



ADSD-S series production

AC permanent magnet synchronous servo drives and
motors



大连安迪数控技术有限公司
DALIAN A&D NUMERICAL CONTROL TECHNOLOGY CO., LTD.

Company introduction

Dalian A&D numerical control technology co., ltd is a high-tech enterprise which is formed by Japan doctor and automation scholar. Specializing in permanent magnet AC synchronous servo systems and the exchange of asynchronous servo systems, including R & D, manufacturing, sales and service. The company provides high precision and reliable quality servo control products and optimal overall automation solution.

A&D servo drive can fit most kinds of NC systems in including import NC systems such as **SIEMENS**、**FAGOR**、and local NC systems such as the **GSK**、**HNC**、**Delta**、**Dalia CNC**.

Product features

High-precision, high-speed, high-efficiency

Based on DSP+FPGA+IPM hardware platform

Fast response frequency

Precisely adjustment for eliminating vibration

Perfect function

Position / speed / torque / toe index control mode

Mechanical resonance suppression function

Flexible external terminal operation mode

Novel self-adaptive control

Facilitate self-definition function of operation signal

Perfect protection function

Convenient and practical communication software

Fault log query

Real-time status parameter display

Writing and reading of parameters

Online oscillograph function

Excellent structer Reliable operation

Wiring flexibility

Space-saving

Anti-electromagnetic interference performance

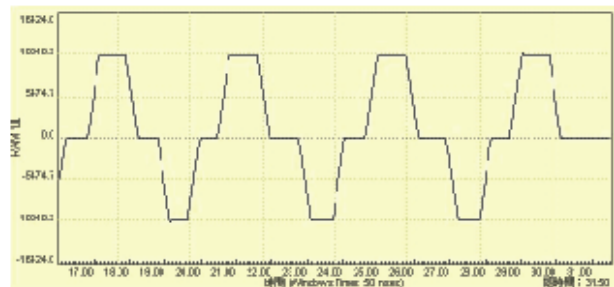
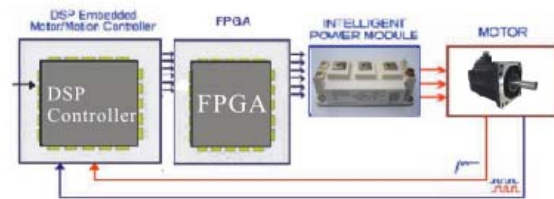
Automatic inspection of manufacturing process

Simple lectotype Flexible application Convenient operation

Independent control function, e.g. used for rotary tables controller

Fit most kinds of NC systems

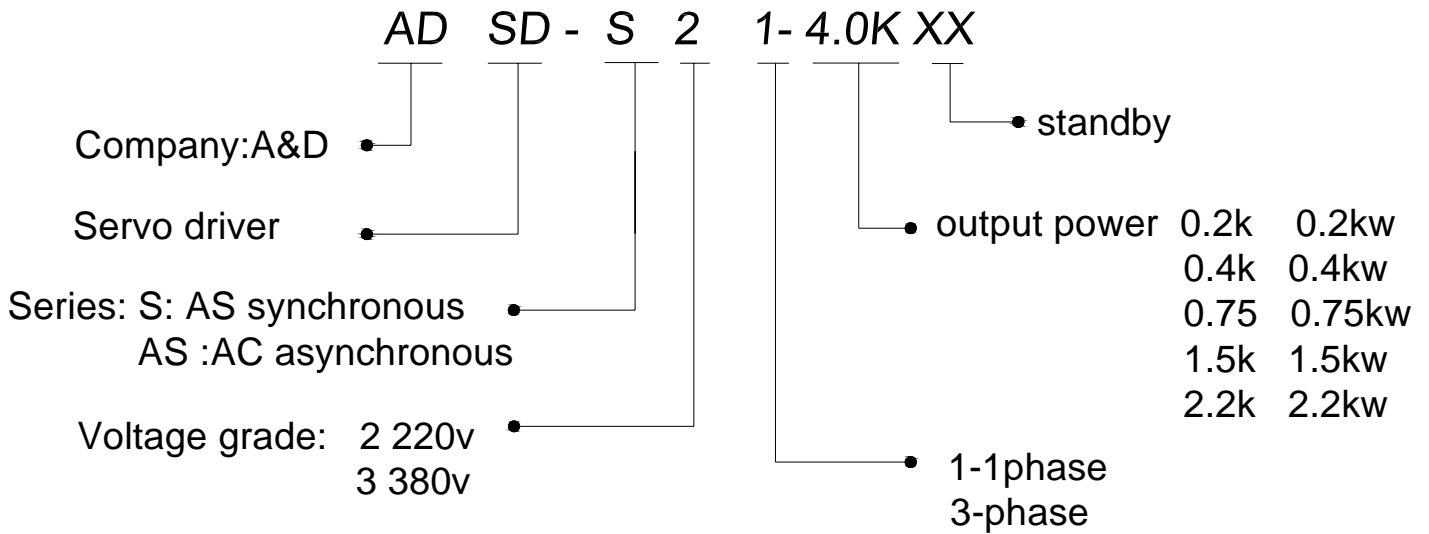
Fit PLC



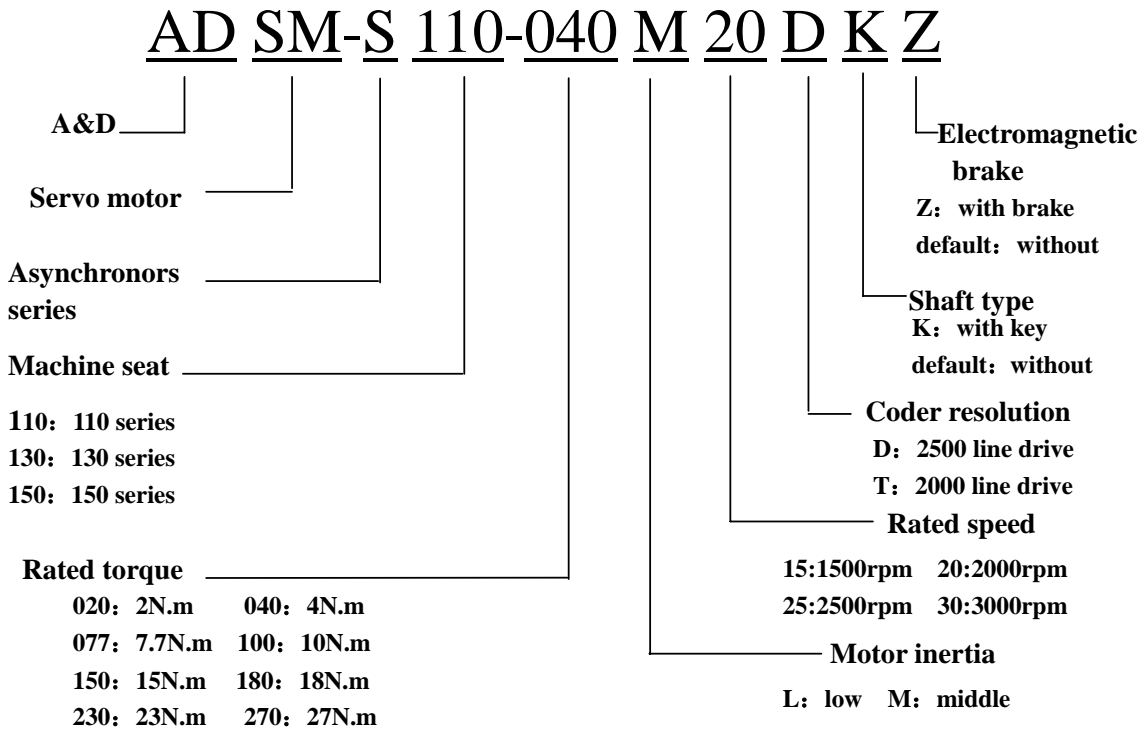
序号	参数名	功能
b00	运行	启动输入控制
b01	CTRL_MODE	控制方式
b02	STOP	停止控制输入
b03	DIRM	电机正反转
b04	POS_CTRL_MODE	定位控制模式
b05	POS2_CTRL_MODE	第二轴控制模式
b06	POS_CTRL_MODE	CCD第二轴控制
b07	POS_CTRL_MODE	CCD第二轴控制
b08	POS_CTRL_MODE	位置反馈控制
b09	POS_CTRL_MODE	位置反馈控制
b10	REF	位置反馈增益
b11	REF	位置反馈增益
b12	REF	位置反馈增益



Servo drive model instruction



Servo motor model instruction



Suited tabale of servo motor and drive model

Drive Power	Drive Model	Motor Model
400W	ADSD-S23-0.4K	ADSM-S80-013M30
		ADSM-S80-024M30
750W	ADSD-S23-0.75K	ADSM-S80-033M30
		ADSM-S110-020M30
		ADSM-S130-040M25
		ADSM-S130-050M20
1500W	ADSD-S23-1.5K	ADSM-S110-040M30
		ADSM-S130-050M25
		ADSM-S110-060M20
		ADSM-S110-050M30
		ADSM-S130-060M25
		ADSM-S110-060M30
		ADSM-S130-077M20
		ADSM-S130-077M25
2200W	ADSD-S23-2.2K	ADSM-S130-100M15
		ADSM-S130-077M30
		ADSM-S130-100M25
4000W	ADSD-S23-4.0K	ADSM-S130-150M15
		ADSM-S150-150M25
		ADSM-S150-180M20
		ADSM-S150-230M20
		ADSM-S150-270M20

Servo drive standers (ADSD-S series)

Item		Norms		
Power	Voltage/Frequency grade	1-phase220V, 50/60HZ	3-phase220V, 50/60HZ	
	Allowed fluctuation	voltage: $\pm 15\%$ frequency: $\pm 5\%$		
Control function	Control system	High-performance vector control controller based on 32-bit DSP		
	Control mode	Position control mode, speed control mode, torque control mode position/speed mode, position/torque mode, torque/speed mode		
	Torque control	Torque precision	$\pm 5\%$ rated torque	
		Torque limit	0~300% rated torque setting	
		Speed limit	Parameter settings or Analog input	
Speed control range	1: 5000 above			

	Position control		The highest precision	±1 pulse
			Most input pulse frequency	500KPPS
			Position control range	0~231 pulse setting
			Input mode	2-phase A/B orthogonal pulse, pulse+direction, CW+CCW pulse
			Electronic Gear	1/50~200
	Acceleration/deceleration control	Straight, smooth filtering, S-curve Acc/Dec		
	Speed response frequency	450HZ		
Overload ability	Ratad current 300%-5s			
operation	Input signals	Operation way	keyboard/terminal/communication method	
		Speed setting	A variety of speed settings: keyboard, analog, communication	
		Programmable Digital Input	multi-functional input such as Servo On, Alarm reset. Support the collector input, a total of 8 points	
		Programmable Analog Input	Two-channel analog input can be analog speed, torque, the position reference	
	Output signals	Operation mode	Motor status display, stop, acceleration and deceleration, speed, the program running	
		Programmable analog output	frequency/current/voltage output	
		Programmable digital output	Up to 6 output signals, each on the road there were 32 kinds of signals to choose from A, B, Z line drive output	
DC current brake		External energy consumption braking resistor, in the premise of flow, to ensure adequate braking torque		
Protect function	Controller protection		Overvoltage protection, undervoltage protection, overcurrent protection, overload protection, over-temperature protection, over-speed protection, missing phase, external fault, communication error, PID feedback signal abnormalities, PG Fault	
	Parameter protection function		By setting an administrator password and decoding, the controller protect the parameters	
display	LCD display in English and Chinese+ LED keyboard	operation message	Set frequency, actual frequency, actual current, actual current percentage, DC bus voltage, motor actual speed, torque and so om.	
		Error message	Save up to 10 error message, you can query fault type on the fault moment	
communation	RS485		Optional fully isolated RS485 communication module can be realized with PC networking communications	
Environment	Ambient temperature		-10°C - 40°C	
	Storage temperature		-20°C - 65°C	
	Ambient humidity		No more than 90% RH .	
	height • vibration		1, 000m below, 5.9m/s ² (=0.6g) below	
Apply position		No sunlight or corrosive, explosive gases and water vapor		
Cooling Method		Forced air and natural air-cooled		

ADSM-S synchronous servo motors have four series of dimensions, 80mm, 110mm, 130mm, 150mm; four series of rated speeds 1500rpm, 2000rpm, 2500rpm, 3000rpm. Motor configure standard 2500P/R incremental encoder. Selection of high temperature resistance, high-energy product quality permanent magnetic material, optimal design of the electromagnetic parameters, can maintain the motor a good working condition and fast response on long-running. IP65 protection, the motor apply to the industrial environment in particular.



110 Family Motor



130 Family motor

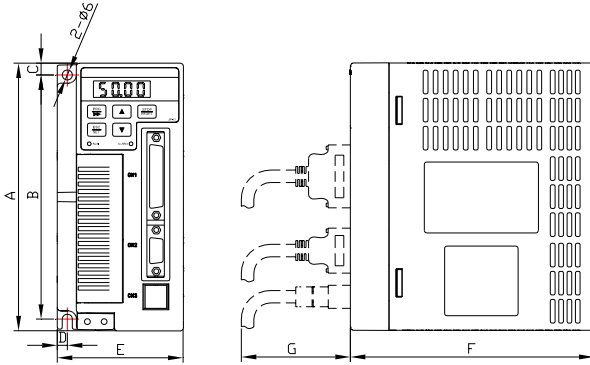


150 Family Motor

Servo motor standards

Motor series	Motor	Power (KW)	Rated torque (N. m)	Rated speed (Rpm)	Rated current (A)	Rotor inertia (Kgm ²)	Mechanical time constant (Ms)	Motor weight (Kg)
80 series	80-010M30	0.3	1	3000	2	0.0658×10 ⁻³	2.05	1.82 (2.32)
	80-014M30	0.4	1.4	3000	3	0.088×10 ⁻³	2.25	2.1 (2.6)
110 series	110-020M30	0.6	2	3000	4.0	0.425×10 ⁻³	4.995	4.2 (5.8)
	110-040M30	1.2	4	3000	6.0	0.828×10 ⁻³	3.45	6.0 (7.6)
	110-050M30	1.5	5	3000	7.0	0.915×10 ⁻³	3.671	6.8 (8.4)
	110-060M20	1.2	6	2000	6.0	1.111×10 ⁻³	2.205	7.8 (9.4)
	110-060M30	1.6	6	3000	8.5	1.111×10 ⁻³	1.852	7.8 (9.4)
130 series	130-040M25	1.0	4	2500	5.0	1.101×10 ⁻³	5.042	6.0 (8.6)
	130-050M20	1.0	5	2000	5.5	1.333×10 ⁻³	4.186	6.9 (9.5)
	130-050M25	1.3	5	2500	6.0	1.333×10 ⁻³	3.677	6.9 (9.5)
	130-060M25	1.5	6	2500	7.0	1.544×10 ⁻³	3.122	7.6 (10.2)
	130-077M20	1.6	7.7	2000	6.5	2.017×10 ⁻³	2.344	8.6 (11.2)
	130-077M25	2.0	7.7	2500	8.5	2.017×10 ⁻³	2.624	8.6 (11.2)
	130-077M30	2.4	7.7	3000	10.5	2.017×10 ⁻³	2.354	8.6 (11.2)
	130-100M15	1.5	10	1500	6.5	2.595×10 ⁻³	2.162	10.6 (13.2)
	130-100M25	2.6	10	2500	11.5	2.595×10 ⁻³	1.903	10.6 (13.2)
	130-150M15	2.3	15	1500	9.5	4.32×10 ⁻³	2.396	14.6 (17.2)
130-150M25	3.9	15	2500	16.5	4.32×10 ⁻³	1.764	14.6 (17.2)	
150 series	150-150M25	3.8	15	2500	16.5	6.15×10 ⁻³	2.59	15.7 (20.2)
	150-180M20	3.6	18	2000	16.5	6.33×10 ⁻³	2.106	17.8 (22.3)
	150-230M20	4.7	23	2000	20.5	8.94×10 ⁻³	2.062	21.4 (25.9)
	150-270M20	5.5	27	2000	26	11.19×10 ⁻³	1.932	23.7 (28.2)

▣ Servo drive dimensions



power (KW)	dimensions			Installation					weight (kg)
	length (E)	width(F)	height(A)	B	C	D	installation	G	
0.1~0.4	75	146	162	148	5	5	2-Φ6	75	1.7
0.75~1.5	100	196	162	149	5	10	2-Φ6	75	2.2
2.2~4	116	210	244	232	5	6	4-Φ6	75	4.5

▣ Servo driver application field

Widely used in CNC machine tools, woodworking machinery, plastic machinery, textile machinery, printing equipment, dyeing and finishing equipment, paper making equipment.



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