KTC-2M2283 Driver

Product Description:

Product Type: **Nema 42 Stepper Motor** or **Nema 52 Stepper Motor** Driver

Feature summary：High-performance, low price, micro-step, Automatic idle-current reduction, Optical isolating signals I/O, Max response frequency up to 200Kpps, Low temperature rise, smooth motion, Online adaptive PID technology.

Place of Origin：china

Support Motor: **Nema 42 Stepper Motor or Nema 52 Stepper Motor**

Product Overview:

KTC-2M2283 is subdivided and high-performance stepper motor drive using constant angle and constant torque，which is designed for 130BYG、110BYG and other 8A following two-phase, four-phase hybrid stepping motor. The driver uses the circuit which is Similar to the principle of servo control with the features of smooth running, low noise, low vibration, low temperature rise of the motor .It has 16 kinds of micro-step, and the micro-step can be set from full step to 51200steps/rev.The working current can be set from 2.0A to 8.3A, and the output current has 16 stalls, the current resolution is about 0.5A; with automatic semi-flow, self-test, overvoltage, under-voltage and over-current protection. This driver is AC power, Voltage does not exceed 240VAC not less than 120VAC.

Product Parameters:

Parameter	Min	Typical	Max	Unit
Input Voltage(AC)	150	-	220	VAC
Output current	0	-	8.3	A
Pulse Signal Frequency	0	-	200	KHZ
Logic Signal Current	7	10	16	MA

Features：

1、 High-performance, low price
2、 micro-step
3、 Automatic idle-current reduction
4、 Optical isolating signals I/O
5、 Max response frequency up to 200Kpps
6、 Low temperature rise, smooth motion
7、 Online adaptive PID technology

Applications：

Suitable for a variety of large-scale automation equipments and instruments. For example: labeling machine, cutting machine, packaging machine, plotter, engraving machine, CNC machine tools and so on. It always performs well when applied for equipment which requires for low-vibration, low-noise, high-precision and high-velocity.

Subdivision	SW1	SW2	SW3	SW4
400	0	0	0	0
800	1	0	0	0
1600	0	1	0	0
3200	1	1	0	0
6400	0	0	1	0
12800	1	0	1	0
25600	0	1	1	0
51200	1	1	1	0
1000	0	0	0	1
2000	1	0	0	1
4000	0	1	0	1
5000	1	1	0	1
8000	0	0	1	1
10000	1	0	1	1
20000	0	1	1	1
50000	1	1	1	1

1. Current setting：Dial switch：ON=0;OFF=1

Phase current	SW5	SW6	SW7	SW8
2.0	1	1	1	1
2.4	0	1	1	1
2.8	1	0	1	1
3.2	0	0	1	1
3.6	1	1	0	1
4.2	0	1	0	1
4.8	1	0	0	1
5.2	0	0	0	1
5.6	1	1	1	0
6.0	0	1	1	0
6.4	1	0	1	0
6.8	0	0	1	0
7.2	1	1	0	0
7.6	0	1	0	0

8.0	1	0	0	0
8.3	0	0	0	0

2. Micro-step Setting: Dial switch：ON=0;OFF=1

3. Control signal Connector:

| signal	function
FAULT− FAULT+	Common anode input positive terminal Common anode input positive terminal(+5V)
ENA- ENA+	Enable signal terminal motor is offline when Enable signal is active, no internal current.
DIR- DIR+	Direction signal terminal Direction control signal control the motor running direction.
PUL- PUL+	Pulse signal terminal Pulse signal control the motor to run motor run 1 step after each pulse.

4. Power and Motor Connector:

AC AC	Power supply, 150~220VAC
A+ A-	Motor phase A
B+ B-	Motor phase B

5. Problems and Solutions:

Phenomenon	Possible Cause	Solutions
Fault indicator brightens red for a long time (over-current)	Electrical wire shorted	Check the motor lines and eliminate short circuit
	Motor failure	Replace motor
	Other reasons	Check back

Product Dimension:

(unit: mm(inch),1 inch = 25.4mm)
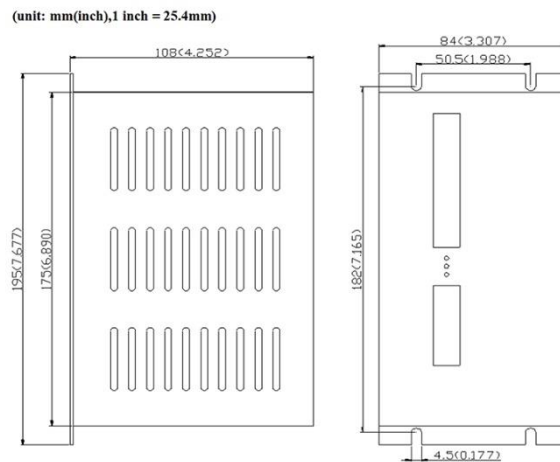
Customized Design:

If this product do not match with your request. Please feel free to contact with us,We can make customized shaft / winding / mounting flange / cable / connector / Encoder / Brake / Gearbox and others. We will works side-by-side with you and your team to design a motor that will fit the precise needs of your application. All Engineering and Support is done in-house.

FAQS：

1. How can get it started as soon as possible when you first use the drive?

After you correctly connect the power cord, the motor line, the Hall line, the external potentiometer slowly accelerates. After the motor is turned correctly, you can test the enable, direction and other functions. If you are unfamiliar with the product, the initial use should be done after the test. And then it can be installed to the actual use.

2. What will come about if power supply is reverse?

It will immediately burn the drive.

3. What is the maximum of the upper control signal voltage ?

The maximum voltage of the speed regulation signal is 5V. Exceeding this voltage will cause the drive to burn.

4. After the driver has been working for a long time, the shell is hot. Is it normal?

Yes, it is. At room temperature, after long working hours, it is up to 90 degrees. And it will not affect the performance.

5. The power indicator is light, but the motor does not turn and shift, what is the reason?

There may be a mistake in the phase line and the Hall line. Please re-energize the wiring according to the motor manual.

6. Can my motor speed transferred to 6000 with this drive?

The maximum speed of the brushless motor is determined by the parameters of the motor itself. The drive can control the motor speed from 0 to the highest speed.

7. I already have a motor and how to install this drive after wiring?

You must first determine the motor phase and the definition of the Hall line, and then you can connect it with wires. If you are not sure, you need to ask the motor manufacturers. Incorrect wiring can cause damage to the drive.

8. Can I add some features on this drive or do new product development?

Yes, please contact us.   edilson@kalatec.com.br