PROVEN PERFORMANCE

Customers in over 60 countries and in diverse markets and sectors.

Kinco® Automation

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Kinco

Product Catalog

Kinco General Catalog

- HMI
- Servo System
- Stepper System
- MC
- PLC
- Inverter

Automation Solutions for Global Customers

Contents

Shanghai Kinco Automation Co., Ltd. specializes in the research, development, production, sales and technical services of industrial automation products, providing integrated solutions for industrial automation equipment manufacturers. In addition to domestic sales, the company's products are also sold to Turkey, India, Italy, Germany. And other countries and regions, is China's leading supplier of machine automation solutions.

The company's main products include industrial human-machine interface, servo system, stepper system, programmable logic controller, low-voltage inverter, widely used in textile machinery, packaging machinery, logistics machinery, industrial robots, medical equipment, electronic manufacturing equipment, building materials machinery, HVAC equipment, and other automation equipment. The company's industrial HMI product market share has maintained a leading position among local brand manufacturers for many years.

The company provides industry focused innovative solutions Smart Solution, leading innovation in the fields of logistics automation, mobile robots, medical imaging equipment, digital chemical plant, production and marketing collaborative manufacturing, and obtains a leading market position.

Kinco launched the first HMI products to the market in the year 2007. From that on, more than million products have sold on 40 countries, area, and service in many kind of industry around the world. It become the classic work of HMI which with Linux platform. In new era, we continue to manufacturing boutique, inheriting more than 10 years of professional human-machine development experience, absorbing the latest technological achievements of the semiconductor industry, continuing to innovate, launching a new generation of industrial human-machine interface GREEN series.

-GREEN series (for standard applications)

-Future series (for high end applications)

- Industry customized series

Kinco's high-quality programmable controllers are unique in the fierce PLC market, and have won the recognition of low-end and mid-end customers with excellent cost performance and simple and practical functions.

-K2 series -KW series
-K5 series -HP series
-KS series -I/O extension module

Kinco has all kinds of automation products including HMI, PLC, servo driver and bus protocol conversion bridge, I/O expansion module, which own fieldbus communication capabilities, integrated Ethernet, CANopen, Profibus ability.

Kinco servo system originates from German high-precision motor control technique. Kinco has 20 years servo developing & application experience, complete & abundant production line and stable&reliable product quality, which can satisfy with standard and non-standard requirement of each industry application.

Can drive rotate servo motors, linear motors, direct drive motors and etc.

Widely applied in logistics AGC, 3C, medicine, new energy, robotics and etc.

Incremental, magnetoelectric, communication and single/multi-turn absolute encoder (direct plugging or aviation plugging optional) can be installed in Kinco servo motors.

-CD3/FD3 series

-JD/FD2S/CD2S series

-FD1X4S/FD1X3/OD1X4S series

FM series field bus stepper driver is based on servo technology, with compact size, better performance and programmable I/O port setting. It support lots of bus control including pulse, MODBUS, CANopen and EtherCAT.

CM series stepper driver is based on new generation stepper control technology with compact size (save installation space) and better performance.

2&3-phase hybrid motor covers 2-phase (42~130) motor and 3-phase (57, 85) motor.

-CM series

-M series

-FM series

Kinco vector VFD undertakes the company concept of "Provide high quality, high performance, high stability products", it is a high performance vector VFD.

- FV20 series
- CV100 series
- CV20 series
- EC series driver

Kinco Shanghai

Kinco Shenzhen

JAT Kinco Shenzhen

Kinavo Changzhou

Kinco Chengdu

GREEN Series

New generation of industrial HMI

Green series with a new generation of free configuration software: **Kinco DTools**

Focus on product and make high quality HMI

Green series HMI is the newest industrial man-machine interface launched by Kinco. It adopt new architecture design, and rigorous craft, that makes itself the high quality HMI standard. Green series HMI use mainly current CPU.

Powerful hardware and software, upgrades are more comprehensive

Structure	Material	Color	Core	CPU	Memory
New Structure Exquisite fuselage	Rigidity and intension promoted, heat resistance promoted.	Display color increase to 16.7M color (except for 15 inch model)	Update core version more stable	CPU Freescale industrial frequency 800MHz	DDR3 capacity update to 128M

GREEN Series contain four subseries:

GH series
- **Performamnce type**
- 4.3" to 17"

- 4 serial port (Except 4.3"), Ethernet
- Standard USB Host port, USB slave port
- Built-in isolated power, isolated serial port (Ethernet model)
- Main board Three-denfence treatment

G series*
- **Standard type**
- 7" and 10"

- 3 serial port, Ethernet
- Standard USB Host, USB Slave port
- Built-in isolated power

GL series
- **Economy type**
- 3" to 15"

- 2 series port, Ethernet
- Standard USB Host, USB slave port (Except 4.3" models)

GT/GW series
- **IoT type**
- 7"gateway model

- support WiFi,
- 4G
- Ethernet
- Integrated VPN
- server for remote access

HMI SERVO STEPPER PLC VFD

GREEN Series

■ Main technical parameters of the product 1

GH Series	GH043/GH043E		GH070/GH070E			GH104E			GH150E
G Series				G070/G070E/ G070E-CAN	G100/G100E			G121E	
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"	15"
Resolution	480×272	480×272	800×480	800×480	1024×600	800×600	800×600	800×600	1024×768
Backlight	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
Installation hole size	146×81mm	119×93mm	194×113mm	192×138mm	261×180mm	299×219mm	299×219mm	340×250mm	383×283mm
Configuration software	Kinco Dtools v3.4 and above								

■ Main technical parameters of the product 2

GT Series	GT070E	GT070E-4G	GT070E-WiFi
Display size	7"	7"	7"
Resolution	800×480	800×480	800×480
Backlight	LED	LED	LED
Network	10/100M self-adaption	10/100 self-adaption build in 4G module	10/100 self-adaption 2.4GHz wireless WiFi module
Operating temperature	0~55°C	0~55°C	0~55°C
Installation hole size	192×138mm	192×138mm	192×138mm
Configuration software	Kinco Dtools V3.5.0 and above		

■ Main technical parameters of the product 3

GW Series	GW01	GW01-WiFi	GW01-4G
processor	ARM RISC 32Bit 800MHz		
storage	128MB NAND RAM+128MB DDR3 RAM		
Network	2*10/100M self-adaption	self-adaption 2.4GHz wireless WiFi module	2*10/100 self-adaption build in 4G module
Operating temperature	-10°C～55°C		
Dimensions	111.6*93.6*30 mm		
installation	DIN-Rail Mounting (35mm)		

■ Main technical parameters of the product 4

GR Series	GR043	GR070E	GR100E
Display size	4.3"	7"	10.1"
Resolution	480×272	800×480	1024×600
Backlight	LED	LED	LED
Operating temperature	0~50°C	0~50°C	0~55°C
Installation hole size	107.2×68.9mm	166×101mm	238×148mm
Configuration software	Kinco Dtool V3.5.1		

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

FUTURE series

industrial HMI, for the high-end equipment industry

-Strike a balance between steady industrial demand and enjoying new technologies
-Carefully selected materials, innovative design, adhere to the 10-year super long life cycle
-Produced by Kinco intelligent manufacturing center, materials and manufacturing process can be traced to ensure high quality

Seven leading advantages design for high-end equipment industry

1 Powerful core platform
Main frequency industrial CPU 1GHz
1GHz based on Cortex-A9
512MB DDR3 Large capacity memory
4GB eMMC huge storage space

2 Support Ethernet video monitoring
- First to support webcam
-Leading the new trend of video scene monitoring of industrial equipment
-The whole series supports ONVIF video interface standard

3 Industrial quality real stable product
-Conformal coating
-build in isolated power
-Pure PC material makes it strong
-Wide temperature range operation
Intelligent manufacturing center production: whole process quality tracking and monitoring

4 Formula data, no concern to erase
Ferroelectric memory enables frequent erasure of important disk data without loss and frequency reduction, and the perfect combination of fast data reading and writing and power down storage

5 Original industrial specified LCD, choice for stability
-industrial specified LCD
-4:3 size grand vision
-88°wide perspective
-Wide temperature LCD
-30℃~80℃

6 Standard audio output
Let equipment operation no longer monotonous

7 Embedded IIoT function
Seamless connection with Kinco M-IoT
Data cleaning Edge computing
remote download
remote monitor
Seamless connection with the Ali cloud IIoT
Data upload to cloud easy and convenient
remote upload
PLC remote online debugging

■ Main technical parameters of the product 1

FUTURE Series	F080E	F104E/F104E-CAN	F150E
Display size	8"	10.4"	15"
Resolution	800×600	1024×768	1024×768
Back light	LED	LED	LED
Operation temperature	-10~55°C	-10~50°C	-10~50°C
Installation hole size	224×161mm	299×219mm	387.5×294.5mm
Configuration software	Kinco Dtools v3.4 and above		

■ Main technical parameters of the product 2

xF Series	xF-SiHMI01 (Split industrial HMI)
Processor	32bit RISC Cortex-A9 1GHz
Memory	512MB DDR3 +4GB eMMC
Display port	1*HDMI V1.4 Full HD(1920*1080@60Hz)
Operating temperature	0～50°C
Dimensions	133*104*30.2 mm
Installatioin	DIN-rail mounting(35mm), VESA bracket installation(75*75mm)

HMI SERVO STEPPER PLC VFD

HMI solutions for special applications

special Human-machine

InterfaceCustomized for the needs of the industry

SZ7G
Dedicated handheld terminal

-Basic specifications: 7" TFT, 800x480 pixel, 16.77 million true colors;
-Standard configuration: Three selection switch, emergency stop switch, grip switch, 10 custom buttons, 2 indicator lights;
-Practical design: Both buttons and touch control, wider application, more flexible choice;
-Mobile operation: handheld terminal with 5 m cable as standard;
-A variety of installation methods, suspension type, bracket type, etc

CZ6
HMI specially designed for harsh environment

-The shell is made of high temperature resistant, high strength and anti ultraviolet material;
-Wide temperature LCD screen, working temperature - 20 ℃ ~ 60 ℃;
-Wider voltage input range, 9 ~ 36VDC
-Excellent internal structure design and application of silica gel pad make the screen excellent in shock absorption and shock resistance
-Equipped with military grade encoder switch, longer service life and more stable performance
-Rich communication interface, can port, support CAN open / CAN J1939, serial port, RS232 / RS485;
-IP65 protection grade of the whole machine

CZ10
Vehicle only HMI

-RISC Cortex-A8 800MHz "Automotive grade" CPU, faster and smoother;
-More storage space,256MB FLASH+256MB DDR3;
-Design of dual can port support CAN open / CAN J1939
-Dual serial port extension,support RS232/485/422;
-Dual video input, perfect for multi-channel monitoring;
-Key with adaptive backlight lighting, clear and visible operation at night
-Wide temperature industrial LCD, working temperature - 20 ~ 70 °C, full view, high brightness, visible in the sun;
-All metal structure fuselage, heat dissipation performance is better, anti vibration, anti-interference ability is stronger
-Power supply and serial port dual isolation circuit, maximum elimination of interference caused by failure, downtime and additional service costs

■ Main technical parameters of the product

Model	SZ7G/SZ7GS/SZ7GE/SZ7GES	CZ6	CZ10
Display size	7"	5.7"	10.4"
Resolution	800×480	640×480	640×480
Back light	LED	LED	LED
Operation temperature	0~50°C	-20~60°C	-20~70°C
Installation hole size (mm)	suspension/ bracket type	171×125	281×207
Degree of protection	IP65(front panel)	IP65(overall unit)	IP65(front panel)

CD/FD3 Series

Modbus CANopen EtherCAT

Kinco CD/FD3 series AC servo system

Product model：	**CD&FD413/423/433**	**CD&FD623**
Product power：	50W~2000W	1000W~3000W
Power supply voltage：	1-phase/3-phase 200~240VAC	3-phase 380~415VAC

■ Main characteristics

- CD3 series support pulse, analog control.
- FD3 series support MODBUS, CANopen and EtherCAT control.
- Support EASY TUNE auto-tuning function. Can satisfy with most of applications' requirements with simple setting in system stiffness.
- Support dynamic brake function control.
- Support any frequency division output of encoder.
- Support 4MHz (For maximum) pulse frequency output.
- Support over-voltage protection, over-current protection, motor over-heat and etc.
- Include a built-in brake resistor support over-heat protection.
- Support magnetoelectric single-turn absolute encoder, 16/20 bit multi-turn absolute encoder. Maximum working temperature of encoder is 120 degree.
- All series product conform with CE certification and ROHS environment certification standard.
- Conform with UL certification design standard.*

■ Applicable industry

- Robotics: SCARA robots, DELTA robots, six-joints robots and etc.
- Package: slitting machine, pillow machine, vertical package machine and etc.
- Machine tool: CNC engraving and milling machine, laser cutting and etc.
- Logistics: Sorting machine, tridimensional warehouse device and etc.
- Other occasions: High response speed and high positioning precision.

*1 Part of types. Please discuss with local sales director.

CD/FD2S Series

Modbus CANopen EtherCAT

Kinco CD/FD2S series AC servo system

Product model：	**CD&FD412S/422S/CD423S**	**CD&FD612S/622S**
Product power：	50W~2000W	1000W~3000W
Power supply voltage：	1-phase/3-phase 200~240VAC	3-phase 380~415VAC

■ Main characteristics

- CD2S series support pulse, analog control.
- FD2S series support MODBUS, CANopen and EtherCAT control.
- Support EASY TUNE auto-tuning function. Can satisfy with most of applications' requirements with simple setting in system stiffness.
- Independent motor brake output interface. Can directly drive motor brake.
- 24VDC independent power supply for control. Can keep monitoring servo system state after powering off main power supply.
- Support over-voltage protection, over-current protection, motor over-heat and etc.
- Support incremental encoder, 24 bit (For maximum) absolute encoder. Maximum working temperature of encoder is 120 degree.
- All series product conform with CE certification and ROHS environment certification standard.

■ Applicable industry

- Robotics: SCARA robots, DELTA robots, six-joints robots and etc.
- Package: slitting machine, pillow machine, vertical package machine and etc.
- Machine tool: CNC engraving and milling machine, laser cutting and etc.
- Logistics: Sorting machine, tridimensional warehouse device and etc.
- Other occasions: High response speed and high positioning precision.

JD Series

Modbus CANopen EtherCAT

Kinco JD series European style high performance CAN bus servo system

Product model：	**JD420/430**	**JD620/630/640/650/660**
Product power：	200W~2000W	1500W~7500W
Power supply voltage：	1-phase/3-phase 200~240VAC	3-phase 380~415VAC

■ Main characteristics

- European style servo system terminal design, with no welding, convenient wiring.
- Support MODBUS, CANopen and EtherCAT communication protocol.
- Support master-slave, multiple axises synchronization.
- Support full close-loop control.
- Can set all servo parameters, which set up driver function whatever you want.
- Support high performance required system such as 2-shaft or multi-shaft differential complement, electronic CAM and etc.
- Mechanical vibration suppression function.
- SIL3/Cat.3/PL level safe function (safe torque closes).*
- Product design conform with UL standard, part of products conform with UL verification.
- All series products conform with CE verification and ROHS environment verification standard.

■ Applicable industry

- Robotics: SCARA robots, DELTA robots, six-joints robots and etc.
- Package: slitting machine, pillow machine, vertical package machine and etc.
- Machine tool: CNC engraving and milling machine, laser cutting, plasma cutting and etc.
- Logistics: Sorting machine, AVG and etc.
- Medical machine: CT, MR hospital bed control and etc.
- Other occasions: High response speed and high positioning precision.

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

FD1X4S Series

Modbus CANopen EtherCAT

Kinco FD4S series economic DC servo system

Product model：

FD114S Product power: 50W~200W, Power supply voltage: DC24V~70V, rated current 5A
FD124S Product power: 200W~400W, Power supply voltage: DC24V~70V, rated current 12A
FD134S Product power: 750W,Power supply voltage: DC24~70V,rated current 20A
FD144S Product power: 1.2KW~1.5KW,Power supply voltage: DC24~70V,rated current 30A

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

■ 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) *[2] 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.

*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

OD series

Modbus CANopen EtherCAT

Kinco OD series modularization 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

■ 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 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.

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

FD1X3 series

Modbus CANopen EtherCAT

Kinco FD3 series DC servo system

Fd1x3 series low voltage servo system

FD123 Product power: 50W~400W, Power supply voltage: DC24V~70V, Rate current 10A
FD133 Product power: 400W~750W, Power supply voltage: DC24V~70V, Rated power 20A

■ Main characteristics

- Suppose pulse, analog control.
- Support encoder signal output, slave-master.
- Support MODBUS, CANopen and EtherCAT communication control.
- Up to 16 bit I/O interface.
- Low-voltage DC power supply, satisfy with requirements of moving car's power and power supply.
- Compact design structure, high efficiency, small size, convenient for installation.
- 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 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.

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

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.

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

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

	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	Economic big power motor, high cost-performance ratio Support incremental, absolute encoder Can match with domestic aviation plug
	SMS series motor	High performance & compact motor Support single-turn 20 bit and multi-turn 16 bit absolute encoder Can match with outgoing line/domestic aviation plug

Stepper Driver

FM Series Field bus Stepper Driver

Product model:

FM860 Power supply voltage：DC24V~70V，
Output current：0.15~8A
FM880 Power supply voltage：DC24V~70V，
Output current：0.15~10A

■ Main features

- Support MODBUS, CANopen, EtherCAT protocol.
- Support RS232 communication, parameter settings 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 over-current protection.
- 2-phase(42,57,86) and 3-phase(57,85) hybrid stepper motor (drive current is under 6A).

CM Series Stepper Driver

Product model:

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

■ Main features

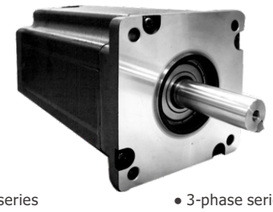
- Support PLS+DIR, CW/CCW.
- Micro-step filter function to make motor run stably at low speed.
- Wide voltage range for signal input, easy to wire.
- Parameter self-adaptive function to make motor run smoothly according to different motor type.
- Compact size to save installation space.

■ Applicable industry

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

Stepper Motor

• 2-phase series



• 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

Phase	Size	Product model	Holding torque (N.m)	Phase current (A)		Winding resistance (Ω)	Winding inductance (mH)	Motor inertia (Kg.cm²)	Number of lead wires	Shaft diameter (mm)	Shaft type	Motor length (mm)	Weight (Kg)	Step angle (°)
				Series	Parallel									
2-phase	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
		2S42Q-0348	0.34	0.7	1.4	4.6±10%	4±20%	0.068	8	5	No key	48	0.36	1.8
	57	**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
		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
	86	**2S86Q-3465**	3.4	6	6	0.3±10%	1.7±20%	1	4	13	Flat key	65	1.7	1.8
		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-039M0**	27	6	6	0.65±10%	13.8±20%	33.3	4	19	Flat key	165	13	1.8
		2S130Y-063R8	40	7	7	0.9±10%	9.5±20%	48.4	4	19	Flat key	230	19	1.8
3-phase	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
		3S57Q-04079	1.5	5.8	5.8	1.05±10%	2.4±20%	0.48	4	8	No key	79	1	1.2
3-phase	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
		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.

■ AK800 series controller

-Cortex A9 RISC CPU
-4M program storage, 8M data storage
-24 digital input, 24 transistor digital output
-2-way CAN bus master station, supporting synchronous positioning, electronic cam, interpolation function, built-in terminal resistance
-1-way EtherCAT master station, supporting synchronous positioning, electronic cam, interpolation function
-1-way Ethernet interface, supporting Modbus TCP / UDP protocol

■ Model parameters of motion controller

Model and specifications	AK800M
Technical specifications	
Power supply	DC24V
Switch value	24*DI/24*DO
Analog value	—
Expansion module	via CAN open or EtherCAT to expand
Encoder input	—
Communication interface	
CANopen interface	2 independent isolation interfaces Support 8-axis CANMotion control Point to point control
Ethernet interface	1 channel, can be used as programming port, 10M/100M,TCP/UDP protocol
EtherCAT interface	1 channel, support COE motion control 8-axis
Serial port	1*RS232/2*RS485，support Modbus protocol
Storage	
Program storage	4MB
Data storage	8MB
SD card	1*SD，1*USB HOST
Software technology	
Programming software	CoDeSys V3.5
Motion control	PLCopen motion control lib, Support electronic gear function, electronic cam
Other information	
Degree of protection	IP20
Temperature range(operation)	0℃~+45℃
Temperature range(store)	-20℃~+70℃
Maximum relative humidity	5%~85%，no condensation
Size(Length * width * height)	160*125*52mm

PLC

Extendable via CANopen

Easy to operate, cost-effective

Kinco K2 Series PLC

K2 series is economic type PLC, not expandable, enhancing performance and reducing cost comparing with K5 series.

■ Main features
- USB port for program download, online debugging.
- DIO multiplexing, flexible for various applications.
- The hybrid output and analog quantity of integrated transistor relay are closer to the functions required by users, and have high cost performance;
- Keep standard series of multiple communication ports, multi-channel high-speed channel, RTC, etc., reduce price without reducing material

Kinco K5 Series PLC

K5 series PLC provides diverse functions and higher performance. Kinco K5 combines with Kinco HMI, Kinco servo driver and inverter to provide users with easy automation solutions.

■ Main features:
- More than ten years of market experience, with complete module types and rich functions;
- Integrates functions closer to user requirements, such as analog quantity and NTC, and has high cost performance
- Standard configuration of 3 communication ports, 2-way high-speed input, 2-way high-speed output, DC power output, pluggable terminals, etc., close to the needs of users;
- Hardware interface is fully isolated, hardware protection is complete, stable and reliable.

Kinco KS Series PLC

Kinco KS series PLC is a small integrated PLC, which is a high-performance sheet product launched by Kinco. KS series PLC ultra-thin design, rich and reliable functions, the body comes with CAN bus interface, 200K high-speed input / output, rich expansion modules, compact installation and other functions to meet the needs of users of a variety of applications.

■ Main features:
- Ultra-thin designed, compact installation, saving space.
- New MCU platform, LD command scanning speed 0.25us.
- The body provides a CAN interface and provides convenient control commands for high-speed multi-axis applications.
- provides 4 high speed counters, and 3 high speed pulse outputs. which frequency could up to 200kHz.
- The expansion module can be used as a MODBUS remote IO port, which is extremely cost-effective.

Kinco KW series PLC

KW series PLC is wireless PLC launched by Kinco for smart factory, it has wireless network port, MicroUSB program, Highperformance input and output port to meet user application requirement.

■ Main features
- With Lora wireless interface, suitable for wireless remote data transmission applications
- The software can easily realize local networking, remote data acquisition, data calculation, etc;
- Standard can interface, high-speed channel, expandable, etc. it is not only a data collector, but also a device controller;
- Ultra thin design, compact installation, space saving。

Kinco HP series integrated PLC

Kinco HP series product combines PLC and HMI, is integrated product with high cost-effective. With powerful functions, high performance and high reliability, the optimized hardware design of HP product save the wirings and communication connection between HMI and PLC. It is easy to use and saves installation space.

■ Main features
- PLC and HMI are integrated as one, with multi-channel IO and analog quantity, save installation space
- The programming ports of PLC and HMI adopt USB2.0 interface, which can be downloaded separately by the same cable
- 4 HSC port, 3 high speed pulse output, 1 RS485 interface,communication speed rate up to 115.2kbps, small size with large energy.
- The touch display terminal has powerful functions, 65536 high-definition color display, with USB host, supporting large capacity data storage, and using powerful programming software of conventional products, it has rich functions

■ Kinco PLC module table

Series	Type	Order Number	Description
K2	CPU module	K204ET-16DT	DC20.4-28.8V power supply, DI 8*DC24V, DO 6*Transistor, AI 1*IV, AO 1*IV, USB2.0 program interface, 1*Ethernet, 2*RS485, no expansion.
		K205-16DT	DC20.4-28.8V power supply, DI 6*DC24V, DIO 4*DC24V, DO 6*DC24V, USB2.0 program interface, 2*RS485, no expansion.
		K205-16DR	DC20.4-28.8V power supply, DI 6*DC24V, DIO 4*DC24V, DO 6*Relay, USB2.0 program interface, 2*RS485, no expansion.
		K205EX-22DT	DC20.4-28.8V power supply, DI 8*DC24V, DIO 6*DC24V, DO 8*DC24V, USB2.0 program interface, 2*RS485, no expansion.
		K205EA-18DT	DC20.4-28.8V power supply, DI 8*DC24V, DO 8*DC24V, AI 1*IV, AO 1*IV, USB2.0 program interface, 2*RS485, no expansion.
		K209EA-50DX	DC20.4-28.8V power supply, DI 22*DC24V, DO 8*Transistor+12*Relay, AI 6*IV, AO 2*IV, USB2.0 program interface, 3*serial port (1*RS232, 2*RS485), no expansion.
		K209M-56DT	DC20.4-28V power supply DI 32*24VDC ,DO 24*DC24V,2*RS485,2*CANbus interface. USB2.0 program interface , no expansion.
K5	CPU module	K504EX-14AT	AC85-265V power supply, DI 8*DC24V, DO 6*DC24V, 2*serial port (1*RS232, 1*RS485), up to 4 expansion modules connectable.
		K504EX-14AR	AC85-265V power supply, DI 8*DC24V, DO 6*Relay, 2*serial port (1*RS232, 1*RS485), up to 4 expansion modules connectable.
		K504EX-14DT	DC20.4-28.8V power supply, DI 8*DC24V, DO 6*DC24V, 2*serial port (1*RS232, 1*RS485), up to 4 expansion modules connectable.
		K504EX-14DR	DC20.4-28.8V power supply, DI 8*DC24V, DO 6*Relay, 2*serial port (1*RS232, 1*RS485), up to 4 expansion modules connectable.
		K506-24AT	AC85-265V power supply, DI 14*DC24V, DO 10*DC24V, 3*serial port (1*RS232, 2*RS485), up to 10 expansion modules connectable.
		K506-24AR	AC85-265V power supply, DI 14*DC24V, DO 10*Relay, 3*serial port (1*RS232, 2*RS485), up to 10 expansion modules connectable.
		K506-24DT	DC20.4-28.8V power supply, DI 14*DC24V, DO 10*DC24V, 3*serial port (1*RS232, 2*RS485), up to 10 expansion modules connectable.
		K506-24DR	DC20.4-28.8V power supply, DI 14*DC24V, DO 10*Relay, 3*serial port (1*RS232, 2*RS485), up to 10 expansion modules connectable.
		K506EA-30AT	AC85-265V power supply, DI 14*DC24V, DO 10*DC24V, AI 4*IV, AO 2*IV, 3*serial port (1*RS232, 2*RS485), up to 10 expansion modules connectable.
		K506EA-30DT	DC20.4-28.8V power supply, DI 14*DC24V, DO 10*DC24V, AI 4*IV, AO 2*IV, 3*serial port (1*RS232, 2*RS485), up to 10 expansion modules connectable.
		K508-40AT	AC85-265V power supply, DI 24*DC24V, DO 16*DC24V, 3*serial port (1*RS232, 2*RS485), up to 10 expansion modules connectable.
		K508-40AX	AC85-265V power supply, DI 24*DC24V, DO 4*DC24V+12*Relay, 3*serial port (1*RS232, 2*RS485), up to 10 expansion modules connectable.
		K508-40AR	AC85-265V power supply, DI 24*DC24V, DO 16*Relay, 3*serial port (1*RS232, 2*RS485), up to 10 expansion modules connectable.
		K508-40DT	DC20.4-28.8V power supply, DI 24*DC24V, DO 16*DC24V, 3*serial port (1*RS232, 2*RS485), up to 10 expansion modules connectable.
		K508-40DR	DC20.4-28.8V power supply, DI 24*DC24V, DO 16*Relay, 3*serial port (1*RS232, 2*RS485), up to 10 expansion modules connectable.
	Expension I/O module	K521-08DX	DI 8*DC24V
		K521-16DX	DI 16*DC24V
		K522-08XR	DO 8*Relay
		K522-16XR	DO 16*Relay
		K522-08DT	DO 8*DC24V
		K522-16DT	DO 16*DC24V
		K523-16DR	DI 8*DC24V, DO 8*Relay
		K523-08DR	DI 4*DC24V, DO 4*Relay
		K523-16DT	DI 8*DC24V, DO 8*DC24V
		K523-08DT	DI 4*DC24V, DO 4*DC24V
		K531-04IV	4 analog input channels, 4-20mA/1-5V/0-20mA/0-10V
		K531-04RD	Pt100, Pt1000, Cu50, Resistor
		K531-04TC	4 thermocouple input channels, internal/external compensation selectable, J type, K type, E type, S type
		K532-02IV	2 analog output channels, 4-20mA/1-5V/0-20mA/0-10V
		K533-04IV	2 analog input channels, 4-20mA/1-5V/0-20mA/0-10V; 2 analog output channels, 4-20mA/1-5V/0-20mA/0-10V
	Function module	K541	CAN communication expansion module, supports CANopen master and CAN free protocol
	Power module	K580	Expansion power supplier module, Voltage:AC85~265V, Output rated current: 5V 1A/24V 250mA
KS	CPU module	KS101M-04DX	CPU,DC24V power supply , DI 4*DC24V ,2*CAN,1*Ethernet
		KS105-16DT	DC20.4-28.8V power supply, DI 8*DC24V, DO 8*DC24V, 2*serial port （1*RS232, 1*RS485）, connectable expansion module.
		KS105C1-16DT	DC20.4-28.8V power supply, DI 8*DC24V, DO 8*DC24V, 2*serial port （1*RS232, 1*RS485）, 1*CANbus interface, only connect to the CANbus extension module
		KS105C2-16DT	DC20.4-28.8V power supply, DI 8*DC24V, DO 8*DC24V, 2*serial port （1*RS232, 1*RS485）, 2*CANbus interface, connectable expansion module.
	Expension I/O module	KS121-16DX	DC20.4-28V power supply, DI 16*DC24V, It can be used as a Modbus slave
		KS122-12XR	DC20.4-28.8V power supply, DO 12*Relay, It can be used as Modbus slave station.
		KS122-14DT	DC20.4-28V power supply, DO 14*transistor,It can be used as a Modbus slave
		KS123-14DR	DC20.4-28.8V power supply, DI 8*DC24V, DO 6*Relay, It can be used as Modbus slave station.
		KS131-04RD	DC20.4-28V power supply,4-channel RTD input, two-wire, three-wire or four-wire system, PT100, PT1000, Cu50, R, It can be used as a Modbus slave
		KS133-06IV	DC20.4-28.8V power supply, 4 analog input channels/2 analog output channels, selectable 4-20mA/1-5V/0-20mA/0-10V, It can be used as Modbus slave station.
HP	CPU module	HP043-20DT	DC20.4-28.8V power supply, DI 9*DC24V, DO 9*DC24V, AI 2*IV, USB2.0 program interface, 1*RS485, no expansion. Touch screen, 4.3", 16:9 TFT, 64K color, 480*272, 1*USB HOST.
		HP043-20DTC	DC20.4-28.8V power supply, DI 9*DC24V, DO 9*DC24V, AI 2*IV, USB2.0 program interface, 1*RS485, AI 2*TC, no expansion. Touch screen, 4.3", 1*USB HOST.
		HP070-33DT	DC20.4-28.8V power supply, DI 9*DC24V, DO 9*DC24V, AI 2*IV, USB2.0 program interface, 1*RS485, AI 2*TC, can KS expansion. Touch screen, 7", 1*USB HOST.
KW	CPU module	KW103-12DT-LoRa	DC20.4-28.8V power supply, DI 8*DC24V, DO 4*DC24V, 2*serial port (1*RS232 1*RS485) , 1*CANbus interface, 1*USB, LoRa wireless network, connectable expansion module.
		KW203-12DT-R2	DC20.4-28V power supply 8*DI/4*DIO, CAN*1; RS232*1; RS485*1, Wireless network, Up to 3 km , support expansion
		KW213-08DTX-R2	DC20.4-28V power supply, DIO 8*transistor , Wireless network ,1*RS485 : Up to 3 km , no expansion.
		KW143-R1	DC20.4-28V power supply alternative RS232 and RS485 communication, no programming.

Note: CPU modules with relay output do not support pulse output (The last letter of order No. is "R", for example K506-24AR).

Inverter

- FV20 series
- CV20 series
- CV100 series
- EC series

FV20 Series VFD

High cost performance, High performance vector inverter,
Power range:400W-1000KW(More power could customized)

■ Feature

- 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;
- Strict reliability design, support the company background monitoring software.

■ Specification

Item		Descriptio
Input	Rated voltage and frequency	4T: 3-phase,380V～440V AC; 50Hz/60Hz; 2T: 3-phase, 200V～240V;50Hz/60Hz; 2S: Single-phase,200V～240V;50Hz/60Hz
	Allowable voltage range	4T: 320V～460V AC; 2T/2S:180V～260V;Voltage tolerance < 3%; Frequency: ±5%
Output	Rated voltage	0～Rated input voltage
	Frequency	0Hz～300Hz(Customized 0Hz～3000Hz)
	Overload capacity	G type : 150% rated current for 1 minute, 180% rated current for 10 seconds; L type :110% rated current for 1 minute, 150% rated current for 1 second
Control Characteristics	Control mode	Vector control without PG, Vector control with PG; V/F control
	Modulation mode	Space vector PWM modulation
	Starting torque	0.5Hz 150%rated torque (Vector control without PG) , 0Hz 200% rated torque (Vector control with PG)
	Frequency accuracy	Digital setting：Max frequency ×±0.01%；Analog setting：Max. frequency ×±0.2%
	Frequency resolution	Digital setting: 0.01Hz；Analog setting: Max frequency×0.1%
	Torque boost	Manual torque boost :0%～30.0%
	V/F pattern	4 patterns: 1 kind of V/F curve mode set by user and 3 kinds of torque-derating modes (2.0 order, 1.7 order, and 1.2 order)
	Acc/Dec curve	Linear acceleration/deceleration, Four kinds of acceleration/deceleration time are optional
	Auto current limit	Limit current during the operation automatically to prevent frequent over-current trip
Customized function	Jog	Range of jog frequency: 0.20Hz～50.00Hz; Acc/Dec time of Jog operation: 0.1～60.0s, Interval of Jog operation is also settable.
	Multiple speed operation	Implement multiple speed operation by digital inputs
Operation function	Operation command	Keypad setting, terminal setting, communication setting
	Frequency command setting	Digital setting, Analog voltage setting, Analog current setting, Pulse setting
	Auxiliary frequency setting	Implement flexible auxiliary frequency trim and frequency synthesis.
	Pulse output terminal	0.1～100kHz pulse output. For example setting frequency, output frequency etc.
	Analog output terminal	2 channels analog output (0/4～20mA or 0/2～10V). For example setting frequency, output frequency etc.
Operation panel	LED Display	Display frequency setting, frequency output, voltage output, current output and so on, about 20 parameters.
	Parameters copy	Copy parameters by operation panel.
	Keys lock and function selection	Lock part of keys or all the keys. Define the function of part of keys, in case of misoperation.
Protection functionnel		Open phase protection (optional), overcurrent protection, overvoltage protection, undervoltage protection, overheat protection, and overload protection and so on.
Environment	Operating site	Indoor, installed in the environment free from direct sunlight, dust, corrosive gas, combustible gas, oil mist, steam and drip.
	Altitude	Derated above 1000m, the rated output shall be decreased by 10% for every rise of 1000m
	Ambient temperature	-10℃~40℃, derated at 40℃～ 50℃
	Humidity	5%～95%RH, non-condensing
	Vibration	Less than 5.9m/s² (0.6g)
	Storage temperature	- 40℃～ + 70℃
Structure	Protection class	IP20
	Cooling method	Air cooling, with fan control.
Installation method		Wall-mounted
Efficiency		Power under 45kW≥93%；Power above 55kW≥95%

HMI SERVO STEPPER PLC VFD

■ Technical parameter

Model of VFD	Rated capacity (kVA)	Rated input current (A)	Rated output current (A)	Motor power (kW)
FV20-2S-0004G	1	5.3	2.5	0.4
FV20-2S-0007G	1.5	8.2	4	0.75
FV20-2S-0015G	3	14	7.5	1.5
FV20-2S-0022G	4	23	10	2.2
FV20-4T-0007G/0015L	1.5	3.4	2.3	0.75
FV20-4T-0015G/0022L	3	5	3.7	1.5
FV20-4T-0022G/0037L	4	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	5.5
FV20-4T-0075G/0110L	11	20.5	17	7.5
FV20-4T-0110G/0150L	17	26	25	11
FV20-4T-0150G/0185L	21	35	32	15
FV20-4T-0185G/0220L	24	38.5	37	18.5
FV20-4T-0220G/0300L	30	46.5	45	22
FV20-4T-0300G/0370L	40	62	60	30
FV20-4T-0370G/0450L	50	76	75	37
FV20-4T-0450G/0550L	60	92	90	45
FV20-4T-0550G/0750L	72	113	110	55
FV20-4T-0750G/0900L	100	157	152	75
FV20-4T-0900G/1100L	116	180	176	90
FV20-4T-1100G/1320L	138	260	210	110
FV20-4T-1320G/1600L	167	232	252	132
FV20-4T-1600G/1850L	200	282	304	160
FV20-4T-1850G/2000L	230	326	350	185
FV20-4T-2000G/2200L	250	352	380	200
FV20-4T-2200G/2500L	280	385	426	220
FV20-4T-2500G/2800L	320	437	470	250
FV20-4T-2800G/3150L	445	491	520	280
FV20-4T-3150G/3550L	500	580	600	315
FV20-4T-3550G/4000L	565	624	665	355
FV20-4T-4000G/4500L	630	670	690	400
FV20-4T-6000G/	990	1035	1050	600
FV20-4T-8000G	1250	1300	1350	800
FV20-4T-10000G	1500	1650	1725	1000

CV100 Series VFD

■ Main features

- Built in Bluetooth module, can realize debugging from smart phone
- Control mode: V/F control, Open loop vector control
- Automatic torque lifting and automatic slip compensation function
- Build-in PID control
- Standard Modbus

■ Technical specification

VFD model	Rated capacity (kVA)	Rated input current(A)	Rated output current(A)	Adaptable motor(kW)
CV100-2S-0004G	1.0	5.3	2.5	0.4
CV100-2S-0007G	1.5	8.2	4.0	0.75
CV100-2S-0015G	3.0	14.0	7.5	1.5
CV100-2S-0022G	4.0	23.0	10.0	2.2
CV100-4T-0007G	1.5	3.4	2.3	0.75
CV100-4T-0015G	3.0	5.0	3.7	1.5
CV100-4T-0022G	4.0	5.8	5.5	2.2
CV100-4T-0037G	5.9	10.5	7.8	3

■ Specification

Item		Descriptio
Input	Rated voltage and frequency	4T: 3-phase,380V～440V AC; 50Hz/60Hz; 2T: 3-phase, 200V～240V;50Hz/60Hz; 2S: Single-phase,200V～240V;50Hz/60Hz
	Allowable voltage range	4T: 320V～460V AC; 2T/2S:180V～260V;Voltage tolerance < 3%; Frequency: ±5%
Output	Rated voltage	0~Rated input voltage
	Frequency	0Hz～300Hz(Customized 0Hz~3000Hz)
	Overload capacity	G type : 150% rated current for 1 minute, 180% rated current for 10 seconds; L type :110% rated current for 1 minute, 150% rated current for 1 second
Control Characteristics	Control mode	V / F control SVC (open loop vector control)
	Modulation mode	Space vector PWM modulation
	Starting torque	0.5Hz 150%rated torque
	Frequency accuracy	Digital setting：Max frequency ×±0.01%；Analog setting：Max. frequency ×±0.2%
	Frequency resolution	Digital setting: 0.01Hz；Analog setting: Max frequency×0.1%
	Torque boost	Manual torque boost :0%～30.0%
	V/F pattern	4 patterns: 1 kind of V/F curve mode set by user and 3 kinds of torque-derating modes (2.0 order, 1.7 order, and 1.2 order)
	Acc/Dec curve	Linear acceleration/deceleration, Four kinds of acceleration/deceleration time are optional
	Auto current limit	Limit current during the operation automatically to prevent frequent over-current trip
Customized function	Jog	Range of jog frequency: 0.20Hz~50.00Hz; Acc/Dec time of Jog operation: 0.1~60.0s, Interval of Jog operation is also settable.
	Multiple speed operation	Implement multiple speed operation by digital inputs
	Bluetooth	debugging inverter with smart phone
Operation function	Operation command	Keypad setting, terminal setting, communication setting
	Frequency command setting	Digital setting, Analog voltage setting, Analog current setting, Pulse setting
	Auxiliary frequency setting	Implement flexible auxiliary frequency trim and frequency synthesis.
	Analog output terminal	2 channels analog output (0/4~20mA or 0/2~10V). For example setting frequency, output frequency etc.
Operation panel	LED Display	Display frequency setting, frequency output, voltage output, current output and so on, about 20 parameters.
	Parameters copy	Copy parameters by operation panel.
	Keys lock and function selection	Lock part of keys or all the keys. Define the function of part of keys, in case of misoperation.
Protection functionnel		Open phase protection (optional), overcurrent protection, overvoltage protection, undervoltage protection, overheat protection, and overload protection and so on.
Environment	Operating site	Indoor, installed in the environment free from direct sunlight, dust, corrosive gas, combustible gas, oil mist, steam and drip.
	Altitude	Derated above 1000m, the rated output shall be decreased by 10% for every rise of 1000m
	Ambient temperature	-10℃~40℃, derated at 40℃~ 50℃
	Humidity	5%~95%RH, non-condensing
	Vibration	Less than 5.9m/s² (0.6g)
	Storage temperature	- 40℃ ~ + 70℃
Structure	Protection class	IP20
	Cooling method	Air cooling, with fan control.
Installation method		Wall-mounted
Efficiency		Power under 45kW≥90%；Power above 55kW≥90%

CV20 Series VFD

■ Main Features

- Output frequency 0~300Hz
- V/F control and setable V/F curves
- Carrier frequency up to 6kHz
- Standard equiped Modbus(RS485 baud rate up to 19200bps)

■ CV20 Specification

Model	CV20-2S-0004G	CV20-2S-0007G	CV20-2S-0015G	CV20-4T-0007G	CV20-4T-0015G	CV20-4T-0022G	CV20-4T-0037G
The power of suitable motor (kW)	0.4	0.75	1.5	0.75	1.5	2.2	3
Input	Rated voltage / frequency	Single phase 200V～240V、50/60Hz			3 phase 380V～440V、50/60Hz		
	Allowable voltage range	180V～260V, Voltage unbalancedness：<3%, frequency：±5%			3320V～460V, Voltage unbalancedness：<3%, frequency：±5%		
	Rated current (A)	5.3	8.2	14.0	3.4	5.0	5.8	10.5
Outpu	Voltage (V)	0～rated input voltage			0～rated input voltage		
	Rated current (A)	2.5	4.0	7.5	2.3	3.7	5.5	7.8
	Overload capacity	150% rated current for 1 minute, 180% rated current for 10 seconds						
Protection class		IP20						
Cooling method		Air cooling						

EC series electric forklift driver

Efficient walking and steering drive solutions

electric forklift driver

Main feature

- The walking drive is compatible with synchronous rotary transformer, synchronous encoder and asynchronous encoder mode, while the steering drive is compatible with DC brush and brushless motor mode;
- It supports terminal communication, CANopen communication and communication between devices with CANopen interface
- Reserve various IO interfaces to meet the system control requirements to the maximum extent
- Advanced pulse width modulation technology ensures the efficient utilization of battery and reduces the loss of motor energy consumption and torque conversion
- Modular design, rich product series, meet the needs of customization

Main specifications		Description
Input	rated voltage	DC 24V、48V
output	Rated current	3 phase，100~150A；0~300Hz
	Maxium current	3 phase，200~300A；0~300Hz
	Output voltage	3 phase，16V、32V；0~301Hz

Model specification

Drive model	Rated power	Input voltage	Maxim current	Drive type	Adaptive motor
EC3001-02Z0022N-M	2.2kW	24V	300A	walk only drive	Synchronous、Asynchronous
EC3001-05Z0022N-M	2.2kW	48V	200A	walk only drive	Synchronous、Asynchronous
EC3001-02Z0037N-M	3.7kW	24V	300A	walk only drive	Synchronous、Asynchronous
EC3001-05Z0037N-M	3.7kW	48V	200A	walk only drive	Synchronous、Asynchronous
EC3002-02Z0008N-M	0.8kW	24V	50A	steering drive	DC brush、DC brushless
EC3002-05Z0008N-M	0.8kW	48V	50A	steering drive	DC brush、DC brushless
EC3005-02Z0022N-M	2.2kW	24V	300A	walking and steering drive	Synchronous、Asynchronous &DC brush、DC brushless
EC3005-05Z0022N-M	2.2kW	48V	200A	walking and steering drive	Synchronous、Asynchronous &DC brush、DC brushless
EC3005-02Z0037N-M	3.7kW	24V	300A	walking and steering drive	Synchronous、Asynchronous &DC brush、DC brushless
EC3005-05Z0037N-M	3.7kW	48V	200A	walking and steering drive	Synchronous、Asynchronous &DC brush、DC brushless

EC series handcart driver

DC brushless driver, quick and flexible、stable and efficient driving solution

handcart driver

Main feature

- Support DC brush motor、DC brushless motor;
- Support incremental encoder, Hall sensor feedback;
- Support CAN bus, RS485 communication, I/O analog
- Efficient vector control algorithm
- Over current, over voltage, under voltage, overload, over temperature, short circuit protection, etc

Model specification

Specification parameters		EC-05Z0015-E-C	EC-05Z0020-E-C
Power input	Rated voltage	DC48V	
	Range of operating voltage	DC18~55V	
Output	Rated current	30A	50A
	Peak current	60A	100A
Feedback signal		U,V,W Hall Signal & Incremental Encoder	
Over voltage alarm voltage		DC72V	
Under voltage alarm voltage		DC12V	
Main function	Terminal control	8 x-terminal input, 3 y-terminal output and one analog signal input	
	RS 485	RS485 supports maxim 115.2k baud rate and Modbus RTU protocol	
	CAN BUS	CAN BUS supports maxim 1M baud rate,support CANopen protocol and freedom agreement	
	Protect function	Over current protection, over-voltage protection, under voltage protection, overheating protection, overload protection, etc	
Adaptable motor		brush motor, brushless motor	
Operation panel		set parameters, control drive operation, observe operation parameters	
Environment	Operate site	Indoor, free from direct sunlight, dust, corrosive gas, combustible gas, oil mist, water vapor, drip or salt	
	Altitude	Derating for use above 1000m, 10% derating for every 1000m rise	
	Ambient temperature	-10℃~+40℃ (ambient temperature between 40℃-50℃, please derating while using)	
	Humidity	5%~95%RH, no condensation	
	Storage temperature	-40℃~+70℃	
Construction	Degree of protection	IP20	
	Cooling method	natural cooling (High current and long-time operation require auxiliary heat dissipation)	
Installation		Horizontal installation	

roller drive

Model specification

Specification parameters		EC-05Z0005-E-C	EC-05Z0007-E-C
Power input	Rated voltage	DC48V/24V	
	Range of operating voltage	DC18~60V	
Output	Rated current	10A	15A
	Peak current	30A	45A
Feedback signal		Hall sensor / incremental encoder	
Main function	RS 485	supports maxim 115.2k baud rate and Modbus protocol support RTU and ASCII	
	CAN BUS	supports maxim 1M baud rate,support CANopen protocol and freedom agreement	
	Protect function	Over current protection, over-voltage protection, under voltage protection, overheating protection, overload protection, etc	
Energy consumption braking		Requires external braking resistor (applicable to sudden change load)	
Energy consumption braking voltage absorption point		DC60V±2V	
Safety design		Built in replaceable fuse	
Adaptable motor		brushless motor/servo motor	
Operation panel		set parameters, control drive operation, observe operation parameters	
Environment	Operate site	Indoor, free from direct sunlight, dust, corrosive gas, combustible gas, oil mist, water vapor, drip or salt	
	Altitude	Derating for use above 1000m, 10% derating for every 1000m rise	
	Ambient temperature	-10℃~+40℃ (ambient temperature between 40℃-50℃, please derating while using)	
	Humidity	5%-95% RH, no condensation	
	Storage temperature	-40℃~+70℃	
Construction	Degree of protection	IP20	
	Cooling method	natural cooling (High current and long-time operation require auxiliary heat dissipation)	
Installation		Horizontal installation	

EC series roller drive

DC brushless driver, quick and flexible, stable and efficient driving solution

Main feature

- Support incremental encoder, Hall sensor feedback;
- Dual power interface, dual communication interface design, plug and play, convenient field wiring;
- Efficient vector control algorithm
- Over current, over voltage, under voltage, overload, over temperature, short circuit protection, etc