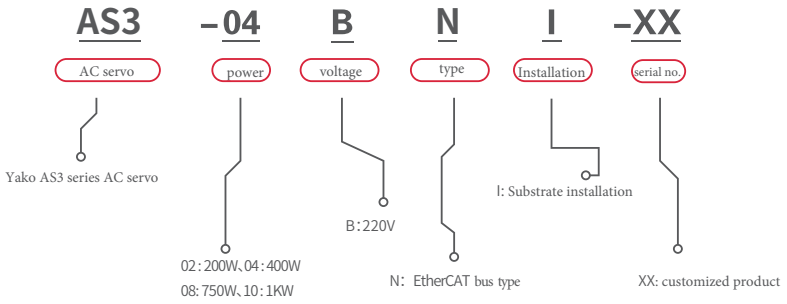
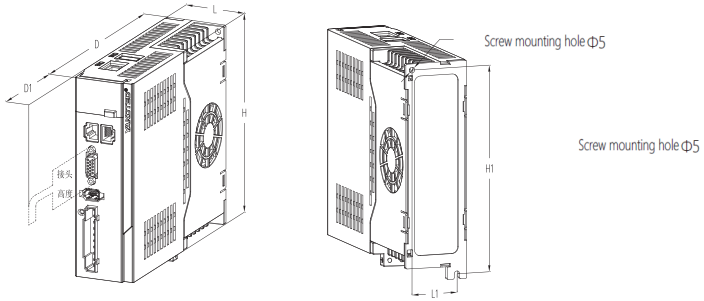
Servo Drive Naming Rules



Drive Specs and Dimensions



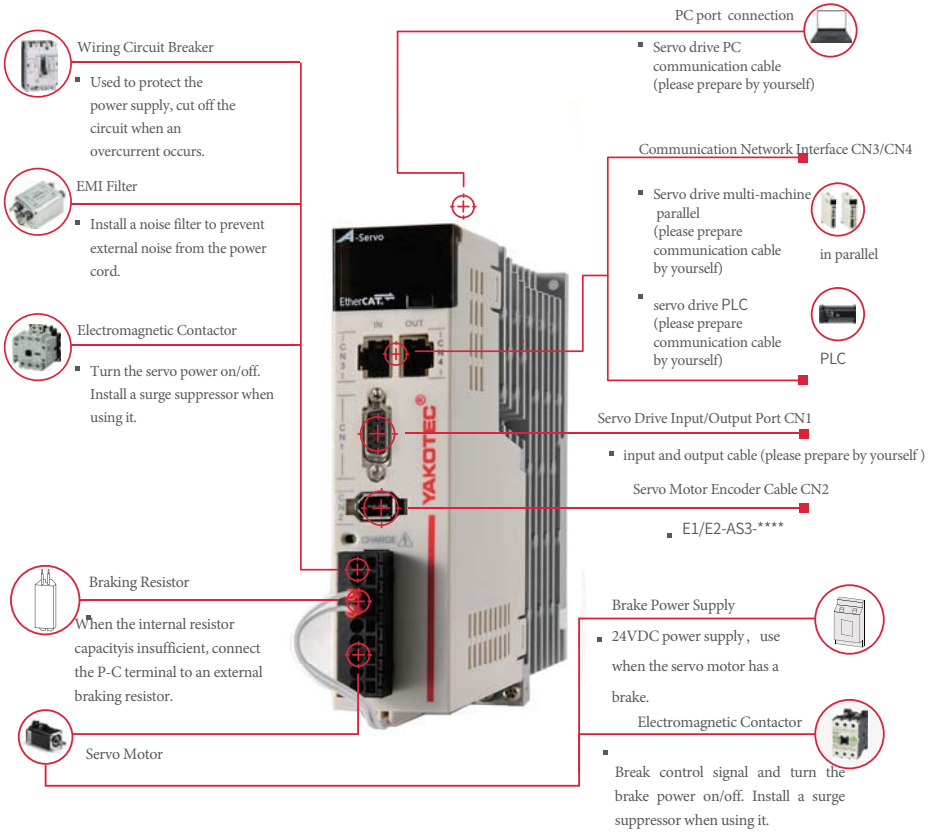
Model	L(mm)	H(mm)	D(mm)	L1(mm)	H1(mm)	D1(mm)	screw hole
AS3 Frame B	40	170	163	28	161	75	2-M4
AS3 Frame C	50	170	173	37	161	75	2-M4

Structure Size	SIZE B		SIZE C	
Drive Model	AS3-02BNI	AS3-04BNI	AS3-08BNI	AS3-10BNI
Output Current Arms	1.6	2.8	5.0	6.0
Maximum Output Current Arms	5.8	10	13.5	17
Main Circuit Power Supply	Single-phase AC200V-240V			
Regenerative Loop Function	External brake 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（if it's in 45°C~55°C, the average load rate should <80%）
			Storage：-20°C～70°C
	Humidity		0～90% RH以下
	Working Altitude		<1000m above sea level
	Vibration/Shock		vibration：＜4.9m/s² impact：＜19.6m/s²
	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	IOsignal	Input	5（General）
		Output	3（General）
Communication Function		RS232 (USB)	Connect with PC for debugging servo drive
Panel Operator			LED display
Regenerative Loop Function			Built-in braking resistor for ⩾1000W
Protect Function			Over current, overload, over voltage, low voltage, over speed, over temperature, encoder abnormality, communication abnormality, excessive position deviation
Control mode			Contour Position Mode（PP）；Contour Speed Mode（PV）；Contour Torque Mode（PT）；
■ Functions Specifications			
Position Control Mode	Position Command Format		EtherCAT bus digital
	Smoothing Filter		Smoothing the position command to make the motor run smoother and more stable
	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		EtherCATbus digital
	Speed Change Rate	Voltage Fluctuation	Rated voltage±10%：0.5%（Rated speed）
		Load Fluctuation	0-100% load：⩽0.5%(Rated speed)
		Temperature	25±25°C：⩽0.5%(Rated speed)
	Acceleration Deceleration Setting Range		0-10S
Torque Control Mode	Command Form		EtherCAT bus digital
Return to zero mode	Command Form		EtherCAT bus digital
	Zero return method setting		Through the EtherCAT bus configuration,
Common	Self-tuning Function		support a variety of zero return mode Inertia
	Encoder Feedback Electronic Gear		identification, rigidity tuning
	Abnormal Information Record		Setting freely
	dynamic braking		8 groups of historical information records

Servo Drive Connection to Peripheral Devices



- Main Circuit Terminal Definition

Name	Terminal Mark	Function Specification
Control Power Input Terminal	L1、L2	Control circuit power input terminal
External Regenerative Resistor Connection Terminal	P、D、C	For the 1Kw model, P and D are short-connected by default, and the built-in resistor has been connected. When the braking capacity is insufficient, please connect the external brake resistance between P and C (to use the external resistance, remove the short wiring and keep P and D open). For 400W models, P and C are equipped with external brake resistors, so D terminal is unavailable.
Common DC Bus Terminal	P、N	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 - General Input and Output Signal

Definition	PIN	Function	
DI1	10	P-OT	Forward drive forbidden
DI2	9	N-OT	Backward drive forbidden
DI3	8	Home Switch	Home switch
DI4	7	Touch Probe2	Probe 2
DI5	11	Touch Probe1	Probe 1
+24	15		Internal 24V power supply, voltage range +20~28V, Maximum output current 200mA
COM_24	14		Internal 24V ground, open collector pulse input ground
IN_COM	13		Power input, 12~24V
DO1+	1	S-RDY+	Servo ready
DO1-	6	S-RDY-	
DO2+	3	COIN+	Position reached
DO2-	2	COIN-	
DO3+	5	--	No definition; For the motor with brake, the function code P02.23 should set as 11 for the brake output
DO3-	4	--	

- CN2 Encoder Cable Servo Driver Side Terminal Pin Distribution

PIN	Encoder Signal	Function
1	+5V	+5V Power Output
2	GND	power GND output
5	SD+	Encoder Signal
6	SD-	
Shell	PE	

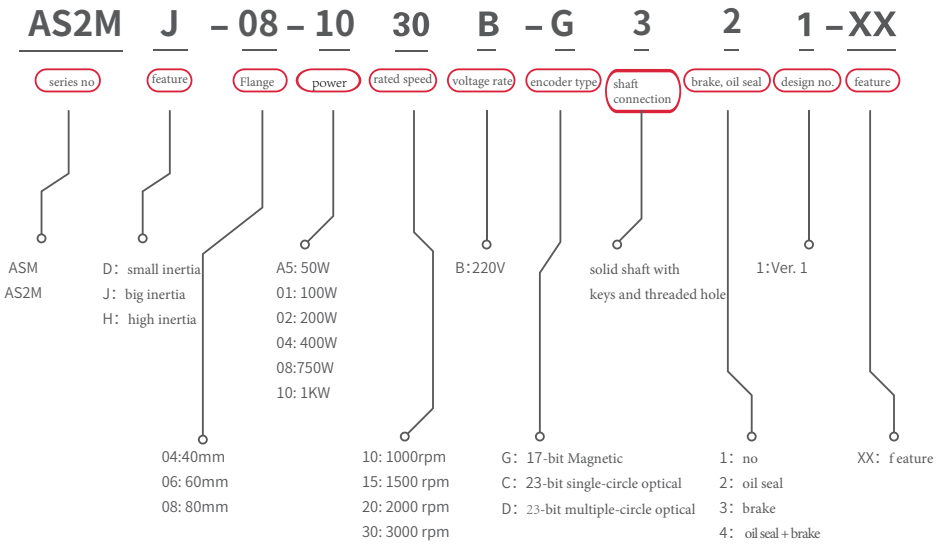
- CN3 and CN4 - Industrial Bus Communication Port Uses

PIN	Color Signal	Name	Direction
1	white/orange	TxData+	Output
2	orange	TxData-	Output
3	white/green	RecvData+	Input
4	blue	Unused	Unused
5	white/blue	Unused	Unused
6	green	RecvData-	Input
7	white/brown	Unused	Unused
8	brown	Unused	Unused

Servo System Configuration Table

Single 220V			
	 Size B		 Size C
AS3-02BNI	AS3-04BNI	AS3-08BNI	AS3-10BNI
			
ASMD-04-A530B AS2MD-04-0130B AS2MJ-06-0230B	AS2MJ-06-0430B	AS2MJ-08-0830B	AS2MJ-08-0830B AS2MJ-08-1030B

Motor Naming Rules



Motor Parameters

Parameters / model	Rated Output (KW)	Rated Torque (Nm)	Maximum Torque (Nm)	Rated Current (Arms)	Maximum Current (Arms)	Rated Speed (rpm)	Maximum Speed (rpm)	Rotor Inertia (10^{-4}Kgm^2)	Voltage (Kg)	Matched Drive Model
17-bit Encoder Motor Parameters										
40 Flange										
ASMD-04-A530B-G311	0.05	0.159	0.477	0.67	2.01	3000	5000	0.025	0.4	AS3-02BNI
AS2MD-04-0130B-G321	0.1	0.318	0.954	1.26	3.78	3000	5000	0.043	0.45	AS3-02BNI
60 Flange										
AS2MJ-06-0230B-G321	0.2	0.64	1.92	1.67	5.1	3000	5000	0.32	0.93	AS3-02BNI
AS2MJ-06-0430B-G321	0.4	1.27	3.81	2.5	7.5	3000	5000	0.57	1.26	AS3-04BNI
80 Flange										
AS2MJ-08-0830B-G321	0.75	2.39	7.17	4.8	14.4	3000	5000	1.69	2.8	AS3-08BNI AS3-10BNI
AS2MJ-08-1030B-G321	1.0	3.18	9.52	6.3	18.9	3000	5000	2.1	2.9	AS3-10BNI
23-bit Encoder Motor Parameters										
40 Flange										
AS2MD-04-0130B-D321	0.1	0.318	0.954	1.26	3.78	3000	7000	0.043	0.45	AS3-02BNI
60 Flange										
AS2MJ-06-0230B-D321	0.2	0.64	1.92	1.67	5.1	3000	7000	0.32	0.93	AS3-02BNI
AS2MJ-06-0430B-C321	0.4	1.27	3.81	2.5	7.5	3000	7000	0.57	1.26	AS3-04BNI
AS2MJ-06-0430B-D321	0.4	1.27	3.81	2.5	7.5	3000	7000	0.57	1.26	AS3-04BNI
80 Flange										
AS2MJ-08-0830B-C321	0.75	2.39	7.17	4.8	14.4	3000	6500	1.69	2.8	AS3-08BNI AS3-10BNI
AS2MJ-08-0830B-D321	0.75	2.39	7.17	4.8	14.4	3000	6500	1.69	2.8	AS3-08BNI AS3-10BNI
AS2MJ-08-1030B-D321	1.0	3.18	9.52	6.3	18.9	3000	6500	2.1	2.9	AS3-10BNI