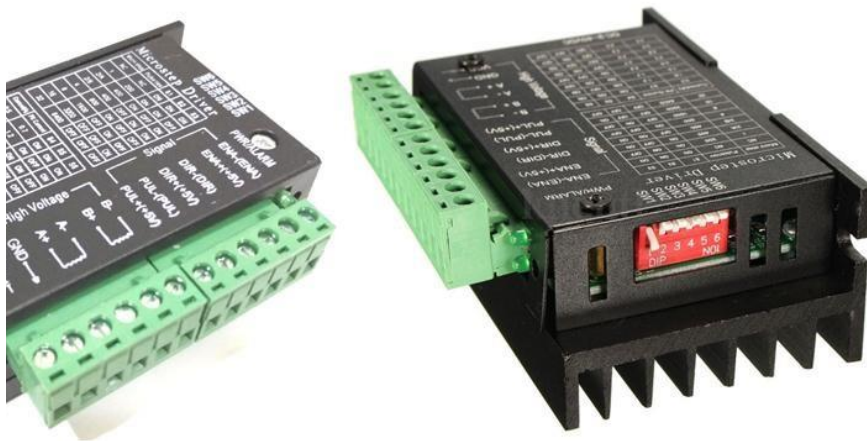


TB6600 4.0A Stepper Motor Driver

-to-use professional stepper motor driver, which could control a two-phase stepping motor and other microcontrollers that can output a 5V digital pulse signal. TB6600 driver has a wide range power input. And it is able to output 4A peak current, which is enough for the most common 28BYJ-48 stepper motor. It has a 6 DIP switch for micro steps and output drive current setting. All signal lines are opto-coupler isolation, enhancing its ground loop interference ability. As a professional device, it can drive 1.8, 2.0, 2.5, 3.0, 3.6, 4.2, 4.8, 5.0, 5.7, 42-type 2-phase, 4-phase, hybrid stepper motors.



9

Voltage: 9V~40V.

Current: 0~5A.

Current: 0.5~4.0A.

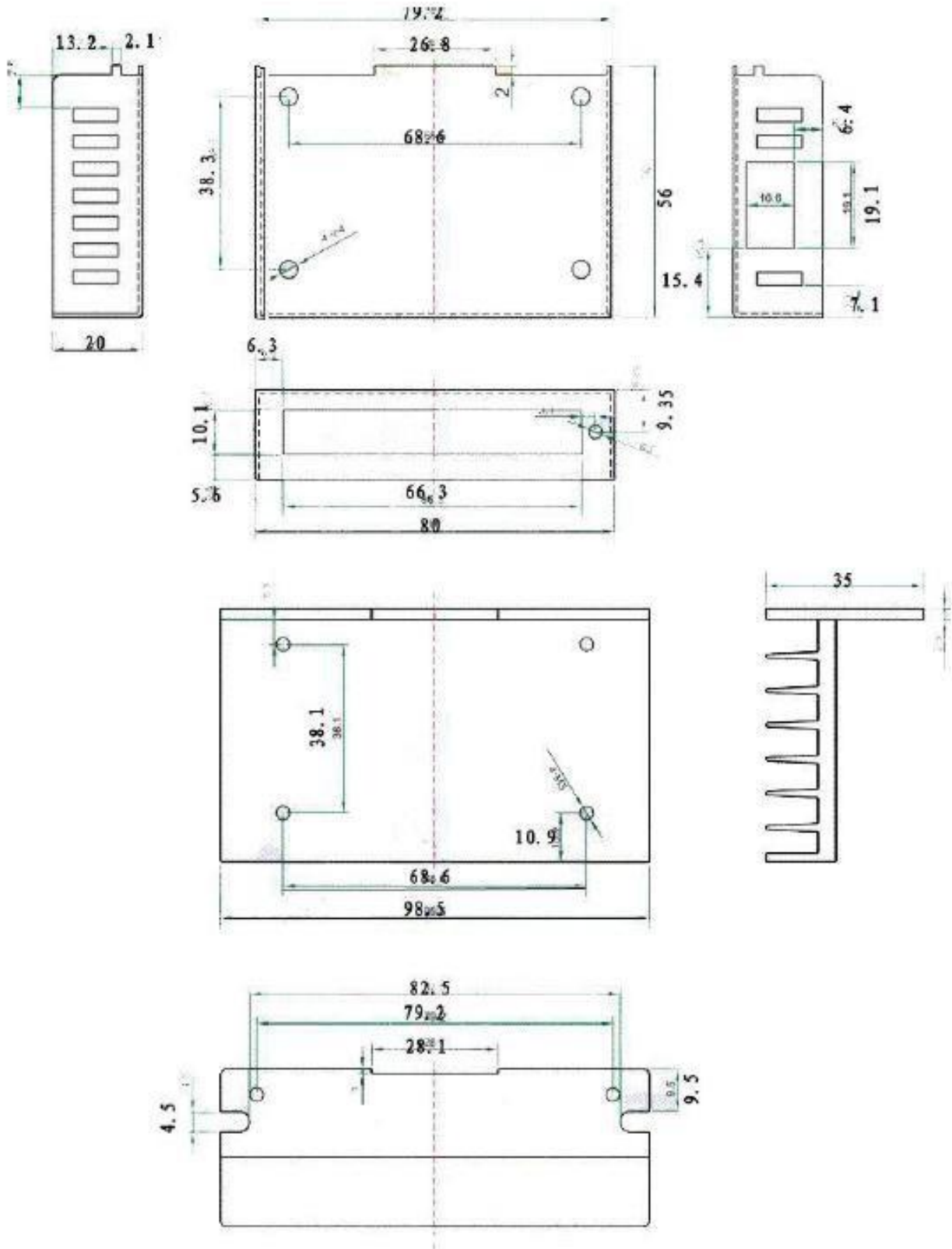
MAX): 160W.

Step: 1, 2/A, 2/B, 4, 8, 16, 32.

-10~45°C 56x33 mm.

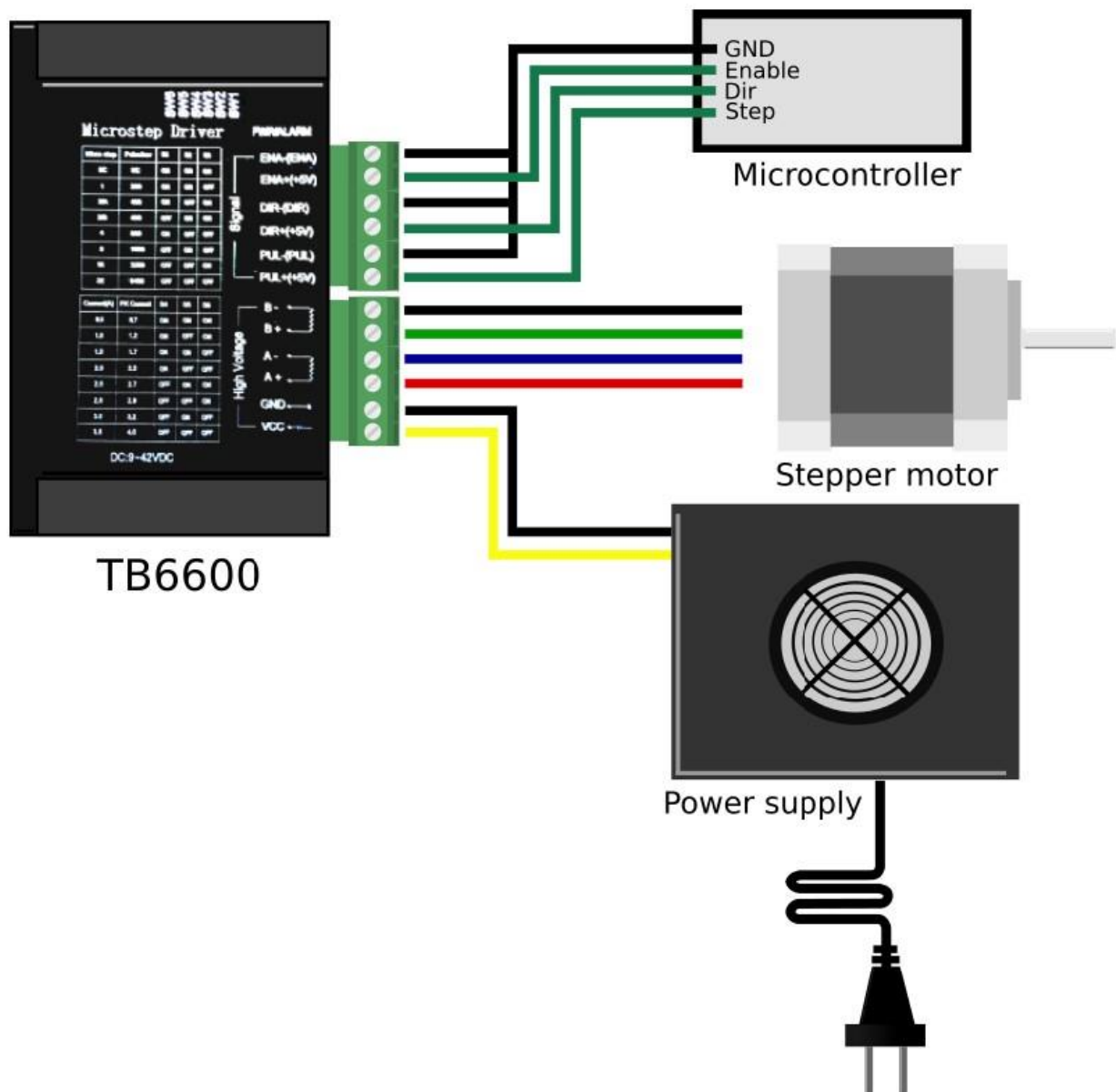
Unit: mm





Basic Wiring:

The following diagram shows how to connect the stepper driver within your application. Review the documentation of the electronics for details on the three signal lines. Note that the voltage applied from the microprocessor should be 5V. You can connect a 9 to 42V DC power source to VCC/GND.



DIP Switch Setting:

You can set the current and microsteps using the dip switches SW1-SW6 on the side. Refer to the following tables for details.

Microsteps

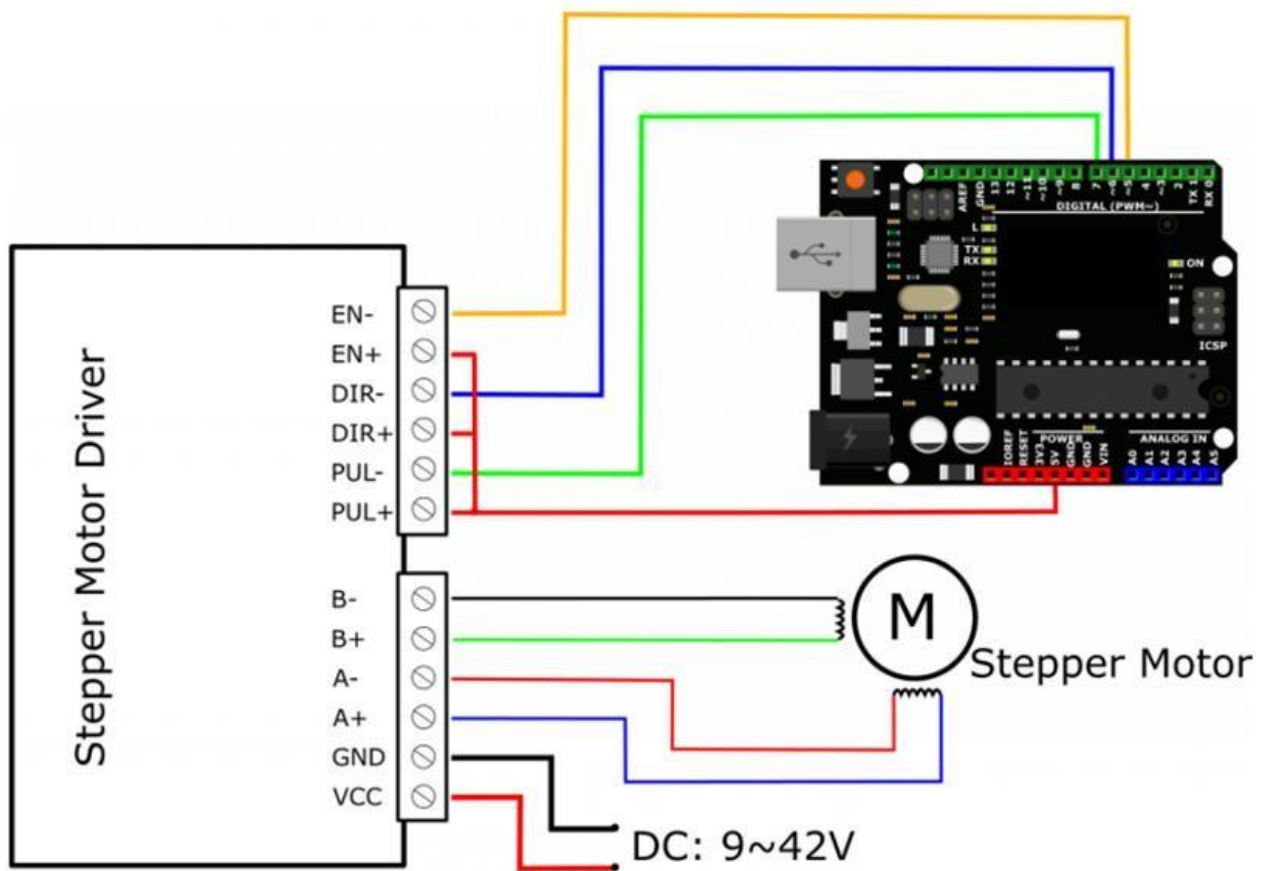
Micro steps	Pulse/rev	SW1	SW2	SW3
-	-	ON	ON	ON
1	20	ON	ON	OFF
2/A	400	ON	OFF	ON
2/B	400	OFF	ON	ON
4	800	ON	OFF	OFF
8	1600	OFF	ON	OFF
16	3200	OFF	OFF	ON
32	6400	OFF	OFF	OFF

Current setting

Current (A)	Peak current	SW4	SW5	SW6
0.5	0.7	ON	ON	ON
1.0	1.2	ON	OFF	ON
1.5	1.7	ON	ON	OFF
2.0	2.2	ON	OFF	OFF
2.5	2.7	OFF	ON	ON
2.8	2.9	OFF	OFF	ON
3.0	3.2	OFF	ON	OFF
3.5	4.0	OFF	OFF	OFF

Arduino Connection Application Example:

In this section, we'll show you how to use TB6600 with Arduino to drive stepper motor quickly. Wiring up the TB6600 driver to Arduino Uno controller board as shown below:



Copy and paste the below sketch into Arduino IDE and upload to Arduino Uno board:

```

/*=====
// Author      : Handson Technology
// Project     : Arduino Uno
// Description  : TB6600 Stepper Motor Driver
// Source-Code : tb6600.ino
//===== */

int PUL=7; //define Pulse pin int
DIR=6; //define Direction pin int
ENA=5; //define Enable Pin

void setup() {
  pinMode(PUL, OUTPUT);
  pinMode(DIR, OUTPUT);
  pinMode(ENA, OUTPUT);
}

void loop() {
  for (int i=0; i<6400; i++) //Forward 5000 steps

```

```
{
    digitalWrite(DIR,LOW);
digitalWrite(ENA,HIGH);
digitalWrite(PUL,HIGH);
delayMicroseconds(50);    digitalWrite(PUL,LOW);
delayMicroseconds(50);
}
for (int i=0; i<6400; i++)    //Backward 5000 steps
{
    digitalWrite(DIR,HIGH);
digitalWrite(ENA,HIGH);
digitalWrite(PUL,HIGH);
delayMicroseconds(50);    digitalWrite(PUL,LOW);
delayMicroseconds(50);
}
}
```

After successful upload, the stepper motor attached to TB6600 driver board will turn forward and backward continuously.

Web Resources:

- [SMPS Power Supply Module](#)
- [775 Ball Bearing DC Motor](#)
- [A58SW-555 Worm Gear Motor](#)
- [JGB37-3530 Metal Gear Motor](#)
- [Motor Bracket](#)



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