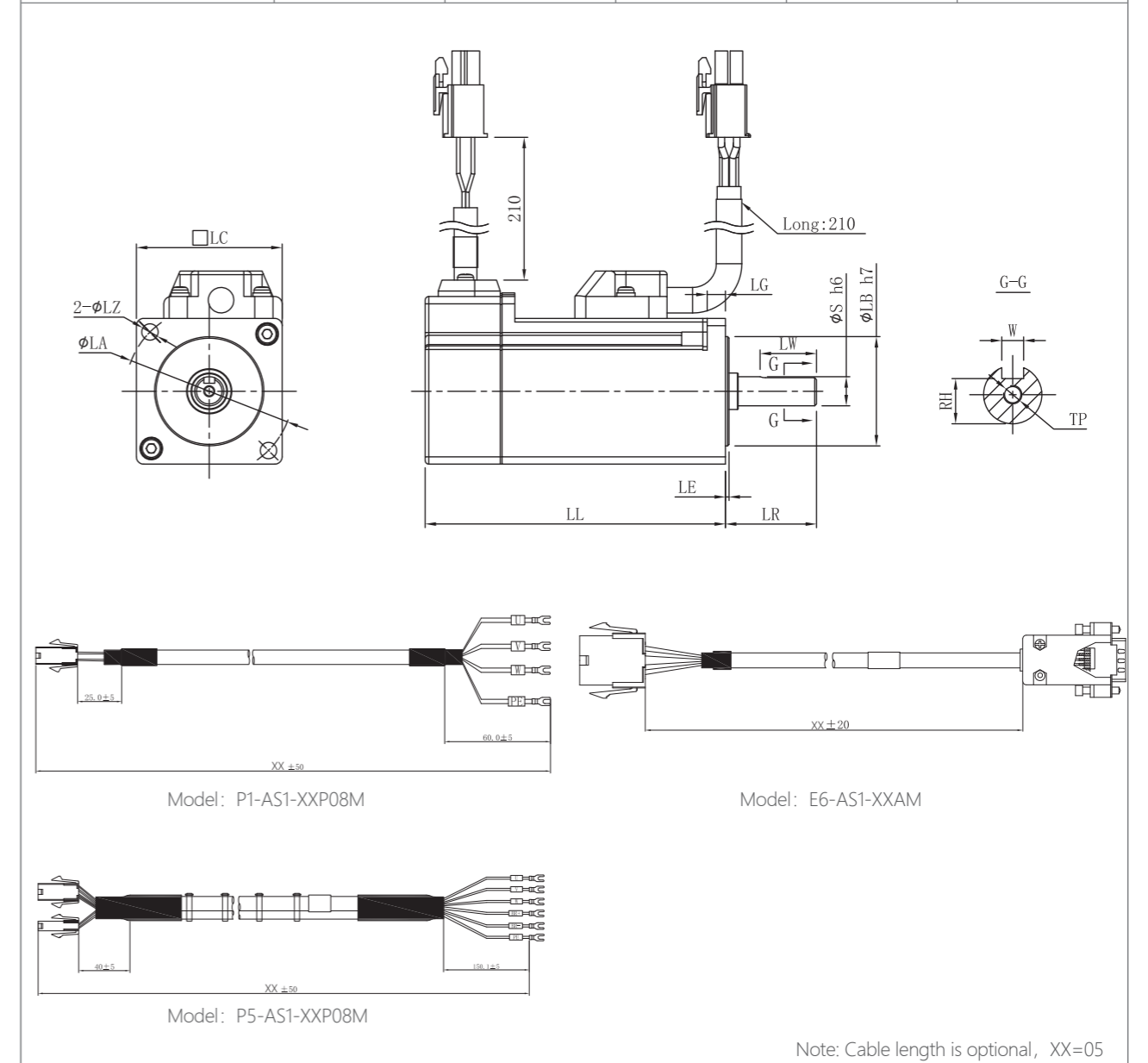
Parameter Model	Encoder Accuracy	Drive Model	Power Cable Model (Standard 3m)	Batteryless Encoder Cable Model (Standard 3m)	With Battery Encoder Cable Model (Standard 3m)
ASMH-13-0915B-D321-N	23 bit	AS2-15BAI	P6-AS1-03P15F	E5-AS1-03AM	/
ASMH-13-0915B-D341-N		AS2-15BAI	P6-AS1-03P15F	E5-AS1-03AM	
ASMH-13-1315B-D321-N		AS2-30BAI	P6-AS1-03P30F	E5-AS1-03AM	
ASMH-13-1315B-D341-N		AS2-30BAI	P6-AS1-03P30F	E5-AS1-03AM	



Model	LC	LZ	LA	S	LB	LL	LR	LE	LG	LW	RH	W	T	TP
ASMH-13-0915B-D321-N	130	8.5	145	22	110	147	55	6	17.5	40	18.5	6	6	-
ASMH-13-0915B-D341-N	130	8.5	145	22	110	170	55	6	17.5	40	18.5	6	6	-
ASMH-13-1315B-D321-N	130	8.5	145	22	110	167	55	6	17.5	40	18.5	6	6	-
ASMH-13-1315B-D341-N	130	8.5	145	22	110	190	55	6	17.5	40	18.5	6	6	-

## 40mm Flange Motors Specifications and Installation Dimensions

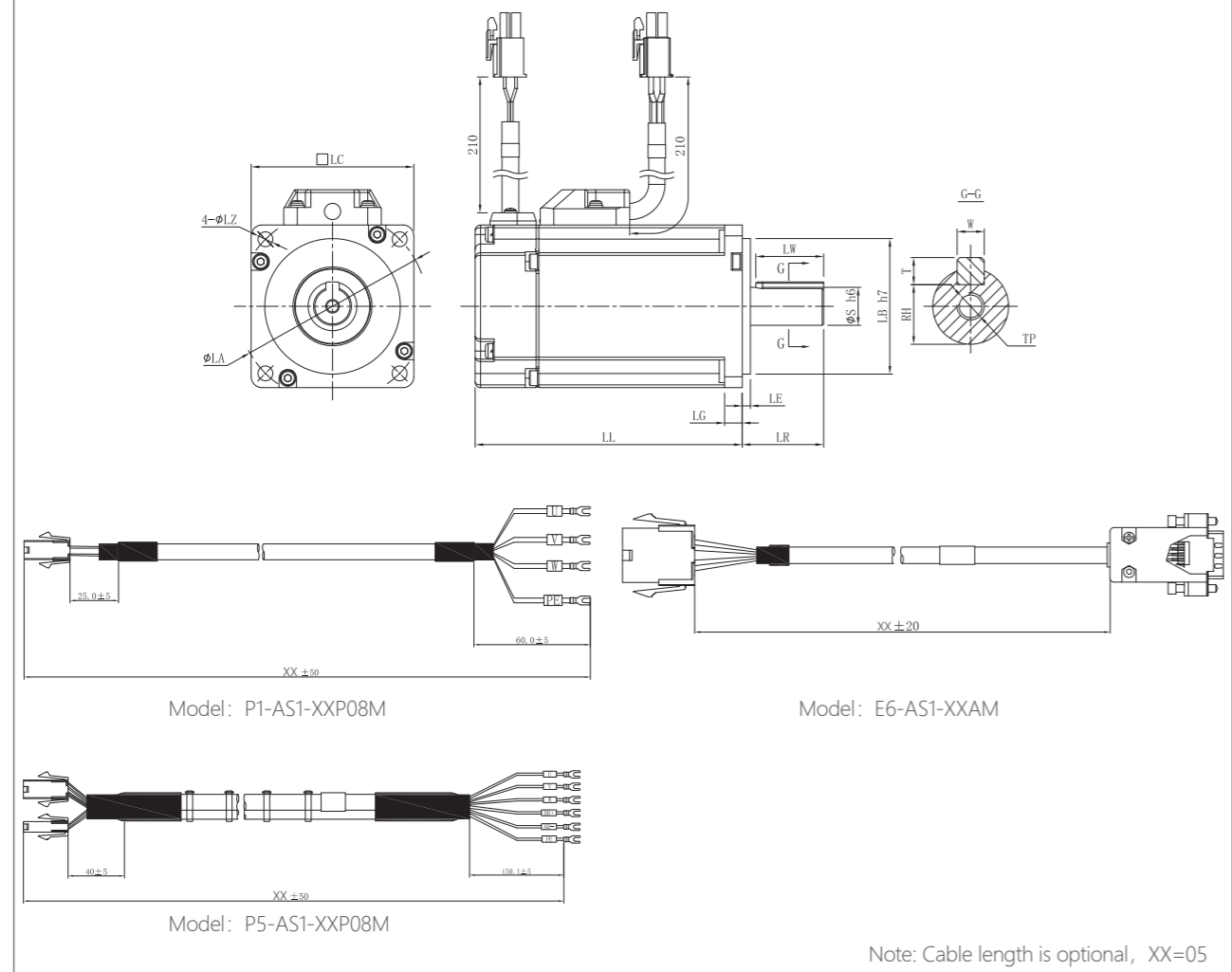
Parameter Model	Encoder Accuracy	Drive Model	Power Cable Model (Standard 3m)	Batteryless Encoder Cable Model (Standard 3m)	With Battery Encoder Cable Model (Standard 3m)
ASMJ-04-0130B-A321-S	17 bit	AS2-02BAI	P1-AS1-03P08M	E6-AS1-03AM	/
ASMJ-04-0130B-A341-S		AS2-02BAI	P5-AS1-03P08M	E6-AS1-03AM	



Model	LC	LZ	LA	S	LB	LL	LR	LE	LG	LW	RH	W	T	TP
ASMJ-04-0130B-A321-S	40	4.5	46	8	30	88	25	2.5	5	15.5	6.2	3	3	M3×8
ASMJ-04-0130B-A341-S	40	4.5	46	8	30	128.5	25	2.5	5	15.5	6.2	3	3	M3×8

## 60mm Flange Motors Specifications and Installation Dimensions

Parameter Model	Encoder Accuracy	Drive Model	Power Cable Model (Standard 3m)	Batteryless Encoder Cable Model (Standard 3m)	With Battery Encoder Cable Model (Standard 3m)
ASMD-06-0230B-A321-S	17 bit	AS2-02BAI	P1-AS1-03P08M	E6-AS1-03AM	/
ASMD-06-0230B-A341-S		AS2-02BAI	P5-AS1-03P08M	E6-AS1-03AM	
ASMD-06-0430B-A321-S		AS2-04BAI	P1-AS1-03P08M	E6-AS1-03AM	
ASMD-06-0430B-A341-S		AS2-04BAI	P5-AS1-03P08M	E6-AS1-03AM	
ASMJ-06-0430B-A321-S		AS2-04BAI	P1-AS1-03P08M	E6-AS1-03AM	



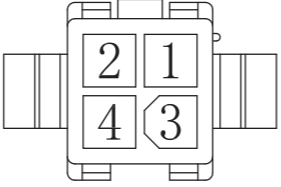
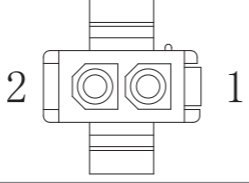
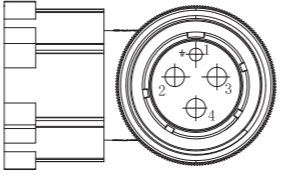
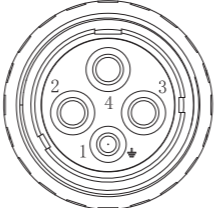
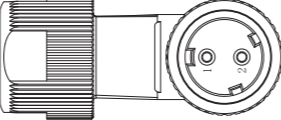
Model	LC	LZ	LA	S	LB	LL	LR	LE	LG	LW	RH	W	T	TP
ASMD-06-0230B-A321-S	60	5.5	70	14	50	79	30	3	6.5	25	11	5	5	M5×10
ASMD-06-0230B-A341-S	60	5.5	70	14	50	113	30	3	6.5	25	11	5	5	M5×10
ASMD-06-0430B-A321-S	60	5.5	70	14	50	93.5	30	3	6.5	25	11	5	5	M5×10
ASMD-06-0430B-A341-S	60	5.5	70	14	50	130	30	3	6.5	25	11	5	5	M5×10
ASMJ-06-0430B-A321-S	60	5.5	70	14	50	118	30	3	6.5	25	11	5	5	M5×10

## Accessory Kit

Kit Name	Included Accessory Model	Quantity	Accessories Photo	Accessory Name	Corresponding Cable Model	Matched Motor Series	
SA-C1	DB head plug plastic shell	1		Adapter between encoder cable and driver	E1-AS1-03UM	40、60、80、90	
	DB head-9P	1					
	AMP-172161-1	1		9Pconnector plastic shell			
	AMP-170361-1	10		Metal connector			
	AMP-316454-1	2		9P connector tail clip kit			
	AMP-172159-1	1		4P connector plastic shell			
	AMP-170362-1	8		Metal connector			P5-AS1-03P08M P1-AS1-03P08M
	AMP-172157-1	1		2P connector plastic shell			
SA-C2	DB head plug plastic shell	1		Adapter between encoder cable and driver	E2-AS1-03UM	110、130 (23 bit) Note: 1. The brake fittings are fixedly installed on the motor, 2. Please prepare the brake cable by yourself.	
	DB head-9P	1					
	Servo Motor Aviation Plug	1		Encoder cable aviation plug			
	Servo Motor Aviation Plug	1		Power cable aviation plug			P2-AS1-03P15F
SA-C3	DB head plug plastic shell	1		Adapter between encoder cable and driver	E5-AS1-03AM	ASMH-13-0915B -D341-N ASMH-13-1315B -D341-N Note: 1. The brake fittings are fixedly installed on the motor, 2. Please prepare the brake cable by yourself.	
	DB head-9P	1					
	HM23-7-P	1		Encoder cable aviation plug			
	HM23-4-P	1		Power cable aviation plug			P6-AS1-03P15F

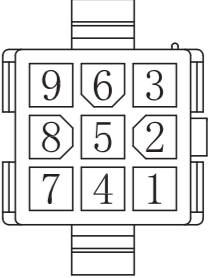
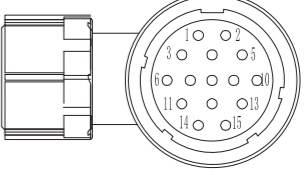
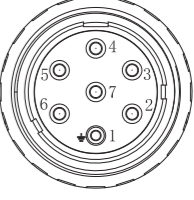
## ■ Accessory Cables

### ■ Encoder Cable and Brake Accessories

Connector Pin Distribution		Matched Motor Series	Connector Outline Drawing
4 Pin Connector		40、60、80、90	
Pin No.	Signal Name		
1	U		
2	V		
3	W		
4	PE		
2 Pin Connector		40、60、80、90	
Pin No.	Signal Name		
1	BK+		
2	BK-		
4 Pin Aviation Plug		110、130	
Pin No.	Signal Name		
1	PE		
2	U		
3	V		
4	W		
4 Pin Aviation Plug		130 -N series	
Pin No.	Signal Name		
1	PE		
2	U		
3	V		
4	W		
2 Pin Connector		130 -N series	
Pin No.	Signal Name		
1	BK+		
2	BK-		

## ■ Accessory Cables

### ■ Encoder Cable Accessories

Connector Pin Distribution			Matched Motor Series	Connector Outline Drawing
9 Pin Connector			40、60、80、90	
Pin No.	2500 Lines Signal	17、23 Bit Signal		
3	A+	--		
6	A-	--		
2	B+	SD+		
5	B-	SD-		
1	Z+	BAT+		
4	Z-	BAT-		
9	+5V	+5V		
8	GND	GND		
7	PE	PE		
15 Pin Aviation Plug			110、130	
Pin No.	2500 Lines Signal	17、23 Bit Signal		
2	+5V	+5V		
3	GND	GND		
4	A+	--		
7	A-	--		
5	B+	SD+		
8	B-	SD-		
6	Z+	BAT+		
9	Z-	BAT-		
1	PE	PE		
4 Pin Aviation Plug			130 -N series	
Pin No.	Signal Name			
4	SD-			
6	SD+			
5	0V			
7	+5V			