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Professional quality Pursue excellence

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杰美康机电
JUST MOTION CONTROL

>>> Expert in Stepper and Servo

2022 Product Catalog

Shenzhen Just Motion Control Electromechanics Co., Ltd.

Company Profile

Shenzhen Just Motion Control Electromechanical Co., Ltd. was established in 2007. It is a national high-tech enterprise specializing in the research and development, production and sales of motion control products. The factory is headquartered in Shenzhen, Guangdong Province, with locations in Guangzhou, Dongguan, Zhongshan, Foshan, Zhuhai, Huizhou, Kunshan, Taizhou, Wenzhou, Shanghai, Tianjin, Jinan, Qingdao, Hefei, Changsha, Wuhan, Xi'an, Zhengzhou, Xiamen, etc. offices and agents.

The company mainly develops, produces and sells digital stepper motor drivers, hybrid step-servo systems (closed loop stepper), low-voltage AC servo systems, high-voltage AC servo systems, integrated stepper motors, integrated AC servo motors, CANopen/EtherCAT bus stepper, CANopen/EtherCAT bus servo, EtherCAT bus controller, motion controller and other products.

Adhering to the concept of continuously creating value for customers, in order to provide customers with fast, comprehensive, direct and professional technical services, Just Motion Control has specially set up an experienced technical support team. Provide technical services and support in the form of seminars, technical exchange meetings, etc. The perfect technical service system can provide customers with all-round service support such as pre-sale consultation, in-sale guidance, after-sale maintenance, technical training, etc. In addition, technicians can assist customers in the selection of technical solutions, and provide professional suggestions from the aspects of equipment structure, mechanical transmission, and electrical control, thereby reducing the risk of customer design and selection, shortening the equipment development cycle, and improving the comprehensive competitiveness of customer products.

Company Culture

Vision: To become a leader in motion control products and personalized solutions for intelligent equipment control.

Mission: To continuously create more cost-effective intelligent products for the benefit of customers, promote industrial civilization, and benefit mankind.

Values: Customer-centric, contributor-oriented, open collaboration, innovation, and pursuit of excellence.

Honor and Qualification

Development History

In 2007
◆ Shenzhen Just Motion Control Electromechanics Co., Ltd. was formally established.

In 2009
◆ The development and testing of M series low-voltage stepper drivers are completed, and small batch production was started.

In 2010
◆ The development and testing of M series high-voltage stepper driver and low-voltage servo driver have been completed, and small batch production was started.

In 2011
◆ Participated in the SPS – Smart Production Solutions in Nuremberg, Germany for the first time.
◆ Launched hybrid step-servo motor drive series.
◆ Stepper drivers are among the forefront of the domestic industry.

In 2012
◆ Factory relocated to Bao'an District, Shenzhen.
◆ Established Jiangsu, Zhejiang and Shanghai Technical Service Center.
◆ Launched AC servo system.

In 2013
◆ Won the honor of national high-tech enterprise.
◆ Launched DM digital stepper driver to replace M series driver.
◆ Annual sales exceeded 100 million yuan for the first time.

In 2014
◆ Step-servo system and AC servo system realize mass production.
◆ Upgrade ERP management software.
◆ Launched integrated stepper motor and integrated servo motor.

In 2015
◆ Planning the research and development of CANopen, EtherCAT bus stepper and servo.
◆ E-commerce department and overseas sales department were established.

In 2016
◆ Implement a more scientific company management method.
◆ Launched CANopen, EtherCAT bus stepper and step-servo.

In 2017
◆ Started production of linear motors.
◆ Developed Tamagawa protocol communication and 17-bit encoder.
◆ Won the honor of national high-tech enterprise for the second time.

In 2018
◆ Launched CANopen, EtherCAT bus low-voltage servo AGV motion solution.
◆ Launched the first generation EtherCAT bus master controller JMC100.
◆ Launched 4/6 axis motion controller.

In 2019
◆ Launched a full range of CANopen, EtherCAT bus stepper, servo, and integrated motors.
◆ The sales of bus products exceeded 10 million yuan for the first time.

In 2020
◆ Relocated to a larger plant in Guangming District (total area of 16,000㎡).
◆ Launched a complete set of mask machine control solutions to vigorously support the fight against the Covid-19.
◆ Launched a new series of JAND AC servo drivers.
◆ Won the "Most Competitive Brand in CMCD Annual Motion Control Field".
◆ Annual sales exceeded 300 million yuan.

In 2021
◆ Launched the second generation EtherCAT bus type master controller JMC101+ module JMC1616.
◆ Launched a new generation of HCS series step-servo driver.
◆ Launched CANopen bus integrated waterproof closed-loop stepper motor.
◆ Launched five-phase step-servo drive system.
◆ Won the CMCD2021 "User Satisfaction Brand in the Field of Motion Control".
◆ Kingdee Cloud Star System starts.
◆ JMC's first equity distribution officially launched.

In 2022
◆ Launched JAWD dual axis servo driver.
◆ Launched JALD linear servo drive system.
◆ The UOB and Ping An Securities jointly complete due diligence.
◆ Capital market helps JMC develop.

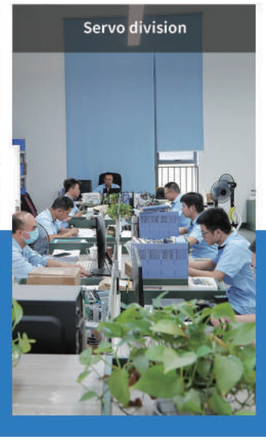
Production Capacity

The company covers an area of 16,000 square meters and has more than 5,000 square meters of production workshops. Has more than 50 sets of professional production equipment, such as anti-interference, electrostatic testing, dynamometer and other equipment. There are 24 production lines, with a daily output of 10,000 units. The warehouse area is more than 5,000 square meters, and the production workshop adopts the lean production and efficient management mode. With an advanced ERP warehouse management system, products in stock can be shipped on the same day.



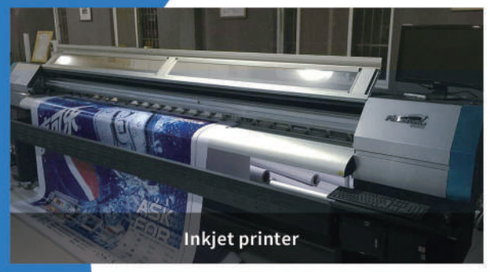

R&D Capability

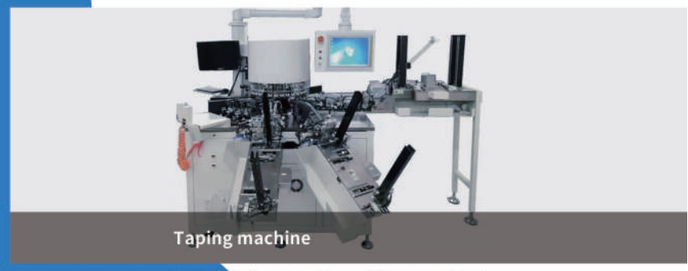
The company has gathered a group of elites who have been engaged in the development, production and sales in the field of motion control for many years, and established a development team with a good educational background and rich practical experience. The R&D personnel are all undergraduates or above, accounting for more than 20% of the total number of the company. Covering hardware department, testing department, stepper department, servo department, bus type stepper/servo department, and control department. Can provide OEM, ODM and other customized services. By the end of 2021, the JMC R&D team has applied for more than 90 patents, of which more than 60 patents have been authorized, more than 30 software copyrights have been registered, and more than 50 new products have been developed.



Application Cases

Shenzhen Just Motion Control Electromechanics Co., Ltd. specializes in providing motion control products and industry-specific solutions for intelligent manufacturing leaders; providing OEM customization services for manufacturers with special needs. At present, the products have been widely used in laser engraving equipment, AGV logistics storage equipment, inkjet equipment, new energy equipment, textile equipment, medical equipment, electronic manufacturing equipment and other fields. Popular in the United States, Canada, Mexico, Germany, Italy, the United Kingdom, Ukraine, Japan, South Korea, Malaysia, India, South Africa, Brazil, Australia and other dozens of countries and regions. Reliable product performance, complete series, high cost performance, fast and efficient technical support and service, JMC has become an internationally renowned brand in the motion control industry.





CONTENTS

Hybrid Digital Stepper Driver

Parameter self-tuning, motor self-adaptation. Overcurrent protection, overvoltage protection, undervoltage protection.

The current and subdivision dial codes are easy to set. Input signal compatible with 5-24V.

Naming rules

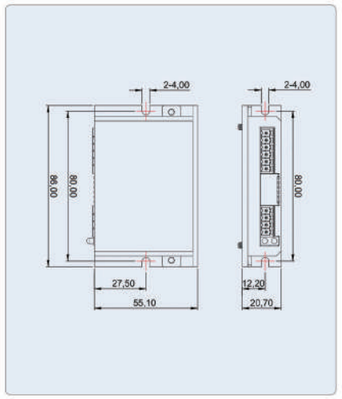
2 DM 5 56 - XXX

①Phases: 2 - 2 phases; 3 - 3 phases;
②Digital;
③Driver power supply voltage: value*10, blow 9 is DC, above 10 is AC;
④Dirver output current: value/10;
⑤Design number, default is standard model;
2DM556 represents a 2-phase digital driver, power supply voltage less than 50V, output current 5.6A.

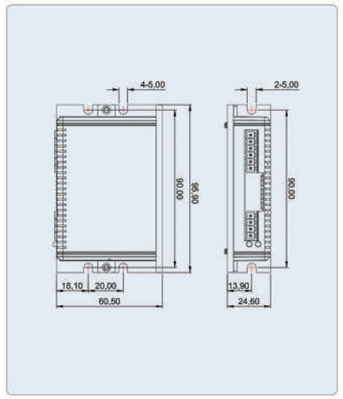
Hybrid digital stepper driver selection list

Phase	Model	Current	Voltage	Microstep	Matching motor	Weight(KG)	Pulse mode	Signal voltage
2 Phase	2DM415	0.21-1.50A	DC(18-36V)	1-128	20,28,35,39,42	0.1	Single pulse	5V
	2DM420	0.9-3.0A	DC(18-36V)	1-128,5-125	42,57	0.15	Single pulse	5V
	2DM442	1.0-4.2A	DC(24-36V)	1-128,5-125	42,57	0.2	Single/Double pulse	5-24V
	2DM542	1.0-4.2A	DC(24-48V)	1-128,5-125	57,86	0.27	Single/Double pulse	5-24V
	2DM556	1.4-5.6A	DC(24-60V)	1-128,5-125	57,86	0.27	Single/Double pulse	5-24V
	2DM860	2.1-8.4A	DC(24-110V) AC(18-80V)	2-256,5-200	57,86,110	0.6	Single/Double pulse	5-24V
	2DM860H	2.1-8.4A	DC(24-110V) AC(18-80V)	2-256,5-200	57,86,110	0.6	Single/Double pulse	5-24V
	2DM2260	1.3-5.6A	AC(80-220V)	1-64,2.5-50	86,110	1.5	Single/Double pulse	5-24V
	2DM2280	2.2-8.2A	AC(80-220V)	2-158,5-125	110,130	1.5	Single/Double pulse	5-24V
3 Phase	3DM783	1.8-8.3A	DC(24-60V)	2-256,5-200	57,86	0.6	Single/Double pulse	5-24V
	3DM860	2.0-8.3A	DC(24-80V) AC(18-60V)	1-64,2.5-50	57,86	0.55	Single/Double pulse	5-24V
	3DM860H	2.0-8.3A	AC(24-110V) AC(18-80V)	1-64,2.5-50	57,86	0.55	Single/Double pulse	5-24V
	3DM2060H	1.3-5.6A	AC(80-220V)	1-64,2.5-50	86,110	1.5	Single/Double pulse	5-24V
	3DM2080	2.0-8.0A	AC(80-220V)	2-128,2.5-50	86,110,130	1.5	Single/Double pulse	5-24V
	3DM3422	1.2-4.8A	AC(80-230V)	2-300	86,110	1.5	Single/Double pulse	5-24V
	3DM3722	1.2-7.0A	AC(80-230V)	2-300	110,130	1.5	Single/Double pulse	5-24V

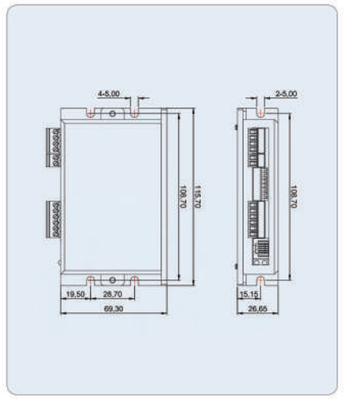
Mounting Size(Unit: mm)



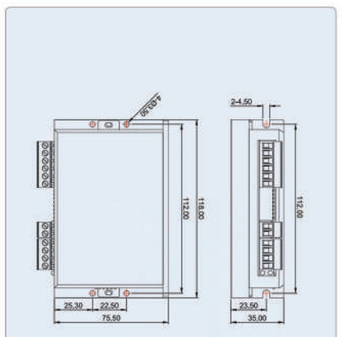
2DM415



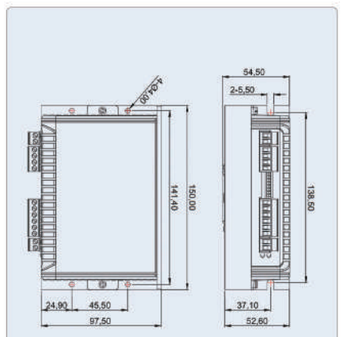
2DM420



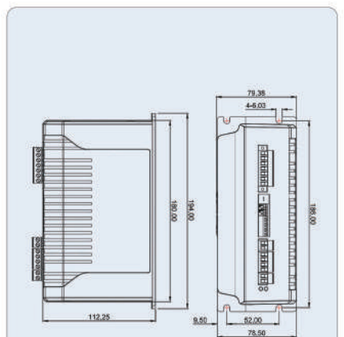
2DM442



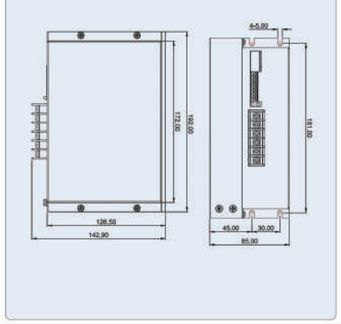
2DM542/2DM556
3DM783



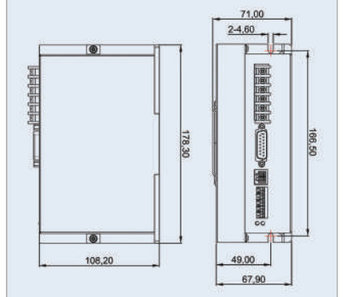
2DM860/2DM860H
3DM860/3DM860H



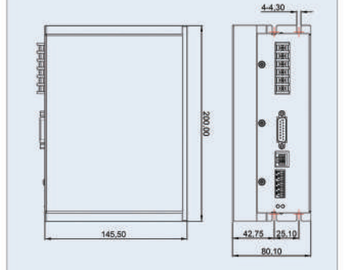
2DM2260/3DM2060H



2DM2280/3DM2080



3DM3422



3DM3722

Hybrid Digital Stepper Motor

Open-loop control, accurate positioning.
Excellent speed and torque.
Low noise and smooth operation.
Precise stator and rotor, small air gap, high reliability.

Naming rules

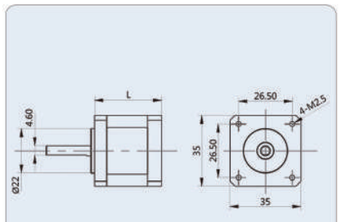
86 J 18 118 - 8 40 - A - XX - 01
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

① Frame size, expressed by the size of the motor casing and mounting plate, in mm;
② Product series model: J indicates that the motor is JMC series;
③ Step angle of stepper motor，18：1.8° two-phase, 09：0.9° four-phase, 12：1.2° three-phase;
④ The length of the motor body, the unit is mm, such as 118 means the length of the motor body is 118mm;
⑤ Number of motor leads: For example, 8 means that the number of motor leads is 8;
⑥ The rated current of the motor, the unit is Ampere A. For example, 40 means that the motor current is 40/10=4A;
⑦ The number of motor shafts, A: single output shaft, B: double output shaft, the default is A;
⑧ Design version number, represented by A, B, c..., the default is A version;
⑨ Derivative model, 01 means the first derivative model, the default is the standard model。

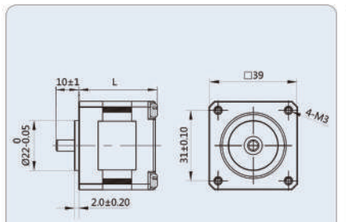
The above model indicates: Motor base 86mm, 1.8° two-phase stepper motor, the length of the motor body is 118mm. 8 lead wires, the motor current is 4 amps, single axis.

35/39/42 2-phase motor specifications

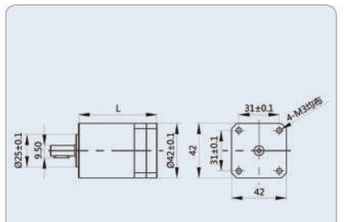
Model	Step angle (deg)	Holding torque(N·m)	Rated current (A)	Phase resistance (ohms)	Phase inductance (mH)	Positioning torque(gcm)	Rotor inertia (g·cm²)	Insulation class	Number of leads	Weight (kg)	Length (mm)	Matching driver
35J1834-407	1.8	0.11	0.8	2.5	4.8	120	14	B	4	0.18	34	2DM415
39J1834-403	1.8	0.13	0.3	4.0	2.5	120	20	B	4	0.18	34	2DM415
39J1834-406	1.8	0.22	0.6	1.6	1.2	120	20	B	4	0.18	34	2DM415
39J1844-403	1.8	0.29	0.3	4.0	10.0	130	40	B	4	0.25	44	2DM415
42J1825-404	1.8	0.35	0.4	2.1	1.3	150	20	B	4	0.15	25	2DM415
42J1834-408	1.8	0.38	0.8	2.1	3.2	160	54	B	4	0.30	34	2DM415
42J1840-408	1.8	0.40	0.8	7.5	8.1	220	57	B	4	0.32	40	2DM415
42J1848-810	1.8	0.48	1.0	4.6	4.0	260	82	B	8	0.35	48	2DM415
42J1848-425	1.8	0.48	2.5	1.25	2.5	260	82	B	4	0.35	48	2DM420
42J1860-417	1.8	0.70	0.7	3.0	6.2	360	117	B	4	0.50	60	2DM420



☐ 35 Series Motor Dimensions



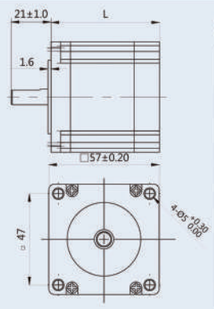
☐ 39 Series Motor Dimensions



☐ 42 Series Motor Dimensions

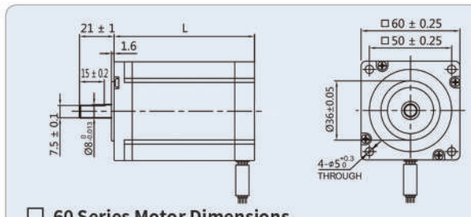
57/60 2-phase motor specifications

Model	Step angle (deg)	Holding torque(N·m)	Rated current (A)	Phase resistance (ohms)	Phase inductance (mH)	Positioning torque(gcm)	Rotor inertia (g·cm²)	Insulation class	Number of leads	Weight (kg)	Length (mm)	Matching driver
57J1841-420	1.8	0.75	2.0	1.3	3.2	250	157	B	4	0.4	43	2DM442
57J1854-828	1.8	0.85	2.8	0.95	1.2	350	280	B	8	0.6	56	2DM442
57J1856-440	1.8	0.9	4.0	0.43	1.35	350	280	B	4	0.6	56	2DM442
57J1876-828	1.8	2.0	2.8	0.95	1.85	700	460	B	8	1.0	78	2DM556
57J1876-447	1.8	2.0	4.7	0.37	1.75	700	480	B	4	1.05	76	2DM556
57J1880-450	1.8	2.2	5.0	0.4	1.8	700	520	B	4	1.15	80	2DM556
57J1880-830	1.8	2.0	3.0	0.95	1.8	700	480	B	8	1.1	80	2DM556
57J18100-440	1.8	2.8	4.0	0.95	3.4	1000	700	B	4	1.45	100	2DM556
57J18112-435	1.8	3.0	3.5	0.65	2.0	1200	780	B	4	1.7	112	2DM556
60J1887-440	1.8	3.3	4.0	0.7	2.5	1200	900	B	4	1.4	85	2DM556
60J18100-440	1.8	3.3	4.0	0.8	3.0	1500	950	B	4	1.7	100	2DM556



☐ 57 Series Motor Dimensions

Model	Shaft diameter D (mm)	Key(mm)
57J1841-420	Φ6.35	Flat 0.8×15
57J1854-828	Φ6.35	Flat 0.8×15
57J1856-440	Φ6.35	Flat 0.5×15
57J1876-828	Φ6.35	Flat 0.5×15
57J1876-447	Φ8.00	Flat 0.5×15
57J1880-450	Φ8.00	Flat 0.5×15
57J1880-830	Φ8.00	Flat 0.5×15
57J18100-440	Φ8.00	Flat 0.5×15
57J18112-435	Φ10.00	Flat 0.5×15



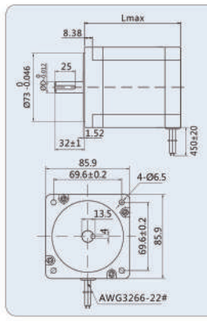
☐ 60 Series Motor Dimensions

Model	Shaft diameter D (mm)	Key(mm)
60J1887-440	Φ8.00	Flat 0.8×15
60J18100-440	Φ10.00	Flat 0.8×15

Note: Standard shaft motors are in stock, and non-standard shafts can be customized according to customer requirements.

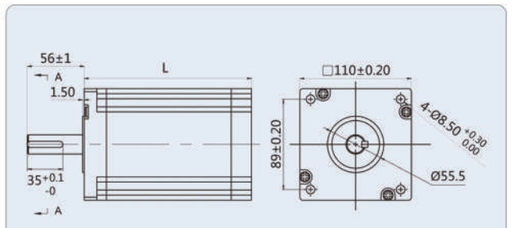
86/110 2-phase motor specifications

Model	Step angle (deg)	Holding torque(N·m)	Rated current (A)	Phase resistance (ohms)	Phase inductance (mH)	Positioning torque(gcm)	Rotor inertia (g·cm²)	Insulation class	Number of leads	Weight (kg)	Length (mm)	Matching driver
86J1865-828	1.8	3.5	2.8	0.24	1.7	550	950	B	8	2	65	2DM860
86J1880-842	1.8	4.5	4.2	0.58	4.0	650	1400	B	8	2.3	80	2DM860
86J1880-460	1.8	4.5	6.0	0.29	4.0	650	1400	B	4	2.3	80	2DM860
86J18101-450	1.8	6.0	5.0	0.58	4.2	950	2300	B	4	3.25	101	2DM860
86J18118-842	1.8	8.5	4.2	0.56	3.0	1250	2700	B	8	3.8	118	2DM860
86J18118-460	1.8	8.5	6.0	0.28	3.0	1250	2700	B	4	3.8	118	2DM860
86J18156-845	1.8	12	4.5	0.82	5.2	2500	4000	B	8	5.4	156	2DM860
86J18156-460	1.8	12	6.0	0.41	5.2	2500	4000	B	4	5.4	156	2DM860
110J18115-460	1.8	12	6.0	0.47	7.0	3000	6000	B	4	5.8	115	2DM2280
110J18150-460	1.8	20	6.0	0.9	16	6000	11000	B	4	8.4	150	2DM2280
110J18165-460	1.8	24	6.0	0.8	14	7500	12500	B	4	9.5	165	2DM2280



☐ 86 Series Motor Dimensions

Model	Shaft diameter D (mm)	Key(mm)
86J1865-828	Φ9.525	Flat 0.8×25
86J1880-842	Φ12.7	Flat 1.0×25
86J1880-460	Φ12.7	Flat 1.0×25
86J18101-450	Φ12.7	Key 5.0×25
86J18118-842	Φ12.7	Key 5.0×25
86J18118-460	Φ12.7	Key 5.0×25
86J18156-845	Φ15.875	Key 5.0×25
86J18156-460	Φ15.875	Key 5.0×25

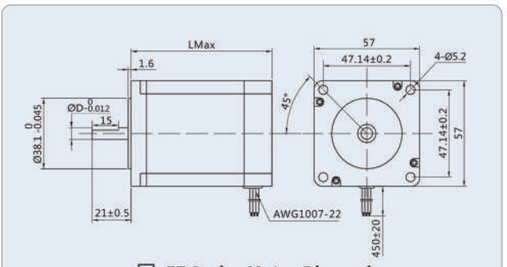


☐ 110 Series Motor Dimensions

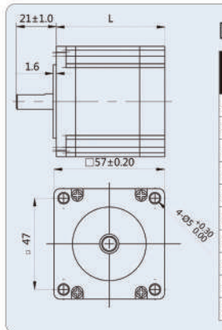
57/86 3-phase motor specifications

Model	Step angle (deg)	Holding torque(N·m)	Rated current (A)	Phase resistance (ohms)	Phase inductance (mH)	Positioning torque(gcm)	Rotor inertia (g·cm²)	Insulation class	Number of leads	Weight (kg)	Length (mm)	Matching driver
57J1250-635	1.2	0.8	3.5	0.77	1.8	350	280	B	6	0.75	56	3DM783
57J1256-650	1.2	0.9	5.0	1.2	2.3	400	280	B	6	0.8	56	3DM783
57J1276-658	1.2	1.5	5.8	0.86	2.0	700	480	B	6	1.1	79	3DM783
57J1285-658	1.2	1.8	5.8	0.69	2.0	800	550	B	6	1.2	85	3DM783
86J1270-650	1.2	2.2	5.0	0.96	2.4	1000	1100	B	6	1.7	70	3DM860
86J1280-650	1.2	3.2	6.0	0.85	2.2	1500	1600	B	6	2.2	80	3DM860
86J12103-650	1.2	4.5	2.0	6.5	21	2000	2340	B	6	2.85	103	3DM860
86J12126-623	1.2	6.78	2.3	9.0	39	3000	3500	B	6	4.0	126	3DM3422
86J12126-650	1.2	6.78	5.0	1.8	8	3000	3500	B	6	4.0	126	3DM3422
86J12156-328	1.2	7.8	2.8	5.0	32	3000	4000	B	6	5.0	156	3DM3422

Note: We can adjust the motor winding and mechanical installation dimensions according to customer requirements.



☐ 57 Series Motor Dimensions



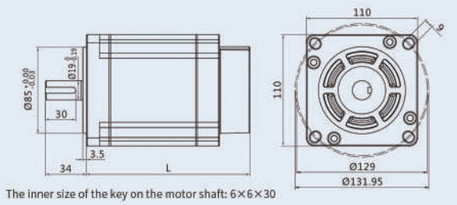
☐ 86 Series Motor Dimensions

Model	Shaft diameter D (mm)	Key(mm)
57J1250-635	Φ6.35	Flat 0.8×15
57J1256-650	Φ6.35	Flat 0.8×15
57J1276-658	Φ8.00	Flat 0.5×15
57J1285-658	Φ8.00	Flat 0.5×15
86J1270-650	Φ12.00	Flat 1.0×25
86J1280-650	Φ12.00	Flat 1.0×25
86J12103-650	Φ12.00	Key 4.0×20
86J12126-623	Φ14.00	Key 4.0×20
86J12126-650	Φ14.00	Double flat 1.0×25
86J12156-328	Φ14.00	Key 5.0×25

110/130 3-phase motor specifications

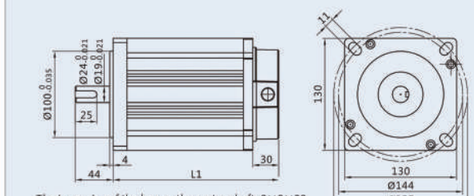
Model	Step angle (deg)	Holding torque(N·m)	Rated current (A)	Phase resistance (ohms)	Phase inductance (mH)	Positioning torque(gcm)	Rotor inertia (g·cm²)	Insulation class	Number of leads	Weight (kg)	Length (mm)	Matching driver
110J12161-360	1.2	12	6.0	0.76	11.5	4000	11900	B	3	7.1	161	3DM2080
110J12185-360	1.2	16	6.0	1.28	19	5000	14800	B	3	8.8	185	3DM2080
110J12220-360	1.2	20	6.0	1.24	22	6800	19600	B	3	11	220	3DM2080
130J12188-368	1.2	24	6.8	0.96	16.2	10000	26870	B	3	14	188	3DM2080
130J12220-368	1.2	28	6.8	1.1	19	16000	33970	B	3	17	220	3DM2080
130J12252-368	1.2	35	6.8	1.4	24	24000	41400	B	3	19	252	3DM3722
130J12280-368	1.2	50	6.8	1.5	18.3	28000	47300	B	3	20.5	280	3DM3722

Note: We can adjust the motor winding and mechanical installation dimensions according to customer requirements.



The inner size of the key on the motor shaft: 6×6×30

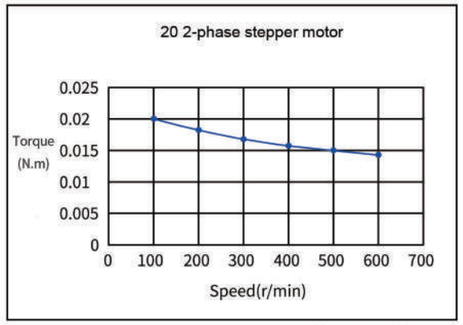
☐ 110 Series Motor Dimensions



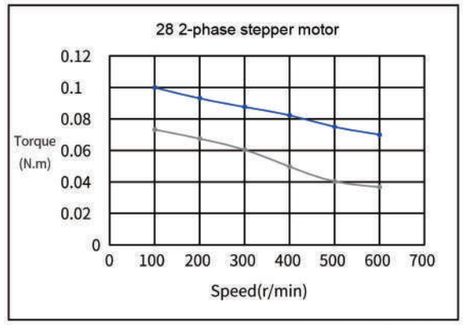
The inner size of the key on the motor shaft: 8×8×30

☐ 130 Series Motor Dimensions

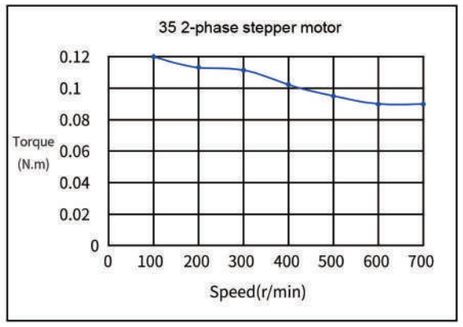
Motor torque and speed graph



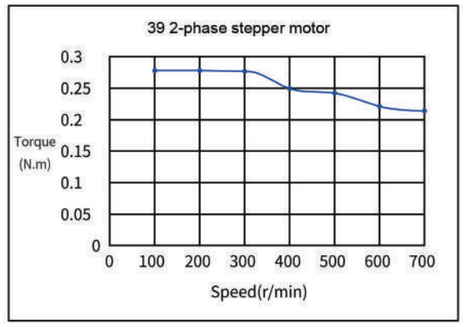
		Current	Microstep
20J1840-404/2DM415	24VDC	0.4A	1600



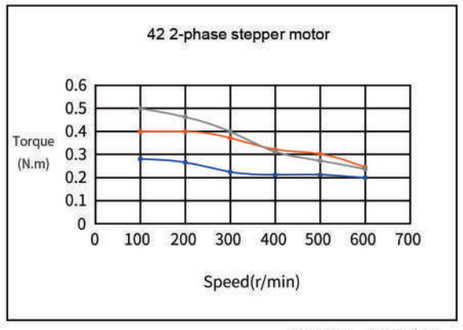
		Current	Microstep
28J1830-407/2DM415	24VDC	0.8A	1600
28J1851-407/2DM415	24VDC	0.67A	1600



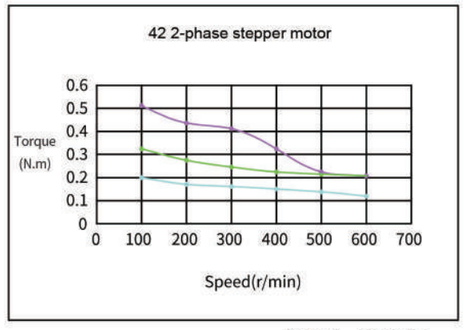
		Current	Microstep
35J1834-407/2DM415	24VDC	0.7A	1600



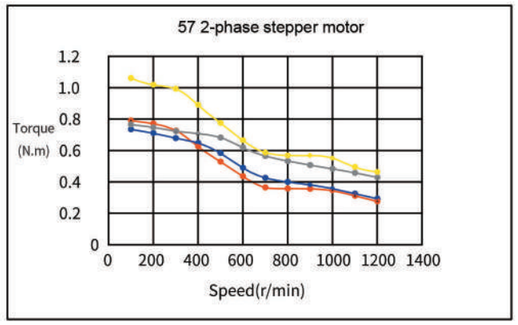
		Current	Microstep
39J1844-405/2DM415	24VDC	0.5A	1600



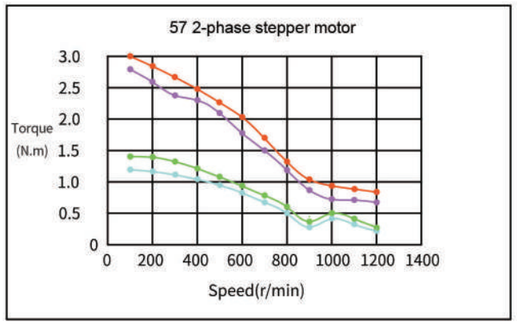
		Current	Microstep	
42J1825-404/2DM415	24VDC	0.4A	1600	
42J1840-408/2DM415	24VDC	0.8A	1600	
42J1848-425/2DM415	24VDC	2.5A	1600	



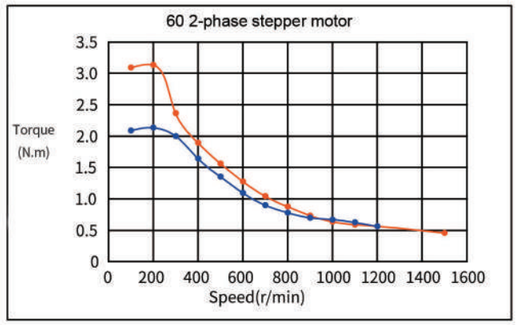
		Current	Microstep	
42J1848-810/2DM415	24VDC	1.0A	1600	(series wiring)
42J1848-810/2DM415	24VDC	1.0A	1600	(parallel wiring)
42J1860-417/2DM415	24VDC	1.7A	1600	



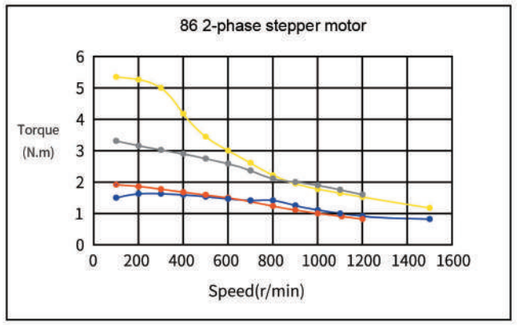
		Current	Microstep	
57J1841-420/2DM415	24VDC	2.0A	1600	
57J1854-828/2DM415	24VDC	2.8A	1600	(series wiring)
57J1854-828/2DM415	24VDC	2.8A	1600	(parallel wiring)
57J1856-440/2DM415	24VDC	4.0A	1600	



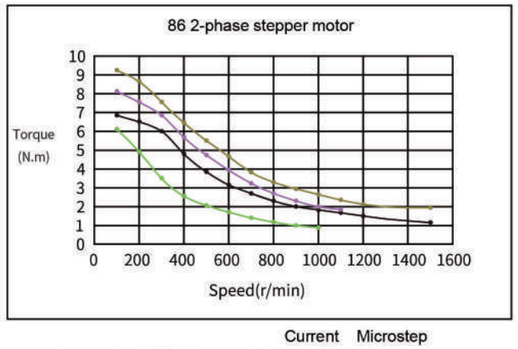
		Current	Microstep
57J1876-447/2DM415	24VDC	4.7A	1600
57J1880-450/2DM415	24VDC	5.0A	1600
57J18100-845/2DM415	24VDC	4.5A	1600
57J18112-842/2DM415	24VDC	4.2A	1600



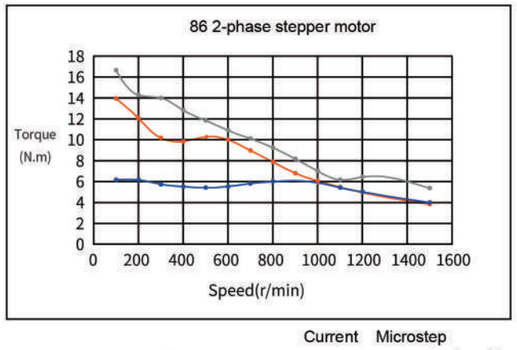
		Current	Microstep
60J1887-440 /2DM556	48VDC	4.0A	1600
60J18100-440 /2DM556	48VDC	4.0A	1600



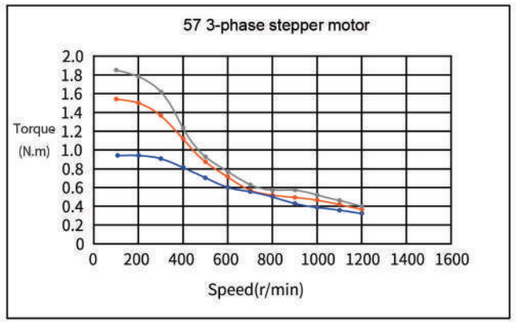
		Current	Microstep	
86J1865-828 /2DM860	60VAC	2.8A	1600	(series wiring)
86J1865-828 /2DM860	60VAC	2.8A	1600	(parallel wiring)
86J1880-460 /2DM860	60VAC	6.0A	1600	
86J18101-450 /2DM860	60VAC	5.0A	1600	



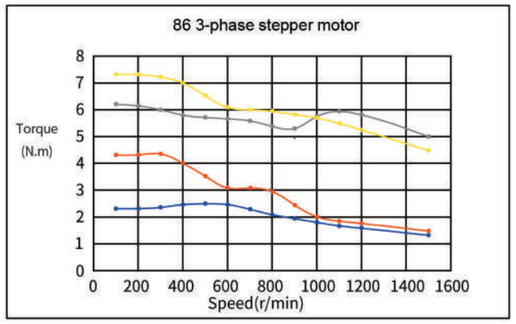
		Current	Microstep	
86J18118-460/2DM860	60VAC	6.0A	1600	
86J18118-842/2DM860	60VAC	4.2A	1600	(series wiring)
86J18118-842/2DM860	60VAC	4.2A	1600	(parallel wiring)
86J18156-845/2DM860	60VAC	4.5A	1600	(series wiring)
86J18156-845/2DM860	60VAC	4.5A	1600	(parallel wiring)



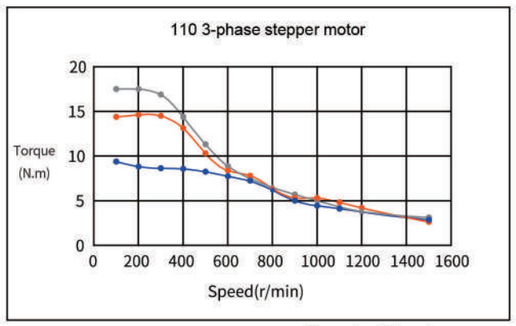
		Current	Microstep	
110J18115-460/2DM2280	220VAC	6.0A	1600	(series wiring)
110J18150-460/2DM2280	220VAC	6.0A	1600	(parallel wiring)
110J18165-460/2DM2280	220VAC	6.0A	1600	



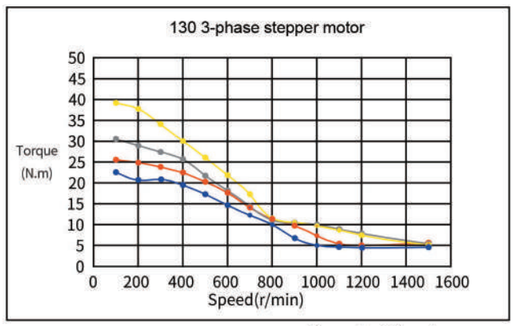
	Current	Microstep
57J1250-635/3DM783 36VAC	3.5A	1600
57J1276-658/2DM783 36VAC	5.8A	1600
57J1285-658/2DM783 36VAC	5.8A	1600



	Current	Microstep
86J1270-650/3DM860 80VAC	5.0A	1600
86J12103-650/3DM860 80VAC	5.0A	1600
86J12126-650/3DM3422 220VAC	5.0A	2000
86J12156-328/3DM3422 220VAC	2.8A	2000



	Current	Microstep
110J12161-360/3DM2080 220VDC	6.0A	1600
110J12185-360/3DM2080 220VDC	6.0A	1600
110J12220-360/3DM2080 220VDC	6.0A	1600

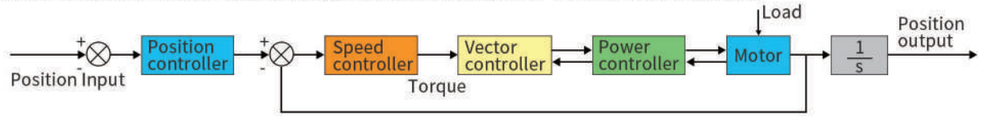


	Current	Microstep
130J12188-368/3DM2080 220V4C	6.8A	1600
130J12220-368/3DM2080 220V4C	6.8A	1600
130J12252-368/3DM2080 220V4C	6.8A	1600
130J12280-368/3DM2080 220V4C	6.8A	1600

Overview of Hybrid Step-Servo (closed loop stepper) Drive System

Performance profile

The HSS hybrid step-servo drive system perfectly integrates the servo control technology in the technology of the digital stepper drive. The typical three-loop control method of the current loop, the speed loop and the position loop are adopted in the product, which is compatible with the dual advantages of stepper and servo. It' s a cost-effective product.



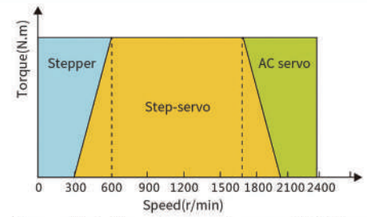
Smooth and precise

Based on the spatial vector current control algorithm and vector smooth filtering technology of the feedback encoder, it has a good inhibitory effect on the "low-frequency resonance" that is trapped in traditional steppers, so that the motor can still maintain smoothly and quietly during low-speed applications. Perfectly solve the problem of vibration and noise at low speeds of traditional stepper motors.

High speed feedback

1. The hybrid step-servo system retain some advantages of the traditional opening step into the system. The position response output instruction signal is almost real -time synchronization, so it is very suitable for the occasion of short -distance fast start and stop and zero-speed stop.

2. At the fast -pointing of the movement at the point, the advanced servo control technology provides a strong torque output, which makes the system have a very high dynamic response, which greatly surpass the traditional step system limit.



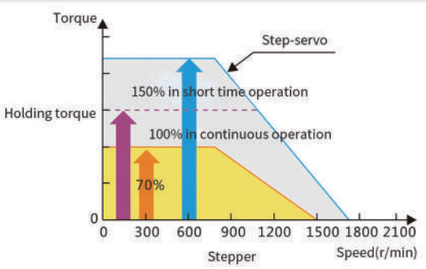
Stepper: Short distance, low to medium speed (300-600rpm)
Step-servo: Short to medium distance, low to medium speed (600-2000rpm)
AC servo: Long distance, high speed (above 2000rpm)

High torque/high Speed

1. The Hybrid step-servo drive system adopts the optimized current control mode, the torque of the motor can be fully utilized by 100%, and the system designer does not need to consider the torque redundancy.

2. In some cases, high torque output can simplify the reduction mechanism.

3. The hybrid step-servo system can maintain high-speed operation when the output torque reaches 70% of the holding torque, so that the motor can also maintain high torque operation during the high-speed process.



Hybrid Step-Servo Driver

Fully closed loop, no lost steps, low heat generation
low noise, smooth and precise, high torque

Naming rules

2 HSS 86 H - XXX
① ② ③ ④ ⑤

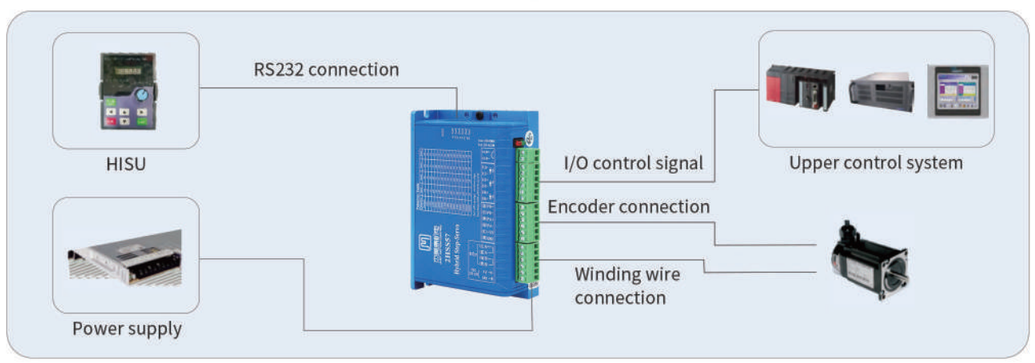
① Phase; 2: 2 phase; 3: 3 phase;
② HSS: hybrid step-servo; HCS: closed loop stepper (with display);
③ Indicate a matching step-servo motor series or represent the power supply voltage level;
57: 57 series step-servo motor; 86: 86 series step-servo motor;
110: 100 series step-servo motor;
220: The power supply voltage of the driver is 220VAC;
④ H- with fans, default is no fans;
⑤ Product design serial number, the default is the standard model.

This model indicates: two -phase step-servo driver with a fan, which can be equipped with 86 series step-servo motors.

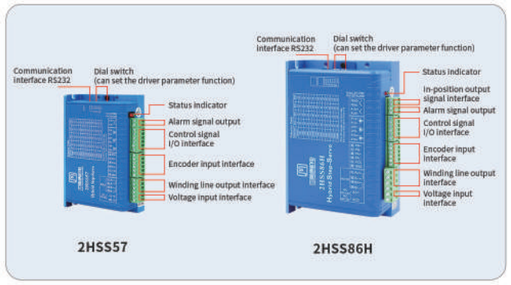
Driver model and electrical specifications

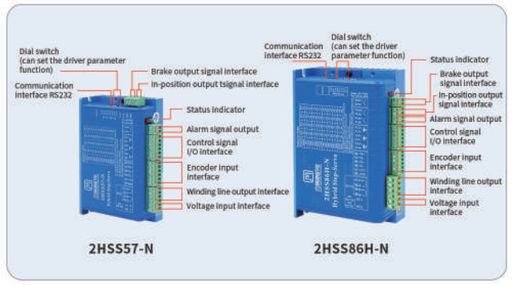
Hybrid step-servo driver									
Model	 2HSS57	 2HSS86H	 2HSS57-N	 2HSS86H-N	 2HSS458-N	 2HSS858H-N	 2HCS558	 2HCS868H	 3HCS2208H
Voltage	DC(24-60V)	DC(30-100V) AC(24-80V)	DC(24-60V)	DC(30-100V) AC(24-80V)	DC(24-60V)	DC(60-120V) AC(50-90V)	DC(24-60V)	DC(30-100V) AC(24-80V)	AC(110-250V)
Current	0-6A	0-6A	0-5A	0-6A	0-6A	0-7A	0-6A	0-7A	8A
Signal voltage	5-24V								
Pulse frequency	Maximum pulse frequency: 200Khz Standard (500Khz is optional)								

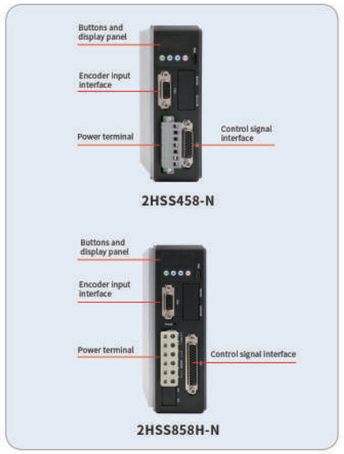
Hybrid step-servo system composition

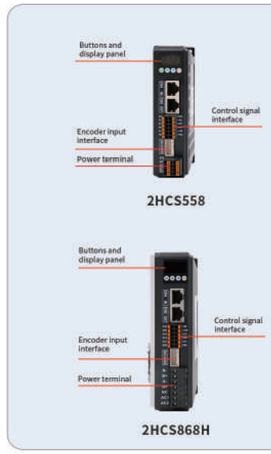


Introduction of driver interface

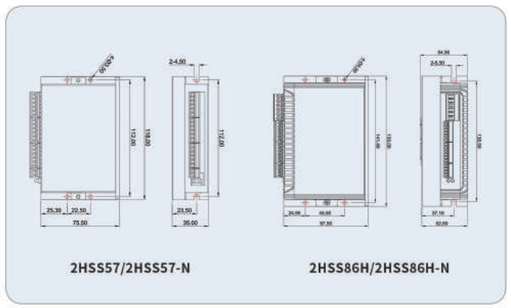


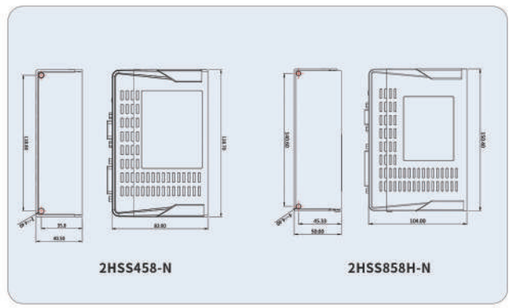


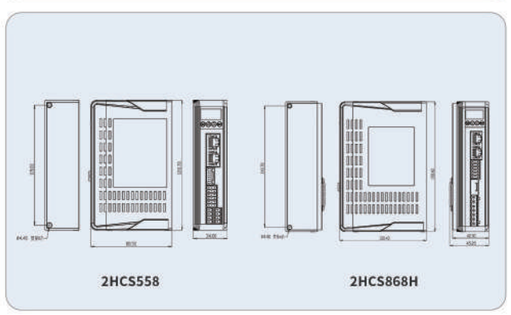


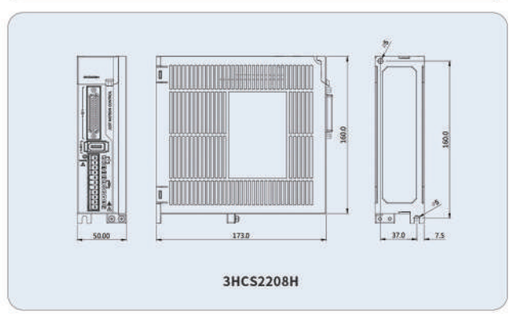


Driver installation size









Hybrid Step-Servo Motor

Quick start and stop, full closed loop, high torque
High speed 600-1500 rpm, low noise, low heat

Naming rules

57 J 18 80 EC - 1000 - SCG - XXX
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Motor seat No. (mm) ;
② JMC step-servo motor series;
③ Step angle, 18: 1.8° two phase, 12: 1.2° three phase;
④ Motor length (mm);
⑤ Closed loop (with encoder);
⑥ Encoder lines number: 1000 means 1000PPR, 2500 means 2500PPR;
⑦ Derivative model: 01 means the first derivative model, SCG means with brake (square cover), SC means with brake (round cover), the default is the standard model;
⑧ Product serial number, the default is the standard model.

The above model is expressed: the base size is 57mm, step angle 1.8 °, two phases, 80mm long, 1000PPR encoder, JMC step-servo motor with brake.

Motor model list

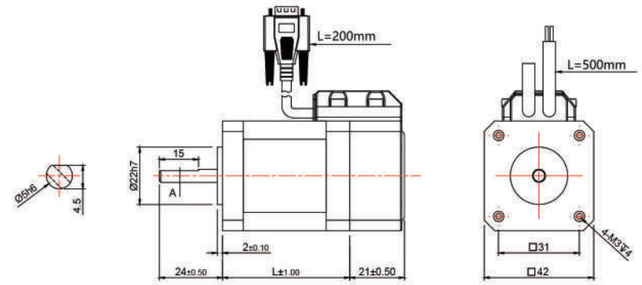
Motor frame			Closed loop motor model			Holding torque (Nm)	Motor length (standard) (mm)
			Standard series	Motor with brake	Waterproof		
2 phase	42		42J1848EC-1000 (*)	42J1848EC-1000-SCG	42J1848EC-1000-FS	0.5	69.8
			42J1860EC-1000	42J1860EC-1000-SCG	42J1860EC-1000-FS	0.7	82.0
	57		57J1854EC-1000 (*)	57J1854EC-1000-SCG	57J1854EC-1000-FS	1.2	75.0
			57J1880EC-1000 (*)	57J1880EC-1000-SCG	57J1880EC-1000-FS	2.0	100.0
			57J18100EC-1000	57J18100EC-1000-SCG	57J18100EC-1000-FS	2.8	120.0
	60		60J1856EC-1000	60J1856EC-1000-SCG	60J1856EC-1000-FS	1.5	76.0
			60J1887EC-1000 (*)	60J1887EC-1000-SCG	60J1887EC-1000-FS	3.0	107.0
			60J18100EC-1000	60J18100EC-1000-SCG	60J18100EC-1000-FS	3.5	120.0
	86		86J1880EC-1000 (*)	86J1880EC-1000-SCG	86J1880EC-1000-FS	4.5	100.0
			86J1895EC-1000	86J1895EC-1000-SCG	86J1895EC-1000-FS	7.0	118.0
			86J18118EC-1000 (*)	86J18118EC-1000-SCG	86J18118EC-1000-FS	8.5	135.0
			86J18156EC-1000 (*)	86J18156EC-1000-SCG	86J18156EC-1000-FS	12.0	176.0
3 phase	86		86J12126EC-1000-60 (*)	86J12126EC-1000-60-SCG	86J12126EC-1000-60-FS	6.8	150.0
			86J12156EC-1000-60 (*)	86J12156EC-1000-60-SCG	86J12156EC-1000-60-FS	7.8	176.0
	110		110J12135EC-1000	110J12135EC-1000-SC	110J12135EC-1000-FS	12.0	162.0
			110J12160EC-1000 (*)	110J12160EC-1000-SC	110J12160EC-1000-FS	16.0	188.5
			110J12190EC-1000 (*)	110J12190EC-1000-SC	110J12190EC-1000-FS	20.0	221.0
	130		130J12205EC-2500 (*)	130J12205EC-2500-SC	130J12205EC-2500-FS	28.0	259.0
			130J12225EC-2500	130J12225EC-2500-SC	130J12225EC-2500-FS	35.0	279.0

Note: Band (*) identifies the key recommendation products, with sufficient inventory; the size of the waterproof motor is basically the same as the standard motor.

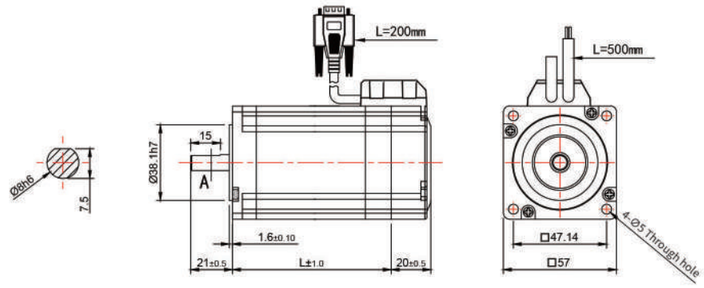
Closed loop motor dimensions

***2-phase closed loop motor specifications**

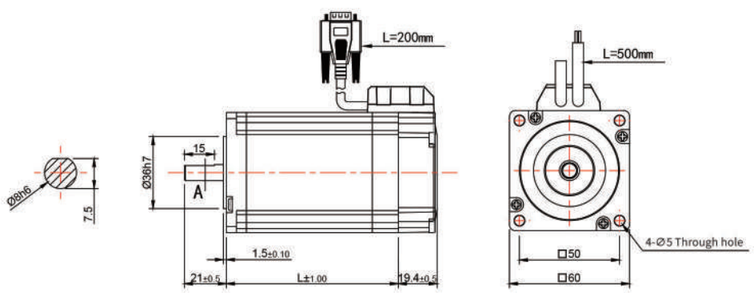
Model	L (mm)	Holding torque (Nm)	Rated current (A)	Rotor inertia (kg·cm²)	Matching driver	Flange (mm)	Weight (kg)
42J1848EC-1000 (*)	48	0.5	1.5	77	2HSS57-42 2HSS458-42 2HCS558-42	22	0.35
42J1860EC-1000	60	0.7	2.5	110		22	0.45



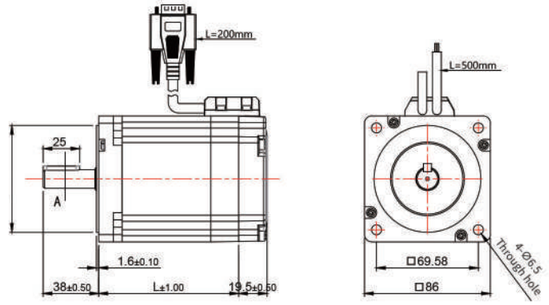
Model	L (mm)	Holding torque (Nm)	Rated current (A)	Rotor inertia (kg·cm²)	Matching driver	Flange (mm)	Weight (kg)
57J1854EC-1000 (*)	54	1.2	4.0	280	2HSS57 2HSS458-N 2HCS558	38.1	0.80
57J1880EC-1000 (*)	80	2.0	5.0	480		38.1	1.20
57J18100EC-1000	100	2.8	4.0	680		38.1	1.60



Model	L (mm)	Holding torque (Nm)	Rated current (A)	Rotor inertia (kg·cm²)	Matching driver	Flange (mm)	Weight (kg)
60J1856EC-1000	56	1.5	4.0	340	2HSS57 2HSS458-N 2HCS558	36	0.90
60J1887EC-1000 (*)	87	3.0	5.0	690		36	1.45
60J18100EC-1000	100	3.5	5.0	1200		36	1.90



Model	L (mm)	Holding torque (Nm)	Rated current (A)	Rotor inertia (kg·cm²)	Matching driver	Flange (mm)	Weight (kg)
86J1880EC-1000 (*)	80	4.5	6.0	1400	2HSS86H 2HSS858H-N 2HCS868H	60/73	2.40
86J1895EC-1000	95	7.5	6.0	2100		73	2.40
86J18118EC-1000 (*)	118	8.5	6.0	2700		60/73	3.90
86J18156EC-1000 (*)	156	12.0	4.5	4000		60/73	5.30

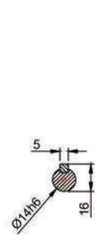


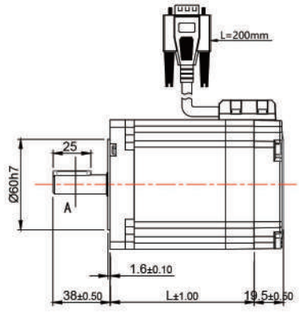
Model	Key (mm)
86J1880EC-1000 (*)	Flat 1.0×25
86J1895EC-1000	Flat 1.0×25
86J18118EC-1000 (*)	Key 5.0×25
86J18156EC-1000 (*)	Key 5.0×25

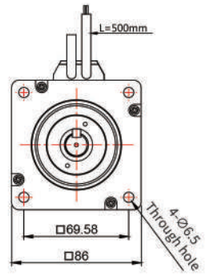
Note: Standard motor flange diameter is 73mm, and 60mm is optional.

***3-phase closed loop motor specifications**

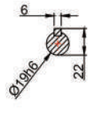
Model	L (mm)	Holding torque (Nm)	Rated current (A)	Rotor inertia (kg·cm²)	Matching driver	Flange (mm)	Weight (kg)
86J12126EC-1000-60 (*)	126	6.8	4.0	3300	3HCS2208H-86	60	4.50
86J12156EC-1000-60 (*)	156	7.8	3.0	4000		60	5.50

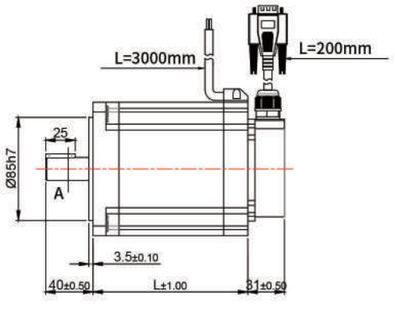


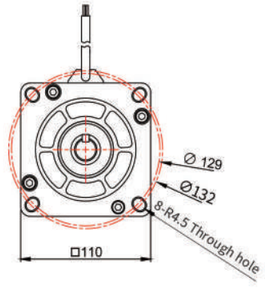




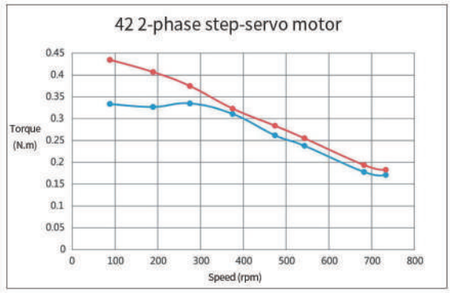
Model	L (mm)	Holding torque (Nm)	Rated current (A)	Rotor inertia (kg·cm²)	Matching driver	Flange (mm)	Weight (kg)
110J12135EC-1000	135	12.0	4.5	11900	3HCS2208H-110	85	7.20
110J12160EC-1000 (*)	160	16.0	6.0	14800		85	8.95
110J12190EC-1000 (*)	190	20.0	6.8	19800		85	11.30



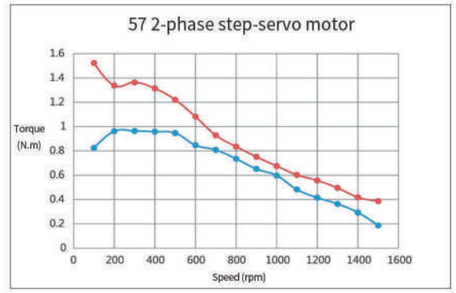




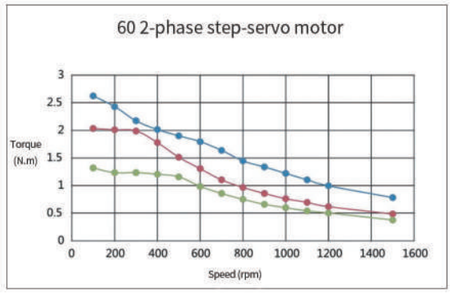
Motor torque and speed graph



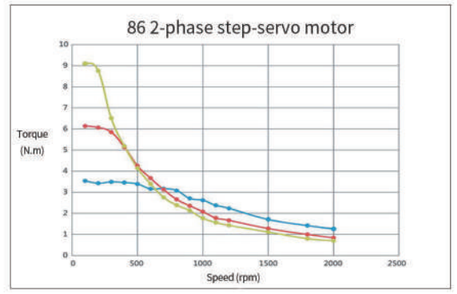
42J1848EC-1000/2HSS57-42 36VDC
42J1860EC-1000/2HSS57-42 36VDC



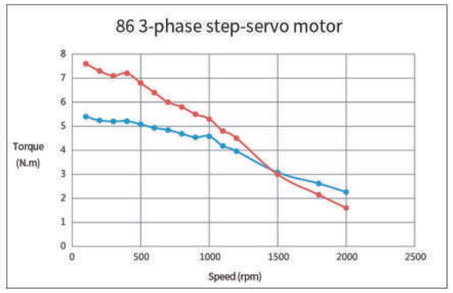
57J1854EC-1000/2HSS57 36VDC
57J1880EC-1000/2HSS57 36VDC



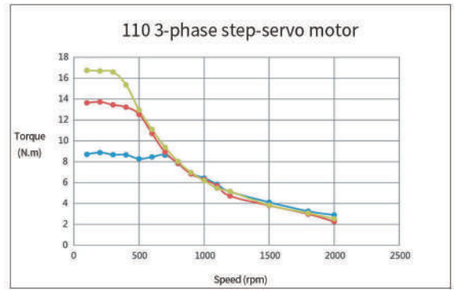
60J1856EC-1000/2HSS57-42 36VDC
60J1880EC-1000/2HSS57-42 36VDC
60J18100EC-1000/2HSS57-42 36VDC



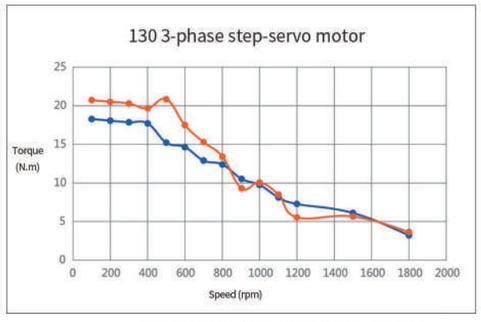
86J1880EC-1000/2HSS86H 70VAC
86J18118EC-1000/2HSS86H 70VAC
86J18156EC-1000/2HSS86H 70VAC



86J12126EC-1000/3HCS2208H 220VAC
86J12156EC-1000/3HCS2208H 220VAC



110J12135EC-1000/3HCS2208H 220VAC
110J12160EC-1000/3HCS2208H 220VAC
110J12190EC-1000/3HCS2208H 220VAC



130J12205EC-2500/3HCS2208H 220VAC
130J12225EC-2500/3HCS2208H 220VAC

Integrated Step-Servo Drive Motor

The driver is integrated on the motor, low heat
Full closed-loop control, fast acceleration, low vibration

Motor features

IHSS57-XX integrated step-servo motor integrates the driver into the step-servo motor perfectly. This integrated step-servo motor perfectly integrates the servo control technology in the digital stepper driver. The product adopts an optical encoder, and the high-speed bit feedback is sampled every 50us. Once the position deviation occurs, the position deviation can be corrected immediately. This product is compatible with the dual advantages of stepping technology and servo technology, and has the characteristics of small heat generation, low vibration, and fast acceleration. It is a motion control product with high cost performance.

Naming rules

iHSS ① 57 ② - 36 ③ - 20 ④ - XXX ⑤ - XXX ⑥

① Represents an integrated stepper motor;
② Motor seat No.: 42/57/60/86;
③ Motor rated DC working voltage (unit: mm);
24 means the rated working voltage of the motor is 24V,
36 means the rated working voltage of the motor is 36V.
④ Holding torque, unit (0.1N.m), 10 means 1N.m, 20 means 2N.m;
⑤ Input control mode: default is pulse + direction;
⑥ Product design serial number, the default is the standard model.

The above iHSS57-36-20 is an integrated stepper motor, 57 bases, maximum power supply 36VDC, output torque 2NM, standard type

System interface

Communication Interface:

Model	Interface definition
iHSS42	VCC TX GND RX NC
iHSS57	
iHSS60	
iHSS86	

Input and Output Interface:

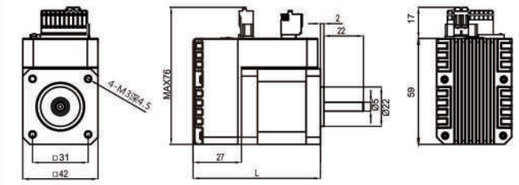
Model	Signal voltage	Interface definition
iHSS42	5V level is used directly;	PUL+ PUL- DIR+ DIR- ENA+ ENA- PEND+ PEND- ALM+ ALM-
iHSS57	24V needs to be connected in series with a 1~1.5K resistor.	
iHSS60		
iHSS86	Compatible with 5-24V level	

Dial setting

Pluse/rew	SW1	SW2	SW3	SW4	Pluse/rew	SW1	SW2	SW3	SW4
Default	On	On	On	On	1000	On	On	On	Off
800	Off	On	On	On	2000	Off	On	On	Off
1600	On	Off	On	On	4000	On	Off	On	Off
2300	Off	Off	On	On	5000	Off	Off	On	Off
6400	On	On	Off	On	8000	On	On	Off	Off
12800	Off	On	Off	On	10000	Off	On	Off	Off
25600	On	Off	Off	On	20000	On	Off	Off	Off
51200	Off	Off	Off	On	40000	Off	Off	Off	Off

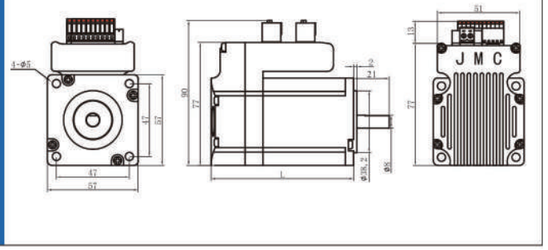
Model description

iHSS42



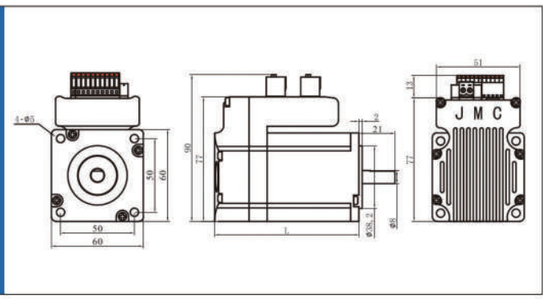
Model	Holding torque (Nm)	Supply voltage (VDC)	Rated current (A)	Length (mm)
iHSS42-24-05-XXX	0.5	24	1.2	75
iHSS42-24-07-XXX	0.7	24	1.2	87

iHSS57



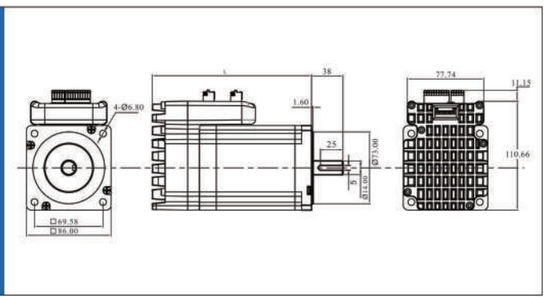
Model	Holding torque (Nm)	Supply voltage (VDC)	Rated current (A)	Length (mm)
iHSS57-36-10-XXX	1.0	36	4.0	87
iHSS57-36-20-XXX	2.0	36	5.0	108

iHSS60



Model	Holding torque (Nm)	Supply voltage (VDC)	Rated current (A)	Length (mm)
iHSS60-36-30-XXX	3.0	36	5.0	117

iHSS86



Model	Holding torque (Nm)	Supply voltage (VDC)	Rated current (A)	Length (mm)
iHSS86-60-45-XXX	4.5	60	6.0	121
iHSS86-80-85-XXX	8.5	80	6.0	141

Overview of High Voltage AC Servo System

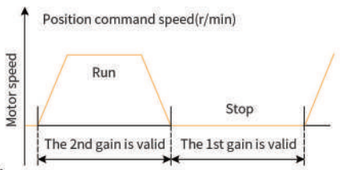
Product description

1. Using DSP+FPGA dual-chip platform and optimized current loop design, the driver has the characteristics of high dynamic response, extremely short settling time, stable operation and little vibration when stopped.
2. With automatic gain adjustment module, users can choose the rigidity level according to their needs.
3. Built-in FIR filter and multiple groups of notch filters can automatically identify and suppress mechanical vibration.
4. The built-in disturbance torque observer makes the drive extremely resistant to external disturbances.
5. There are a variety of control modes, position control, speed control, torque control.
6. The input frequency of position pulse is up to 4MHz, and it supports pulse + direction, quadrature pulse, double pulse, etc.
7. It has RS485 interface, supports Modbus communication, and cooperates with multi-turn absolute encoder with memory function, which can be flexibly applied to industries such as manipulators.
8. There are programmable 8 IINPUT and 5 OUTPUT ports, users can customize it via parameter settings. It’ s flexible.
9. Support incremental encoder and 17-bit, 20-bit high-precision absolute encoder.
10. It has perfect protection functions such as overvoltage, undervoltage, overspeed, overload, excessive position deviation, encoder error, etc., and can memorize 8 groups of historical fault information.
11. With rich monitoring items, users can choose the monitoring items they want to monitor the running status during use.
12. The driver can communicate with the PC through the RS232 to realize simple and fast debugging of the servo driver.

Servo characteristics

1. Gain 2-stage function

Switch to a lower gain in the motor static state (servo enabled) to suppress vibration; switch to a higher gain in the motor static state (servo enabled) to shorten the positioning time; switch to a higher gain in the motor running state to obtain Better instruction following performance. Depending on the usage, switch different gain settings with an external signal.



2. Regenerative energy processing function

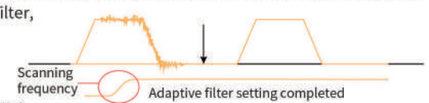
When stopping a load with a large inertia or driving a vertical motion axis, the energy returned from the servo motor to the servo driver is consumed by the regenerative resistor.

3. Friction torque compensation function

A function to improve responsiveness to reduce the influence of mechanical friction. Usually, the zero-drift torque that compensates for a certain action is eccentric load compensation. The dynamic friction compensation can be set according to the direction of the action, and the viscous friction compensation can be set according to the command speed change.

4. Auto/Manual notch filter

Equipped with a simple function to automatically set the notch filter. Vibration is automatically detected and a notch filter can be set without the need for tedious vibration frequency measurement. With this notch filter, abnormal sound and vibration caused by mechanical equipment can be greatly reduced, and high-speed response operation can be realized. JMC high-voltage products are equipped with 4 notch filters. The set frequency of each is 50Hz-5000Hz. And all have adjustable depth. (Two of them can be set automatically).



5. I/O signal assignment function

The common 4 input and 3 output signals can be arbitrarily assigned through parameters. (The input signal can be normally open, normally closed selection). By using the debugging software [JMC], the setting is more convenient.

6. Torque limit switching function

It can be used in some cases, such as simple pressure and tension control and sensorless home position return.

High Voltage Servo Driver

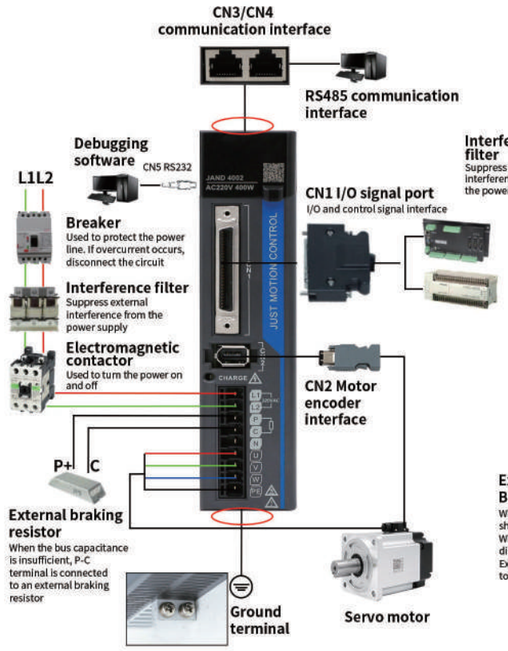
A variety of control modes are available for selection, position control, speed control, torque control, and various control modes can be switched.
Support incremental encoder and 17-bit, 20-bit high-precision absolute encoder.

Naming rules

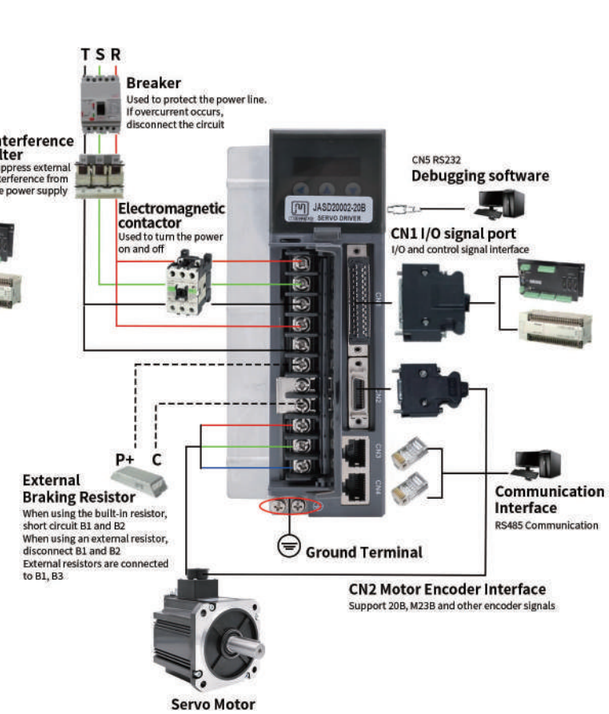
JAND 400 2 - 20B - XX
① ② ③ ④ ⑤

Symbol	Name	Description
①	Series name	JMC AC servo driver name. JAND single board servo driver; JASD double board servo driver
②	Driver power	200：200W；400：400W；750：750W；1000：1000W；1500：1.5KW；2000：2KW；3000：3KW
③	Power supply voltage	Single-phase/three-phase AC220V
④	Encoder specifications	2500: 2500 lines; 20Z: 160000/turn incremental; 20B: absolute; M20B: multi-turn absolute
⑤	Product design serial No	Special function module, the default is the standard model

Servo driver wiring diagram



JAND servo driver wiring diagram



JASD servo driver wiring diagram

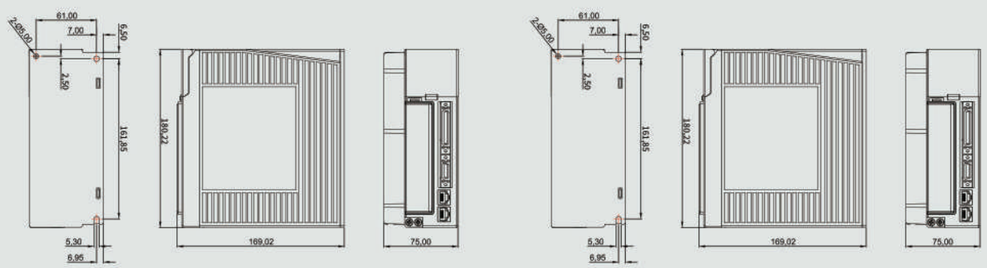
Selection list and electrical specifications

Picture	Model	Continuous output current	Maximum output current	Power supply	Brake handling function
	JAND2002-20B	2.1A	5.8A	Single-phase AC220V	External braking resistor
	JAND4002-20B	2.8A	9.6A	Single-phase AC220V	External braking resistor
	JAND7502-20B	5.5A	16.9A	Single-phase AC220V	External braking resistor Built-in braking resistor
	JAND15002-20B	10A	20A	Single-phase /three-phase AC220V	External braking resistor Built-in braking resistor
	JASD20002-20B	14A	33A	Single-phase /three-phase AC220V	External braking resistor Built-in braking resistor
	JASD30002-20B	20A	50A	Single-phase /three-phase AC220V	External braking resistor Built-in braking resistor

Installation Dimensions

JAND ⩽ 400W AC servo driver (unit: mm)

JAND 750-1500W AC servo driver (unit: mm)



JASD 2000W AC servo driver (Unit: mm)

JASD 3000W AC servo driver (Unit: mm)

High Voltage Servo Motor

With automatic gain adjustment module, users can choose the rigidity level according to their needs

Multiple power options 100-3000W, high rated speed

Naming rules

60 JASM 5 04 2 30 K - 17BC - SC - φ11 - 01

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

Symbol	Name	Descriptions
①	Base size	60 means 60mm flange motor, 40、60、 80、 110、130 are available.
②	Motor type	JASM means JASM series AC servo motor
③	Motor pole pairs	4 : 4 pole pairs； 5 : 5 pole pairs；4 pole pairs are default.
④	Rated power	02：200W，04：400W，07：750W，08：850W，10：1KW，13：1.3KW 15：1.5KW，20：2KW，30：3KW
⑤	Voltage specifications	1 means 110V, 2 means 220V
⑥	Rated speed (r/min)	15：1500，20：2000，25：2500，30：3000，40：4000
⑦	Motor output shaft type	K keyway, F flat shaft, S circular shaft, G with reducer, P special production
⑧	Encoder specifications	2500: 2500 lines, 17BC/17BCQ/17BCH/17BCW: Single loop 17bit, M17BC/M17BCQ/M17BCH/M17BCW: Multi-loop 17bit, 23B: Single loop 23bit, M23B: Multi loop 23 bit
⑨	Custom made selection	SC stands for motor with brake, and the default represents a motor without brake.
⑩	Motor shaft diameter	φ11 represents the motor shaft diameter 11mm, the default represents the official standard shaft diameter, 40 motor standard shaft diameter φ8, 60 motor standard shaft diameter φ14, 80 motor standard shaft diameter φ19, 110 motor standard shaft diameter φ19, 130 motor standard shaft diameter φ22
⑪	Motor version number	01 the 1st version, 02 : the 2nd version, and the default is the 1st version

Motor model: 60JASM504230K-17BC

Description of the model: 60 JASM series servomotor , 5 polar pairs, 400W, 220V, 3000rpm ,with keyway shaft and single loop 17 bit encoder.

JASM series motor list

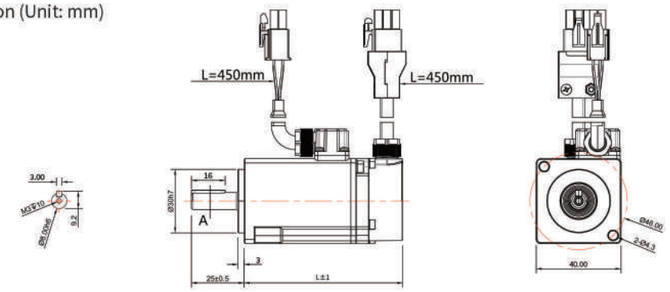
Shape	Base size	Model	Power (W)	Rated current(A)	Speed (rated/max) rpm	Rotor inertia ($kg \cdot m^2$)	Rated torque (Nm)	Peak torque (lasts 3 seconds)
	40mm	40JASM501230K-17BCQ	100	0.9	3000/5000	0.035	0.32	0.96
	60mm	60JASM502230K-17BCQ	200	1.7	3000/6000	0.28	0.64	1.92
		60JASM504230K-17BCQ	400	2.5	3000/6000	0.53	1.27	3.81
	80mm	80JASM507230K-17BCQ	750	3.5	3000/5000	1.49	2.39	7.17
		80JASM510230K-17BCQ	1000	4.8	3000/5000	1.98	3.18	8.2
	110mm	110JASM510225K-17BCT	1000	5.5	2500/3000	3.8	3.82	11.64
		110JASM515225K-17BCT	1500	6.8	2000/3000	5.2	5.73	17.19
	130mm	130JASM508215K-17BCW	850	6.9	2500/3000	14.8	5.39	16.17
		130JASM515215K-17BCW	1500	6.2	1500/3000	12.3	9.55	19.1
		130JASM515220K-17BCW	1500	7.8	2000/3000	9.2	7.16	14.32
		130JASM515230K-17BCW	1500	5.8	3000/3500	6.2	4.77	7.1
		130JASM520230K-17BCW	2000	8.5	3000/3500	9.2	6.4	10.8
		130JASM523215K-17BCW	2300	11	1500/3000	18.8	14.3	28.6
		130JASM530220K-17BCW	3000	16.5	2000/3000	28.5	14.3	28.6

JASM series servo motor parameters table

***40/60/80 frame, 17BCQ motor series parameters**

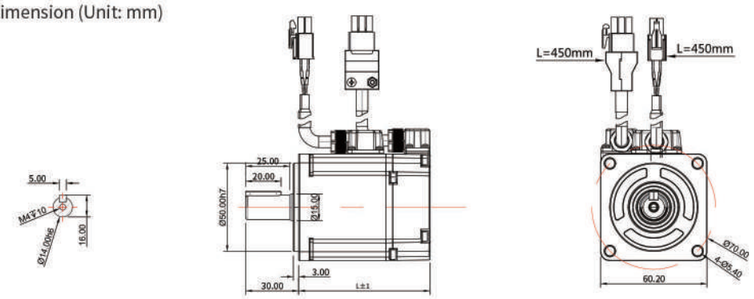
Model	Length (mm)	Rated power (W)	Rated torque (Nm)	Peak torque (Nm)	Rated current (A)	Max current (A)	Rotor inertia ($10^{-4}\cdot m^2$)	Rated/max speed (r/min)	Weight (KG)	Matching driver
40JASM501230K-17BCQ	74.80	100	0.32	0.96	0.9	2.7	0.035	3000/5000	0.5	JAND2002-20B

Installation dimension (Unit: mm)



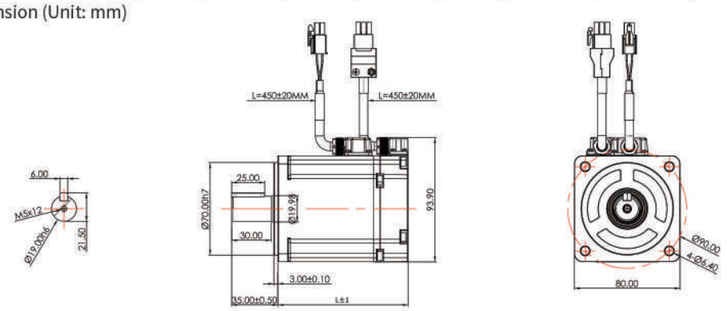
Model	Length (mm)	Rated power (W)	Rated torque (Nm)	Peak torque (Nm)	Rated current (A)	Max current (A)	Rotor inertia ($10^{-4}\cdot m^2$)	Rated/max speed (r/min)	Weight (KG)	Matching driver
60JASM502230K-17BCQ	74.34	200	0.64	1.91	1.7	5.1	0.28	3000/6000	0.8	JAND2002-20B
60JASM504230K-17BCQ	91.76	400	1.27	3.81	2.5	7.5	0.53	3000/6000	1.2	JAND4002-20B

Installation dimension (Unit: mm)



Model	Length (mm)	Rated power (W)	Rated torque (Nm)	Peak torque (Nm)	Rated current (A)	Max current (A)	Rotor inertia ($10^{-4}\cdot m^2$)	Rated/max speed (r/min)	Weight (KG)	Matching driver
80JASM507230K-17BCQ	98.50	750	2.39	7.17	3.5	10.5	1.49	3000/5000	2.2	JAND7502-20B
80JASM510230K-17BCQ	114.00	1000	3.18	9.54	4.8	14.4	1.98	3000/4500	2.7	JAND15002-20B

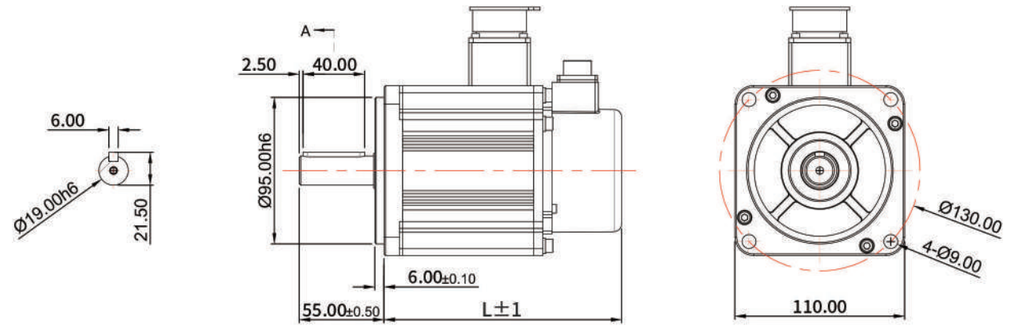
Installation dimension (Unit: mm)



***110 frame, 17BCT motor series parameters**

Model	Length (mm)	Rated power (W)	Rated torque (Nm)	Peak torque (Nm)	Rated current (A)	Max current (A)	Rotor inertia ($10^{-4}\cdot m^2$)	Rated/max speed (r/min)	Weight (KG)	Matching driver
110JASM510225K-17BCT	170.00	1000	3.82	11.46	5.5	16.5	3.8	2500/3000	4.7	JAND15002-20B
110JASM515225K-17BCT	186.00	1500	5.73	17.19	6.8	20.4	5.2	2500/3000	5.7	JAND15002-20B

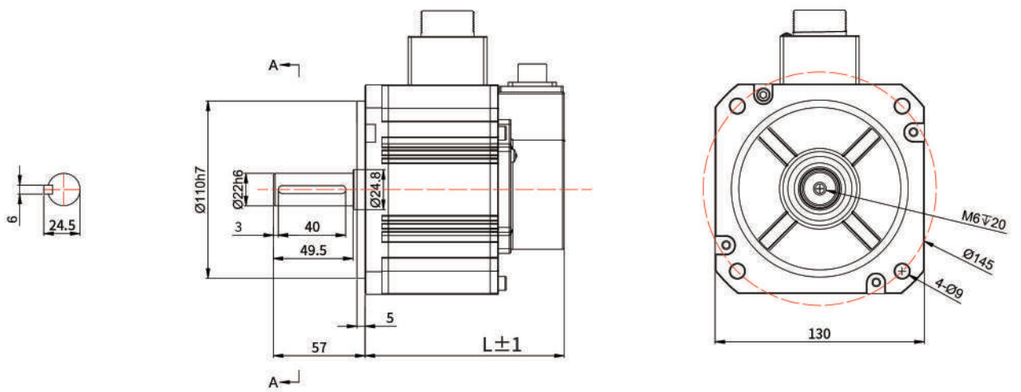
Installation dimension (Unit: mm)



***130 frame, 17BCW motor series parameters**

Model	Length (mm)	Rated power (W)	Rated torque (Nm)	Peak torque (Nm)	Rated current (A)	Max current (A)	Rotor inertia ($10^{-4}\cdot m^2$)	Rated/max speed (r/min)	Weight (KG)	Matching driver
130JASM508215K-17BCW	157.00	850	5.39	16.17	6.9	20.7	14.8	1500/3000	5.76	JAND15002-20B
130JASM515215K-17BCW	170.00	1500	9.55	19.1	6.2	13	12.3	1500/3000	8.30	JAND15002-20B
130JASM515220K-17BCW	152.50	1500	7.16	14.32	7.8	15.6	9.2	2000/3000	7.10	JAND15002-20B
130JASM515230K-17BCW	135.00	1500	4.77	7.1	5.8	8.6	6.2	3000/3500	5.40	JAND15002-20B
130JASM520230K-17BCW	152.50	2000	6.4	10.8	8.5	17	9.2	3000/3500	7.10	JASD20002-20B
130JASM523215K-17BCW	200.00	2300	14.3	28.6	11	22	18.8	1500/2000	10.70	JASD20002-20B
130JASM530220K-17BCW	200.00	3000	14.3	28.6	16.5	33	28.5	2000/3000	10.70	JASD30002-20B

Installation dimension (Unit: mm)

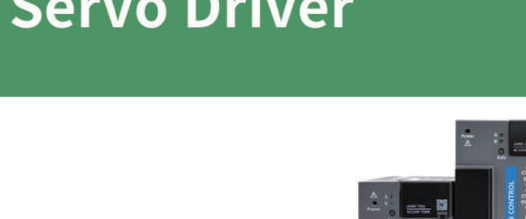


JAWD Series Dual Axis Servo Driver

Performance characteristics

1. High power density: double-axis integrated design, occupies less space in the cabinet, and the product is more delicate and beautiful;
2. High current loop response: high-speed current loop technology, current loop sampling up to 625kHz;
3. PWM frequency adjustment: 8KHz, 10.667kHz, 16KHz three gears can be adjusted, and different motors can be applied;
4. Gantry control function: dual-axis gantry control can be realized without external wiring, and the alarm is associated;
5. Rigidity level setting: a single rigidity level parameter can complete the setting of each loop parameter;
6. Parameter auto-tuning: You can complete the auto-tuning of each loop parameter with one-click;
7. Adaptive terminal vibration suppression: it can automatically identify mechanical vibration and perform vibration suppression;
8. Adaptive notch filter: can automatically identify the system resonance frequency and carry out resonance suppression;
9. One-click search for resonance frequency: You can search for the resonance frequency of the system with one-click and perform resonance suppression;
10. Easy to connect and use: use only one USB cable to burn the parameter.

Product Features



Adaptive notch algorithm

Advantages: Automatically search for resonance frequency and suppress it.

Terminal shaking suppression algorithm

Advantages: Automatically search for jitter frequency and suppress it.

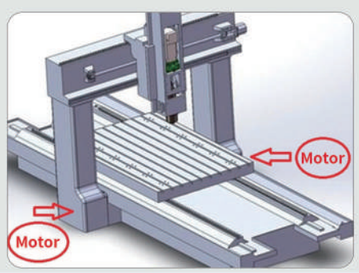
Parameter self-tuning algorithm

Advantages: Automatically search for parameters, reduce debugging workload.

◆ Optimized gantry synchronization algorithm
◆ Single chip running dual motors control algorithm
◆ Internal sharing of dual axis data

◆ Gantry synchronization tracking module
Advantages: 70% reduction in synchronization deviation.
The gantry has small deformation and high machining accuracy.

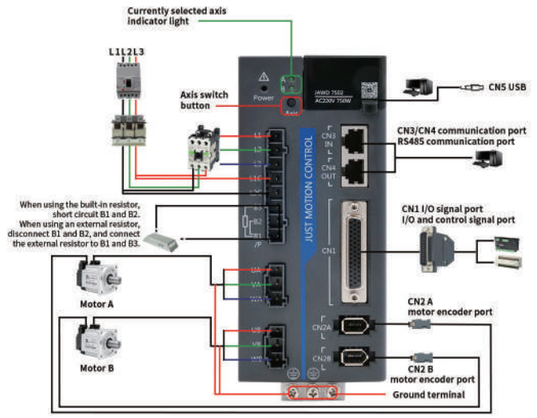
◆ 62.5us alarm response time
The normal driver alarm response time is 3ms, and it’s 0.15 revolutions at 3000rpm. It will cause the gantry structure to be deformed by force.

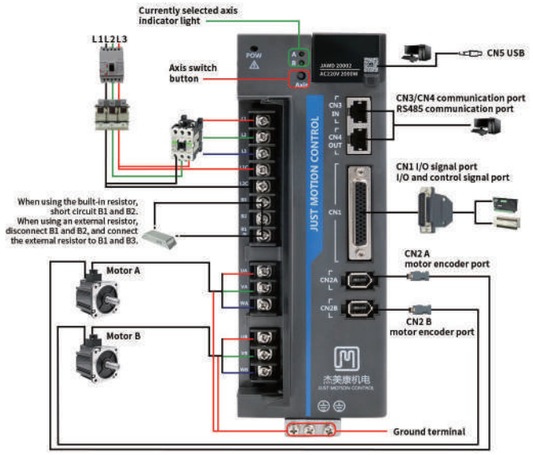


Selection list and electrical specifications

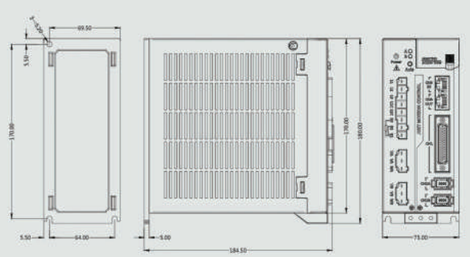
	Frame size	40mm	80mm		130mm				
JASM series motor	Picture								
	Model	60JASM504230K-17BCQ	80JASM507230K-17BCQ	80JASM510230K-17BCQ	130JASM515240K-17BCW	130JASM515230K-17BCW	130JASM515220K-17BCW	130JASM515215K-17BCW	130JASM520220K-17BCW
	Power	400W	750W	1000W	1500W				2000W
JAWD series driver	Driver	750W driver			2000W driver				
	Picture								
	Model	JAWD7502			JAWD20002				
	Voltage	Single phase/3 phase AC220V							
	Power	750W			2000W				

Driver interface configuration

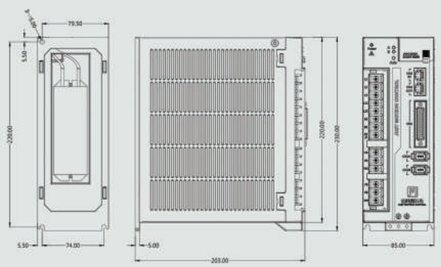




Install dimension

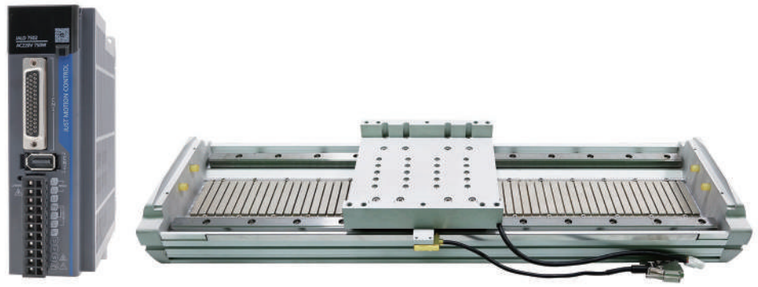


750W AC servo driver （unit：mm）



2000W AC servo driver （unit：mm）

JALD Series Linear Servo Motor Driver



Performance characteristics

1. High power density: double-axis integrated design, occupies less space in the cabinet, and the product is more delicate and beautiful:
2. High current loop response: high-speed current loop technology, current loop sampling up to 625kHz;
3. PWM frequency adjustment: Set 8kHz, 10.667kHz, 16KHz three gears, and can be applied to different motors;
4. Gantry control function: dual-axis gantry control can be realized without external wiring, and alarm correlation can be performed;
5. Rigidity level setting: a single rigidity level parameter can complete the setting of each loop parameter;
6. Parameter auto-tuning: You can complete the auto-tuning of each loop parameter with one-click:
7. Adaptive terminal vibration suppression: it can automatically identify mechanical vibration and perform vibration suppression;
8. Adaptive notch filter: can automatically identify the system resonance frequency and carry out resonance suppression;
9. One-click search for resonance frequency: You can search for the resonance frequency of the system with one-click and perform resonance suppression:
10. Easy to connect and use: use only one USB cable to burn the parameter.

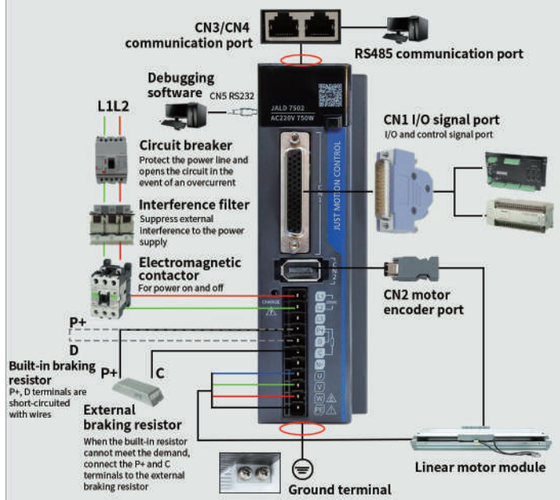
Driver parameters table

Driver model	JALD7502
Continuous output current Arms	5.5
Maximum output current Arms	16.9
Power supply	Single-phase AC180V-240V, 50/60Hz
Braking processing function	Built-in braking resistor, can also add external braking resistor
Control mode	Single-phase rectification, IGBT, PWM control, sine wave current drive mode
Encoder	Incremental
Encoder frequency division output	Any frequency division output
Speed control range	1：6000
Speed loop bandwidth	3.12KHz
Overload capacity	3 times
IO input	8-channel input
IO output	5-channel output

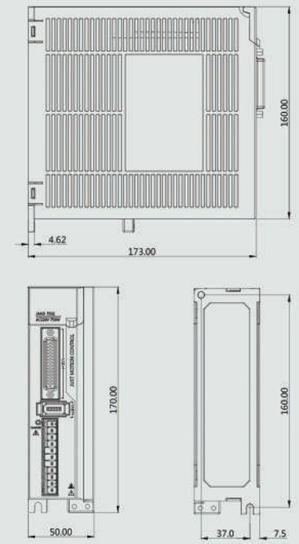
JALD driver and linear motor matching table

Motor No.	Motor model	Rated thrust(N)	Peak thrust(N)	Rated current(Arms)	Peak current(Arms)	Matching driver
1	JXD096-045	46	153	3	10	JALD7502
2	JXD096-060	73	261	2.8	10	JALD7502
3	JXD096-080	107	382	2.8	10	JALD7502
4	JXD096-100	134	515	2.6	10	JALD7502
5	JXD096-120	162	648	2.5	10	JALD7502
6	JXD096-135	196	754	2.6	10	JALD7502
7	JXD180-045	86	307	2.8	10	JALD7502
8	JXD180-060	145	518	2.8	10	JALD7502
9	JXD180-080	213	761	2.8	10	JALD7502
10	JXD180-100	267	1027	2.6	10	JALD7502
11	JXD180-120	325	1300	2.5	10	JALD7502
12	JXD180-135	391	1504	5.2	20	JALD7502
13	JXD266-045	118	421	2.8	10	JALD7502
14	JXD266-060	202	722	2.8	10	JALD7502
15	JXD266-080	316	1129	2.8	10	JALD7502
16	JXD266-100	400	1600	5	20	JALD7502
17	JXD266-120	488	1952	5	20	JALD7502
18	JXD266-135	588	2352	5	20	JALD7502

Driver interface configuration



Installation dimensions



750W driver (unit: mm)

Overview of Low Voltage AC Servo System

Low Voltage Servo Driver

There are a variety of control modes for selection, position control, speed control, torque control, and the control modes can be switched.
Low-voltage DC power supply, used in various special needs occasions.

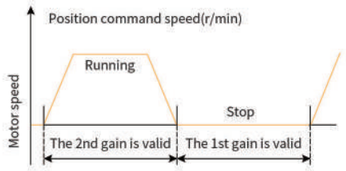
Low voltage servo characteristics

1.Using the ARM+FPGA dual-chip platform and the optimized current loop design, the driver has the characteristics of high dynamic response, extremely short settling time, stable operation and low vibration when stopped.
2. With automatic gain adjustment module, users can choose the rigidity level according to their needs:
3. With built-in FIR filter and multiple sets of notch filters can automatically identify and suppress mechanical vibration:
4. The built-in disturbance torque observer makes the drive have a strong ability to resist external disturbances;
5. There are a variety of control modes: position control, speed control, torque control;
6. Support pulse + direction, quadrature pulse, double pulse and other position command methods;
7. With RS485 interface, supporting MODBUS communication, with multi-turn absolute encoder with memory function, it can be flexibly applied to industries such as manipulators;
8. There are programmable 4 INPUT and 3 OUTPUT ports, users can customize it via parameter settings. It' s very convenient;
9. Support incremental encoder and 17-bit, 20-bit, 23-bit high-precision absolute encoder;
10. It has complete protection functions such as overvoltage, undervoltage, overspeed, overload, excessive position deviation, encoder error, etc., and can memorize 8 groups of historical fault information.
11. With rich monitoring items, users can select the desired monitoring items to monitor the running status during use:
12. The driver can communicate with the PC through the RS232 to realize simple and fast debugging of the servo driver.

Features Brief

1. Gain 2-stage function

Switch to a lower gain when the motor is stationary (servo enabled) to suppress vibration; switch to a higher gain when the motor is running to obtain better command following performance; switch to different gain settings with an external signal according to the usage.



2. Regenerative energy processing function

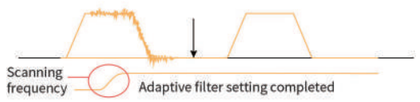
When rapidly decelerating a load with a large inertia, the energy returned from the servo motor to the servo driver is consumed by the regenerative resistor.

3. Friction torque compensation function

A function to improve responsiveness to reduce the influence of mechanical friction. The dynamic friction compensation can be set according to the action direction, and the viscous friction compensation can be set according to the command speed change.

4. Automatic/Manual notch filter

Equipped with a function to automatically set the notch filter. Vibration is automatically detected and a notch filter is set without the need for complicated vibration frequency measurement. With this notch filter, abnormal sound and vibration caused by mechanical equipment can be greatly reduced. MCAC series low voltage servo products are equipped with 4 notch filters. The set frequency of each is 300Hz~5000Hz. And all have adjustable depth. (Two of them can be set automatically).



5. I/O signal assignment function

MCAC series low-voltage servo driver has 4 input signals and 3 output signals, and their functions can be freely assigned (all input signals can be selected for normally open and normally closed).

6. Torque limit switching function

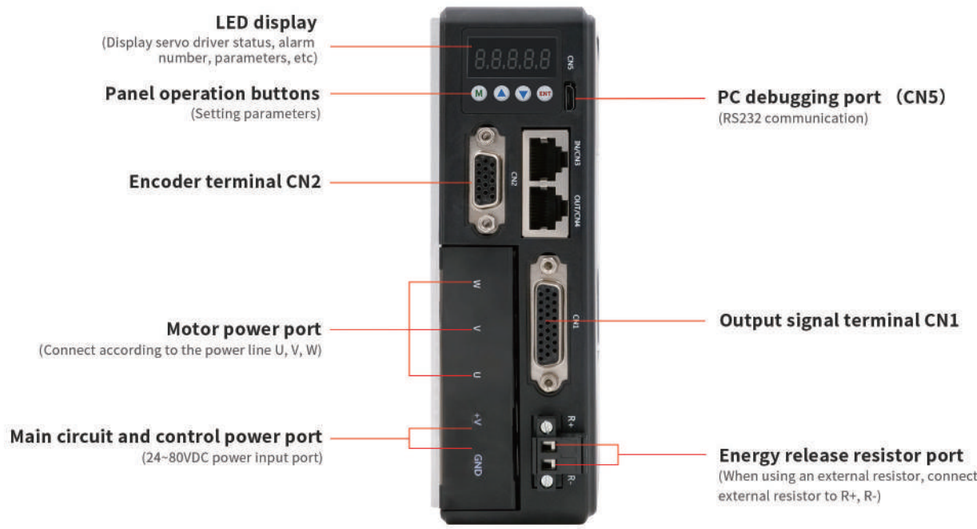
It can be used in simple pressure tension control, and such occasions of home point return without sensor.

Naming rules

MC AC 8 25 – 1024 – 5 - 200 - XXX
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

Symbol	Name	Description
①	Series name	Just Motion Control MC series AC servo driver
②	Servo driver type	AC: AC servo driver; DC: DC servo driver
③	Power supply voltage	Multiplied by 10 as the voltage level, 6:60VDC; 7:70VDC; 8:80VDC
④	Driver output current	08：8A；10：10A；25：25A；45：45A；A0：100A
⑤	Matching motor encoder	1024: 1024 lines optical encoder/ 1024 lines magnetic encoder; 2500: 2500 lines optical encoder / 2500 lines magnetic encoder 20B: 23-bit absolute optical encoder/17-bit absolute magnetic encoder; M20B: 23-bit multi-turn absolute optical encoder/17-bit multi-turn absolute magnetic encoder
⑥	Matching motor pole pairs	4: Four pairs of poles (default); 5: Five pairs of poles
⑦	Matching motor power	200：200W；400：400W；750：750W；1000：1000W；1500：1500W；3000：3000W
⑧	Product design serial number	Special function module, the default is the standard model

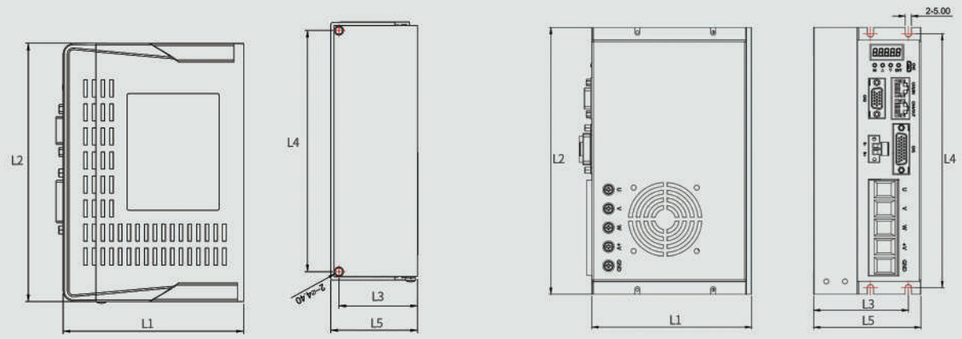
Driver interface configuration



Selection list and specifications

Model		Power supply voltage	Output current	Digital signal	Matching motor
	MCAC610	24~60VDC	10A	Digital input: current 6~16mA voltage 5~24VDC Digital output: current 0~50mA voltage 0~30VDC	40/57/60mm base
	MCAC825	24~80VDC	25A		57/60mm base
	MCAC845		45A		80mm base
	MCAC8A0		100A		110/130mm base

Installation size



Unit: mm

Model	L1(mm)	L2(mm)	L3(mm)	L4(mm)	L5(mm)
MCAC610	84.00	117.70	35.83	108.00	40.50
MCAC825	104.00	150.50	45.33	140.70	50.00
MCAC845	104.00	150.50	45.33	140.70	50.00
MCAC8A0	126.50	210.00	75.00	200.00	85.00

Low Voltage Servo Motor

Equipped with an automatic gain adjustment module, users can choose the rigidity level according to their needs, and a variety of encoder specifications are optional

Naming rules

60 ASM 200 - 5 - 1024C - SC - XX
① ② ③ ④ ⑤ ⑥ ⑦

Symbol	Name	Description
①	Flange size	(Unit：mm) 40：40mm；60：60mm；80：80mm
②	ASM	Represents sine wave AC servo series
③	Motor rated output power	100：100W；200：200W；400：400W；600：600W；1000：1000W
④	Motor pole pairs	4: Four pairs of poles (default) 5: Five pairs of poles
⑤	Encoder accuracy	1024C: 1024 lines magnetic encoder; 2500: 2500 lines optical encoder; 2500C: 2500 lines magnetic encoder M23B: 23-bit multi-turn absolute optical encoder; 17BC: 17-bit absolute magnetic encoder; M17BC: 17-bit multi-turn absolute magnetic encoder
⑥	Brake	SC: with brake; default is without brake
⑦	Product design serial number	Special function module, the default is the standard model

Selection List and specifications

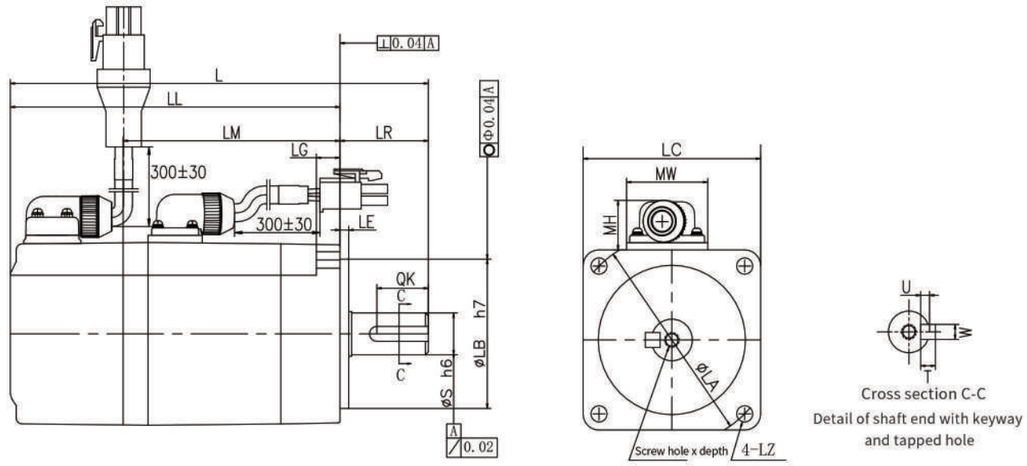
Model	Power supply voltage (V)	Rated power (W)	Rated torque (Nm)	Peak torque (Nm)	Rated current (A)	Max current (A)	Rotor inertia (10^{-4}kg·cm^2)	Rated speed (r/min)	Max speed (r/min)	Matching driver
60ASM200-1024C/2500C	36	200	0.64	1.3	10.0	20.0	0.183	3000	3200	MCAC610
60ASM400-1024C/2500C	36	400	1.27	3.8	16.0	48.0	0.347	3000	3200	MCAC825
80ASM750-1024C/2500C	48	750	2.39	4.7	20.0	31.7	0.924	3000	5000	MCAC845
80ASM1000-1024C/2500C	48	1000	3.20	6.4	25.0	50.0	2.300	3000	3200	MCAC845
130ASM1500-1024C/2500C	48	1500	4.78	14.3	37.0	118.5	11.200	3000	4000	MCAC8A0
130ASM2000-1024C/2500C	48	2000	6.40	19.2	58.0	174.0	16.200	3000	3500	MCAC8A0
130ASM3000-1024C/2500C	48	3000	9.50	28.5	82.0	246.0	22.300	3000	3500	MCAC8A0

ASM series servo motor parameters table

*** 60/80ASM***-**C series motor parameters**

Model	Power supply voltage (V)	Rated power (W)	Rated torque (Nm)	Peak torque (Nm)	Rated current (A)	Max current (A)	Rotor inertia (10^{-4}kg·cm^2)	Rated speed (r/min)	Max speed (r/min)	Matching driver
60ASM200-**	36	200	0.64	1.3	10	20.0	0.183	3000	3200	MCAC610-**
60ASM400-**	36	400	1.27	3.8	16	48.0	0.347	3000	3200	MCAC825-**
80ASM750-**	48	750	2.39	4.7	20	31.7	0.924	3000	5000	MCAC845-**
80ASM1000-**	48	1000	3.20	6.4	25	50.0	2.300	3000	3200	MCAC845-**

Note: the above includes 1024C/2500C



Installation size（Unit：mm）

Model	L	LL	LR	LE	LC	LA	LB	LZ
60ASM200-**	142.0	112.0	30	3	60	70	50	5.5
60ASM400-**	173.0	143.0	30	3	60	70	50	5.5
80ASM750-**	179.5	144.5	36	3	80	90	70	6.5
80ASM1000-**	195.0	160.0	35	3	80	90	70	7.0

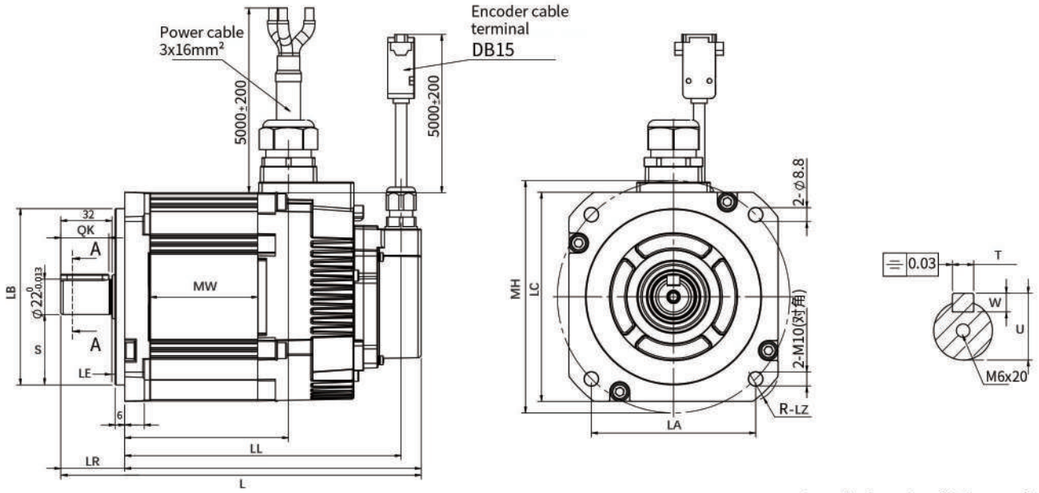
Model	S	Screw hole x depth	QK	U	W	T	MW	MH
60ASM200-**	Φ14	M5×L10	17.5	3.0	5	5	27.6	16.5
60ASM400-**	Φ14	M5×L10	17.5	3.0	5	5	27.6	16.5
80ASM750-**	Φ19	M5×L10	22.0	3.5	6	6	27.6	16.5
80ASM1000-**	Φ19	M5×L10	25.0	3.0	6	6	27.6	16.5

Note: the above includes 1024C/2500C

*** 130ASM***-**C series motor parameters**

Model	Power supply voltage (V)	Rated power (W)	Rated torque (Nm)	Peak torque (Nm)	Rated current (A)	Max current (A)	Rotor inertia (10^{-4}kg·cm^2)	Rated speed (r/min)	Max speed (r/min)	Matching driver
130ASM1500-**C	48	1500	4.78	14.3	37.0	118.5	11.2	3000	4000	MCAC8A0-**
130ASM2000-**C	48	2000	6.40	19.2	58.0	174.0	16.2	3000	3500	MCAC8A0-**
130ASM3000-**C	48	3000	9.50	28.5	82.0	246.0	22.3	3000	3500	MCAC8A0-**

Note: the above includes 1024C/2500C



Installation size（Unit：mm）

Model	L	LL	LR	LE	LC	LA	LB	LZ
130ASM1500-**C	162.5	115.0	35.0	2	130	102.5	110	18.3
130ASM2000-**C	208.0	155.5	40.0	2	130	102.5	110	18.3
130ASM3000-**C	225.0	172.5	40.0	2	130	102.5	110	18.3

Model	S	Screw hole x depth	QK	U	W	T	MW	MH
130ASM1500-**C	54	M6×L20	28	25	7	8	38.5	145
130ASM2000-**C	54	M6×L20	32	25	7	8	50.0	145
130ASM3000-**C	54	M6×L20	32	25	7	8	67.0	145

Note: the above includes 1024C/2500C

Integrated Servo Drive Motor

Motor and drive are combined in one, with low vibration and low heat generation

Rated speed 3000 rpm/4000 rpm, low cost

AC servo product features

IHSV42/57/60/86-XX integrated AC servo drive motor integrates the AC servo driver into the servo motor, the two are perfectly integrated, and the vector control is designed and produced by DSP, with low cost, full closed loop, full digital, low heat, small vibration, fast response, etc. Includes three adjustable feedback loop controls (position loop, speed loop and current loop). It has stable performance and is a very cost-effective motion control product.

Naming rules

iHSV 57 - 30 - 14 - 36 - XXX

① ② ③ ④ ⑤ ⑥

Symbol	Name	Description
①	Series name	Indicates the integrated AC servo drive motor
②	Motor base	(Unit：mm)42/57/60/86
③	Motor rated speed	30：3000rpm；40：4000rpm
④	Motor rated power	Multiply by 10 is the motor rated power
⑤	Rated power supply voltage	24：24VDC；36：36VDC；48：48VDC；72：72VDC
⑥	Product design serial number	Default is standard model
The above IHSV57-30-14-36 represents an integrated AC servo motor, 57mm frame, rated speed 3000rpm, power 140W, voltage 36VDC, standard model		

System interface

Communication Interface:

Model	Interface definition
iHSV42	NC RX GND TX VCC
iHSV57	
iHSV60	
iHSV86	

Input and output interface:

Model	Signal voltage	Interface definition
iHSV42	5V	ALM- ALM+ PEND- PEND+ ENA- ENA+ DIR- DIR+ PUL- PUL+
iHSV57		
iHSV60		
iHSV86		

Dial setting

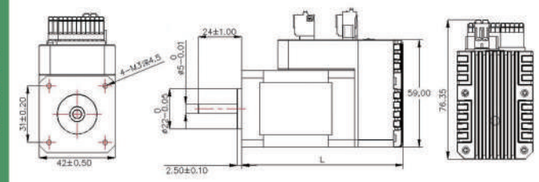
IHSV series pulse + direction type integrated AC servo drive motor adopts 6 DIP switches to set the subdivision accuracy, forward and reverse direction, and signal effective edge. The detailed description is as follows:

Pluse/rew	SW1	SW2	SW3	SW4	Pluse/rew	SW1	SW2	SW3	SW4
Default	On	On	On	On	1000	On	On	On	Off
800	Off	On	On	On	2000	Off	On	On	Off
1600	On	Off	On	On	4000	On	Off	On	Off
2300	Off	Off	On	On	5000	Off	Off	On	Off
6400	On	On	Off	On	8000	On	On	Off	Off
12800	Off	On	Off	On	10000	Off	On	Off	Off
25600	On	Off	Off	On	20000	On	Off	Off	Off
51200	Off	Off	Off	On	40000	Off	Off	Off	Off

Note: SW5 DIP switch sets the input edge, off means the rising edge is valid, and on means the falling edge is valid. SW6 DIP switch, when switching off or on, it can change the current direction of motor movement, off=CCW (forward rotation), on=CW (reverse rotation).。

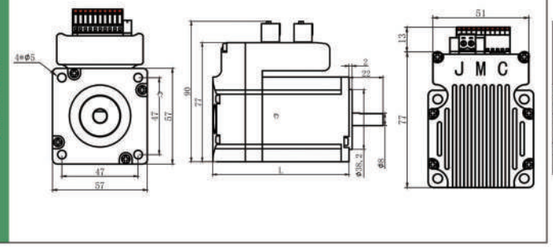
Models description

iHSV42



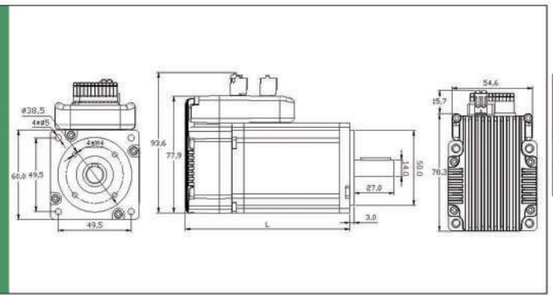
Model	Power supply (VDC)	Rated current (A)	Length (mm)	Shaft dia. (mm)
iHSV42-40-05-24-XXX	24	3.4	84	Φ5
iHSV42-40-07-24-XXX	24	5.1	110	Φ8

iHSV57



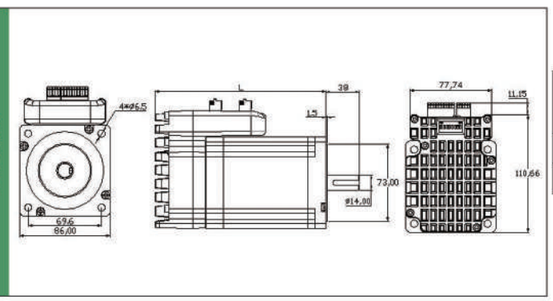
Model	Power supply (VDC)	Rated curren (A)	Length (mm)
iHSV57-30-10-36-01-T-33-XXX	36	3.5	110
iHSV57-30-14-36-01-T-33-XXX	36	5.4	130
iHSV57-30-18-36-01-T-33-XXX	36	7.5	150

iHSV60



Model	Power supply (VDC)	Rated curren (A)	Length (mm)
iHSV60-30-20-36-XXX	36	8.5	112
iHSV60-30-40-48-XXX	48	11.2	142

iHSV86



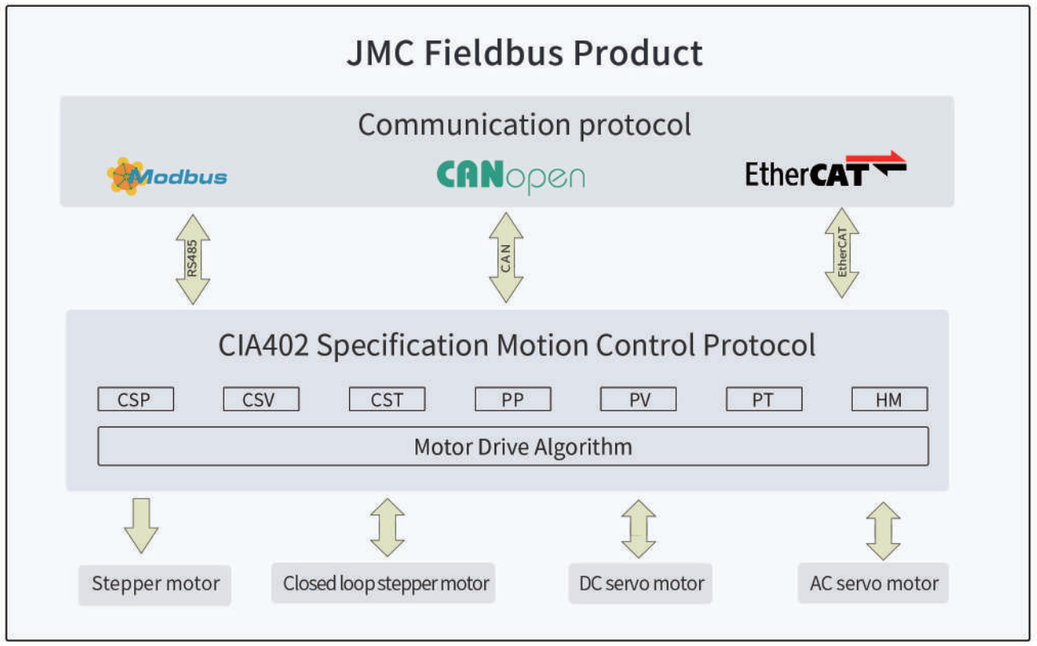
Model	Power supply (VDC)	Rated curren (A)	Length (mm)
iHSV86-30-44-48-XXX	48	13.1	162
iHSV86-30-66-72-XXX	72	13.1	189

Overview of Bus Type Series Products

Product features

JMC bus driver series products cover three bus communication methods. The R series based on the Modbus-RTU protocol of the RS485 communication network, the RC series based on the CANopen protocol of the CAN communication network, and the EC series based on the COE (CANopen Over EtherCAT) protocol of the EtherCAT communication network. Including intelligent bus drive products such as digital stepper, hybrid stepper servo, integrated step-servo, low voltage servo, high voltage servo and integrated AC servo.

The application layer of JMC bus driver series slave products adopts the motion control protocol of CIA402 specification, and supports cycle synchronous position (CSP), cycle synchronous velocity (CSV), cycle synchronous torque (CST), profile position (PP), profile velocity (PV), homing (HM) and torque control (PT) and other control modes. Support CW/HW/CCW limit (home) and two high-speed probe digital input, support brake, in-position, alarm digital signal output. The communication ports all use RJ45 network interface and standard Ethernet communication cable to realize the serial network connection of multi-axis slave stations. It has the advantages of strong anti-interference ability, high control precision and good scalability. It is a multi-axis industrial Ethernet bus control system. ideal choice.



Advantage of JMC fieldbus products

High efficiency, high reliability

More than ten years' R&D and application experience, advanced motor control algorithm and continuously improved product quality;

Strong compatibility

Standard communication protocol, compatible with Siemens, Schneider, Beckhoff, Omron, Mitsubishi, Panasonic, Delta and Inovance PLC;

Low cost , easy to update

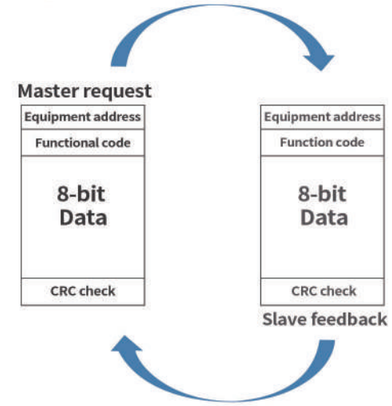
RJ45 network wiring way to save cable cost, labor cost and maintenance cost, it's easy to update device version;

Easy to control and maintain

Adopt the standard CIA402 motion control protocol to control and monitor the running status of the motor in real time.

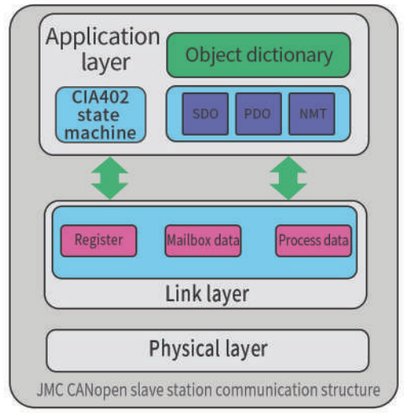
Brief introduction for JMC R-series slave drivers

JMC R series slave driver refers to the slave driver whose hardware adopts RS485 communication circuit, software adopts Modbus-RTU communication protocol and CIA402 motion control protocol. The Modbus protocol, designed by MODICON Corporation, is a bus protocol that allows a master station to share data with one or more slave stations. Controller communication uses master-slave technology, that is, the master can initiate a data transmission query, while other devices (slaves) return responses to the query, or process the actions required by the query. Host devices should include master and slave processors or PLCs. The slave includes servo drives and stepper drives. The master-slave query-feedback mechanism is shown on the right:



Brief introduction for JMC RC-series slave drivers

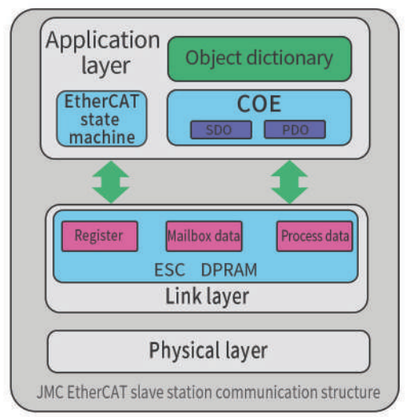
JMC RC series bus driver refers to the bus driver whose hardware adopts CAN communication circuit, software adopts CANopen communication protocol and is compatible with Modbus-RTU communication protocol based on RS485 communication circuit and CIA402 motion control protocol. CANopen is a high-level communication protocol based on the Controller Area Network (CAN), including communication sub-protocols and device sub-protocols. It is often used in embedded systems and is also a field bus commonly used in industrial control. CANopen defines communication objects (such as SDO, PDO, NMT, etc.) to configure and monitor slave stations, and realize communication between master and slave stations. The application layer adopts the CIA402 servo motion control protocol, which greatly enhances the compatibility between different products, and can configure the slave devices of different CAN products to realize automatic networking.



JMC CANopen slave station communication structure

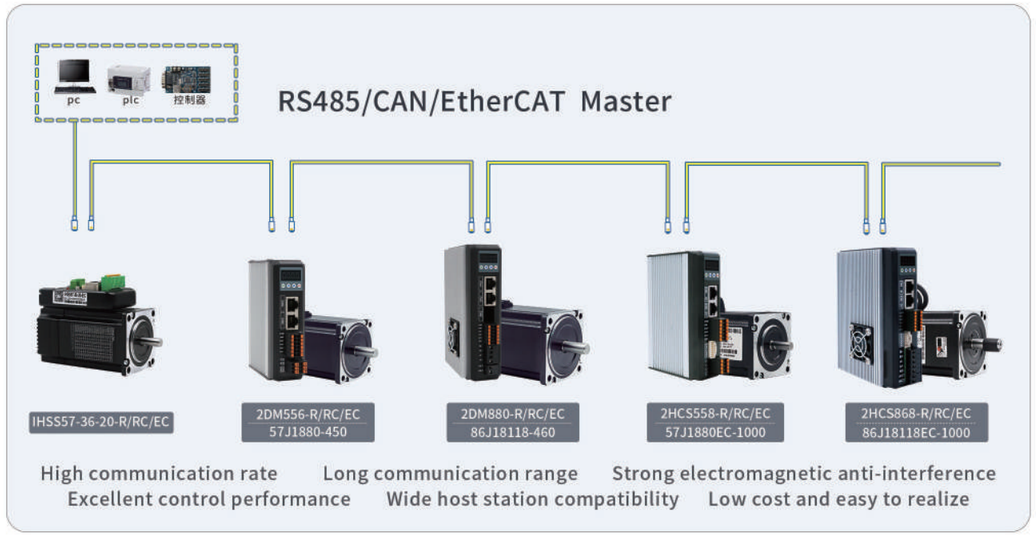
Brief introduction for JMC EC-series slave drivers

JMC EC series slave driver refers to the slave driver whose hardware adopts 100Mbps full-duplex EtherCAT communication circuit, and whose software adopts COE (CANopen Over EtherCAT) communication protocol and CIA402 motion control protocol. EtherCAT is a high-performance, low-cost, easy-to-use, and topologically flexible high-performance Ethernet technology developed by Beckhoff, which can be applied to ultra-high-speed networks at the industrial field level.



JMC EtherCAT slave station communication structure

JMC R / RC / EC series slave station

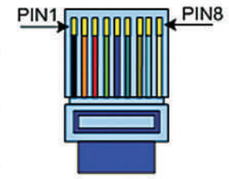


High communication rate　Long communication range　Strong electromagnetic anti-interference
Excellent control performance　Wide host station compatibility　Low cost and easy to realize

Communication specification

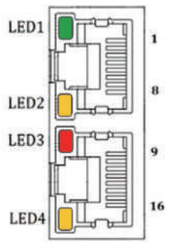
Item	Description		
Type	RS485	CANopen	EtherCAT
Physical transmission medium	CAT 5E shielded twisted pair	CAT 5E shielded twisted pair	100BASE-TX shielded twisted pair
Interface	RJ45	RJ45	RJ45
Baud rate	115200bps	1Mbps	100Mbps full duplex
Transmission distance	Up to 1KM	Up to 1KM	Up to 100 meters
Slave No.	32	127	65535
Date byte	8-40 byte	0-8 byte	44-1498 byte
PDO	Unsupported	4 TPDO, 2 RPDO	4 TPDO, 4 RPDO
DC sync cycle	Unsupported	Unsupported	250*N micro second
Network Topology	Chrysanthemum chain	Chrysanthemum chain	Chrysanthemum chain, star, tree
Motion control mode	PP: Profile position mode PV: Profile velocity Mode HM: Homing mode	PP: Profile position mode PV: Profile velocity Mode HM: Homing mode	CSP: Cyclic Synchronous Position Mode CSV: Cyclic Synchronous speed mode PP: Profile position mode PV: Profile velocity Mode HM: Homing mode
Digital IO	Support	Support	Support
Slave address setting	Support	Support	Support
Communication protocol	Modbus-RTU	CIA 301 CANopen	CANopen over EtherCAT
Device protocol	IEC61800-7 CIA402		

Definition of RJ45 interface for RS485/ CAN

Pin No.	Signal	Definition	Demo
1	CANH	CAN H signal	
2	CANL	CAN L signal	
3	GND	CAN ground	
4，5	NC	No connection	
6	GND	485 ground	
7	485B	485 terminal B	
8	485A	485 terminal A	

Note: 1. It is recommended to use super-five twisted pair shielding to knock on the communication line, and adjust the baud rate appropriately according to the length of the network.
2. It is recommended to add a 120-ohm terminal resistor between CANH and CANL of the terminal slave station or between 485A and 485B in a specific environment with large interference.

Definition of RJ45 interface for EtherCAT

Name	Demo	Pin No.	Signal	Definition
RJ45 interface		1，9	E_TX+	EtherCAT data TX+
		2，10	E_TX-	EtherCAT data TX-
		3，11	E_RX+	EtherCAT data RX+
		4，12	/	/
		5，13	/	/
		6，14	E_RX-	EtherCAT data RX-
		7，15	/	/
		8，16	/	/
		Shell	PE	Shield GND
Description	① LED1 is for “RUN”，green ② LED2 is for “Link/Activity OUT”，yellow ③ LED3 is for “ERR”，red ④ LED4 is for “Link/Activity IN”，yellow			

NOTE: It’s recommended to use 100BASE-TX shield twisted pair.

DM-R/RC/EC Bus Type Digital Stepper Driver

Naming rules

2 DM 5 22 - RC - XXX
① ② ③ ④ ⑤ ⑥

① Phase: 2: two phase; 3: three phase
② DM: digital stepper driver
③ Drive supply voltage: multiplied by 10 is the voltage level, below 9 is DC, and above 10 is AC
④ Driver output current: divided by 10 is the maximum output current of the driver
⑤ Bus type: R: RS485; RC: RS485+CAN; EC: EtherCAT
⑥ Design serial No.: the default is the standard model

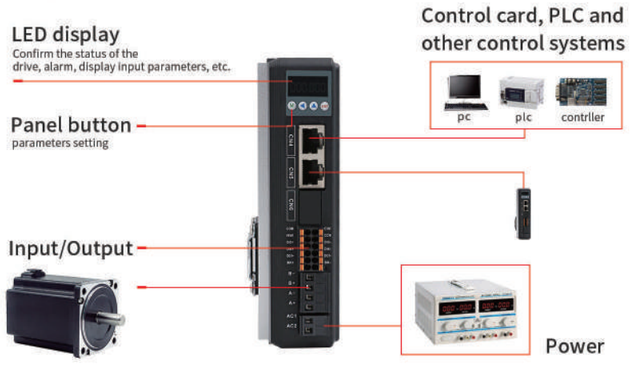
Brief introduction

DM-R/RC/EC bus digital stepper driver series products are RS485/CAN/EtherCAT bus digital stepper driver. Using standard Modbus-RTU/CANopen and EtherCAT (COE) communication protocols, built-in CIA402 motion control protocol cycle synchronous position (CSP), cycle synchronous velocity (CSV), profile position (PP), profile velocity (PV) and homing mode (HM). Using the latest 32-bit ARM processor and motor control algorithm, the low-speed operation is stable and the torque of the motor is improved at medium and high speeds. Built-in key input and digital tube display output, can set slave station operating parameters such as slave station ID number, baud rate, running direction and display the current status of the driver. Comes with 5 digital signal inputs for homing reference, positive and negative limit input and probe function. Comes with two digital signal outputs for brake control, alarm signal and in-position signal. Comes with over-current, over-voltage and under-voltage protection functions. RJ45 network communication connection port, convenient for wiring and reducing system complexity. It is a cost-effective industrial Ethernet bus motion control product.

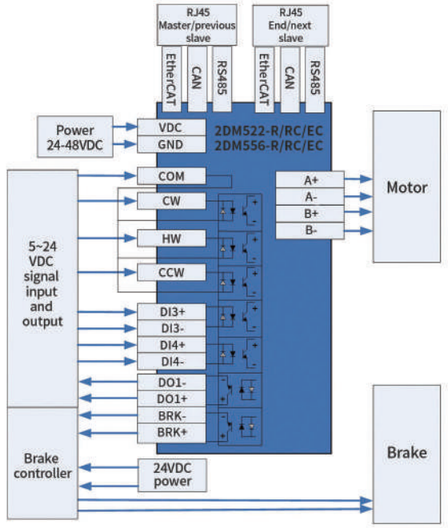
Selection table and electric specifications

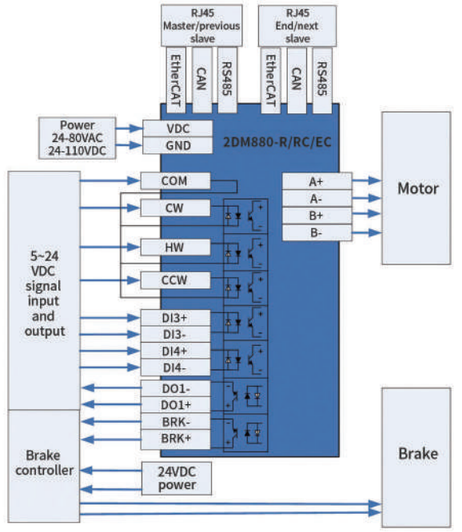
Model		Communication mode	Supply voltage	Output current	Digital signal	Matching motor
	2DM522-R	RS485	24~48VDC	0~2.2A	Digital input: current: 6~16mA Voltage: 5~24VDC Digital output: current: 0~50mA Voltage: 0~30VDC	28/35/42mm base
	2DM522-RC	RS485+CAN				
	2DM522-EC	EtherCAT				
	2DM556-R	RS485	24~48VDC	0~5.6A		57/60mm base
	2DM556-RC	RS485+CAN				
	2DM556-EC	EtherCAT				
	2DM880-R	RS485	24~80VAC 24~110VDC	0~8.0A		86mm base
	2DM880-RC	RS485+CAN				
	2DM880-EC	EtherCAT				

Driver interface



Typical wiring diagram



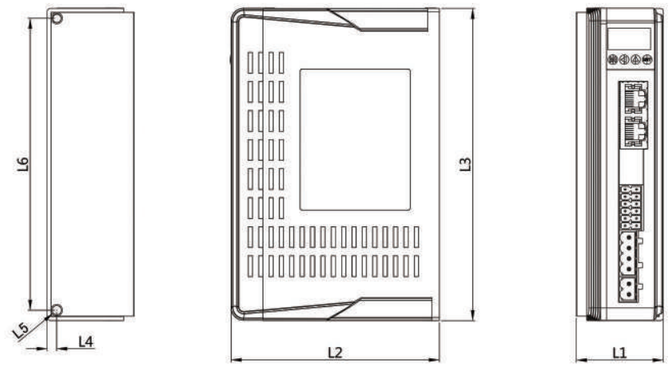


IO definition

Symbol	COM	CW	HW	CCW	DI3+	DI3-	DI4+	DI4-	DO1+	DO1-	BK+	BK-
Electric spec	24VDC/GND	Digital input: 5~24VDC							Digital output: 0~30VDC 0~50mA			
Description	Common anode/cathode	CW limit	Home limit	CCW limit	Probe 1 input+	Probe 1 input-	Probe 2 input+	Probe 2 input-	In place/ alarm input+	In place/ alarm input-	Brake output+	Brake output-

Note: DI3+, DI3- and DI4+, DI4 can be used as digital input terminals in R/RC series products.

Driver size



Model	L1(mm)	L2(mm)	L3(mm)	L4(mm)	L5(mm)	L6(mm)
2DM522-R/RC/EC	34.00	80.50	117.70	4.60	4.40	108.00
2DM556-R/RC/EC	34.00	80.50	117.70	4.60	4.40	108.00
2DM880-R/RC/EC	41.90	110.80	150.40	4.60	4.40	108.00

HCS-R/RC/EC Bus Type Hybrid Step-Servo Driver

Naming rules

2 HCS 8 68 - RC - XXX

① ② ③ ④ ⑤ ⑥

① Phases: 2: two phases; 3: three phases
② HCS: Hybrid step-servo driver
③ Driver power supply voltage multiplied by 10 is the voltage level, below 7 is DC, and above 8 is AC
④ Driver output current: divide by 10 to get the maximum output current of the driver
⑤ Bus type: R:RS485; RC:RS485+CAN; EC: EtherCAT
⑥ Design serial No.: the default is the standard model

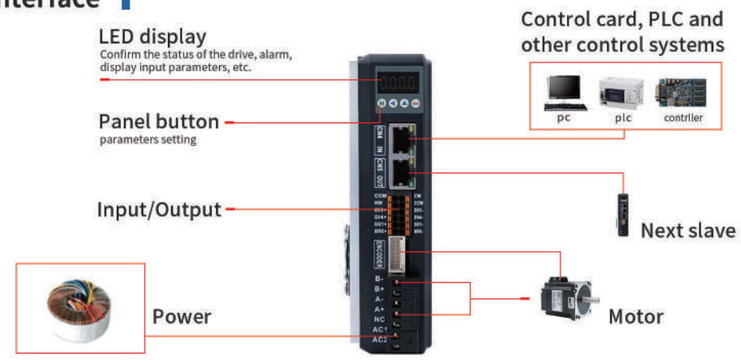
Brief introduction

The product of HCS-R/RC/EC bus hybrid stepping servo driver is RS485/CAN/EtherCAT bus hybrid stepping servo driver. Using standard Modbus-RTU/CANopen and EtherCAT (COE) communication protocols, built-in CIA402 motion control protocol cycle synchronous position (CSP), cycle synchronous velocity (CSV), profile position (PP), profile velocity (PV) and homing mode (HM). Using the latest 32-bit DSP processor and motor control algorithm, the low-speed operation is stable, and the high-speed operation torque of the motor is improved. It can replace the servo in some applications. Built-in key input and digital tube display output, you can set slave station operating parameters such as slave station ID number, baud rate, running direction, etc., and display the current status of the drive. Comes with 5 digital signal inputs for homing reference, positive and negative limit input and probe function. Comes with three digital signal outputs for brake control signal, alarm and in-position signal. Comes with over-current, over-voltage, under-voltage and position tolerance protection functions. RJ45 network communication connection port, convenient connection, less system complexity. It is a cost-effective industrial Ethernet bus motion control product.

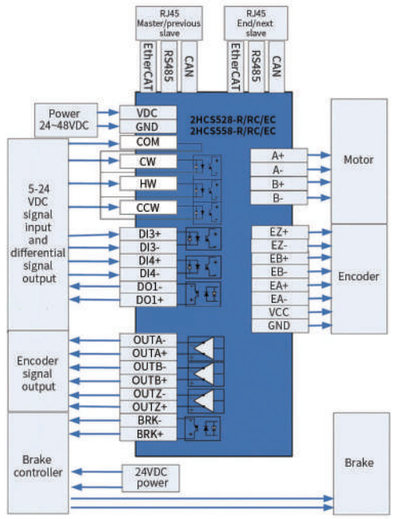
Selection table and electric specifications

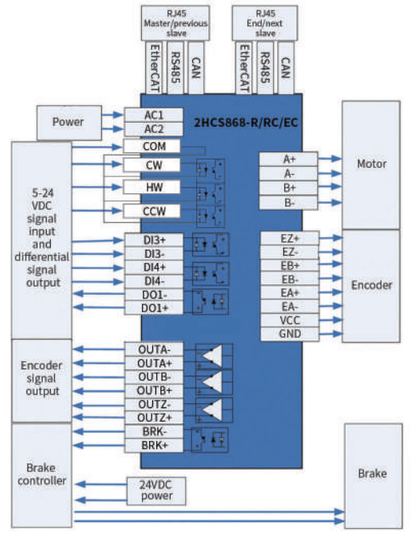
Model		Communication mode	Supply voltage	Output current	Digital signal	Matching motor
	2HCS528-R	RS485	24VDC	0~2.8A	Digital input: current: 6~16mA Voltage: 5~24VDC Digital output: current: 0~50mA Voltage: 0~30VDC	28/35/42mm base
	2HCS528-RC	RS485+CAN				
	2HCS528-EC	EtherCAT				
	2HCS558-R	RS485	24~48VDC	0~5.8A		57/60mm base
	2HCS558-RC	RS485+CAN				
	2HCS558-EC	EtherCAT				
	2HCS868-R	RS485	20~80VAC 30~110VDC	0~6.8A		60/86mm base
	2HCS868-RC	RS485+CAN				
	2HCS868-EC	EtherCAT				
	3HCS2208-R	RS485	220VAC	0~8.0A		86/110/130mm base
	3HCS2208-RC	RS485+CAN				
	3HCS2208-EC	EtherCAT				

Driver interface



Typical wiring diagram



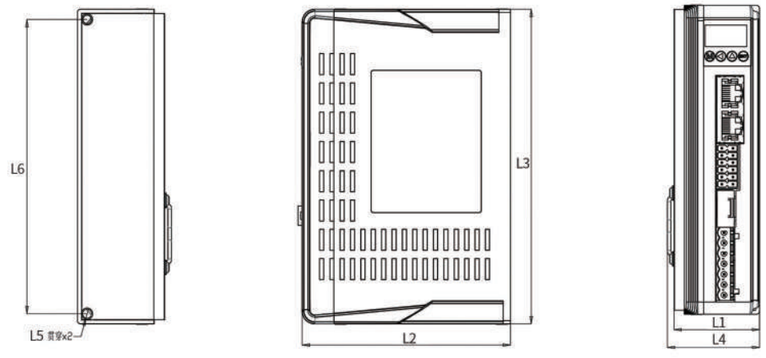


IO definition

Symbol	COM	CW	HW	CCW	DI3+	DI3-	DI4+	DI4-	DO1+	DO1-	BK+	BK-
Electric spec	24VDC/GND	Digital input: 12~24VDC							Digital output: 0~30VDC 0~50mA			
Description	Common anode/cathode	CW limit	Home limit	CCW limit	Probe 1 input+	Probe 1 input-	Probe 2 input+	Probe 2 input-	In place/ alarm input+	In place/ alarm input-	Brake output+	Brake output-

Note: DI3+, DI3- and DI4+, DI4 can be used as digital input terminals in R/RC series products

Driver size



Model	L1(mm)	L2(mm)	L3(mm)	L4(mm)	L5(mm)	L6(mm)
2HCS528-R/RC/EC	34.00	80.50	128.70	34.00	4.40	119.00
2HCS558-R/RC/EC	34.00	80.50	128.70	34.00	4.40	119.00
2HCS868-R/RC/EC	42.00	110.40	150.40	45.25	4.40	140.00
3HCS2208-R/RC/EC	50.00	173.00	170.00	50.00	5.00	160.00

iHSS-R/RC/EC Bus Type Integrated Step-Servo Motor

Naming rules

iHSS 57 - 36 - 20 - XX - RC - XXX
① ② ③ ④ ⑤ ⑥ ⑦

① IHSS: Integrated hybrid step-servo motor
② 57: Motor base
③ Rated supply voltage: 36 means 36VDC
④ Rated holding torque: Divided by 10 (Unit: N.m)
⑤ XX: Shaft length, default is standard
⑥ Bus type: R: RS485; RC: RS485+CAN; EC: EtherCAT
⑦ Design serial No.: Default is standard

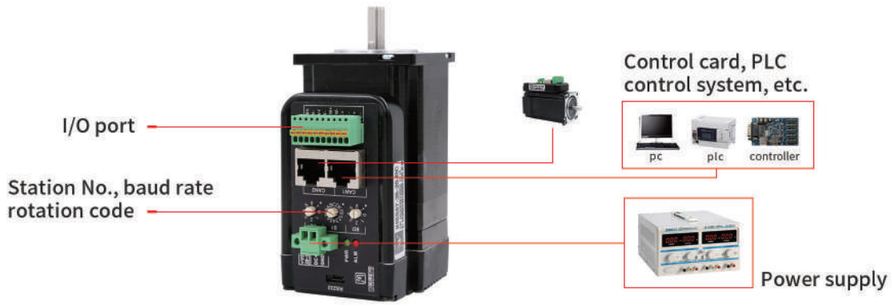
Brief introduction

The iHSS-R/RC/EC bus series product is RS485/CAN/EtherCAT bus integrated hybrid step-servo motor. Using standard Modbus-RTU, CANopen and EtherCAT (COE) communication protocols, built-in CIA402 motion control protocol cycle synchronous position (CSP), synchronous cycle velocity mode (CSV), profile position (PP), profile velocity (PV) and homing (HM) mode. Using the latest 32-bit DSP processor and motor control algorithm, it runs smoothly at low speed, improves the torque of the motor at medium and high speed, and can replace the servo in some applications. Comes with 5 digital signal inputs for homing reference, positive and negative limit input and probe function. Comes with two digital signal outputs for in-position output signal and alarm signal. Comes with brake control circuit. Comes with overcurrent and overvoltage, undervoltage and position tolerance protection functions. RJ45 network communication connection port, highly integrated design integrates drive control system and hybrid stepping servo motor. The encoder lines, motor power lines and signal lines are no longer needed. It makes wiring easy and reduces system complexity. It is a very cost-effective industrial Ethernet bus motion control product.

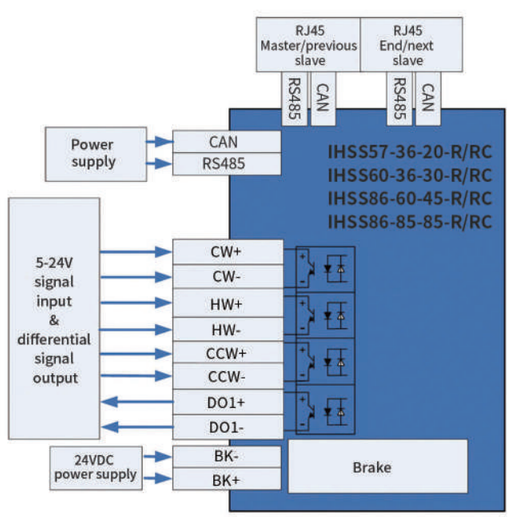
Selection list and electrical specifications

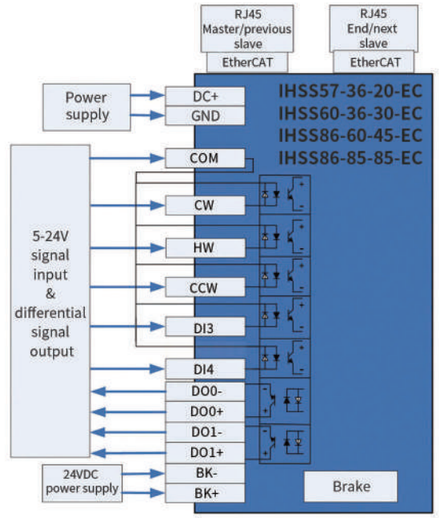
Model		Communication mode	Holding torque	Power supply voltage	Digital signal	Matching motor
	iHSS57-36-20-R	RS485	2N·M	24~48VDC Typical value: 36VDC	Digital input: current: 6~16mA Voltage: 5~24VDC Digital output: current: 0~50mA Voltage: 0~30VDC	57mm base
	iHSS57-36-20-RC	RS485+CAN				
	iHSS57-36-20-EC	EtherCAT				
	iHSS60-36-30-R	RS485	3N·M			60mm base
	iHSS60-36-30-RC	RS485+CAN				
	iHSS60-36-30-EC	EtherCAT				
	iHSS86-60-45-R	RS485	4.5N·M	24~80VDC Typical value: 60VDC		86mm base
	iHSS86-60-45-RC	RS485+CAN				
	iHSS86-60-45-EC	EtherCAT				
	iHSS86-80-85-R	RS485	8.5N·M			
	iHSS86-80-85-RC	RS485+CAN				
	iHSS86-80-85-EC	EtherCAT				

Drive interface



Typical wiring diagram





I/O interface definition

R/RC bus driver I/O interface

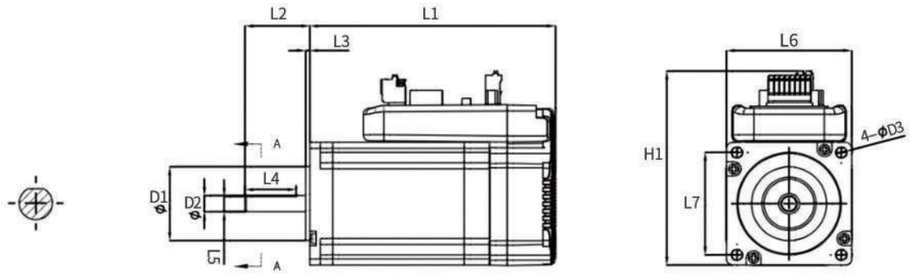
Symbol	CW+	CW-	HW+	HW-	CCW+	CCW-	BK+	BK-	PE+	PE-
Electrical requirements	Digital input: 5-24V: 5~24VDC						24VDC	24V GND	Digital output: 0~30VDC	
Descriptions	Clockwise limit +	Clockwise limit -	Home limit +	Home limit -	Counter clockwise limit +	Counter clockwise limit -	Brake power supply input+	Brake power supply input-	In position output+	In position output -

EC bus driver I/O interface

Symbol	COM	CW	HW	CCW	DI3	DI4	DO0+	DO0-	DO1+	DO1-
Electrical requirements	24VDC/GND	Digital input: 5~24VDC					Digital output: 0~30VDC			
Descriptions	Common anode/cathode	Clockwise limit	Home limit	Counter clockwise limit	Probe input 1	Probe input 2	Alarm output +	Alarm output -	In position output+	In position output -

Note: EC series brake power input terminal (BK24V & BK0V) located next to the power input terminal.

Driver Dimensions



Model	L1(mm)	L2(mm)	L6(mm)	L7(mm)	D1(mm)	D2(mm)	H1(mm)
iHSS57-36-20-R/RC/EC	108.00	21.00	57.00	47.00	38.10	8.00	89.61
iHSS60-36-30-R/RC/EC	117.00	31.00	60.00	50.00	36.00	8.00	92.00
iHSS86-60-45-R/RC/EC	120.00	38.00	86.00	69.58	73.00	14.00	110.63
iHSS86-80-85-R/RC/EC	140.00	38.00	86.00	69.26	73.00	14.00	110.63

Note: Standard 57/60 frame motor shaft is flat, without key. There are two types of shafts for 86-frame motors: flat and with key. Please contact us for detailed shaft dimensions.

JAND-R/RC/EC Bus Type High Voltage Servo Driver

Naming rules

JAND 750 2 - 20B – RC - XXX

① ② ③ ④ ⑤ ⑥

① Series name: JMC JAND series AC servo driver
② Driver power: 100:100W; 200:200W; 400:400W; 750:750W; 1500:1.5KW; 2000:2KW; 3000:3KW
③ Power voltage: 1: Single phase 110V; 2: Single/three phase 220V
④ Encoder type: 17BC:17Bit magnetic; 2500:2500line optical; 2500C:2500 magnetic; M23B:23Bit multi-turn absolute optical
⑤ Bus type: R:RS485; RC:RS485+ CAN; EC: EtherCAT
⑥ Design Serial No.: Special function module, default is standard model

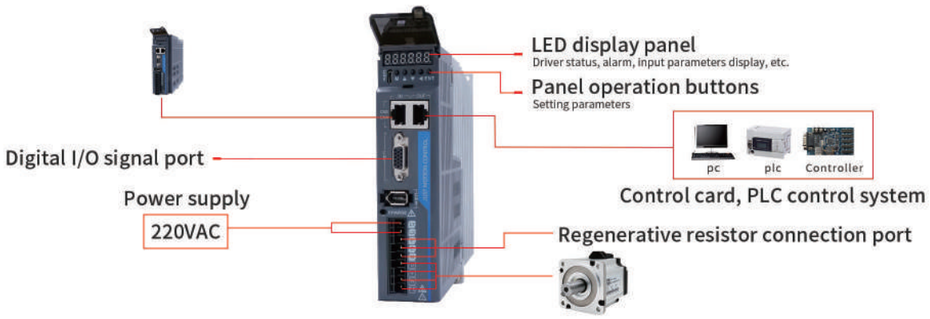
Brief introduction

JAND-R/RC/EC series products are RS485/CAN/EtherCAT bus type high voltage servo drivers. Using standard Modbus-RTU, CANopen and EtherCAT (COE) communication protocols, built-in CIA402 motion control protocol cycle synchronous position (CSP), cycle synchronous velocity (CSV), cycle synchronous torque (CST), profile position (PP), profile Velocity (PV), profile torque (PT), homing (HM) and other modes. It adopts advanced DSP chip for motor control, large-scale programmable gate array (FPGA) and IPM power module, and realizes full digital control of position, speed and torque through optimized PID control algorithm. It has the advantages of high precision and fast response. Built-in button input and digital tube display output, can set slave station operating parameters such as slave station ID number, baud rate, running direction and display the current status of the driver. Comes with 5 digital signal inputs for zero reference, positive and negative limit input and probe function. Comes with 3 digital signal outputs for brake control signal, alarm and in-position signal. Comes with over-current, over-voltage, under-voltage and position tolerance protection functions. RJ45 network communication connection port, convenient for wiring and reducing system complexity. At the same time, it supports motors with 17-bit, 20-bit, and 23-bit high-precision absolute encoders to meet customers' different requirements for performance. Widely used in automation fields such as CNC machine tools, printing and packaging machinery, textile machinery, robots, and automated production lines. It is a cost-effective industrial Ethernet bus motion control product.

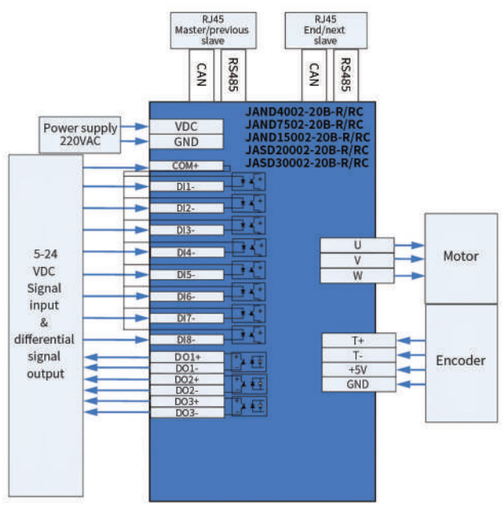
Selection list and electrical specifications

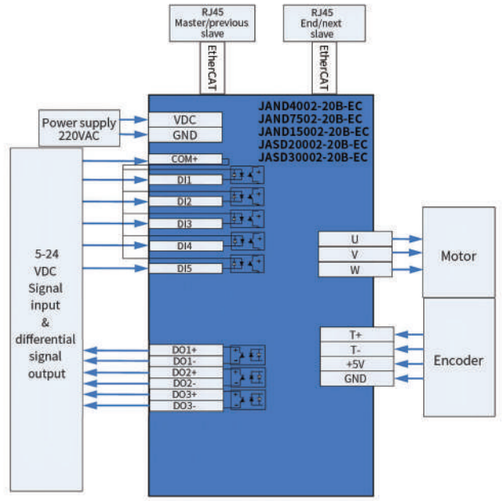
	Model	Communication mode	Power supply voltage	Output current	Digital signal	Matching motor
	JAND4002-20B-R	RS485	220VAC	2.8A	Digital input: Current: 6~16mA Voltage: 5~24VDC Digital output: Current: 0~50mA Voltage: 0~30VDC	40/60mm base
	JAND4002-20B-RC	RS485+CAN				
	JAND4002-20B-EC	EtherCAT				
	JAND7502-20B-R	RS485		5.5A		80mm base
	JAND7502-20B-RC	RS485+CAN				
	JAND7502-20B-EC	EtherCAT				
	JAND10002-20B-R	RS485		8.0A		80/110mm base
	JAND10002-20B-RC	RS485+CAN				
	JAND10002-20B-EC	EtherCAT				
	JASD20002-20B-R	RS485		14A		110/130mm base
	JASD20002-20B-RC	RS485+CAN				
	JASD20002-20B-EC	EtherCAT				
	JASD30002-20B-R	RS485		20A		130mm base
	JASD30002-20B-RC	RS485+CAN				
	JASD30002-20B-EC	EtherCAT				

Driver interface



Typical wiring diagram





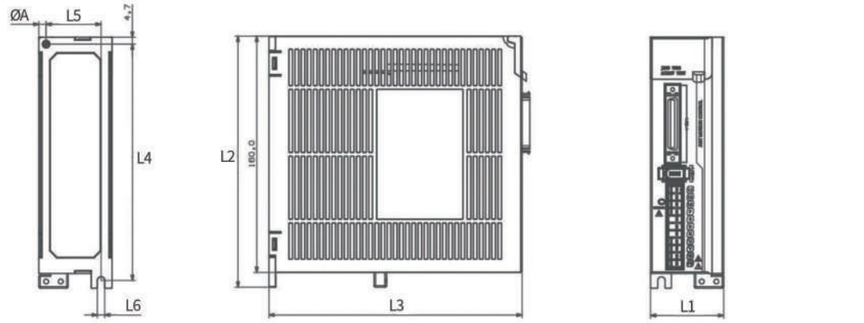
I/O interface definition

R/RC bus type driver I/O interface															
Symbol	COM+	DI1-	DI2-	DI3-	DI4-	DI5-	DI6-	DI7-	DI8-	DO1+	DO1-	DO2+	DO2-	DO3+	DO3-
Electrical requirements	24V	Digital input: 5~24VDC								Digital output: 0~30VDC					
Descriptions	Common input	Servo ON	CW limit input	HW limit input	CCW limit input	DI5 signal input	DI6 signal input	DI7 signal input	DI8 signal input	In position output +	In position output -	Brake output +	Brake output -	Alarm output +	Alarm output -

EC bus type driver interface												
Symbol	COM+	DI1	DI2	DI3	DI4	DI5	DO1+	DO1-	DO2+	DO2-	DO3+	DO3-
Electrical requirements	24V	Digital input: 5~24VDC					Digital output: 0~30VDC					
Descriptions	Common input	CW limit input	HW limit input	CCW limit input	Probe input 1	Probe input 2	In position output +	In position output -	Brake output +	Brake output -	Alarm output +	Alarm output -

Note: IO function can be customized, and drive station number & baud rate can be set by host computer.

Driver Dimensions



Model	L1(mm)	L2(mm)	L3(mm)	L4(mm)	L5(mm)	L6(mm)	ØA
JAND4002-20B-R/RC/EC	40.00	171.30	150.00	160.00	28.10	4.80	5.00
JAND7502-20B-R/RC/EC	50.00	170.00	173.00	160.00	37.50	5.00	5.00
JAND10002-20B-R/RC/EC	50.00	170.00	173.00	160.00	37.50	5.00	5.00
JASD20002-20B-R/RC/EC	75.00	180.20	169.00	161.80	61.00	5.30	5.50
JASD30002-20B-R/RC/EC	78.80	209.70	189.10	191.80	64.80	5.30	5.50

MCAC-R/RC/EC Bus Type Low Voltage Servo Driver

Naming Rules

MC AC 8 25 – 1024C – 5 - 200 - RC - XXX

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

① Series name: JMC MC series AC servo motor driver
② Servo driver type: AC: AC servo driver; DC: DC servo driver
③ Power supply voltage: Given number *10 (6: 60VDC; 7: 70VDC; 8: 80VDC)
④ Output current: 10: 10A; 25: 25A; 45: 45A; 50: 50A; A0: 100A
⑤ Matching motor encoder: 1024C: 1024 line magnetic;
2500: 2500line optical; 2500C: 2500line magnetic; M23B: 23Bit multi-turn absolute optical; 17BC: 17Bit absolute magnetic
⑥ Matching motor pole pairs: 4: Four pairs (Default); 5: Five pairs
⑦ Matching motor power: 200: 200W; 400: 400W; 750: 750W; 1000: 1000W
⑧ Communication mode: R: RS485; RC: RS485+CAN; EC: EtherCAT
⑨ Design serial No.: Special function module, default is the standard model

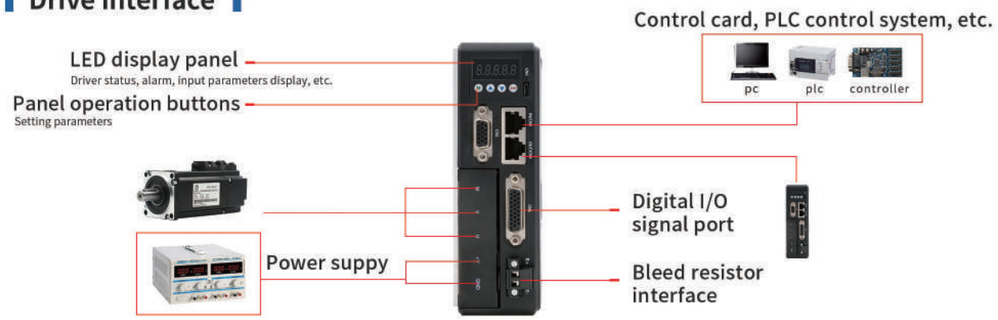
Brief introduction

MCAC-R/RC/EC series products are RS485/CAN/Ethercat bus low-voltage servo drivers. Using standard Modbus-RTU, CANopen and EtherCAT (COE) communication protocols, built-in CIA402 motion control protocol cycle synchronous position (CSP), cycle synchronous velocity (CSV), cycle synchronous torque (CST), profile position (PP), profile velocity (PV), profile torque (PT), homing (HM) and other modes. Using advanced DSP chips for motor control, large-scale programmable gate array (FPGA), and through optimized PID control algorithm, it realizes full digital control of position, speed and torque. It has the advantages of high precision and fast response. You can set slave station operating parameters such as slave station ID number, baud rate, and running direction, and display the current status of the drive. Comes with 5 digital signal inputs for zero reference, positive and negative limit input and probe function. Comes with 3 digital signal outputs, used for brake control signal, alarm signal and in-position signal. Comes with over-current, over-voltage, under-voltage protection functions. RJ45 network communication connection port, convenient for wiring and reducing system complexity. At the same time, it supports motors with 1000-line, 1250-line, and 2500-line incremental encoders and 17-bit, 20-bit, and 23-bit high-precision absolute encoders to meet the different requirements of customers for performance. Widely used in automation fields such as CNC machine tools, printing and packaging machinery, textile machinery robots, and automated production lines. It is a cost-effective industrial Ethernet bus motion control product.

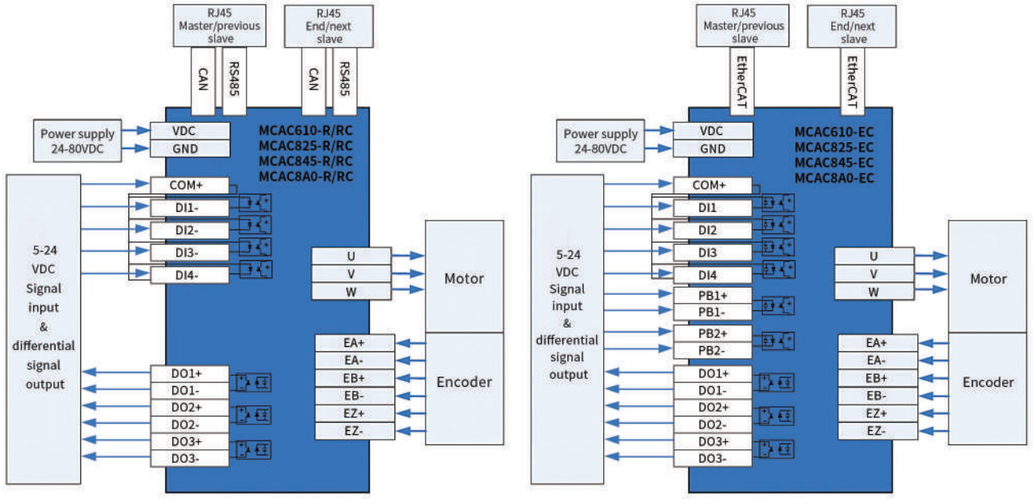
Selection list and electrical specifications

	Model	Communication mode	Power supply voltage	Output current	Digital signal	Matching motor
	MCAC610-R	RS485	20~60VDC	10A	Digital input: Current: 6~16mA Voltage: 5~24VDC Digital output: Current: 0~50mA Voltage: 0~30VDC	40/57/60mm base
	MCAC610-RC	RS485+CAN				
	MCAC610-EC	EtherCAT				
	MCAC825-R	RS485	36~80VDC	25A		57/60 mm base
	MCAC825-RC	RS485+CAN				
	MCAC825-EC	EtherCAT				
	MCAC845-R	RS485		45A		80 mm base
	MCAC845-RC	RS485+CAN				
	MCAC845-EC	EtherCAT				
	MCAC8A0-R	RS485		100A		110/130 mm base
	MCAC8A0-RC	RS485+CAN				
	MCAC8A0-EC	EtherCAT				

Drive interface



Typical wiring diagram



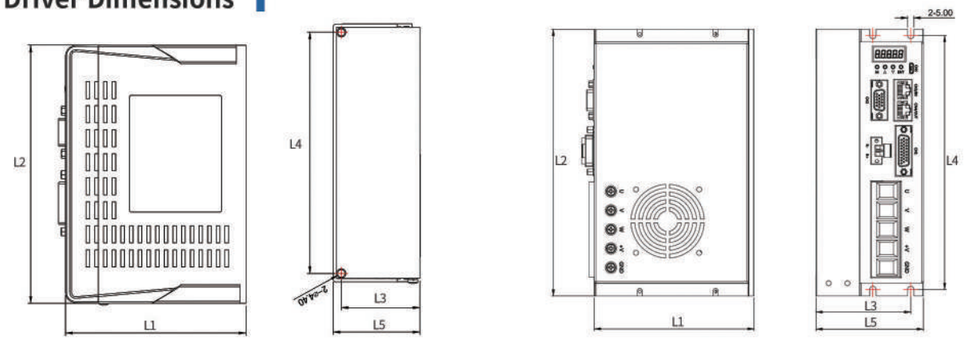
I/O interface definition

R/RC bus type driver I/O interface											
Symbol	COM+	DI1-	DI2-	DI3-	DI4-	DO1+	DO1-	DO2+	DO2-	DO3+	DO3-
Electrical requirements	24V	Digital input: 5~24VDC				Digital output: 0~30VDC					
Descriptions	Common input	Servo ON	CW limit switch	HW limit switch	CCW limit switch	In position output +	In position output -	Brake output +	Brake output -	Alarm output +	Alarm output -

EC bus type driver I/O interface														
Symbol	COM+	DI1	DI2	DI3	DI4	PB1+	PB1-	PB2+	PB2-	DO1+	DO1-	DO2+	DO2-	DO3+	DO3-
Electrical requirements	24V	Digital input: 5~24VDC								Digital output: 0~30VDC					
Descriptions	Common input	CW limit input	HW limit input	CCW limit input	DI4 signal input	Probe input 1+	Probe input 1-	Probe input 2+	Probe input 2-	In position output+	In position output-	Brake output +	Brake output -	Alarm output +	Alarm output -

Note: IO function can be customized, and drive station number & baud rate can be set by host computer.

Driver Dimensions



Model	L1(mm)	L2(mm)	L3(mm)	L4(mm)	L5(mm)
MCAC610-R/RC/EC	84.00	117.70	35.83	108.00	40.50
MCAC825-R/RC/EC	104.00	150.50	45.33	140.70	50.00
MCAC845-R/RC/EC	104.00	150.50	45.33	140.70	50.00
MCAC8A0-R/RC/EC	126.50	210.00	75.00	200.00	85.00

IHSV-R /RC/EC Bus Type Integrated Servo Motor

Naming rules

iHSV 57 - 30 - 14 - 36 - RC - XXX

① ② ③ ④ ⑤ ⑥ ⑦

① Series Name: iHSV: Integrated AC servo motor
② Motor base: 57: 57mm; 60: 60mm; 86: 86mm
③ Rated speed: 30: 3000RPM
④ Motor rated power: Multiply by 10 for motor rated power
⑤ Rated supply voltage: 36: 36VDC; 48: 48VDC; 72: 72VDC
⑥ Bus type: R: RS48 RC: RS485+CAN EC: EtherCAT
⑦ Design serial No.: special function module, the default is the standard model

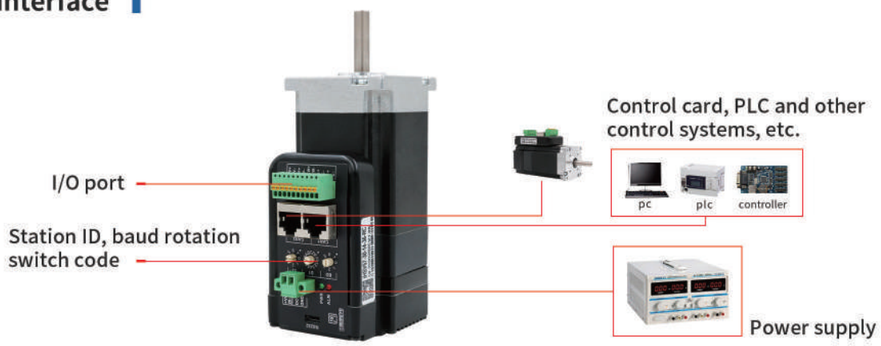
Brief introduction

The iHSV-R/RC/EC series products are RS485/CAN/EtherCAT bus integrated AC servo motors. Modbus-RTU, CANopen and EtherCAT(COE) standard communication protocols are adopted. Built-in CIA402 motion control protocol cycle synchronous position (CSP), cycle synchronous velocity (CSV), cycle synchronous torque (CST), profile position (PP), profile velocity (PV), profile torque (PT), homing (HM) and other modes. Full digital control of position, speed and torque is realized through optimized PID control algorithm. It has the advantages of high precision and fast response. Comes with 5 digital signal inputs for homing reference, positive and negative limit input and probe function. Comes with a digital signal output for in-position signal and alarm signal output (optional). Comes with brake control circuit. Comes with over-current, over-voltage, under-voltage and position tolerance protection functions. RJ45 network communication connection port, highly integrated design, no need for encoder lines, motor power lines and signal lines, convenient wiring, reducing system complexity. It is a cost-effective industrial Ethernet bus motion control product.

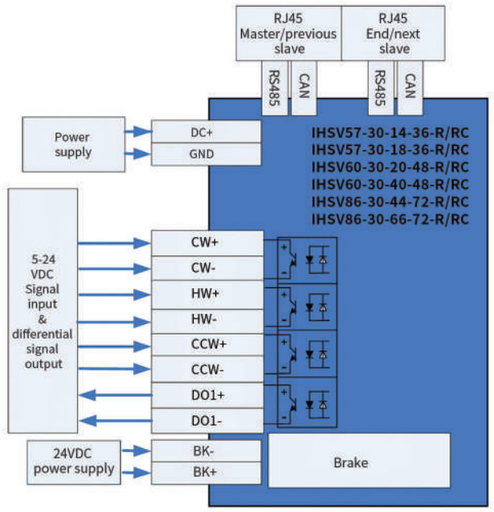
Selection table and electric specifications

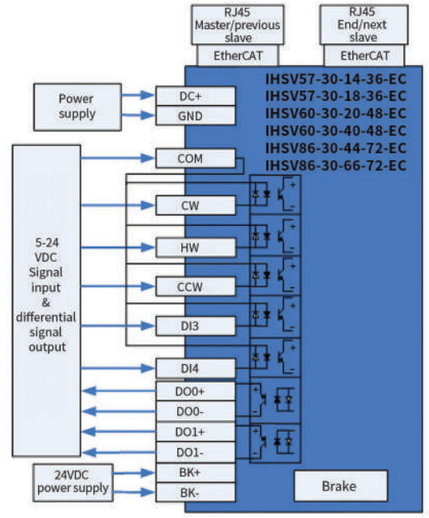
	Model	Communication mode	Power supply voltage	Rated torque	Output current	Motor base
	iHSV57-30-14-36-R	RS485	24~48VDC Typical：36VDC	0.44N·M	Digital input: Current：6~16mA Voltage：5~24VDC Digital output: Current：0~50mA Voltage：0~30VDC	57mm
	iHSV57-30-14-36-RC	RS485+CAN				
	iHSV57-30-14-36-EC	EtherCAT				
	iHSV57-30-18-36-R	RS485		0.6N·M		
	iHSV57-30-18-36-RC	RS485+CAN				
	iHSV57-30-18-36-EC	EtherCAT				
	iHSV60-30-20-36-R	RS485	36~80VDC Typical：48VDC	0.64N·M		60mm
	iHSV60-30-20-36-RC	RS485+CAN				
	iHSV60-30-20-36-EC	EtherCAT				
	iHSV60-30-40-48-R	RS485		1.27N·M		
	iHSV60-30-40-48-RC	RS485+CAN				
	iHSV60-30-40-48-EC	EtherCAT				
	iHSV86-30-44-48-R	RS485	48~100VDC Typical：72VDC	1.4N·M		886mm
	iHSV86-30-44-48-RC	RS485+CAN				
	iHSV86-30-44-48-EC	EtherCAT				
	iHSV86-30-66-72-R	RS485		2.1N·M		
	iHSV86-30-66-72-RC	RS485+CAN				
	iHSV86-30-66-72-EC	EtherCAT				

Driver interface



Typical wiring diagram





I/O interface definition

R/RC bus driver I/O interface

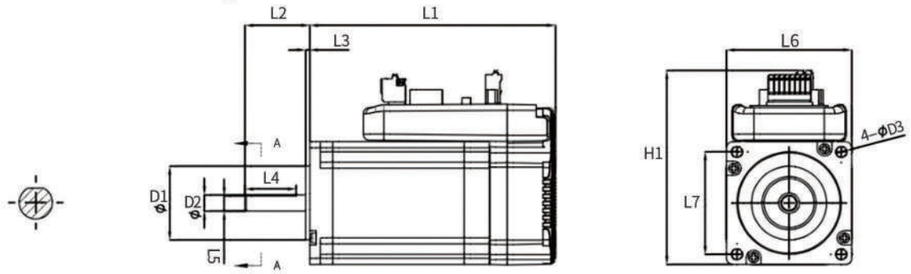
Symbol	CW+	CW-	HW+	HW-	CCW+	CCW-	BK-	BK+	DO1-	DO1+
Electrical requirements	Digital input: 5~24VDC						24VDC	24V GND	Digital output: 0~30VDC	
Descriptions	Clockwise limit +	Clockwise limit -	Home limit +	Home limit -	Counter clockwise limit +	Counter clockwise limit -	Brake power supply input+	Brake power supply input-	In position output+	In position output -

EC bus driver I/O interface

Symbol	COM	CW	HW	CCW	DI3	DI4	DO0+	DO0-	DO1+	DO1-
Electrical requirements	24VDC/GND	Digital input: 5~24VDC					Digital output: 0~30VDC			
Descriptions	Common anode/cathode	Clockwise limit	Home limit	Counter clockwise limit	Probe input 1	Probe input 2	Alarm output +	Alarm output -	In position output+	In position output -

Note: EC series brake power input terminal (BK24V & BK0V) located next to the power input terminal.

Driver Dimensions



Model	L1(mm)	L2(mm)	L6(mm)	L7(mm)	D1(mm)	D2(mm)	H1(mm)
iHSV57-30-14-36-R/RC/EC	127.8	33.0	57.0	47.1	25.4	8	90.0
iHSV57-30-18-36-R/RC/EC	148.0	33.0	57.0	47.1	25.4	8	90.0
iHSV60-30-20-36-R/RC/EC	110.0	30.0	60.0	49.5	50.0	11	92.2
iHSV60-30-40-48-R/RC/EC	141.5	30.0	60.0	49.5	50.0	14	92.2
iHSV86-30-44-48-R/RC/EC	158.0	38.0	86.0	69.6	73.0	14	121.8
iHSV86-30-66-72-R/RC/EC	186.0	38.0	86.0	69.6	73.0	14	121.8

Note: Standard 57/60 frame motor shaft is flat, without key. There are two types of shafts for 86-frame motors: flat and with key. Please contact us for detailed shaft dimensions.

Pulse Type Motion Controller

Controller brief introduction

The JMC8XX series is an economical multi-axis pulse controller that supports up to 12-axis pulse control and extended 485/CAN bus axes. It supports offline programming such as ladder diagram (Mitsubishi style), C language, custom function blocks, etc. The pulse-controlled axis can realize point position, multi-axis linear and 2-3 axis circular interpolation, helical interpolation, and the maximum pulse output frequency is 10MHZ, which can meet various high-speed motion occasions.

The JMC8XX series pulse controller can be used in truss manipulator, medical equipment, logistics sorting, inkjet printer, packaging machine, screw machine, quality inspection machine, textile machine, labeling machine and non-standard equipment.

Functions & Features

Number of axes: support up to 12 pulse axes, expandable 485/CAN bus axes
IO: Internal up to 64 inputs and 32 outputs, and I/O modules can be expanded through 485/CAN
Communication: The interface is rich. RS232, RS485, CAN, Ethernet, U disk
Analog: full range of 2 inputs, 2 outputs
Pulse mode: Compatible with 3 types, pulse + direction, double pulse, AB phase pulse

Functions:

01. Support 4/6/12 encoder input, can measure speed, measure displacement, configure as handwheel mode.
02. The positive and negative limit and origin signal of the axis can be configured as any input port.
03. The maximum output current is 1A, which can directly drive common solenoid valves.
04. Support linear interpolation, circular interpolation, helical interpolation, electronic gear, electronic cam, hand wheel.
05. The user program is compiled and downloaded, and the upload function is eliminated to ensure the absolute safety of the user program.
06. Support U disk offline update program, and the update file is a compiled file and cannot be cracked.
07. The programming languages are diverse and can be mixed to give full play to their respective advantages, such as C language, ladder diagram, and self-defined function blocks.

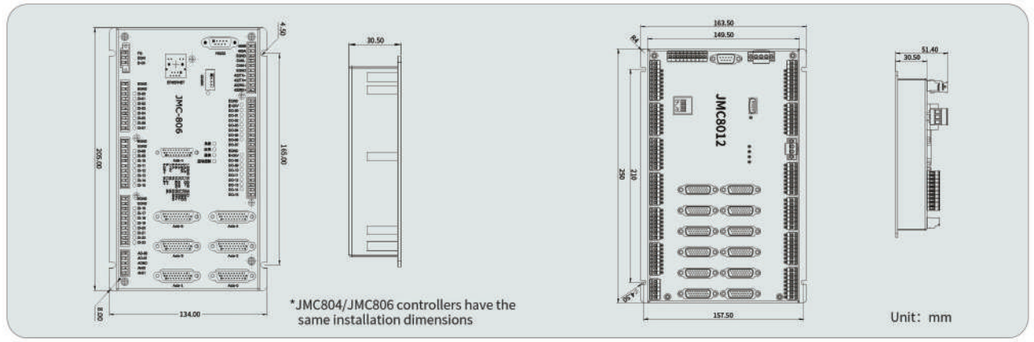
Performance:

01. The maximum output pulse frequency is 10MHz.
02. The program scan period is 0.1ms, and the control period is 1ms.

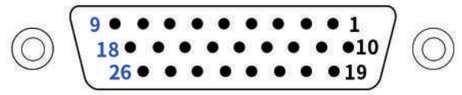
Selection Guide

Model	JMC804	JMC806	JMC8012
Image			
Number of axis	4	6	12
Number of encoders	4	6	12
Pulse frequency	10M	10M	10M
Internal input/output	24/16	24/16	64/32
Internal AD/DA	2/2	2/2	2/2
Program space	192K	192K	192K
Power-down storage	7K	7K	7K
232	1 channel	1 channel	1 channel
485	2 channel	2 channel	2 channel
Ethernet	1 channel	1 channel	1 channel
CAN	1 channel	1 channel	1 channel
U disk	1 channel	1 channel	1 channel
Dimensions(mm)	135*127*31	135*127*31	246*145*40
Function description	Point, line, arc, handwheel	Point, line, arc, handwheel	Point, line, arc, handwheel

Drawing



Axis Interface Pin Definition



Pin port	Signal	Explanation
1	EOV	External power ground
2	ALM-	Universal input, it is recommended to drive the alarm
3	ENA-	Universal output, it is recommended to drive enable
4	EA-	Encoder A phase negative
5	EB-	Encoder B phase negative
6	EZ-	Encoder Z phase negative
7	+5V	Digital power +5V output
8	NC	Spare
9	DIR+	Direction output positive
10	GND	Digital ground
11	CP-	Pulse output negative
12	NC	Spare
13	GND	Digital ground
14	E24V	External power +24V output
15	NC	Spare
16	NC	Spare
17	EA+	Encoder A phase positive
18	EB+	Encoder B phase positive
19	EZ+	Encoder Z phase positive
20	GND	Digital ground
21	GND	Digital ground
22	DIR-	Direction output negative
23	CP+	Pulse output positive
24	GND	Digital ground
25	NC	Spare

JMC800-RC CANopen Controller Introduction

Function introduction:

- ◆ Support CANopen control, up to 32 axes
- ◆ Support RS485, RS232 communication, Ethernet communication
- ◆ Support Modbus-RTU, Modbus-TCP master-slave mode
- ◆ Support CAN, serial port free protocol

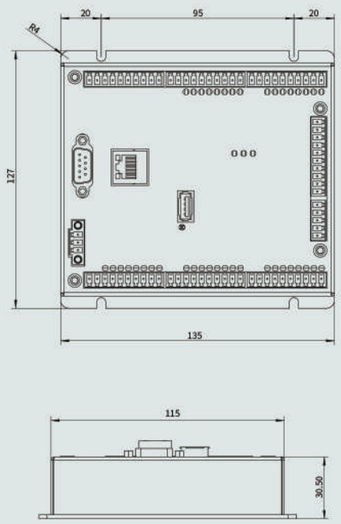
Application areas:

- ◆ Robotics: including automated robots, conveyor belts and other industrial machinery
- ◆ Medical: including X-ray generators, syringes, patient beds and dialysis equipment
- ◆ Automobile: including agriculture, railways, trailers, heavy vehicles and ships, etc.

Specifications:

Model		JMC800-RC
Hardware parameters	Control cycle	1ms
	Storage	256K Byte
IO	Input	24 channels with software filtering
	Output	16 channels 1A open collector, overcurrent and overload protection
Analog	AD	2 channels / -10-10V
	DA	2 channels / -10-10V
Communication	CAN	1 channel, support CANopen
	USB	1 channel, program offline download
	RS232	1 channel, touch screen communication
	RS485	2 channel, touch screen communication
	Ethernet	1 channel, data communication
Development Platform		XMC_Develop
Programming language		Ladder Diagram, C language

Drawing:



Unit: mm

JIO2416I/O expansion module

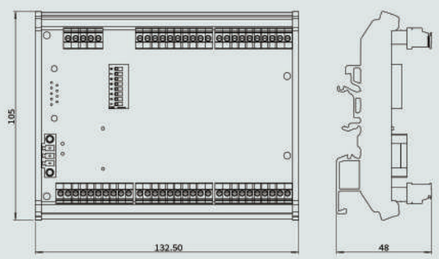
Function introduction:

Support 24 digital input, 16 digital output, support CAN, RS485 communication. Set the baud rate and terminal resistance by dialing the code.

Specifications:

Model		JIO2416
System parameters	Refresh cycle	50us
I/O	Input	24 channels with digital filtering
	Output	16 channel 1A open collector, overcurrent and overload protection
Communication	CAN interface	1 channel, up to 1M baud rate
	R485 interface	1 channel, support Modbus-RTU, up to 115200 baud rate
Dial switch		Support setting CAN, RS485 baud rate, and terminal resistance by dialing

Drawing:



Unit: mm

EtherCAT Master Controller

Controller brief introduction

JMC-101 series is an independent bus motion controller with independent intellectual property rights developed by JMC. It uses high-performance 800MHZ CPU, 512M memory and 512M storage, and has powerful hardware processing capabilities. Based on the general concept design, it has rich communication interfaces, powerful networking capabilities, and a wide range of applications. 1 channel EtherCAT, support 64 EtherCAT digital drive shafts or I/O device access. 2 channels of CAN, support CANopen protocol, up to 127 channels of digital drive shaft access, also supports custom Can protocol. One each for RS485, RS232 and Ethernet, supporting Modbus or UDP protocol. JMC-101 is flexible in programming and supports a variety of programming languages, including ladder diagrams, function blocks, and C language. At the same time, it supports multi-task framework programming, and the programming ideas are clearer. At the same time, the integrated motion control algorithm supports point motion, multi-axis linear interpolation, 2-3-axis circular interpolation, and 3-axis helical interpolation.

JMC-101 series bus controllers can be used in truss manipulators, medical equipment, logistics sorting, inkjet printers, packaging machines, screw machines, quality inspection machines, textile machines, labeling machines and non-standard equipment.

Functions & Features

Number of axes: Supports up to 64 EtherCAT digital drive axes or I/O devices.
I/O: Assembled by dedicated module JMC1616, maximum 256 channels of input and 256 channels of output, and can be connected to other remote I/O modules of the company.
Communication: The interface is rich. RS232, RS485, CAN, Ethernet, U disk.

Function:

01. Support any multi-axis linear interpolation, circular interpolation, helical interpolation, electronic gear, electronic cam.
02. The user program is compiled and downloaded, eliminating the upload function and ensuring the absolute safety of the user program.

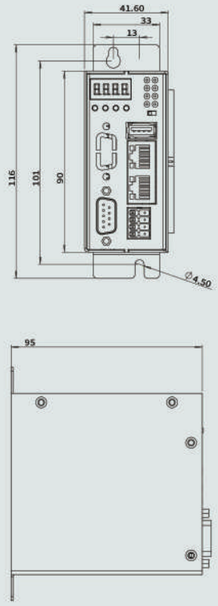
Performance:

01. Minimum 125μs control period.
02. 512M storage space, expandable to 1G.

Selection Guide

Model	JMC101-16	JMC101-32	JMC101-64
Image			
Number of motor shafts	16	32	64
Program space	512M	512M	512M
Power-down storage	39K	39K	39K
232	1 channel	1 channel	1 channel
485	1 channel	1 channel	1 channel
EtherCAT	1 channel	1 channel	1 channel
Ethernet	1 channel	1 channel	1 channel
CAN	2 channel	2 channel	2 channel
U disk	1 channel	1 channel	1 channel
Dimensions (mm)	116*42*95	116*42*95	116*42*95
Function description	point, line, arc	point, line, arc	point, line, arc

Drawing



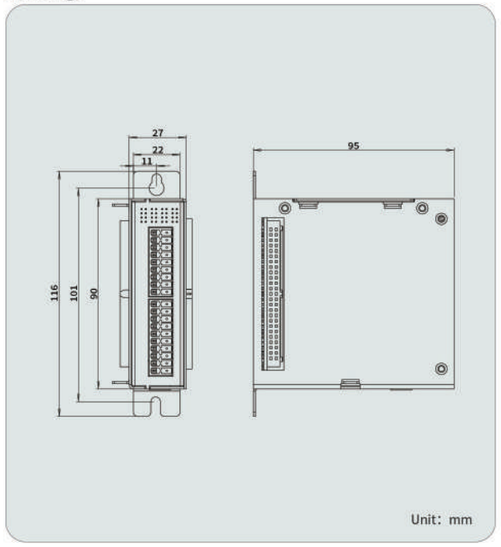
JMC101
Unit: mm

JMC-1616

Specifications:

Power supply	Power supply voltage: 24VDC Internal power consumption: 10mA (excluding external IO)
Input channel/ Output channel	16 / 16
Matching products	JMC101、JMC.ECT
Input signal type	NPN
Typical input current	3mA
Input logic 1 signal voltage	0-5V
Input logic 0 signal voltage	15-24V
Output signal type	Drain type
Output voltage	0V DC
Output drive capability	1A
Output load type	Resistive load, inductive load, lamp load
Isolation withstand voltage	500V
Isolation type	Optocoupler isolation

Drawing:

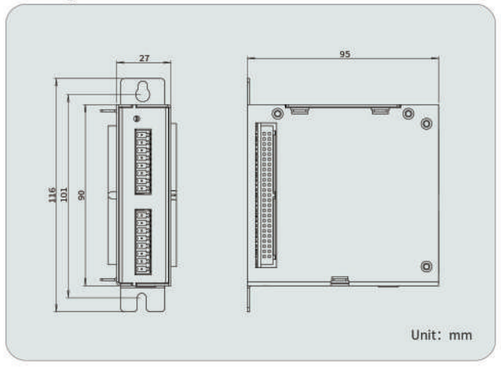


JMC-AD04

Specifications:

Power voltage	Single power supply 24V, internal voltage isolation
Input channel	4 channels, support voltage input and current input
Input range	Voltage bipolar 10V-+10V, current 0-25mA. Can be set by software, supports ±5V and 420mA
Resolution	16 bit
Precision	±0.1%
Matching products	JMC101

Drawing:

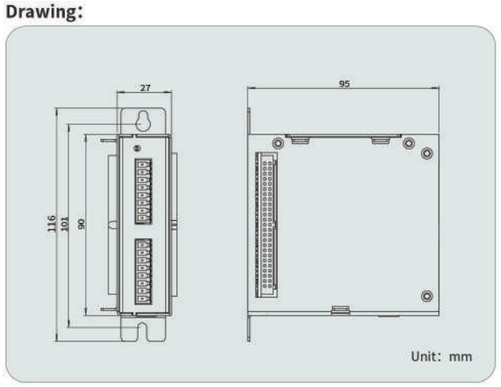


JMC-DA04

Specifications:

Power voltage	Single power supply 24V, internal voltage isolation
Output channel	4 channels, support voltage output and current output
Output range	Voltage bipolar 10V-+10V, current 0-25mA. Can be set by software, supports ±5V and 420mA
Resolution	16 bit
Precision	±0.1%
Matching products	JMC101

Drawing:



JMC.ECT: EtherCAT Remote I/O Coupler

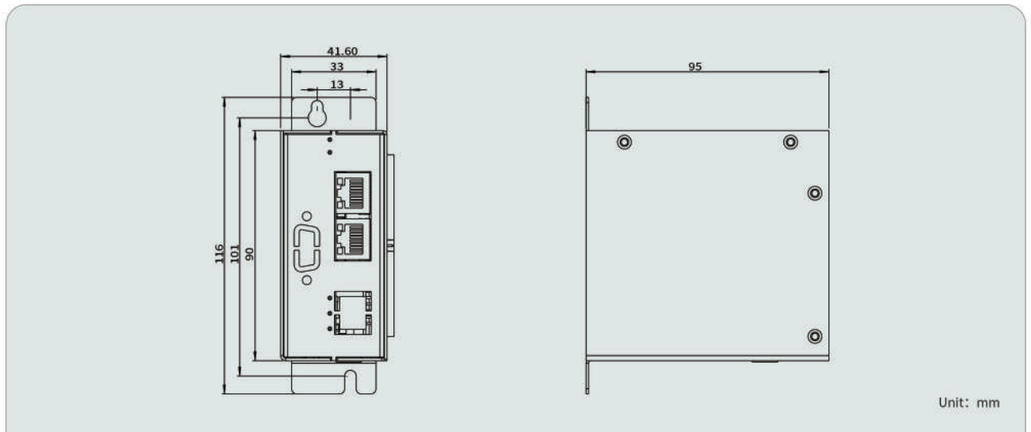
Power supply:

- ◆ Single power supply, system power isolation
- ◆ Power voltage: 24VDC
- ◆ Internal power consumption: 10mA (excluding external IO)

EtherCAT:

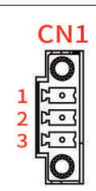
- ◆ Control cycle:> = 125μs
- ◆ Communication cycle:> = 125μs
- ◆ RJ45: Interface*2
- ◆ Combination with JMC-1616, support the maximum 256 digital input and output

Drawing



Interface Pin Definition

Power interface



Pin	Signal	Explanation
1	E+24V	24V power input
2	EGND	24V power GND
3	FG	GND

Dial switch instructions

The number of local extension IO templates is adjusted with dial switch. Example: Dial No. 0, which represents a local expansion of a JMC.1616 board; dialing No. 1, which represents the local expansion of 2 JMC1616 boards, pushed in order. Pay attention to observe whether the dial is consistent with the real object.

Interface Specifications

Bus protocol	EtherCAT
I/O station quantity	16*(16 digital input/16 digital output)
Connection method	2*RJ45
Transmission rate	100Mb/s
Transmission distance	100m（Station distance）
Electrical isolation	Available