#### PROVEN PERFORMANCE

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





Kinco

Product Catalog

• Kinco General Catalog

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



Automation Solutions for Global Customers

### Contents













### **About Kinco**

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 implements the total quality management from R&D, production to sales in strict accordance with the requirements of ISO9001 quality system, and guarantees rapid response to customer needs in the form of project management system.

#### HMI

Kinco HMI first product show in market in 2007 year. 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

- GREEN series
- Xf-SiHMI01
- Text series
- Dedicated series

#### PLC

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

### Servo System

Kinco servo system originates from German highprecision 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

### Stepper System

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.

### Inverter

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

- FV20 series CV100 series
- CV20 series
- EC series driver
- Multi-rotor power system









### **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

New Structure Exquisite fuselage

#### Material

Rigidity and intension promoted, heat resistance promoted.

#### Color

Display color increase to 16.7M color

#### Core

Undate core version more stable

#### CPU

Using industrial grade main frequency 792MHz

### Memory

DDR3 capacity update to 128M

#### **GREEN Series contain three subseries:**



- 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 ■ Standard type series\*
  - 7" and 10"
- 3 serial port, Ethernet
- Standard USB Host, USB Slave port - Built-in isolated power

#### GL **■** Economy type series 3" to 15"

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

#### ■ Main technical parameters of the product

GH series	GH043/GH043E		GH070/GH070E			GH104E		GH150E
G series				G070/G070E/G070E-CAN				
GL series		GI043		GL070/GL070E	GL100/GL100E		GL104E	GL150E
Display size	4.3"	4.3"	7"	7"	10.1"	10.4"	10.4"	15"
Resolution	480×272	480×272	800×480	800×480	1024×600	640×480	640×480	1024×768
Backlight	LED	D LED LED		LED	LED	LED	LED	LED
CPU	ARM RISC 32Bit 7	92MHz						
Storage	128MB NAND Fla	sh Memory+12	BMB DDR3 Memory					
Storage environment								
humidity	10 ~ 90 % RH (	non-condensin	g )					
Panel protection grade	Conforming to Ip	65 certification(	4208 —93)				0~50°C	-10~55℃
Operating temperature	-10~55°C	0~50°C	-10~55℃	0~50°C	~50°C	-10~55℃	299×219 (mm)	383×283 (mm)
Installation hole size	146×81 (mm)	119×93 (mm)	194×113 (mm)	192×138 (mm)	261×180 (mm)	299×219 (mm)		
Configuration software	Kinco DTools V3.2	and above vers	ion					

### Xf-SiHMI01

Split-type Human Machine Interference The Xf-SiHMI01 use a 32bit RISC Cortex-A9 1GHZ with 512MB DDR3+4GB eMMC.



#### ■ Product feature

High-endconfiguration:CortexA9architecture,mainfrequency1G,512MBDDR3+4GBeMMC;

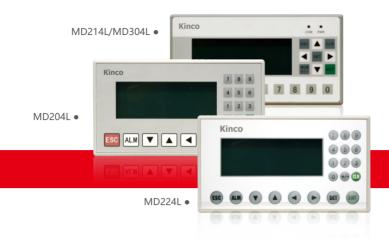
- -SupportHDMIV1.4FullHD(1920\*1080@60HZ)highresolutionoutput;
- -2standardUSBHOST,3COMport(COM1isterminalporttype),1netport;
- The concept of splittings creen away from host, adapt with lots of display device by HDMI, and the splitting screen away from host, adapt with lots of display device by HDMI, and the splitting screen away from host, adapt with lots of display device by HDMI, and the splitting screen away from host, adapt with lots of display device by HDMI, and the splitting screen away from host, adapt with lots of display device by HDMI. The splitting screen away from host, adapt with lots of display device by HDMI. The splitting screen away from host, adapt with lots of display device by HDMI. The splitting screen away from host, adapt with lots of display device by HDMI. The splitting screen away from host, adapt with lots of display device by HDMI. The splitting screen away from host, adapt with lots of display device by HDMI. The splitting screen away from host away fromsuchasTV,screen,projector;
- -2-digitalinputs(programmable, standard 24 V source type), 3-digital outputs (programmable, standard24Vsourcetype);
- -CanchooseWiFi802.11b/g /nwirelessnet,orSDcardtoenlargesavingcapacity;
- -Lotsofinstallationmodes:DINrailmounting(35mm),VESAbracketmounting(75\*75mm)



#### ■ Technical parameters of the product

model	Xf-SiHMI01
Performance specification	
Processor	32bit RISC Cortex-A9 1GHZ
Memory	512MB DDR3+4GB eMMC
Performance specification	
Display port	1*HDMI V1.4 Full HD(1920*1080@60HZ)
Expandable memory	2*USB HOST
Ethernet	1*10/100M self-adaptive
COM port	"COM0: PLC RS232/RS422/RS485;COM1:PLC RS485; COM2: PC/PLC RS232"
IO port	"2-digital inputs (programmable, standard 24V source type3-
External power supply	digital inputs (programmable, standard 24V source type"
<b>Environment specification</b>	
Operating temperature	0~50℃
Operating humidity	10~90%RH(non-condensing)
Storage temperature	-30~80°C
Storage humidity	10~90%RH(non-condensing)
Degree of protection	IP20







The MD series programmable text display is a small push-button human-machine interface that can communicate with mainstream PLC on the market.lt can be equipped with RTU and alarm list functions, and can be monitored in the form of texts, indicators, etc., to modify the value and status of the PLC internal registers or relays, so that the operator can control the device freely.

#### **■** Product feature

- 1. 4.3" STN LCD
- 2. RTU is supported

#### ■ Main technical parameters of the product

Model	MD204L	MD214L	MD224L	MD304L
Display size	4.3"	4.3"	4.3"	4.3"
Resolution	192×64	192×64	192×64	192×64
Function keys	20	19	20	19
Backlight	Yellow-green LED	White LED	Yellow-green LED	White LED
Operating temperature	0~50°C	0~50°C	0~50°C	0~50°C
Installation hole size	165×86 (mm)	165×78 (mm)	165×86 (mm)	165×78 (mm)



SZ7

Hand-held terminal

- Series: SZ7 (Kinco HMIWare software), SZ7(WinCE).
- Basic parameters: 7" TFT, 800\*480 pixel , 65536 color.
- Standard configuration: 1 three-selector switch, emergency switch,10 programmable function keys (could expend to 16 keys), could configure 3 more enable switches in which high requirements of safety;
- Remote control: with hand-held terminal, support 5m/10m/15m long distance operation.
- Easy for installation: support FDMI standard (75 \* 75mm) bracket or rack installation.



Targeting the needs of the industry







Whole body IP65 water-proof

- Simplify LINUX kernel, 800MHz CPU.
- Use pen-drive to up/download program easy to use.
- Full item with IP65 water-proof.
- Bracket mounting flexible installation.



#### MT4000R

No front cover and Rear mounted

- R series take rear mounted, could perfectly suit the equipment surface.
- R series USB slave port use MicroUSB port.
- The ER means HMI with Ethernet port, and the COM1(RS485-2W) is terminal type.

#### ■ Main technical parameters of the product

Model	MT4070R		MT4100R			
	MT4043R	MT4070ER	MT4100ER	F7	F10	Sz7
Display size	4.3"	7"	10 1"	7"(16:9)	10.1"	7"
Resolution	480×272	800×480	1024×600	800×480	1280×800	800×480
Backlight	LED	LED	LED	LED	LED	LED
Operating temperature	0~50℃	0~50°C	0~50℃	0~50℃	0~50℃	0~50℃
Installation hole size	107.2×68.9(mm)	166×101 (mm)	238×148 (mm)	Bracket mounting	Bracket mounting	Bracket/Hang mounting
Degree of protection	-	-	-	IP65 (Whole machine)	IP65 (Whole machine)	IP65 (Front panel)
CPU	800MHz RISC	800MHz RISC	800MHz RISC	800MHz RISC	800MHz RISC	800MHz RISC
Storage	128MB Flash +	128MB Flash +	128MB Flash +	128MB Flash +	128MB Flash +	128MB Flash +
Storage	64MB DDR2	64MB DDR2	64MB DDR2	64MB DDR2	64MB DDR2	64MB DDR2
Storage environment			10 90 % PH (	non-condensing )		
humidity			10 - 30 % KH (	non-condensing )		

### JD Series



Modbus CANopen EtherCAT

#### Kinco JD series European style high performance CAN bus servo system

Product model: JD420/430

Product power: 200W~2000W

1-phase/3-phase 200~240VAC

JD620/630/640/650/660

1500W~7500W 3-phase 380~415VAC

#### ■ Main characteristics

Power supply voltage:

- · 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.

#### ■ Adaptable 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.

### FD4S Series



Modbus CANopen EtherCAT

#### Kinco FD4S series economic DC servo system

FD114S Product power: 50W~200W, Power supply voltage: DC24V~70V, rated current 5A Product model:

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

#### ■ 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
- · All series products conform with CE verification and ROHS environment verification standard.

#### ■ Adaptable 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.

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

<sup>\*1</sup> Choose driver type according to different CAN bus requirement

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

### CD/FD3 Series



Modbus CANopen EtherCAT

#### Kinco CD/FD3 series AC servo system

Product model CD&FD413/423/433\*1

50W~2000W Product power:

1-phase/3-phase 200~240VAC

CD&FD613\*1/623\*1 1000W~3000W

3-phase 380~415VAC

#### ■ Main characteristics

Power supply voltage:

- 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.\*<sup>2</sup>

#### ■ Adaptable 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.

### CD/FD2S Series



Modbus CANopen EtherCAT

#### Kinco CD/FD2S series AC servo system

Product model CD&FD412S/422S/432S

Product power: 50W~2000W

1-phase/3-phase 200~240VAC Power supply voltage:

CD&FD612S/622S

1000W~3000W 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
- · 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.

#### ■ Adaptable 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.

<sup>\*1</sup> Products are developing.

<sup>\*2</sup> Part of types. Please discuss with local sales director.

### MD series

Don't need motor cable & encoder cable



Modbus CANopen EtherCATT

#### Kinco MD series modularization servo system

Product model: MD60-020 200W, DC24~70V,5A

> MD60-040 400W, DC24V~70V,10A MD80-075 750W, DC24~70V, 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.

#### ■ Adaptable 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.







Modbus CANopen EtherCAT

#### Kinco OD series modularization servo system

Product model:

**OD114** Product power: 50W~200W, Power supply voltage: DC24V~70V, Rated current 6A

OD124 Product power: 50W~400W, Power supply voltage: DC24V~70V, Rated current 10A

#### ■ 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.

#### ■ Adaptable 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.

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

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

### FD3 series



Modbus CANopen EtherCAT

### Kinco FD3 series DC servo system

Product model:

**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.

#### ■ Adaptable 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.

### **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

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

### **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 overcurrent 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.

#### ■ Adaptable 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**



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	Phase cu	irrent (A)	Winding resistance	Winding inductance	Motor	Number of lead	Shaft diameter	Shaft type	Motor length	Weight	Step angle
Pilase	Size		(N.m)	Series	Parallel	(Ω)	(mH)	(Kg.cm²)	wires	(mm)	Shart type	(mm)	(Kg)	(°)
	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
	57	2S57Q-1376	1.3	1.96	3.92	1±10%	2.1±20%	0.48	8	6.35	Platform	76	1	1.8
	5/	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		2S86Q-3465	3.4	6	6	0.3±10%	1.7±20%	1	4	13	Flat key	65	1.7	1.8
2-priase	86	2S86Q-4580	4.5	6	6	0.38±10%	3.5±20%	1.4	4	13	Flat key	80	2.3	1.8
	80	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
		2S110Q-03999	11.7	5.5	5.5	0.7±10%	9.8±20%	5.5	4	19	Flat key	99	5	1.8
	110	2S110Q-047F0	21	6.5	6.5	0.72±10%	12.8±20%	10.9	4	19	Flat key	150	8.4	1.8
	110	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
	130	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
э-рпаѕе	5/	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
3-рпазе	03	3S85Q-040F7	7.5	4	4	1.78±10%	17.1±20%	0.44	4	14	Flat key	157±1	5.3	1.2

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## **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.
- Provides 3 high speed counters, and 3 high speed pulse outputs.
- 2 RS485 ports, baud rate up to 187.5bps.
- Compact design, save installation space.



#### 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:

- 2 high-speed counters with 12 different operation modes, input pulse frequency up to 20~60kHz.
- Built-in 2 high-speed pulse output channels with frequency up to 200kHz.
- Provide CANopen master and free protocol function by connecting with K541 module.
- 1 RS232 port and at most 2 RS485 ports support Modbus RTU master/slave and free protocol.
- $\hbox{-} Support\ edge\ interrupt,\ free\ communication\ interrupt,\ time\ interrupt,\ high-speed\ counter\ interrupt\ etc.}$
- Provide software PID control function by function block (default).
- At most 10 expansion modules connectable with up to 184 I/O points to meet most automation applications.
- Provide multiple expansion modules to meet different applications.
- Provide DC24V power supply.



#### 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 feature

- LORA, GPRS, WIFI, types of wireless network port.
- Provide cloud server and powerful software (web version, APP, WeChat, etc.) to easily implement local networking, remote data collection, remote monitoring, data analysis, etc.
- Standard CAN interface, high-speed channel, expandable, etc., both data collector and device controller



#### 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

- Integrated PLC with HMI, 9\*DI/9\*DO.
- $Program\ download\ via\ Micro\ USB (2.0), Can\ be\ downloaded\ separately\ using\ the\ same\ cable.$
- 4 High speed pulse counter, 3 High speed pulse output, 1 RS485 port, 1\*RS485 (PORT 1), Max. haudrate 115.2 K.
- 65536 colors, high resolution display, built-in USB port, support bulk data storage, HMIware software for

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# **Expansion**I/O Module



#### Kinco PLC module table

Series	Туре	Order Number	Description
		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.
К2	CPU	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.
NZ	module	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.
		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.
	СРИ	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.
	CDII	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.
К5		K521-08DX	DI 8°DC24V
KJ		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
	Expension	K523-16DR	DI 8*DC24V, DO 8*Relay
		K523-08DR	DI 4*DC24V, DO 4*Relay
	module	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

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

#### Kinco PLC module table

Series	Туре	Order Number	Description
	CD.I.	KS101M-04DX	CPU,DC24V power supply , DI 4*DC24V ,2*CAN,1*Ethernet
	CPU module	KS105-16DT	DC20.4-28.8V power supply, DI 8*DC24V, DO 8*DC24V, 2*serial port (1*RS232, 1*RS485), connectable expansion module.
KS	module	KS105C1-16DT	DC20.4-28.8V power supply, DI 8*DC24V, DO 8*DC24V, Z*serial port (1*RS232, 1*RS485), 1*CANbus interface, only connect to the CANbus extension module
K2		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.
		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.
	Expension I/O	KS122-14DT	DC20.4-28V power supply, DO 14*transistor,It can be used as a Modbus slave
	module	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.
НР	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.
1117	CFO IIIodule	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.
	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.
KW	CFO IIIodule	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.

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

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### **Inverter**

• FV20 series

• CV100 series

CV20 series



### FV20 Series VFD

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

#### ■ Feature

- Reduce interference,45KW and below built-in EMI filter
- High torque at low speed, Automatic current limiting
- Optimized structure, 45KW and below built-in brake unit
- Support software monitoring

#### ■ Specification

em		Descriptio
	Rated voltage	4T: 3-phase,380V ~ 440V AC; 50Hz/60Hz; 2T: 3-phase, 200V ~ 240V;50Hz/60Hz;
Input	and frequency	2S: Single-phase,200V~240V;50Hz/60Hz
	Allowable voltage range	4T: 320V ~ 460V AC; 2T/2S:180V ~ 260V; Voltage tolerance < 3%; Frequency: ±5%
	Rated voltage	0~Rated input voltage
	Frequency	0Hz ~ 300Hz(Customized 0Hz~3000Hz)
Control Characteristics  Customized function  Operation function  Operation panel  Protection function  Environment		G type: 150% rated current for 1 minute, 180% rated current for 10 seconds;
	Overload capacity	L type :110% rated current for 1 minute, 150% rated current for 1 second
	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%
Control	Frequency resolution	Digital setting: 0.01Hz ; Analog setting: Max frequency×0.1%
	Torque boost	Manual torque boost :0% ~ 30.0%
2		4 patterns: 1 kind of V/F curve mode set by user and 3 kinds of torque-derating
	V/F pattern	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
		Range of jog frequency: 0.20Hz~50.00Hz; Acc/Dec time of Jog operation: 0.1~60.0s,
	Jog	Interval of Jog operation is also settable.
function	Multiple speed operation	Implement multiple speed operation by digital inputs
	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.
function	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.
	LED Display	Display frequency setting, frequency output, voltage output, current output and so on, about 20 paramete
	Parameters copy	Copy parameters by operation panel.
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.
	·	Open phase protection (optional), overcurrent protection, overvoltage protection,
Protection function	onnel	undervoltage protection, overheat protection, and overload protection and so on.
		Indoor, installed in the environment free from direct sunlight, dust, corrosive gas,
	Operating site	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°C~40°C, derated at 40°C~ 50°C
Environment	Humidity	5%~95%RH, non-condensing
	Vibration	Less than 5.9m/s² (0.6q)
	Storage temperature	- 40°C ~ +70°C
	Protection class	IP20
Structure	Cooling method	Air cooling, with fan control.
		and the second s
Installation metho	od	Wall-mounted

#### ■ 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
	445	491		280
FV20-4T-2800G/3150L			520	
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
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

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### **Inverter**

• FV20 series

• CV100 series

CV20 series



### CV100 Series VFD

CV100 series is mini type VFD, compact design, V/F control, power range: 400W~7.5kW.

#### ■ Main features

- Control mode: V/F control;
- Carrier frequency up to 15kHz;
- Auto torque boost and slip compensation function;
- Built-in PID control;
- Standard equipped Modbus (RS485 baud rate up to 38400bps);
- Sleep/wake up function.

#### **■** CV100 Specification

Mode	G: constant torque	CV100-2S-□□□G					CV100-4T-□□□□G ( L )							
IVIOGE	L : variable torque	0002G	0004G	0007G	0015G	0022G	0037G	0007G	0015□	0022□	0037□	0055□	0075□	0110L
The p	ower of suitable motor (kW)	0.2	0.4	0.75	1.5	2.2	3.7	0.75	1.5	2.2	3.7	5.5	7.5	11
	Rated voltage / frequency	Single p	hase 200	V~240V,	50/60Hz			3-phase	380V~4	140V, 50/6	50Hz			
Input	Allowable voltage range	180V ~ 2	180V ~ 260V, Voltage unbalancedness : <3%,						460V, Vol	tage unb	alancedn	ess : <3%	, o,	
tut		frequen	requency: ±5%					frequency: ±5%						
	Rated current (A)	2.3	5.3	8.2	14.0	23.0	32.0	3.4	5.0	5.8	10.5	14.5	20.5	26.0
0	Voltage (V)	0 ~ rate	d input v	oltage				0 ~ rated input voltage						
Output	Rated current (A)	1.3	2.5	4.0	7.5	10.0	16.0	2.3	3.7	5.5	8.8	13.0	17.0	25.0
ut.	Overload capacity	150% 1 minute , 180% 10 seconds												
Brake	Brake unit													
Prote	Protection class		IP20											
Cooli	Cooling method		ing, cooli	ng by far	, with far	control								

Notes :  $0015\square \sim 0075\square$  , where " $\square$ " stands for "G" or "L".

### **Inverter**

FV20 series

CV100 series

• CV20 series



### CV20 Series VFD

#### ■ Main Features

- Output frequency 0~300Hz
- V/F control and setable V/F curves
- Carrier frequency up to 6kHz
- Auto torque boost and auto slip compensation function
- 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	
The power of suitable motor (kW)		0.4	0.75	1.5	0.75	1.5	2.2	
Input	Rated voltage / frequency	Single phase 200V ~ 240V, 50/60Hz			3-phase 380V ~ 440V, 50/60Hz			
	Allowable voltage range	180V ~ 260V, Voltage unbalancedness : <3%,			320V ~ 460V, Voltage unbalancedness: <3%,			
		frequency: ±5%			frequency: ±5%			
	Rated current (A)	5.3	8.2	14.0	3.4	5.0	5.8	
Output	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	
	Overload capacity	150% 1 minute , 180% 10 seconds						
Protection class		IP20						
Cooling method		Air cooling						

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# EC Series Driver & DC brushless driver

DC Brushless driver, with fast, flexible, stable and efficient drive solution





#### **■** Feature for EC Series Driver

- -Support DC brush motor, DC brushless motor
- -Support incremental encoder, hall sensor feedback signal
- -Support CAN,RS485 communication,I/O Analog

#### ■ Feature for DC brushless driver

- -Support incremental encoder, Hall sensor feedback
- -Isolated communication design, support CAN bus, and RS485 communication, stable and anti-interference
- -Dual power interface, Dual communication interface, quickly plug and quick use, convenient wiring on field

#### **■** Specification

Model		EC-05 Z0015-E-C	EC-05Z0005-*-*		
Power	Rated Voltage	DC48V	DC 48/24V		
Input	Operating voltage range	DC18-55V	DC18-60V		
Output	Rated Current	30A	10A		
Output	Peak Current 60A		30A		
Feedback sign	al	U,V,W Hall Signal & Incremental Encoder	Hall sensor/Increamental encoder		
	Terminal Control	8*Digital Input,3*Digital Output,1*Analog Input	None		
Main	Rs485	Baudrate up to 115.2K,Support Modbus	Up to 115.2K Baud Max, Modbus support		
Function		RTU protocol	RTU and ASCII		
	CAN BUS	Baudrate up to 1M,Support CANopen	Up to 1M Baud Max, support CANopen		
		and Free communication	and free communication protocol		
	Protection	Over-current, Over-voltage, Ur	Jnder Voltage, Over-temperture, Over-load		
Suitable Motor		DC Brush Motor, DC Brushless Motor	Brushless motor, Servo motor		
Operation Panel		Can set parameters, control the driver operation, Monitor the parameters			

# Multi-Rotor power system



#### ■ Specification

	К8	K10			
Maximum Pull Weight	15.8kg (48V)	18.3kg(48V )			
Battery	12S	LiPo			
Recommended Take-off Weigh	5-7kg/Axis (48V)	7-9kg/Axis(48V)			
Outer Diameter Of Carbon Tube	30mm	40mm			
Protection Class	IP	X7			
Temperture		-50℃			
Total Weight	1250g	1390g			
Motor					
Rotor Size	81*20mm	100*10mm			
KV value	115	120			
Bearing	Imported Brand				
Weight	670g	680g			
Driver					
Support Battery	6	13S			
Maximum Working Voltage	56V				
Maximum Continusous Current	80A (With Cooling Environment)	120A(With Cooling Environment)			
Maximum Peak Current	120A(With cooling environment)	140A(With cooling environment)			
PWM Signal Input Level	3.3/5V(Compatible)				
Pulse Width	1100-1940 um				
Signal Compatibility Frequency	30-500Hz				
Propeller					
Diameter * pitch	3016	3316			
Weight	155g	185g			

#### **■** Technical Parameter

Model	Voltage(V)	Propeller	Accelerator ( % )	PulWeight ( g )	Current(A)	Power(W)	Forceffect(g/W)
	48	3016	40%	4097	8.4	415.2	9.87
			50%	5535	13	639.8	8.65
			60%	7186	19.2	944.6	7.6
K8			70%	8994	27.1	1321.9	6.8
			80%	11117	37.3	1807.4	6.15
			90%	13317	49.9	2390.6	5.57
			100%	15861	63.3	3056.1	5.19
	48	48 3016	40%	4180	8.2	366.5	11.40
			50%	5992	13.5	602.1	9.95
			60%	7709	20.0	896.0	8.60
K10			70%	9782	28.7	1285.7	7.61
			80%	12463	41.1	1833.1	6.80
			90%	15726	67.9	2960.0	5.31
			100%	18327	91.7	3943.1	4.65

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