XINJE

DM6C Series Servo Drive

User Manual

WUXI XINJE ELECTRIC CO., LTD.

Reference number：SM6 01 20250612

XINJE ELECTRIC

DM6C Series Servo Drive

User Manual

General instructions

- Thank you for purchasing XINJE DM6C Series Servo Drive products.
- This manual primarily introduces product information for the DM6C Series Servo Drives and MS6 Series Servo Motors.
- Before using the product, please read this manual carefully and ensure all wiring is performed under full understanding of the content.
- Please deliver this manual to the end user.

This manual is intended for the following users:

- Servo system designers
- Installation and wiring personnel
- Commissioning and servo debugging personnel
- Maintenance and inspection personnel

Ways to Obtain the Manual

- Electronic version
  Download from XINJE official website:www.xinje.com

Disclaimer

- Although the content of this manual has been carefully reviewed, errors may still occur. We cannot guarantee complete accuracy.
- We regularly review the content of this manual and make corrections in subsequent editions. Your valuable feedback is welcome.
- The content described in this manual is subject to change without prior notice.

Contact information

If you have any questions regarding the use of this product, please contact the distributor or office where you purchased the product, or reach out to XINJE directly.

- General Line：0510-85134136
- Hotline：400-885-0136
- Fax：0510-85111290
- Website：www.xinje.com
- Email：xinje@xinje.com
- Address：No. 816 Jianzhu West Road, Binhu District, Wuxi City, Jiangsu Province

April 2025

Safety Precautions

Before using this product, be sure to read this section carefully and ensure all operations are performed only after fully understanding the product's usage, safety requirements, and precautions. Exercise extreme caution when connecting the product to power sources.

Potential risks that may arise during product use are primarily outlined in the safety precautions, which are categorized into two levels: Attention and Dangerous. For matters not explicitly covered, please adhere to standard electrical operation procedures.

 ATTENTION	Indicates a potential hazard that, if ignored, could result in moderate or minor personal injury, or property damage.
 DANGEROUS	Indicates a potentially hazardous situation that, if not avoided, could result in serious injury, death, or significant property damage.

 Product Inspection Precautions

1. Do not install drives that are damaged, have missing parts, or do not meet the required model specifications.

 Storage and Handling Precautions

1.Do not place or store the product in areas exposed to direct sunlight, where the ambient temperature exceeds the specified storage, where the relative humidity exceeds the specified storage, where there are significant temperature fluctuations, or where condensation occurs.
2.Avoid contact with corrosive or flammable gases, and areas with high levels of dust.
3.Do not place in locations where excessive vibration or impact is directly transmitted to the drive.
4.Never lift or carry the unit by holding the motor cables.

 Installation Precautions

1. Never install near flammable gases, as this may cause a fire.
2. Always adhere to the specified installation orientation to prevent drive malfunctions.
3. Never expose the product to moisture, corrosive substances, or flammable gases, as this poses risks of electric shock and fire.
4. Before installation, always disconnect the power supply and verify that the power indicator light is off to prevent electric shock.
5. Do not touch the conductive parts of the product directly, as this may cause malfunction, damage, or electric shock.

Wiring Precautions

1.Please correctly connect the AC power supply to the dedicated power terminals of the drive (L/N or L1/L2/L3 or R/S/T). Do not connect the output terminals U, V, W of the drive to the three-phase power supply.

2.Please properly connect the ground wire. Poor grounding may cause electric shock. Use a 2mm² wire to ground the drive's grounding terminal.

3.Please tighten the terminal screws securely; otherwise, it may cause a fire.

4.Before performing wiring operations on the drive, be sure to disconnect all external power sources.

5.Ensure that the encoder and power cables are in a loose state during wiring. Do not tighten them excessively to avoid cable damage.

Operational Precautions

1.After the drive starts operating, do not touch the rotating parts of the motor to prevent injury.

2.During trial operation, run the motor without load to prevent accidents; otherwise, it may cause personal injury.

3.After connecting to the machinery, set appropriate parameters before operation; otherwise, it may lead to loss of control or malfunction of the machinery.

4.During operation, do not touch the heat sink, as there is a risk of burns.

5.Do not change wiring while the system is energized, as it may cause injury.

6.Do not frequently turn the power on and off. If multiple power cycles are required, limit them to once every 2 minutes. Otherwise, it may damage the drive's charging resistor. Frequent switching may cause the relay to trip before it has released

Maintenance and Inspection

1． Power-on and power-off operations should be performed by qualified personnel.

2.Do not use gasoline, acidic, thinning, or alkaline detergents, as they may damage or discolor the casing.

3.When replacing the drive, transfer the parameters from the original drive to the new one before resuming operation; otherwise, it may cause mechanical damage or even personal injury.

4.Do not change wiring while the system is energized, as it may cause electric shock or injury.

5.Do not remove the servo motor during operation, as it may cause electric shock or injury.

6.Do not touch the interior of the servo drive or servo motor during operation, as it may cause electric shock or injury.

7.Do not touch the terminals within 10 minutes after turning off the power, as residual voltage may cause electric shock or injury.

Wiring Precautions

1. Do not run power lines and control signal lines through the same conduit or bundle them together. Keep wer lines and control signal lines at least 30 cm apart.

2.For signal lines and encoder (PG) feedback lines, use multi-strand twisted pairs and multi-core overall shielded twisted pairs.

3.The maximum length for signal input lines is 3 meters, and for PG feedback lines, it is 20 meters.

4.Ensure wiring is correct and secure; otherwise, it may cause motor 失控 or malfunction, and in severe cases, personal injury.

5.Do not use the drive under poor power conditions or outside the specified voltage range, as it may cause mechanical damage.

6.Take appropriate shielding measures in environments with static electricity, strong electromagnetic fields, radiation, or nearby power lines.

Content

►►Product Arrival Confirmation

Upon the arrival of the products, please confirm the integrity of the products based on the following aspects:

Confirmation Item	Remarks
Does the arrived product match the ordered model?	Confirm based on the nameplate of the servo motor and servo unit.
Does the rotating shaft of the servo motor move smoothly?	It is normal if it can be turned gently by hand. Motors with brakes will not rotate.
Are there any signs of damage?	Visually inspect the entire exterior for damage caused by transportation, etc.
Are there any loose screws?	Check for loose screws using a screwdriver.
Is the motor code consistent?	Verify that the motor code on the drive (U3-70) matches the code on the motor label.

Do not install any drives that are damaged, have missing parts, or do not meet the required model specifications. If any discrepancies are found, please contact the agent, office, or XINJE's sales department for this product promptly.

1. Servo System Selection

1.1 Servo Drive Selection

1.1.1 Model Nomenclature

- Rectifier Unit

DM6-4 □P□ - R

Show	Product Name
DM 6	DM6 Series All-in-One Servo Drive

Show	Drive Type
R	Rectifier Unit

Show	Rated Input Voltage
4	AC380V

Show	Rated Output Power
110P0	110kW

- Inverter unit

DM6 □-4 □P□ □- M

Show	Product Name
DM 6	DM6 Series All-in-One Servo Drive

Show	Drive type
M	Inverter unit

Show	Single and double axis
S	Single-axis inverter
Empty	Dual-axis inverter

Show	Product Series
C	EtherCAT-based

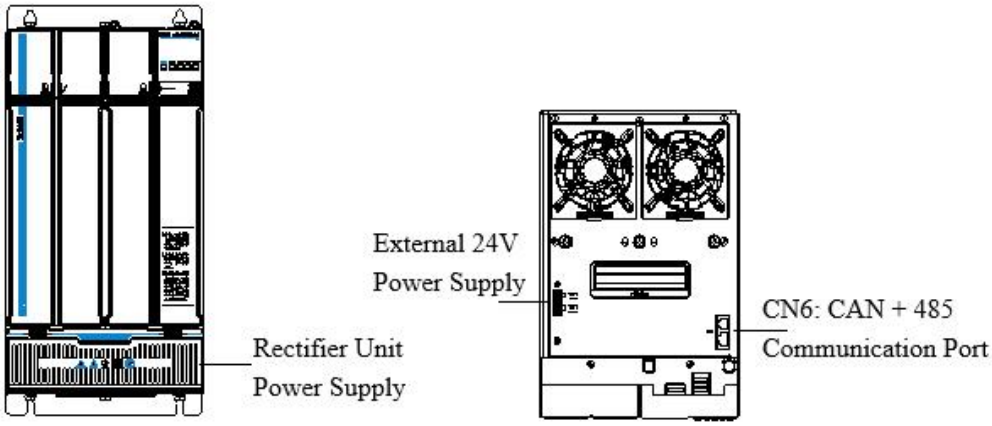
Show	Rated output power
0P4	400W
0P7	750W
3P0	3KW
5P5	5.5KW
7P5	7.5KW
15P0	15KW
45P0	45KW
55P0	55KW
75P0	75KW

Show	Rated Input Voltage
4	AC380V

45kW, 55kW, and 75kW models are only available as single-axis inverter units.

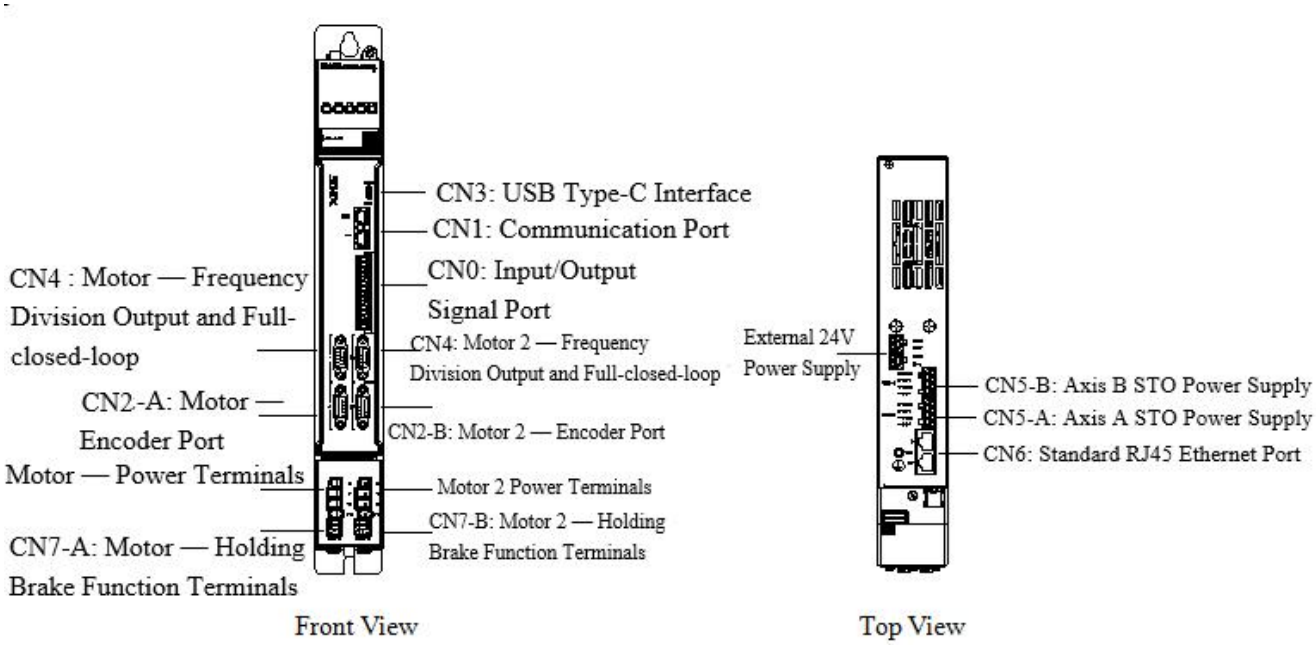
1.1.2 Description of Components

- Rectifier Unit



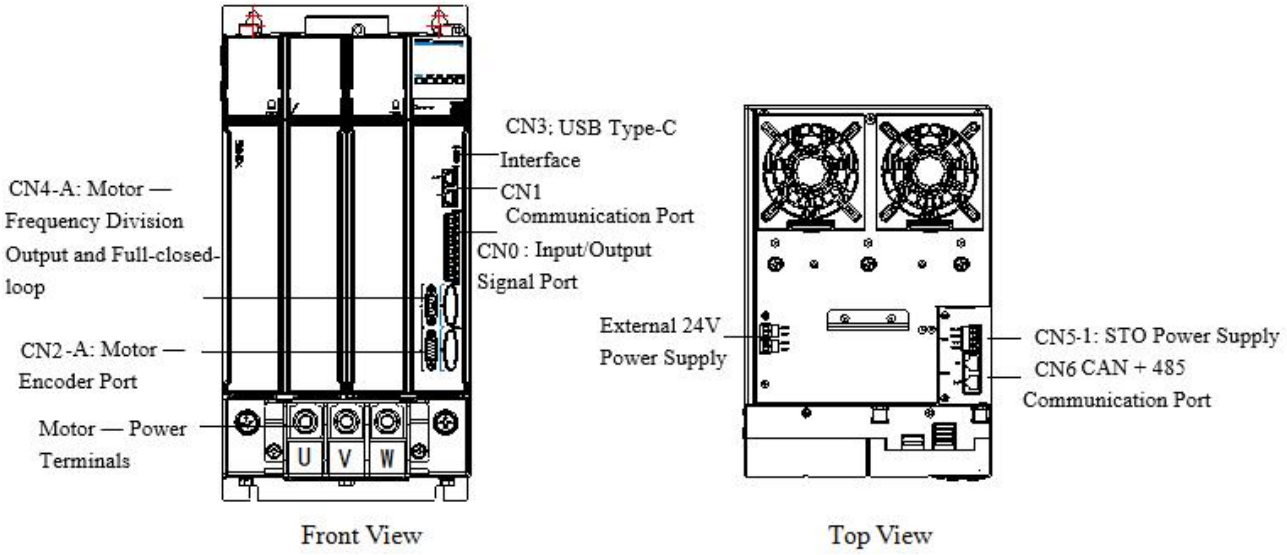
Front View Top View

- Dual-Axis Inverter Unit



Front View Top View

- Single-Axis Inverter Unit



1.1.3 Performance Specifications

Servo Unit		DM6C Series Servo Drive
Compatible Encoder		Standard: 19-bit / 23-bit Communication Encoder
Input Power		DM6-4□P□-R: 3-phase AC380–440V, 50/60 Hz
Control Method		Three-phase full-wave rectification, IPM PWM control, sinusoidal current drive method
Service conditions	Operating Temperature	-10～+40 ℃
	Storage Temperature	-20～+60 ℃
	Ambient Humidity	90% RH or less (non-condensing)
	Vibration Resistance	4.9m/s^2
	Altitude	1000 m or below. For altitudes above 1000 m, please derate the unit (derate by 1% for every 100 m increase).

1.1.4 Electrical Specifications

Drive Model	Drive Power (kW)	Continuous Output Current（A）	Maximum Output Current（A）	Power Supply	Cooling Method
DM6C-40P4-M	0.4kW	2.8	9.8	Supplied by Rectifier Unit	Air-Cooled
DM6C-40P7-M	0.75kW	4.8	16.8	Supplied by Rectifier Unit	Air-Cooled
DM6C-43P0-M	3kW	11	29.7	Supplied by Rectifier Unit	Air-Cooled

Drive Model	Drive Power (kW)	Continuous Output Current（A）	Maximum Output Current（A）	Power Supply	Cooling Method
DM6C-45P5-M	5.5kW	20	50	Supplied by Rectifier Unit	Air-Cooled
DM6C-47P5-M	7.5kW	25	62.5	Supplied by Rectifier Unit	Air-Cooled
DM6C-415P0-M	15kW	37	66.6	Supplied by Rectifier Unit	Air-Cooled
DM6C-445P0S-M	45kW	100	220	Supplied by Rectifier Unit	Air-Cooled
DM6C-455P0S-M	55kW	126	283.5	Supplied by Rectifier Unit	Air-Cooled
DM6C-475P0S-M	75kW	152	273.6	Supplied by Rectifier Unit	Air-Cooled
DM6-4110P0-R	110kW	240	-	Three-Phase AC380～440V，50/60Hz	Air-Cooled

1.2 Servo motor selection

1.2.1 Model naming

- MS6 series motor

MS6S – 80 CS 30 B Z 3 – 2 1P0 – S

Show (Series)	Inertia
MS6L	Ultra-low inertia motor
MS6S	Low inertia motor
MS6G	Medium inertia motor
MS6H	High inertia motor

Show	Frame size
25	Frame 25
40	Frame 40
60	Frame 60
80	Frame 80
100	Frame 100
110	Frame 110
130	Frame 130
180	Frame 180
200	Frame 200

Show	Encoder type
CN	Single and multi-turn integrated 19-bit magnetic encoder
TH	Multi-turn 23-bit optical encoder

Show	Rated speed (rpm)
15	1500
17	1700
20	2000
25	2500
30	3000

Show	Motor shaft specifications
B	With key, with oil seal, with threaded hole
E	Special shaft specifications (length, shaft diameter, etc.)

Show	Brake
–	Without brake
Z	With brake

Show	Motor type
Empty	Standard type
S	Short body type
F	Air-cooled motor
Y	Liquid-cooled motor

Show	Rated output power
0A5	50W
0P1	100W
0P2	200W
0P4	400W
0P7	750W
0P8	850W
1P0	1kW
1P5	1.5kW
2P3	2.3kW
2P5	2.5kW
3P0	3.0kW
4P4	4.4kW
5P0	5.0kW
5P5	5.5kW
7P0	7.0kW
7P5	7.5kW
13P0	13kW
17P0	17kW
21P0	21kW
27P0	27kW
32P0	32kW
45P0	45kW
55P0	55kW
75P0	75kW

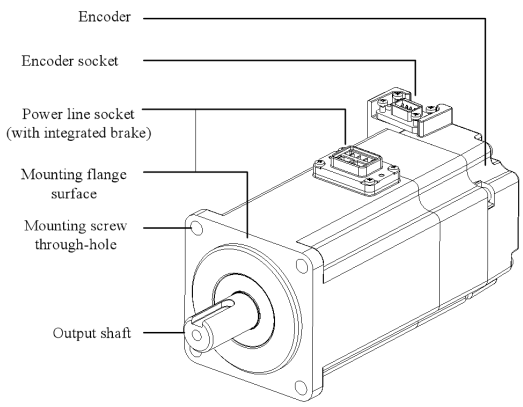
Show	Voltage class
2	220V
4	380V

Show	Motor connector type
2	Aviation plug connector
3	Waterproof connector
4	Waterproof connector to AMP plug

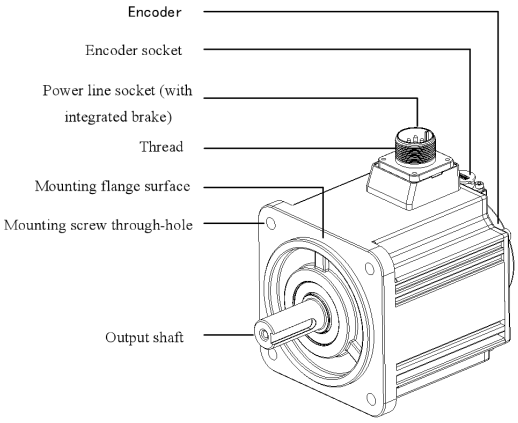
Currently, only CN and TH combinations are available for encoder type selection.

1.2.2 Description of Each Section

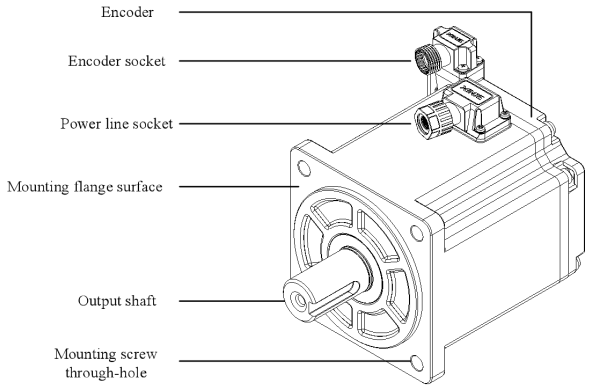
■ B2/B3/B4 type motors



B3 motor

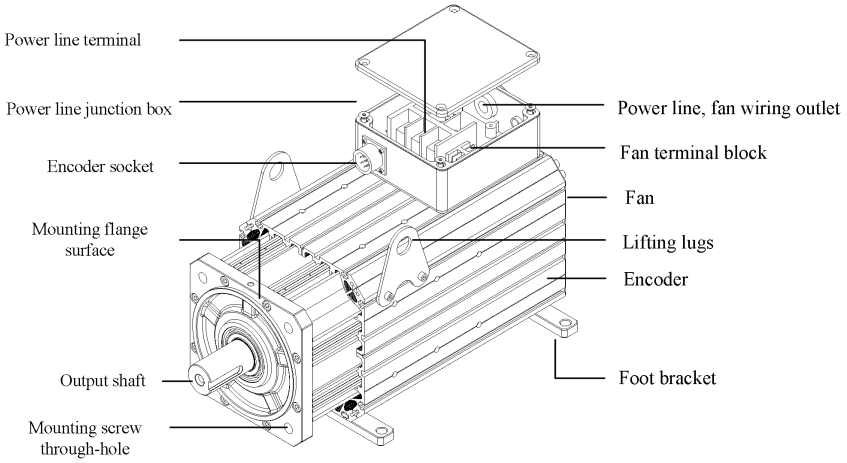


B2 motor

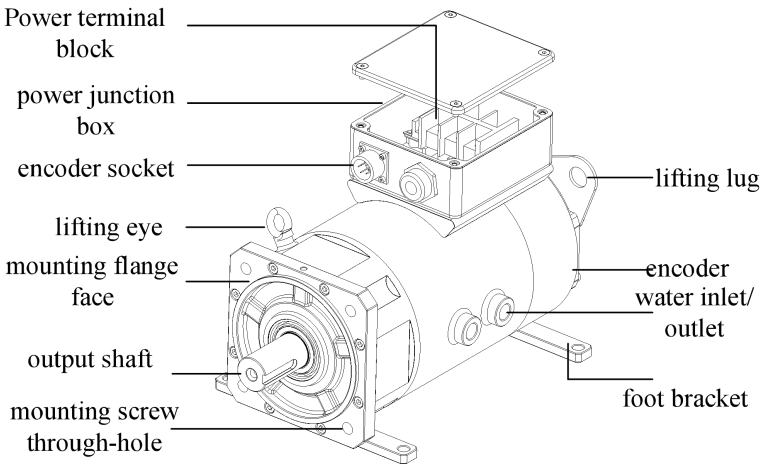


B3 motor

■ High-Power Air-Cooled/Liquid-Cooled Motors

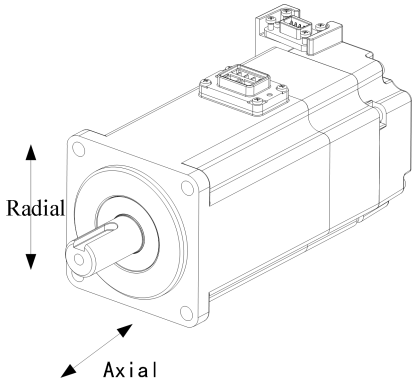


High-power air-cooled motor



high-power liquid-cooled motor

1.2.3 Axial Load and Radial Load Specifications



Frame size	40	60	80	100	110	130	180	200	220	265
Axial Load	54N	74N	147N	196N	147N	196N	400N	640N	686N	1120N
Radial Load	78N	245N	392N	500N	392N	686N	800N	1880N	2254N	3200N

1.3 Cable Selection

1.3.1 model naming

■ Encoder Cable Model Number

CP – SP T – M - 02

Code	Cable type
CP	Standard Encoder Cable
CPT	High-Flex Encoder Cable

Code	Connector Type
SP	AMP Connector
SL	15-pin Aviation Plug
SC	10-pin Compact Aviation Plug
SE	B3 Top Exit Connector (Motor Side)
SF	B3 Bottom Exit Connector (Motor Side)
ZDL	Straight DB Plug (Drive Side)

Code	Length (M)	Code	Length (M)
02	2	12	12
03	3	16	16
05	5	20	20
08	8	25	25
10	10	30	30

Code	Connector Type
M	Without Battery Box
B	With Battery Box (Frame 110 and above)
BM	With Battery Box (Frame 90 and below)

Code	Connector Type
T	Threaded Snap-on Type (For Frame 130/180 only)
Blank	Standard Type

■ Power Cable Model

CM T - E 05 A - 03

Code	Cable Type
CM	Power Cable - Without Brake
CMB	Power Cable - With Brake

Code	Cable Type
T	High-Flex
G	High-Flex & Oil-Resistant
Blank	Standard

Code	Connector Type
E	B3 Top Exit Connector (Motor Side)
F	B3 Bottom Exit Connector (Motor Side)
L	4-pin Compact Aviation Plug
XL	4-pin Medium Aviation Plug
D	4-pin Q-Type Connector

Code	Length (M)	Code	Length (M)
02	2	03	3
05	5	08	8
10	10	12	12
16	16	20	20
25	25	30	30

Code	Terminal (Drive Side)
A/B	Pin Terminal
T	Pin Terminal
Blank	U-Type Terminal / U-Type Terminal

Code	Cross-Section (mm²)	Code	Cross-Section (mm²)
03	0.3	100	10.0
05	0.5	120	12.0
15	1.5	160	16.0
20	2.0	300	30.0
60	6.0		

■ EtherCAT Communication Cable Model Number

JC - CB - 1

Code	Designation
JC	Designation for EtherCAT Communication Cable Set

Code	Designation
CB	Cat 5e Cable

Code	Length (M)
0P2	0.2
0P3	0.3
0P5	0.5
1	1
3	3
5	5

S

Currently available cable lengths are 0.2 m, 0.3 m, 0.5 m, 1 m, 3 m, 5 m, 10 m, and 20 m.

■ CAN&RS485 Communication Cable Model Number

JN - CA - 2

Code	Designation
JN	Designation for CAN485 Communication Cable Set

Code	Designation
CA	Cat 5e Cable

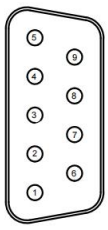
Code	Length (M)
0P3	0.3
2	2

Currently available cable lengths are 0.3 m and 2 m.

1.3.2 Cable Terminal Definitions

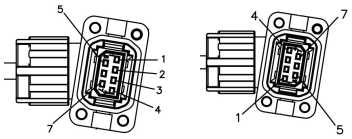
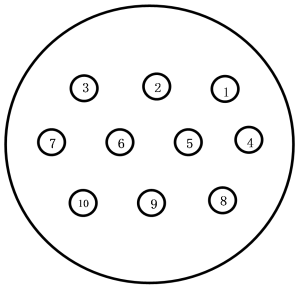
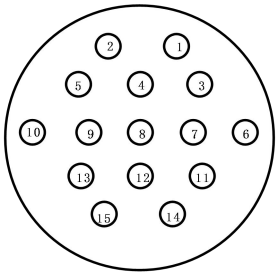
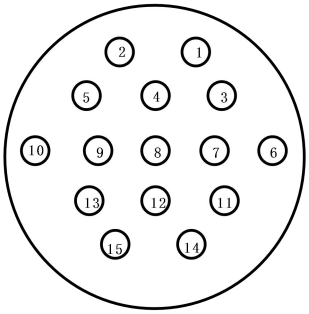
■ Encoder Cable

（1）Servo Motor Side Encoder Cable Pinout



Interface Pinout			
Pin No.	Definition	Pin No.	Definition
1	Temp Sensor -	6	GND
2	Temp Sensor+	7	/
3	485-B	8	+5V
4	485-A	9	/
5	Shield Layer	/	/

（2）Servo Motor Side Encoder Cable Pinout

<table>
<tr><th>Motor Model</th><th>Connector Pin</th><th colspan="2">Interface Pinout</th></tr>
<tr><td rowspan="8">MS6-40、60、80 frame B3 motor</td><td rowspan="8"> 
Front-facing Cable Outlet
Rear-facing Cable Outlet
（Viewing Perspective）</td><td>Pin No.</td><td>Definition</td></tr>
<tr><td>1</td><td>5V</td></tr>
<tr><td>2</td><td>GND</td></tr>
<tr><td>3</td><td>Battery+</td></tr>
<tr><td>4</td><td>Battery-</td></tr>
<tr><td>5</td><td>485-A</td></tr>
<tr><td>6</td><td>485-B</td></tr>
<tr><td>7</td><td>Shield</td></tr>
<tr><td rowspan="11">MS6-130 frame B2 motor</td><td rowspan="11">  </td><td>Pin No.</td><td>Definition</td></tr>
<tr><td>1</td><td>/</td></tr>
<tr><td>2</td><td>5V</td></tr>
<tr><td>3</td><td>GND</td></tr>
<tr><td>4</td><td>485-A</td></tr>
<tr><td>5</td><td>485-B</td></tr>
<tr><td>6</td><td>Battery+</td></tr>
<tr><td>7</td><td>Battery-</td></tr>
<tr><td>8</td><td>/</td></tr>
<tr><td>9</td><td>/</td></tr>
<tr><td>10</td><td>Shield</td></tr>
<tr><td rowspan="10">MS6-180 frame B2 motor</td><td rowspan="10">  </td><td>Pin No.</td><td>Definition</td></tr>
<tr><td>1</td><td>Shield</td></tr>
<tr><td>2</td><td>/</td></tr>
<tr><td>3</td><td>485-B</td></tr>
<tr><td>4</td><td>485-A</td></tr>
<tr><td>5</td><td>/</td></tr>
<tr><td>6</td><td>GND</td></tr>
<tr><td>7</td><td>Battery-</td></tr>
<tr><td>8</td><td>5V</td></tr>
<tr><td>9</td><td>Battery+</td></tr>
<tr><td rowspan="11">200、265 frame motor</td><td rowspan="11">  </td><td>Pin No.</td><td>Definition</td></tr>
<tr><td>1</td><td>Shield</td></tr>
<tr><td>2</td><td>/</td></tr>
<tr><td>3</td><td>485-B</td></tr>
<tr><td>4</td><td>485-A</td></tr>
<tr><td>5</td><td>/</td></tr>
<tr><td>6</td><td>GND</td></tr>
<tr><td>7</td><td>Battery-</td></tr>
<tr><td>8</td><td>5V</td></tr>
<tr><td>9</td><td>Battery+</td></tr>
<tr><td>14</td><td>Temp-</td></tr>
<tr><td>15</td><td>Temp+</td></tr>
</table>

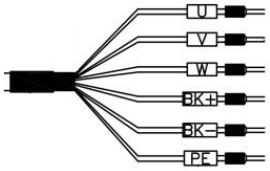
Battery Box Note:

1）The cables for the encoders listed above, which include the Battery+ and Battery- pin definitions, are used for absolute value motors. These pins are not present in the cables for non-absolute value motors.

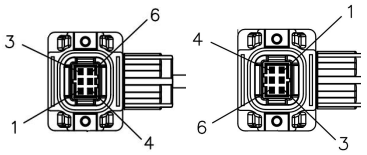
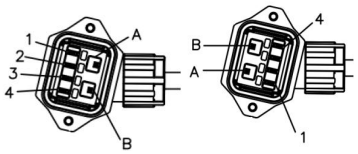
2）Only the absolute value motor is compatible with the external battery box, which features a built-in 3.6V/2.7Ah high-capacity battery and supports battery replacement without power interruption. The battery life is no less than 2 years. For battery replacement methods, refer to Section 5.1.2 "Battery Replacement".

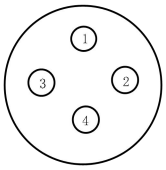
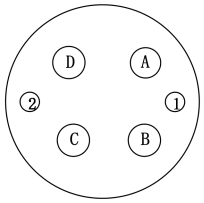
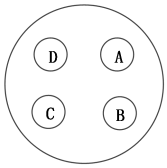
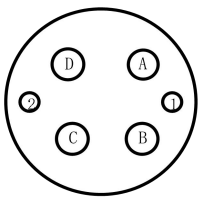
- Motor Power Cable

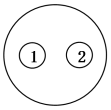
（1）Servo Drive Side Power Cable Pin Definitions

Motor Model	Connector Appearance	Interface Pin Definitions	
MS6 Series B3 Motor		Color	Definition
		Red	U
		White	V
		Black	W
		Yellow&Green	PE
		Blue	BK+
		Brown	BK-
MS6 Series 130, 180 Frame B2 Motor		Color	Definition
		Brown	U
		Black	V
		Blue	W
		Yellow&Green	PE
		Red	BK+
		Black	BK-
MS6 Series 200 Frame B2 Motor	200 frame motors have no socket. Note: Connect U, V, W on the drive side and motor side one-to-one.	Color	Definition
		Red	U
		Yellow	V
		Blue	W
		Yellow&Green	PE

（2）Motor Side Power Cable Solder Pin Definitions

Motor Model	Connector Pinout	Interface Pin Definitions	
MS6-40 Frame B3 Motor	 Front Exit Rear Exit (User View Angle)	Pin No.	Definition
		1	W
		2	V
		3	U
		4	PE
		5	BK+
		6	BK-
MS6-60, 80 Frame B3 Motor	 Front Exit Rear Exit (User View Angle)	Pin No.	Definition
		1	U
		2	V
		3	W
		4	PE
		A	BK+
		B	BK-

Motor Model	Connector Pin	Interface Pin Definition	
MS6H-180 Frame Non-brake Motor		Pin No.	Definition
		1	PE
		2	U
		3	V
		4	W
MS6H-180 Frame Brake Motor		Pin No.	Definition
		A	U
		B	V
		C	W
		D	PE
		1	BK+
		2	BK-
MS6G-130 Frame Non-brake Motor		Pin No.	Definition
		A	W
		B	V
		C	U
		D	PE
MS6G-130 Frame Brake Motor		Pin No.	Definition
		A	PE
		B	W
		C	V
		D	U
		1	BK+
		2	BK-

Motor Model	Connector Pin	Interface Pin Definition	
200/265 Frame Motor		Color	Definition
		Red	U
		Green	V
		Blue	W
		Yellow&Green	PE
200/265 Frame Brake Motor		Color	Definition
		1	BK+
		2	BK-

Brake Pin Description:

The cable pin definitions above that include BK+ and BK- are used for motors with brakes. Cables for non-brake motors do not have these pins; the terminals are empty.

2. Installation of the Servo System

2.1 Installation of the Servo Drive

2.1.1 Installation Location

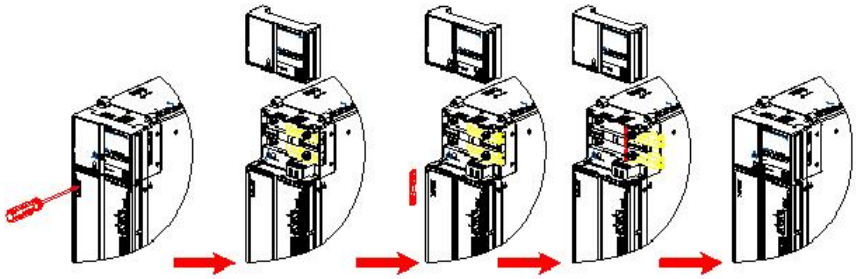
- Install the unit inside a control cabinet, protected from direct sunlight and rain.
- Do not use the product in environments near corrosive or flammable gases and materials, such as hydrogen sulfide, chlorine, ammonia, sulfur, oxidizing gases, acids, alkalis, salts, or combustibles请Do not install the unit in environments with high temperature, humidity, dust, or metal dust.
- Install the unit in a location free from vibration.

2.1.2 Environmental Conditions

Item	Specification
Operating Ambient Temperature	-10~40℃
Operating Ambient Humidity	20~90%RH（non-condensing）
Storage Temperature	-20~60℃
Storage Humidity	20~90%RH（non-condensing）
Vibration Resistance	4.9 m/s² or less
Altitude	1000 m or below. For altitudes above 1000 m, derate the unit by 1% for every 100 m increase.

2.1.3 Installation Standard

The installation standard shown in the figure below must be strictly followed. This standard applies when combining a rectifier module with inverter modules. The combination of multiple inverter modules follows a similar process, extending to the right. Note that the shorting cover plate and the snap-fit cover plate must be installed on the final inverter module



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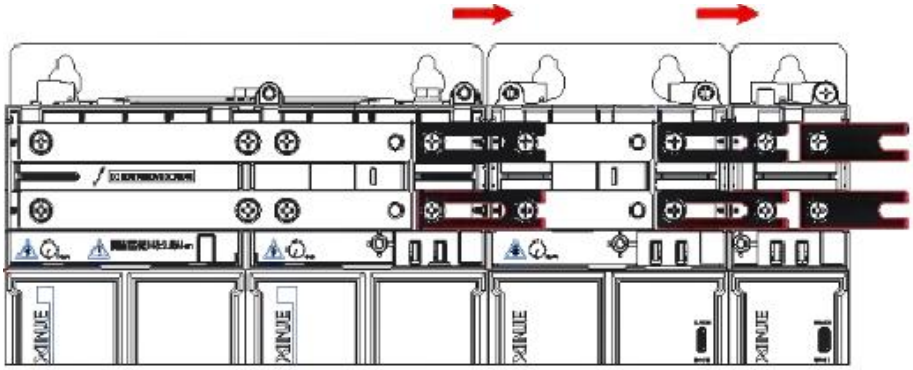


Loosen the screws and horizontally lap-connect the copper bar.

■ Servo Drive Orientation

During installation, ensure the front face of the servo drive (the actual mounting surface facing the operator) is oriented toward the operator and perpendicular to the wall.

■ Cooling

Sufficient space must be reserved around the servo drive to allow for effective cooling via the fan and natural convection.

■ Group Installation

A cooling fan should be installed above the servo drive. To prevent localized overheating of the servo drive, maintain a uniform temperature distribution inside the control cabinet.

- Environmental Conditions Inside the Control Cabinet
- Operating ambient temperature: -10°C to 40°C.
- Humidity: 90% RH or less.
- Vibration: 4.9 m/s².
- Avoid conditions leading to freezing or condensation.
- For long-term reliability, use in an ambient temperature below 50°C.

2.2 Servo Motor Installation

MS6 series servo motors can be mounted in either horizontal or vertical orientations. However, incorrect installation or installation in an unsuitable location may shorten the motor's lifespan or cause unexpected accidents. Please ensure proper installation by following the precautions below.

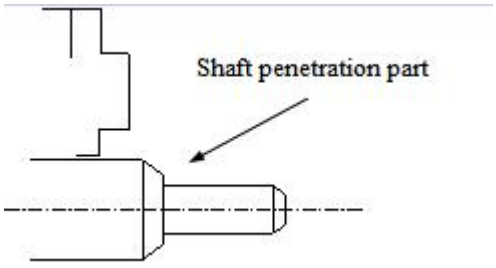
Attention
1. The shaft end is coated with "anti-rust agent." Before installing the motor, wipe off the anti-rust agent with a cloth soaked in "thinner." 2. When wiping off the anti-rust agent, ensure the thinner does not come into contact with other parts of the servo motor.

2.2.1 Installation Location

- Do not use the motor in environments containing corrosive or flammable substances such as hydrogen sulfide, chlorine, ammonia, sulfur, oxidizing gases, acids, alkalis, salts, or near combustible materials.
- In areas exposed to grinding fluid, oil mist, iron dust, or cuttings, select a model equipped with an oil seal.
- Keep the motor away from heat sources such as furnaces.
- Do not use the motor in enclosed environments. Enclosed spaces can cause overheating and reduce the motor's service life.

2.2.2 Environmental Conditions

If there is a risk of water dripping in the equipment installation environment (excluding the motor shaft end), verify whether the motor's ingress protection (IP) rating meets the operational requirements. When the motor shaft penetration area may be exposed to oil splashing, a servo motor equipped with an oil seal must be selected.



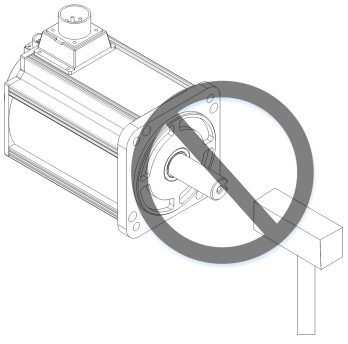
The MS6 series servo motors are designed for indoor use. Operate the motor under the following environmental conditions：

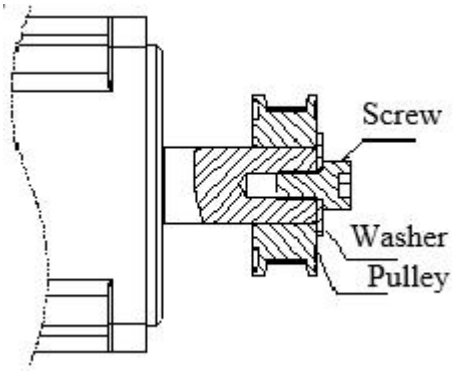
Item	Description
Ambient Temperature	-10℃~40℃(non-freezing)
Ambient	20%~90%RH(non-condensing)

Item	Description
Humidity	
Storage Temperature	-20℃~60℃
Storage Humidity	20%~90%RH(non-condensing)
Vibration Resistance (Vibration Acceleration)	Radial：49m/s^2 Axial：24.5m/s^2
Altitude	≤ 1000 m. Derate by 1% for every 100 m above 1000 m
Cooling Method	Air-cooled / Liquid-cooled / Natural convection
Protection Rating	IP54 (200-frame and larger motors) IP65 (100-180 frame MS6H series motors) IP67 (80-frame and smaller motors; 100-180 frame non-MS6H series motors)

- The vibration intensity acting on the servo motor varies depending on the application. Always verify the vibration acceleration with the actual product.
- The specified protection ratings are achieved only when the motor and compatible cable are correctly mated and securely locked.

2.2.3 Installation Precautions

Item	Description
Rust Prevention	◆ Before installation, completely wipe off the anti-rust agent from the motor shaft extension and apply appropriate anti-corrosion treatment.
Encoder Caution	◆ Do not impact the shaft extension during installation, as this may damage the internal encoder. 

Item	Description
	 ◆ Before installing a pulley on the servo motor, ensure all components (servo motor, pulley, shim, screws, etc.) are complete and undamaged. Prepare suitable tools (e.g., wrenches). ◆Align the pulley's bore with the motor shaft and push it on smoothly to ensure concentricity. ◆Place a shim of the correct specification over the motor shaft to compensate for tolerances, increase friction, and prevent loosening. ◆Finally, insert the screw into the threaded hole and gradually tighten it against the shim and into the pulley to secure the pulley firmly.

2.3 Servo Cable Installation

The MS6 series servo motors utilize communication-type encoders. Improper use or adverse environmental conditions may lead to unpredictable effects. The following points must be observed when installing optional power and encoder cables.

2.3.1 Selecting Xinje Cables

Our standard cable materials include regular and high-flexibility types. For motors of frame size 80 and below, compatible cable connectors are available in aviation plug and AMP types. For motors above frame size 80, the compatible cable connectors are aviation plug type.

For standard applications, strictly adhere to the specifications provided by Xinje (see section 2.3.2 Xinje Cable Specifications) when selecting cables from other manufacturers.

For non-standard applications, select cables from other manufacturers that meet or exceed Xinje's current specifications based on the actual conditions.

Standard Application Considerations:

- Keep the pulse command signal cable length below 3 meters.
- Keep encoder cable lengths within 20 meters. For lengths exceeding 20 meters, special cables are recommended. The encoder cable's cross-sectional area depends on the required length. Longer cables have higher resistance, leading to greater voltage drop or signal distortion, potentially causing lost pulses or undetected signals. Generally, use custom special cables for lengths over 20 meters.
- The power cable's cross-sectional area depends on the motor's current. Typically, select an area equal to 1/10 of the motor's maximum current (e.g., 6 mm² for a 60A motor).
- If interference occurs, separate high-power and low-power cables. It is advised to route power cables separately from encoder and signal cables.
- Ensure proper grounding of the servo drive and motor. Grounding resistance should not exceed 4 Ω, with a grounding depth greater than 2 meters. Use 4x40 galvanized angle steel or a 40mm diameter galvanized steel pipe.
- For customer-made cables, refer to Xinje's specifications (section 2.3.2). Ensure reliable soldering, avoiding cold joints, bridges, wrong connections, or missed spots. Test continuity between both ends after soldering.

Non-Standard Application Considerations:

1）Cable Dragging and Bending:

- Avoid bending cables or subjecting them to tension. Signal cable cores are only 0.2mm or 0.3mm in diameter and break easily. Handle with care.
- Use high-flex cables for moving applications. Standard cables are prone to damage under repeated bending. Integral cables on small motors (below frame size 80) are not suitable for moving applications.

When using cable carriers:

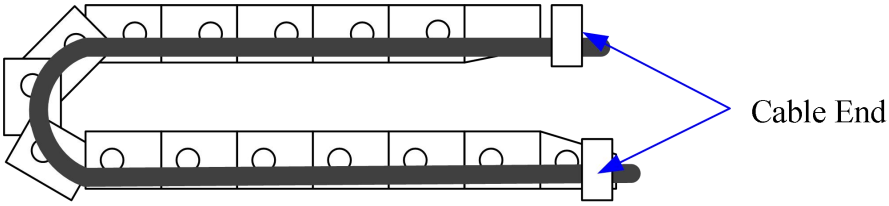
① Maintain a bending radius of at least 10 times the cable's outer diameter;

② Do not clamp or bundle cables inside the carrier; only secure them at the fixed ends outside the carrier.

③ Prevent cables from twisting or tangling.

④ Keep the fill ratio inside the carrier below 60%.

⑤ Do not mix cables with significantly different sizes to prevent crushing thinner cables. If mixing is necessary, use partitions within the carrier.



2）Oily or Humid Environments

- It is recommended to select cables with aviation-style connectors; the use of AMP-style interface cables is discouraged.
- If AMP-style cables are already deployed on-site, appropriate protective measures (such as applying silicone sealant or wrapping with insulating tape) must be implemented.
- Use specially rated cables for these conditions.

3）Environments with Interference or High Current/Power (e.g., Welding Equipment)

- Ensure the motor is correctly grounded.
- Ground high-current equipment separately.
- Employ proper cabling routing, such as separating power and signal cables.
- Shield encoder cables with metal shielding or add ferrite cores to suppress interference.

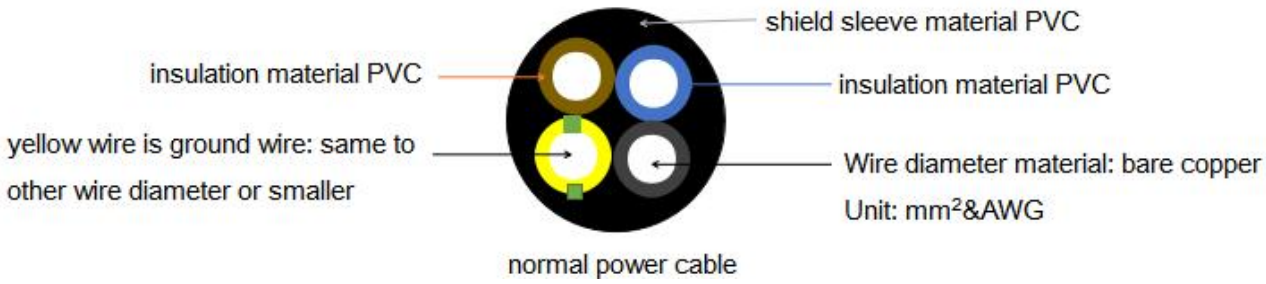
4）Low-Temperature or High-Temperature Environments

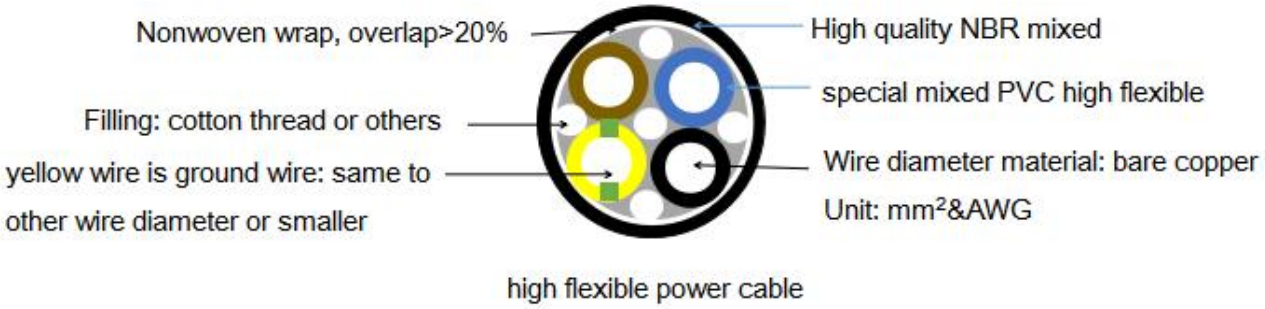
- Select cables (special types) rated for the specific operating temperature conditions.

2.3.2 XINJE Cable Specifications

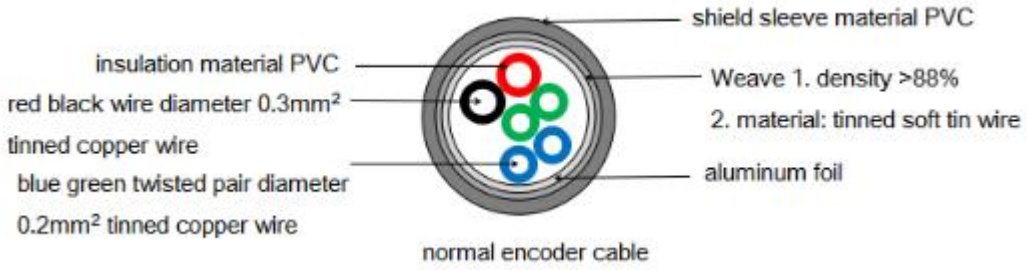
1）XINJE Cable Material Composition

Cross-sectional diagrams of the cables (encoder, power) are provided. These diagrams correspond to descriptions of the sheath material, conductor gauge/size, core material, and shielding layer material.





high flexible power cable



normal encoder cable

high flexible encoder cable

2）Cable Gauge Specifications

Frame Size	Encoder Cable Diameter		Power Cable Diameter		
	Overall Diameter (Standard)	Individual Conductor	Overall Dia. (mm) (Non-brake/Brake)	Power Core Gauge (mm²)	Brake Core Gauge (mm²)
40 Motor Frame	6 mm	15m below：3P*0.2 mm² 15m~30m：2P*0.2 mm²+1P*0.34 mm² 30m~50m：2P*0.2 mm²+1P*0.4 mm²	Standard / High-flex: 5.2/5.8 mm	4*0.3 mm²	2*0.3 mm²
60、80 Motor Frame			Standard / High-flex: 6.2/6.5 mm	4*0.5 mm²	
100、110、130 Motor Frame	6.2 mm		Standard：9.4/9.4mm High-flex: 9.6/9.6 mm	4*1.5 mm²	
180 Motor Frame 3kW			Standard：9.7/9.8 mm High-flex: 9.8/9.8 mm	4*2.0 mm²	
180 Motor Frame 3kW above			Standard：14.5/14.5 mm High-flex:15.8/15.8 mm	3*6.0mm²+1*2.5 mm²	
200 Motor Frame 13、17kW	7.9 mm		Standard：14.5mm High-flex：15.5mm		

200 Motor Frame 21kW			Standard：19.6mm	4*10.0mm²	
200 Motor Frame 27kW			Standard：20mm	3*12.0mm²+ 1*4 mm²	
265 Motor Frame 32kW			Standard：22mm	4*16.0mm²	
265 Motor Frame 45kW			Standard：29mm	3*30.0mm²+ 1*16 mm²	

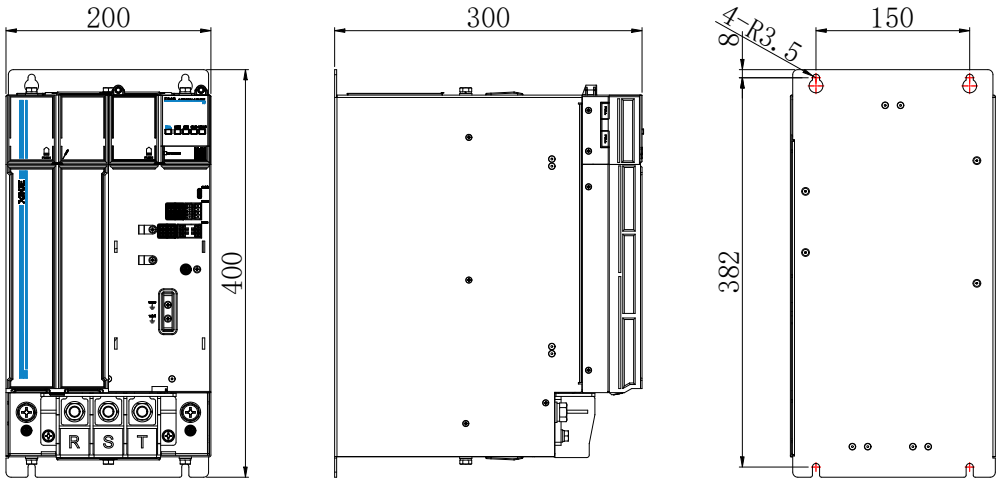
For encoder cables of 15 meters and longer, the power wires (5V and GND) must have an increased gauge to prevent voltage drop over the long distance, which could affect encoder signal transmission.

3）Cable Technical Specifications

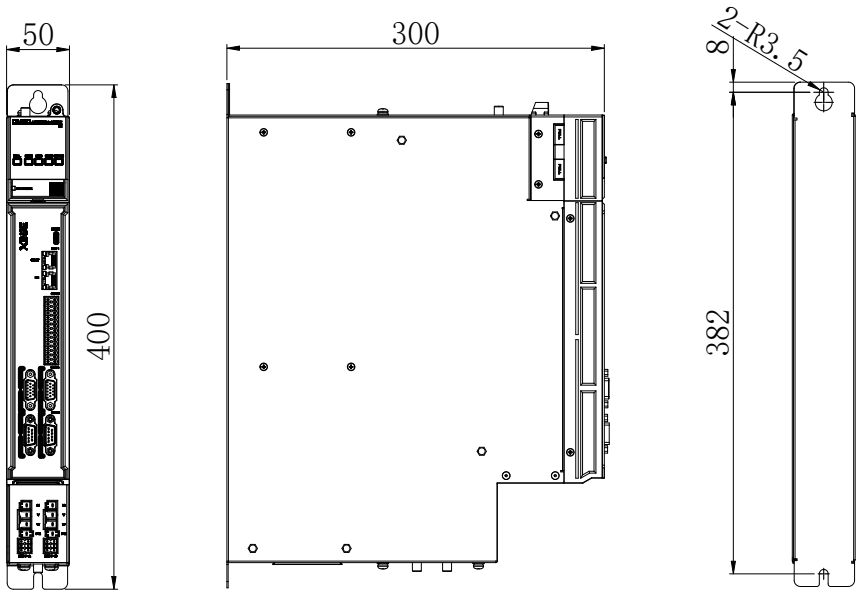
Cable Type	Cable Performance Specifications		Cable Installation Specifications	
	Temperature Rating	Voltage Withstanding	Fixed Installation	Moving Installation
Standard Cable	-20℃~80℃	2000V/min	≥5*D	/
High-Flex Cable	-20℃~80℃	2000V/min		If travel ≤ 2m and R ≥ 7.5 × D, then N ≥ 3 million cycles; If travel ≤ 2m and R ≥ 10 × D, then N ≥ 5 million cycles
Note: D = Finished Cable Diameter, R = Bending Radius, N = Flexing Cycle Life.				

2.4 Servo Drive Outline Dimensions

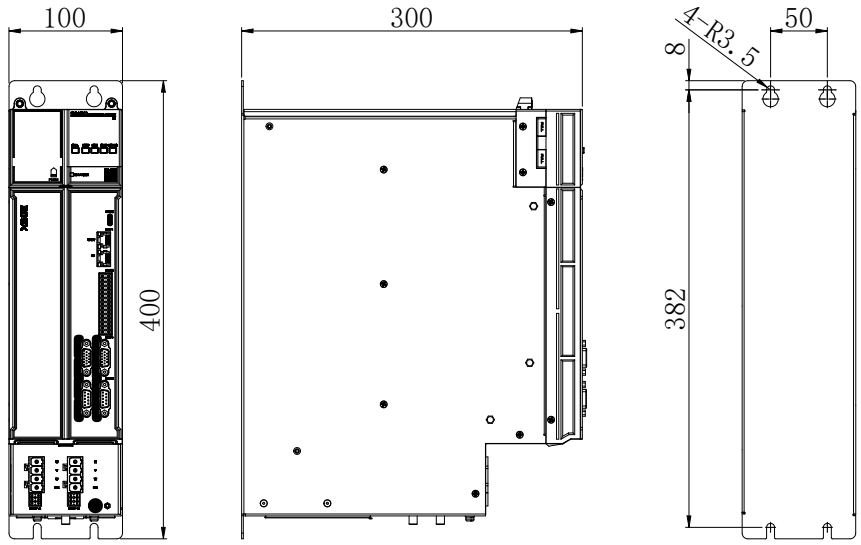
■ DM6-4110P0-R unit：mm



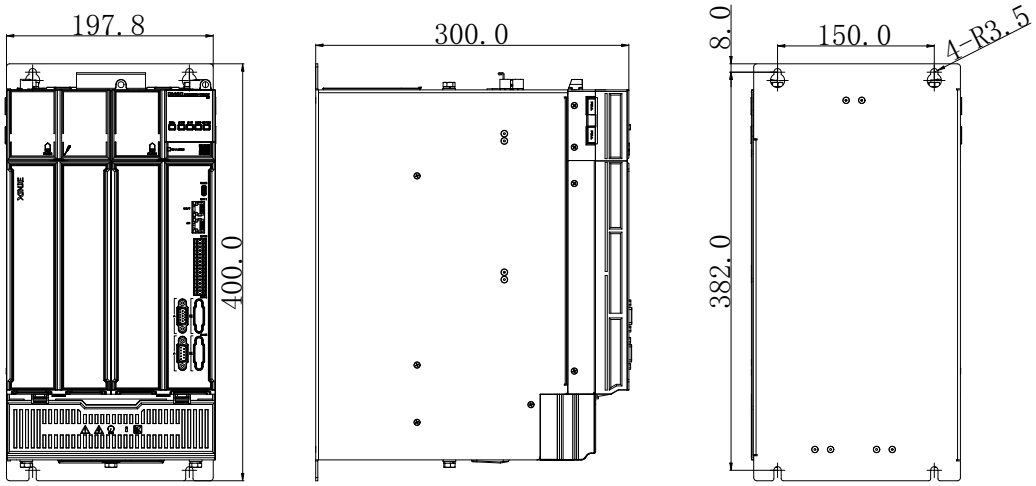
■ DM6C-40P4-M、DM6C-40P7-M、DM6C-43P0-M unit：mm



■ DM6C-45P5-M、DM6C-47P5-M、DM6C-415P0-M unit：mm

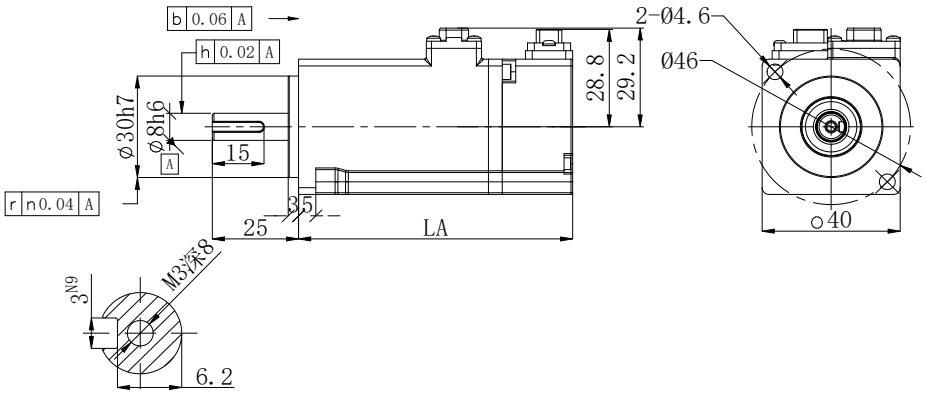


■ DM6C-445P0S-M、DM6C-455P0S-M、DM6C-475P0S-M unit：mm



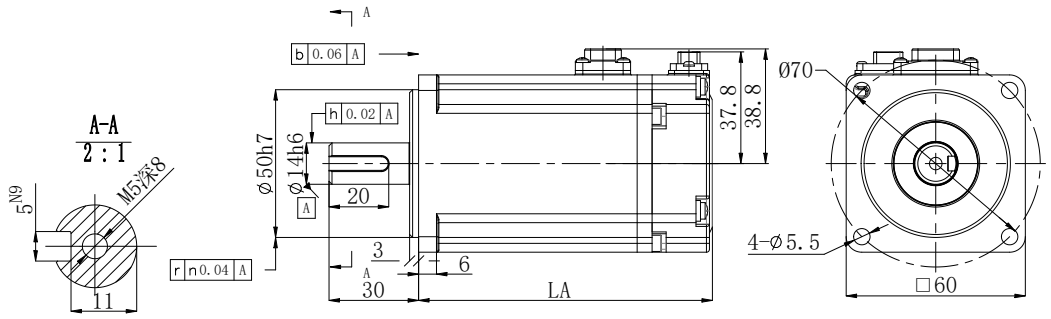
2.5 Outline Dimensions of Servo Motor

■ Mounting Dimensions for 40 Frame Size Motor unit：mm



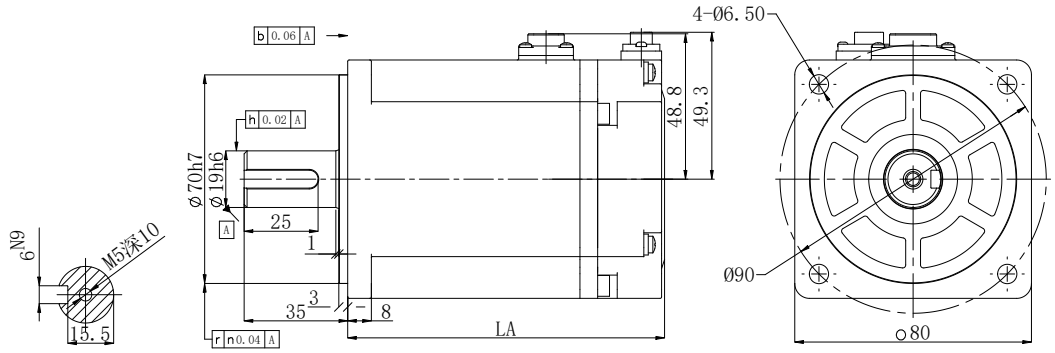
Motor Model	LA±1		Inertia Class
	Standard	With Brake	
MS6H-40CN30B□3-20A5-S	60.8	93.4	High Inertia
MS6H-40CN30B□3-20P1-S	77.4	110	
MS6H-40TH30B□3-20A5-S	62.8	95.4	
MS6H-40TH30B□3-20P1-S	79.4	112	

■ Mounting Dimensions for 60 Frame Size Motor unit：mm



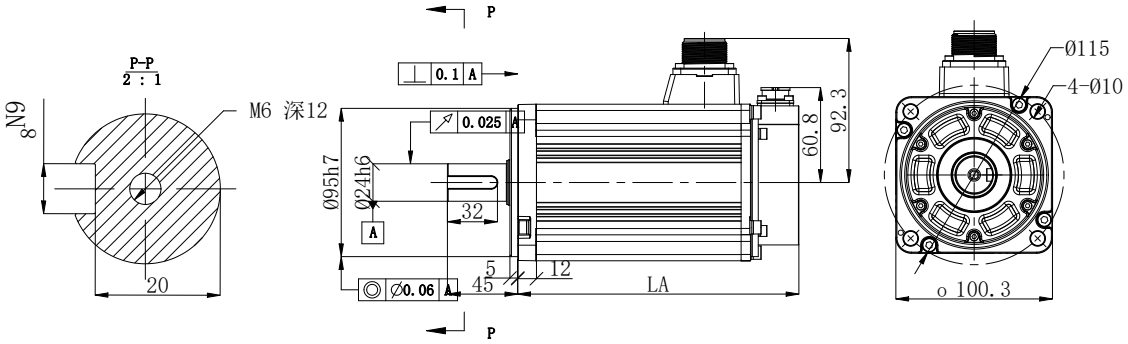
Motor Model	LA±1		Inertia Class
	Standard	With Brake	
MS6H-60CN30B□3-20P2	76.4	99.15	High Inertia
MS6H-60CN30B□3-20P2-S	66.7	93.5	
MS6S-60CN30B□3-20P4	98.4	121.15	Low Inertia
MS6S-60CN30B□3-20P4-S	88.7	115.5	
MS6S-60TH30B□3-20P4	97.4	121.2	
MS6S-60TH30B□3-20P4-S	97.4	121.2	
MS6H-60CN30B□3-20P4	98.4	121.15	High Inertia
MS6H-60CN30B□3-20P4-S	80.2	106.95	
MS6H-60TH30B□3-20P4	98.4	121.15	
MS6H-60TH30B□3-20P4-S	80.2	106.95	

■ Mounting Dimensions for 80 Frame Size Motor unit：mm



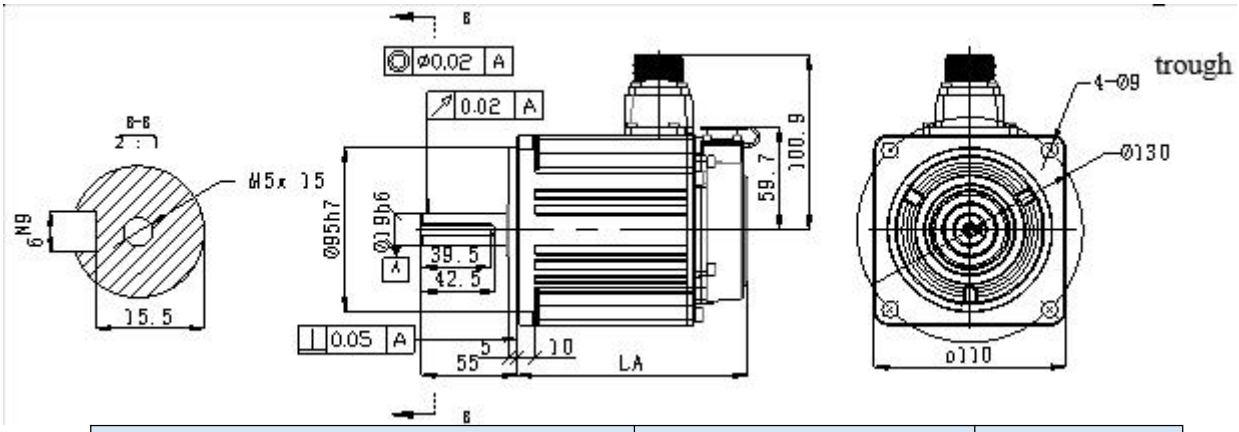
Motor Model	LA±1		Inertia Class
	Standard	With Brake	
MS6S-80CN30B□3-20P7	107.1	132.1	Low Inertia
MS6S-80CN30B□3-20P7-S	95	126.9	
MS6S-80TH30B□3-20P7	107.1	132.1	
MS6S-80TH30B□3-20P7-S	106.1	138	
MS6H-80CN30B□3-20P7	107.1	132.1	High Inertia
MS6H-80CN30B□3-20P7-S	89.2	121.1	
MS6H-80TH30B□3-20P7	107.1	132.1	
MS6H-80TH30B□3-20P7-S	100.3	132.2	
MS6S-80CN30B□3-21P0	117.6	142.6	Low Inertia
MS6S-80TH30B□3-21P0	117.6	142.6	
MS6H-80CN30B□3-21P0	134	159	High Inertia
MS6H-80CN30B□3-21P0-S	112.5	144.4	
MS6H-80TH30B□3-21P0	134	159	
MS6H-80TH30B□3-21P0-S	123.6	155.5	

■ Mounting Dimensions for 100 Frame Size Motor



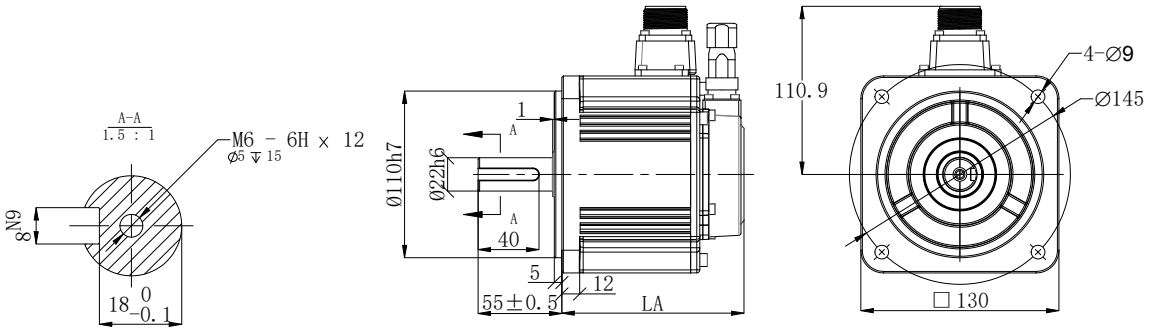
Motor Model	LA±1		Inertia Class
	Standard	With Brake	
MS6L-100CN30B□2-□1P5	180	205	Ultra-Low Inertia
MS6L-100TH30B□2-□1P5	193	218	
MS6L-100CN30B□2-42P5	228	253	
MS6L-100TH30B□2-42P5	241	266	

■ Mounting Dimensions for 110 Frame Size Motor

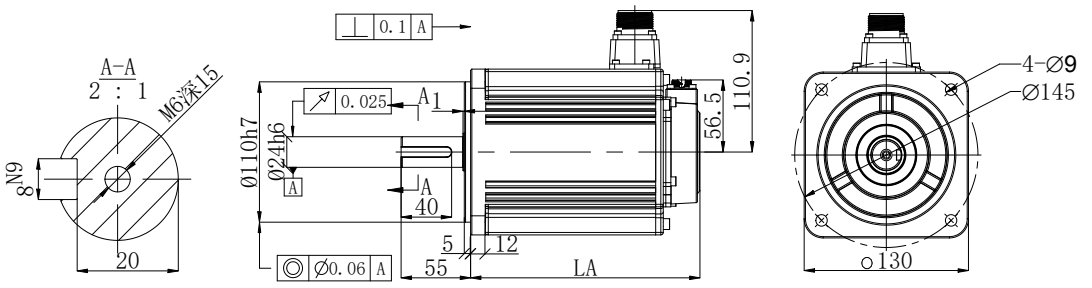


Motor Model	LA±1		Inertia Class
	Standard	With Brake	
MS6G-110CN30B□2-□1P5	132.5	163.5	Medium Inertia
MS6G-110TH30B□2-□1P5	149	180	

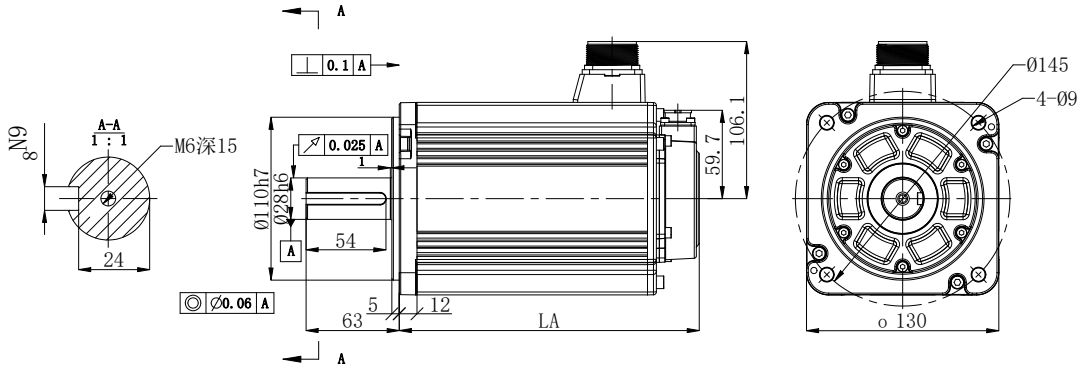
■ Mounting Dimensions for 130 Frame Size Motor unit：mm



Motor Model	LA±1		Inertia Class
	Standard	With Brake	
MS6G-130CN15B□2-□0P8	133.5	162.5	Medium Inertia
MS6G-130TH15B□2-□0P8	150	179	
MS6G-130CN25B□2-□1P0	119.5	148.5	
MS6G-130TH25B□2-□1P0	136	165	
MS6G-130CN20B□2-□1P5	133.5	162.5	
MS6G-130CN15B□2-□1P5	151.5	180.5	
MS6G-130TH20B□2-□1P5	150	179	
MS6G-130TH15B□2-□1P5	168	197	
MS6G-130CN15E□2-□2P3	181.5	210.5	
MS6G-130TH15E□2-□2P3	198	227	

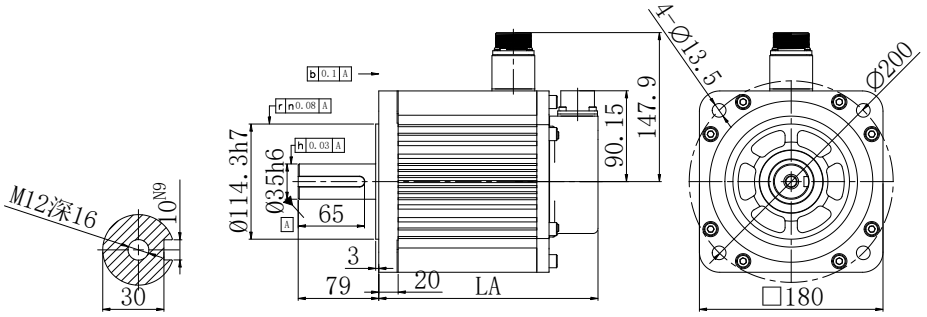


Motor Model	LA±1		Inertia Class
	Standard	With Brake	
MS6G-130CN15B□2-□2P3	181.5	210.5	Medium Inertia
MS6G-130TH15B□2-□2P3	198	227	

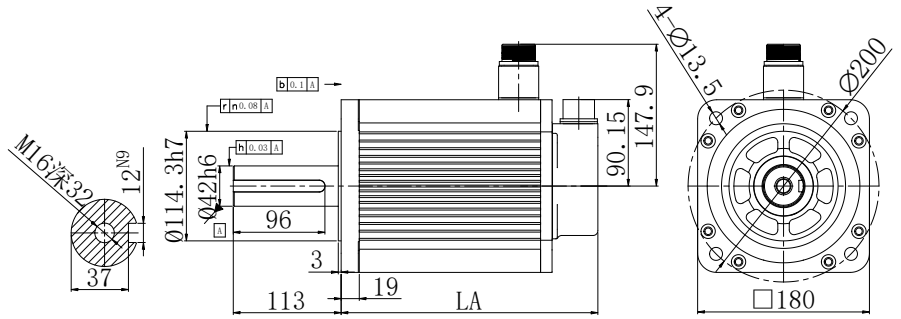


Motor Model	LA±1		Inertia Class
	Standard	With Brake	
MS6S-130CN30B□2-43P0	202.8	231.8	Low Inertia
MS6S-130TH30B□2-43P0	219.3	248.3	
MS6S-130CN30B□2-45P0	257.8	298.5	
MS6S-130TH30B□2-45P0	274.3	315	
MS6S-130CN30B□2-47P0	321.8	362.5	
MS6S-130TH30B□2-47P0	338.3	379	

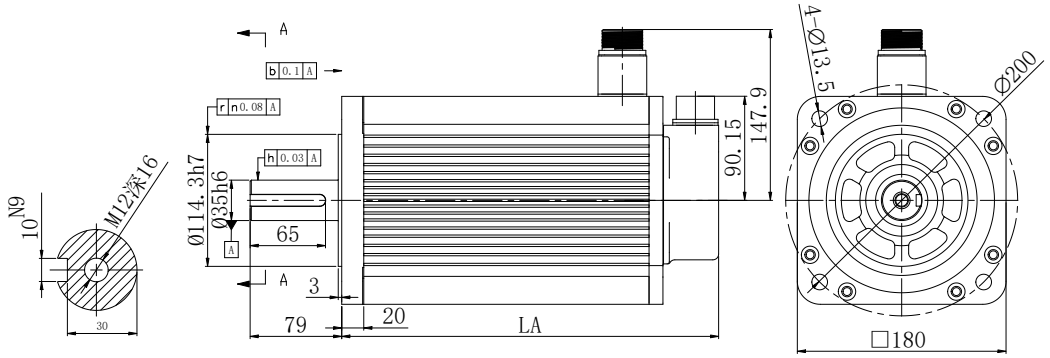
■ Mounting Dimensions for 180 Frame Size Motor unit：mm



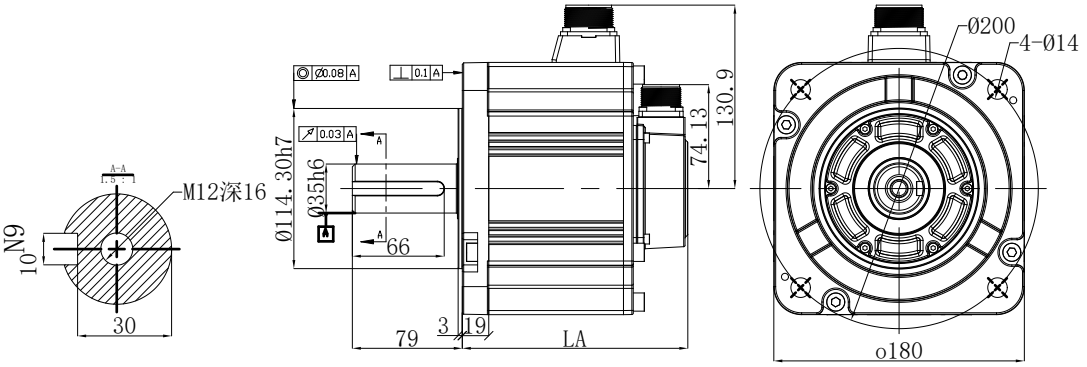
Motor Model	LA±1		Inertia Class
	Standard	With Brake	
MS6H-180CN15B□2-43P0	215	255	High Inertia
MS6H-180CN15B□2-44P4	247	287	



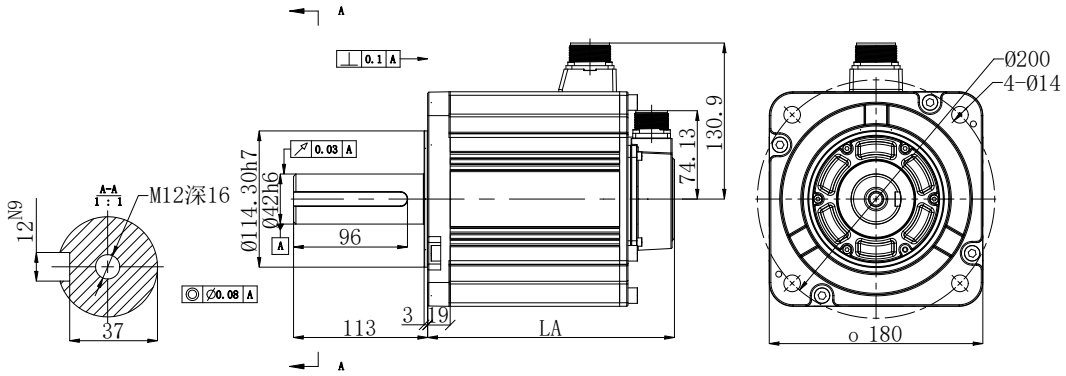
Motor Model	LA±1		Inertia Class
	Standard	With Brake	
MS6H-180CN15B□2-45P5	269	309	High Inertia
MS6H-180CN15B□2-47P5	325	365	



Motor Model	LA±1		Inertia Class
	Standard	With Brake	
MS6H-180CN15E□2-45P5	269	309	High Inertia
MS6H-180CN15E□2-47P5	325	365	

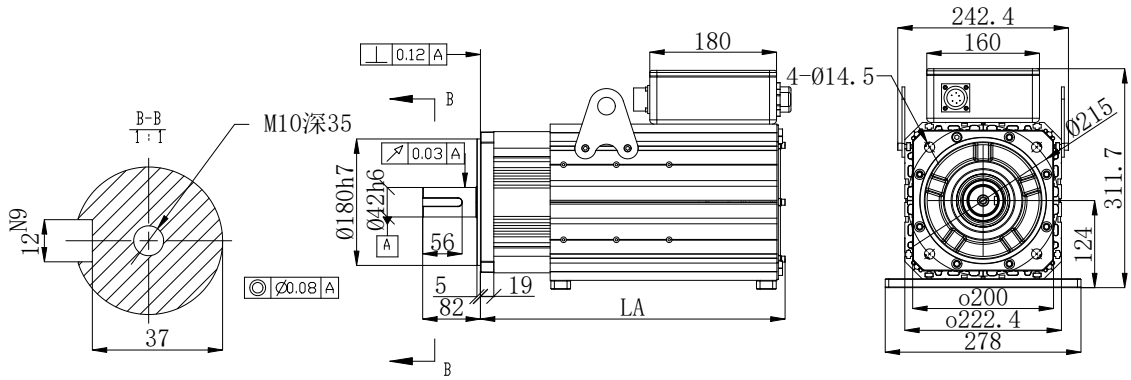


Motor Model	LA±1		Inertia Class
	Standard	With Brake	
MS6G-180CN15B□2-43P0	162	206.5	Medium Inertia
MS6G-180CN15B□2-44P4	185	229.5	
MS6G-180TH15B□2-43P0	176.5	221	
MS6G-180TH15B□2-44P4	199.5	244	

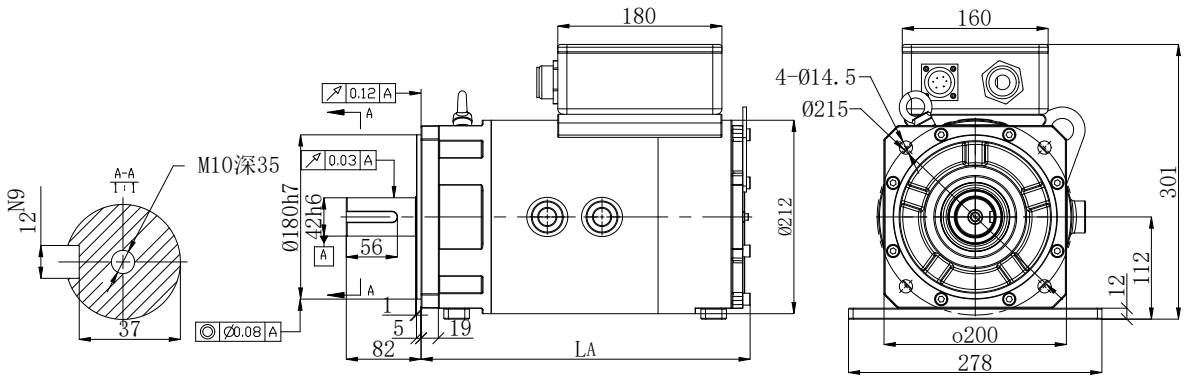


Motor Model	LA±1		Inertia Class
	Standard	With Brake	
MS6G-180CN15B□2-45P5	208	252.5	Medium Inertia
MS6G-180CN15B□2-47P5	256	300.5	
MS6G-180TH15B□2-45P5	222.5	267	
MS6G-180TH15B□2-47P5	270.5	315	

■ Mounting Dimensions for 100 Frame Size Motor unit：mm



Motor Model	LA±1		Inertia Class
	Standard	With Brake	
MS6G-200TH17B□2-413P0-F	433	512	Medium Inertia
MS6G-200TH17B□2-417P0-F	468	545.5	
MS6G-200TH17B□2-421P0-F	503	580.7	
MS6G-200TH17B2-427P0-F	536.4	615.7	



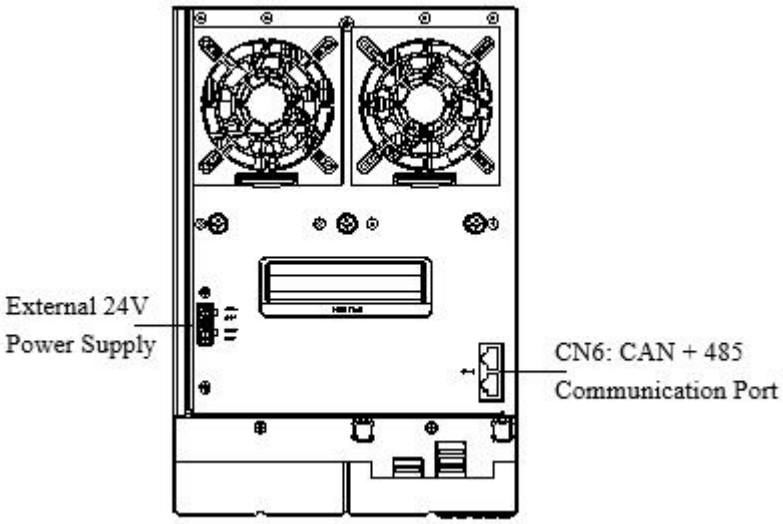
Motor Model	LA±1		Inertia Class
	Standard	With Brake	
MS6G-200TH17B2-413P0-Y	361	/	Medium Inertia
MS6G-200TH17B2-417P0-Y	396	/	
MS6G-200TH17B2-421P0-Y	431	/	
MS6G-200TH17B2-427P0-Y	166	/	

3. Wiring of the Servo System

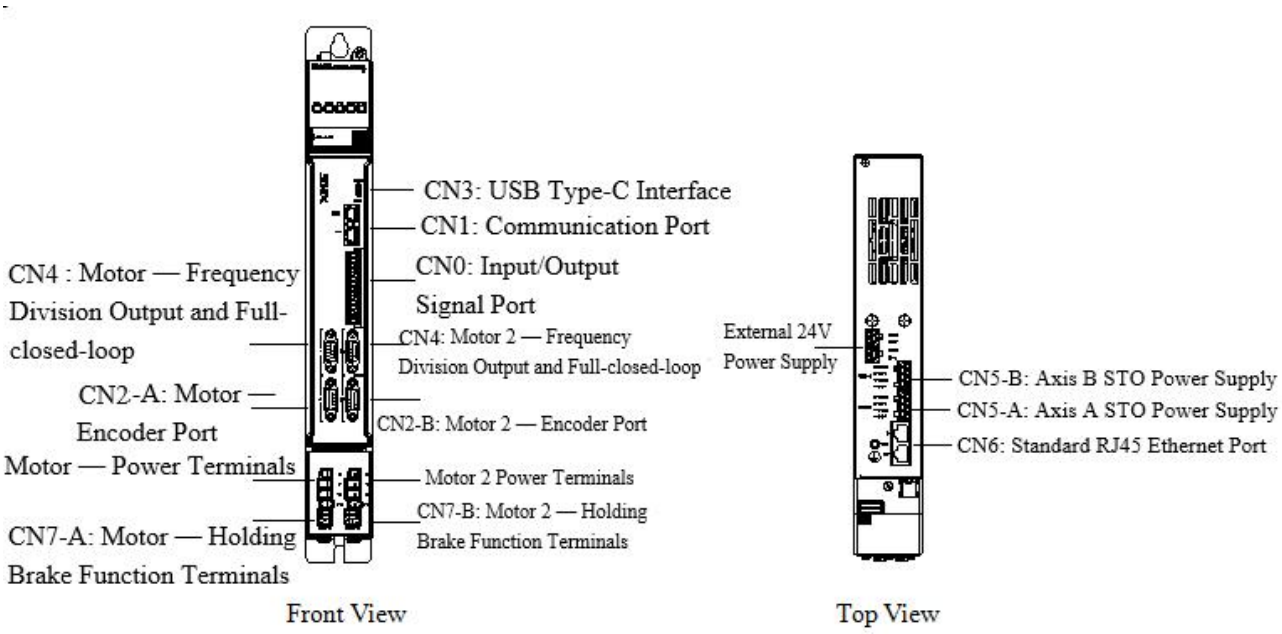
3.1 Main Circuit Wiring

3.1.1 Terminal Layout of the Servo Drive

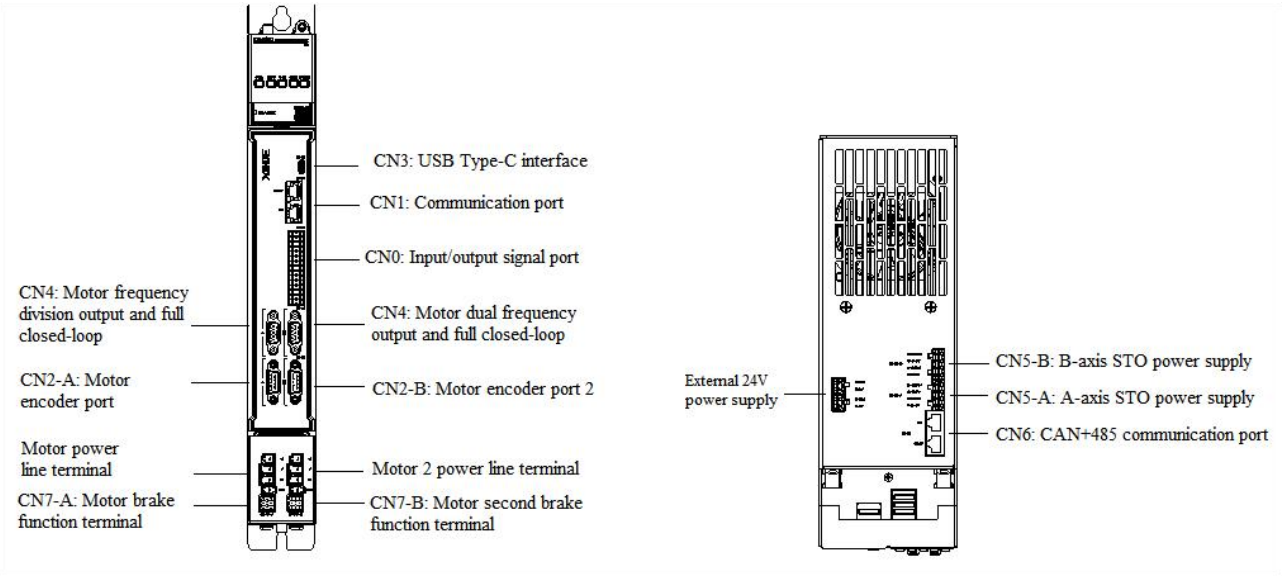
- DM6-4110P0-R Rectifier Unit



- DM6C-40P4/40P7/43P0（-S）-M Inverter Module

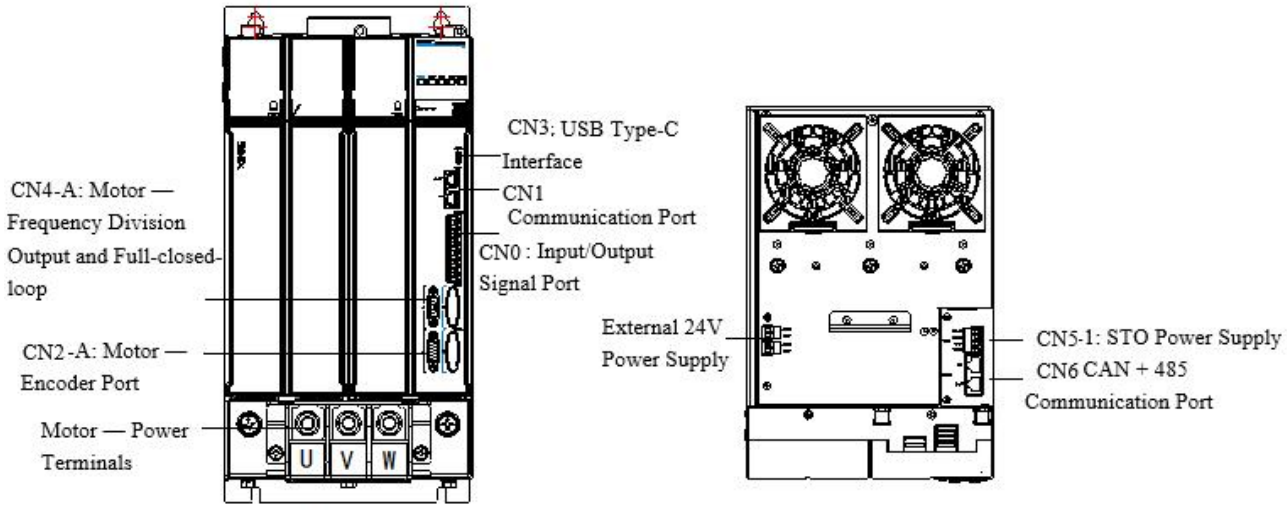


■ DM6C-45P5/47P5/415P0（-S）-M Inverter Module



Front View　　Top View

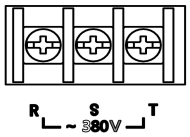
■ DM6C-445P0S/455P0S/475P0S-M Inverter Module



Front View　　Top View

3.1.2 Main Circuit Terminals and Descriptions

■ DM6-4110P0-R



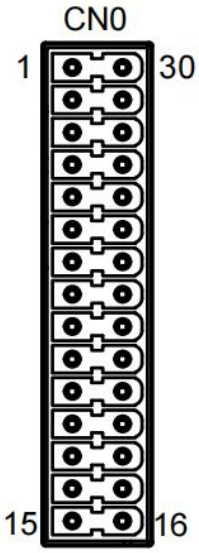
Following the order from left to right, the functions of the main circuit terminals are as follows:

Terminal	Function	Description
R、S、T	Main Circuit Power Input Terminals	Three-phase AC 380～440V，50/60Hz

3.2 Terminal Descriptions

3.2.1 CN0 Terminal Descriptions（I/O terminal）

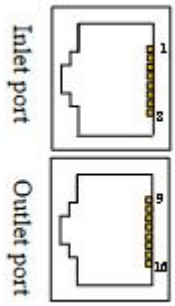
The connector numbering follows the sequence when facing the inverter module panel.



No.	Name	Description	No.	Name	Description
1	SI1+	Axis A SI1+（high speed）	16	SO4-	Axis B SO4-
2	SI1-	Axis A SI1-（high speed）	17	SO4+	Axis B SO4+
3	SI2+	Axis A SI2+（high speed）	18	COM	Axis B output terminal ground
4	SI2-	Axis A SI2-（high speed）	19	SO3	Axis B SO3
5	SI3	Axis A SI3	20	SO2	Axis B SO2
6	SI4	Axis A SI4	21	SO1	Axis B SO1
7	SI5	Axis A SI5	22	+24VI	Axis B input+24V
8	SI6	Axis A SI6	23	SI6	Axis B SI6
9	+24V	Axis A input+24V	24	SI5	Axis B SI5
10	SO1	Axis A SO1	25	SI4	axis B SI4
11	SO2	Axis A SO2	26	SI3	Axis B SI3
12	SO3	Axis A SO3	27	SI2-	Axis B SI2-（high speed）
13	COM	Axis A output terminal ground	28	SI2+	Axis B SI2+（high speed）
14	SO4+	Axis A SO4+	29	SI1-	Axis B SI1-（high speed）
15	SO4-	Axis A SO4-	30	SI1+	Axis B SI1+（high speed）

- Input/Output Terminals: Include 4 high-speed pulse inputs and 8 general-purpose I/O inputs. The outputs consist of 6 general-purpose I/O outputs and 2 dry contact outputs. Pins 1–4 and 27–30 support high-speed pulses with a maximum rate of 10 Mbps, while the remaining pins support low-speed pulses with a rate not exceeding 10 Kbps.
- Inverters rated 32 kW and above are single-axis inverters, and only the Axis A terminals (numbers 1–15) within the drive are valid.

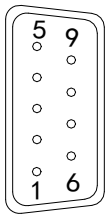
3.2.2 CN1 terminal description（EtherCAT communication）



No.	Name	No.	Name
1	TX A+	9	TX B+
2	TX A-	10	TX B-
3	RX A+	11	RX B+
4	-	12	-
5	-	13	-
6	RX A-	14	RX B-
7	-	15	-
8	-	16	-

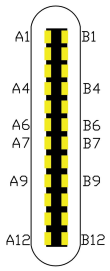
3.2.3 CN2 terminal description（Encoder）

■ CN2 Drive Unit Side - Encoder Socket Terminal Arrangement



No.	Definition	No	Definition
1	Temp sensor-	6	GND
2	Temp sensor+	7	
3	485-B	8	+5V
4	485-A	9	
5	Shield	/	/

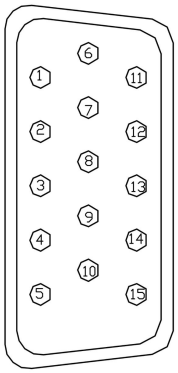
3.2.4 CN3 terminal description（USB Type-C interface）



No.	Defination	No.	Defination
A1	GND	B1	GND
A4	USB-VBUS	B4	USB-VBUS
A6	USB-D+	B6	USB-D+
A7	USB-D-	B7	USB-D-
A9	USB-VBUS	B9	USB-VBUS
A12	GND	B12	GND

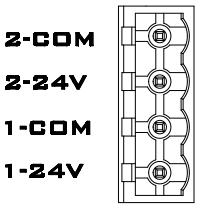
The USB Type-C hardware interface supports reversible insertion, with a standard maximum transmission distance of 15 meters.
Default communication parameters: Baud rate 115200 bps; Data bits 8; Stop bit 1; Even parity; Supports hot-plugging.

3.2.5 CN4 terminal description（Divided Frequency Output & Full-Closed-Loop Signal Terminal）



No.	Name	Description	No.	Name	Description
1	QBH-A+	Full-closed-loop Input	9	FPA+	A+
2	QBH-A-	Full-closed-loop Input A-	10	FPA-	Encoder Frequency Division Output A-
3	GND	Grating Scale GND	11	FPB+	Encoder Frequency Division OutputB+
4	QBH-B+	Full-closed-loop Input B+	12	FPB-	Encoder Frequency Division OutputB-
5	QBH-B-	Full-closed-loop Input B-	13	FPZ+	Encoder Frequency Division OutputZ+
6	QBH-Z+	Full-closed-loop Input Z+	14	FPZ-	Encoder Frequency Division OutputZ-
7	QBH-Z-	Full-closed-loop Input Z-	15	5V	Grating Scale Power Supply 5V
8	GND	Grating Scale GND	/	/	Spare Pin

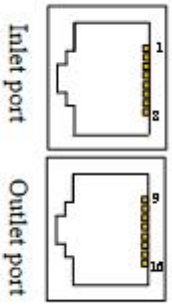
3.2.6 CN5 Terminal Description (STO Signal)



Name	Description
2-COM	STO2-COM
2-24V	STO2-24V
1-COM	STO1-COM
1-24V	STO1-24V

External 24V input, voltage range: 21.6V–26.4V, current within 0.5A.

3.2.7 CN6 Terminal Description (CAN + 485 Communication + Station Number Assignment)

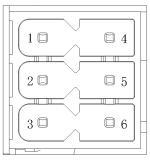


No.	Name	No.	Name
1	CANH	9	CANH
2	CANL	10	CANL
3	GND	11	GND
4	485-A	12	485-A
5	485-B	13	485-B
6	485GND	14	485GND
7	OUT-TX	15	OUT-TX
8	OUT-RX	16	OUT-RX

CN6 standard RJ45 parent-child terminals; includes two isolated 485 communication channels, two isolated

CAN communication channels, and two isolated station number assignment interfaces.
485 Communication: Low-speed, baud rate ≤115,200, supports up to 32 slave stations.
CAN Communication: Default support for high-speed CAN bus, maximum baud rate 1 Mbps; at 1 Mbps, theoretically supports a maximum distance of 25 m; CAN theoretically supports up to 64 axes.
A JA-ET terminal resistor can be plugged into the CAN communication outlet of the last inverter axis to ensure communication stability.

3.2.8 CN7 Terminal Description (Brake Terminal)



No.	Name	No.	Name
1	/	4	/
2	BK-	5	BK+
3	/	6	/

45kW/55kW/75kW inverters do not have brake terminals.

3.3 Signal Terminal Classification and Functions

3.3.1 SI Input Signals

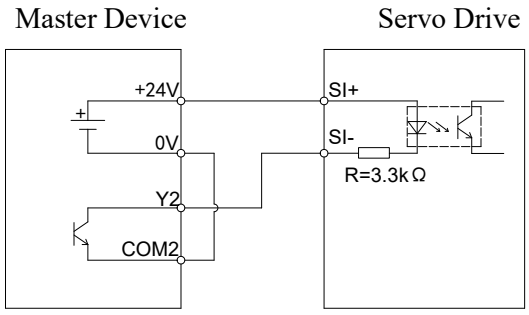
Connection shall be made using relays or open-collector transistor circuits. When using relays, please select relays suitable for micro-currents. If relays not designed for micro-currents are used, poor contact may result.

Classification	Input terminal	Function
Digital input	SI1～SI6	Multi-Function input signal terminal

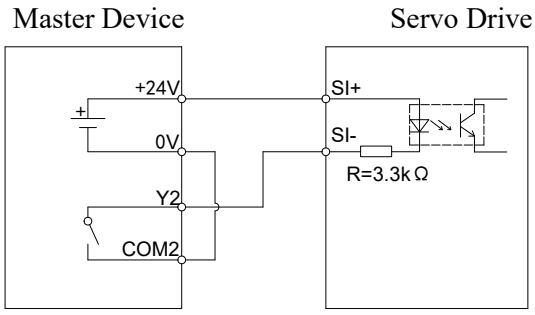
Factory Default Assignment of Input Terminals

Terminal	SI1	SI2	SI3	SI4	SI5~SI6
Function	S-ON/Enable	ALM-RST/Alarm Reset	P-OT/ Forward Prohibit	N-OT/Reverse Prohibit	Unassigned

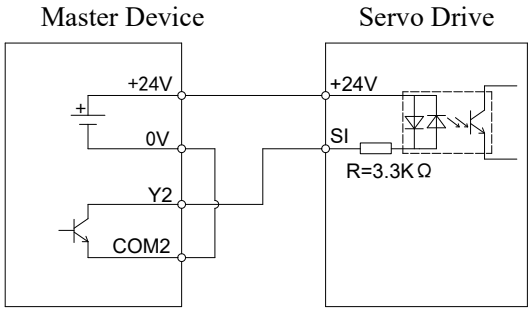
Open-Collector Type (SI1\SI2)



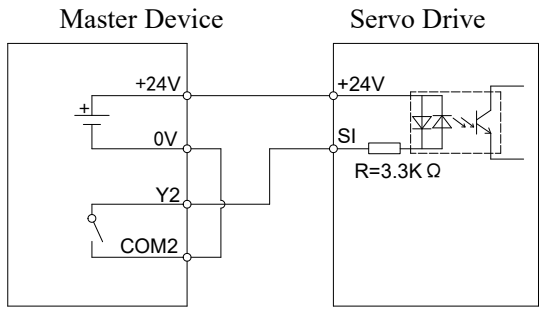
Relay Type (SI1\SI2)



Open-Collector Type（SI3~SI6）



Relay Type（SI3~SI6）



- SI1 and SI2 are high-speed SI inputs with a response time ≤ 2 μs; they support both NPN/PNP wiring and 24 VDC (recommended minimum not lower than 18 V, maximum not higher than 28 V).
- SI3, SI4, SI5, and SI6 are four low-speed SI inputs with a response time ≤ 2 ms; they support both NPN and PNP wiring.

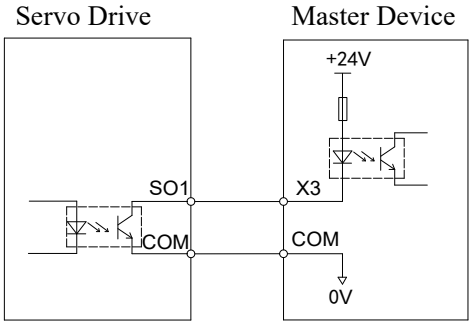
3.3.2 SO Output Signals

Classification	Output Terminal	Function
Photocoupler Output	SO1～SO4	Multi-function Output Terminal

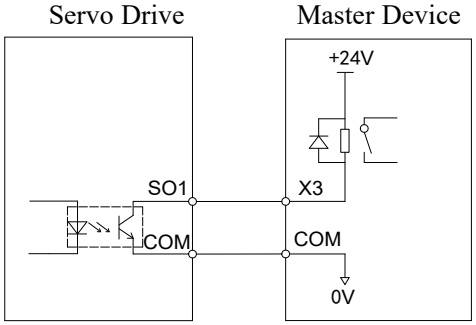
Factory Default Assignment of Output Terminals

Terminal	SO1	SO2	SO3~SO4
Function	COIN/Positioning Complete	ALM/Alarm	Unassigned

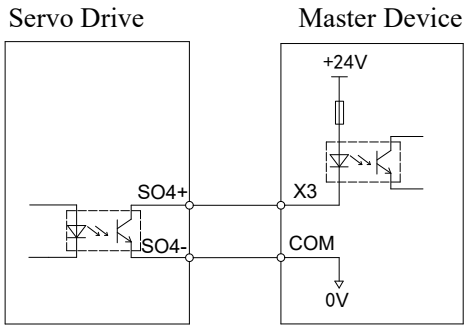
Photocoupler Type（SO1~SO3）



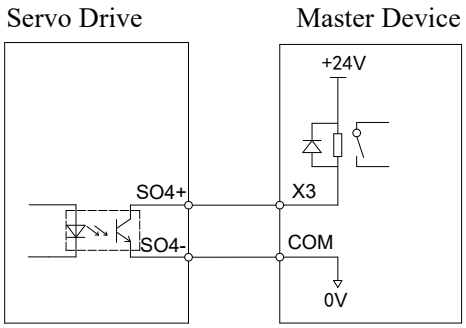
Relay Type（SO1~SO3）



Photocoupler Type（SO4）



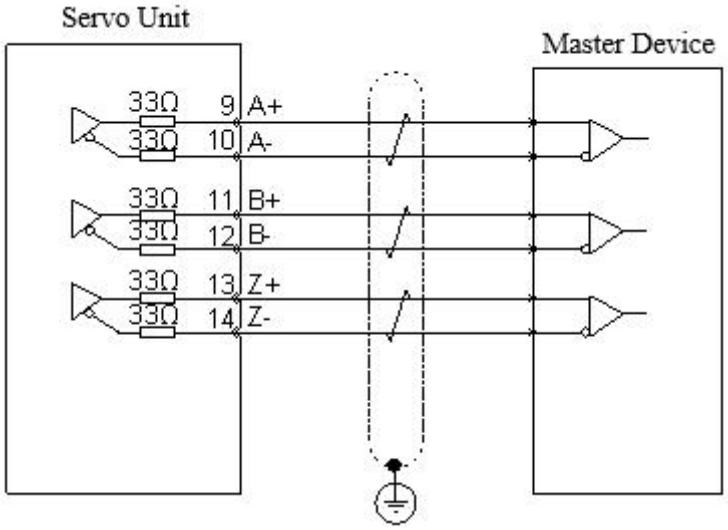
Relay Type（SO4）



- SO4 is marked with "+" and "-" polarity indicators.
- Maximum Load Voltage and Current: Voltage: DC 30V (max)
  Maximum Load Current:
  For 400W and below models: SO1 500mA (max); SO2~SO4 50mA (max)
  For 750W and above models: SO1~SO4 50mA (max)SO1~SO3
- SO1~SO3 only support NPN wiring. SO4 is a dry contact output, supports both NPN and PNP wiring, and is a low-speed SO output.

3.3.3 Encoder Feedback Output Signal

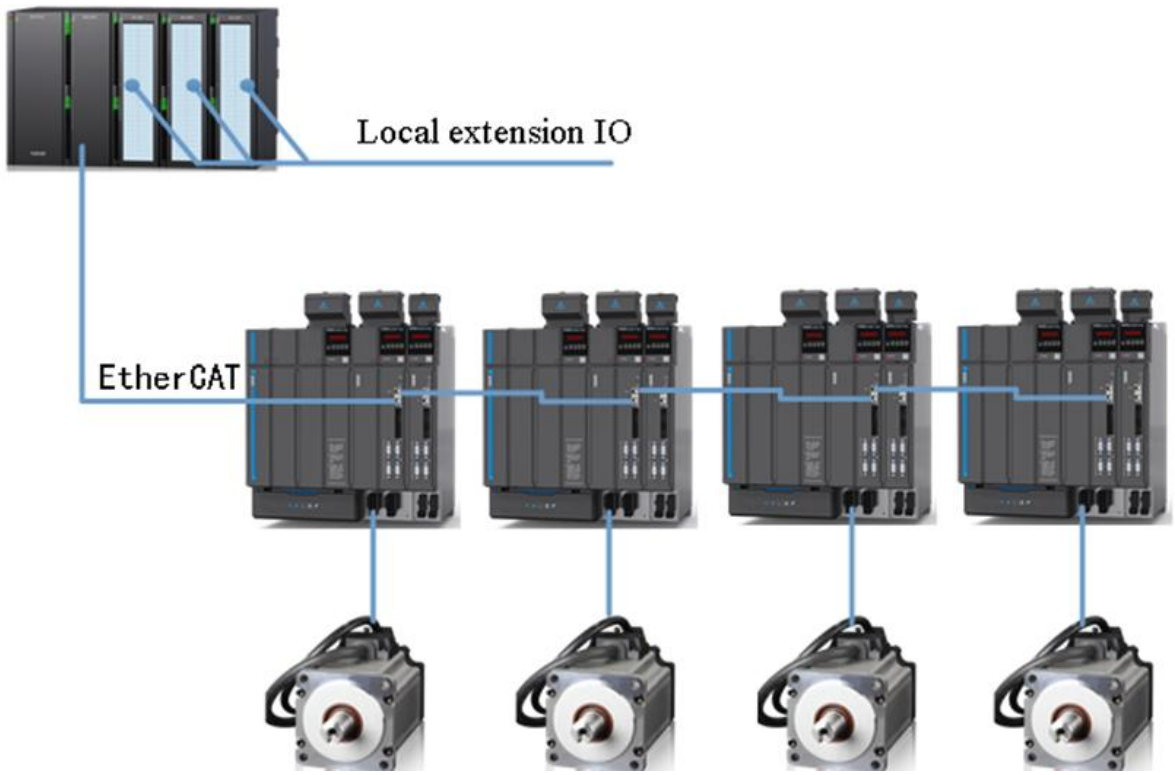
The encoder frequency division output circuit provides differential signals through a differential driver, supplying closed-loop feedback signals for the master device when configuring a position control system. On the master device side, please use a differential or photocoupler receiver circuit for reception. The maximum output current is 20 mA.



3.4 EtherCAT Communication Connection Instructions

The wiring of an EtherCAT motion control system is exceptionally simple, thanks to EtherCAT's ability to replace the star topology of standard Ethernet with a straightforward linear (bus) topology. Taking the Xinje DM6C series servo as an example, since EtherCAT does not require hubs or switches, and both the XG2 series PLC main unit and the DM6C series servos come with built-in EtherCAT communication ports, the required amount of cables and cable trays is significantly reduced. Furthermore, the workload for wiring design and connector verification is greatly diminished, facilitating lower installation costs.

It is recommended to use a linear (bus) topology for EtherCAT bus wiring. The connection method is illustrated in the following diagram:



Among the XG2 series PLCs, only the LAN2 port supports EtherCAT communication. The two communication network ports on the servo drive adhere to a "bottom-in, top-out" principle. Specifically, the LAN2 port of the XG2 must be connected to the IN port of the first servo. Then, the OUT port on the upper side of the first servo should be connected to the IN port on the lower side of the second servo, and so on.

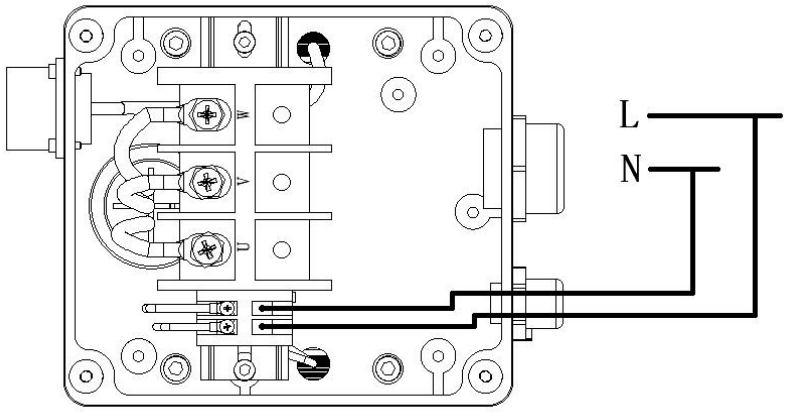
During data transmission, communication is inevitably susceptible to interference from the surrounding electromagnetic environment. It is recommended to use industrial-grade Category 5e Ethernet cables, which are also available for purchase from our company.

Physical Connection Diagram for Bus Communication

The bus communication follows the "bottom-in, top-out" rule.

The pin definitions for the Ethernet cable interface can be found in section 3.2.2, under the terminal description for CN1.

3.5 High-Power Motor Fan Wiring



- The motor fan wiring example shown above is based on the Xinje servo motor, Frame Size 200.
- High-power air-cooled motors rated at 11 kW and above are equipped with fans. The internal structure of the motor as delivered from the factory requires connection of both power cables and the fan power supply cable. For the fan power supply voltage specifications, please refer to the labeling at the motor fan wiring connection point.
- The fan leads are pre-connected at the factory. The other end should be directly connected to the power supply through the fan wiring outlet.