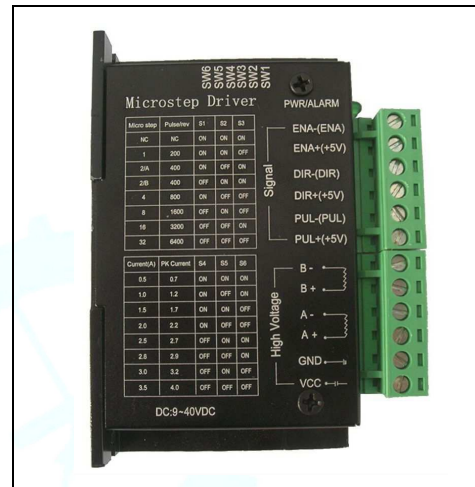


TB6600

Stepper Motor Driver

Analog Driver Model TB6600

Analog Technology, max. 40 VDC / 4.0 A (PEAK)



Product Description:

The TB6600 single axis drive is a low cost microstepping drive. It is suitable for driving 2-phase and 4-phase hybrid stepper motors. Not for professional applications.

Features:

- Cost-effective
- Supply voltage up to +40 VDC, Output current up to 4.0 A (PEAK)
- Output current selectable in 8 steps via DIP-switch
- Automatic idle-current reduction (in standstill mode) to reduce motor heating
- Pulse input frequency up to 20 kHz
- Input suitable for 5 V signals
- Inputs are optically isolated
- 6 selectable microstep resolutions, up to 6400 steps/rev with standard 1.8° motors
- Suitable for 2-phase and 4-phase motors
- Supports PUL/DIR mode
- Over current and overheat protection

Electrical Specifications:

| Parameters | Min | Typ. | Max | Unit |
|-----------------------|-----|------|---|------|
| Output current | 0.7 | - | 4.0 (3.5 RMS) | A |
| Supply voltage | +9 | +36 | +40 | VDC |
| Logic signal current | 8 | 10 | 15 | mA |
| Puls input frequency | 0 | - | 20 when duty cycle is 25 high / 75 low 13 when duty cycle is 50 / 50 | kHz |
| Insulation resistance | 500 | | | MΩ |

Further Specifications:

| | | | |
|-----------------------|-------------|-----|------------|
| Microsteps / 1,8 ° | 200 | | 6400 |
| PUL / DIR | | yes | |
| NEMA sizes | 17 | | 24 |
| Motor type Mecheltron | 42BYGH-XXXX | | 60BYGH-XXX |

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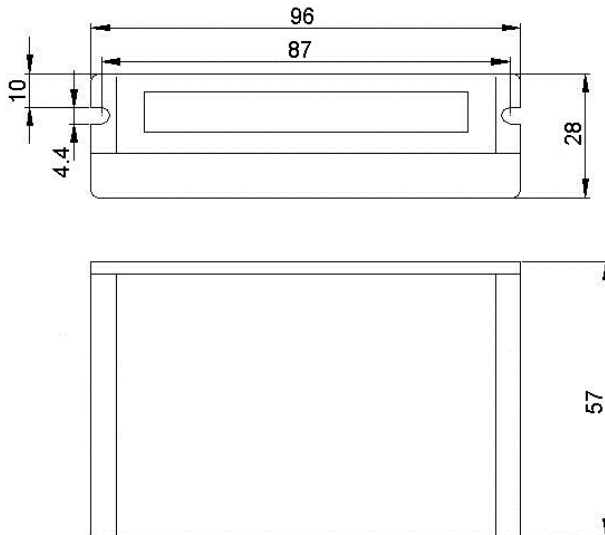
TB6600

Stepper motor driver

Analog Driver

Model TB6600

Mechanical Specifications: (Unit: mm)

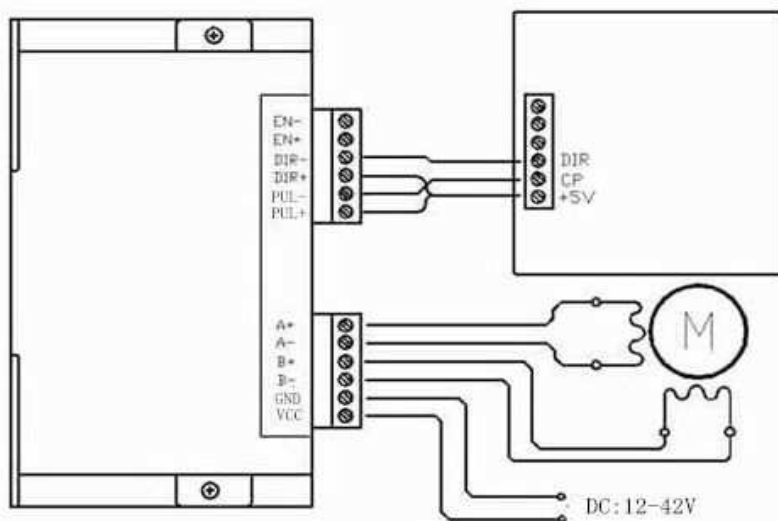


Applications:

Suitable for a wide range of stepping motors of NEMA sizes 17, 23 and 24 (42x42 mm to 60x60 mm). It can be used in various kinds of machines, such as X-Y tables, engraving machines, labeling machines, laser cutters, pick-place devices, and so on. Particularly well suited for applications where low noise levels, less heat development, high speed and high precision are desired.

Typical Connection Schematic:

A typical system consists of stepper motor, stepper motor driver, power supply and controller. The following image shows a typical connection schematic:



Logic control signals which have 5 V can be connected directly;

R 1kΩ must be connected in line when control signal is 12V;

R 2kΩ must be connected in line when control signal is 24V to ensure control signal current is 8mA to 15mA.

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