1545 2-Phase Stepper Motor Driver

Characteristics：

1.DC power input type:24V~50VDC

2.Output current:1.3A-4.5A

3.Mircostepping：1(1.8°)、1/2、1/4、1/8、1/16、1/32、1/64、1/128、1/256
1/5、1/10、1/25、1/50、1/125、1/250

4.Protect form : Overheated protect, lock automatic half current ,error connect protect

5.Dimensions：118mm×76mm×33mm

6.Weight：<300g.

7.Working environment：Temperature-15～40℃ Humidity<90%。

I/O Ports：

1、VCC+：DC power positive pole

Note:Must guard against exceeding 50V,
so as not to damage the module

2、GND：DC power cathode

3、A+、A-：Stepping motor one winding

4、B+、B-：Stepping motor other winding

5、PUL+、PUL -：Stepping pulse input+5V (Rising edge effective , rising edge duration >10μS)

6、DIR +、DIR-：Stepping motor direction input, voltage level touched off,high towards, low reverse

7、ENA+、ENA-: motor free

NOTE：

1, When ambient temperature is high or working current over 2.7A, fix the module on big metal shell , or use axle flows fan dispels the heat, to make the module run reliably for a long time.

2, Half current automatically: if control machine not send out signal in half second, driver enter half current state of automatically for electricity saving, the phase current of the winding of the electric

3, The fault phase is protected : When the double-phase electrical machinery is connected with driver ,

users are apt to connect the phase by mistake, thus would damage the driver seriously. The protecting circuit is within this driver, when users connect by mistake, the driver will not be damaged, but the electrical machinery runs abnormally, shake , and output is small.Please check whether the wiring of electrical machinery is a mistake

Switch Choice: ("ON=0，OFF=1")

1、Microstepping choice:

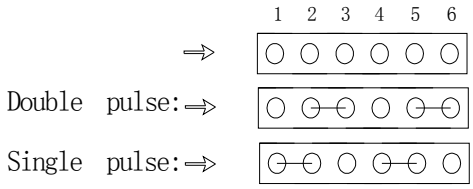
SW5	0	0	0	0	0	0	0	0	1	1	1	1	1	1
SW6	0	1	0	1	0	1	0	1	0	1	0	1	0	1
SW7	0	0	1	1	0	0	1	1	0	0	1	1	0	0
SW8	0	0	0	0	1	1	1	1	0	0	0	0	1	1
Micro	1/2	1/4	1/8	1/16	1/32	1/64	1/128	1/256	1/5	1/10	1/25	1/50	1/125	1/250

2、Current choice：

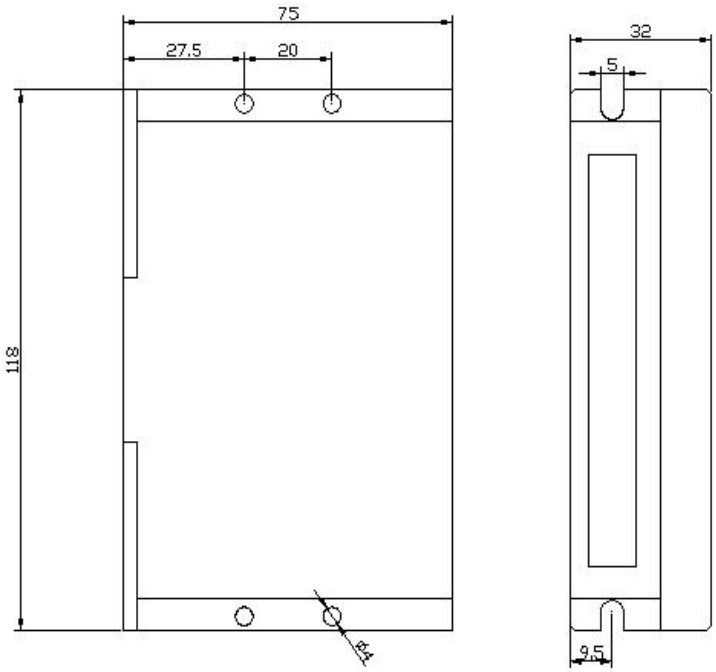
SW1	0	1	0	1	0	1	0	1
SW2	0	0	1	1	0	0	1	1
SW3	0	0	0	0	1	1	1	1
Current（A）	1.3	1.8	2.3	2.7	3.2	3.7	4.2	4.5

3、Full current or half current choice： SW4：0＝Full current； 1＝half current

4、Pulse choice： In the driver has a jump



5、installation dimension (mm)



Troubleshooting

1, the status on light's indication

RUN: green, normal work light.

ERR: red, failure light, the motor with phase short-circuit, overvoltage and undervoltage protection..

2, Troubles

Alarm indicator	Causes	Measures
LED off turn	Wrong connection for power	Check wiring of power
	Low-voltages for power	Enlarge voltage of power
Motor doesn't run, without holding torque	Wrong connection of stepper motor	Correct its wiring
	RESET signal is effective	when offline Make RESET ineffective
Motor doesn't run, but maintains holding torque	Without input pulse signal	Adjust PMW & signal level
Motor runs wrong direction	Wrong wires' connection	Change connection for any of 2 wires
	Wrong input direction signal	Change direction setting
Motor's holding torque is too small	Too small relative to current setting	Correct rated current setting
	Acceleration is too fast	Reduce the acceleration
	Motor stalls	Rule out mechanical failure
	Driver does not match with The motor	Change a suitable driver

3, Driver Wiring

A complete stepper motor control system should contain stepper drives, DC power suppler and controller (pulse source). The following is a typical system wiring diagram