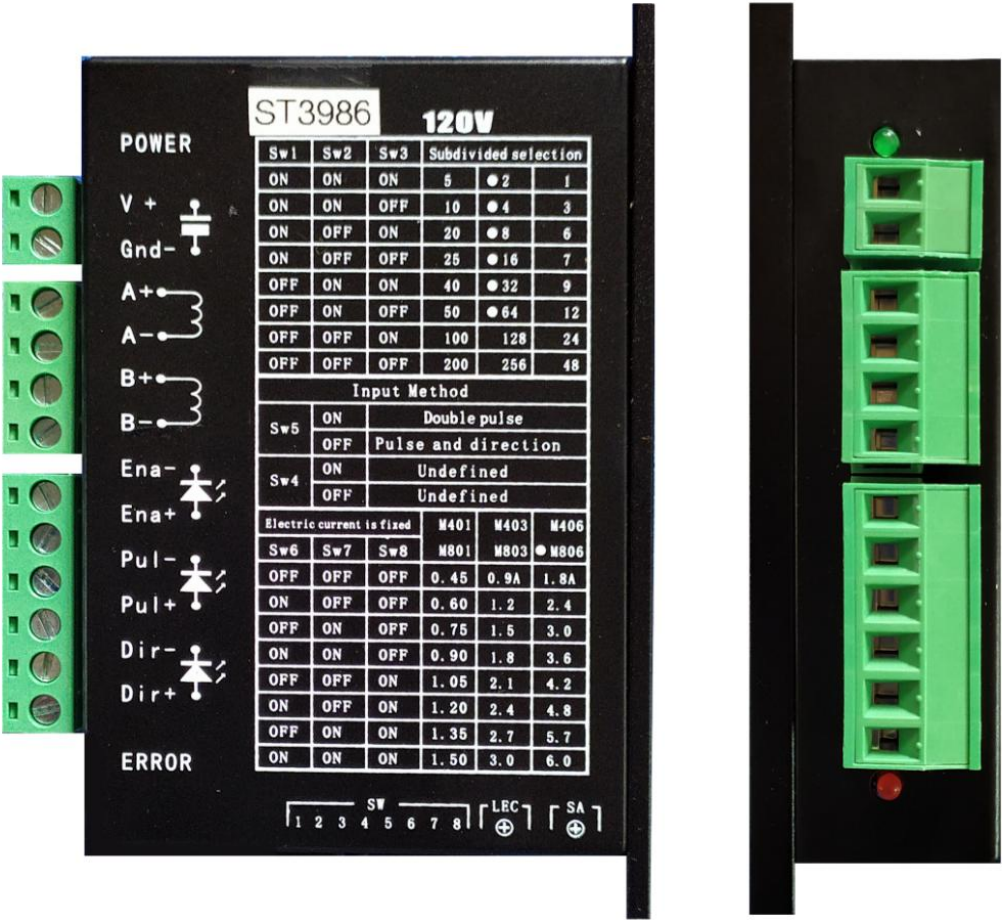


STRATEGI AUTOMATION

ST3986 STEPPER DRIVE

USER MANUAL



Safety Precautions

Observe the following notice to ensure the product safety or to prevent accident. To ensure that you use this product correctly, read this user's manual thoroughly before use.

Make sure that you fully understand the product and information on safety

Caution

- Do not dismantle or remodel the product
- Do not touch the terminal while turning on electricity. It could lead to an electric shock
- Do not undertake constructions (such as connection and disconnection) while power supply is on. It could lead to an electric shock.

1.Description,Features and Application

Description

- High performance stepper motor driver, can eliminate current ripple and suppress motor vibration.
- Drive voltage DC20-80V , current 1.8-6A.

Features

- Low jitter, low noise
- With phase protection, over-current protection
- Drive overheat protection
- A variety of microstep
- Photoelectric isolation signal input
- Input pulse frequency: 0 ~ 200KHz
- Automatic low power operation when static

Application

Suitable for a wide range of stepping motors, from NEMA size 17 to 38. 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.

2. Dip Switch Setting

2.1.RESOLUTION

SW1	SW2	SW3	Steps for REV
ON	ON	ON	400
ON	ON	OFF	800
ON	OFF	ON	1600
ON	OFF	OFF	3200
OFF	ON	ON	6400
OFF	ON	OFF	12800

2.2 INPUT METHOD

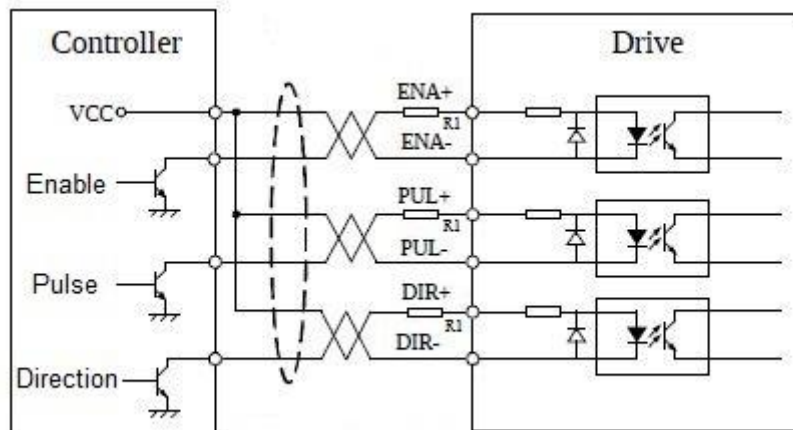
SW4	ON	UNDEFINED
	OFF	UNDEFINED
SW5	ON	Double Pulse
	OFF	Pulse and direction

2.3.CURRENT

SW6	SW7	SW8	CURRENT
OFF	OFF	OFF	1.8
ON	OFF	OFF	2.4
OFF	ON	OFF	3.0
ON	ON	OFF	3.6
OFF	OFF	ON	4.2
ON	OFF	ON	4.8
OFF	ON	ON	5.7
ON	ON	ON	6.0

3. Wiring

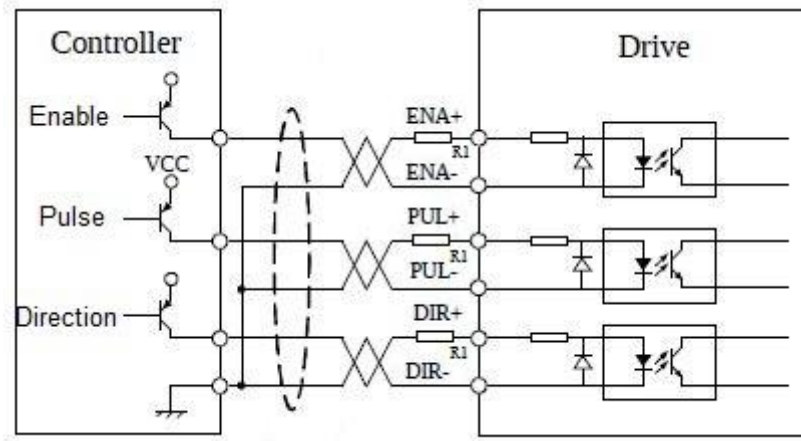
For NPN



Note:

- Please use DC5-24V input signal voltage(VCC). When DC5V,no need for resistor R1 (shown in the picture). When over DC5V, connect to 2.2k resistor.
- Signal cable, please use twisted-pair (AWG22-20), length should be less than 2m.
- Please pay attention to the polarity before power on. If there is wrong polarity for DC power, will damage the driver circuit.

For PNP



Note:

- Please use DC5-24V input signal voltage(VCC). When DC5V, no need for resistor R1 (shown in the picture). When over DC5V, connect to 2.2k resistor.
- Signal cable, please use twisted-pair (AWG22-20), length should be less than 2m.
- Please pay attention to the polarity before power on. If there is wrong polarity for DC power, will damage the driver circuit.

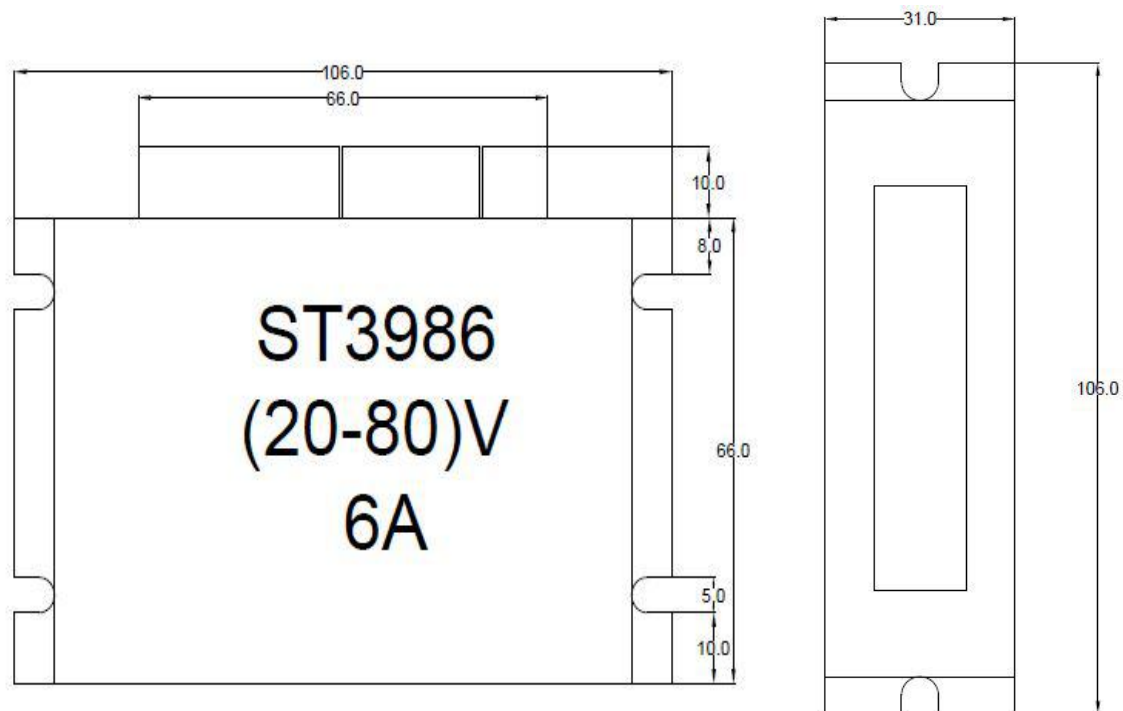
Pin details

1	+Vcc(24-80V)
2	Gnd

3	Motor A+
4	Motor A-
5	Motor B+
6	Motor B-

7	ENA+
8	ENA-
9	PUL+
10	PUL-
11	DIR+
12	DIR-

Mechanical Specification



Frequently Asked Question

Symptoms	Possible Solutions
Motor is not rotating	No Power
	DIP Switch Current setting is wrong
	The driver is disabled
Motor rotate in wrong direction	Motor Phase may be connected in reverse
Motor stall during acceleration	Motor is undersized for application
	Acceleration set is too High
	Power supply voltage is too low