

SMC42

Compact microstep power driver



Technical Data:

Operating voltage:	<u>DC 21 V to 37 V</u>
Max. phase current:	<u>2 A / phase</u>
Current adjustment:	via sense resistors
Operating mode:	Bipolar chopper driver
Operating mode:	Full step (1/1), half step, quarter step, eighth step
Step frequency:	0 to 50 kHz
Current reduction:	automatic to 65%
Input signals:	0 V active (L < 0.8 V; 3.5 V < H < 24 V or open)
LED:	error indication (overvoltage: heat sink temperature >80°C)
Temperature range:	0 to +40°C
Connection type:	via screw terminals Option (pluggable screw terminals)
Attachment method:	for DIN mounting rail EN 50 022 35 x 7.5
Weight:	130 g

Attention: The supply voltage must have a charging capacitor with at least 4700 µF (see accessories) so that the permitted voltage is not exceeded during the braking procedure.
The connection to the motor must not be disconnected during operation!
An erroneous power supply or motor connection can destroy the controller!

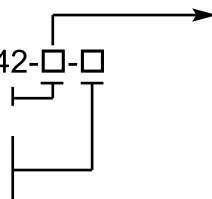
Pin assignments: (AWG 26-16)

- 1 = GND (Signal Ground)
- 2 = + 5 V (unused measuring point)
- 3 = Direction (DIR)
- 4 = Clock
- 5 = Enable (H or open=Enable / L=Disable)
- 6 = VSS operating voltage
- 7 = GND (Power Ground)
- 8 = Unused

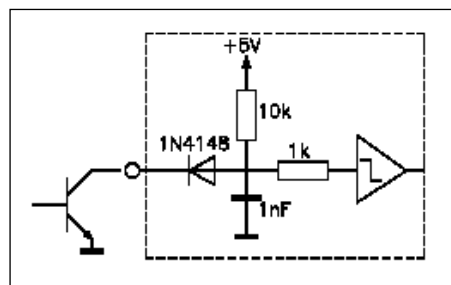
If the phase current has been set to less than 1.5 A, Ri must = 2.7 kOhms, since the red LED will otherwise indicate an error.
(Default Ri 12 kOhm); Ri position – see diagram

Ordering designation: SMC42-□-□

- Current specification e.g. 0.8 = 0.8 A/Phase
- Connection type, terminals 1-8:
- 1 = Screw terminal standard
- 2 = Pluggable screw terminal



Input wiring



Phase current	Rsens1	Rsens2
A	Ohms	Ohms
0,3	nc	2,2
0,5	nc	1,5
0,8	nc	1,0
1,0	0,82	nc
1,3	0,82	2,2
1,5	0,82	1,5
1,7	0,82	1,0
2,0	0,82	0,82

Step switchover

Configuration:
Module is configured for full step in the factory.

Step mode	J. 1	J. 2
1/1 Step	X	X
1/2 Step	X	
1/4 Step		X
1/8 Step		

Current setting

