



Initiative Integrity Innovation

### Zhejiang Hechuan Technology Co.,Ltd.

Headquarters: No. 5, Qinshan Road, Longyou Industrial Park, Quzhou City, Zhejiang Province  
Hangzhou R & D Center: No. 299 Lixin Road, Qingshanhu Street, Hangzhou City, Zhejiang Province



HCFA



ATC

All information in this document is subject to change without notice.  
Manual No.March, 2024 Issue No. 1  
Due to the delay in updating the paper version, please refer to the official website for the latest product information.

EtherCAT® is owned by Beckhoff Automation GmbH; MECHATROLINK® is owned by MECHATROLINK Association, which is a open field network; PROFINET is a new Ethernet communication system developed by Siemens and PROFIBUS User Association. Other products, product names, trademarks or registered trademarks of the products belong to the respective companies and are not our products

# Y7 Smart-SERVO

High-end AC Servo System



With **5S** design concept  
More flexible response to market changes!

**S**mart

Rich specifications-Simple selection

**S**trong

Higher speed, higher torque, realize high-speed equipment!

**S**uper

Motion bus controlled by the "Chip"

**S**afety

Greater safety for people and machines!

**S**atisfied

Reliable, easy to use, for great experience!



**HN-Y7S** Series Servo System

**Y7S** the new generation of servo system,  
for a more satisfying experience!



## Naming rule

**HN-Y7 E A 300 T-S**  
 1 2 3 4 5

1 Functional classification	
N	General-purpose type
E	Standard type
F	Full-functional type

2 Product type <small>Note 1</small>	
A	Pulse
B	EtherCAT bus
K	MII bus
R	PROFINET bus

3 Power specification	
010	100W
020	200W
040	400W
075	750W
100	1KW
150	1.5KW
200	2KW
300	3.0KW
500	5.0KW
600	6.0KW
750	7.5KW
111	11KW
151	15KW
221	22KW
301	30KW
371	37KW
551	55KW

4 Voltage specifications	
A	AC220V
T	AC380V

5 Product series branch	
S	Smart

A variety of voltage levels and power specifications to meet different industry applications



The full range of Y7S servo drives can match with X2/X6 series servo motors, which is able to provide 220V 50W~2kW, 380V 750W~55kW, 20 different drive powers and 80+ motor specifications to meet the application needs of different customers.

## Same model for 400W or below -- Easier model selection



Old Y7 model selection

New Y7S model selection

More flexible system matching, for servomotor with power below 400W, customers can order 400W servo drive, which can reduce stock categories of dealers and shorten delivery time.

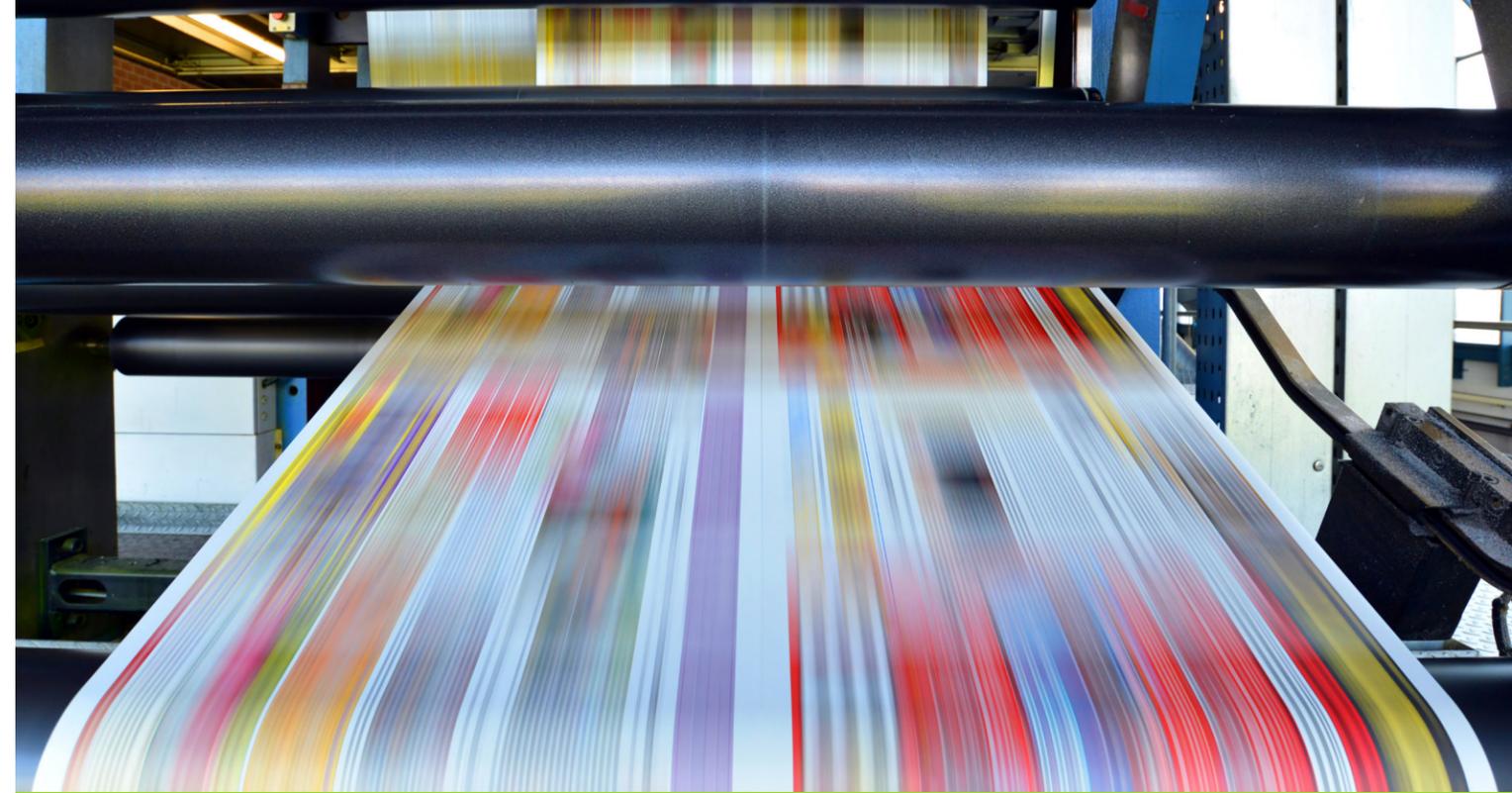
Note 1: MECHATROLINK bus and PROFINET bus models will be launched in 2025.

# Strong!

Faster response, higher accuracy,  
and maximum the system performance!



Y7S's new control algorithm and speed loop 3.5kHz have brought about performance and precision improvements, which will increase the accuracy of the existing magnetic encoder motor to 20bit. At the same time, we will also launch a higher-precision 25bit<sup>Note1</sup> optical encoder motor to achieve faster response, higher accuracy, and maximize system and equipment performance.



**3.5KHz**  
Speed loop response

**20BIT**  
Magnetic encoder

**23/25BIT<sup>Note1</sup>**  
Optical encoder

Higher speed, higher torque, to realize the  
high speed of equipment!

**7000**  
Low power rpm

**5000**  
High power rpm

**350**  
MAX %

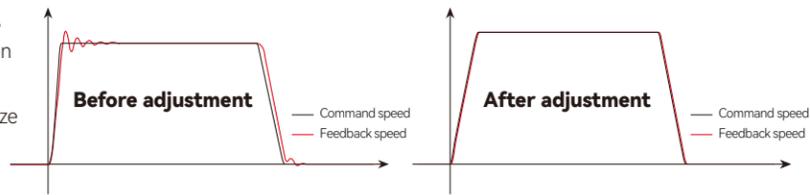
**300**  
MAX %



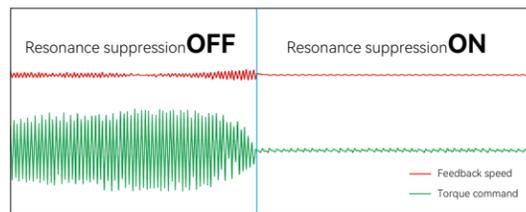
X6 series 25Bit servo motor will be launched in 2024.

## One-button self-tuning

Only one button is needed to do the advanced auto-tuning, including resonance suppression, model tracking, and friction compensation, which can be adjusted easily according to different equipment and operating characteristics to maximize the mechanical performance.



## Advanced frequency vibration suppression capability



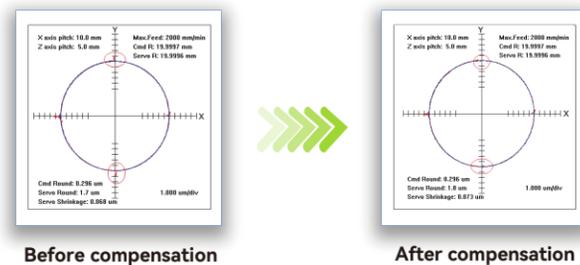
**3 groups of low-frequency below 100HZ**

**3 groups of high-frequency from 100HZ to 5000HZ**

Through the advanced control algorithm, 6 groups of vibrations with different frequencies can be suppressed at the same time, 3 groups of which can suppress low frequency vibrations below about 100Hz, effectively solving the vibration at the end of the cantilever beam mechanism; The other three groups can effectively suppress high-frequency vibrations in the frequency range of 100Hz~5000HZ, improve the gain and rigidity of the mechanism, and effectively suppress the resonance phenomenon of the mechanical structure.

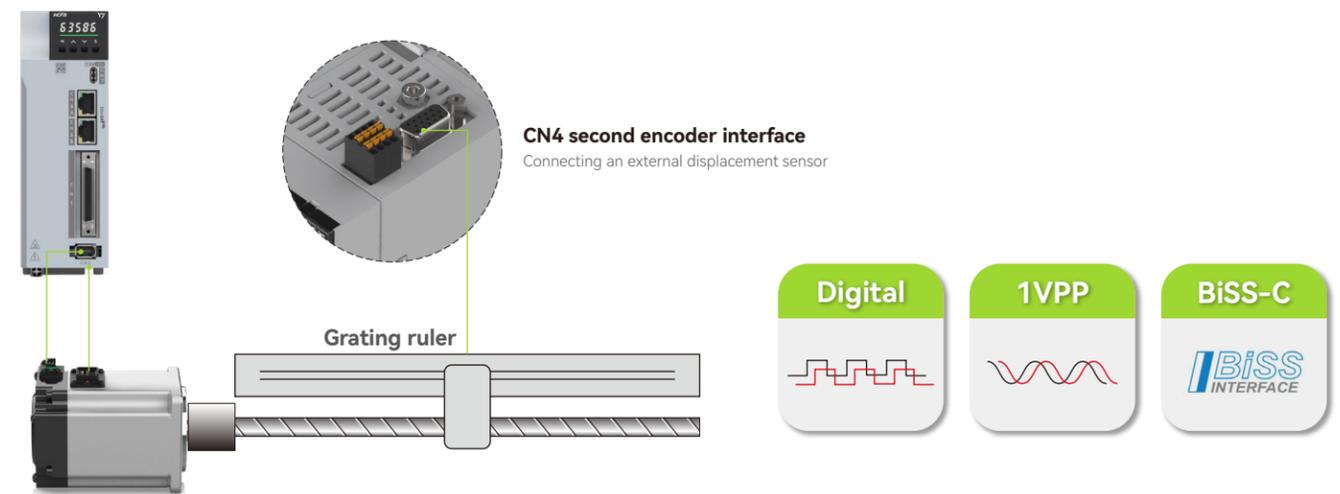
## Friction compensation

It is possible to improve the accuracy of circular arc trajectory in the trajectory interpolation control of XY mechanism. It can effectively reduce the over-quadrant protrusion caused by the different friction of the mechanism when the servo motor is commutated.



# Strong!

## Support full-closed loop control



Full-closed-loop control can be externally connected to a grating ruler or an encoder to achieve high-precision positioning by reading the position of the mechanism!



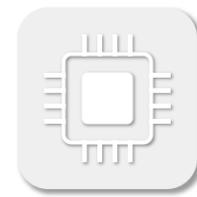
# Super!

## Super motion bus controlled by "Chip"

With the design concept of convenient application, the new wireless Bluetooth<sup>Note2</sup> function is added in Y7S standard model. Parameter editing, status monitoring, trial run, and other convenient commissioning not only can be completed with cell phones and tablets and other mobile terminals, but also extend the remote IOT function!



Built-in wireless Bluetooth, and can expand IOT applications



### All-in-one controlled by the chip

The models of Ethercat, MECHATROLINK or profnet, are supported by the same bus chip which is independently developed by HCFA.<sup>Note1</sup>

EtherCAT

MECHATROLINK

Transmission speed <b>100 Mbps</b>	Command communication cycle <b>125 μs</b>	Transmission distance <b>100 m</b>
Transmission speed <b>100 Mbps</b>	Command communication cycle <b>125 μs</b>	Transmission distance <b>100 m</b>

Note 1: MECHATROLINK bus and PRODINET bus model will be launched in 2025  
Note 2: Bluetooth function will be launched in 2024



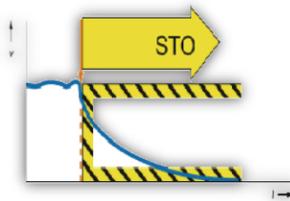
## Greater safety for people and machines!

### Safety function



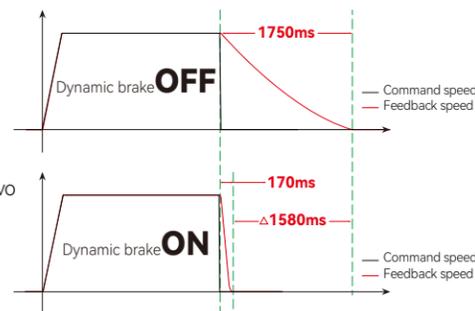
#### STO (Safe Torque Off)

When danger comes, the system triggers the base blocking function of the servo drive, which can cut off the current of the motor in hardware and stop the operation of the equipment as fast as possible to protect the safety of users and machines!

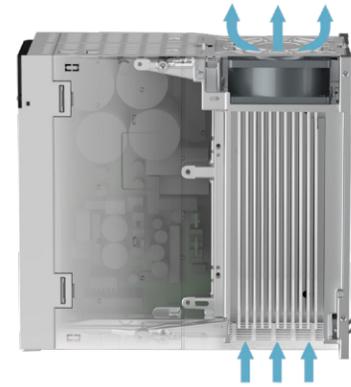


#### DB (Dynamic Brake)

When the motor is running, if a power failure or alarm occurs, the servo turn OFF, at the same time will short circuit the motor three-phase circuit, the servo motor will quickly stop, so as to protect the safety of people and machines!



### No fear of extreme test



Optimized independent heat dissipation air duct design, improve heat dissipation efficiency at the same time, and isolation of power components to avoid dust and high humidity intrusion into the drive body, effectively improving the reliability of the product.

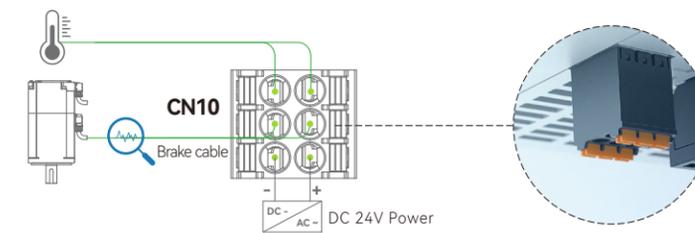
Some the machines have built-in brake resistor, the base plate is in hidden installation for a larger heat dissipation area.

### Temperature detection and brake detection



#### TD(Temperature Detection)

Y7S standard type has built-in temperature detection unit and can be connected with external temperature sensor, <sup>Note1</sup> which can better protect the stable operation of the motor.



#### BD(Brake Detection)

Y7S standard type has built-in servo brake control relay, saving wiring for users and also has band brake break detection function to make band brake control more reliable. <sup>Note2</sup>

Note 1: KTY84 temperature sensor is recommended

Note 2: BD function will be launched in 2024

■ Technical Specifications

Items		Specification	
Control mode		Position control, speed control, torque control, internal speed control Internal speed control - speed control, internal speed control - position control, internal speed control - torque control Position control - Speed control, Position control - Torque control, Torque control - Speed control Speed control - Speed control with zero fix function Position control - Position control with command pulse disable function Full closed-loop control (only full-function type supported)	
Position control	Pulse input <small>Note2</small>	Max. input pulse frequency	
		Differential common pulse input: frequency not more than 500KHz, pulse width not less than 1us	
		Differential high-speed pulse input: frequency not more than 4MHz, pulse width not less than 125ns	
		Input pulse form	
	Electronic gear setting		
	Command filter		
Pulse output <small>Note2</small>	Division ratio		
	Output pulse form		
Control method		External analog input	
Analog input voltage range		Default 6V, corresponding rated speed can be modified by parameters	
Torque limit function		Parameter setting, parameter setting+I/O control, analog input	
Control mode		External analog input	
Analog input voltage range		DC±10V (Default 6V, corresponding rated speed can be modified by parameters)	
Speed limit function		Parameter setting, parameter setting+I/O control, analog input	
Control mode		I/O Control	
Movement speed selection		Support three kinds of speed switching through parameters setting	
General function	Control signal	7IN/5OUT <small>Note2</small>	
	Analog signal	2IN (For speed control, torque control) /1OUT (For motor speed and torque monitoring) <small>Note 2</small>	
	STO	Supported for some models <small>Note2</small>	
	Second encoder interface	Supported for some models <small>Note2</small>	
	Inertia self-assumption	Provided	
	Parameter free adjustment	Provided	
	One-button tuning	Provided	
	Friction compensation	Provided	
	Vibration suppression frequency band 1	Provided	
	Vibration suppression frequency band 2	Provided	
	Adaptive notch filter	Provided	
	Encoder output division and multiplication	Provided	
	Dynamic brake	Built-in, supported for some models <small>Note2</small>	
	Regeneration function	Built-in resistor, A larger power braking resistor can be connected	
	Protective function	Over-voltage, power supply error, over-current, overheat, overload, encoder error, over speed, excessive position deviation, parameter error, etc.	
	Communication	USB	For PC communication(Used for HCServoWorks.Y7)
		Industrial Networks	RS-485, EtherCAT, MECHATROLINK-III, <small>Note1</small> PROFINET <small>Note1</small>

Note1: MECHATROLINK-III, PROFINET products will be launched in 2025

Note2: Refer to page 14 of specifications for details

■ Environmental Specifications

Items	Specification
Environmental Specifications	0°C ~ + 55°C(10% reduction for every 5 degrees of increase in ambient temperature above 45 degrees)
Ambient temperature for storage	-20°C ~ + 65°C (Max.temperature : 80°C 72 hours without condensation)
Ambient humidity for use	20% ~ 85%RH or less(Without condensation)
Ambient humidity for storage	20% ~ 85%RH or less(Without condensation)
Vibration resistance	5.88m/s^2(0.6G) or less, 10-60Hz (avoid using at resonance point connection)
Impact resistance	Acceleration up to 100m/s^2 or less (XYZ)
Protection level	IP20
Cleanliness	No corrosive gas, combustible gas No water, oil, chemical splash
Altitude	1000m below. When the altitude exceeds 1000m, need to reduce the rated value before use. It is recommended to refer to the following table or consult our technical staff 
Others	No electrostatic interference, strong electric field, strong magnetic field, radiation, etc.

■ Specifications

Function	Pulse HN-Y7□A***-S			EtherCAT bus HN-Y7□B***-S		
	Full-functional F-type	Standard E-type	General-purpose N-type	Full-functional F-type	Standard E-type	General-purpose N-type
I/O	7DI / 5DO	7DI / 5DO	7DI / 5DO	5DI / 2HDO / 3DO	5DI / 3DO	-
Analog input	2 AI	2 AI	-	2 AI	-	-
Analog output	1 AO	1 AO	-	1 AO	1 AO	-
Pulse dividing output	✓	✓	✓	✓	-	-
Full-closed loop	✓	-	-	✓	-	-
STO	✓	-	-	✓	✓	-
Dynamic brake	✓	✓	-	✓	✓	-
Built-in brake	✓	✓	-	✓	✓	✓
RS485	✓	✓	-	-	-	-
Bluetooth	✓	✓	-	✓	✓	-

Note: "✓" indicates with the function, "-" indicates without the function

■ AC220V General Specifications

Items		Specification				
Items HN-Y7E□***A-S <sup>Note1</sup>		040	075	100	150	200
Max. applicable motor capacity(kW)		0.4	0.75	1.0	1.5	2.0
Continuous output current(Arms)		2.8	5.5	7.6	11.6	15.6
Max. instantaneous output current(Arms)		9.3	16.9	17	28	39
Main circuit	Supply voltage(Vrms)	Single-/three-phase AC200~240V, 50/60Hz		Three-phase AC200~240V, 50/60Hz		
	Current(Arms)	2.5	4.1	5.7	7.3	10
Control power		Shared main circuit power				
Regenerative resistor	Built-in resistor	Resistance(Ω)	-	50	50	20
		Capacity(W)	-	80	80	100
	External min. allowable resistance(Ω)	40	40	35	20	20
Over-voltage rating		III				

■ AC220V General Specifications

Power(KW)	Pulse	EtherCAT	MECHATROLINK-III <sup>Note1</sup>	PROFINET <sup>Note1</sup>	Power supply	Control power
0.4	HN-Y7□A040A-S	HN-Y7□B040A-S	HN-Y7□K040A-S	HN-Y7□R040A-S	AC Single-/three-phase 220V	Shared main circuit power
0.75	HN-Y7□A075A-S	HN-Y7□B075A-S	HN-Y7□K075A-S	HN-Y7□R075A-S		
1	HN-Y7□A100A-S	HN-Y7□B100A-S	HN-Y7□K100A-S	HN-Y7□R100A-S		
1.5	HN-Y7□A150A-S	HN-Y7□B150A-S	HN-Y7□K150A-S	HN-Y7□R150A-S		
2	HN-Y7□A200A-S	HN-Y7□B200A-S	HN-Y7□K200A-S	HN-Y7□R200A-S		

Note 1: E in □ is standard type, F in □ is full function type, K: MECHATROLINK-III, R: PROFINET will be launched in 2025

■ AC380V General Specifications

Items		Specification											
Items HN-Y7E□***T-S <sup>Note1</sup>		075	100	150	200	300	500	600	750	111	151	221	
Max. applicable motor capacity(kW)		0.75	1.0	1.5	2.0	3.0	5.0	6.0	7.5	11	15	22	
Continuous output current(Arms)		3.5	4.7	5.4	8.4	11.9	16.5	20.8	25.7	28.1	37.2	52	
Max. instantaneous output current(Arms)		10.5	16.9	17	24	31	44	52	65	70	88	105	
Main circuit	Supply voltage(Vrms)	Three-phase AC330~440V, 50/60Hz											
	Current(Arms)	2.1	2.9	4.3	5.8	8.6	14.5	17.4	21.7	23.4	29.6	43.4	
Control power		Shared main circuit power					AC330V~440V, 50/60Hz						
Regenerative resistor	Built-in resistor	Resistance(Ω)	50	50	50	50	40	25	20	20	-	-	-
		Capacity(W)	80	80	80	100	100	100	100	100	100	-	-
	External min. allowable resistance(Ω)	40	40	40	40	35	25	20	20	15	10	10	
Over-voltage rating		III											

Note 1: E in □ is standard type, F in □ is full function type, K: MECHATROLINK-III and R: PROFINET will be launched in 2025

■ AC380V General Specifications

Power(KW)	Pulse	EtherCAT	MECHATROLINK-III <sup>Note1</sup>	PROFINET <sup>Note1</sup>	Power supply	Control power
0.75	HN-Y7□A075T-S	HN-Y7□B075T-S	HN-Y7□K075T-S	HN-Y7□R075T-S	AC three-phase 380V	Shared main circuit power
1	HN-Y7□A100T-S	HN-Y7□B100T-S	HN-Y7□K100T-S	HN-Y7□R100T-S		
1.5	HN-Y7□A150T-S	HN-Y7□B150T-S	HN-Y7□K150T-S	HN-Y7□R150T-S		
2	HN-Y7□A200T-S	HN-Y7□B200T-S	HN-Y7□K200T-S	HN-Y7□R200T-S		
3	HN-Y7□A300T-S	HN-Y7□B300T-S	HN-Y7□K300T-S	HN-Y7□R300T-S		
5	HN-Y7□A500T-S	HN-Y7□B500T-S	HN-Y7□K500T-S	HN-Y7□R500T-S		AC380V
6	HN-Y7□A600T-S	HN-Y7□B600T-S	HN-Y7□K600T-S	HN-Y7□R600T-S		
7.5	HN-Y7□A750T-S	HN-Y7□B750T-S	HN-Y7□K750T-S	HN-Y7□R750T-S		
11	HN-Y7□A111T-S	HN-Y7□B111T-S	HN-Y7□K111T-S	HN-Y7□R111T-S		
15	HN-Y7□A151T-S	HN-Y7□B151T-S	HN-Y7□K151T-S	HN-Y7□R151T-S		
22	HN-Y7□A221T-S	HN-Y7□B221T-S	HN-Y7□K221T-S	HN-Y7□R221T-S		

Note 1: E in □ is standard type, F in □ is full function type, K: MECHATROLINK-III and R: PROFINET will be launched in 2025

**Note: Description of the differences in interface**

Due to different drive models, the interface differences between models are as follows:

Interface	Function	Pulse HN-Y7□A****-S			EtherCAT bus HN-Y7□B****-S		
		Full-functional F-type	Standard E-type	General-purpose N-type	Full-functional F-type	Standard E-type	General-purpose N-type
CN1	IO signal	✓	✓	✓	✓	✓	-
CN3	STO security interface	✓	-	-	✓	✓	-
CN4	Second encoder interface	✓	-	-	✓	-	-
CN6	Communication interface	RS485	RS485	-	EtherCAT	EtherCAT	EtherCAT
CN10	Brake interface	✓	✓	-	✓	✓	✓

**Note 3: CN3 STO security interface definition**

STO interface	STO safety connector	Interface layout		pin1	pin2	pin3	pin4	pin5	pin6	pin7	pin8
		EDM+	8 7 EDM-	NC+	NC-	HWBB1-	HWBB1+	HWBB2-	HWBB2+	EDM-	EDM+
		HWBB2+	6 5 HWBB2-								
		HWBB1+	4 3 HWBB1-			Input 1-	Input 1+	Input 2-	Input 2+	Output-	Output+
		NC-	2 1 NC+								

**Note 4: CN4 second encoder interface definition**

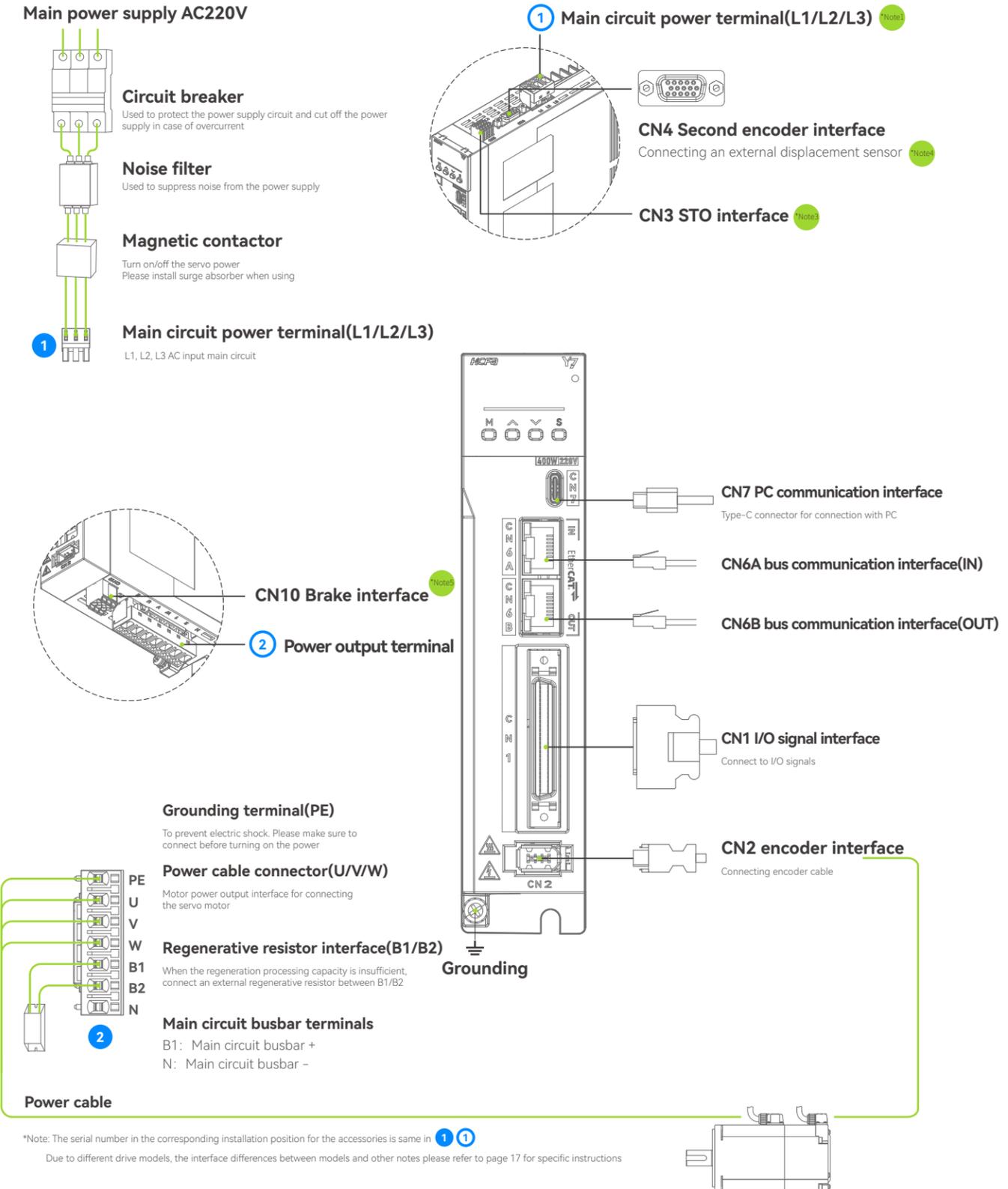
	pin1	pin2	pin3	pin4	pin5	pin6	pin7	pin8	pin9	pin10	pin11	pin12	pin13	pin14	pin15
Incremental ABZ	5V	0V	Hall U+	Hall U-	Hall V+	EXA-	EXB-	EXZ-	Hall W+	Hall V-	EXA+	EXB+	EXZ+	Hall W-	-
Sine cosine	5V	0V	Hall U+	Hall U-	Hall V+	Sin-	Cos-	-	Hall W+	Hall V-	Sin+	Cos+	-	Hall W-	-
BiSS-C	5V	0V	-	-	-	CLK-	DATA-	-	-	-	CLK+	DATA+	-	-	-
Tamagawa	5V	0V	-	-	-	DATA-	-	-	-	-	DATA+	-	-	-	-

**Note 5: CN10 brake and temperature detection interface definition**

Drive brake interface	Brake and temperature detection connector	Interface layout		pin1	pin2	pin3	pin4	pin5	pin6
		T-	6 5 T+	24V	0V	BK+	BK-	T+	T-
		BK-	4 3 BK+	24V Power		Brake cable		Temperature control+	Temperature control-
		0V	2 1 24V						

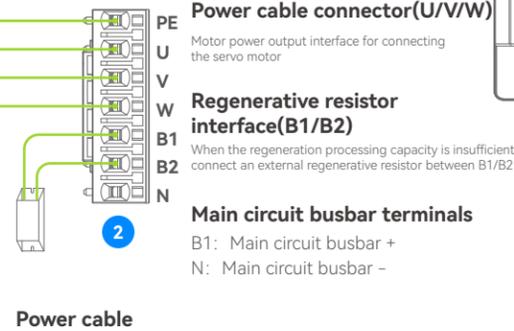
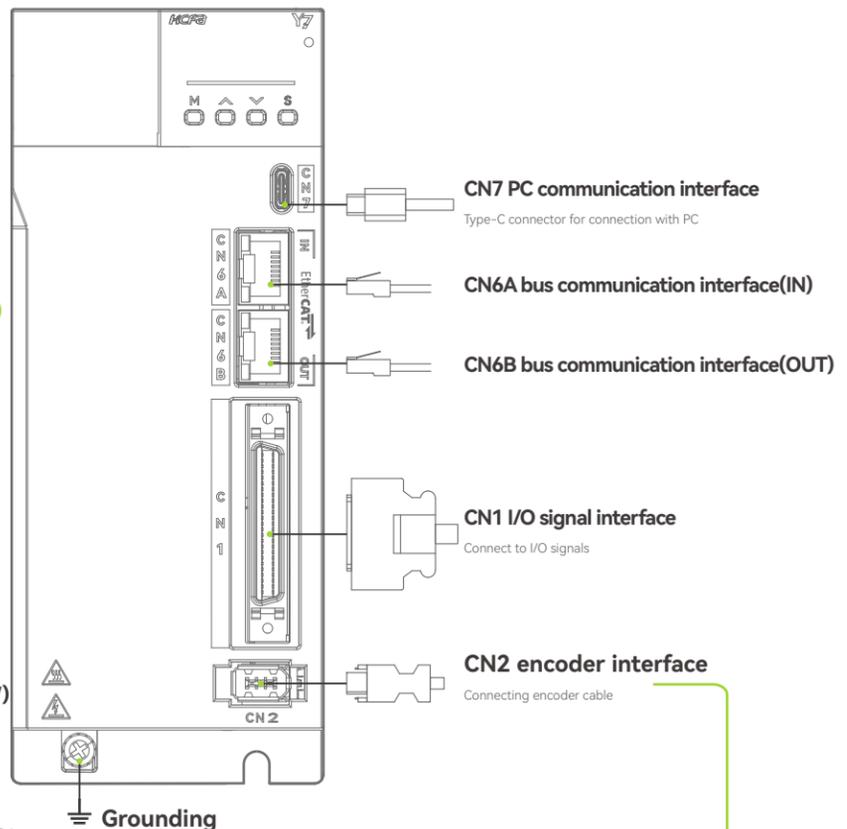
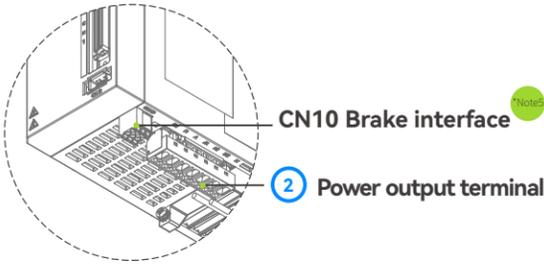
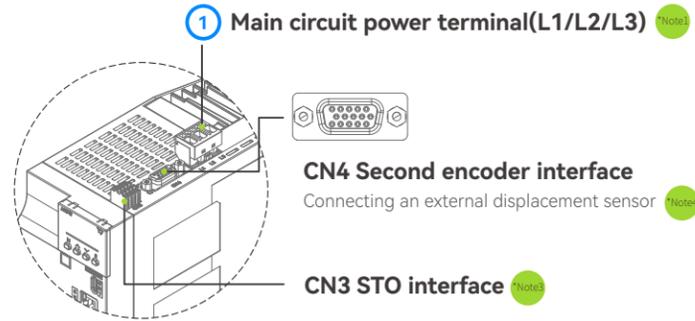
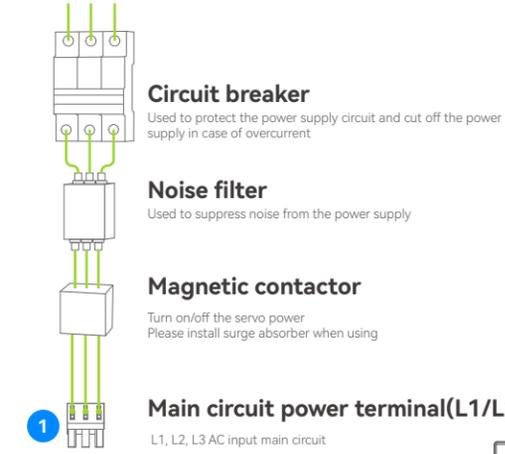
Note 6: Please do not share the power supply of DC24V brake with CN1 control circuit.  
Note 7: The specification of NTC is KTY84

**AC220V Models of 2kW and below**



### AC380V Models of 3kW and below

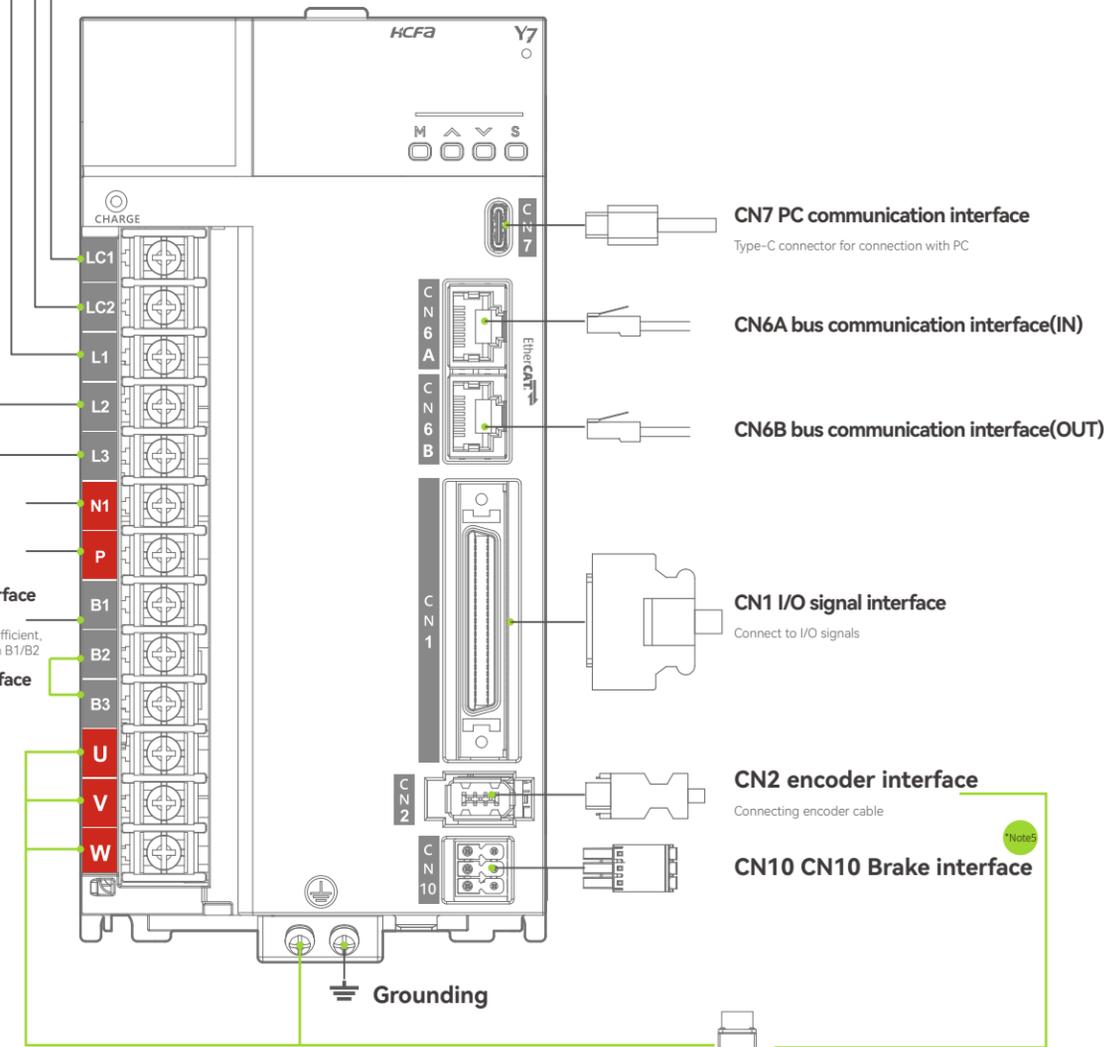
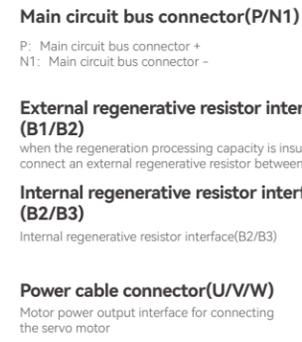
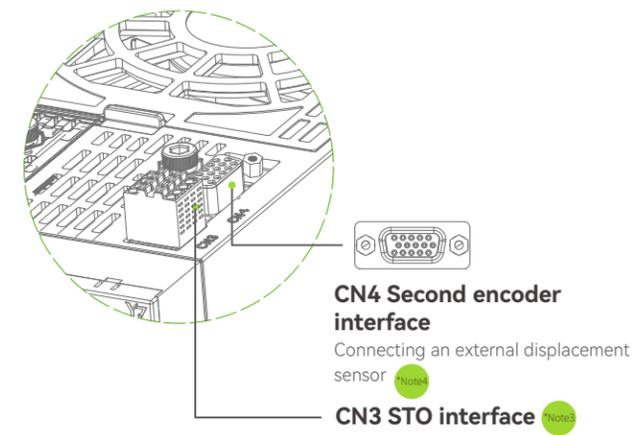
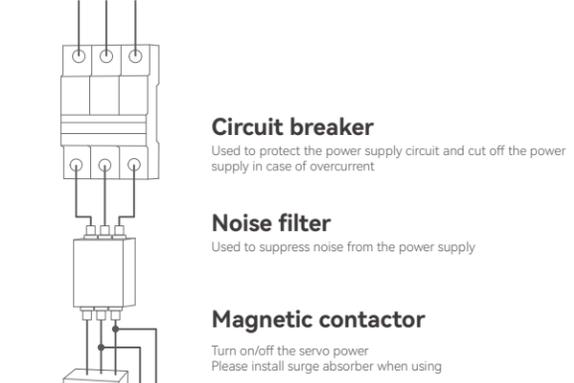
#### Main power supply AC220V



\*Note: The serial number in the corresponding installation position for the accessories is same in ① ①  
Due to different drive models, the interface differences between models and other notes please refer to page 17 for specific instructions

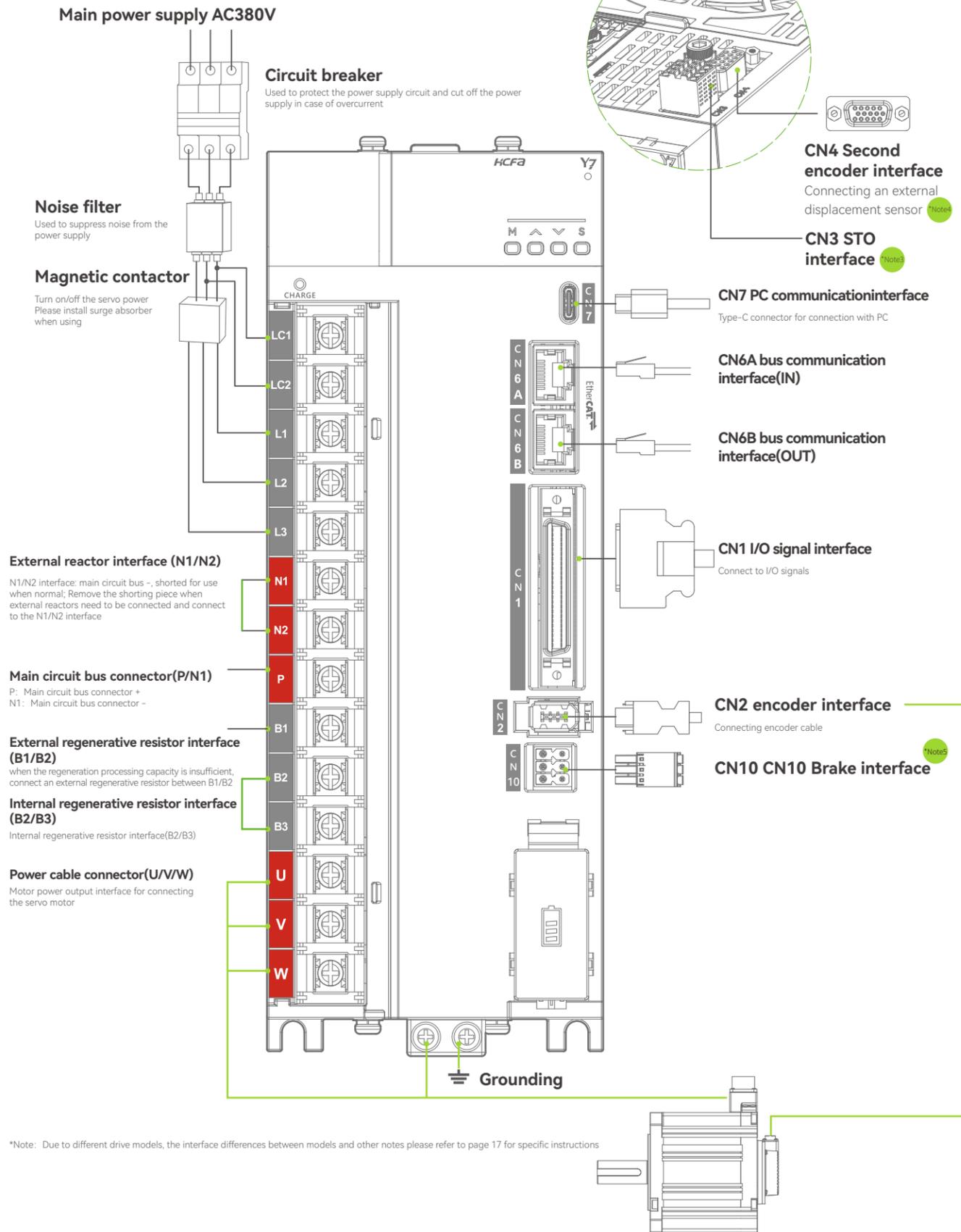
### AC380V Models of 5kW

#### Main power supply AC380V



\*Note: Due to different drive models, the interface differences between models and other notes please refer to page 17 for specific instructions

**AC380V Models of 6/7.5KW**

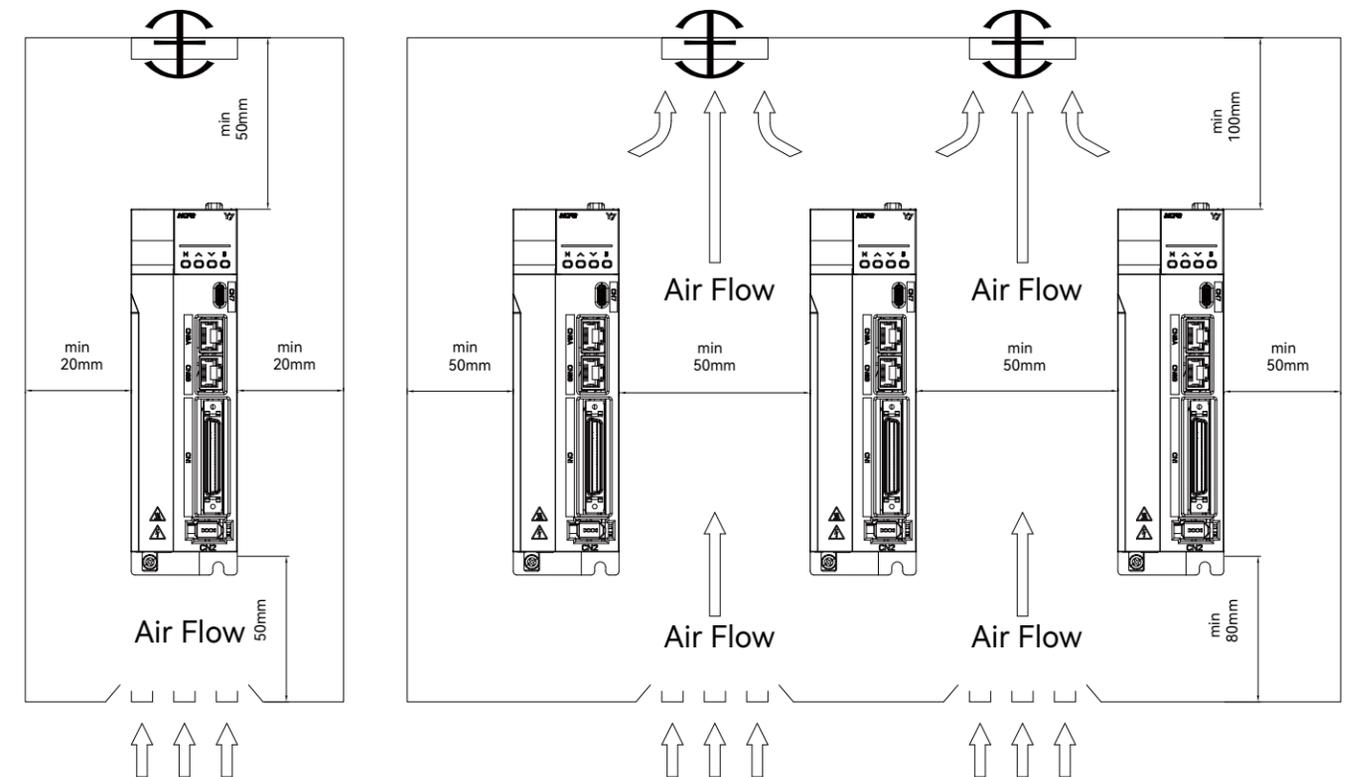


\*Note: Due to different drive models, the interface differences between models and other notes please refer to page 17 for specific instructions

**Key points for proper wiring**

1. The power supply of control circuit and main circuit should be wired from the same main power supply.
2. Please use twisted pair cable with shield for user I/O cable.
3. Use thick wire (2.0mm<sup>2</sup> or more) for the grounding cable if possible.
4. Ground the 220V power input type servo unit with a grounding resistance of 100Ω or less; Ground the 380V power input type servo unit with a grounding resistance of 10Ω or less.
5. Must be a single point of grounding
6. When insulating between servo motor and machinery, please ground the servo motor directly.

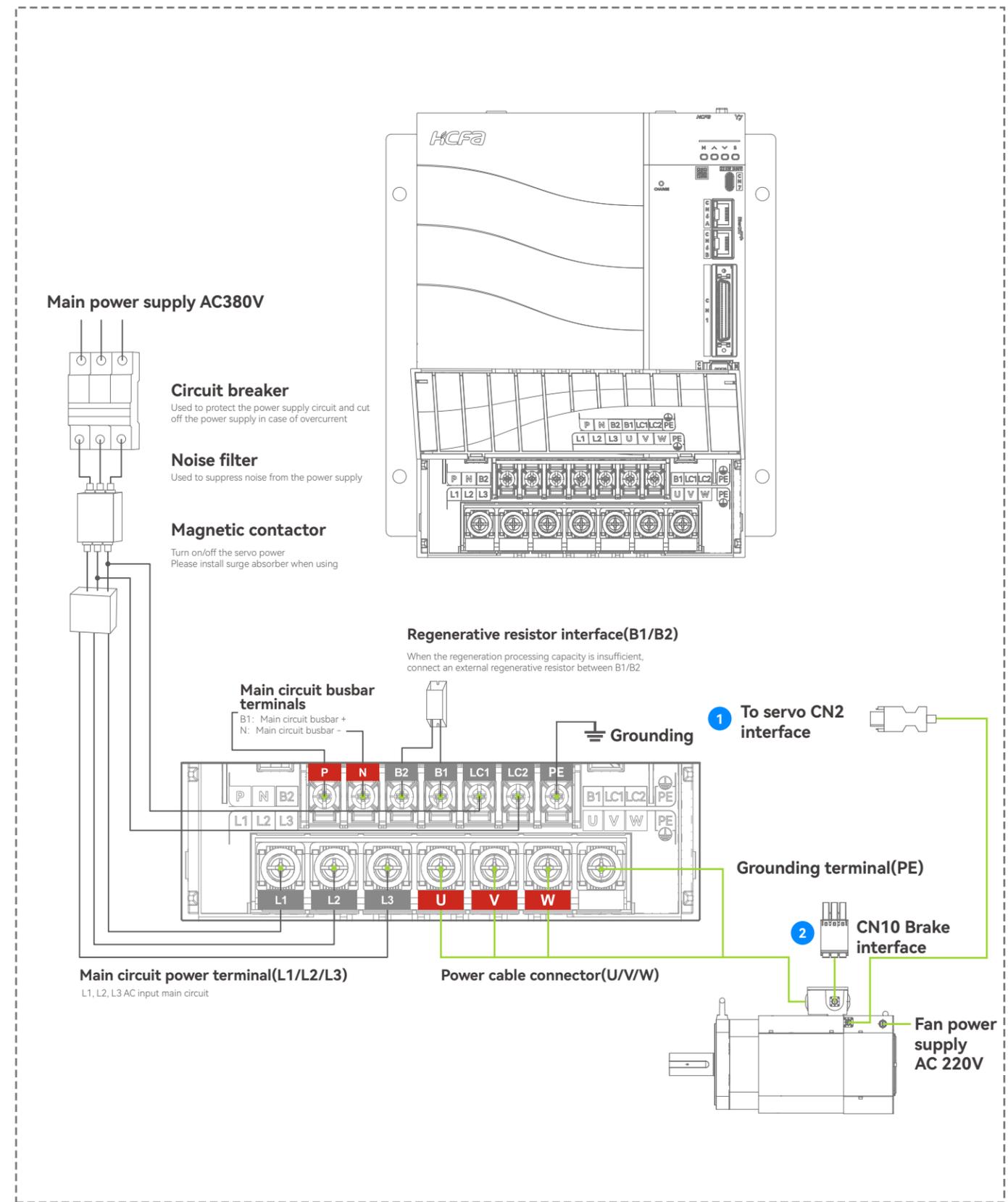
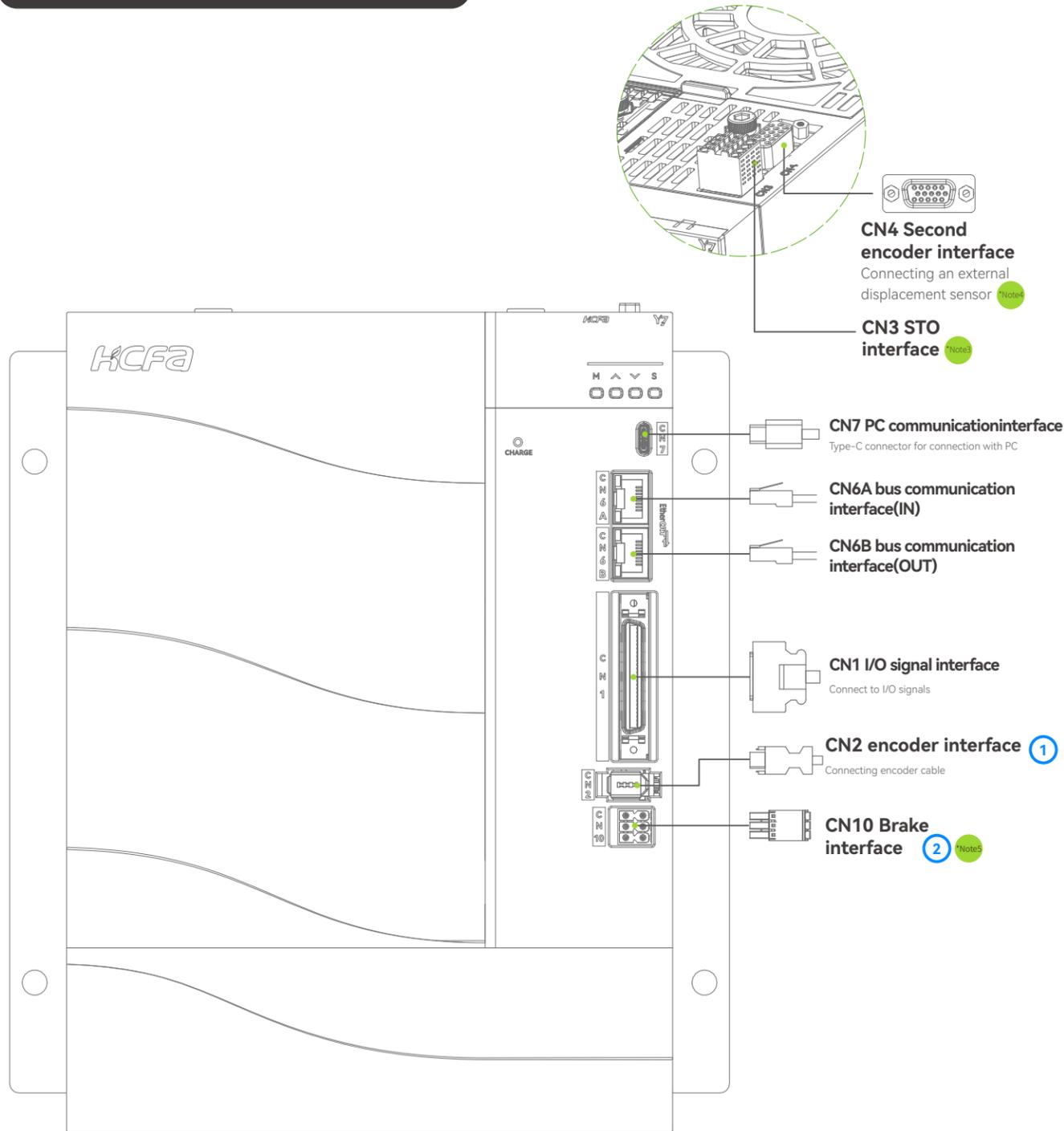
**When installing multiple servo units in the control cabinet, ensure that the following intervals are left around the servo units.**



**Installation attentions**

- 1. When installing the servo driver, do not seal its suction and discharge holes or place it upside down, otherwise it will cause malfunction.
- 2. In order to have a relatively low air resistance for the cooling fan to effectively dissipate heat, please follow the recommended installation interval distance when installing one or more drives.
- 3. Please avoid top-down alignment, because the heat generated by the lower row of the drive rises during operation, easily causing unnecessary temperature increase of the upper row of the drive.
- 4. Do not install heat source components such as braking resistors near the drive.
- 5. When the electric cabinet environment is in a high humidity environment, install a dehumidification device in order to avoid condensation.

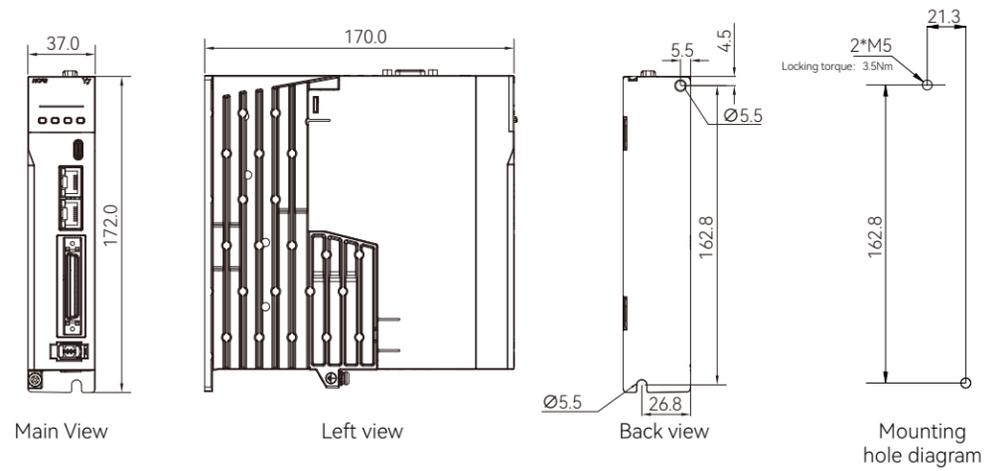
AC380V Models of 11/15/22KW



\*Note: The serial number in the corresponding installation position for the accessories is same in ① ①  
Due to different drive models, the interface differences between models and other notes please refer to page 17 for specific instructions

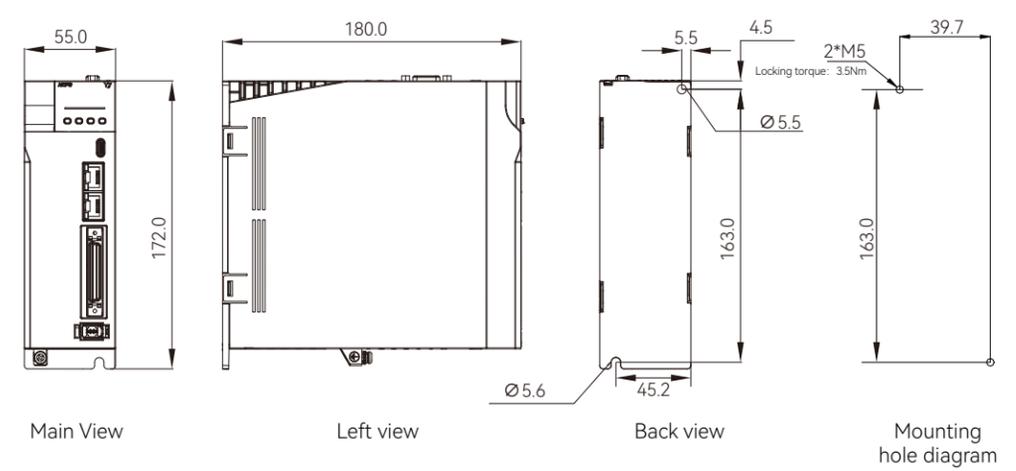
For 220V models of 400W (mm)

Weight: 0.76KG



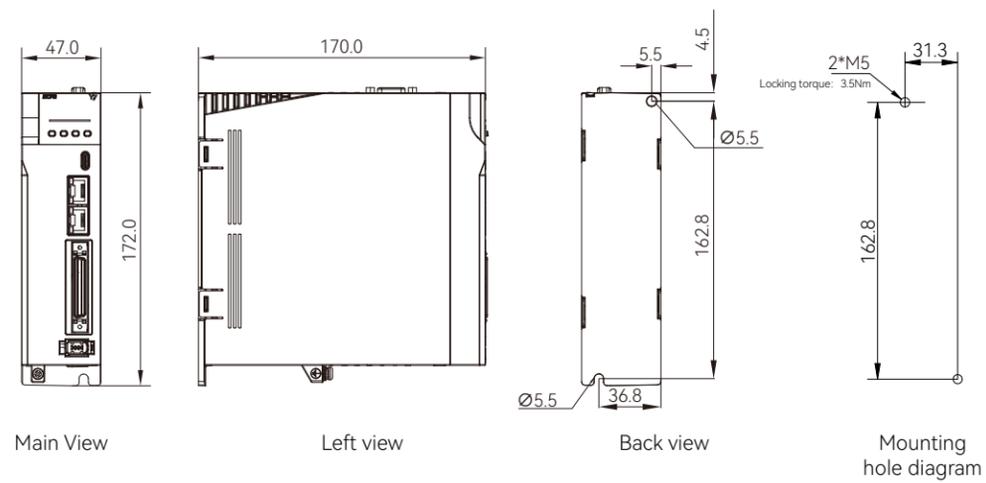
For 380V models of 1KW/1.5KW (mm)

Weight: 1.21KG



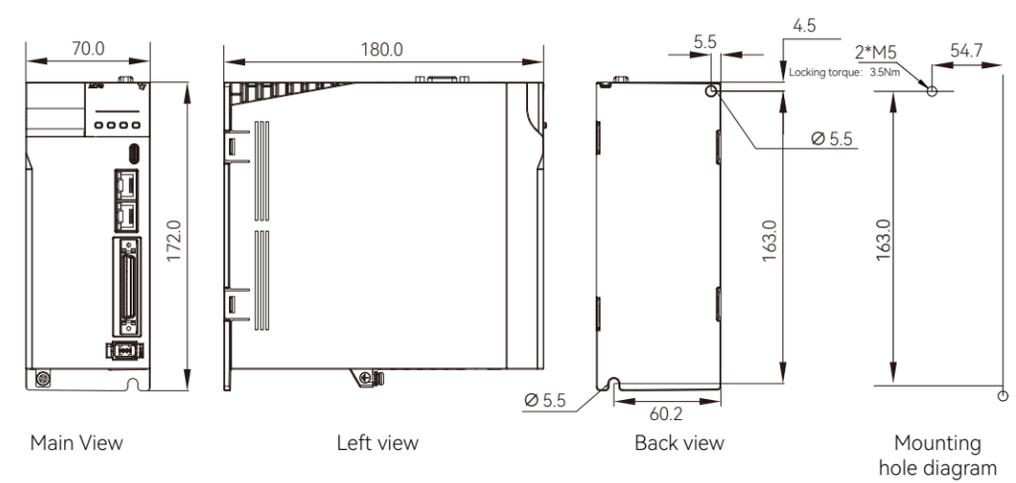
For 220V models of 750W/1KW (mm)

Weight: 1.01KG



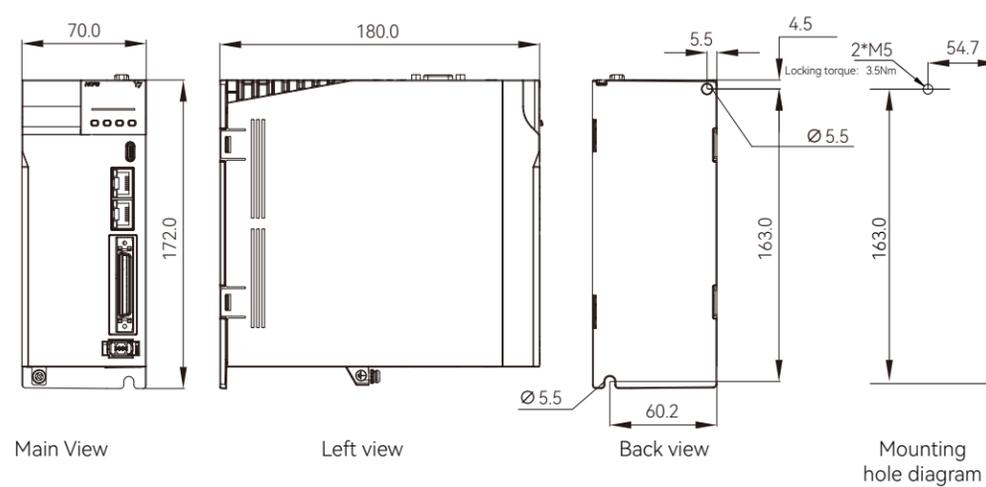
For 380V models of 2KW/3KW (mm)

Weight: 1.5KG



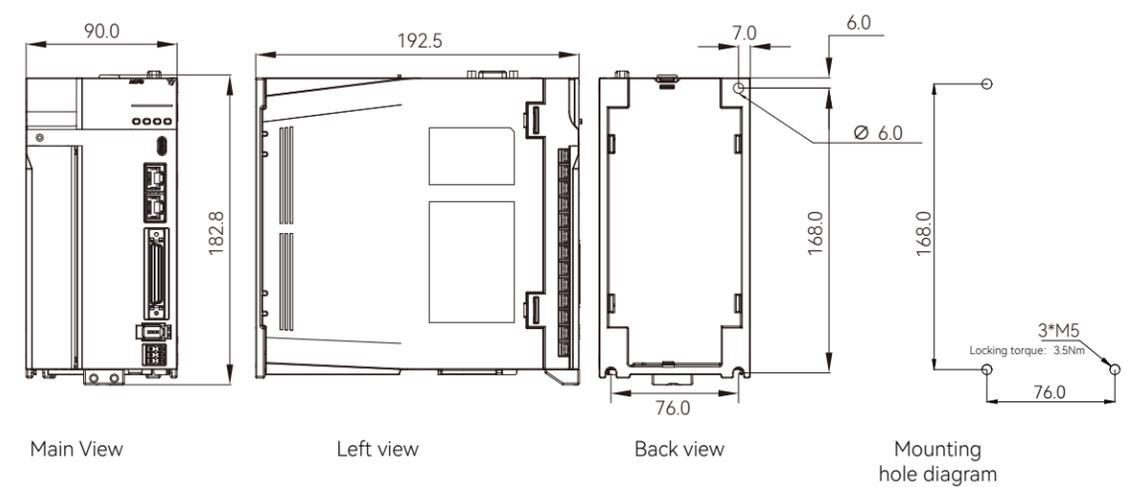
For 220V models of 1.5KW/2KW (mm)

Weight: 1.45KG



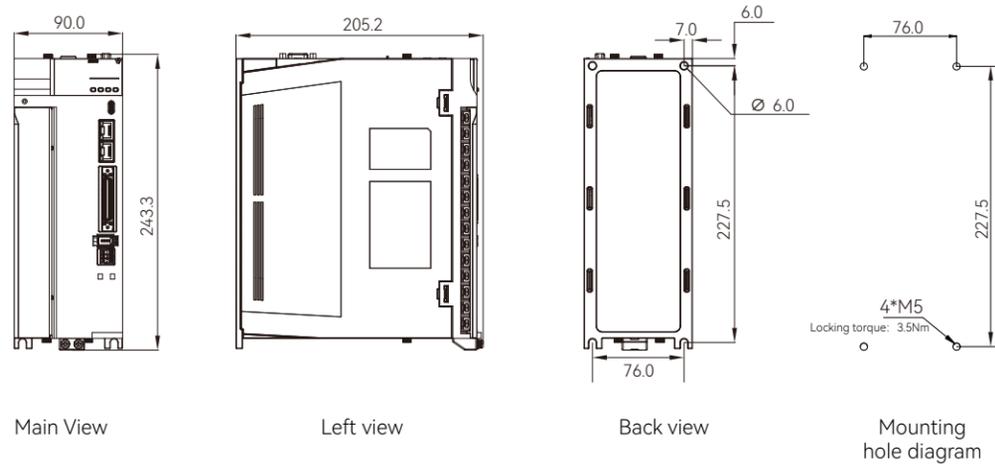
For 380V models of 5KW (mm)

Weight: 2.2KG

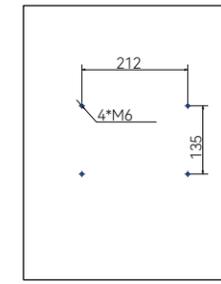


For 380V models of 6KW/7.5KW (mm)

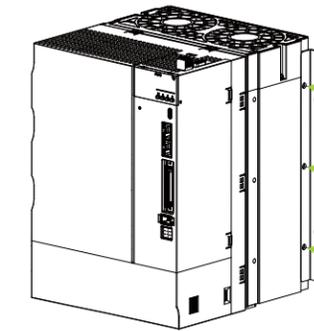
Weight: 3.6KG



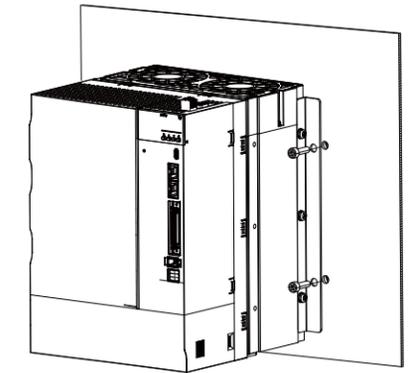
### Wall mounting



Step1  
Make four M6 threaded holes in the back panel of the electrical cabinet, the specific dimensions are shown in the figure



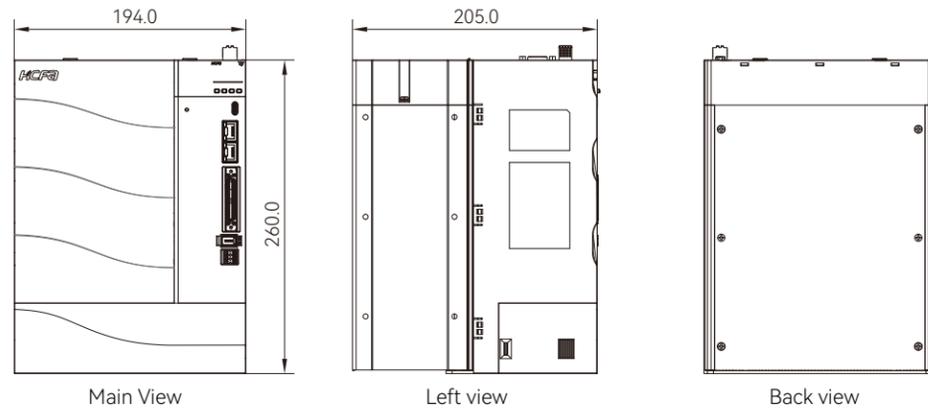
Step2  
Take out the mounting bracket and six M5\*12 screws from the package, fix the mounting bracket on both sides of the drive with screws, as shown in the figure.



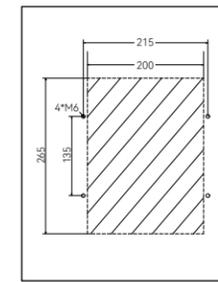
Step3  
Use M6 socket head cap screws to fix the drive to the back panel of the cabinet and ensure that it is secure with recommended locking torque of 3N·m

For 380V models of 11KW/15KW/22KW (mm)

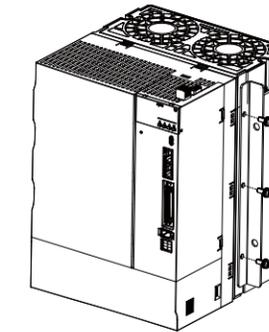
Weight: 8.77KG



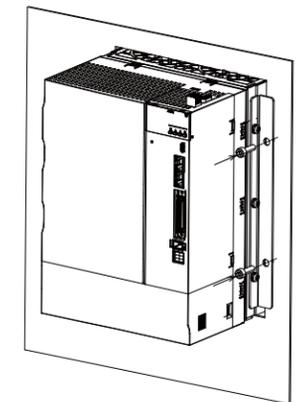
### Through-wall mounting



Step1  
Make four M6 threaded holes in the back panel of the electrical cabinet and remove the shaded area with the specific dimensions shown in the figure



Step2  
Take out the mounting bracket and six M5\*12 screws from the package, fix the mounting bracket on both sides of the drive with screws, as shown in the figure.



Step3  
Push the drive into the hole, and use M6 socket head cap screws to fix the drive to the back panel of the cabinet and ensure that it is secure with recommended locking torque of 3N·m.

### Attentions

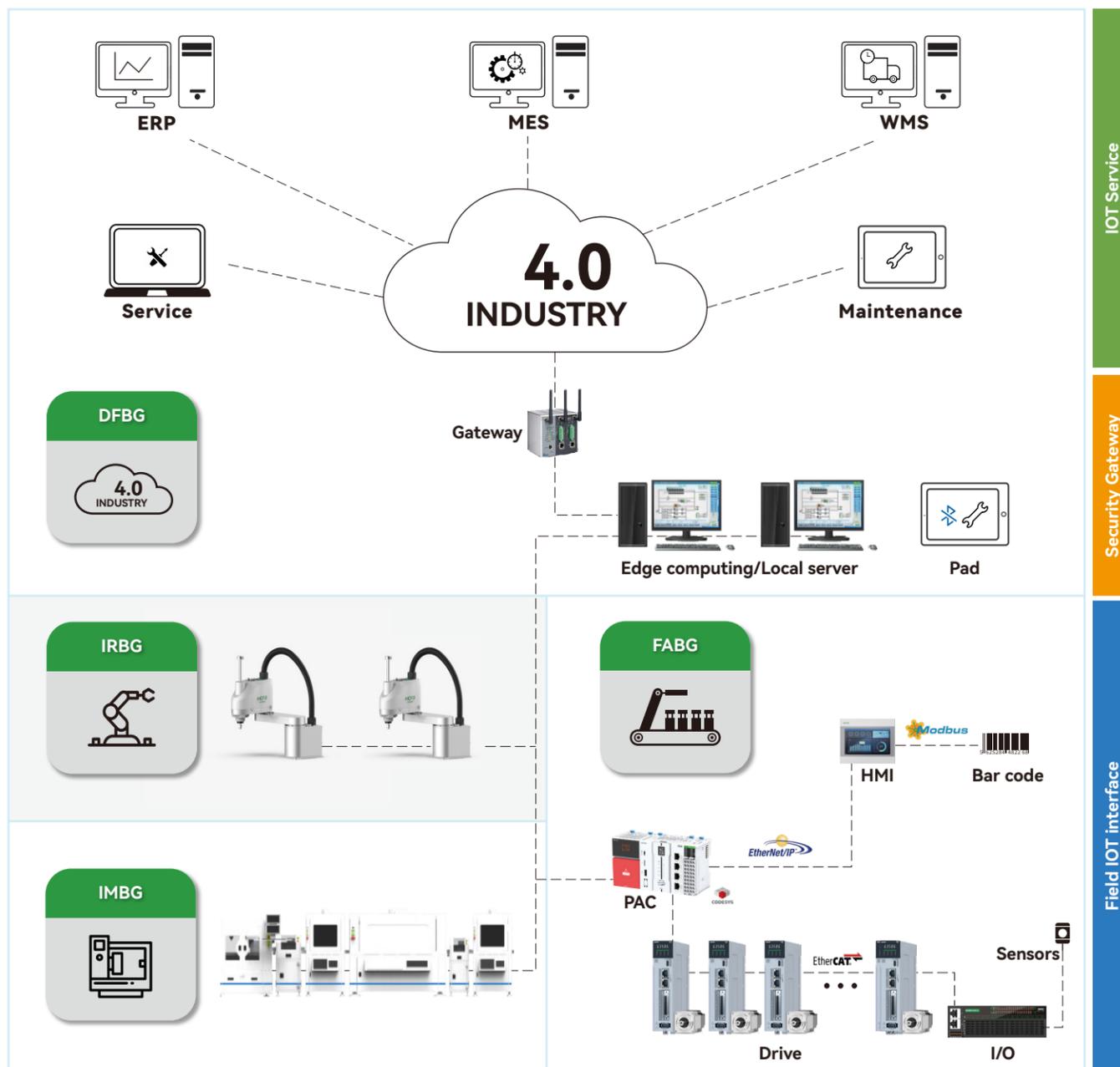
1. When installing the servo driver, do not seal its suction and discharge holes or place it upside down, otherwise it will cause malfunction.
2. In order to have a relatively low air resistance for the cooling fan to effectively dissipate heat, please follow the recommended installation interval distance when installing one or more drives.
3. Please avoid top-down alignment, because the heat generated by the lower row of the drive rises during operation, easily causing unnecessary temperature increase of the upper row of the drive.
4. Do not install heat source components such as braking resistors near the drive.
5. When the electric cabinet environment is in a high humidity environment, install a dehumidification device in order to avoid condensation.
6. Please refer to page 22 for other notes.

Better Work, Better Life



Be dedicated to creating values in automation industry

We not only provide the core components of industrial automation, but also engage in the industrial process, industrial robots, industrial machines, and digital factories, and can provide enterprises with comprehensive solutions of **automation + intelligent equipment + digitalization**



Zhejiang Hechuan Technology Co., Ltd., established in 2011, is a company that focuses on the research and development, manufacturing, sales and application integration of industrial automation products, and committed to providing core components and system integration solutions for smart factories.

The main products include controllers, servo systems, vision systems, encoders, VFDs, HMIs, electric rollers, precision transmission components, etc., covering the entire field of industrial automation.

We have newly established a 200-mu high-efficiency precision industrial transmission industrialization base. By introducing industry professionals, it has orderly promoted the industrialization application of precision guide rails, lead screws and other transmission components.

In November 2023, HCFA Technology and Bosch Rexroth signed a strategic cooperation agreement. Bosch Rexroth strategically invested in HCFA Technology and planned to cooperate to establish a subsidiary. Based on common innovation concepts and innovative thinking, the two parties will integrate their respective advantages, form resource complementarity, and carry out in-depth cooperation, striving to become ecological partners in the entire value chain of industrial automation and promote the further development of China's industrial automation industry.



Never stop to build up core competitiveness

R&D Centers  
**6**  
Set up nationally

R&D investment  
**10%+**  
Proportion of revenue

R&D personnel  
**300+**  
Elite gathering

- Established six R&D centers in Longyou, Hangzhou, Shenzhen, Dalian, Suzhou and Germany
- Self-designed ASIC and SOC chips, realize localization replacement
- First-class AMR magnetic technology/high-precision encoder in the industry