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www.jmc-motor.com



本公司产品已通过CE认证



本公司已通过ISO9001:2000
质量管理体系认证



Motion Solution for Industrial Automation



Features

- RS485/CAN/EtherCAT interface
- MODBUS-RTU/CANopen/EtherCAT (COE) protocol
- CIA402 protocol
- Matching popular controller

RS485/CAN/EtherCAT

FIELD-BUS DIGITAL DRIVER STEP-SERVO CATALOGUE



Company Introduction

Shenzhen Just Motion Control Electromechanics Co., Ltd is a national level high-tech company particularly dedicated to design, manufacture and market motion control products. We have an experienced team specialized in R&D, produce and sell to provide new customized products according to the new market.

Our goal is to provide the best performance-to-price solutions for our customers, we do our effort is to “fulfill customer value”. From initial evaluation to final product selection, we keep improving customer technical support and system integration capability, we always do our best to satisfy customer’s full-aspect, multi-level requirement including existing complicated question and the software bottleneck.

Our main products range from digital stepper driver, stepper motors, hybrid step servo system, CANopen/EtherCAT bus-based motion controller, stepper, stepper servo, AC servo, integrated stepper, integrated servo & other CANopen/EtherCAT bus-based series products. Our products are widely used and applied in industries including semiconductor, textile, packaging, laser, engraving, printing, advertising, clothing, stone, ceramic, medical, robotic and so on. Except the China mainland market, our products sold popular in markets come from European countries, America, Mexico, Brazil, South-East Asia, Korea, Vietnam, Iran, Turkey, Pakistan, Russia and the rest of the world.

Our basic working principle is keeping insist responsibility for our OEM customer and industrial customer, insist the highest quality standard, insist on-time delivery.

We always take the product quality to our company’s mission. Good sales way, strong technical support, strict quality control standard, perfect management system makes our product find good comments from our customers. We win the market based on our high quality and high performance-to-price products.

We wish better developing and improvement for our esteemed customers with our effort.



Enterprise Culture

Quality Policy

- All staff involved, focus on details
- Continuous improvement, customer satisfactory

Product Service

- No best only better
- Strive for perfect based on teamwork
- Build industry standard to satisfy customer with high quality product.

Enterprise Vision

- Become international based on China
- Build a century enterprise to be the first class supplier for motion control products with national brand.

Marketing Spirit

- Harmony between man and nature, focus on product quality
- Management system for distributor-selling and direct-selling simultaneously,
- Transform customer vision into creative value to bring all-winning cooperation.

Management philosophy

- Benefits all but striving for nothing
- Being tolerant to bear everything on it
- Human-centered
- Continuously create spiritual value to improve enterprise core competence constantly



R&D



IQC inspection



High-voltage assembling



Low-voltage assembling



Product testing



Product aging



Product aging



Product packaging

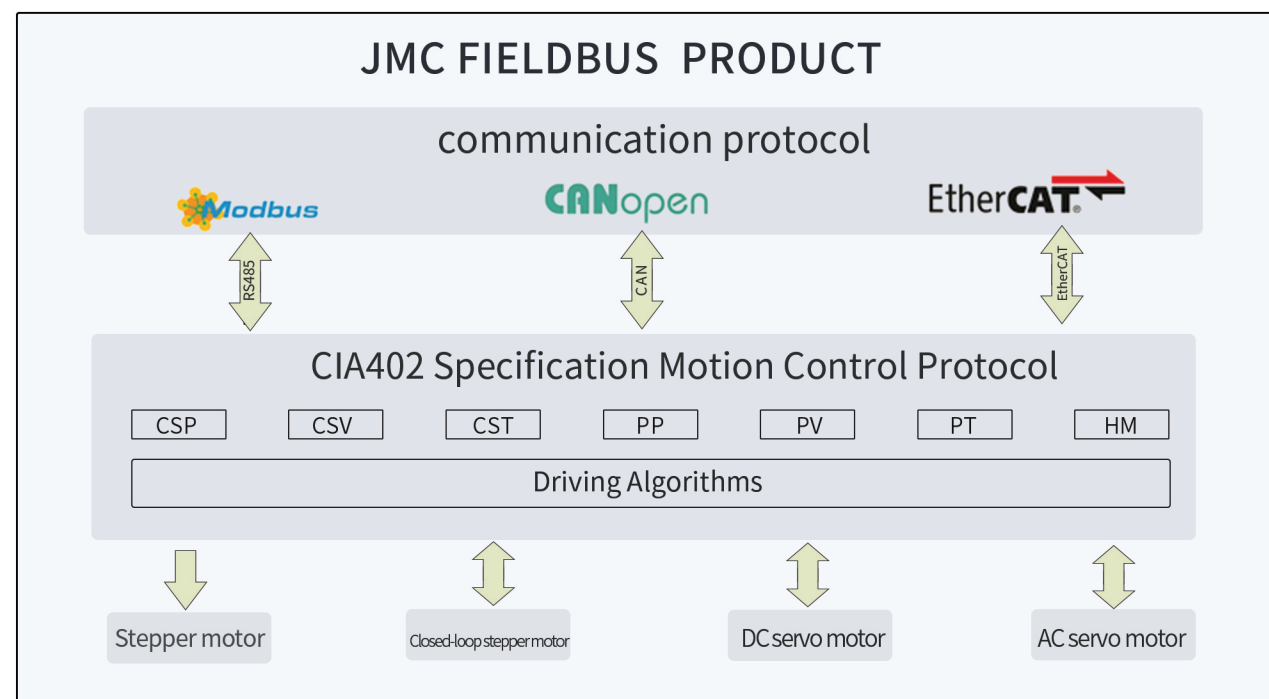


Honorary Qualifications

JMC fieldbus series product introduction

JMC fieldbus drivers include R series with Modbus-RTU protocol(RS485), RC series with CANopen protocol(CAN 2.0B), EC series with COE (CANopen Over EtherCAT) protocol (EtherCAT), the intelligent fieldbus drive products include digital stepper, hybrid step- servo, integrated step-servo, low-voltage AC servo, high-voltage AC servo and integrated AC servo and so on.

JMC fieldbus slave products applicant layer is reference CIA402 motion control protocol, it supports Cyclic synchronous position mode (CSP), Cyclic synchronous velocity mode (CSV), Profile position mode (PP), Profile velocity mode (PV), Homing mode (HM), Profile torque mode (PT). It supports CW/HW/CCW limit (home) and two probe digital input, it supports brake, arrival, alarm digital output. it adopts RJ45 network interface and Cat.7 cabling to connect multi-axis one by one for one communication control system, it has the advantages of strong anti-interference, high control accuracy, good expansion and so on, it' s a good choice for multi-axis industrial fieldbus control system.



Advantage of JMC filedbus 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

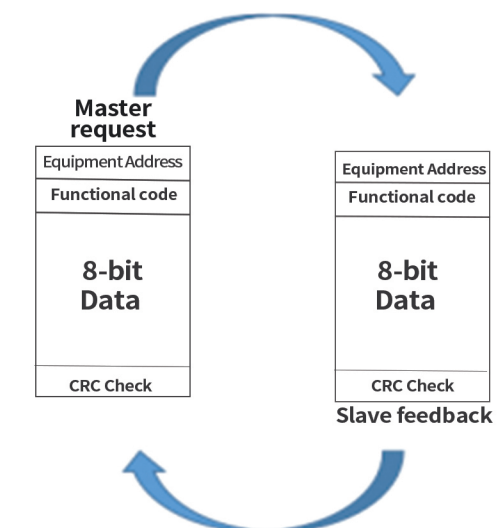
RJ45 network wiring way to save cable cost, labor cost and maintenance cost, it' s easy to update device version.

Easy control, easy maintenance

Adopt standard CIA402 motion control protocol, control and monitor motor' s working status in real-time.

Brief Introduction for JMC R-series slave drivers »

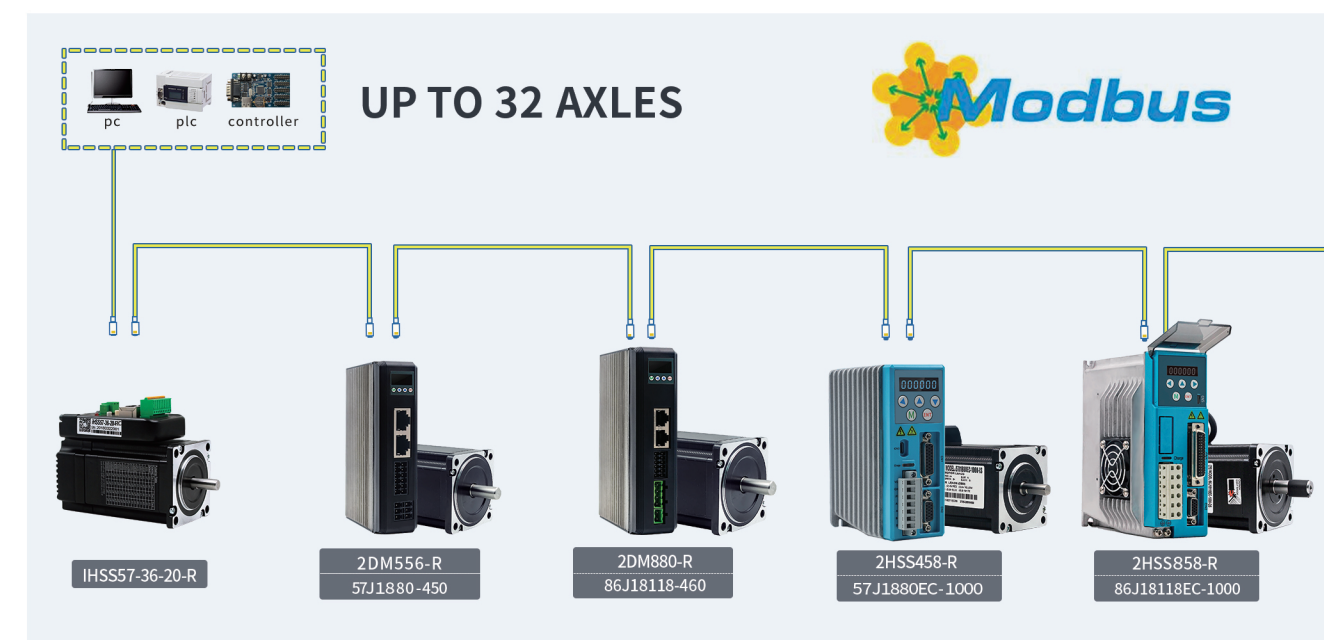
JMC R-series slave drivers hardware is RS485, software is Modbus-RTU protocol and the application layer is CIA402 motion control protocol. Modbus protocol is a bus protocol designed by MODICON company, permitting one master share data with one or multi-slave, motion controller use master & slave technology, i.e. master can activate data transmission & query, while other device feed back those query, or process the required action. Master including master-slave controller or PLC. Slave includes servo drivers and stepper drivers, the relationship between master and slave query-feed back is as right drawing.



Advantage of JMC R-series fieldbus driver:

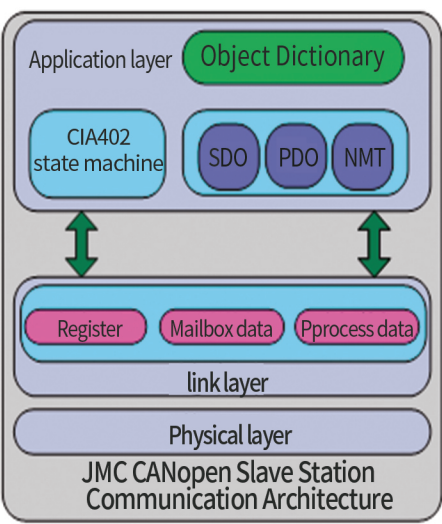
- Support standard RS-485 bus
- Support standard Modbus-RTU protocol
- Transmission frequency up to 115200bps, transmission distance up to 1KM
- RJ45 network interface, twisted pair connection is recommend between slave drivers
- Standard CIA402 motion control protocol with PP/PV/HM control mode, can be compatibility with popular PLC such as Siemens, Schneider, Omron, Mitsubishi, Panasonic, Delta and Inovance and so on.

Connection diagram:



Brief Introduction for JMC RC-series slave drivers >>

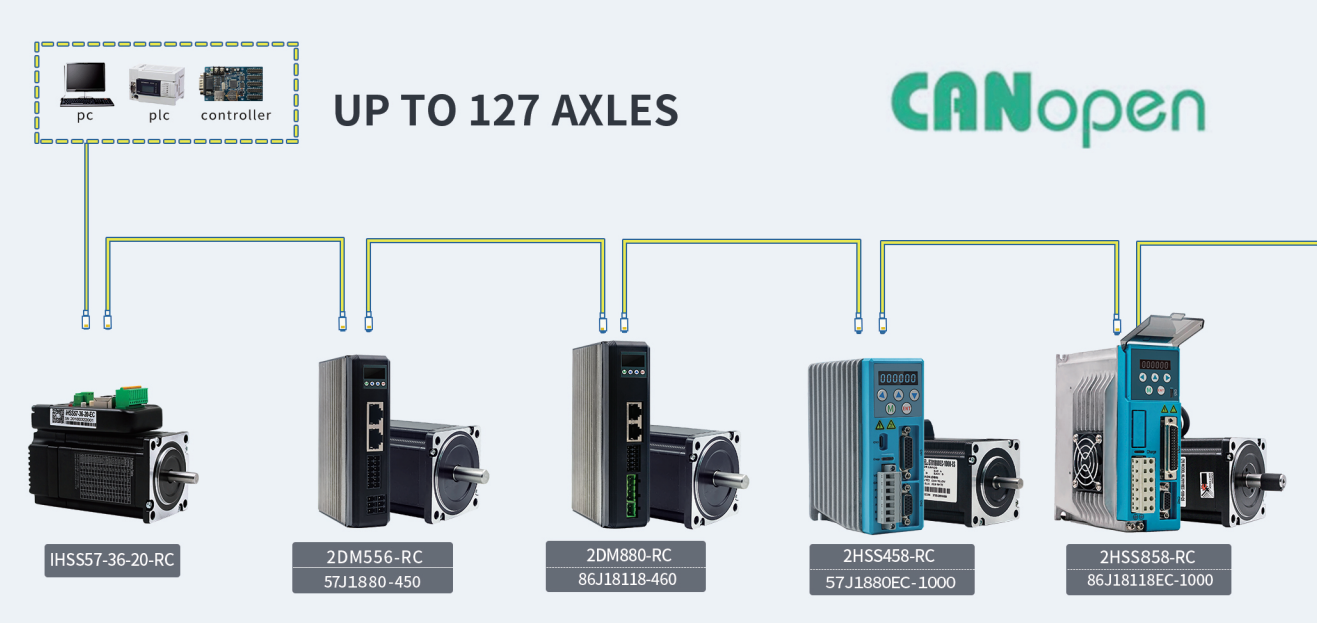
JMC RC-series fieldbus driver ,the hardware is CAN circuit, the software is CIA301 CANopen protocol, meanwhile, they are also compatible with Modbus-RTU protocol based on RS485 circuit and the application layer is CIA402 motion control protocol. CANopen is a top protocol which structured by Controller Area Network, including communication sub-protocol and device sub-protocol which usually used by embedded device, it' s a popular fieldbus in motion control industry. CANopen protocol has defined communication object (e.g. SDO, PDO, NMT and etc) to configurate and monitor the slave drivers, to exchange the data between master and slave. Application layer adopts CIA402 motion control protocol, so the compatibility between different products enhanced greatly, finally we can build automation network by configuration among different CAN slave devices.



Advantage of JMC RC-series fieldbus driver:

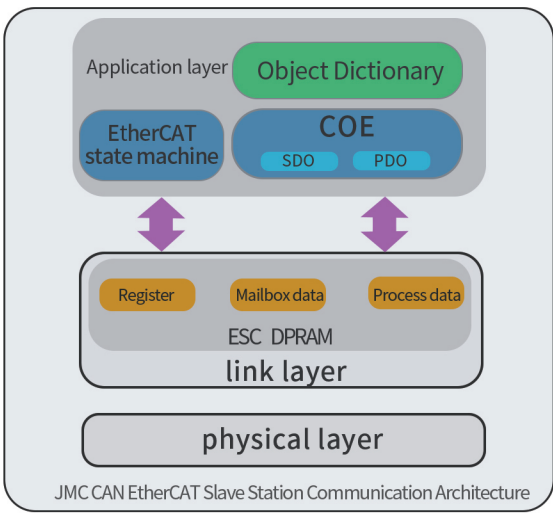
- Support standard CAN fieldbus connection
- Support CIA301 standard CANopen protocol
- The baud rate can up to 1Mbps, and the transmission distance up to 1KM
- RJ45 network interface, twisted pair connection is recommend between slave drivers.
- CIA402 motion control protocol with PP/PV/HM control mode, can be compatible with popular PLC and controller such as: Schneider, Omron, Beckhoff, Delta and Inovance etc.

Connection schematic diagram of JMC RC series bus driver:



Brief Introduction for JMC EC-series slave drivers >>

JMC EC-series slave drivers, whose hardware is 100Mbps full-duplex EtherCAT communication circuit, software is COE (CANopen Over EtherCAT) protocol and CIA402 motion control protocol. EtherCAT Ethernet fieldbus technology is designed by Beckhoff, it can be applied to industry level super high speed network with the features of high efficiency, low cost, easy application, flexible topology and high performance.



Advantage of JMC EC-series fieldbus drivers:

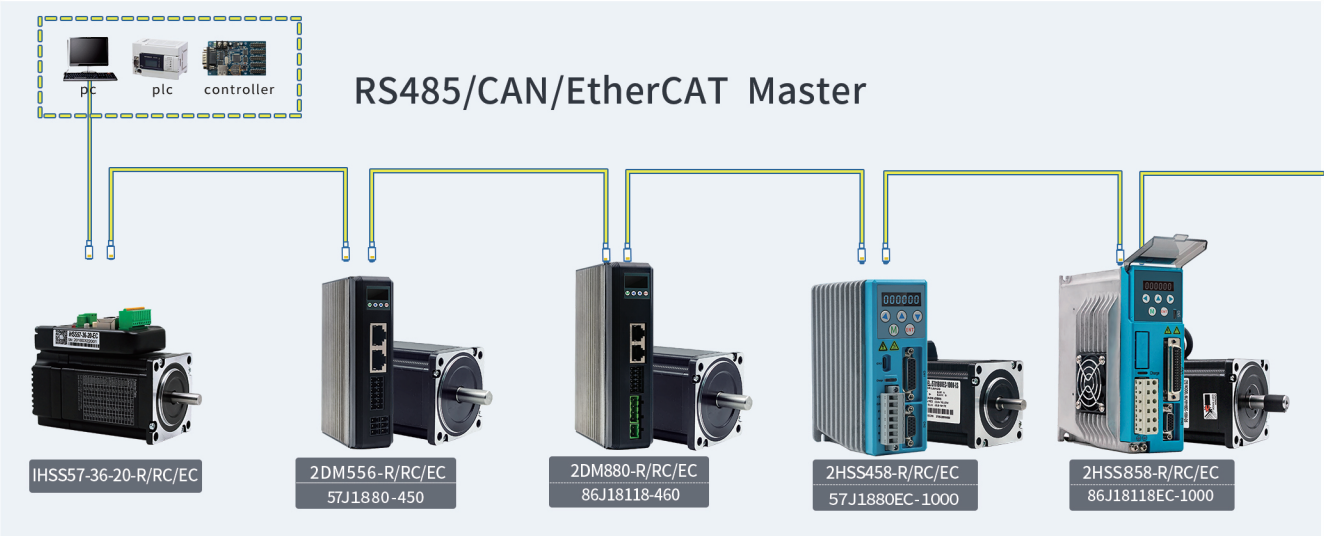
- Support 100Mbps full duplex EtherCAT network interface and COE protocol
- Support up to 65536 slave drivers by one system
- Support DC synchronization, fastest 250us DC synchronize cycle
- Flexible network topology such as: linear type, tree type, star type, chrysanthemum chain type etc.
- CIA402 motion control protocol CSP/CSV/PP/PV/HM control mode, can be compatible with popular PLC such as: BeckHoff, Omron, Panasonic,KEYENCE, WAGO, NEInovance, JMC and so on.

Schematic wiring diagram of JMC EC series bus driver:



JMC R/RC/EC Series Slave Station >>

Schematic Diagram of Bus Series Product System Networking



High baud rate Excellent control function Most Master compatibility Low cost

Communication specification

Name	Description		
Type	RS485	CAN	EtherCAT
Physical medium	CAT.5 cabling shield twisted pair	CAT.5 cabling shield twisted pair	100BASE-TX shield twisted pair
Interface	RJ45	RJ45	RJ45
Baud rate	57600bps	1Mbps	100Mbps full duplex
Distance	Up to1km	Up to1km	Up to 100 meters
Max axles	32	127	65535
Data byte	8~40 byte	0~8 byte	44~1498 byte
PDO	Unsupported	4 TPDO & 2 RPDO	4 TPDO & 4 RPDO
DC	Unsupported	Unsupported	250*N micro second
Topology	chrysanthemum	chain	chrysanthemum chain chrysanthemum chain type
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 velocity mode PP: Profile position mode PV: Profile velocity mode HM: Homing mode
Digital IO	3 input,3 output	3 input,3 output	5 input,3 output
Address	support	support	support
Protocol	Modbus-RTU	CIA 301 CANopen	CANopen over EherCAT
Device protocol	IEC61800-7 CiA402 Drive Profile		

Definition of RJ45 interface for RS485/CAN

Pin no	Signal	Definition	Demo
1	CANH	CANH signal	
2	CANL	CANL signal	
3	GND	CAN ground	
4.5	NC	Non connection	
6	GND	485 ground	
7	485B	485 terminal B	
8	485A	485 terminal A	

NOTE: 1、it' s recommended to use CAT 5E shield twisted pair, adjust baud rate according to NET length.
2、it' s recommended to add 120 ohm terminal resistance in special environment with big influence between slave terminal CANL and CANH or 485A and 485B.

Definition for RJ45 communication 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	/	/
Description		Case	PE	Shielded ground

NOTE: it' s recommended to use 100BASE-TX shield twisted pair.

DM-R/RC/EC-series fieldbus digital stepper drivers >>

Name 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 Driver supply voltage: multiplied by 10 for voltage level below 9 is DC voltage, 10 and above is AC voltage.
④ Output current: divided by 10 is the max. output current.
⑤ Fieldbus type: R: RS485 RC: RS485+CAN EC: EtherCAT ⑥ Design serial ID: default is the standard version



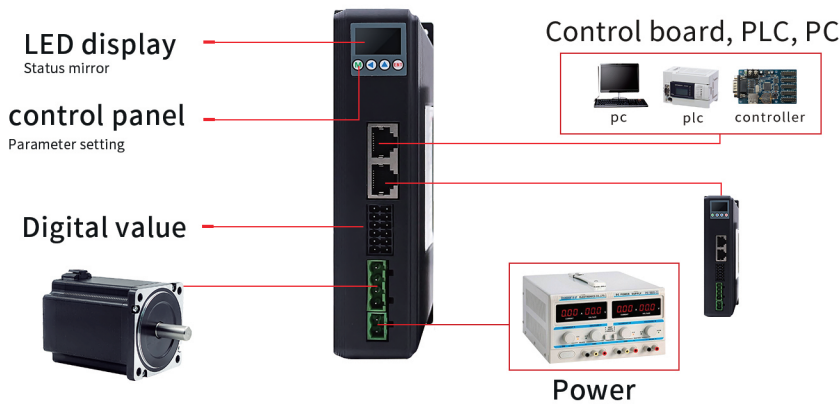
Brief Introduction

DM-R/RC/EC fieldbus digital stepper drivers are RS485 / CAN / EtherCAT fieldbus digital stepper drivers, support standard Modbus-RTU, CANopen and EtherCAT (COE) communication protocol, Cyclic synchronous position mode (CSP), Cyclic synchronous velocity mode (CSV), Profile position mode (PP), Profile velocity mode (PV), Homing mode (HM) of CIA402 motion control protocol; using the most advanced 32bit ARM processor and motor algorithm, which makes the motor runs smoothly in low speed, and higher torque in medium and higher running speed; with key press and digital LED display, you can set slave ID, baud rate, running direction and other slave running parameters and display the current driver status; integrated 5 digital signal input used for HM refer, CW, CCW limit and probe function; integrated 2 digital signal output used for brake control signal, alarm and arrival signal; self-function with over-current, over-voltage short-voltage protection. RJ45 network communication interface makes convenient connecting & less-complicated system; it's a high performance-to-price industrial Ethernet fieldbus motion control products.

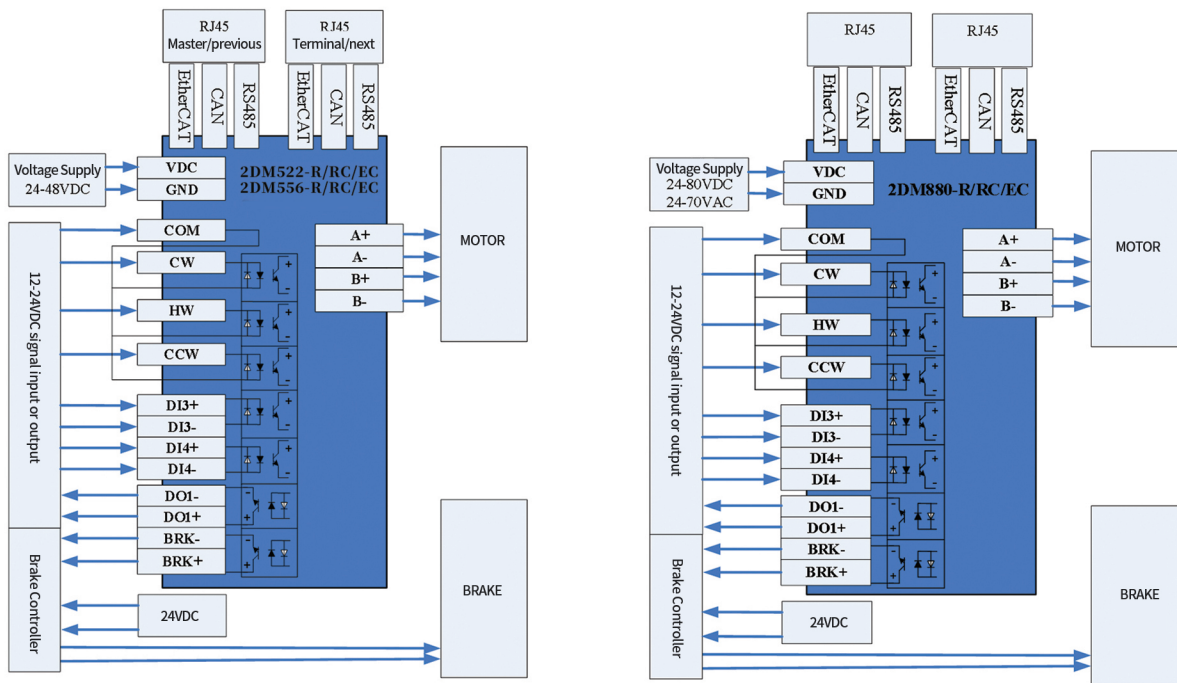
Selection table and electric specification

Model		Communication proto	Supply voltage	Output current	Digital signal	Matching motor
	2DM522-R	RS485	24~48VDC	0~2.2A	Digital input: Current: 6~16mA Voltage: 12~24VDC Digital output: Current: 0~50mA Voltage: 0~30VDC	28/35/42 mm
	2DM522-RC	RS485+CAN				
	2DM522-EC	EtherCAT				
	2DM556-R	RS485	24~48VDC	0~4.2A		57/60 mm
	2DM556-RC	RS485+CAN				
	2DM556-EC	EtherCAT				
	2DM880-R	RS485	24~70VAC 24~110VDC	0~8.0A		86 mm
	2DM880-RC	RS485+CAN				
	2DM880-EC	EtherCAT				

Configuration diagram



Wiring & typical connection diagram

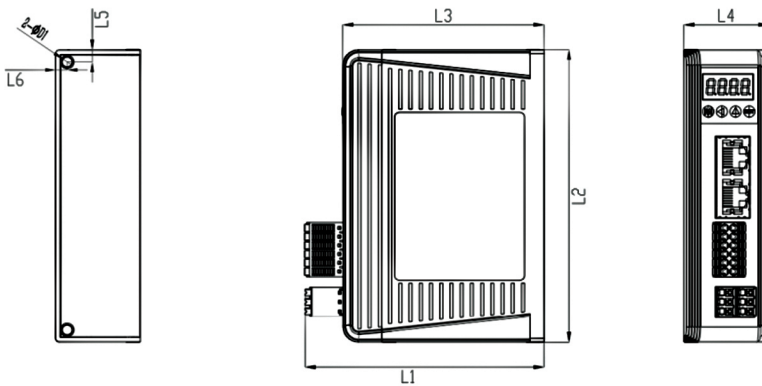


IO definition

Pin	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	COM	CW limit	Home limit	CCW limit	Probe 1 input+	Probe 1 input-	Probe 2 input+	Probe 2 input-	Arrival/Alarm+	Arrival/Alarm-	Brake output+	Brake output-

NOTE: DI3+, DI3- & DI4+, DI4- can be used as digital signal input in R/RC series drivers.

Mechanical size



Model	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)
2DM522-R/RC/EC	96.00	117.70	80.50	34	5.25	5.25
2DM556-R/RC/EC	96.00	117.70	80.50	34	5.25	5.25
2DM880-R/RC/EC	115.86	150.40	100.87	36.90	5.44	4.46

HSS-R/RC/ECseries hybrid step servo drivers >>

Name rules

2 HSS 4 58 - RC - XXX

- 1 Phase: 2: two phase 3: three phase
- 2 HSS: hybrid stepper servo drivers
- 3 Driver supply voltage: multiplied by 10 for voltage level below 9 is DC voltage, 10 and above is AC voltage.
- 4 Output current: divided by 10 is the max. output current.
- 5 Fieldbus type: R: RS485 RC: RS485+CAN EC: EtherCAT
- 6 Design serial ID: default is the standard version

Brief Introduction

HSS-R/RC/EC series hybrid step-servo drivers are RS485/CAN/EtherCAT fieldbus hybrid step-servo drivers, support standard Modbus-RTU, CANopen and EtherCAT (COE) protocol, Cyclic synchronous position mode (CSP), Cyclic synchronous velocity mode (CSV), Profile position mode (PP), Profile velocity mode (PV), Homing mode (HM) of CIA402 motion control protocol; the most advanced 32bit DSP processor and motor algorithm, which makes the motor runs smoothly in low speed, and output higher torque in medium and higher running speed. It can replace servo system in some applications; with key press and digital LED display, you can set slave ID, baud rate, running direction and other slave running parameters and display the current driver status; integrated 5 digital signal input used for HM refer, CW, CCW limit and probe function; integrated 2 digital signal output used for brake control signal, alarm and arrival signal; self-function with over-current, over-voltage, undervoltage and position error protection; RJ45 network communication interface makes convenient connecting and less-complicated system; it's a high performance-to-price industrial Ethernet fieldbus motion control products.

Selection table and electric specification:

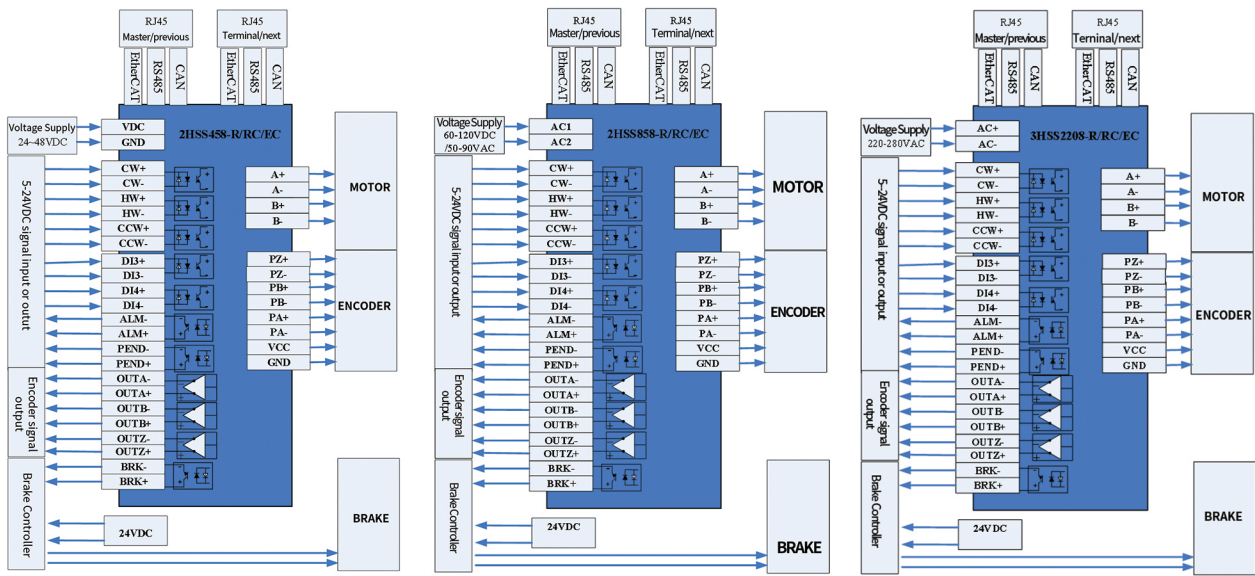
Model		Communication protocol	Voltage	Current	Digital signal	Motor
	2HSS458-R	RS485	24~48VDC	0~6.0A	Digital input Current: 6~16mA	28/35/42/57/60 MM
	2HSS458-RC	RS485+CAN				
	2HSS458-EC	EtherCAT				
	2HSS858-R	RS485	70~110VDC 50~90VAC	0~8.0A	Voltage: 5~24VDC Digital output Current: 0~50mA	60/86 MM
	2HSS858-RC	RS485+CAN				
	2HSS858-EC	EtherCAT				
	3HSS2208-R	RS485	220VAC	0~8.0A	Voltage: 0~30VDC	86/110/130 MM
	3HSS2208-RC	RS485+CAN				
	3HSS2208-EC	EtherCAT				

NOTE: please contact us for customized 28/35mm size close-loop driver if you need.

Configuration diagram



Wiring & typical connection diagram



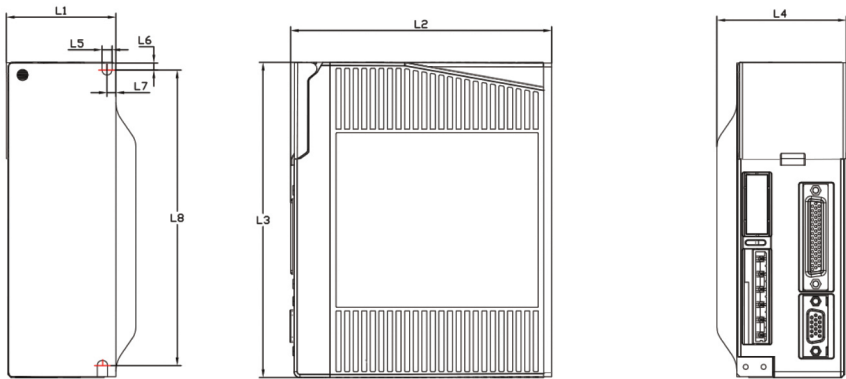
IO terminal definition

Pin	CW+	CW-	HW+	HW-	CCW+	CCW-	DI3+	DI3-
Electric spec	Digital input: 12~24VDC							
Description	CW limit+	CW limit-	Home limit+	Home limit-	CCW limit+	CCW limit-	Probe 1 input+	Probe 1 input-

Pin	DI4+	DI4-	BK+	BK-	ALM+	ALM-	PEND+	PEND-
Electric spec	Digital input: 12~24VDC				Digital output: 0~30VDC 0~50mA			
Description	Probe 2 input+	Probe 2 input-	Brake output+	Brake output-	Alarm output+	Alarm output-	Arrival output+	Arrival output-

NOTE: DI3+, DI3- & DI4+, DI4- can be used as digital signal input in R/RC series drivers.

Mechanical size



Model	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	L8 (mm)
2HSS458-R/RC/EC	45.05	101.85	125.60	48.20	4.40	4.2	8.70	114.70
2HSS858-R/RC/EC	53.30	129.50	157.00	64.33	5.40	5.35	7.27	148.00
3HSS2208-R/RC/EC	70.37	140.19	179.15	68.19	5.59	5.65	8.13	163.17

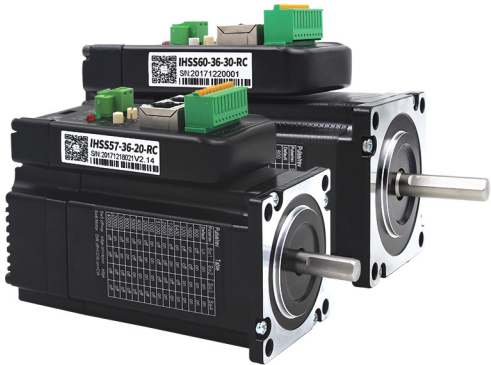
IHSS-R/RC/EC fieldbus integrated hybrid stepper servo motors >>

Naming rules

IHSS 57 - 36 - 20 - XX - RC - XXX

① ② ③ ④ ⑤ ⑥ ⑦

- ① IHSS: integrated hybrid stepper servo motor
- ② 57: motor size
- ③ rated supply voltage: 36 means 36VDC
- ④ rated holding torque: divided by 10 is the rated holding torque
- ⑤ XX: shaft length, default is standard
- ⑥ Fieldbus type: R: RS485 RC: RS485+CAN EC: EtherCAT
- ⑦ design serial ID: default is standard version



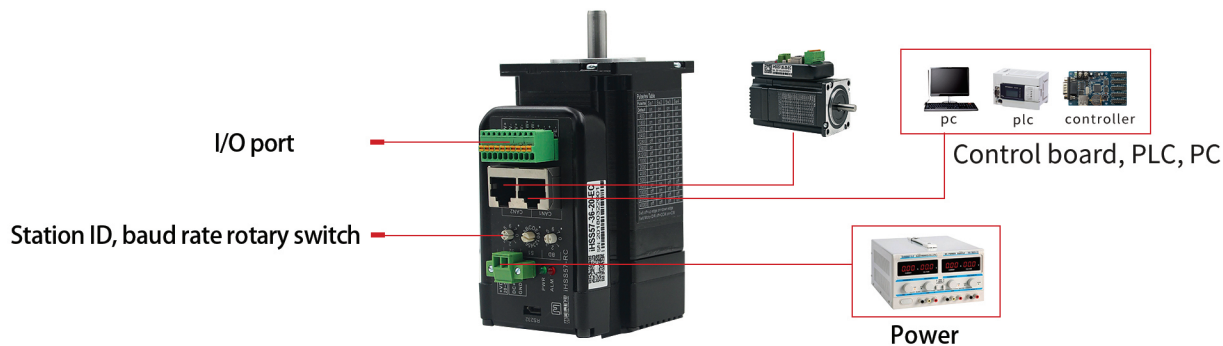
Brief Introduction:

IHSS-R/RC/EC fieldbus integrated hybrid step-servo motors are RS485/CAN/EtherCAT fieldbus integrated hybrid step-servo motors hybrid step-servo drivers, support standard Modbus-RTU, CANopen and EtherCAT (COE) protocol, Cyclic synchronous position mode (CSP), Cyclic synchronous velocity mode (CSV), Profile position mode (PP), Profile velocity mode (PV), Homing mode (HM) of CIA402 motion control protocol; the most advanced 32bit DSP processor and motor algorithm, which makes the motor runs smoothly in low speed, and output higher torque in medium and higher running speed. It can replace servo system in some applications; with physic rotary code , you can set slave ID, baud rate, integrated 5 digital signal input used for HM refer, CW,CCW limit and probe function(only for EC series); integrated 2 digital signal output used for brake control signal, alarm and arrival signal; self-function for brake control circuit, self-function with over-current, over-voltage short-voltage and position error protection; RJ45 network communication interface, high integrated design, combine the control drive system with hybrid step-servo motor into an integrated version, no need for encoder cable, motor cable and signal cable, makes convenient connecting and less-complicated system; it' s a high performance-to-price industrial Ethernet fieldbus motion control products.

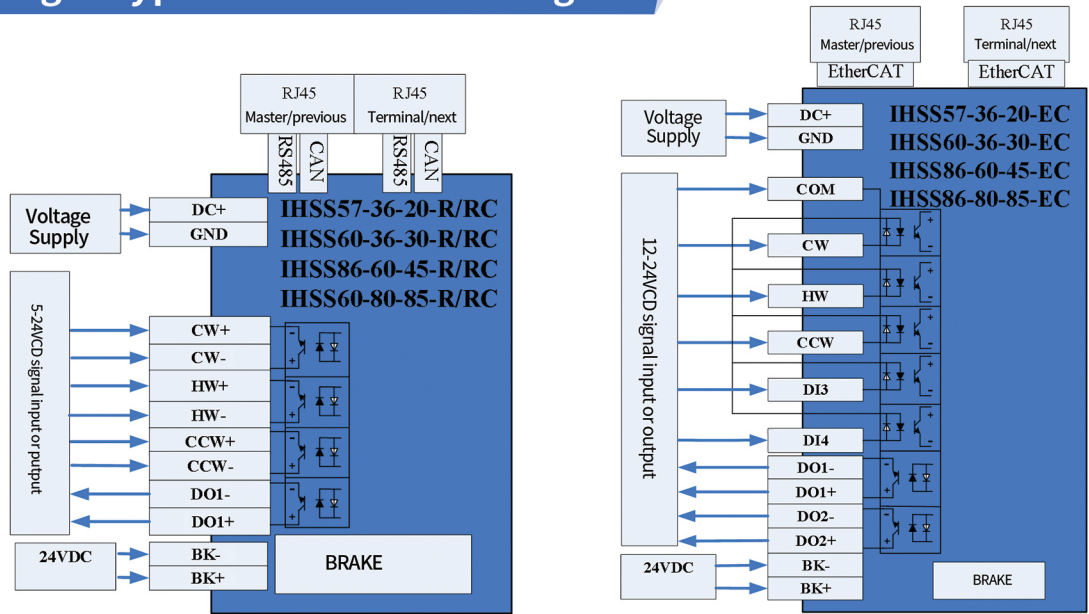
Selection table and electric specification

Model no		Communication protocol	Voltage	Holding toque	Digital signal	Motor size				
	IHSS57-36-20-R	RS485	24~48VDC Typical:36VDC	2N·M	Digital input Current: 6~16mA Voltage: 5~24VDC Digital output: Current: 0~50mA Voltage: 0~30VDC	57mm				
	IHSS57-36-20-RC	RS485+CAN								
	IHSS57-36-20-EC	EtherCAT								
	IHSS60-36-30-R	RS485	24~48VDC Typical:36VDC	3N·M		Digital input Current: 6~16mA Voltage: 5~24VDC Digital output: Current: 0~50mA Voltage: 0~30VDC	60mm			
	IHSS60-36-30-RC	RS485+CAN								
	IHSS60-36-30-EC	EtherCAT								
	IHSS86-60-45-R	RS485	24~80VDC Typical:60VDC	4.5N·M			Digital input Current: 6~16mA Voltage: 5~24VDC Digital output: Current: 0~50mA Voltage: 0~30VDC	86mm		
	IHSS86-60-45-RC	RS485+CAN								
	IHSS86-60-45-EC	EtherCAT								
	IHSS86-80-85-R	RS485		8.5N·M					Digital input Current: 6~16mA Voltage: 5~24VDC Digital output: Current: 0~50mA Voltage: 0~30VDC	86mm
	IHSS86-80-85-RC	RS485+CAN								
	IHSS86-80-85-EC	EtherCAT								

Configuration diagram



Wiring & typical connection diagram



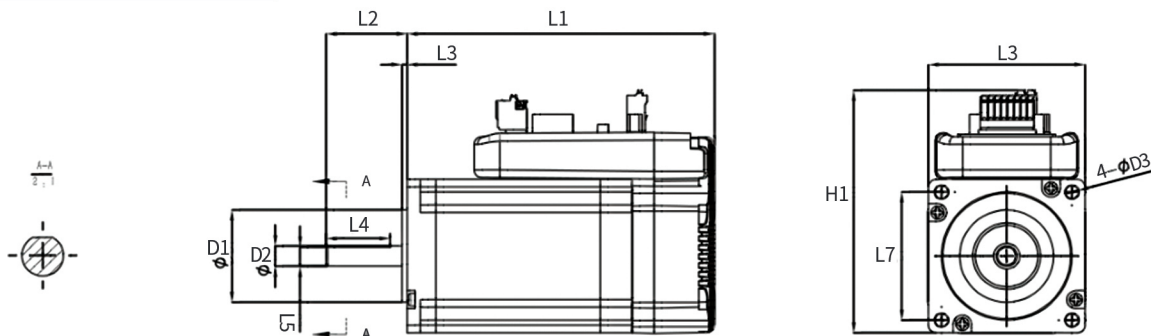
IO terminal definition

R/RC bus-based IO terminal										
Pin	CW+	CW-	HW+	HW-	CCW+	CCW-	BK+	BK-	PE+	PE-
Electric	Digital input: 5~24VDC						24VDC	24VGND	Digital output: 0~30VDC	
Description	CW limit+	CW limit-	HOME limit+	HOME limit-	CCW limit+	CCW limit-	Brake power supply input+	Brake power supply input-	Arrival output+	Arrival output-

EC bus-based IO terminal										
Mark	COM	CW	HW	CCW	DI3	DI4	DO0+	DO0-	DO1+	DO1-
Electric	Digital input: 12~24VDC						Digital output: 0~30VDC			
Desription	common (24VDC/GND)	CW limit	Home limit	CCW limit	Probe input 1	Probe input 2	Alarm output+	Alarm output-	Arvical output+	Arvical output-

NOTE: For EC-series the brake power supply voltage input BK24V, BK0V is nearby power supply input terminal.

Mechanical size



Model number	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	39.00	8.00	87.00
IHSS60-36-30-R/RC/EC	120.00	31.00	60.00	50.00	36.00	8.00	90.00
IHSS86-60-45-R/RC/EC	128.90	31.00	86.00	69.58	50.30	14.00	121.60
IHSS86-80-85-R/RC/EC	161.88	31.00	86.00	69.26	50.26	14.00	121.60

NOTE:1, Standard 57/60mm flange motor shaft is flat without keyway.
2, Both flat shaft and keyway shaft alternative for 86mm flange motor, please contact us for detailed drawing.

Matching stepper motor introduction»

Naming rules

86 J - 18 118 8 - 42 A XX 01

1 2 3 4 5 6 7 8 9

- ① Motor size: indicate the motor frame and motor size, unit mm
- ② Product serial ID: J represents JMC series
- ③ Step angle: 18: 1.8 degree 2 phase; 12: 1.2 degree 3 phase; 0.9: 0.9 degree 4 phase
- ④ Motor length: unit is mm, e.g. 118 means motor length is 118mm
- ⑤ Wires: e.g. 8 means the motor is 8 wires
- ⑥ Rated current: unit is A, e.g. 42 means the rated current is 42/10=4.2A
- ⑦ Shaft number: A: single shaft; B: double shaft; default is single shaft
- ⑧ Design serial ID: shows as A, B, C....., default is A
- ⑨ Expanded version: 01 means the first expansion version, SCG means with brake function, default is standard version.

The above motor specification is

Flange	Model	Step angle(deg)	Holding torque(N·m)	Rated current (A)	Phase resistance (ohms)	Phase inductance (mH)	Detent torque (gcm)	Rotor inertia (g.cm)	insulation grade	Wiring NO.	Weight (KG)	Length (mm)	Matching driver
2-phase	28J1834-408	1.8	0.06	0.8	2.5	4.8		8	B	4	0.11	34	2DM522-R /RC/EC
	28J1845-410	1.8	0.095	1	2.2	14		11	B	4	0.14	45	
	28J1851-407	1.8	0.1	0.7	8.5	7.5		18	B	4	0.18	51	
	28J1851-410	1.8	0.12	1	1.45	1.1		13	B	4	0.18	51	
	35J1834-407	1.8	0.11	0.7	2.5	4.8	120	14	B	4	0.18	34	
	39J1834-403	1.8	0.13	0.3	4	2.5	120	20	B	4	0.18	34	
	39J1834-406	1.8	0.22	0.6	1.6	1.2	120	20	B	4	0.18	34	
	39J1844-403	1.8	0.29	0.3	4	10	130	40	B	4	0.25	44	
	42J1825-404	1.8	0.35	0.4	2.1	1.3	150	20	B	4	0.15	25	
	42J1834-408	1.8	0.38	0.8	2.1	3.2	160	54	B	4	0.3	34	
	42J1840-408	1.8	0.4	0.8	7.5	8.1	220	57	B	4	0.32	40	
	42J1848-810	1.8	0.48	1	4.6	4	260	82	B	8	0.35	48	
	42J1848-425	1.8	0.48	2.5	1.25	2.5	260	82	B	4	0.35	48	
	42J1860-417	1.8	0.7	1.7	3	6.2	360	117	B	4	0.5	60	
	57J1841-420	1.8	0.75	2	1.3	3.2	250	157	B	4	0.4	41	2DM556-R /RC/EC
	57J1854-828	1.8	0.85	2.8	0.95	1.2	350	280	B	8	0.6	54	
	57J1856-440	1.8	1.2	4	0.43	1.35	350	280	B	4	0.6	56	
	57J1876-828	1.8	1.6	2.8	0.95	1.85	700	460	B	8	1	76	
	57J1876-447	1.8	2	4.7	0.37	1.75	700	480	B	4	1.05	76	
	57J1880-450	1.8	2.2	5	0.4	1.8	700	520	B	4	1.15	80	
	57J1880-830	1.8	2	3	0.95	1.8	700	480	B	8	1.1	80	
	57J18100-840	1.8	2.8	4	0.95	3.4	1000	700	B	8	1.45	100	
	57J18112-435	1.8	3	3.5	0.65	2	1200	780	B	4	1.7	112	
	60J1887-440	1.8	3.3	4	0.7	2.5	1200	900	B	4	1.4	87	2DM880-R /RC/EC
	60J18100-440	1.8	3.3	4	0.8	3	1500	950	B	4	1.7	100	
	86J1865-828	1.8	3.5	2.8	0.24	1.7	550	950	B	8	2	65	
	86J1880-842	1.8	4.5	4.2	0.58	4	650	1400	B	8	2.3	80	
3-phase	86J1880-460	1.8	4.5	6	0.29	4	650	1400	B	4	2.3	80	3HSS2208 -R/RC/EC
	86J18101-450	1.8	6	5	0.58	4.2	950	2300	B	4	3.25	101	
	86J18118-842	1.8	8.5	4.2	0.56	3	1250	2700	B	8	3.8	118	
	86J18118-460	1.8	8.5	6	0.28	3	1250	2700	B	4	3.8	118	
	86J18156-845	1.8	12	4.5	0.82	5.2	2500	4000	B	8	5.4	156	
	86J18156-460	1.8	12	6	0.41	5.2	2500	4000	B	4	5.4	156	

Matching close-loop motor introduction»

Name rule

57 J - 18 80 EC - 1000 - SCG

① ② ③ ④ ⑤ ⑥ ⑦

- ① Motor size: indicate the motor frame and motor size, unit mm
- ② Product serial ID: J represents JMC series
- ③ Step angle: 18: 1.8 degree 2 phase; 12: 1.2 degree 3 phase
- ④ Motor length: unit is mm, e.g. 80 means motor length is 80mm
- ⑤ With encoder close-loop function
- ⑥ Encoder number: 1000 means 1000ppr, B means 2500ppr
- ⑦ Expanded version: 01 means the first expansion version, SCG means with brake function, default is standard version.

The above motor specification is

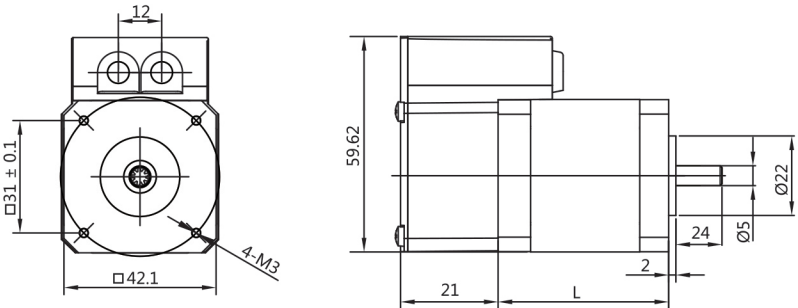
Flange		Model	Step angle (deg)	Holding torque (N.m)	Rated current (A)	Rotor inertia (g.cm)	Weight (KG)	Length (mm)	Matching driver		
2-phase	42	42J1848EC-1000(*)	1.8	0.48	1.5	80	0.45	48	2HSS458 -R/RC/EC		
		42J1860EC-1000	1.8	0.7	2.5	110	0.55	60			
	57	57J1854EC-1000(*)	1.8	0.9	4	280	0.8	54		2HSS458 -R/RC/EC	
		57J1880EC-1000(*)	1.8	2	5	480	1.2	80			
		57J18100EC-1000	1.8	2.8	5	680	1.8	100			
	60	60J1856EC-1000	1.8	1.5	3.5	340	0.9	56			2HSS458 -R/RC/EC
		60J1887EC-1000(*)	1.8	3	5	690	1.45	87			
		60J18100EC-1000	1.8	3.5	5	1200	1.9	100			
	86	86J1880EC-1000(*)	1.8	4.5	6	1400	2.4	80	2HSS858 -R/RC/EC		
		86J1895EC-1000(*)	1.8	6.5	6	2200	3.4	95			
		86J18118EC-1000(*)	1.8	8.5	6	2700	3.9	118			
		86J18156EC-1000(*)	1.8	12	6	4000	5.3	156			
3-phase	86	86J12126EC-1000-60(*)	1.2	7.8	3	3300	4.5	126	3HSS2208 -R/RC/EC		
		86J12156EC-1000-60(*)	1.2	12	3	4000	5.5	156			
	110	110J12135EC-1000(*)	1.2	12	5	11900	7.2	135		3HSS2208 -R/RC/EC	
		110J12160EC-1000(*)	1.2	16	6	14800	8.95	160			
		110J12190EC-1000(*)	1.2	20	6.8	19800	11.3	190			
	130	130J12205EC-2500(*)	1.2	28	6.8	34900	17.5	205			3HSS2208 -R/RC/EC
		130J12225EC-2500(*)	1.2	35	6.8	39200	19.5	225			

* It' s standard inventory.

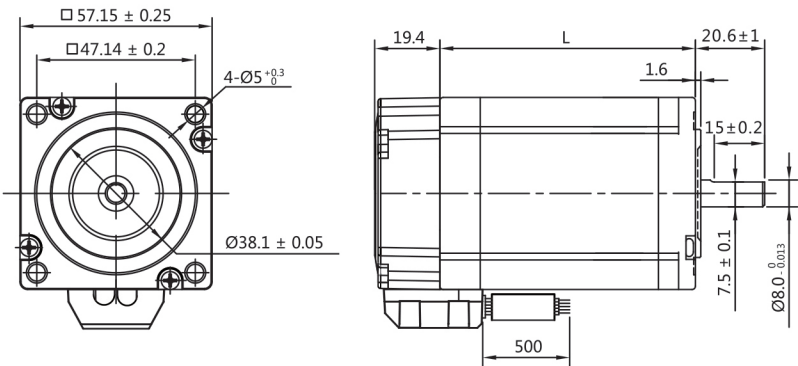
Standard close-loop motor mounting size »

(Remark: following is standard close-loop motor, both shaft, flange can be customized made)

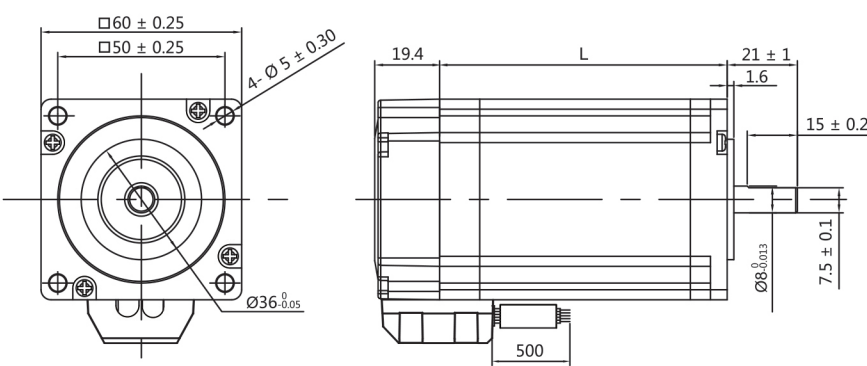
Model	Length (mm)	Holding torque (N.m)	Rated current (A)	Rotor inertia (kg·cm²)	Matching driver	Flange (mm)	Weight (kg)
42J1848EC-1000 (*)	48	0.48	1.5	0.08	2HSS458- R/RC/EC	22	0.45
42J1860EC-1000	60	0.7	2.5	0.11		22	0.55



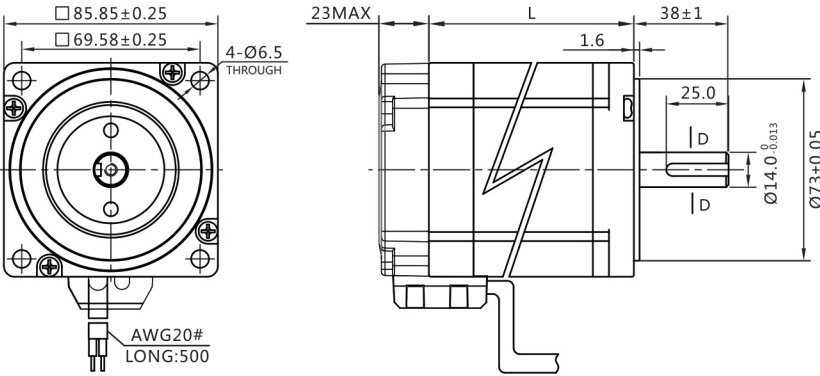
Model	Length (mm)	Holding torque (N.m)	Rated current (A)	Rotor inertia (kg·cm²)	Matching driver	Flange (mm)	Weight (kg)
57J1854EC-1000 (*)	56	1.2	4	0.28	2HSS458- R/RC/EC	38.1	0.8
57J1880EC-1000 (*)	76	2	5	0.48		38.1	1.2



Model	Length (mm)	Holding torque (N.m)	Rated current (A)	Rotor inertia (kg·cm²)	Matching driver	Flange (mm)	Weight (kg)
60J1856EC-1000	57	1.5	3.5	0.34	2HSS458- R/RC/EC	36	0.9
60J1887EC-1000 (*)	85.6	3	5	0.69		36	1.45
60J18100EC-1000	100	3.5	5	1.2		36	1.9



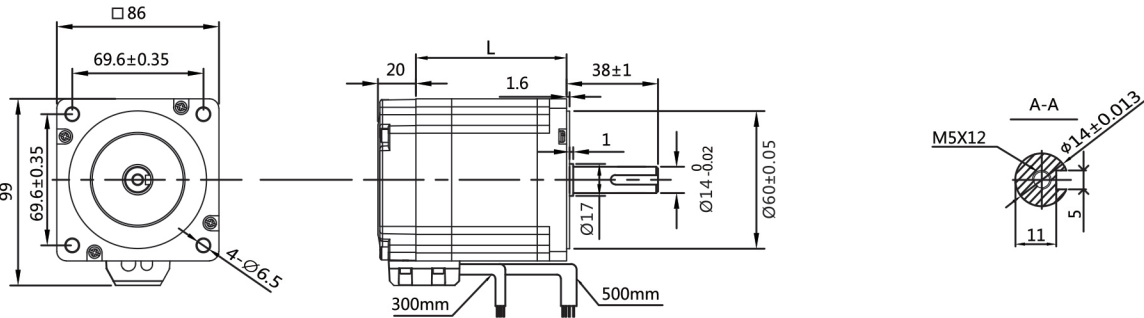
Model	Length (mm)	Holding torque (N.m)	Rated current (A)	Rotor inertia (kg·cm²)	Matching driver	Flange (mm)	Weight (kg)
86J1880EC-1000 (*)	80	4.5	6	1.4	2HSS858- R/RC/EC	60/73	2.4
86J1895EC-1000 (*)	100	6.5	6	2.2		73	3.4
86J18118EC-1000 (*)	114	8.5	6	2.7		60/73	3.9
86J18156EC-1000 (*)	156	12	6	4.0		60/73	5.3



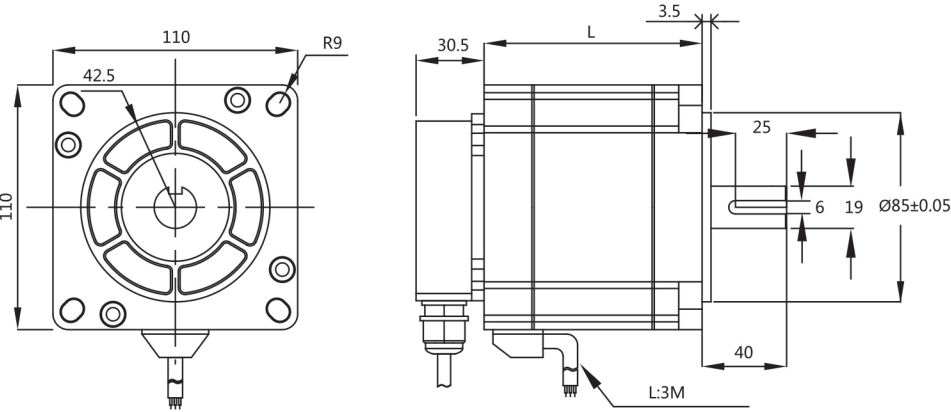
Model	Keyway (mm)
86J1880EC-1000	flat 1.0×25
86J1895EC-1000	flat 1.0×25
86J18118EC-1000	keyway 5.0×25
86J18156EC-1000	keyway 5.0×25

Remark: standard flange is Ø73, please specify if Ø60 flange needed.

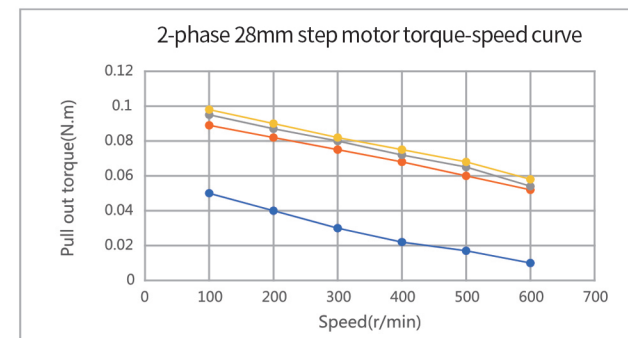
Model	Length (mm)	Holding torque (N.m)	Rated current (A)	Rotor inertia (kg·cm²)	Matching driver	Flange (mm)	Weight (kg)
86J12126EC-1000-60 (*)	130	7.8	3	3.3	3HSS2208- R/RC/EC	60	4.5
86J12156EC-1000-60 (*)	156	12	3	4.0		60	5.5



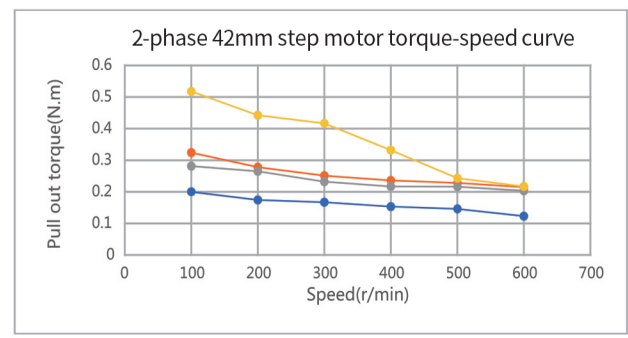
Model	Length (mm)	Holding torque (N.m)	Rated current (A)	Rotor inertia (kg·cm²)	Matching driver	Flange (mm)	Weight (kg)
110J12135EC-1000 (*)	132.5	12	5	11.9	3HSS2208- R/RC/EC	85	7.2
110J12160EC-1000 (*)	157.5	16	6	14.8		85	8.95
110J12190EC-1000 (*)	191.5	20	6.8	19.8		85	11.3



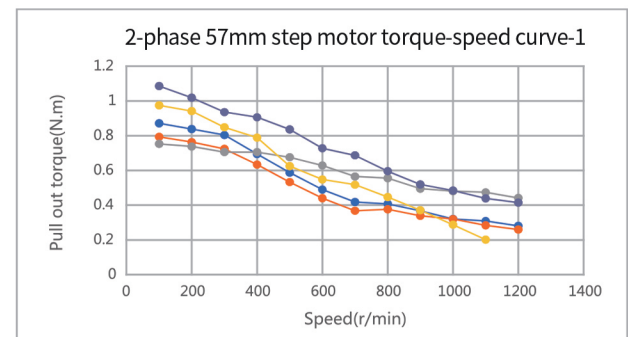
Torque-speed curve for step motor >>



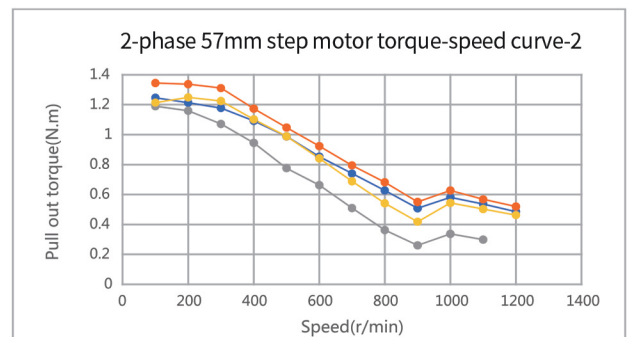
- 28J1834-408/2DM522-R/RC/EC 24VDC Current0.8A 1600Resolution
- 28J1845-410/2DM522-R/RC/EC 24VDC Current1.0A 1600Resolution
- 28J1851-407/2DM522-R/RC/EC 24VDC Current0.7A 1600Resolution
- 28J1854-410/2DM522-R/RC/EC 24VDC Current1.0A 1600Resolution



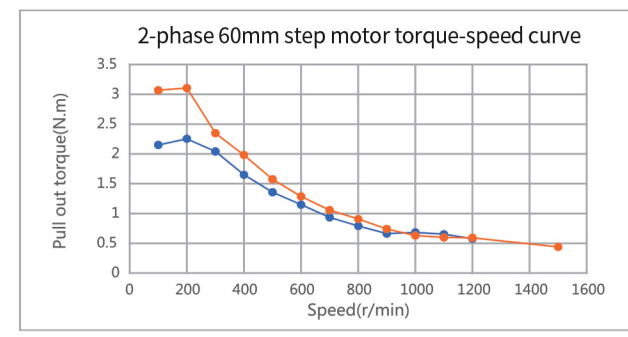
- 42J1848-810series/2DM522-R/RC/EC 24VDC Current0.7A 1600Resolution
- 42J1848-810parallel/2DM522-R/RC/EC 24VDC Current1.5A 1600Resolution
- 28J1848-425/2DM522-R/RC/EC 24VDC Current2.5A 1600Resolution
- 28J1860-417/2DM522-R/RC/EC 24VDC Current1.7A 1600Resolution



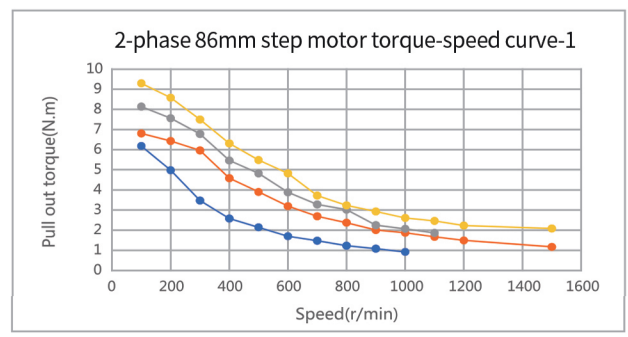
- 57J1841-420/2DM556-R/RC/EC 36VDC Current4.2A 1600Resolution
- 57J1854-828 series/2DM556-R/RC/EC 36VDC Current2.0A 1600Resolution
- 57J1854-828parallel/2DM556-R/RC/EC 36VDC Current3.9A 1600Resolution
- 57J1876-828 series/2DM556-R/RC/EC 36VDC Current2.1A 1600Resolution
- 57J1876-828parallel/2DM556-R/RC/EC 36VDC Current3.0A 1600Resolution



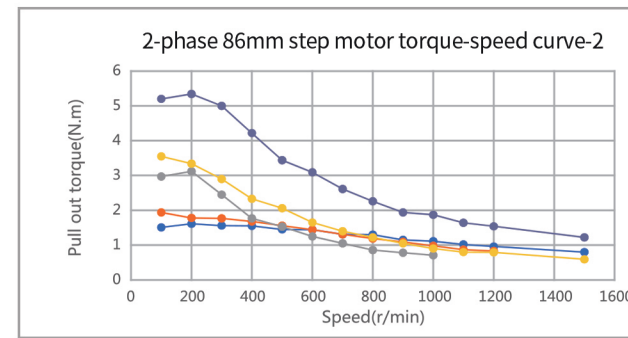
- 57J1876-447/2DM556-R/RC/EC 36VDC Current4.2A 1600Resolution
- 57J1880-450/2DM556-R/RC/EC 36VDC Current4.2A 1600Resolution
- 57J1880-830series/2DM556-R/RC/EC 36VDC Current2.1A 1600Resolution
- 57J1880-830parallel/2DM556-R/RC/EC 36VDC Current2.0A 1600Resolution



- 60J1887-440/2DM556-R/RC/EC 48VDC Current4.0A 1600Resolution
- 60J18100-440/2DM556-R/RC/EC 48VDC Current4.0A 1600Resolution

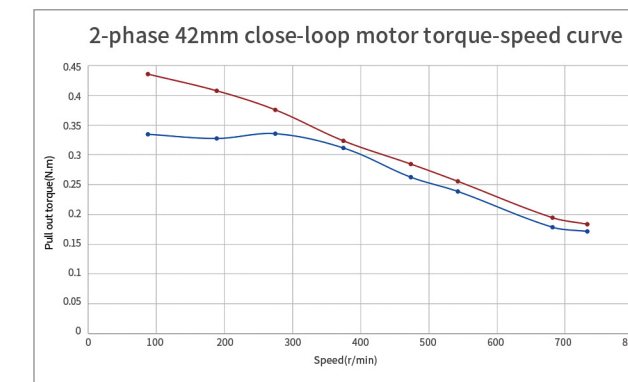


- 86J18118-842series/2DM880-R/RC/EC 72VAC Current4.2A 1600Resolution
- 86J18118-842parallel/2DM880-R/RC/EC 72VAC Current4.2A 1600Resolution
- 86J18156-845series/2DM880-R/RC/EC 72VAC Current2.1A 1600Resolution
- 86J18156-845parallel/2DM880-R/RC/EC 72VAC Current2.0A 1600Resolution

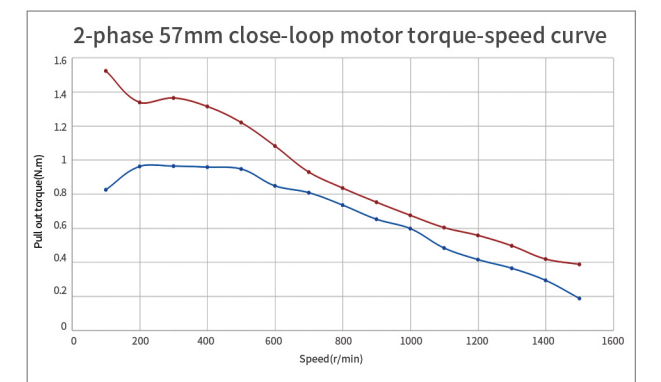


- 86J1865-828series/2DM880-R/RC/EC 60VAC Current3.9A 1600Resolution
- 86J1865-828parallel/2DM880-R/RC/EC 60VAC Current2.1A 1600Resolution
- 86J1880-842series/2DM880-R/RC/EC 60VAC Current6.0A 1600Resolution
- 86J1880-842parallel/2DM880-R/RC/EC 60VAC Current3.0A 1600Resolution
- 86J18101-450/2DM880-R/RC/EC 60VAC Current5.0A 1600Resolution

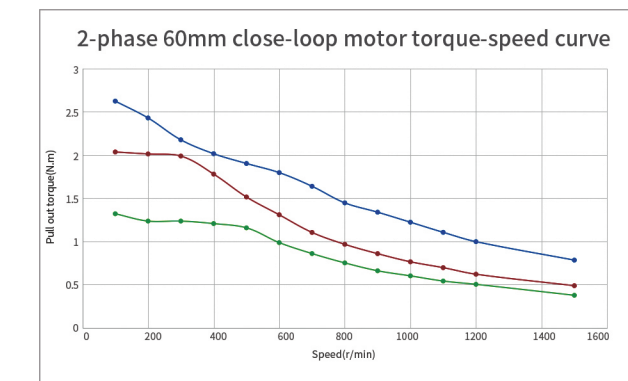
Torque-speed curve for hybrid step servo motor >>



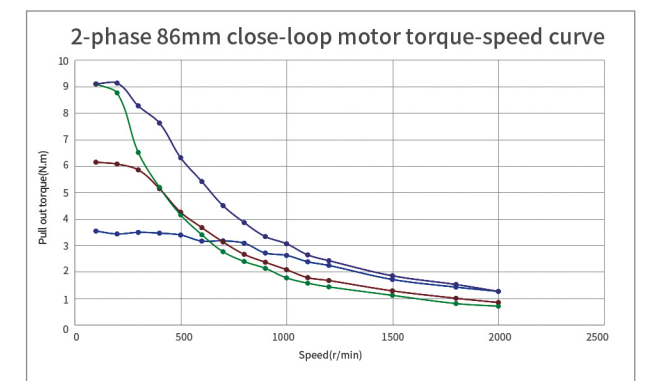
- 42J1848EC-1000/2HSS458-R/RC/EC 36VDC
- 42J1860EC-1000/2HSS458-R/RC/EC 36VDC



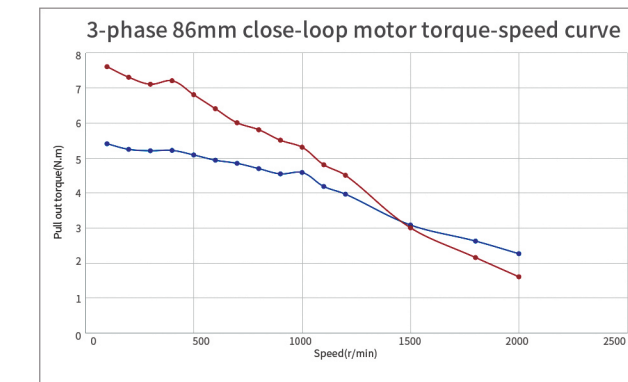
- 57J1854EC-1000/2HSS458-R/RC/EC 36VDC
- 57J1880EC-1000/2HSS458-R/RC/EC 36VDC



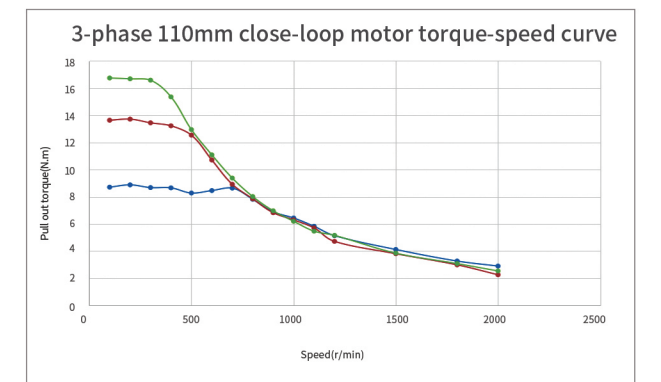
- 60J1856EC-1000/2HSS458-R/RC/EC 36VDC
- 60J1880EC-1000/2HSS458-R/RC/EC 36VDC
- 60J18100EC-1000/2HSS458-R/RC/EC 36VDC



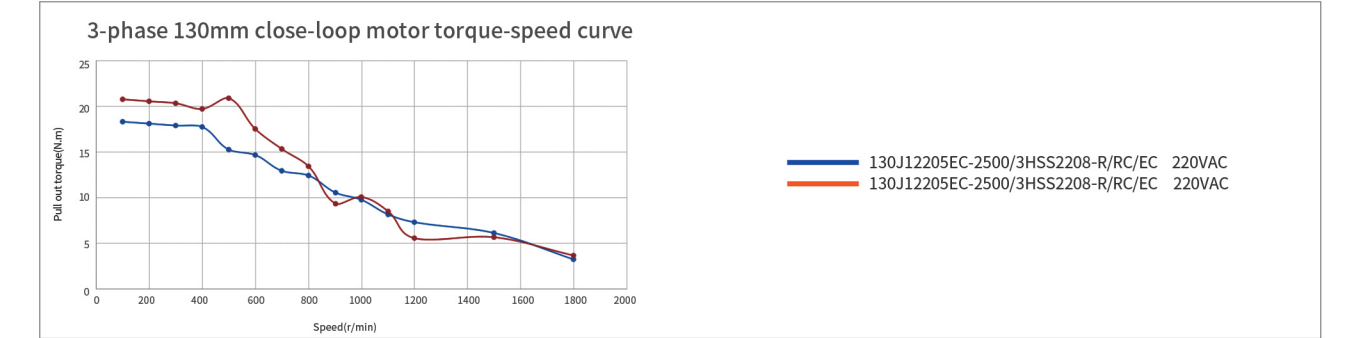
- 86J1880EC-1000/2HSS858-R/RC/EC 70VAC
- 86J18118EC-1000/2HSS858-R/RC/EC 70VAC
- 86J18156EC-1000/2HSS858-R/RC/EC 70VAC
- 86J18156EC-1000/2HSS858-R/RC/EC 70VAC



- 86J12126EC-1000/3HSS2208-R/RC/EC 220VAC
- 86J12156EC-1000/3HSS2208-R/RC/EC 220VAC



- 110J12135EC-1000/3HSS2208-R/RC/EC 220VAC
- 110J12160EC-1000/3HSS2208-R/RC/EC 220VAC
- 110J12190EC-1000/3HSS2208-R/RC/EC 220VAC



- 130J12205EC-2500/3HSS2208-R/RC/EC 220VAC
- 130J12205EC-2500/3HSS2208-R/RC/EC 220VAC

Accessories »

AC power supply (transformer)

Type	Power	Input voltage	Output voltage	Current
JMC-200VA-50V	200W	220VAC	50VAC	4A
JMC-400VA-50V	400W	220VAC	50VAC	8A
JMC-200VA-70V	200W	220VAC	70VAC	2.8A
JMC-500VA-70V	500W	220VAC	70VAC	7A
JMC-800VA-70V	800W	220VAC	70VAC	11.4A

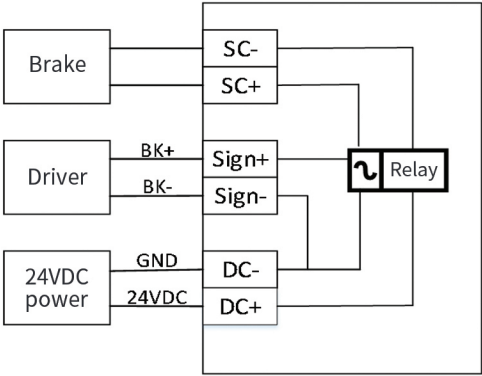
DC power supply (switch power supply)

Type	Power	Input voltage	Output voltage	Current
PS36V-200W	200W	220VAC	36VDC	7.7A
PS36V-400W	400W	220VAC	36VDC	15A
PS48V-200W	200W	220VAC	48VDC	5.8A
PS48V-500W	500W	220VAC	48VDC	14A

Intelligent brake controller



Wiring diagram for brake



Wiring diagram for brake

BRAKE ACCESSORY: BRAKE BOX (IBC-DM)

Application range for brake box: used for motor with brake, to receive driver's brake control signal, and output brake power signal.

IHSS intelligent handle Setting Unit



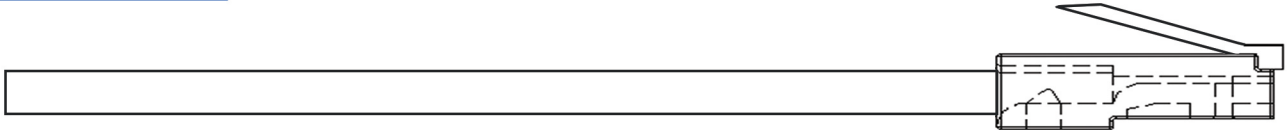
HISU-DM + RC debugging cable (CAN and 485 bus debug board)
(Used for integrated motor tuning parameter)

Encoder cable

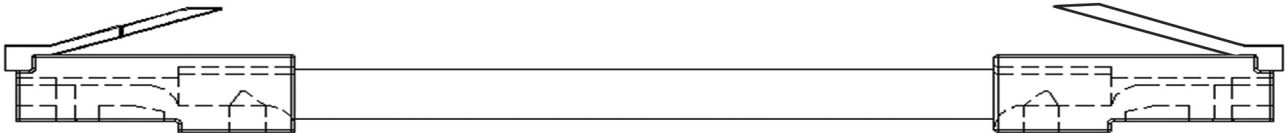


Encoder cable model: HSS110-CABLE-3M0
(3M0 means 3 meters, length is optional)
Used for: 2HSS458-R/RC/EC 2HSS858-R/RC/EC 3HSS2208-R/RC-EC

Net cable



Connection between host and slave: CAN-RS-L1M5-T (1M5 means 1.5 meters, length is optional)



Connection between slave and slave: CAN-RS-L1M5 (1M5 means 1.5 meters, length is optional)

Remark: all of the above accessories are not included into the driver and motors, please contact us in case of needed.

Attention

- 1、 Please ensure reliable connection between equipment and ground after the motor/driver installed in the equipment.
- 2、 Make sure reliable connection between communication network shield layer with terminal ground.
- 3、 Please guarantee +/- is correct before power on.