Tb6600 Stepper Motor Driver

TB6600 Stepper Motor Driver is an easy-to-use professional stepper motor driver, which could control a two-phase stepping motor. It is compatible with Arduino and other microcontrollers that can output a 5V digital pulse signal. TB6600 Arduino stepper motor driver has a wide range of power input, 9~42VDC power supply. And it is able to output 4A peak current, which is enough for the most of stepper motors.
The stepper driver supports speed and direction control. You can set its micro-step and output current with 6 DIP switch. There are 7 kinds of micro-steps (1, 2 / A, 2 / B, 4, 8, 16, 32) and 8 kinds of current control (0.5A, 1A, 1.5A, 2A, 2.5A, 2.8A, 3.0A, 3.5A) in all. And all signal terminals adopt high-speed optocoupler isolation, enhancing its anti-high-frequency interference ability.
As a professional device, it is able to drive 57, 42-type two-phase, four-phase, hybrid stepper motor.

Note: this is an upgrade version of TB6600 Stepper Motor Driver.

Features:

- 9V-42V DC power supply.
- Output current: 0.5A-4.0A.
- Drive mode: Dual constant current PWM drive output.
- Strong anti-interference ability.
- Low vibration, low noise.
- Insulation resistance: >500MΩ at normal temperature and pressure.
- Insulation strength: 500V/min at normal temperature and pressure.
- With overheating, overcurrent, under-voltage lockout, input voltage anti-reverse protection, and other functions.
- Can drive 4-wire, 6-wire, 8-wire stepper motors.

Environmental Requirments:

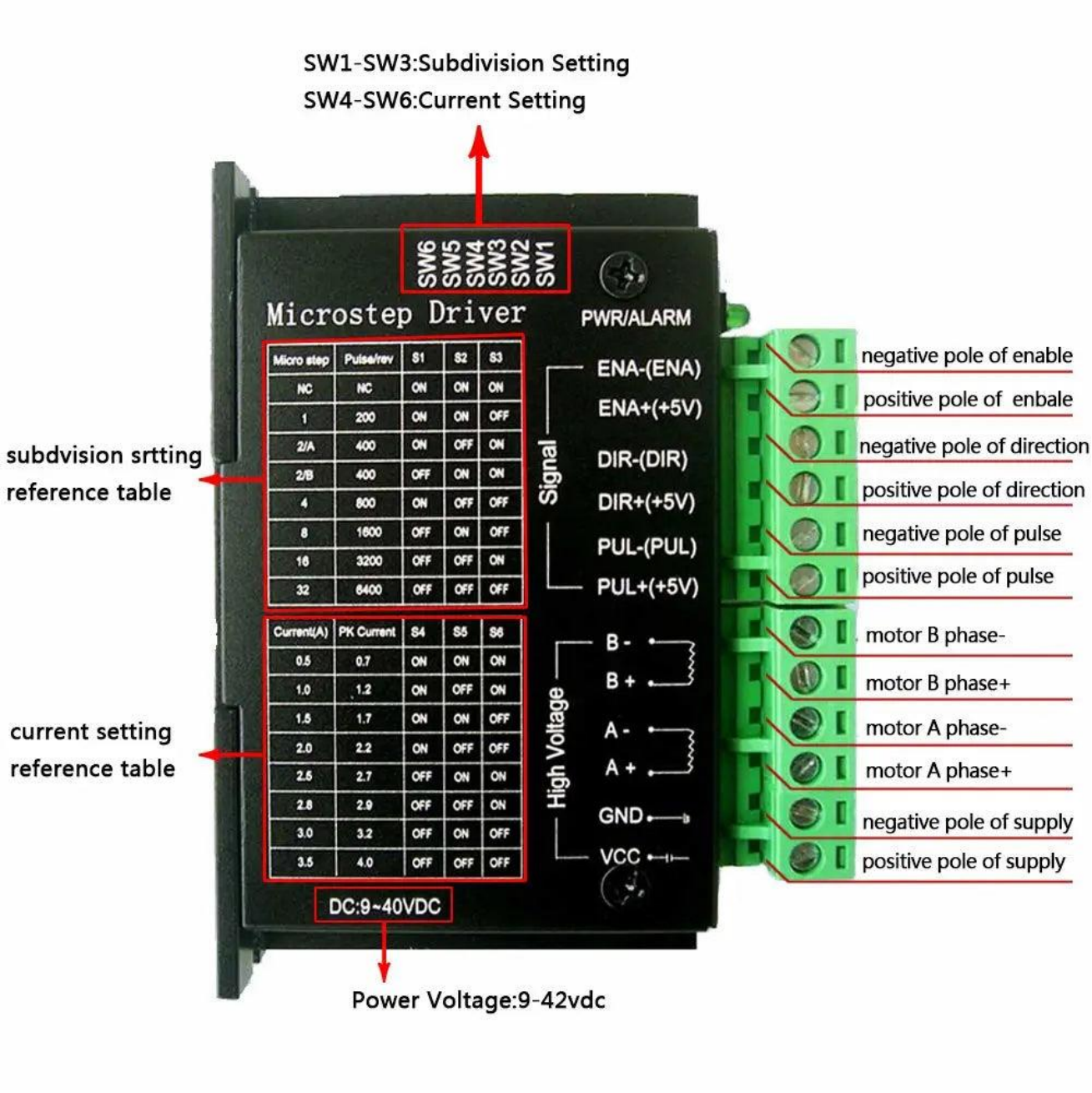
- Cooling method: natural cooling or forced air cooling.
- Storage temperature: -20°C-65° C.
- Ambient humidity: <80% RH, no condensation, no frost.
- Vibration: maximum not exceeding 5.7m/S2.
- Use occasions: Avoid dust, oil and corrosive gases, and prohibit flammable gases and conductive dust.

Wiring Requirments:

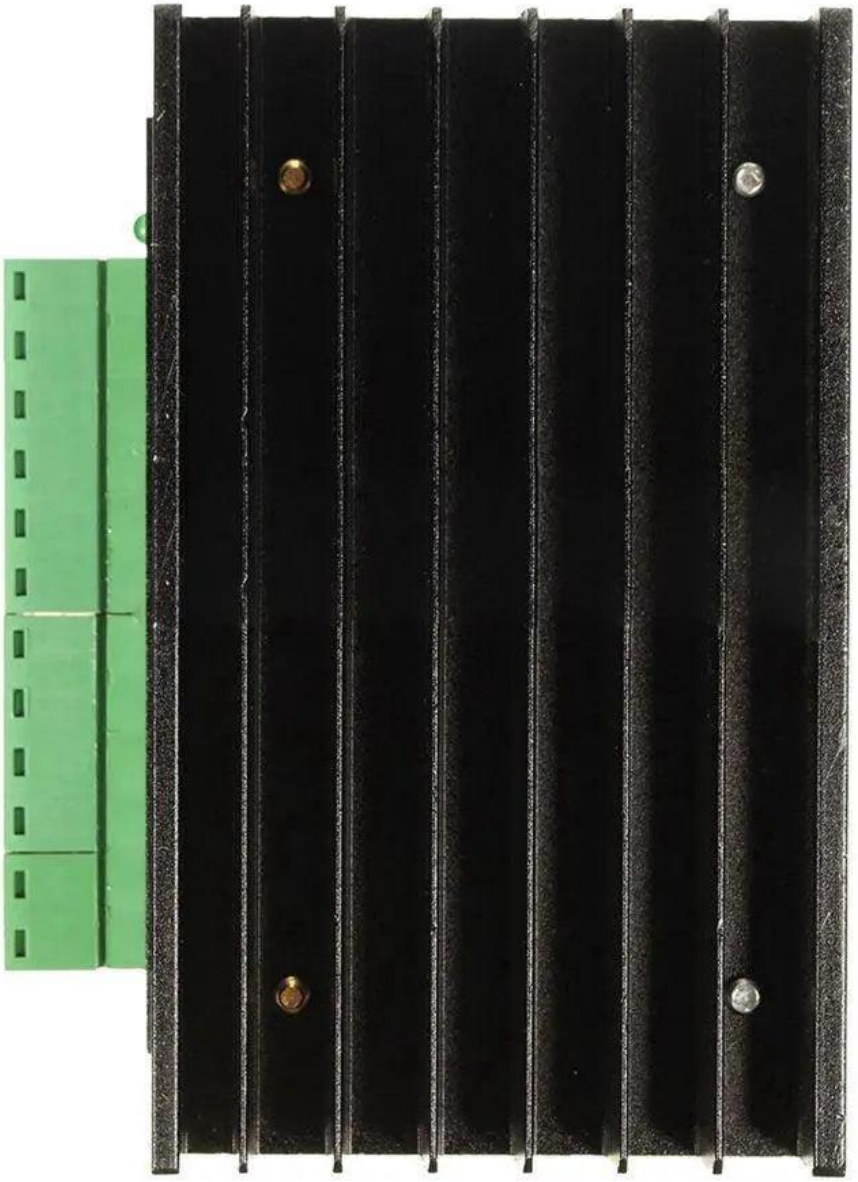
- The pulse and direction signal lines and the motor and power lines are not allowed to be side by side, preferably separated by at least 10 cm.
- If one power supply is used for multiple drives, parallel connections should be made at the power supply. It is not allowed to go to one another and then to another chain connection.
- Do not plug or unplug the drive power terminal when the power is on. When the powered motor stops, there is still a large current flowing through the coil. Pulling the power terminal will burn the driver.
- It is strictly forbidden to access terminal after wire head plus tin, otherwise, the terminal may be overheated and damaged due to the contact resistance becomes larger.
- The wiring heads should not be exposed outside the terminals to prevent accidental short circuits and damage the drive.

Package Includes:

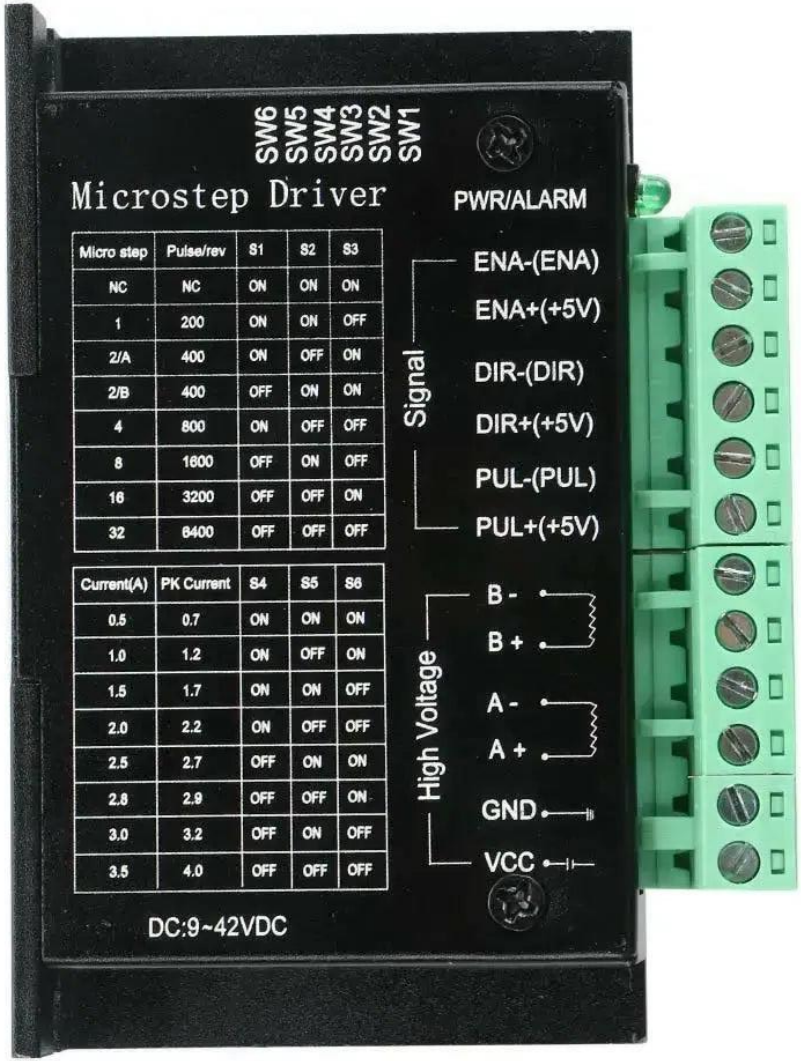
- 1 x TB6600 Stepper Motor Driver


SW1-SW3:Subdivision Setting
SW4-SW6:Current Setting
SW6 SW5 SW4 SW3 SW2 SW1
Microstep Driver
PWR/ALARM
Micro step | Pulse/rev | S1 | S2 | S3
NC | NC | ON | ON | ON
1 | 200 | 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(A) | PK Current | S4 | S5 | S6
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
DC:9~40VDC
Power Voltage:9-42vdc
subdvision srtting reference table
current setting reference table
Signal
ENA-(ENA)
ENA+(+5V)
DIR-(DIR)
DIR+(+5V)
PUL-(PUL)
PUL+(+5V)
High Voltage
B -
B +
A -
A +
GND
VCC
negative pole of enable
positive pole of enbale
negative pole of direction
positive pole of direction
negative pole of pulse
positive pole of pulse
motor B phase-
motor B phase+
motor A phase-
motor A phase+
negative pole of supply
positive pole of supply

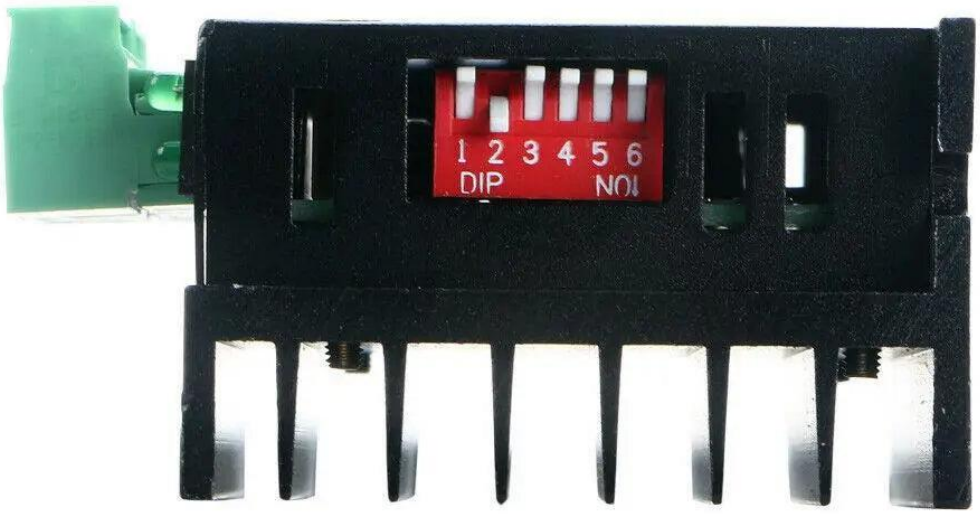

Microstep Driver
SW6
SW5
SW4
SW3
SW2
SW1
PWR/ALARM
ENA-(ENA)
ENA+(+5V)
DIR-(DIR)
DIR+(+5V)
PUL-(PUL)
PUL+(+5V)
Signal
High Voltage
DC:9~40VDC
A-
A+
B+
B-
GND
VCC



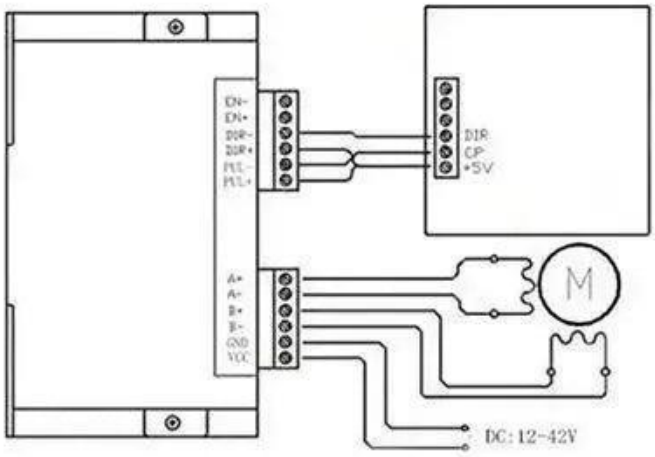

High Voltage
GND
VCC
A+
A-
B+
B-
PUL+(5V)
PUL-(PUL)
DIR+(5V)
DIR-(DIR)
ENA+(5V)
ENA-(ENA)
PWR/ALARM
MicroStep Driver
ON
1 2 3 4 5 6


SW6 SW5 SW4 SW3 SW2 SW1
Microstep Driver
PWR/ALARM
Micro step | Pulse/rev | S1 | S2 | S3
NC | NC | ON | ON | ON
1 | 200 | 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(A) | PK Current | S4 | S5 | S6
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
DC:9~42VDC
Signal
ENA-(ENA)
ENA+(+5V)
DIR-(DIR)
DIR+(+5V)
PUL-(PUL)
PUL+(+5V)
High Voltage
B -
B +
A -
A +
GND
VCC


SW6 SW5 SW4 SW3 SW2 SW1
Microstep Driver
PWR/ALARM
Micro step | Pulse/rev | S1 | S2 | S3
NC | NC | ON | ON | ON
1 | 200 | 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(A) | PK Current | S4 | S5 | S6
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
DC:9~42VDC
Signal
ENA-(ENA)
ENA+(+5V)
DIR-(DIR)
DIR+(+5V)
PUL-(PUL)
PUL+(+5V)
High Voltage
B -
B +
A -
A +
GND
VCC


1 2 3 4 5 6
DIP
NO


DC:9~40VDC
High Voltage
VCC
GND
A+
A-
B+
B-
Signal
PUL+(+5V)
PUL-(PUL)
DIR+(+5V)
DIR-(DIR)
ENA+(+5V)
ENA-(ENA)
PWR/ALAR
MicroStep DrIVer
SW6
SW5
SW4
SW3
SW2
SW1


DIR
CP
+5V
M
DC:12~42V


Microstep Driver
PWR/ALARM
ENA-(ENA)
ENA+(+5V)
DIR-(DIR)
DIR+(+5V)
PUL-(PUL)
PUL+(+5V)
Signal
High Voltage
B-
B+
A-
A+
GND
DC:9~40VDC