DIGITAL STEPPER DRIVER - 2 PHASE

2DM542

Key Features:

- Parameter auto-setup and motor self-test
- Multi-Stepping inside,Small noise, low heating, smooth movement
- Torque compensation in high speed
- Variable current control technology,High current efficiency
- Accelerate and decelerate control inside, Great improvement in smoothness of starting or stopping the motor
- Support PUL/DIR and CW/CCW modes
- Storage the position of motor
- Optically isolated input and compatible with 5V or 24V
- User-defined micro steps
- Micro-step resolutions and Output current programmable
- Over current and over voltage protection
- Automatic detection, flexible selection of pulse edge count mode;
- Green light means running while red light means protection or off line

Introduction

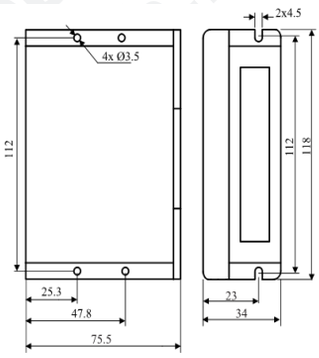
The 2DM542 is a two phase digital stepper driver based on ARM. Its Micro step resolutions and output current are programmable. And it has advanced control algorithm, which can brings a unique level of system smoothness, provides optimum torque and mid-range instability. The control algorithm of Multi-Stepping can make stepper motor has smooth system performance. The control algorithm of torque compensation can improve the torque of motor in the high speed. The control algorithm of motor self-test and parameter auto-setup technology offers optimum responses with different motors and easy-to-use. The control algorithm of smoothness can enhance the acceleration and deceleration of motor. Its unique features make the 2DM542 to be an ideal solution for applications.

Specifications

Input Voltage		DC24V-36V
Pulse Frequency max		200K
Communication rate		57.6Kbps
Over voltage value		60V
Overall Dimensions（mm）		118×75.5×34
Weight		Approximate 260g
Environment pecifications	Environment	Avoid dust, oil fog and corrosive gases
	Operating Temperature	+70℃ Max
	Storage Temperature	-20℃~+80℃
	Humidity	40~90%RH
	Cooling method	Natural cooling or forced air cooling

Dimensions

Dimensions size in mm



1.2 Standstill current Setting:

SW4 is used for setting the standstill current , “off” means the standstill current is set to be half of the selected dynamic current or other current, which can be set by the HISU, the details can be seen in the tenth sections. While “on” means the standstill current is set to be the same as the selected dynamic current.

1.3 Micro steps Setting:

The micro steps setting is in the following table. And the micro steps can be also setting through the HISU. The details can be seen in the tenth sections.

DIP Switch Setting

1. Introduction Of SW-2

1.1 Current setting:

The SW-2 current setting is in the following table.

Current (Peak)	Current (RMS)	Dial switch SW1	SW2	SW3
1.0A	0.71A	1	1	1
1.46A	1.04A	0	1	1
1.91A	1.36A	1	0	1
2.37A	1.69A	0	0	1
2.84A	2.03A	1	1	0
3.31A	2.36A	0	1	0
3.76A	2.69A	1	0	0
4.2A	3.0A	0	0	0

SW-2 micro steps setting is in the following table

Micro steps \ Dial witch	SW5	SW6	SW7	SW8
400	0	1	1	1
800	1	0	1	1
1600	0	0	1	1
3200	1	1	0	1
6400	0	1	0	1
12800	1	0	0	1
25600	0	0	0	1
1000	1	1	1	0
2000	0	1	1	0
4000	1	0	1	0
5000	0	0	1	0
8000	1	1	0	0
10000	0	1	0	0
20000	1	0	0	0
25000	0	0	0	0