### A brand trusted by the world Customers in 60+ countries and from different industries.







### **Kinco**<sup>®</sup>**Automation**

www.en.kinco.cn Email:sales@kinco.cn

Add: Building 1, No.6 Langshan 1st Rd, Hi-tech Park North, Nanshan, Shenzhen, China. 518057 (All trademarks and logos in this brochure are property of and registered by their respective owners.)



Manfacturing A Better Life





- HMI

- Controller - Servo System - PLC - Stepper System - VFD

## Contents

# **Kinco**









### **About Kinco**

Shanghai Kinco Automation Co., Ltd. specializes in the research, development, production, and solution of core automation components and industrial IoT software and hardware products.

The company's products include HMIs, servo systems, PLCs, VFDs, and steppers, and are widely applied in robotics, logistics, packaging, food processing, HVAC, and other automation industries in over 60 countries. The IoT software and hardware include on-site smart terminals, gateways, data collectors, SaaS software, and data centers, mainly used in digital factory construction and production and marketing collaborative industries such as food and clothing.

Kinco takes "make Chinese manufacturers the world's top manufacturers" as its mission,

"manufacturing a better life" as its vision, and "growing with conscience, and innovating with craftsmanship" as the values to develop the company. We believe creativities can make a beautiful world.

Four R&D Centers | Two Manufacturing Bases

### HMI

For 18 years, we continue to provide high-quality HMIs with life cycles of up to 10 years.

Based on the Kinco EdgeAccess IoT platform tailored for OEM equipment manufacturers, Kinco HMI can be easily connected with the cloud IIoT platform such as Amazon Cloud.

- GREEN series
- GREEN series II
- FUTURE series II
- MASS series
- Industry-specific series

## **Motion Controller**

Combined with smart terminals, Kinco provides a one-stop solution for smart manufacturing.

- AK840 series - Rp20

### PLC

Recognized by customers for the competitive price, powerful performance, and simple design.

- K6S series - KS series - MK series

### Servo System

Applies Germany high-precision motor control technology, Kinco has 20 years of experience in servo development and application. With complete product line and reliable quality, Kinco servo can be applied in various industries such as robotics, logistics, 3C, medical, and new energy.

The servo motors include but are not limited to rotary servo motors, linear motors, and direct-drive motors. They can be equipped with incremental, magnetoelectric, communication, and multi-turn absolute encoders, and can be optionally equipped with outlet or aviation plug-in types.

- DC servo - AC servo

### **Stepper System**

Kinco steppers are built based on servo technology control platform. They have smaller size, stronger performance, programmable I/O port settings, support bus controls such as pulse, Modbus, CANopen, EtherCAT.

- FM series - CM series

Kinco Shanghai

JAT Kinco Shenzher

Kinco Chengdu

Kinavo Changzhou



Kinco Shenzhe







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### VFD

Kinco delivers VFDs with high quality, performance, and stability.

- KC100 series
- KC200 series
- FV20 series

## **GREEN** Series

High-quality, high-performance industrial HMI

With configuration software: Kinco Dtools

### Kinco adopts a new design with a strict process to create high-quality GREEN series HMIs.

XØ

The GREEN series adopts the mainstream processor in the market, ensuring a long-lasting life cycle and greatly improving the product performance.

### Powerful hardware and software, upgrades are more comprehensive

resistance



### **GREEN Series contain four subseries:**

isolated serial port (Ethernet model) - Main board Three-denfence treatment







GR series

Embedded type

4.3"-10"

## **GREEN Series**

### Main technical parameters of the product 1

GH Series	GH043/GH043E GH043U2/ GH043EU2		GH070/GH070E			GH104E				GH150E
G Series				G070/G070E/ G070E-CAN	G100/G100E			G121E	G121HE	
GL Series		GL043/GL043E		GL070/GL070E	GL100/GL100E		GL104E			GL150E
Display size	4.3"	4.3"	7"	7"	10.1"	10.4"	10.4"	12.1"	12.1"	15"
Resolution	480×272	480×272	800×480	800×480	1024×600	800×600	800×600	800×600	1024×768	1024×768
Backlight	LED	LED	LED	LED	LED	LED	LED	LED	LED	LED
Operating temperature	-20~55°C	0~50°C	-10~55°C	0~50°C	0~50°C	-10~55°C	0~50°C	-10~55°C	-10~55°C	-10~55°C
Installation hole size	146×81mm	119×93mm	194×113mm	192×138mm	261×180mm	299×219mm	299×219mm	340×250mm	339×249mm	383×283mm
Configuration software	Kinco DTools	V3.5.3 and abo	ove	1		1		1		

### Main technical parameters of the product 2

	GT070HE		GT100E				
GT Series	GT070HE-4G*	GT070E2	GT100E-4G*	GT100E	GT100E2/GT100E2-4G/ GT100E2-WIFI/	GT121E	GT150E2
	GT070HE-WiFi*		GT100E-WiFi*		GT100E2-CAN		
Display size	7"	7"	10.1"	10.1"	10.1"	12.1"	15"
Resolution	1024×600	1024×600	1024×600	1024×600	1024×600	1024×768	1024×768
Backlight	LED	LED	LED	LED	LED	LED	LED
Network	10/100M adaptive	2 x 10/100M adaptive	10/100M adaptive	10/100M adaptive	2 x 10/100M adaptive	10/100MHz adaptive	2 x 10/100M adaptive
Operating temperature	0∼50°C	0∼50°C	0∼50°C	0∼50°C	-10~55°C	-10~55°C	-10~55°C
Installation hole size	192×138mm	192×138mm	260×202mm	260×202mm	260×202mm	339×249mm	383×283mm
Configuration software	Kinco DTools V3.5.	Kinco DTools V3.5.3 and above					

\*Notes: "GT -4G" network: 10/100M adaptive, built-in 4G module; 

#### Main technical parameters of the product 3

GW Series	GW01	GW01-WiFi	GW01-4G	GR Series	GR Series GR043	GR Series GR043 GR070E
processor	ARM RISC 32Bit 80	00MHz		Display size	Display size 4.3"	Display size 4.3" 7"
storage	128MB NAND RAM	1+128MB DDR3 RAM		Resolution	Resolution 480×272	Resolution         480×272         800×480
	2*10/10014	self-adaption	2*10/100	Backlight	Backlight LED	Backlight LED LED
Network	2*10/100M self-adaption	2.4GHz wireless	self-adaption	Operating temperature	Operating temperature 0~50°C	Operating temperature 0~50°C 0~50°C
		WiFi module build in 4G module	Installation hole size	Installation hole size 107.2×68.9mm	Installation hole size 107.2×68.9mm 166×101mm	
Operating temperature	-10°C~55°C		Configuration software	Configuration software Kinco Dtool V3.5.1	Configuration software Kinco Dtool V3.5.1	
Dimensions	111.6*93.6*30 mn	n				
installation	DIN-Rail Mountin	g (35mm)				

\*For more models and technical parameters, please refer to HMI product selection manual

HMI	SERVO	STEPPER	PLC	VFD

### Main technical parameters of the product 4



Provide high-performance, efficient development, and cost-effective HMI solutions for smart manufacturing equipment manufacturers!



### Product Specification

伺服

步进 PLC 变频器

GREEN Series II	G2070HE/G2070HE-WIFI/ G2070HE2	G2100E/G2100E-WIFI/ G2100E2	G2101E/G2101E2	G2121E2	G2150E2	G2156E2/ G2156E-WIFI	G2156E2
Display Size	7"	10.1"	10.1"	12.1"	15"	15.6"	15.6"
Resolution	1024x600	1024x600	1024x600	1024x800	1920x1080	1024x600	1920x1080
Backlight	LED						
Ethernet	G2070HE/G2070HE-WIFI: LAN1:10/100Mbps, G2070HE2: LAN0:10/100MHz; LAN1:10/100MHz	G2100E/G2100E-WIFI: LAN0:10/100 Mbps G2100E2: LAN0:10/100 Mbps; LAN1:10/100 Mbps	G2101E: LAN0:10/100 Mbps G2101E2: LAN0:10/100 Mbps; LAN1:10/100 Mbps	LAN0:10/10 LAN1:10/10	1 2	LAN0:10/100Mbps;	LAN0:10/100/ 1000Mbps
Operating temperature	0~50°C						
Cutout Size	192x138mm	260x179mm	260x202mm	299x219mm	383x283mm	381.5x245.5mm	381.5x245.5mm
Configuration Software	Kinco DtoolsPro		·				

## FUTURE series 2nd generation

A must-have smart terminal for high-end manufacturing

With new configuration software: Kinco DTools Pro



Based on more than 20 years of independent research and development experience in this field, Kinco integrates the latest IoT, big data, cloud computing, edge-device collaboration technology and launched the second-generation of FUTURE series HMI.

Work with Kinco DToolsPro software to provide a good user experience



8GB Large storage space 1GB memory

### Product Specification

FUTURE series II	F2070E2	F2100E2	F2121E2	F2150E2	F2156E2	F2156E2-PX
Display Size	7"resistor	10.1"resistor	12.1"resistor	15"resistor	15 inch resistor	15.6" capacitor
Resolution	800x 480	1024 x 600	1280 x 800	1024x768	1920 x 1080	1920 x 1080
Backlight	LED	LED	LED	LED	LED	LED
Network	LAN0: 10/100/1000MB LAN1: 10/100MB	LAN0:10/100/1000MB LAN1:10/100MB				
Working Temperature	• 0~50°C	0~50°C	0~50°C	0~50°C	0~50°C	0~50°C
Cutout Size	192×138mm	260×202mm	295×217mm	352×279mm	381.5×245.5mm	381.5×245.5mm
Configuration Software	Kinco DtoolsPro				•	·

HMI SERVO STEPPER PLC VFD
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# Adopt high-performance platform, multi-core high frequency CPU, large memory and storage





Every MASS product is carefully designed and produced with carefully selected components achieve a stable and reliable industrial HMI. With its streamlined hardware and easy-to-use configuration software, the MASS series is sufficient to meet more than half of the actual applications in the next few years.

### The "simple and practical" Mass series makes your products more competitive!



792MHz

new generation of CPU

ensures efficient operation







USB Host\*1 USB Slave\*1

standard for easy and

fast program download

USB master and slave ports are

able to communicate with controllers of different protocols

3 serial ports

- New appearance design

COM0/COM1 supports RS485

advanced visual beauty

### Product Specification 1

MT Series	MT043	MT043E	MT070	MT070E	MT070E-4G	MT100	MT100E
Display Size	4.3"	4.3"	7"	7"	7"	10.1"	10.1"
Resolution	480×272	480×272	800×480	800×480	800×480	1024×600	1024×600
Backlight	LED	LED	LED	LED	LED	LED	LED
Network	-	10/100M adaptive	-	10/100M adaptive	10/100M adaptive	-	10/100M adaptive
Working Temperature	0~50°C	0~50°C	0~50°C	0~50°C	0~50°C	0~50°C	0~50°C
Cutout Size	119×93mm	119×93mm	192×138mm	192×138mm	192×138mm	260×202mm	260×202mm
Configuration Software	Kinco DTools	· /					-

### Product Specification 2

MR Series	MR043	MR050
Display Size	4.3"	5"
Resolution	480×270	800×480
Backlight	LED	LED
Network	-	-
Working Temperature	0~50°C	0~50°C
Cutout Size	115×66mm	134.4×70.8mm (133.5 x 71mm compatible)
Configuration Software	Kinco DTools	

# Industry-specific HMI

**Special industrial HMI** 

### **Exclusive to certain industries**

### SZ7G handheld terminal



-Basic specifications: 7" TFT, 800x480 pixel, 16.77 million true colors; -Standard configuration: Three selection switch, emergency stop switch, high strength and anti ultraviolet material; grip switch, 10 custom buttons, 2 indicator lights; -Wide temperature LCD screen, working temperature - 20 °C ~ 60 °C; -Practical design: Both buttons and touch control, -Wider voltage input range, 9 ~ 36VDC wider application, more flexible choice; -Excellent internal structure design and application of silica gel pad  $make \, the \, screen \, excellent \, in \, shock \, absorption \, and \, shock \, resistance$ -Mobile operation: handheld terminal with 5 m cable as standard; -A variety of installation methods, suspension type, bracket type, etc -Equipped with military grade encoder switch, longer service life and

### G100E-LRF waterproof HMI



- The whole machine is IP65, shockproof and waterproof - Easy to use, USB flash drive update program

- Handheld mobile debugging

- Support multiple installation methods

### Product Specification

Model	SZ7G/SZ7GS/SZ7GE/SZ7GES	CZ6	G100E-LRF	MR2070HE
Display Size	7"	5.7"	10.1寸电阻	7"
Resolution	800×480	640×480	1024x600	1024×600
Backlight	LED	LED	LED	LED
Working Temperature	e 0~50°C	-20~70°C	0~50°C	0~50°C
Cutout Size (mm)	bracket/suspension Installation	171×125mm	260x202mm	166x101mm
Protection Level	IP65 (front panel)	IP65(whole machine, with USB port closed)	IP65 (whole machine)	IP65 (front panel)



### Cz6 for hash enviornment



-The shell is made of high temperature resistant,

more stable performance

-Rich communication interface, can port, support CAN open / CAN J1939, serial port, RS232 / RS485;

-IP65 protection grade of the whole machine

### MR2070HE embeded HMI



- Dual-core CPU, main frequency 1GHz

- 256MB storage + 128MB RAM

- Single wiring harness design, serial port and power supply integrated

- Embedded compact terminal, beautiful and convenient, saving space

- Ethernet port + serial port + USB (can be OTG to USB flash drive), multiple program download methods

- Widely used in desktop equipment, medical equipment, mobile robots, machine tool accessories, etc.





Modbus CANopen EtherCAT.

### Kinco FD5P series AC servo system

Product model : Product power : FD415P/425P 400W/750W/1000W

#### Main characteristics

- Support pulse control, Modbus, CANopen, EtherCAT
- Notch filter to achieve vibration suppression
- EASY Tune optimization and upgrade + online self-tuning
- Suitable for high-precision encoder applications
- S-curve control
- · Real-time synchronous control, improve productivity and multi-axis synchronous control accuracy
- 7 digital inputs, 5 digital outputs, and encoder output
- Overvoltage protection, undervoltage protection, overcurrent protection, overheating protection, short circuit protection

#### Applicable industry

- Robotics: SCARA robot, DELTA robot, and six-joint robot
- Packaging: slitting machines, pillow packaging, and stand-up bags
- Machine tool: engraving and milling machines, precision engraving machines, and laser cutting
- Logistics: sub-building lines and warehouse equipment
- Other occasions requiring high response speed and positioning accuracy

## **CD/FD2S** Series

Modbus CANopen EtherCAT

### Kinco CD/FD2S series AC servo system

Product model : Product power : Power supply voltage:

CD&FD412S/422S/CD423S 50W~2000W 1-phase/3-phase 200~240VAC

#### Main characteristics

- Supports MODBUS, CANopen, and EtherCAT, pulse, and analog control
- Supports EASY TUNE gain automatic adjustment, applicable to most scenarios
- Independent motor brake output interface, directly drives the motor brake
- 24VDC independent logic power input, keeps monitoring servo status after the main power supply is cut off
- Overvoltage, overcurrent, and overheating protection
- Supports incremental encoders and absolute encoders up to 24-bit, the maximum working temperature is 120 Celsius degree
- CE certification, ROHS environmental certification standards

### Applicable industry

- · Robotics: SCARA robot, DELTA robot, and six-joint robot
- Packaging: slitting machines, pillow packaging, and stand-up bags
- Machine tool: engraving and milling machines, precision engraving machines, and laser cutting
- Logistics: sub-building lines and warehouse equipment
- Other occasions requiring high response speed and high positioning accuracy

HMI	SERVO	STEPPER	PLC	
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VFD



CD&FD612S/622S 1000W~3000W 3-phase 380~415VAC

<sup>\*1</sup> Part of types. Please discuss with local sales director.



European high-performance bus servo system

Modbus CANopen EtherCAT

### Kinco JD series European bus servo system

Product model : Product power : Power supply voltage:

JD420/430 200W~2000W 1-phase/3-phase 200~240VAC JD620/630/640/650/660 1500W~7500W 3-phase 380~415VAC

### Main characteristics

- European-style terminal, no need for welding
- Support MODBUS, CANopen, EtherCAT communication protocols
- Support master-slave following and multi-axis synchronization
- Support full closed-loop control
- Accessible servo parameter setting system
- Support two-axis or multi-axis interpolation, and electronic cam
- Mechanical vibration suppression
- SIL3/Cat.3/PL safety (safe torque off)\*
- UL certification, CE certification, ROHS environmental certification standards

### Applicable industry

- Robotics: SCARA robot, DELTA robot, and six-joint robot
- Packaging: slitting machines, pillow packaging, and vertical packaging machinery
- · Machine tool: engraving and milling machines, precision engraving machines, laser cutting, and plasma cutting equipment
- Logistics: sorting lines and AVG
- Other occasions requiring high response speed and high positioning accuracy

#### \* Part of types. Please discuss with local sales director.

FD1X5 Series

low voltage servo system

Modbus CANopen

## Kinco FD1X5 series economical DC servo system

Product models:

FD125 power range: 200W~400W, power supply voltage: DC24V~70V, rated current 12A (up to 15Arms with auxiliary heat dissipation) FD135 power range: 750W, power supply voltage: DC24V~70V, rated current 20A (up to 30A with auxiliary heat dissipation)\*1 FD145 power range: 1kW~1.5kW, power supply voltage DC24V~70V, rated current 30A (up to 50A with auxiliary heat dissipation)\*1

Main Characteristics

- Brand-new control platform, three-ring bandwidth comprehensively improved
- Compatible with 485 and CAN communication at the same time
- Low driving efficiency has been comprehensively improved
- Automatically identify motor parameters
- S-curve and parameter self-tuning functions
- Motor temperature monitoring, over-temperature protection • CE certification, ROHS environmental certification standards

#### ■ Applicable Industry

- Logistics robots: automatic navigation freight robots, shuttle vehicles, and automatic parking robots
- Logistics equipment: fully automatic sorting lines and three-dimensional warehouses
- Medical equipment: small systems
- Other occasions requiring high response speed and high positioning accuracy

\*One model under development





### Kinco FD4S series economic DC servo system

Product model :

FD124S Power range: 200W~400W, power supply voltage: DC24V~70V, rated current 12A (up to 15Arms with auxiliary heat dissipation)

FD134S power range: 750W, power supply voltage DC24V~70V, rated current 20A (up to 25A with auxiliary heat dissipation)

FD144S power range: 1kW~1.5kW, power supply voltage DC24V~70V, rated current 30A

(up to 40A with auxiliary heat dissipation)

FD164S power range: 1.5kW~3kW, power supply voltage DC24V~70V, rated current 60A (up to 80A with auxiliary heat dissipation)

Note: FD124s, FD134s, FD144s plus auxiliary cooling current can reach 14arms, 25Arms and 40arms respectively, This value is measured by installing the driver on the oxidized black 6063 aluminum plate with length \* width \* height of 300 mm \* 300 mm \* 10 mm ED164S output current can reach80Arms. This value is measured by installing the driver on the oxildized back 6063 aluminum plate with length \* width \* 400mm\*400mm\*10mm

#### Main characteristics

- Support pulse, analog control.
- Support encoder signal output, master-slave.
- Support MODBUS, CANopen and EtherCAT communication control. \*1
- Low-voltage DC power supply, satisfy with requirements of moving car's power and power supply.
- New small-size terminal design, compact size and beautiful appearance.
- 3 times (For maximum) \*<sup>2</sup> overload design, increase response speed when car starts/stops.
- Over-current, over-heat, over-voltage and motor over-heat protection(I2T), ensure driving system in a safe state.
- All series products conform with CE verification and ROHS environment verification standard.

#### Applicable industry

- Logistics robots: Automatic navigation freight robot, multi-shuttle robot, automatic parking robot and etc.
- Logistics device: Sorting machine, tridimensional warehouse device and etc.
- Medical device: small size system.
- Other occasions: High response speed and high positioning precision.

## **OD** series

Modular servo system

Modbus CANopen EtherCAT

### Kinco OD series modular servo system

Product model:

**OD124S** Product power: 50W~400W, Power supply voltage: DC24V~70V, Rated current 10A OD134S Product power: 400W~750W, Power supply voltage: DC24V~70V, Rated current 20A **OD134S** Power range: 50W-400W, Power supply voltage: DC24V~70V, Rated current 20A

#### Main characteristics

- Mini size, modularization design, rapidly make up multi-driving cases.
- · Embedded design, can make driver embedded into customer control system, achieve integration of drivers and controllers.
- Support pulse, analog control.
- Support encoder signal output, slave-master.
- Support MODBUS, CANopen and EtherCAT communication control.
- · Low-voltage DC power supply, satisfy with requirements of moving car's power and power supply.
- New small-size terminal design, compact size and beautiful appearance.
- 3 times (For maximum) \* overload design, increase response speed when car starts/stops.
- Over-current, over-heat, over-voltage and motor over-heat protection(I2T), ensure driving system in a safe state.
- · All series products conform with CE verification and ROHS environment verification standard.

#### Applicable industry

- · Logistics device: Sorting machine, tridimensional warehouse device and etc.
- Medical device: small size system.
- Other occasions: High response speed and high positioning precision.

\*1 Choose driver type according to different CAN bus requirement

\*2 Overload ability is limited by motor and driver setting, Please discuss with local sales director



· Logistics robots: Automatic navigation freight robot, multi-shuttle robot, automatic parking robot and etc.

<sup>\*</sup> Overload ability is limited by motor and driver setting, Please discuss with local sales director.

## **iSMK** Series integrated servo drive motor



Modbus CANopen

## Kinco iSMK series integrated servo drive motor

#### Product models:

iSMK60 power range: 200W, power supply voltage DC24V-70V, rated current 7A iSMK60 power range: 400W, power supply voltage DC24V-70V, rated current 12A iSMK80 Power range: 750W, power supply voltage DC24V-70V, rated current 23A

### Main Characteristics

- 300% overload capacity
- Support CANopen, Modbus RTU
- Multiple safety protection such as overvoltage protection, undervoltage protection, short circuit protection, motor overheating (IT) protection, and driver overheating protection
- · Can be equipped with an integrated reducer as standard, suitable for rotating and jacking
- CE certification, ROHS environmental certification standards

■ Applicable Industry

- · Logistics robots: automatic navigation freight robots, shuttle vehicles, automatic parking robots, etc.
- Logistics equipment: fully automatic sorting lines, three-dimensional warehouses, etc.
- Medical devices: small systems
- Other occasions requiring high response speed and high positioning accuracy

## MD60/MD80 series

Modbus CANopen EtherCAT

### Kinco MD series modularization servo system

Product model :

MD60 prower range 200w, power supply DC24V-70V, rated current 5A MD60 prower range 400W, power supply DC24V~70V, rated current 10A MD80 prower range 750W, power supply DC24~70V, rated current 20A

### Main characteristics

- Compact structure
- The product integrates servo driver and low-voltage servo motor, which is smaller and saves installation space
- High reliability
- The connection line between the motor and the driver is omitted to reduce the equipment failure caused by connection problems and reduce the equipment failure rate
- Lower cost
- Save connecting cable and reduce equipment cost effectively

### Applicable industry

- Logistics robots: Automatic navigation freight robot, multi-shuttle robot, automatic parking robot and etc.
- · Logistics device: Sorting machine, tridimensional warehouse device and etc.
- Medical device: small size system.
- Other occasions: High response speed and high positioning precision.



## **iWMC** Integrated servo wheel module



## Kinco iWMC integrated servo wheel module

Product models:

iWMC10409-02222-A165-MBDT with brake iWMC10409-02222-A165-MADT without brake iWMC10409-02222-0000-MBDT with brake, without rubber-coated wheels iWMC10409-02222-0000-MADT does not come with brake or rubber-coated wheels

### Main Characteristics

- Fully integrated design, the four modules of wheels, reducer, servo motor, and driver (including encoder) are integrated
- Optimize the installation structure, make the installation faster and easier
- Dual power supply design, makes the system safer and more reliable
- Optimize the design of the reducer, with low noise and low temperature rise

Application scenarios

Mobile robots with loads below 600 kg

## **FMC** Series **Frameless torque motors**



Frameless torque motors are different from traditional servo motors in that they only have the stator and the rotor, making them flexible in configuration and easy to install. Based on the current trend of highly integrated servo systems, frameless motors are more in line with engineers' goals and expectations as they do not need to consider the motor interface like traditional designs. The space occupied by the power output unit in the drive system can be minimized to achieve higher system integration.

### Main features

- Lightweight and thin, faster and smoother movement, smaller size and lower temperature rise under the same torque
- Through in-depth optimization of the electromagnetic scheme, higher torque density is obtained, with multi-slot poles and small cogging torque.
- Product sizes that are in line with international standards can seamlessly replace main stream foreign products and match the size of mainstream harmonic reducers in the market
- Various frame sizes and larger hollow inner diameter can meet customers' diverse stringing needs, covering 3-25kgload requirements
- Provide customization: optional Hall, temperature sensors, etc., with obvious cost advantages
- The digital factory continues to produce stably, with global distribution and offices in many places in China to provide support and services.



## **Servo Motor**



Motor flange	Power	Torque	Rated working voltage
40 flange motor	50W, 100W	0.16Nm~0.32Nm	48VDC, 220VAC
60 flange motor	100W, 200W, 300W, 400W, 600W	0.64Nm~2Nm	24VDC, 48VDC, 220VAC
80 flange motor	400W, 750W, 1000W	1.27Nm~3.18Nm	48VDC, 220VAC, 380VAC
110 flange motor	1050W, 1260W, 1570W, 1880W	4Nm~6Nm	48VDC, 220VAC, 380VAC
130 flange motor	1000W, 1500W, 2000W, 3000W	4.8Nm~14.3Nm	48VDC, 220VAC, 380VAC
150 flange motor	2300W, 3000W, 3500W, 3800W	11Nm~18Nm	380VAC
180 flange motor	3500W, 4400W, 5500W, 7500W	27Nm~48Nm	380VAC

### Motor

2	

SMH series motor

European design, excellent performance, low cogging torque, low temperature rise Can install incremental, communication, single/multi-turn absolute encoder Can match with exported/domestic aviation plug

SMC series motor

High cost-performance ratio, low cogging torque Can install magnetoelectric, incremental, single/multi-turn absolute encoder Can match with outgoing line/domestic aviation plug



SMG series motor

Low cogging torque, high protection Support multiple incremental, absolute value magneto electric and optoelectronic encoders Customizable cable length

## **Stepper Driver**

M Ser	ies Field bus Stepper Driver	CN
Product m	odel:	Pro
	Power supply voltage: DC24V~70V, Output current: 0.15~8A Power supply voltage: DC24V~70V, Output current: 0.15~10A	2 3 C
ı Main fe	eatures	= M
• Sup	port MODBUS, CANopen, EtherCAT protocol. port RS232 communication, parameter ngs by KincoStep software.	

- Support PLS+DIR, CW/CCW and A+B signal.
- Multiple I/O functions, supporting homing, multi-speed, multi-position and lots of other control mode.
- Support automatic parameter adjustable regulation, self-defined shalf-lock, step smooth filter.
- Over-voltage, under-voltage, overheat and overcurrent protection.
- 2-phase(42,57,86) and 3-phase(57,85) hybrid stepper motor (drive current is under 6A).

### ■ Applicable industry

F

• Electronic device fabrication, Special machine tool, Industrial robot, Inkjet printing device, Clothing textile device, Logistics device, Medical device, AGV, Package device, etc.

HMI	SERVO	STEPPER	PLC

VFD



### **M Series Stepper Driver**

oduct model:

2CM525、2CM545、2CM560、2CM860、2CM880、 3CM880、CM422B、CM442C、 CM880A, CM880B, CM880C

#### Main features

- Support PLS+DIR, CW/CCW.
- Micro-step filter function to make motor run stably at low speed.
- Wide voltage range for signal input, easy to wire.
- Parameter self-adaptive function to make motor run smoothly according to different motor type.
- Compact size to save installation space.

# **Stepper Motor**



• 3-phase series

Kinco 2-phase and 3-phase hybrid stepper motors are made of high quality CRS (Cold Rolled Steel) and thermostability permanent magnet. The flange size of 2-phase series ranges from 42mm to 130mm, the 3-phase series are of 57mm and 85mm. Kinco stepper motors feature low temperature rise, high reliability and stability, which make Kinco stepper motors suitable for different industries under different ambient conditions.

### Motor list

	Cine	Cine	Cine		Holding	Phase cu	irrent (A)	Winding	Winding	Motor inertia	Number	Shaft diameter				
Phase	Size	Product model	torque (N.m)	Series	Parallel	resistance (Ω)	inductance (mH)	(Kg.cm <sup>2</sup> )	of lead wires	(mm)	Shaft type	Motor length (mm)	Weight (Kg)	Step angle (°)		
	42	2S42Q-0240	0.22	0.4	0.4	12.5±10%	21±20%	0.054	4	5	No key	40	0.28	1.8		
	42	2S42Q-0348	0.34	0.7	1.4	4.6±10%	4±20%	0.068	8	5	No key	48	0.36	1.8		
		2S57Q-0541	0.5	0.7	1.5	3.6±10%	4.1±20%	0.135	8	6.35	Platform	41	0.45	1.8		
		2S57Q-0956	0.9	1.96	3.92	0.8±10%	1.2±20%	0.3	8	6.35	Platform	56	0.7	1.8		
		2S57Q-1376	1.3	1.96	3.92	1±10%	2.1±20%	0.48	8	6.35	Platform	76	1	1.8		
	57	2S57Q-2280	2.2	2.8	5.6	0.8±10%	1.8±20%	0.53	8	8	Platform	80	1.1	1.8		
		2S57Q-25B2	2.5	2.9	6	1±10%	1.8±20%	0.8	8	8	Platform	112	1.7	1.8		
2-phase	86	2S86Q-3465	3.4	6	6	0.3±10%	1.7±20%	1	4	13	Flat key	65	1.7	1.8		
2-priase		2S86Q-4580	4.5	6	6	0.38±10%	3.5±20%	1.4	4	13	Flat key	80	2.3	1.8		
		2S86Q-85B8	8.5	6	6	0.6±10%	6±20%	3.4	4	13	Flat key	118	3.7	1.8		
		2S86Q-051F6	12.8	6	6	0.85±10%	10±20%	4	4	15.875	Flat key	156	5.3	1.8		
	110	2S110Q-03999	11.7	5.5	5.5	0.7±10%	9.8±20%	5.5	4	19	Flat key	99	5	1.8		
		2S110Q-047F0	21	6.5	6.5	0.72±10%	12.8±20%	10.9	4	19	Flat key	150	8.4	1.8		
		2S110Q-054K1	30	8	8	0.67±10%	11±20%	16.2	4	19	Flat key	201	11.7	1.8		
	130	2S130Y-063R8	40	7	7	0.9±10%	9.5±20%	48.4	4	19	Flat key	230	19	1.8		
2 phose	57	3S57Q-04056	0.9	5.6	5.6	0.7±10%	1.7±20%	0.3	4	6.35	No key	56	0.72	1.2		
3-phase	57	3S57Q-04079	1.5	5.8	5.8	1.05±10%	2.4±20%	0.48	4	8	No key	79	1	1.2		
2	85	3S85Q-04097	4	5.8	5.8	1.1±10%	4.6±20%	2.32	4	12	Whitney key	97	2.7	1.2		
3-phase	60	3S85Q-040F7	7.5	4	4	1.78±10%	17.1±20%	0.44	4	14	Flat key	157±1	5.3	1.2		

# **Motion controller**

The perfect combination of intelligent terminal, motion controller and robot controller provides one-stop solution for intelligent manufacturing

As the ideal choice of high-end intelligent equipment, Kinco multi axis motion controller has the characteristics of powerful function, fast calculation speed, simple and easy to use. It is widely used in robot, 3C electronics, new energy, intelligent manufacturing and other fields.



### Model parameters of motion controller

Model and specifications	AK8X0
AK840M-0808DTN	32-axis EtherCAT bus-based motion co
Technical Specifications	
Rated Input Voltage	24V DC +/-20%
Rated Power	6W(CPU unit only)/20W(Full-load)
Protection	Short Circuit Protection Reverse Cor
Communication Interfaces	1*EtherCAT 2*Ethernet 1*RS-485
Expansion	K-bus
Motion Control	Supports motion control functions su
	interpolation, etc., for 8 to 32 axes wit
Program Memory	32MB
Data Memory	32MB
Non-volatile Storage	1MB
DISpecification	
Туре	PNP/NPN
Input-channel	8
Rated Input Voltage	24V DC, with a maximum allowable vo
Input Impedance	5.4K
Logic Level "0"	<5V,0.8mA
Logic Level "1"	>11V,2mA
Input Delay	<2.5uS
Isolation	Optoelectronic isolation, 500VAC per
Status Indicator	Corresponding LED lights up in green
DO Specification	
Туре	NPN(transistor)
Output-channel	8
Rated Input Voltage	24V DC, with a maximum allowable vo
Output current per channel	500mA @ 24V DC Max.
Output Leakage Current	Max. 10µA
Output Impedance	Max. 0.3Ω
Output Delay	<5uS
Protection	Inductive Leoad Output Protection
Isolation	Optoelectronic isolation, 500VAC per
Status Indicator	Corresponding LED lights up in green

|--|



### AK840 Series EtherCAT Bus-based Controller

CPU: Quad-core 64-bitArm Cortex-A53,1.4GHZ

Standard Platform: Fully supports IEC31131-3 standard CoDeSyS programming software Capability: EtherCAT bus, enabling synchronous motion control for up to 32 axes Modular Design: Modular and compact design, equipped with 8 digital inputs and 8 digital outputs

ontroller
nnection Protection Surge Suppression
L*USB OTG
ch as electronic gearing, electronic cam,
h a cycle time of 1ms to 4ms.
ltage of 30V DC
ninute
when an input signal is detected
ltage of 30V DC
Short Circuit Protection
ninute
when an output signal is detected

# **RP20 Series I/O Module**



## **PLC** K6S/MK series

Easy to operate, cost-effective





Expansion Bus: EtherCAT bus protocol, fast data response, strong expansion capability Modular Design: Compact and easy-to-installed modular design, with independent modules, pluggable terminals, high integration

K-bus: Kinco-RP20 series dedicated bus, with microsecond-level IO refresh



Kinco K6S series PLC is a compact modular PLC. The modular plug-in design saves more than 50% of the horizontal installation space, and the wiring can be tightened without tools, making the installation and maintenance process simpler and more efficient. Despite the simple design, it is also equipped with a powerful core, integrating high-speed input/output, Ethernet, CAN, RS485 and other conventional functional interfaces, further improving the flexibility, reliability, efficient control and other performance, providing reliable control solutions for industrial automation systems.

Main features

### Specification

Description
EtherCAT-Based Bus Coupler
24V DC +/-20%
2W(Coupler unit only)/20W(Full-load)
Short Circuit Protection
Reverse Connection Protection
Surge Suppression
Rate: 100Mbps
Typical IO Refresh: With 16 RP20 modules, achievable down to 60us
Comparison to up to 10 DD20 Extransion Machine
Supports up to 16 RP20 Expansion Modules
or Kinco-RP20 series.

### Product List

Model	Description
RP20C-ECT	EtherCAT-Based Bus Coupler
RP20-0016DTP	DO 16*24V DC, PNP
RP20-0016DTN	DO 16*24V DC, NPN
RP20-1600DT	DI 16*24V DC
RP20-0808DTP	DI 8*24V DC, DO 8*24V DC, PNP
RP20-0808DTN	DI 8*24V DC, DO 8*24V DC, NPN
RP20-0008DR	DO 8* Relay
RP20-0400IV	AI *4: 4-20mA/1-5V/0-20mA/0-10V/0-5V
RP20-0400RD	AI 4* RTD
RP20-0400TC	AI 4* TC
RP20-0004IV	AO *4: 4-20mA/1-5V/0-20mA/0-10V/0-5V
RP20-0202IV	AI *2: 4-20mA/1-5V/0-20mA/0-10V/0-5V AO *2: 4-20mA/1-5V/0-20mA/0-10V/0-5V
RP20-PW	Power supply module, Powered by 24V DC, Rated Power:20W



## Kinco MK Series PLC

### Main features

software of Kinco

of 115.2kbps



## Kinco K6S Series PLC

- 8K instruction program storage space, 20K bytes data storage space
- Integrated real-time clock (RTC), 1 Ethernet interface, 2 RS485, 1 CAN interface
- (both RS485 and CAN interfaces have built-in isolation)
- Integrated 4 channels of high-speed pulse output (all channels support PTO and PWM mode output), 4 channels of high-speed input counting (supports single/double/phase, AB quadrature mode)
- Expansion port plug-in design, can connect up to 16 extensions, rich combinations

The Kinco MK series is an economical HMI+PLC combined product that supports IoT functions. The MK series, based on the cost-effectiveness of the HP series, uses a high-performance CPU and applies the Dtools software platform to support rich screen components and functions. In addition, it combines the Kinco machine IoT technology platform to provide remote upload and download, transparent PLC, VNC monitoring, equipment management and other remote operation and maintenance functions to provide more value to users.

- Built-in IoT function, supports program download, transparent transmission of PLC, VNC monitoring, equipment management and other remote operation and maintenance functions - The HMI uses industrial-grade CPU, large-capacity storage, and supports the Dtools programming
- Equipped with Ethernet interface, which can be connected to Ethernet devices, supports USB expansion storage, etc., which is convenient for connecting more peripherals
- 8\* KS expansion modules can be connected to meet the various application needs
- 4\* high-speed pulse counters, and the maximum counting frequency of the pulse counters is 50KHz - 4\* high-speed pulse outputs, support PTO (pulse train) and PWM (pulse width modulation) output
- The PLC part contains 2 RS485 interfaces, PORT1 and PORT2, with a maximum communication rate

### PLC

### Kinco PLC module table

Series	Туре	Order Number	Description
	CPU module	K615S-16DT	Powersupply: DC24V DI: 8*DC24V(PNP/NPN), DO 8*DC24V(PNP) Support 3 channels of high-speed input at 200KHz, 1 channel at single-phase 20KHz/double-phase 10KHz Support 3 channels of high-speed Output output at 200KHz, 1 channel at maximum 10KHz CommunicationInterfaces: 2*RS485,1*Ethernet, 1*CAN
			Support connecting up to 16 K6S-series expansion modules
		K621S-16DX	DI 16*DC24V(NPN/PNP)
		K622S-16DT	DO 16*DC24V(PNP)
		K622S-16DR K623S-16DT	
K6S		K622S-16DT	DI 8*DC24V(NPN/PNP), DO 8*DC24V(PNP) DO 16*DC24V (NPN)
		K633S-06IV	12-bit resolution, accuracy 0.3% F.S. (Full Scale)
		K0353-0014	A1*4: 4-20mA, 1-5V,0-20mA, 0-10V
			AO*2: 4-20mA, 1-5V,0-20mA, 0-10V
		K631S-04TC	4 channels of thermocouple input
	Expension		SupportJ-type, K-type, E-type, T-type thermocouples
	I/O		Coldjunction compensation, external compensation optional
	module		24-bit resolution, accuracy 0.1% F.S. (Full Scale)
		K631S-04RD	4 channels ofthermal resistance (RTD) input
			Support Pt100, Cu50, Pt1000 resistance forms
			Support two-wire, three-wire, connection methods
			24-bit resolution
			Temperature:+0.6°C; Resistance:+10
			Powered by DC24V, 1*USB SLAVE (USB-B, shared by PLC and HMI), supporting programming protocols
		MK070E-33DT	PLC: DI 16DC 24V (NPN/PNP), DO 14*DC24V(PNP), AI 2*IV, AO 1*IV, 2*RS485, 1*Expansion interface (support up to 8 KS modules)
			HMI: 7* TFT, 1*USB HOST (USB-A), 1*Ethernet interface, supports M-oT function
			Powered by DC24V, 1*USB SLAVE (USB-B, shared by PLC and HMI), supporting programming protocols
		MK070E-32DX	PLC: DI 16*DC24V (NPN/PNP), DO 4*DC24V (PNP)+ 12*Relay, 2*RS485, 1*Expansion interface (support up to 8 KS modules)
			HMI: 7* TFT, 1*USB HOST(USB-A), 1*Ethernet, supports M-IoT function
			Powered by DC24V, 1*USB SLAVE (USB-B, shared by PLC and HMI), supporting programming protocols
		MK043E-20DT	PLC: DI 9*DC24V, DO 9*Relay, Al 2*vol tage, 2*RS485, 1*Expansion interface (support up to 8 KS modules)
			HMI: 4.3" TFT, 1*USB HOST (USB-A), 1*Ethernet, supports M-IoT function
			Powered by DC24V, 1*USB SLAVE (USB-C, shared by PLC and HMI), supporting programming protocols
		MK043E-27DT	PLC: DI 10*DC24V (NPN/PNP), DO 10*DC24V (PNP), DIO 4*DC24V, A1 2*IV, AO 1*IV, 2*RS485, 1*Expansion interface (support up to 8 KS modules)
			HMI: 4.3" TFT, 1*USB HOST (USB-A), 1*RS232 (COM2), 1*Ethernet, supports M-IoT function Powered by DC24V, 1*USB SLAVE (USB-B, shared by PLC and HMI, supporting programming protocols
МК	CUP Module		POWERED by DC24V, 1°05B SLAVE (05B-B, shared by PLC and HMI, supporting programming protocols PLC: DI 9*DC24V (NPN/PNP), DO 9*DC24V (PNP), AI 2*TC (supports type J/K/E/T thermocouples with optional internal and external cold junction
		MK043E-20DTC	compensation), 2*RS485, 1*Expansion interface (support up to 8 KS modules)
			HMI: 4.3" TFT, 1*USB HOST (USB-A), 1*Ethernet, supports M-IoT function
			Powered by DC24V, 1*USB SLAVE (USB-B, shared by PLC and HMI), supporting programming protocols
			PLC: DI 12*DC24V(NPN/PNP), DO 12*DC24V (PNP), AI 3*RD (support Pt100 type, measuring temperature in the range of -40°C to 240°C), 2*RS485,
		MK070E-27DRT	1*Expansion interface (support up to 8 KS modules)
			HMI: 7" TFT, 1"USB HOST (USBA), 1*Ethernet, supports M-IoT function
			Powered by DC24V, 1*USB SLAVE (USB-B, shared by PLC and HMI), supporting programming protocols
		MK070C-33DT	PLC: DI 16*DC24V (NPN/PNP), DO 14*DC24V (PNP), AI 2*IV, AO 1*IV, 1*RS485
			HMI: 7" TFT, 1*USB HOST(USB-A)
			Powered by DC24V, 1*USB SLAVE (USB-B, shared by PLC and HMI), supporting programming protocols
		MK043C-20DT	PLC: DI 9*DC24V (NPN/PNP), DO 9*DC24V (PNP), AI*2Vol tage, 1*RS485
			HMI Section: 4.3" TFT, 1"USB HOST(USB-A), no M-loTFunction

# **KC200** series

Mainly used to control and adjust the speed and torque of three-phase AC asynchronous motors

### Voltage level

1P 200~240V(-15~+10%) 0.4-2.2kW 3P 380V~480V(-15~+10%) 0.75-560kW

### Support optional 5V, 12V, 24V incremental PG card



### Industry application

Light load, heavy load, and ultra -heavy load equipment such as lifting, cement, rubber tires, industrial water treatment, fan ventilation system, stirring, air -conditioning cooling system, woodworking machinery, etc.

### KC200 series inverter specifications and technical parameters

Inverter Model	power capacity kVA	Input Current A	Output Current A	Adaptive motor kW
Single-phase 200V~240V 50Hz/60Hz				
KC200-2S-0R40G	1	5.3	2.5	0.4
KC200-2S-0R75G	1.5	8.2	4	0.75
KC200-2S-01R5G	3	14	7.5	1.5
KC200-2S-02R2G	4	23	10	2.2
Three-phase 380V~480V 50Hz/60Hz				
KC200-4T/5T-0R75G	1.5	3.4	2.3	0.75
KC200-4T/5T-01R5G	2.5	5	3.7	1.5
KC200-4T/5T-02R2G	3.6	5.8	5.5	2.2
KC200-4T/5T-03R7G	5.8	10.5	8.8	3.7
KC200-4T/5T-05R5G	8.6	14.5	13	5.5
KC200-4T/5T-07R5G	11	20.5	17	7.5
KC200-4T/5T-0011G	16.5	26	25	11
KC200-4T/5T-0015G	21	35	32	15
KC200-4T/5T-0018G	24.5	38.5	37	18.5
KC200-4T/5T-0022G	29.5	46.5	45	22
KC200-4T/5T-0030G	39.5	62	60	30
KC200-4T/5T-0037G	49.5	76	75	37
KC200-4T/5T-0045G	59	92	90	45
KC200-4T/5T-0055G	72.5	113	110	55
KC200-4T/5T-0075G	100	157	152	75
KC200-4T/5T-0090G	116	180	176	90
KC200-4T/5T-0110G	138	260	210	110
KC200-4T/5T-0132G	166	232	252	132
KC200-4T/5T-0160G	200	282	304	160
KC200-4T/5T-0185G	230	326	350	185
KC200-4T/5T-0200G	250	352	380	200
KC200-4T/5T-0220G	280	385	426	220
KC200-4T/5T-0250G	309	437	470	250
KC200-4T/5T-0280G	342	491	520	280
KC200-4T/5T-0315G	395	580	600	315
KC200-4T/5T-0355G	437.5	624	665	355
KC200-4T/5T-0400G	629	670	725	400
KC200-4T/5T-0450G	715	792	820	450
KC200-4T/5T-0500G	800	835	950	500
KC200-4T/5T-0560G	896	920	1020	560

HMI	SERVO	STEPPER	PLC	



#### **Terminal configuration**

6 digital input terminals, 2 analog input terminals;

2 relay output terminals, 2 DO output terminals, 2 analog output terminals;

1 high-speed pulse input terminal (multiplexed with DI6 terminal), 1 high-speed pulse output

terminal (multiplexed with DO2 terminal);

One 485 communication terminal and one CAN communication terminal.

#### Telecommunication

Standard support 485 standard MODBUS communication protocol;

- Standard support CAN-OPEN communication protocol;
- Optional support PROFINET and EtherCATcommunication conversion solutions.

## **KC100** series

high performance VFD for general use



Power Voltage	Single-phase 220V         0.4~2.2kW           Three-phase 380V         0.75~5.5kW
Telecommunication	Support 485 standard MODBUS communication protocol
Terminal	4 digital inputs 1 analog input 1 relay output 1 analog outputTerminal 1 channel DO output 1 channel 485 communication

### Model and Specification

Model	Power Capacity (kVA)	Input Current (A)	Output Current (A)	Adaptive motor (kW)	
	Single-phase 220v,50/60Hz				
KC100-2S-0R40G	1.0	5.3	2.5	0.4	
KC100-2S-0R75G	1.5	8.2	4.0	0.75	
KC100-2S-01R5G	3.0	14.0	7.5	1.5	
KC100-2S-02R2G	4.0	23.0	10.0	2.2	
	Three-phase 380v,50/60Hz				
KC100-4T-0R75G	1.5	3.4	2.3	0.75	
KC100-4T-01R5G	3.0	5.0	3.7	1.5	
KC100-4T-02R2G	4.0	5.8	5.5	2.2	
KC100-4T-03R7G	5.9	10.5	8.8	3.7	
KC100-4T-05R5G	8.5	14.5	13.0	5.5	

### Application

• Sewage treatment, manufacturing production lines, fan ventilation systems, logistics and transportation air conditioning cooling systems, woodworking machinery, and various automated production equipment.

## **Fv20** series

Cost-effective vector inverter Power range: 400W~1000KW (higher power customizable)

#### Features

- -Built in EMC filter to optimize the electrical environment of EMC field equipment -Low speed, high torque, small torque ripple, automatic current limiting to avoid over-current fault caused by sudden load or other reasons
- -Optimized structure design, high power density, built-in brake unit under 45KW
- Support background monitoring software

### Specification

ltem		Description	
	Rated Voltage/	single-phase,220V AC,50HZ/60	
Input	frequency	three-phase,220V AC,50Hz/60H	
	Applicable	4T:320V~460V;2T/2S:180V	
	voltage range	Frequency tolerance: ±5%	
	Rated voltage	0~Rated input voltage	
Output	Frequency	0Hz~300Hz	
	Overload capacity	G Type:150% 1 minute, 180% 1	
	Control method	Vector control without PG , Vec	
	Modulation method	Space vector PWM modulation	
	Starting Torque	0.5Hz: 150% of rated torque(Vec	
	Frequency accuracy	Digital setting: Max. frequency	
Control	Frequency resolution	Digital setting: 0.01Hz; Analog	
Control	Torque boost	Manual torque boost: 0%~30.0	
characteristics	V/F pattern	4 patterns:1 pattern is V/F curve	
	<i>,</i> ,	(2.0 power,1.7 power,1.2 power	
	Acceleration	Linear or S-curve acceleration	
	/Deceleration curve	Four kinds of acceleration and	
	Auto current limit	The current is automatically lin	
Customized	Jogging	Jogging frequency range: 0.001	
function		Implement multiple speed ope	
	Operation command	Keypad setting, Terminal settir	
	Frequency command	Digital setting, Analog voltage	
Operation		Implement flexible auxiliary fre	
function	Auxiliary frequency setting Pulse output	0.1khz ~ 100kHz pulse square v	
	Multiple speed operation	output frequency and other ph	
	Analog output	2 channels analog output(0/4~2	
	LED Display	Display setting frequency, output	
	Parameters copy	Copy parameters by operation	
Operation panel	Keys lock and		
	function selection	Lock part of keys or all the keys	
		Overcurrent protection, Overvo	
Protection function	on	Overheat protection, Overload	
	Operating site	Indoor, free from direct sunligh	
	Altitude	Derated above 1000m, the rate	
	Ambient temperature	- 10 °C $\sim$ + 40 °C (The ambient to	
	The second states in	5%~95%RH, No water conden	
Environment	Humidity		
Environment	Vibration	Less than 5.9 M / S2 (0.6g)	
Environment	,		
	Vibration	Less than 5.9 M / S2 (0.6g)	
Environment Structure	Vibration Storage temperature Protection class	Less than 5.9 M / S2 (0.6g) −40°C~+70°C IP20	
	Vibration Storage temperature Protection class Cooling method	Less than 5.9 M / S2 (0.6g) −40°C~+70°C	

HMI	SERVO	STEPPER	PLC	VF

0HZ;three-phase,380V AC,50HZ/60HZ Hz

~260V; Voltage unbalancedness: <3%;

10 seconds; L type :110% 1 minute, 150% 1 second ctor control with PG, V/F contro

ector control without PG), 0.0Hz: 200% of rated torque(Vector control with PG)  $y \times \pm 0.01\%$ ; Analog setting: Max. frequency  $\times \pm 0.2\%$ 

g setting : Max. frequency × 0.05%

0%(Only V / F mode is valid)

ve setting by users. 3 patterns are drop torque characters curve

er)

and deceleration mode;

deceleration time

imited during operation to prevent frequent over-current fault tripping

0Hz~50.00Hz. Jogging acceleration/deceleration time: 0.1~60.0s.

eration by digital inputs.

ing, Communication setting

e setting, Analog current setting, Pulse setting

requency trim and frequency synthesis.

wave signal output, can achieve the set frequency,

hysical quantities output

-20mA or 0/2~10V);Output setting frequency ,output frequency and so on

ut frequency, output voltage, output current and so on, about 20 parameters. n panel.

ys. Define the function of part of keys to prevent misoperation

voltage protection, Undervoltage protection,

d protection, Open phase protection (optional), etc.

ht, dust, corrosive gas, combustible gas, oil mist, water vapor, drip or salt ed output current shall be decreased by 10% for every rise of 1000m

temperature is between 40 °C and 50 °C, reduce the rating for use)

nsation

fan control or above:≥95%

### Model and Specification

VFD model	Power capacity KVA	Input current A	Output current A	Adaptive motor KW
	220V,50/60HZ:Singel-phase 220VAC,50/60HZ			
FV20-2S-0004G	1.0	5.3	2.5	0.4
FV20-2S-0007G	1.5	8.2	4.0	0.75
FV20-2S-0015G	3.0	14.0	7.5	1.5
FV20-2S-0022G	4.0	23.0	10.0	2.2
		380V, 50/60HZ:three-p	ohase 380V AC,50/60HZ	
FV20-4T-0007G/0015L	1.5	3.4	2.3	0.75
FV20-4T-0015G/0022L	3.0	5.0	3.7	1.5
FV20-4T-0022G/0037L	4.0	5.8	5.5	2.2
FV20-4T-0037G/0055L	5.9	10.5	8.8	3.7
FV20-4T-0055G/0075L	8.5	14.5	13.0	5.5
FV20-4T-0075G/0110L	11.0	20.5	17.0	7.5
FV20-4T-0110G/0150L	17.0	26.0	25.0	11
FV20-4T-0150G/0185L	21.0	35.0	32.0	15
FV20-4T-0185G/0220L	24.0	38.5	37.0	18.5
FV20-4T-0220G/0300L	30.0	46.5	45.0	22.0
FV20-4T-0300G/0370L	40.0	62.0	60.0	30.0
FV20-4T-0370G/0450L	50.0	76.0	75.0	37.0
FV20-4T-0450G/0550L	60.0	92.0	90.0	45.0
FV20-4T-0550G/0750L	72.0	113.0	110.0	55.0
FV20-4T-0750G/0900L	100.0	157.0	152.0	75.0
FV20-4T-0900G/1100L	116.0	180.0	176.0	90.0
FV20-4T-1100G/1320L	138.0	260.0	210.0	110.0
FV20-4T-1320G/1600L	167.0	232.0	252.0	132.0
FV20-4T-1600G/1850L	200.0	282.0	304.0	160.0
FV20-4T-1850G/2000L	230.0	326.0	350.0	185.0
FV20-4T-2000G/2200L	250.0	352.0	380.0	200.0
FV20-4T-2200G/2500L	280.0	385.0	426.0	220.0
FV20-4T-2500G/2800L	320.0	437.0	470.0	250.0
FV20-4T-2800G/3150L	445.0	491.0	520.0	280.0
FV20-4T-3150G/3550L	500.0	580.0	600.0	315.0
FV20-4T-3550G/4000L	565.0	624.0	665.0	355.0
FV20-4T-4000G/4500L	630.0	670.0	690.0	400.0
FV20-4T-6000G	990.0	1035.0	1050.0	600.0
FV20-4T-8000G	1250.0	1300.0	1350.0	800.0
FV20-4T-10000G	1500.0	1650.0	1725.0	1000.0