

Stepper Motor Drive (2 Phase Micro stepping)

Spark Engineering & Automation

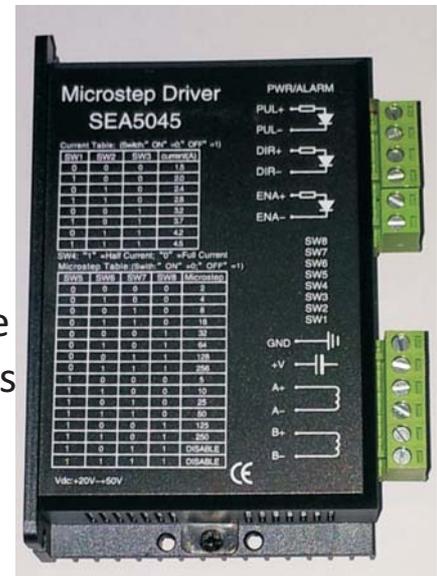
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This is a high performance microstepping drive based on pure-sinusoidal current control technology. Owing to the above technology and the self-adjustment technology (self-adjust current control parameters) according to different motors, the driven motors can run with smaller noise, lower heating, smoother movement and have better performances at higher speed than most of the drives in the markets. It is suitable for driving 2-phase hybrid stepping motors.



Characteristics

1. DC power input type:24V~50VDC
2. Output current:1.3A-4.5A
3. Microstepping:1(1.8°) ½ 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°C 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")

Microstepping Setting

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	½	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

Current Setting

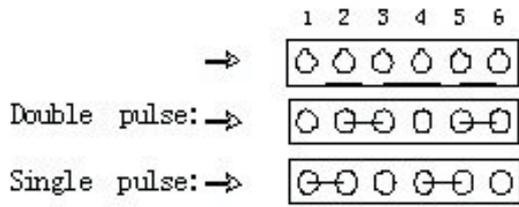
Sw1	0	1	0	1	0	1	0	1
Sw2	0	0	1	1	0	0	1	1
Sw3	0	0	0	0	1	1	1	1
Curr (A)	1.3	1.8	2.3	2.7	3.2	3.7	4.2	4.5

Full Current & Half Current Setting

SW4:0 = Full current, 1 = half current

Pulse Setting

In the driver has a jump



Mechanical Specifications

