

## 5 phase step drive system

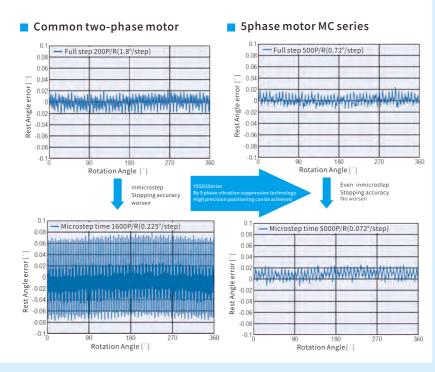
# Y5 series stepper drive MC series stepper motor

High precision

Low vibration

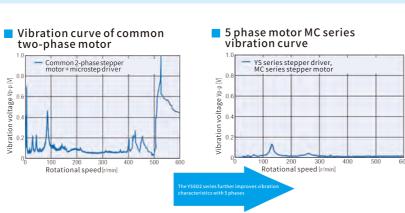
#### High precision

The 5-phase stepper M C series has a step Angle of 0.72°(0.36° for the high-resolution type) and a stop accuracy of 0.05, so it can achieve high precision positioning. In addition, the static Angle error when controlled by the micro-step drive can be achieved and the whole step drive is basically not Change to high precision.

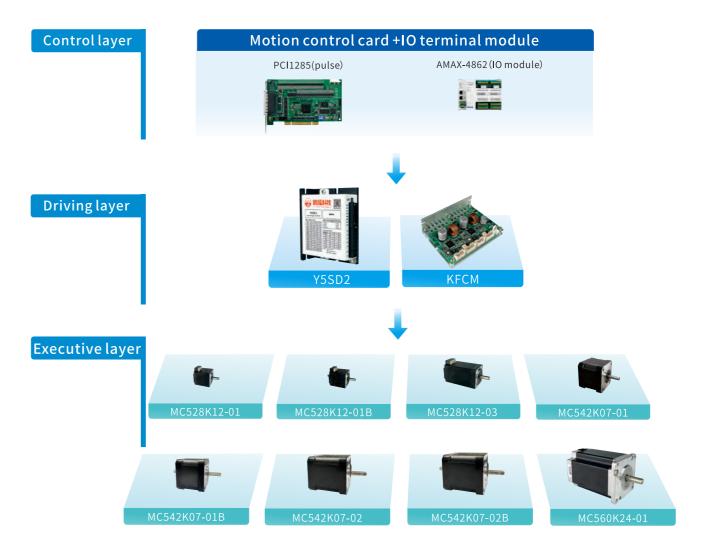


#### Low vibration

With a smaller basic step Angle of 0.72°(0.36° for the high-resolution 2-phase stepper motor with a basic step Angle of 1.8°), low vibration and low noise are achieved. In addition, through the control of micro-step drive driver, lower vibration and low noise can be achieved.



#### **PRODUCT FAMILY TOPOLOGY**



#### **INDUSTRY APPLICATIONS**



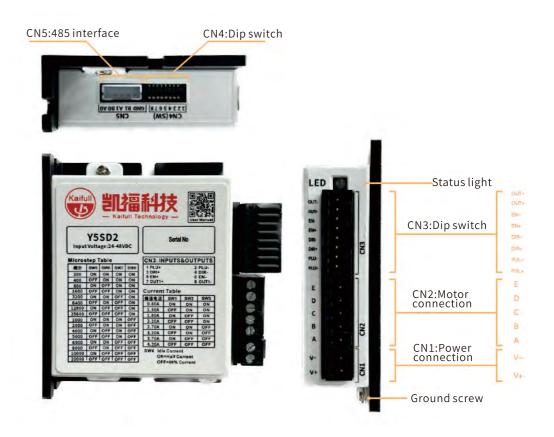
### **MODEL AND SPECIFICATION PARAMETERS**

Motor model	Y5SD2			
Mounting dimension	73 × 56 × 21 mm			
Input power supply	24 ~ 48V DC			
Current output	0.8~4.2A (peak)			
Adaptive motor	Five phase stepper motor			
Control mode	Pulse + direction, double pulse, speed mode			
Communication interface	RS485 serial port			
Inputsignal	Pulse, direction, enable signal: differential; Optocoupler isolation; The common end supports 5 to 24VDC. Maximum frequency 250Khz			
Output signal	Alarm output: open collector output; Optocoupler isolation; Maximum output 100mA@30V			
Insulation withstand voltage	Grounding AC1.5KV, can withstand voltage for 1 minute			
Recommended use environment	Temperature:0~+55°C Humidity:0~90%RH below			
Class of protection	IP20			

### **TYPICAL CONFIGURATION EXAMPLES**

Product model		Maximum torque	Rotor moment of inertia	Rated current	Basic step Angle	Adapter driver
Single axis	MC528K12-01	0.05N.m	9g.cm²	1.2A	0.72°	KFD-S0514-1L/2L/3L/Y5SD2
Dual Axis	MC528K12-01B	0.05N.m	9g.cm²	1.2A	0.72°	KFD-S0514-1L/2L/3L/Y5SD2
Single axis	MC528K12-03	0.091N.m	18g.cm²	1.2A	0.72°	KFD-S0514-1L/2L/3L/Y5SD2
Single axis	MC542K07-01	15N.cm	54g.cm <sup>2</sup>	0.75A	0.72°	KFD-S0514-1L/2L/3L
Dual Axis	MC542K07-01B	15N.cm	54g.cm <sup>2</sup>	0.75A	0.72°	KFD-S0514-1L/2L/3L
Single axis	MC542K07-02	24N.cm	68g.cm <sup>2</sup>	0.75A	0.72°	KFD-S0514-1L/2L/3L
Dual Axis	MC542K07-02B	24N.cm	68g.cm <sup>2</sup>	0.75A	0.72°	KFD-S0514-1L/2L/3L
Single axis	MC560K24-01	1.6N.m	580g.cm <sup>2</sup>	2.4A	0.72°	Y5SD2

## **INTERFACE DESCRIPTION**



#### NAMING RULES

