

# JYQD V7.3B Brushless DC Motor Driver Board

| Model      | Operating temp. | Operating voltage (V) | Max.<br>current<br>(A) | Continuous<br>working current<br>(A) | PWM speed<br>control<br>(1-20KHZ) | Analog voltage<br>speed<br>Regulation (V) | Speed<br>pulse<br>signal<br>output |
|------------|-----------------|-----------------------|------------------------|--------------------------------------|-----------------------------------|-------------------------------------------|------------------------------------|
| JYQD_V7.3B | -20—85          | 7-48                  | 10A                    | 8A                                   | Duty cycle<br>0-100%              | 0-5V                                      | V                                  |

### **Application notes:**

- **1.** Confirm that the voltage and power parameters of the motor cannot exceed the range specified by the driver board.
- 2. This Driver Board suitable for 120-degree Hall brushless DC motors. Not all manufacturers' line sequences correspond to the line sequences of the drive board. Customers can adjust the Hall line sequence or motor three-phase line sequence according to the actual situation. Achieve the best driving effect (see the attachment for adjustment information)
- **3.** JYQD\_V7.3B drive board is bare board, drive power below 100W motor does not need to force heat dissipation, need to ensure normal ventilation.
- **4.** The 5V output port on the driver board is prohibited from connecting to external electrical equipment. It is only suitable for connecting external potentiometers and switches to this board for speed regulation and reversal.
- **5.** The Signal on the JYQD\_V7.3B driver board is the motor speed pulse output signal, and the output current is less than 5mA.



**Driver Board Diagram** 



## **Port Description**

#### 1. HALL Sensor Port

**GND** — Hall negative pole

Hc — Hall Hc

Hb — Hall Hb

Ha — Hall Ha

**5V** — Hall positive pole

#### 2. Control Port

**GND** — Used for Driver board internal control

**VR** — Speed control port. Analog voltage speed regulation 0V-5V speed regulation, linear speed regulation from low to high. PWM speed regulation needs to be grounded with the driver board.

**Z/F** — Rotating direction control ports. Analog voltage speed regulation 0V-5V speed regulation, linear speed regulation from low to high. PWM speed regulation needs to be grounded with the driver board.

Signal — Motor speed pulse signal output port, 5V pulse signal

**EL** — Enable port control. Connect 5V to allow operation, connect GND to forbid operation.

**5V** — Driver board internal output voltage, external potentiometer or switch for speed adjustment and reversing operation.

### 3. Power port

P+ - DC +

P- - DC -

MC — Motor Phase C

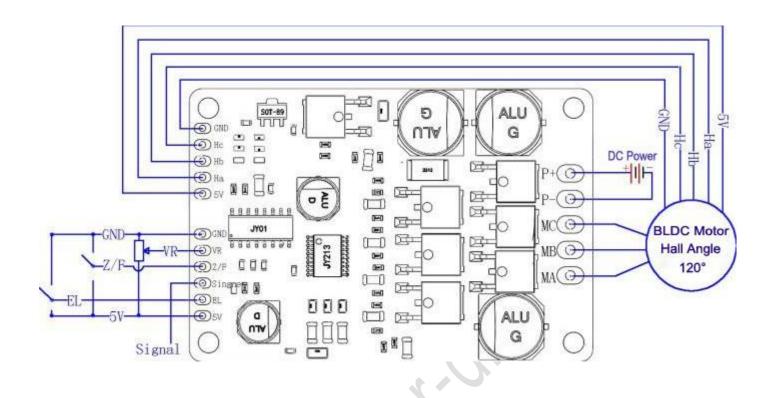
MB — Motor Phase B

MA — Motor Phase A

- **4.** Please pay attention to the motor phase wire and Hall wire not to be too long. It will cause signal interference If the wire is too long.
- **5.**The port spacing of the control port and power port are 2.0mm and 3.96mm respectively.
- **6.**Pay attention to the insulation of the drive board when adding heat sinks or placing them.



## **Wiring Diagram**



# **Dimensional Diagram**

Unit: mm Weight: 17g

