

- Bus type stepping driver  
DP3CL DP3C series stepping driver
- Pulse type stepping driver  
DP3F DP3L1 series stepping driver
- Stepping motor  
MP3 series stepping motor



# Stepping system

Bus type stepping driver · Pulse type stepping driver  
Stepping motor

# Bus type stepping driver

## DP3C closed-loop bus stepping driver

- Integrating EtherCAT bus technology
- Fast response
- Strong anti-interference ability
- Significantly improved performance



## DP3CL open loop bus stepping driver

- Excellent value
- Low cost while retaining the high performance and stability of DP3C



### ■ Integrating EtherCAT bus technology, the communication is faster

Support COE (CANopen over EtherCAT) protocol, conform to the CiA402 standard and support 32 axes. Support the master station with standard EtherCAT protocol. The communication cycle between the master station and the slave station can reach 32 axes 1ms at most.

### ■ Simple wiring and convenient equipment maintenance

A network cable replaces the traditional pulse direction signal cable, and is equipped with power cable and encoder cable, making the wiring simpler. It can greatly reduce the cable cost, labor cost and maintenance cost.



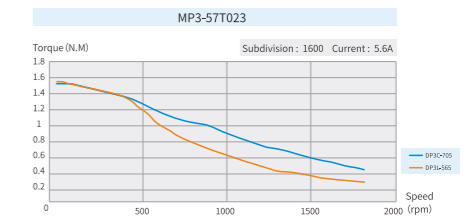
### ■ Higher reliability and anti-interference

Relying on the low bus load and point-to-point physical layer of EtherCAT bus, it can greatly suppress the generation of interference and clutter, and significantly improve the reliability and anti-interference ability of the system.

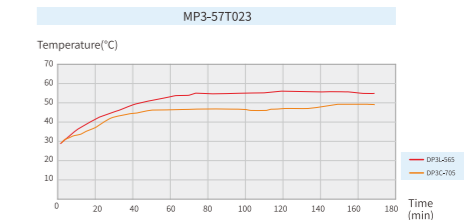
### ■ A new generation of control algorithm with better performance

EtherCAT bus technology combined with the latest control algorithm, greatly improves the performance

The torque is increased, which significantly improves the high-speed performance of the motor, up to 2000rpm.



The motor runs more smoothly and the temperature ising is significantly reduced



## Application scenario

### DP3C, DP3CL series bus stepping driver

It is suitable for electronics, laser and occasions requiring multi-axis control.

- 01 Stripping machine
- 02 Marking machine
- 03 Graph plotter
- 04 Medical equipment
- 05 Electronic processing equipment
- 06 Engraving machine
- 07 Laser machine
- 08 Cutting machine
- 09 Numerical control machine
- 10 Automatic assembly equipment



Graph plotter



Filling machine



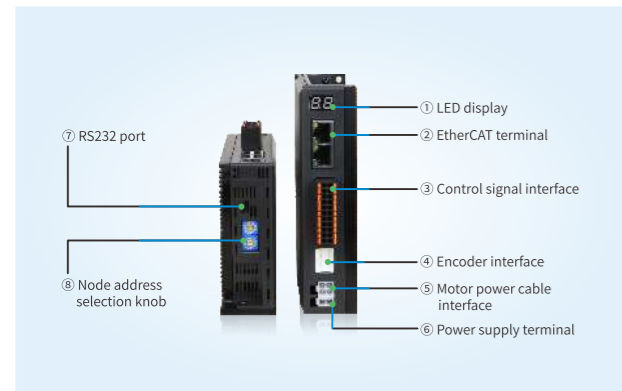
Capping machine



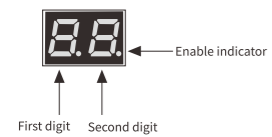
Mask machine

# Hardware interface

## DP3C series



### ① LED display status



### ② EtherCAT terminal

Signal	Explanation
E_TX+	EtherCAT data send +
E_TX-	EtherCAT data send -
E_RX+	EtherCAT data receive +
E_RX-	EtherCAT data receive -

\*Note: the cable length between EtherCAT bus nodes is recommended to be no more than 50m. It is recommended to use CAT5e 100M Ethernet cable with double-layer shielding layer or better.

DP3C series displays operation speed, state machine/operation mode, node address, alarm fault and other information through two digits LED.

Stage	Display information
Power on initial stage	After the driver is powered on, the two LEDs are on for 0.5s, and display the actual node address of the current driver in hexadecimal. During this period, the LED node address flashes at an interval of 1s (0.5s on and 0.5s off). The time is 5s in total. After that, it enters the normal operation stage
Normal operation stage (parameter modification display content)	Speed (r/s)
	Operation mode, state machine: hexadecimal display (default)
	Node address: always on display

\*Note: during initialization and normal operation, if the node address is changed, the LED flashes at an interval of 1s (0.5s on, 0.5s off), and then continues to return to the original state after 5s.

### ③ Control signal interface

Signal	Explanation
SI1+	Differential input signal SI1, 24V is effective, max input frequency 200KHz, default probe input signal 1
SI1-	
SI2+	Differential input signal SI2, 24V is effective, max input frequency 200KHz, default probe input signal 2
SI2-	
SI3	Single ended input signal SI3-SI7, 12-24V is effective, max input frequency 10KHz, signal definition can be set. I3 default is origin point, I4, I5 default are positive/negative limit, I6, I7 default is general purpose. COMI is common terminal of singleended signal input, common anode or common cathode
SI6	
SI4	
SI7	
SI5	
COMI	
SO1+	Differential output signal OUT1, output max current 100mA, withstand voltage 30VDC, default is alarm output
SO1-	
SO2+	Differential output signal OUT2, output max current 100mA, withstand voltage 30VDC, default is in place signal
SO2-	
SO3	Single ended output, common cathode, max current 100mA, withstand voltage 30VDC
SO6	Single ended output, common cathode, max current 100mA, withstand voltage 30VDC
SO4	Single ended output, common cathode, max current 100mA, withstand voltage 30VDC
24V	Used together with braking output
SO5	Single ended output, common cathode, max current 100mA, withstand voltage 30VDC
BRK+	Braking output +, max 500mA, withstand voltage 24V, can connect the brake directly without connecting the relay
COMO	Common terminal of the output common cathode
BRK-	Braking output -, max 500mA, withstand voltage 24V, can connect the brake directly without connecting the relay

### ⑤ Motor winding terminal

Signal	Explanation
A+	Motor winding phase A +
B+	Motor winding phase B +
A-	Motor winding phase A -
B-	Motor winding phase B -

\*Note: Xinje's standard power cable diameter is 0.75mm<sup>2</sup>.

### ④ Encoder signal input terminal

Signal	Explanation
PE	Shielding ground
NC	Reserved signal
NC	Reserved signal
NC	Reserved signal
VCC	5V power supply output, provided by the driver, only for encoder power supply
GND	
EZ+	Encoder phase Z signal +
EZ-	Encoder phase Z signal -
EB+	Encoder phase B signal +
EB-	Encoder phase B signal -
EA+	Encoder phase A signal -
EA-	Encoder phase A signal -

\*Note: the standard configuration is without Z signal. If Z phase homing is required, the motor and encoder cables supporting Z signal shall be selected.

### ⑥ Power supply terminal

Signal	Explanation
GND	Power supply ground
VDC	Power supply positive input

\*Note: Xinje's standard power cable diameter is 0.75mm<sup>2</sup>.

### ⑦ Upper computer communication RS232 port

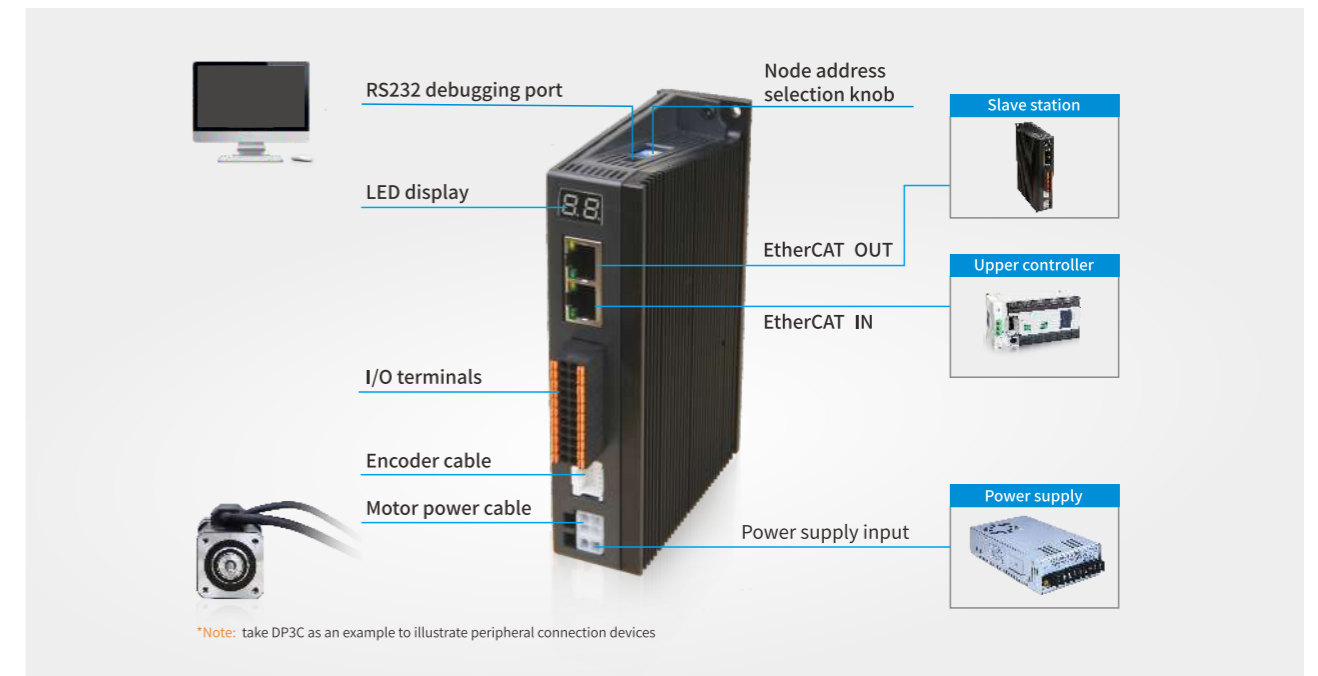
Signal	Explanation
TXD	RS232 send
RXD	RS232 receive
GND	RS232 ground

\*Note: please use the special cable provided by Xinje company for communication. RS232 default communication parameters: baud rate 115200bps, data bit 8, stop bit 1, even parity, station no. 1.

### ⑧ Node address selection knob

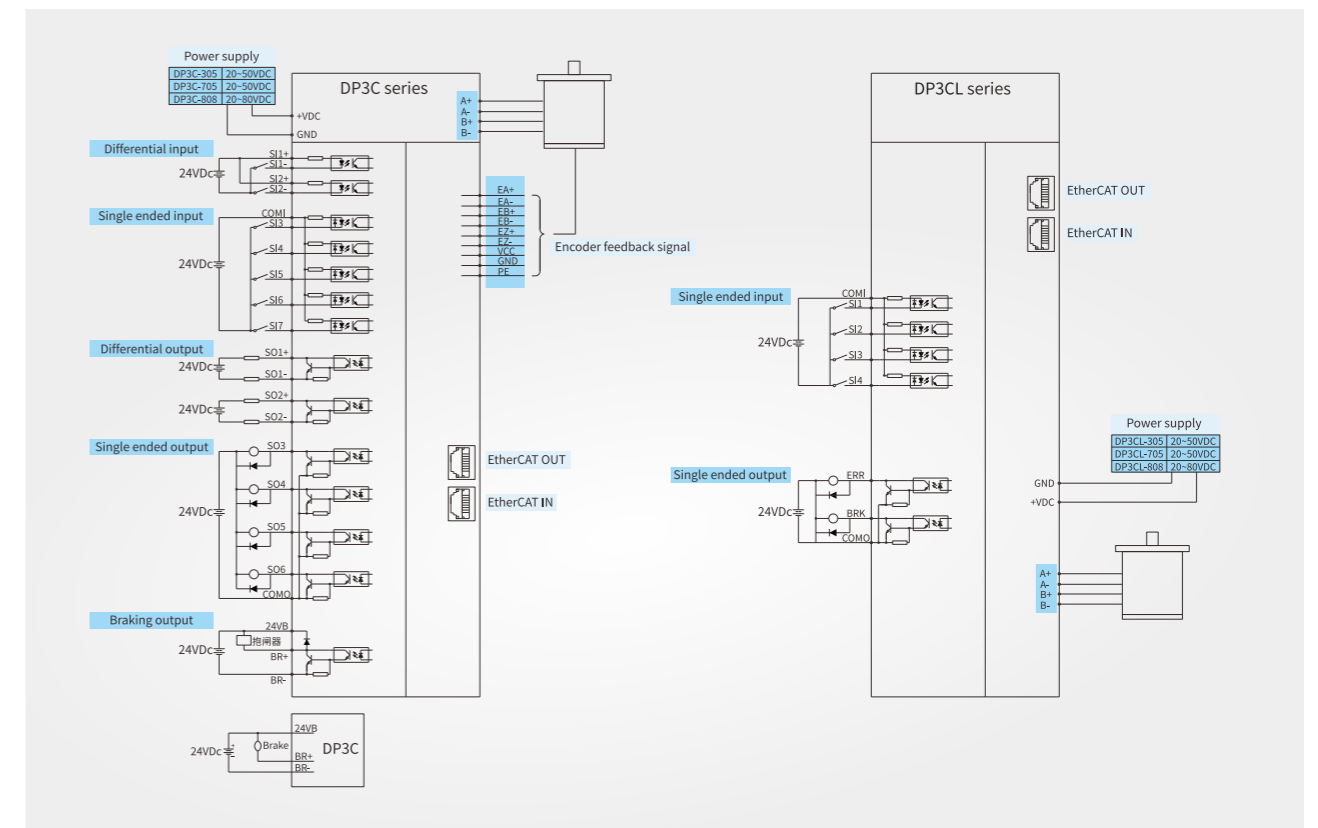
The node address can be set through the combination of two hexadecimal rotary dialing codes MSD (high bit) and LSD (low bit).

# Driver peripheral circuit

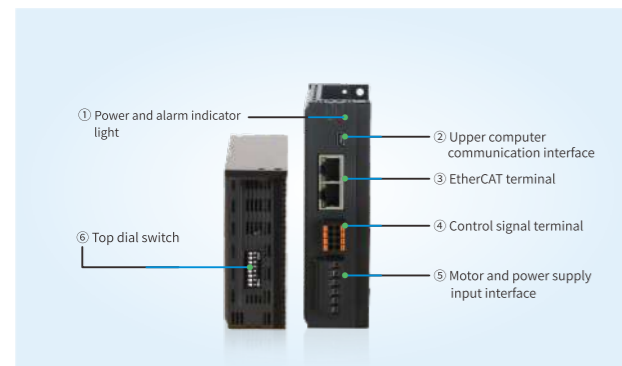


\*Note: take DP3C as an example to illustrate peripheral connection devices

# Driver wiring diagram



## DP3CL series



### ① Power and alarm indicator light

Color	Function
Green light	Power supply display PWR
Red light	Fault alarm indicator

Flashing message	Fault explanation
Flash once	Over current or short circuit
Flash continuously twice	Over voltage
Flash continuously 3 times	Under voltage
Flash continuously 4 times	Open circuit or poor contact of motor
Always on	Bus related alarm

\*Note: when a fault occurs, the indicator light flashes continuously, pauses for one second and then flashes continuously.

### ② Upper computer communication RS232 port

Signal	Explanation
TXD	RS232 send
RXD	RS232 receive
GND	RS232 ground

\*Note: please use the special cable provided by Xinje company for communication. RS232 default communication parameters: baud rate 115200bps, data bit 8, stop bit 1, even parity, station no. 1.

### ③ EtherCAT terminal

Signal	Explanation
E_TX+	EtherCAT data send +
E_TX-	EtherCAT data send -
E_RX+	EtherCAT data receive +
E_RX-	EtherCAT data receive -

\*Note: the cable length between EtherCAT bus nodes is recommended to be no more than 50m. It is recommended to use CAT5e 100M Ethernet cable with double-layer shielding layer or better.

### ⑤ Motor and power supply input interface

Interface	Function
A+, A-	Motor phase A
B+, B-	Motor phase B
GND	DC power supply ground
+V	DC power supply +

### ④ Control signal terminal

Signal	Explanation
SI1	Single ended input signal SI1-SI4, 24V is effective, max pulse frequency 10KHz, the signal definition can be set. SI1, SI2, SI3, SI4 default is alarm clear, left/right limit and originpoint. COMI is single ended input signal common terminal, supports NPN and PNP
SI2	
SI3	
SI4	
COMI	
COMO	Output common terminal COM
ERR	Alarm output, max 50mA, withstand voltage 24V
BRK	Braking output, max 500mA, withstand voltage 24V, can connect the brake directly without connecting the relay

### ⑥ Top dial switch

Dial number	Explanation
SW1, SW2, SW3	Dynamic current setting
SW4	Half current/full current mode
SW5, SW6	Filter time
SW7	Direction
SW8	Station switching

# Product model

## | Driver model naming

**DP3 C L - 70 5**

① ② ③ ④ ⑤

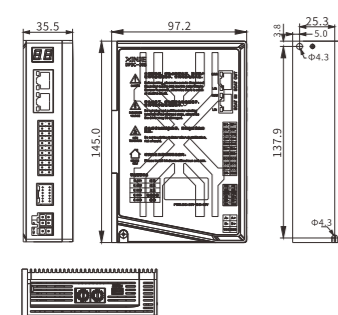
① Name		② Series		③ Control type		④ Driver output peak current		⑤ Driver max power supply voltage	
Sign	Product name	Sign	Product series	Sign	Current	Sign	Current	Sign	Current
DP3	Stepping driver	C	Bus type	L	Open loop control	30	3.0A	5	50V
				None	Closed-loop control	70	7.0A	8	80V
						80	8.4A		

## Driver specification

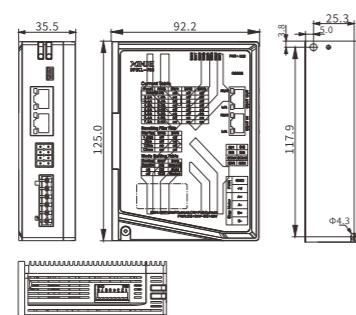
Driver model	DP3C-305	DP3C-705	DP3C-808	DP3CL-305	DP3CL-705	DP3CL-808	DP3CL-808A
Input power supply voltage (VDC)	DC20~50	DC20~50	DC20~80	DC20~50	DC20~50	DC20~80	AC20~80 DC20~110
Recommended power supply voltage(VDC)	24~36	57motor recommended 24~36;86 or high-speed motor recommend48V	48Above	24~36	57motor recommended 24~36;86 or high-speed motor recommend48V	48Above	
Using environment(A)	1~3	1~7	1~8.4	1~3	1~7	1~8.4	
Adaptive motor (base)	42	57/60	86	42	57/60	86	
External dimension (mm)	97.2*145.0*35.5			92.2*125.0*35.5			
Input signal	Alarm output, in place output, brake signal output, user-defined output			Origin input, positive/negative limit, alarm clear, user-defined input			
Output signal	Alarm output, brake signal output, user-defined output			Alarm output, brake signal output, user-defined output			
Alarm function	Over current, over voltage, out of tolerance, communication error, etc						
Debugging software	Xinje stepping driver software						
Using environment	Use occasion	Try to avoid dust, oil mist and corrosive gas. Combustible gas and conductive dust are prohibited in places with high humidity and strong vibration					
	Ambient temperature	0°C~50°C					
	Max working temperature	60°C					
	Humidity	40%~90% RH(no condensation or water droplets)					
	Vibration	5.9m/s <sup>2</sup> Max					
	Storage temperature	-20°C~65°C					

## Driver dimension (Unit: mm)

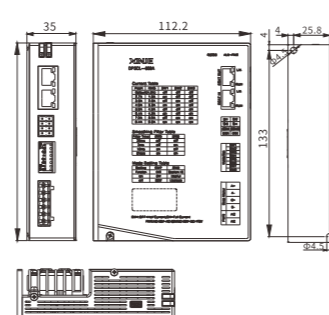
DP3C-305/DP3C-705/DP3C-808



DP3CL-305/DP3CL-705/DP3CL-808



DP3CL-808A



# Accessories

## | Encoder cable

Model	Length L(m)
CP-MD-2	2
CP-MD-3	3
CP-MD-5	5
CP-MD-8	8
CP-MD-10	10
CP-MD-12	12
CP-MD-16	16
CP-MD-20	20

CNA side	1	2	3	11	12	13
Color	Blue	Yellow	Yellow black	Green	Green black	Blue black
Definition	A+	VCC	GND	B+	B-	A-
CNB side	11	5	6	9	10	12

\*Note: if Z signal output is required, please use encoder cable [CP-MD-Z-length].

## | Power cable

A end PIN	1	2	3	4
Definition	B+	A+	A-	B-
Color	Black	Brown	Blue	Yellow green
B end PIN	2	1	3	4

Model	Length L(m)
CM-MP07-2	2
CM-MP07-3	3
CM-MP07-5	5
CM-MP07-8	8
CM-MP07-10	10
CM-MP07-12	12
CM-MP07-16	16
CM-MP07-20	20

\*Note: for customers who want to make cable by themselves, they can choose JAMP-M4-P4 accessory package, which contains the terminals of driver and motor, and can press the cables by themselves. If you need this bus driver with open-loop motor, please choose JAMP-M4 accessories, including the driver terminal, which can press the cable by yourself.

## | EtherCAT bus cable

Model	Length (m)
JC-CB-0P1	0.1
JC-CB-0P2	0.2
JC-CB-0P3	0.3
JC-CB-0P5	0.5
JC-CB-1	1
JC-CB-3	3
JC-CB-5	5
JC-CB-10	10
JC-CB-20	20

## | Power supply cable

Each driver will be delivered with a power cable for free. For additional needs, the purchase models are as follows:

Model	Length (m)
JC-PM-20	2

# Pulse type stepping driver

## DP3F1 closed-loop pulse stepping driver

- Closed loop control and torque lifting to prevent step loss
- Higher running speed and acceleration
- More stable operation at low speed
- The plug-in wiring is simple and fast
- Pulse and direction input voltage support 5V and 24V
- Comprehensive overvoltage, overcurrent, undervoltage and short circuit protection functions

Applicable occasions: various small and medium-sized automation equipment and instruments, such as engraving machine, stripping machine, cutting machine, etc.



## DP3L1 open loop pulse stepping driver

- Smaller size and space saving
- Reliable quality and excellent performance
- Large output, fast speed, stable operation and low temperature rising
- Pulse direction supports 5~24V
- New open loop IO stepping driver:  
Dial code speed regulation, IO trigger, stable start and stop, uniform speed, widely used in conveying equipment, docking station, PCB feeder

Applicable occasions: all kinds of small and medium-sized automation equipment and instruments, such as labeling machine, 3C, photovoltaic, lithium battery, bearing, labeling canned, winding machine



## DP3L high voltage open loop pulse stepping driver

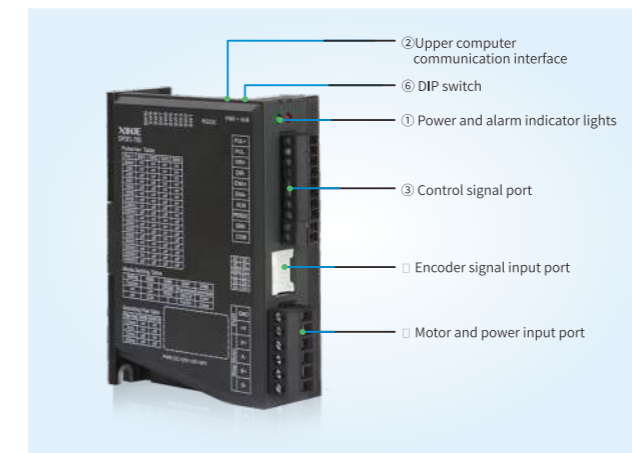
- Supply voltage 220~240VAC
- Pulse and direction input voltage support 5V and 24V
- New control algorithm, significantly improved performance  
The medium and high speed torque is 10~30% higher than the original product

Applicable occasions: slicer, clothing packaging machine, non-woven bag making machine, glove machine, etc.



# Hardware interface

## DP3F1 series



### ① Power and alarm indicator light

Color	Function
Green light	Power display PWR
Red light	Fault alarm indicator

Flashing message	Fault explanation
Flash once	Over current or short circuit
Flash continuously twice	Over voltage
Flash continuously 3 times	Under voltage
Flash continuously 4 times	Open circuit or poor contact of motor
Flash continuously 5 times	Position overlimit
Flash continuously 12 times	Power on stall detection

### ② Upper computer communication RS232 port

Interface	Function
VCC	Power supply +
WT	Data write
WR	Data read
ID	Empty
GND	Power supply ground

\*Note: please use the special cable provided by Xinje company for communication. RS232 default communication parameters: baud rate 115200bps, data bit 8, stop bit 1, even parity, station no.1.

\*Note: when a fault occurs, the indicator light flashes continuously, pauses for one second and then flashes continuously.

### ③ Control signal interface

Signal	Function
PUL+	Pulse control signal
PUL-	
DIR+	Direction control signal
DIR-	
ENA-	Enable/release signal
ENA+	
ALM	Alarm output signal
PEND/Z	In place/Z signal output
BRK+	Brake output signal
COM	Common terminal of output signal

### ④ Output signal common terminal

Sign	Name
NC	Reserved signal
NC	Reserved signal
NC	Reserved signal
NC	Reserved signal
VCC	5V power supply output, provided by the driver, only for encoder power supply
GND	
EZ+	Encoder Z phase signal +
EZ-	Encoder Z phase signal -
EB+	Encoder B phase signal +
EB-	Encoder B phase signal -
EA+	Encoder A phase signal +
EA-	Encoder A phase signal -

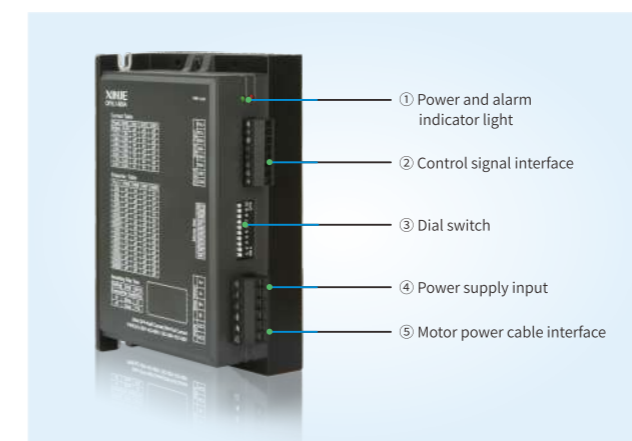
### ⑤ Motor and power input interface

Interface	Function
A+, A-	Motor phase A
B+, B-	Motor phase B
GND	DC power supply ground
+V	DC power supply +
AC1, AC2	AC power supply

### ⑥ Dial switch

Dial switch	Function
SW1-SW4	Subdivision setting
SW5	Motor operation initial direction selection
SW6	Z/in place signal
SW7	Control signal pulse mode selection
SW8	Open/closed loop selection
SW9	Command smooth filter
SW10	

## DP3L1 series



### ① Power and alarm indicator light

Color	Function
Green light	Power display PWR
Red light	Fault alarm indicator

\*Note: when a fault occurs, the indicator light flashes continuously, pauses for one second and then flashes continuously.

Flashing message	Fault explanation
Flash once	Over current or short circuit
Flash continuously twice	Over voltage
Flash continuously 3 times	Under voltage
Flash continuously 4 times	Open circuit or poor contact of motor

### ② Control signal interface

Interface	Function
PUL+	Pulse signal input +
PUL-	Pulse signal input -
DIR+	Pulse direction input +
DIR-	Pulse direction input -
ENA+	Enable/release signal input +
ENA-	Enable/release signal input -
ERR	Driver error signal output
COM	Error signal ground

### ④ Power supply interface

Interface	Function
GND	DC power supply ground
+V	DC power supply +

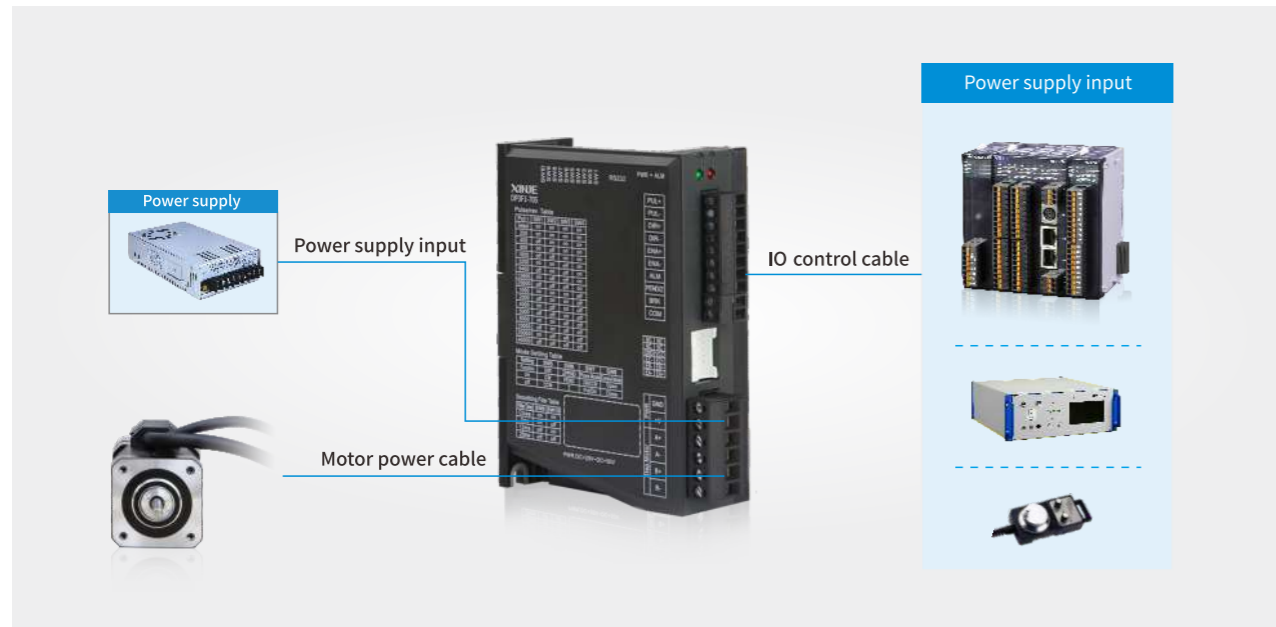
### ⑤ Motor power cable interface

Interface	Function
A+, A-	Motor phase A
B+, B-	Motor phase B

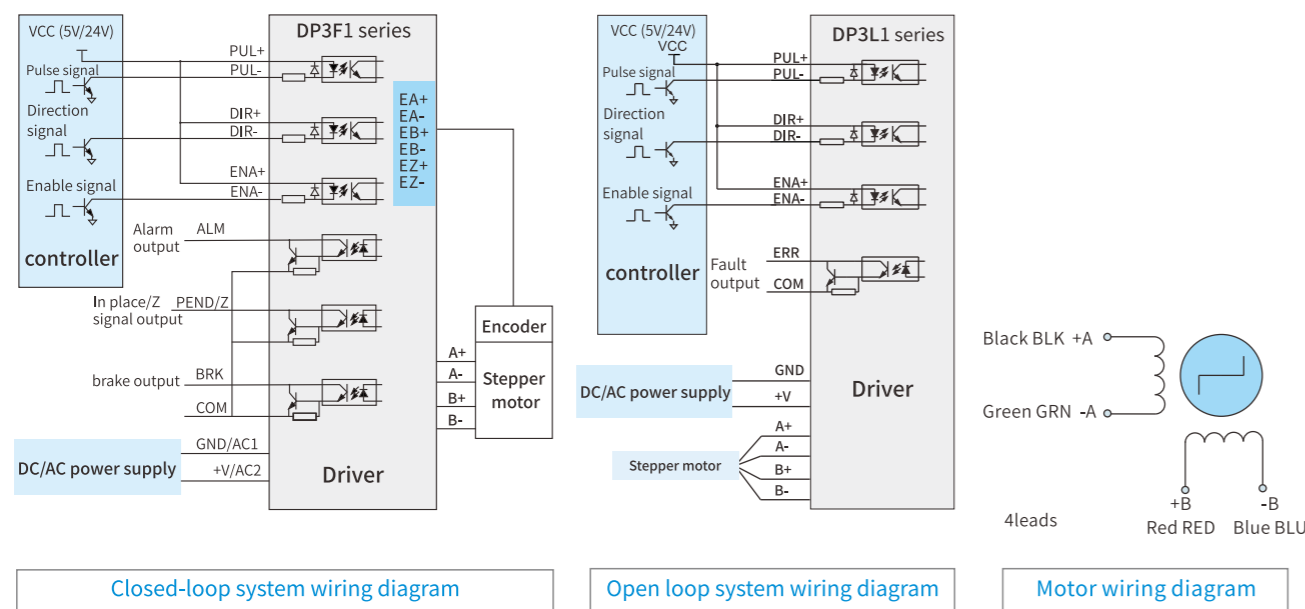
### ③ Dial switch

Dial switch	Function
SW1~SW3	Dynamic current setting
SW4	Half/full current setting
SW5~SW8	Subdivision accuracy setting
SW9	Command filtering
SW10	IO/PUL mode switching

# Driver peripheral circuit



# Driver wiring diagram



# Product model

## Driver naming rule

**DP3 L - 110 22 A 3**

① ② ③ ④ ⑤ ⑥

① Name		② Series		③ Driver output peak current		④ Driver max power supply voltage	
Sign	Product name	Sign	Product series	Sign	Current	Sign	Voltage
DP3	Stepping driver	F	Closed-loop type	22	2.2A	4	40V
		L	Open loop type	30	3.0A	5	50V
		L1	Driver type	42	4.2A	8	80V
				56	5.6A	22	220V
				70	7.0A		
				80	8.0A		
				110	11.0A		

⑤ Voltage type		⑥ Driver type	
Sign	Power supply type	Sign	Driver type
A	AC/DC power supply	3	Three-phase driver
None	DC power supply	None	Two-phase driver

# Driver specification

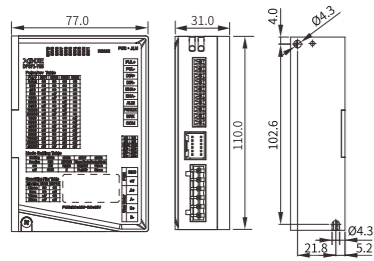
Driver model	DP3F closed-loop pulse type			
	DP3F1-305	DP3F1-705	DP3F1-805A	DP3F1-808A
Input power supply voltage (V)	DC 20~50	DC 20~50	DC 20~80/AC20~50	AC 20~100/AC20~80
Output current peak value (A)	1~4	1~7	1~8.4	1~8.4
Adaptive motor (base)	42	57/86	86	86
Dimension (mm)	110*77*31	110*77*31	141.5*97.5*56.0	141.5*97.5*56.0
Stepping pulse frequency (kHz)	24V signal 150K, 5V differential signal 150K			
Control signal input voltage (VDC)	Support 5V and 24V (DC)			
Use occasion	Avoid dust, oil mist and corrosive gas			
Ambient temperature	-10°C~50°C			
Max working temperature	60°C			
Humidity	40%~90% RH (no condensation or water droplets)			
Vibration	5.9m/s <sup>2</sup> Max			
Storage temperature	-20°C~65°C			

Driver model	DP3L1 economic open-loop pulse type					DP3L1 open loop IO type	DP3L high voltage open loop pulse type
	DP3L1-224	DP3L1-565	DP3L1-565A	DP3L1-805A	DP3L1-808A	DP3L1-565-IO	DP3L-11022A3
Input power supply voltage (V)	DC20~40	DC20~50	DC20~80/AC20~50	DC20~80/AC20~50	DC20~110/AC20~80	DC20~50	AC200~240
Output current peak value (A)	0.5~2.2	1.4~5.6	1.4~5.6	2.7~8.4	2.7~8.4	1.4~5.6	3.1~11.3
Adaptive motor (base)	42	57/86	42/57	86	86	57/86	86/110/130
Dimension (mm)	80*55*21.3	105*75.8*27.8	105*75.8*27.8	150*97.5*52.6	150*97.5*56	105*75.8*27.8	199.5*137*79
Stepping pulse frequency (kHz)	200 KHz						
Control signal input voltage (VDC)	5~24V						5/24V(dial switch)
Use occasion	Avoid dust, oil mist and corrosive gas						
Ambient temperature	0°C~50°C						
Max working temperature	60°C						
Humidity	40%~90% RH(no condensation or water droplets)						
Vibration	5.9m/s <sup>2</sup> Max						
Storage temperature	-20°C~65°C						

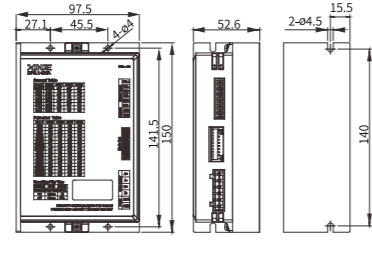
\*Note:DP3L1-565/565-IO hardware version 1.0.00 only supports 24V, version 1.1.01 and up support 5~24V.

# Driver dimension (Unit: mm)

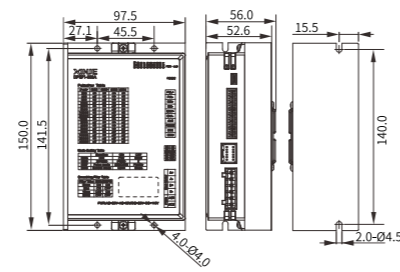
DP3F1-305/DP3F1-705



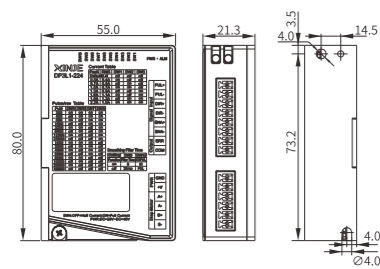
DP3F1-805A



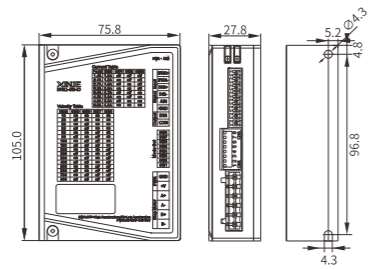
DP3F1-808A



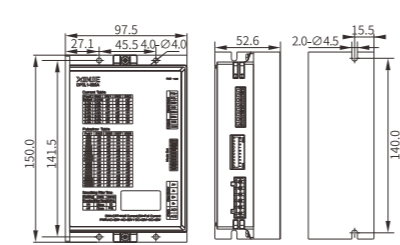
DP3L1-224



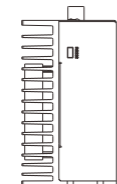
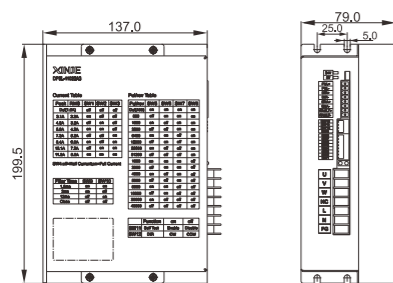
DP3L1-565/DP3L1-565-IO/DP3L1-565A



DP3L1-805A/DP3L1-808A



DP3L-11022A3



# Accessories

\*Note: suitable for DP3F1 series

## Encoder cable

Model	Length L(m)
CP-MD-2	2
CP-MD-3	3
CP-MD-5	5
CP-MD-8	8
CP-MD-10	10
CP-MD-12	12
CP-MD-16	16
CP-MD-20	20

CNAside	1	2	3	11	12	13
Color	Blue	Yellow	Yellow black	Green	Green black	Blue black
Definition	A+	VCC	GND	B+	B-	A-
CNBSide	11	5	6	9	10	12

\*Note: if Z signal output function is required, please use encoder cable [CP-MD-Z-length].

## Length

A-endPIN	1	2	3	4
Definition	B+	A+	A-	B-

Model	Length L(m)
CM-P07B-2	2
CM-P07B-3	3
CM-P07B-5	5
CM-P07B-8	8
CM-P07B-10	10
CM-P07B-12	12
CM-P07B-16	16
CM-P07B-20	20

\*Note: for customers who need make cable by themselves, they can buy accessory package JA-CM-P4, which includes the terminals suitable for the motor.

# Stepping motor



## Motor naming rule

**MP3- 57 H □ □ 080 - □**

①    ②    ③    ④    ⑤    ⑥    ⑦

① Name		② Base number		③ Open close loop type		④ Special motor type		⑤ Brake type		⑥ Holding torque	
Sign	Product name	Sign	Base number	Sign	Type	Sign	Type	Sign	Power-off brake	Sign	Static moment
MP3	Stepping motor	20	20 base	H	Standard open loop motor	I	Waterproof motor	Vacant	Brake type	0028	0.028N.m
		28	28 base	T	Optical encoder closed-loop motor	S	Double output shaft motor	Z	Power-off brake	0115	0.115N.m
		35	35 base							005	0.5 N.m
		42	42 base							008	0.8 N.m
		57	57 base							013	1.3 N.m
		60	60 base							023	2.3 N.m
		86	86 base							030	3.0 N.m
		110	110 base							042	4.2 N.m
		130	130 base							045	4.5 N.m

\*Note: the body length of the closed-loop motor needs to add the encoder length based on the open-loop motor. The encoder cable lengths include: 42 motor 18mm, 57 motor 20mm, 60 motor 22mm, 86 motor 26mm.

## Adaptation table of closed-loop motor and driver

Closed loop motor model		Step angle (°)	Static moment (N.m)	Phase current (A)	Motor shaft	Shaft diameter (mm)	Matched driver
Standard series	Brake series						
MP3-42T005	MP3-42TZ005	1.8	0.5	1.68	Flat	5	DP3F1/C-305
MP3-42T008	MP3-42TZ008	1.8	0.8	1.7	Flat	5	
MP3-57T013	MP3-57TZ013	1.8	1.3	4	Flat	8	DP3F1/C-705
MP3-57T013-D6.35	MP3-57TZ013-D6.35	1.8	1.3	4	Flat	6.35	
MP3-57T023	MP3-57TZ023	1.8	2.3	5	Flat	8	
MP3-57T030	MP3-57TZ030	1.8	3	5	Flat	8	
MP3-57T030-4A	MP3-57TZ030-4A	1.8	3	4	Flat	8	DP3C-808 DP3F1-805A DP3F1-808A
MP3-60T030	MP3-60TZ030	1.8	3	5	Flat	8	
MP3-86T045	MP3-86TZ045	1.8	4.5	6	Flat Key 5*25	14	
MP3-86T080	MP3-86TZ080	1.8	8	6	Flat Key 5*25	14	
MP3-86T085	MP3-86TZ085	1.8	8.5	6	Flat Key 5*25	14	
MP3-86T085-D12.7	MP3-86TZ085-D12.7	1.8	8.5	6A	Flat Key 5*25	12.7	
MP3-86T100	MP3-86TZ100	1.8	10	6	Flat Key 5*25	14	
MP3-86T120	MP3-86TZ120	1.8	12	6	Flat Key 5*25	14	

## Adaptation table of three-phase open loop motor and driver

Three phase open loop motor model		Step angle (°)	Static moment (N.m)	Phase current (A)	Motor shaft	Shaft diameter (mm)	Matched driver
Standard series	Brake series						
MP3-110H120	MP3-110HZ120	1.2	12	6	Flat Key 6*30	19	DP3L-11022A3
MP3-110H160	MP3-110HZ160	1.2	16	6.4	Flat Key 6*30	19	
MP3-110H200	MP3-110HZ200	1.2	20	6.9	Flat Key 6*30	19	
MP3-110H250	MP3-110HZ250	1.2	25	6	Flat Key 6*25	19	
MP3-130H280	MP3-130HZ280	1.2	28	6.9	Flat Key 8*36	24	
MP3-130H350	MP3-130HZ350	1.2	35	6.9	Flat Key 8*36	24	
MP3-130H500	MP3-130HZ500	1.2	50	6.9	Flat Key 8*36	24	

## Adaptation table of two-phase open loop motor and driver

Open loop motor model		Step angle (°)	Static moment (N.m)	Phase current (A)	Motor shaft	Shaft diameter (mm)	Matched driver
Standard series	Brake series						
MP3-20H0028	/	1.8	0.028	0.2	Flat	4	DP3CL-305 DP3L1-224
MP3-20H0048	/	1.8	0.048	0.65	Flat	4	
MP3-28H0085	/	1.8	0.085	0.7	Flat	5	
MP3-28H0115	/	1.8	0.115	1	Flat	5	
MP3-28H017	/	1.8	0.17	1	Flat	5	
MP3-35H017	/	1.8	0.17	1	Flat	5	
MP3-35H026	/	1.8	0.26	1	Flat	5	DP3L1-565 DP3CL-705
MP3-42H002	/	1.8	0.22	1.33	Flat	5	
MP3-42H004	MP3-42HZ004	1.8	0.46	1.7	Flat	5	
MP3-42H005	MP3-42HZ005	1.8	0.5	1.68	Flat	5	
MP3-42H008	MP3-42HZ008	1.8	0.8	1.7	Flat	5	
MP3-57H006	MP3-57HZ006	1.8	0.6	3	Flat	8	
MP3-57H013	MP3-57HZ013	1.8	1.3	4	Flat	8	
MP3-57H013-D6.35	MP3-57HZ013-D6.35	1.8	1.2	4	Flat	6.35	
MP3-57H023	MP3-57HZ023	1.8	2.3	5	Flat	8	
MP3-57H030	MP3-57HZ030	1.8	3	5	Flat	8	
MP3-57H030-4A	MP3-57HZ030-4A	1.8	3	4	Flat	8	
MP3-60H030	MP3-60HZ030	1.8	3	5	Flat	8	
MP3-86H035	MP3-86HZ035	1.8	3.5	4	Flat Key 5*25	14	DP3L1-808A DP3CL-808 DP3CL-808A
MP3-86H035-D12.7	MP3-86HZ035-D12.7	1.8	3.5	4	Flat Key 5*25	12.7	
MP3-86H045	MP3-86HZ045	1.8	4.5	6	Flat Key 5*25	14	
MP3-86H045-D12.7	MP3-86HZ045-D12.7	1.8	4.5	6	Flat Key 5*25	12.7	
MP3-86H080	MP3-86HZ080	1.8	8	5	Flat Key 5*25	14	
MP3-86H080-D12.7	MP3-86HZ080-D12.7	1.8	8	5	Flat Key 5*25	12.7	
MP3-86H085	MP3-86HZ085	1.8	8.5	6	Flat Key 5*25	14	
MP3-86H085-D12.7	MP3-86HZ085-D12.7	1.8	8.5	6	Flat Key 5*25	12.7	
MP3-86H100	MP3-86HZ100	1.8	10	6	Flat Key 5*25	14	
MP3-86H120	MP3-86HZ120	1.8	12	6	Flat Key 5*25	14	

## Motor mounting dimension (Unit: mm)

### Closed-loop motor

#### 42 series

Model	L(mm)	
	General	With brake
MP3-42T005	66	97
MP3-42T008	78	109

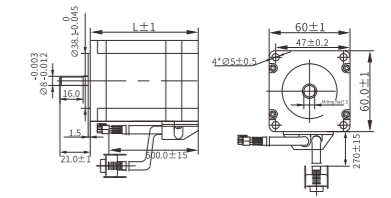
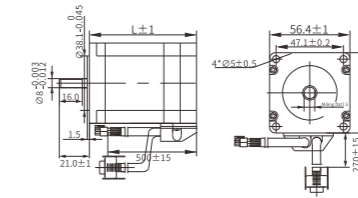
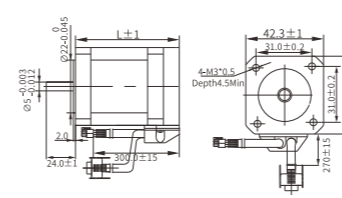
#### 57 series

Model	L(mm)	
	General	With brake
MP3-57T013	75	115
MP3-57T023	95	135
MP3-57T030-4A	130	170

#### Large 57 series

Model	L(mm)	
	General	With brake
MP3-57T030	107	147

\*Note: this motor adopts the body width of 60 motor and the front cover of 57 motor. The installation method is the same as that of 57 motor. With a relatively short body length, the holding torque of 3N can be achieved, which improves the stability of the motor.

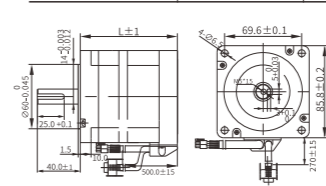
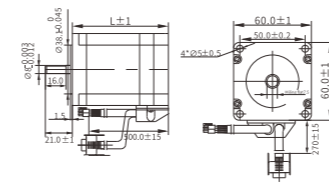


#### 60 series

Model	L(mm)	
	General	With brake
MP3-60T030	107	147

#### 86 series

Model	L(mm)	
	General	With brake
MP3-86T045	106	143
MP3-86T080	124	161
MP3-86T085	144	181
MP3-86T120	176	213



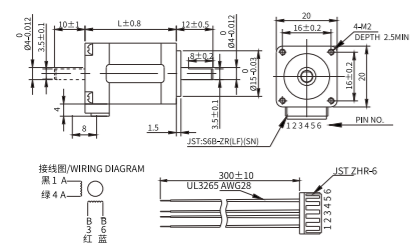


# Motor mounting dimension (Unit: mm)

## | Two-phase open loop motor

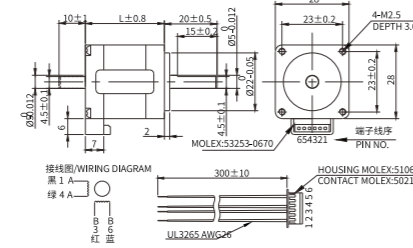
### 20 series

Model	L(mm)	
	Normal	With brake
MP3-20H0028	27.2	/
MP3-20H0048	37.8	/



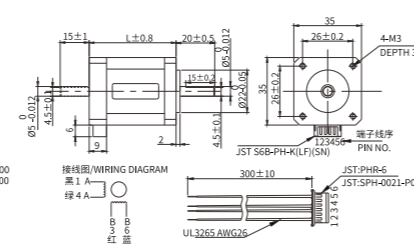
### 28 series

Model	L(mm)	
	Normal	With brake
MP3-28H0085	30.1	/
MP3-28H0115	39.2	/
MP3-28H017	50.4	/



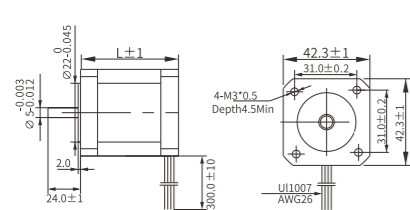
### 35 series

Model	L(mm)	
	Normal	With brake
MP3-35H017	31.4	/
MP3-35H026	42.3	/
MP3-35H042	51.7	/



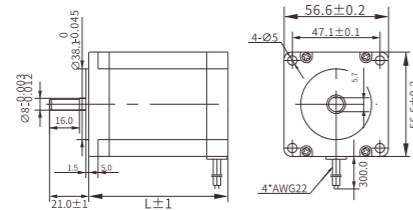
### 42 series

Model	L(mm)	
	Normal	With brake
MP3-42H002	33	-
MP3-42H004	40	71
MP3-42H005	48	79
MP3-42H008	60	91



### 57 series

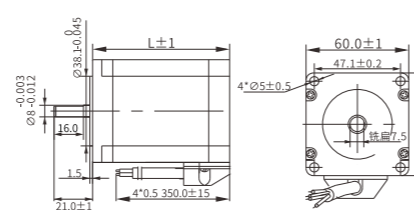
Model	L(mm)	
	Normal	With brake
MP3-57H013	56	96
MP3-57H023	76	115
MP3-57H030-4A	110	150



### Large 57 series

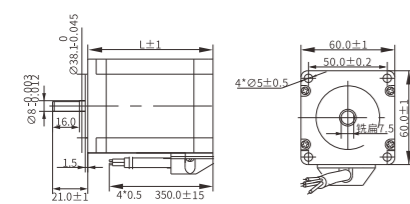
Model	L(mm)	
	Normal	With brake
MP3-57H030	88	127

\*Note: This motor has a body width of 60 motors, a front cover of 57 motors, installation method is same to 57 motors. The holding torque of 3N can be achieved by using a relatively short body length, improving the motor stability.



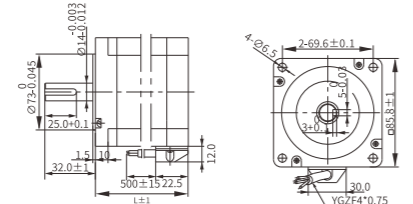
### 60 series

Model	L(mm)	
	Normal	With brake
MP3-60H030	88	127



### 86 series

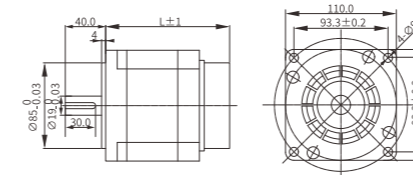
Model	L(mm)	
	Normal	With brake
MP3-86H035	65	108
MP3-86H045	80	123
MP3-86H080	98	141
MP3-86H085	118	161
MP3-86H120	150	193



## | Three-phase open loop motor

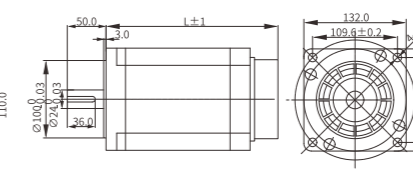
### 110 series

Model	L(mm)	
	Normal	With brake
MP3-110H120	151	219
MP3-110H160	185	253
MP3-110H200	219	287



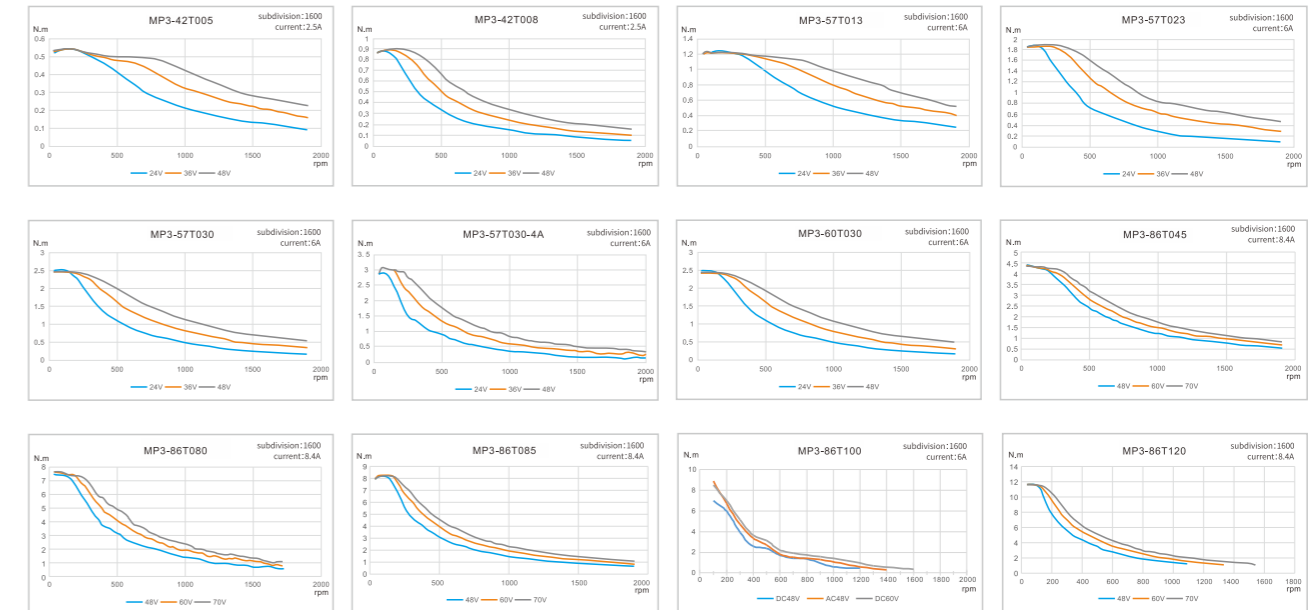
### 130 series

Model	L(mm)	
	Normal	With brake
MP3-130H280	222	275
MP3-130H350	254	307
MP3-130H500	319	352
MP3-110H250	194	/



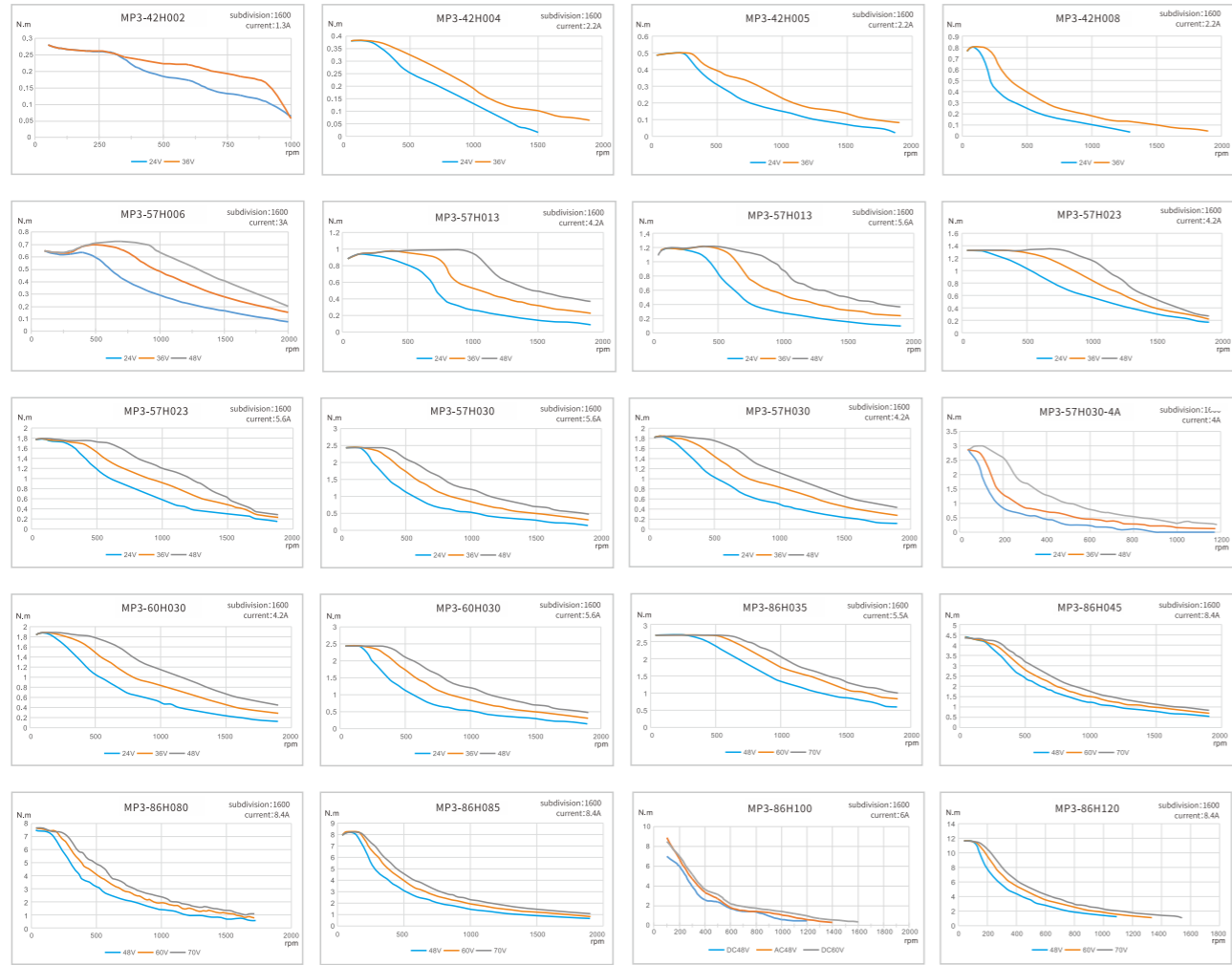
# Motor torque frequency characteristic diagram

## | Closed-loop series (the follow current is peak current)



# Motor torque frequency characteristic diagram

## Two-phase open loop series (the follow current is peak current)



## Three-phase open loop series (the follow current is peak current)

