More professional and reliable stepper servo manufacturer

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迪维迅

C1 Series Ultra-Economy AC Servos

Modbus

功能更丰富
Richer function

性能更强大
More powerful performance

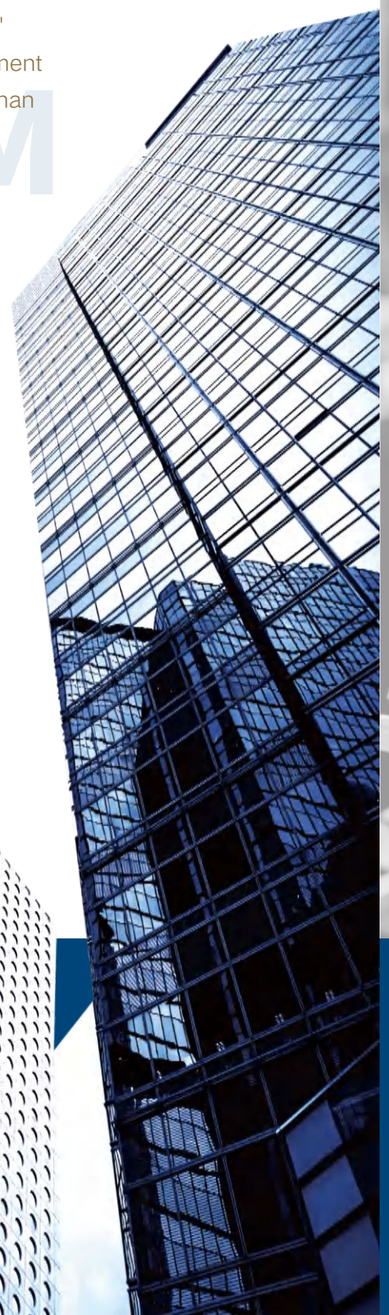
安全更可靠
Safe and reliable

ABOUT US

KTS Mall Co., Ltd. as a national high-tech enterprise, since its establishment in 2009, DVS has adhered to the corporate mission of transforming from 'Made in China' to 'Intelligently Made in China', and has always been committed to product research and development, production,and sales in the field of industrial automation control. Since 2014, it has been recognized as a 'nationalhigh-tech' enterprise and has been a pioneer in obtaining ISO9001:2015 quality management system certification and various CE certifications. So far, it has obtained more than 20 registrations for national computer software copyrights, making it a leading high-tech enterprise in China.

DVS products mainly include bus AC servo drives, pulse general AC servo drives, DC servo drives, stepper motor drives and closed-loop stepper motor drives and dozensof series of high-quality products. After ten years of product innovation, R&D upgrading and market application services, DVS has become an excellent manufacturer and service provider in the field of automaticmotion control.

Due to the reliable quality and superior performance of DVS products, the products have been maturely used in CNC machine tools, electronic intelligent manufacturing, robots, medical, textile, logistics and other industries, and sell well in the United States, Britain, India and other overseas markets. DVS will unremittingly promote the development of the era of Industry 4.0 and strive to move forward for the great cause of "liberating human manual labor".



15+ More than 15 years of growth history	**100+** Software Patents
4000+ Floor space	**20000+** Experience in customer service

More professional and reliable stepper servo manufacturer


Invention patents


Utility modelpatents


Software Copyright

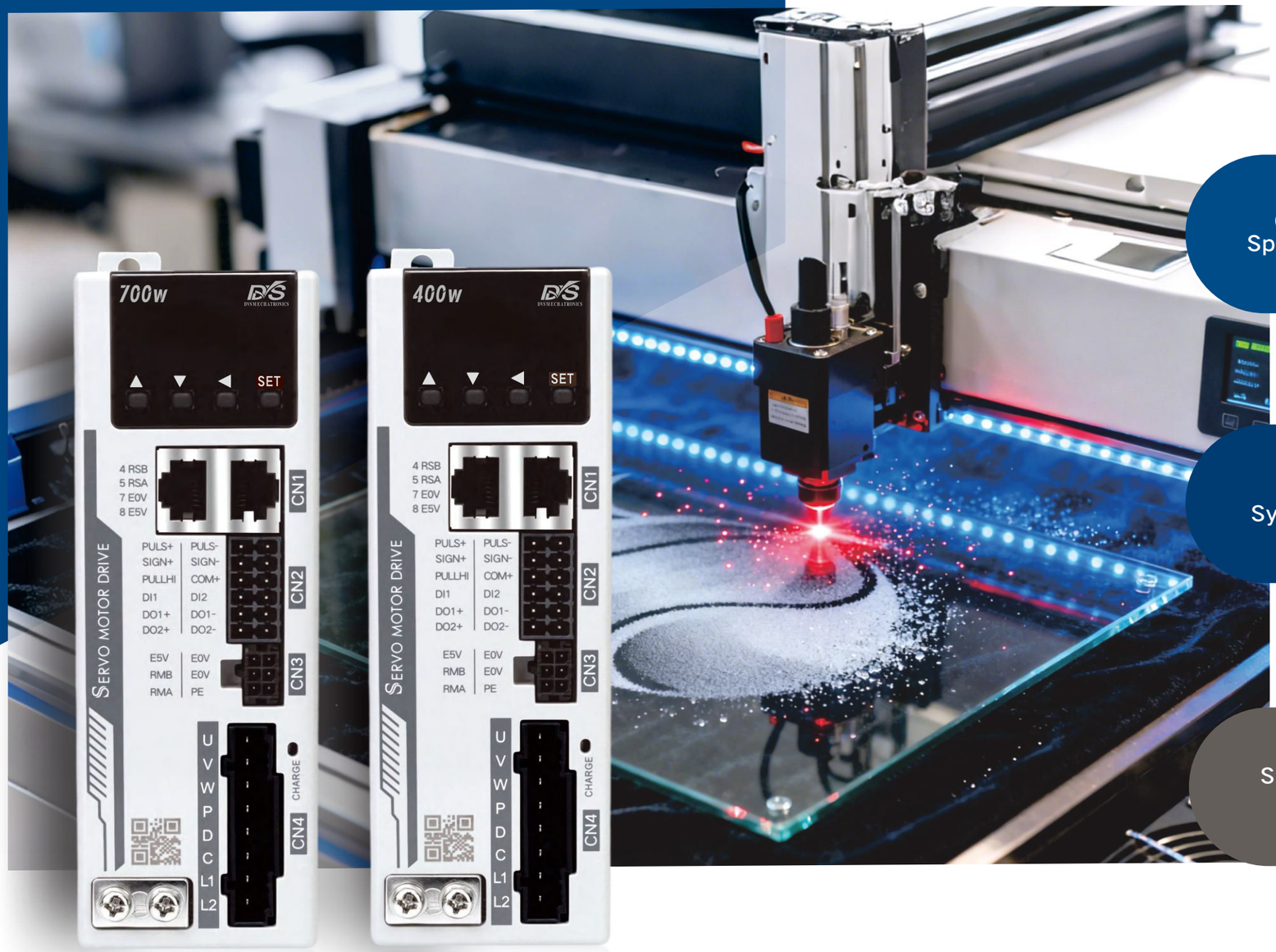
High quality

Reliable

Profession

Research | Design | Manufacture | storage logistics

C1 SERIES AC SERVOS SYSTEM



CONTENTS >>>

APPLICATION

APPLICATION

Our products not only cover numerous fields but also have wide applications across various industries, helping customers improve production efficiency and product quality. We will continue to commit ourselves to technological innovation and R&D, and constantly launch better-quality, more efficient and safer products to meet customer needs and provide them with comprehensive services


Bending machine


Packing machine


Punching machine


CNC machine


Cutting machine


Printing machine


Manipulator


Electronic manufacturing


Engraving machine

C1 Series AC Servos Core Features Overview

FEATURES

Equipped with DVS's self-developed encoder motor, it boasts a maximum speed of 6000 RPM, which can meet various high-speed operation requirements.

It supports multi-segment position and multi-segment speed control, enabling single-axis control and internal homing to adapt to diverse application scenarios

It adopts spring-loaded terminals, eliminating tedious operations and enabling second- level installation. It also features plug-and-play functionality, vibration resistance and anti-loosening performance, enhancing both installation and operational efficiency.

C1 SERIES

SUPER ECONOMICAL

AC Servo Drive Specifications

Drive Naming Rules

C1	S	009	L
①	②	③	④

①	Series Name
C1	DVS C1 Series Ac Servo Drive

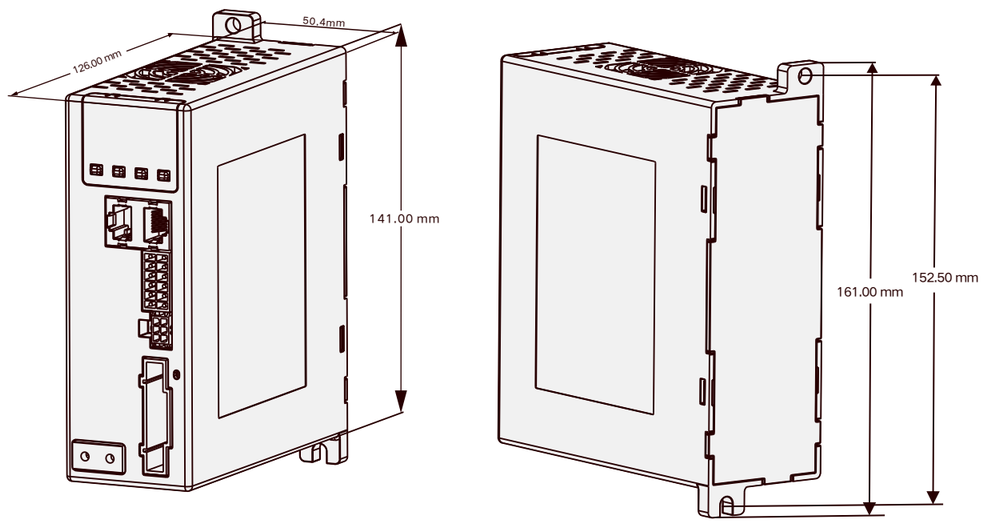
③	Power Range
009	100W~600W
012	400W~1000W

②	Drive Type
S	Pulse General Type

④	Supply Voltage
L	220VAC

Dimension

Applicable Models：C1S009L、C1S012L

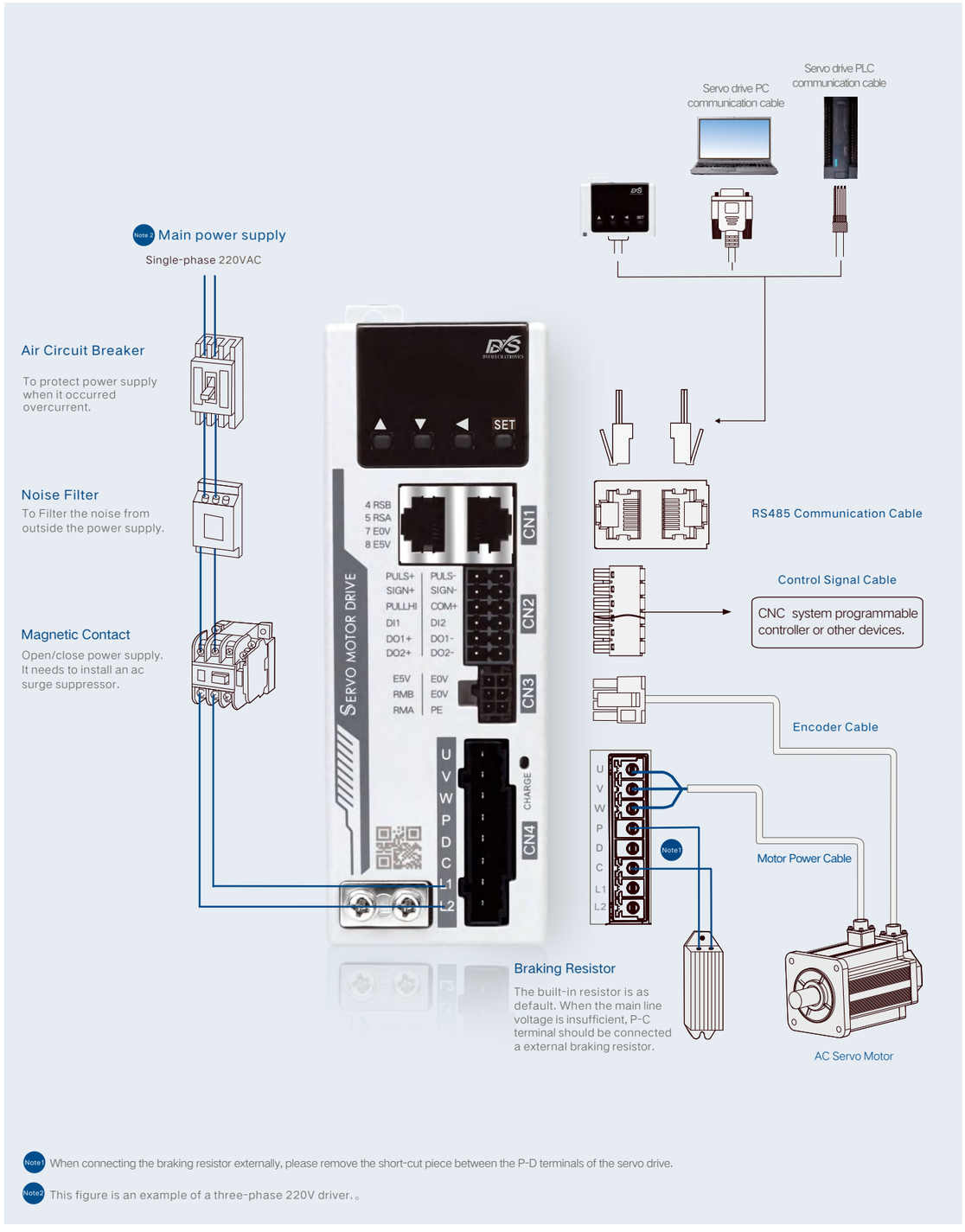


C1S Driver Specifications

Model			C1S009L	C1S012L
Output range			450W	750W
The main circuit input power supply			Single-phase 220VAC	
Continuous Output Current (A)			2.7A	3.6A
Instantaneous Maximum Output Current (A)			9A	12A
Regenerative resistance	Built-in resistors	Resistance value（Ω）	No built-in resistors	40R
		Capacity（W）	No built-in resistors	50W
	External minimum allowable resistance value		20R	20R
Control Mode			0：Position control mode； 1：Speed control mode； 2：Torque control mode； 3：Position-speed control mode；4：Position-torque control mode； 5：Speed-Torque control mode	
Position control	Pulse input	Maximum pulse frequency	Differential inputs 500K	
			Open collector input 200K	
		Input method	0：Pulse+Direction 1：CCW/CW pulse 2：A/B two-phase orthogonal pulse 3：Internal position control	
		Electronic gear ratio	Numerator range：1~32767 Denominator range：1~32767	
		Command filters	Digital Moving Average Filter Exponential smoothing filter	
Speed control	Control mode		Parameter setting	
	Speed limit function		Parameter setting+I/O control	
Torque control	Control mode		Parameter setting	
	Torque limiting function		Parameter setting+I/O control	
Control signals	Inputs/Outputs		2 Ways DI DI1~DI2: optoelectronic isolation input, function programmable, defined by P3 group parameters Note: The COM side is a common positive interface or a common negative interface, and the input level is 12V-24V	
			Forward overtravel switches, reverse overtravel switches, origin switches, etc	
			2-Ways DO The DO has a load capacity of 50mA and a voltage range of 5V~30V	
			Servo ready,position arrival, velocity arrival,brake output, etc DO load capacity 50mA, Voltage range 5V~30V servo ready, Position arrival, Speed arrival, Brake output, etc	
Protection function			Overspeed/main power supply overvoltage and undervoltage/overcurrent/overload/encoder abnormality/control power supply abnormal/position out-of-tolerance/STO safety function	
Display/Operate			5-digital LED digital tube display, 4 operating buttons	
Communication function			RS485	

System Wiring Model

The following wiring diagram is suitable for: C1S009L、C1S012L

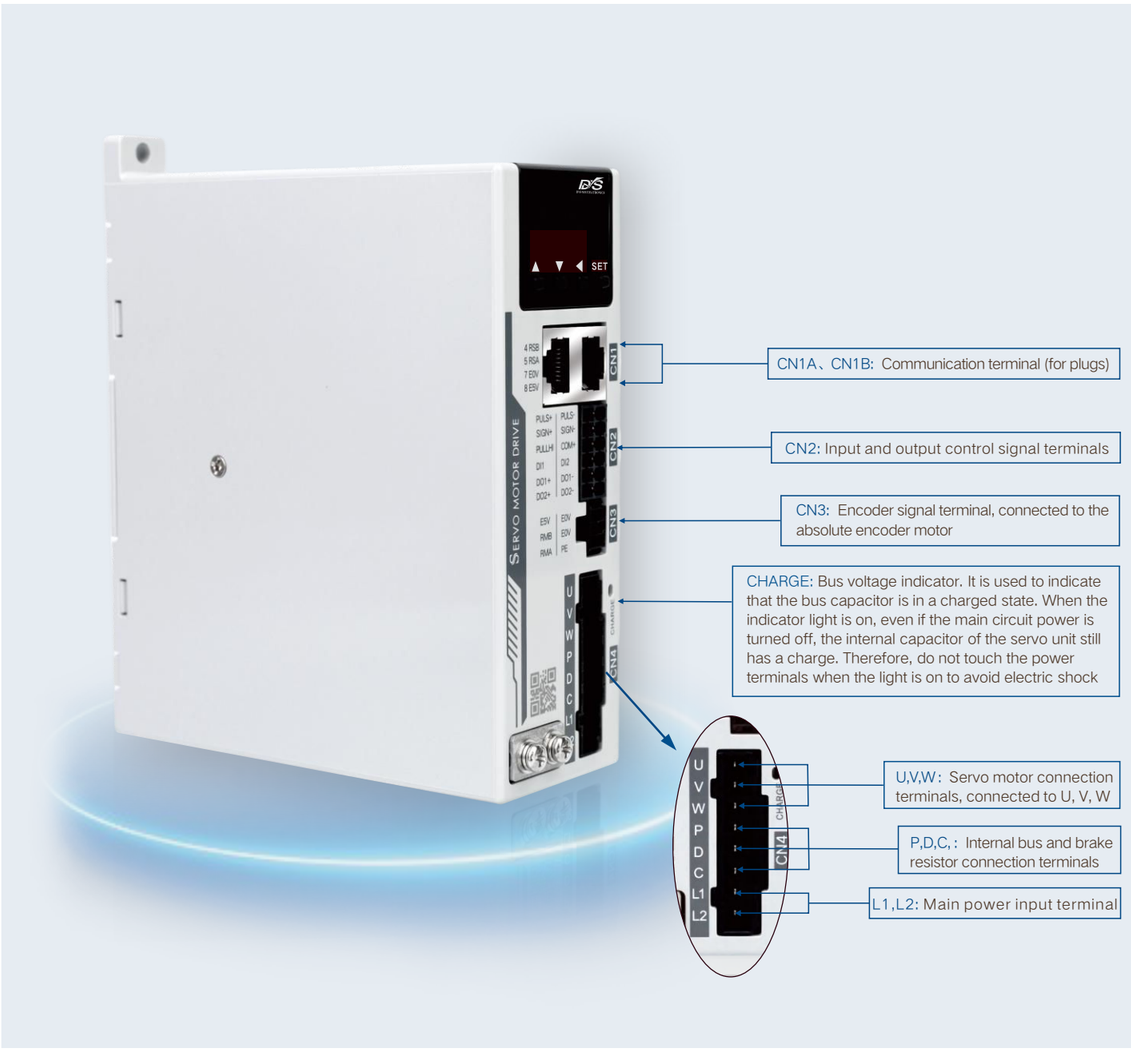


Note1 When connecting the braking resistor externally, please remove the short-cut piece between the P-D terminals of the servo drive.

Note2 This figure is an example of a three-phase 220V driver.。

Description of the drive interface

The following interfaces are for: C1S009L、C1S012L



Front Panel Introduction

Key	Meaning
▲	Up Key: increasing values or number;long press to repeat
▼	Down Key: decreasing values or number;long press to repeat
◀	Back Key: exit/cancel
SET	Set Key: Confirm

AC Servo Motor

Introduction to Motor Features

High reliability servo motor

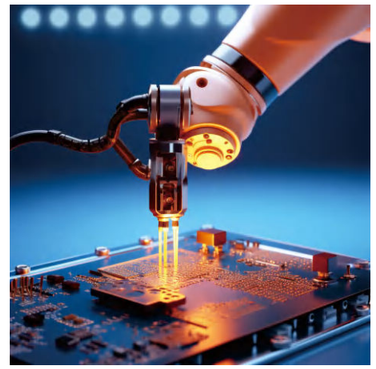
Power range:100W~1000W

Torque range: 0.3N.m~4.0N.m

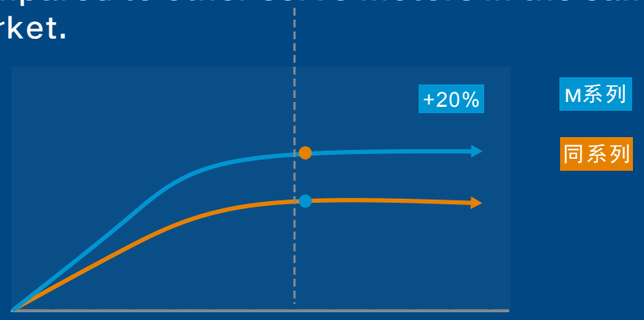
17~ 23bit high-precision encoder

The encoder stores information such as motor parameters, and the driver can automatically read the parameters for automatic adaptation, instant plug and play

Higher protection class, can be used tenaciously in various harsh environments



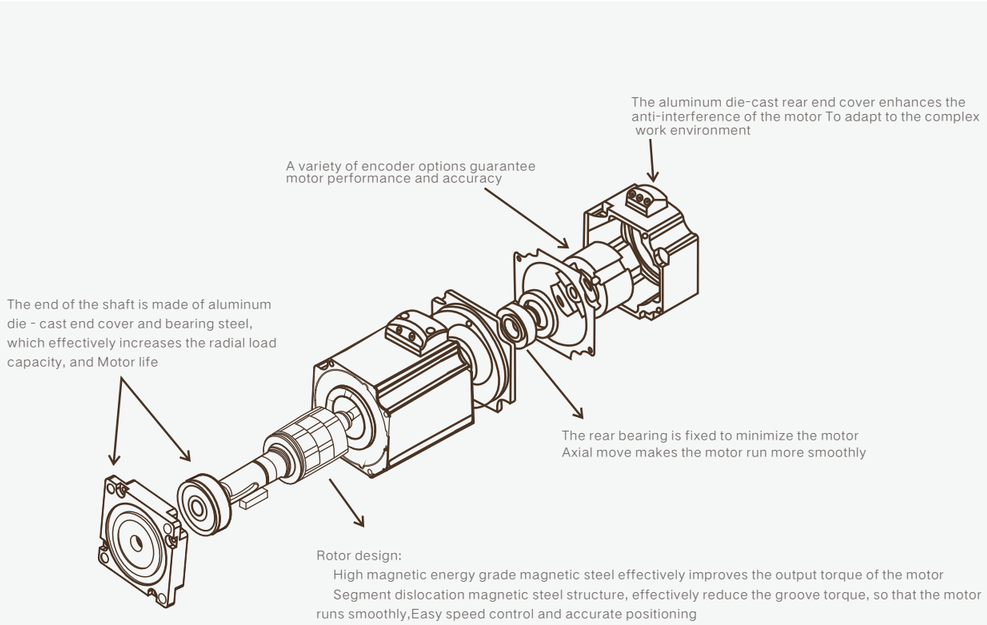
The M-Series high-reliability servo motor delivers 20% higher output compared to other servo motors in the same series available on the market.



AC Servo Motor

Servo motor refers to the engine that controls the operation of the mechanical element in the servo system. It is a supplementary motor indirect transmission device. Servo motor can control speed, positioning with high accuracy, and the voltage signal can be converted into torque and speed to drive the control object. Servo motor rotor speed is controlled by input signal, and can respond quickly and automatically In the system, it is used as an operating component and has the characteristics of small electromechanical time constant and high linearity. It can convert the electrical signal received into angular displacement or angular velocity output on the motor shaft.Its main characteristic is that when the signal voltage is zero, there is no rotation phenomenon, and the speed decreases uniformly with the increasing torque.

Basic Structure Of Servo Motor



Introduction to the naming rules of AC servo motors

M series motor naming rules

MH - 08 08 30 A - 6 5 0

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

①	Pole Pair
MH	5Pair-High Inertia
MM	5Pair-Medium Inertia

②	Frame number
04	40(mm)
06	60(mm)
08	80(mm)

③	Power
04	400W
08	750W
10	1000W

④	Rated Speed
15	1500rpm
20	2000pm
30	3000rpm

⑤	Voltage
A	AC220V

⑥	Encoder Type
3	Magnetic-21bit single loop
5	Magnetic-17bit single loop
6	Magnetic-17bit multiple loop
7	Magnetic-23bit multiple loop

⑦	Wiring
3	Wiring Attached
5	Wiring Detached
X	Connwctor Confirming(High Power Motor)

⑧	Brake Option
0	Without Brake
2	With Brake

DB series motor naming rules

DB 60 - 006 30 A1 - A - B

① ② ③ ④ ⑤ ⑥ ⑦

①	Motor type
DB	DB220V Series Motors (5 Pairs)
DHB	DB 380VAC Series Motors (5 Pairs)

②	Frame number
40	40（mm）
60	60（mm）
80	80（mm）

③	Rated torque (×0.1N.m)
024	Indicates the rated torque2.4N.m

④	Maximum speed(×100rpm)
30	Indicates the rated speed3000rpm

⑤	Encoder resolution
A1	Economical multiturn absolute 17-bit encoder
A3	Economical multiturn absolute 21-bit encoder
A6	Economical singleturn absolute 17-bit encoder
A7	Economical singleturn absolute 21-bit encoder

⑥	Connector type
A	Amp plug
H	Aviation plugs
HZ	Aviation in-line

⑦	--
B	With hugging brakes
BLANK	Without a holding brake

MH系列伺服电机

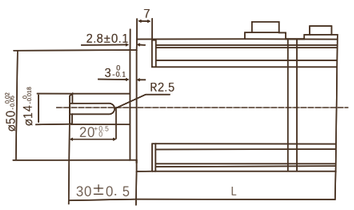
60mm Series Motor

Motor model	L (With Brake)	L (Without Brake)
MH-060430A-650	90.3	119.8
MH-060630A-650	114	/

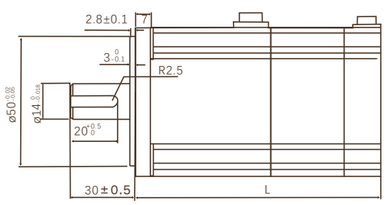
Note: The size of the motor is slightly different, and the final product prevail

Motor model	MH-060430A-650	MH-060630A-650
Rated power（KW)	0.4	0.6
Rated voltage (V)	220	220
Rated current(A)	2.5	3.6
Maximum Current (A)	8.4	10.8
Rated torque(N.m)	1.27	1.91
maximum torque(N.m)	3.81	5.73
Rated speed (rpm)	3000	3000
Peak speed (rpm)	31	32.7
Counter EMF (×10^{-3}V/rpm)	0.51	0.53
Torque Constant(Nm/A)	3.24	2.32
Line Resistance (hms)	3.4	4.1
Rotor inertia(×10^{-4}kg・m^2)	0.52	0.52
Pole Pair	5	5
Class	F	F
Protection Class	IP65	IP65

■ Sketch



Regular



With Brake

【Installation attention】

1. When installing/disassembling the part to the end of the motor shaft, please do not hit the shaft too hard to prevent damaging the encoder at the other end of the shaft
2. Try to prevent the vibration of the shaft seat to prevent the damage of the bearing

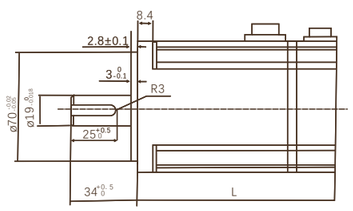
80mm Series Motor

Motor model	L (With Brake)	L (Without Brake)
MH-080830A-650	97.1	131.1
MH-081025A-650	111.1	145.1

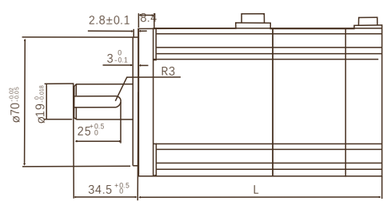
Note: The size of the motor is slightly different, and the final product prevail

Motor model	MH-080830A-650	MH-081025A-650
Rated power（KW)	0.75	1.0
Rated voltage (V)	220	220
Rated current(A)	4.8	5.5
Maximum Current (A)	16	16.5
Rated torque(N.m)	2.4	4.0
Maximum torque(N.m)	8.0	12
Rated speed (rpm)	3000	2500
Peak speed (rpm)	5000	4500
Counter EMF (×10^{-3}V/rpm)	35	121
Torque Constant(Nm/A)	0.5	0.73
Line Resistance (hms)	1.4	1.7
Rotor inertia(×10^{-4}kg・m^2)	1.72	2.27
Pole Pair	5	5
Class	F	
Protection Class	IP65	

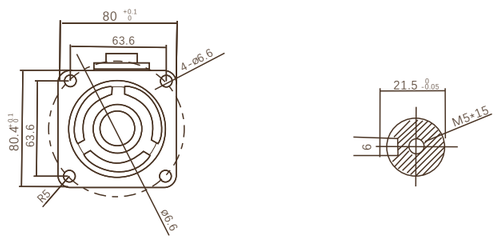
■ Sketch



Regular



With Brake



【Installation attention】

1. When installing/disassembling the part to the end of the motor shaft, please do not hit the shaft too hard to prevent damaging the encoder at the other end of the shaft
2. Try to prevent the vibration of the shaft seat to prevent the damage of the bearing

MM Series Motor

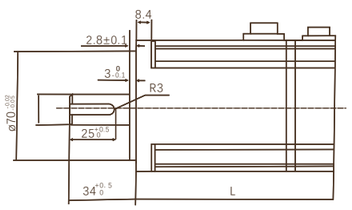
80mm Series Motor

Motor model	L(With Brake)	L(Without Brake)
MM-081030A-650	111.1	145.1

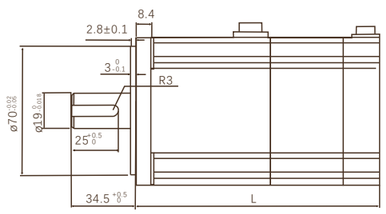
Note: The size of the motor is slightly different, and the final product prevail

Motor model	MM-081030A-650
Rated power（KW)	1.0
Rated voltage (V)	220
Rated current(A)	4.5
Maximum Current (A)	13.5
Rated torque(N.m)	3.3
maximum torque(N.m)	9.9
Rated speed (rpm)	3000
Peak speed (rpm)	6000
Counter EMF (×10^{-3}V/rpm)	101
Torque Constant(Nm/A)	0.73
Line Resistance (hms)	0.93
Rotor inertia(×10^{-4}kg・m^2)	2.27
Pole Pair	5
Class	F
Protection Class	IP65

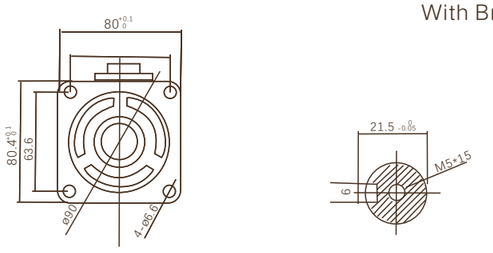
■ Sketch



Regular



With Brake



【Installation attention】

1. When installing/disassembling the part to the end of the motor shaft, please do not hit the shaft too hard to prevent damaging the encoder at the other end of the shaft
2. Try to prevent the vibration of the shaft seat to prevent the damage of the bearing

DB Series Motor

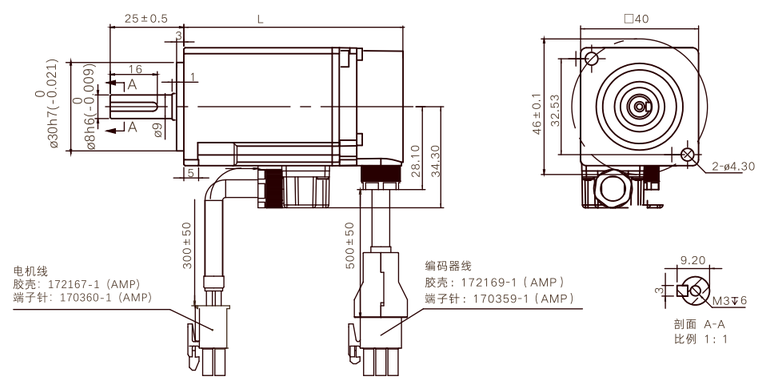
DB40 Series Motor

Motor model	L(With Brake)	L(Without Brake)
DB40-00330A1-A	80.8	114

Note: The size of the motor is slightly different, and the final product prevail

Motor model	DB40-00330A1-A
Rated power（KW)	0.1
Rated voltage (V)	220
Rated current(A)	1.0
Maximum Current (A)	3.5
Rated torque(N.m)	0.318
maximum torque(N.m)	0.954
Rated speed (rpm)	3000
Peak speed (rpm)	6000
Counter EMF (V/1000rpm)	23
Torque Constant (Nm/A)	0.29
Line Resistance (hms)	20.6
Winding (inter-turn) inductance（mH）	10.3
Electrical time constant (ms)	1.1
Rotor inertia (kg・m^2)	0.066×10^{-4}
Class	5
Protection Class	F(155℃)

■ Sketch



【Installation attention】

1. When installing/disassembling the part to the end of the motor shaft, please do not hit the shaft too hard to prevent damaging the encoder at the other end of the shaft
2. Try to prevent the vibration of the shaft seat to prevent the damage of the bearing

DB Series Motor

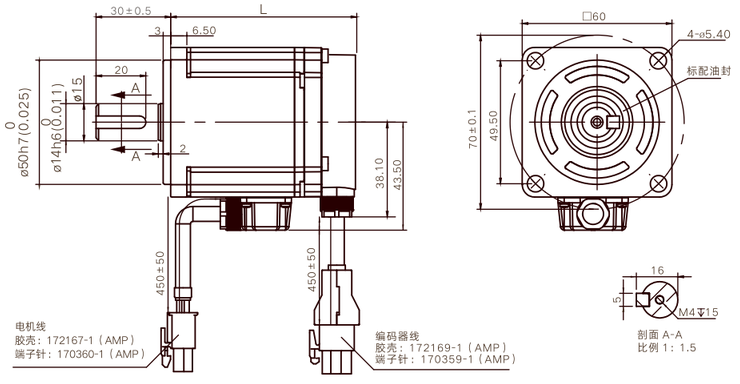
DB60 Series Motor

Motor model	L(With Brake)	L(Without Brake)
DB60-00630A7-A	75	104.5
DB60-01330A7-A	92	121. 5
DB60-01930A7-A	109	138.5

Note: The size of the motor is slightly different, and the final product prevail

电机型号	DB60-00630A7-A	DB60-01330A7-A	DB60-01930A7-A
Rated power（KW)	0.2	0.4	0.6
Rated voltage (V)	220	220	220
Rated current (A)	1.7	2.5	3.6
Maximum Current (A)	5.7	7.5	11.2
Rated torque (N.m)	0.64	1.27	1.91
maximum torque (N.m)	1.91	3.81	5.73
Rated speed (rpm)	3000	3000	3000
Peak speed (rpm)	6000	6000	6000
Counter EMF（V/Krpm)	23	31	35
Torque Constant (N.m/A)	0.38	0. 51	0.53
Line Resistance (Ohms)	4.57	3.24	2.2
Winding (inter-turn) inductance（mH）	4.3	5.8	4.3
Rotor inertia (kg · m^2)	0.28×10^{-4}	0.52×10^{-4}	0.76×10^{-4}
Pole Pair	5		
Class	F(155℃)		

■ Sketch



【Installation attention】

1. When installing/disassembling the part to the end of the motor shaft, please do not hit the shaft too hard to prevent damaging the encoder at the other end of the shaft
2. Try to prevent the vibration of the shaft seat to prevent the damage of the bearing

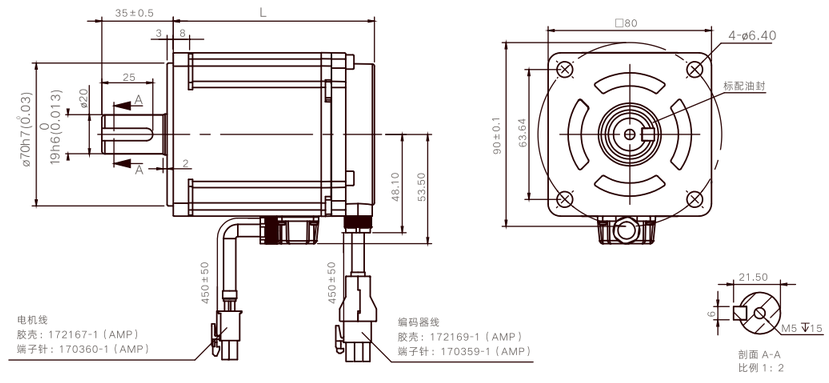
DB80 Series Motor

Motor model	L(With Brake)	L(Without Brake)
DB80-02430A7-A	98.5	128.5
DB80-03230A7-A	111.5	145.5

Note: The size of the motor is slightly different, and the final product prevail

电机型号	DB80-02430A7-A	DB80-03230A7-A
Rated power（KW)	0.75	1.0
Rated voltage (V)	220	220
Rated current(A)	4.7	5.8
Maximum Current (A)	14.5	18.1
Rated torque(N.m)	2.39	3.18
maximum torque(N.m)	7.17	9.54
Rated speed (rpm)	3000	3000
Peak speed (rpm)	6000	6000
Counter EMF(V/1000rpm)	33	34
Torque Constant（Nm/A)	0.51	0.55
Line Resistance（Ω）	1.09	0.73
Winding (inter-turn) inductance（mH）	4.6	2.7
Rotor inertia (kg · m^2)	1.48×10^{-4}	2.27×10^{-4}
Pole Pair	5	
Class	F(155℃)	

■ Sketch



【Installation attention】

1. When installing/disassembling the part to the end of the motor shaft, please do not hit the shaft too hard to prevent damaging the encoder at the other end of the shaft
2. Try to prevent the vibration of the shaft seat to prevent the damage of the bearing