

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
- Green light means running while red light means protection or off line

Introduction

2DM556 is newest digital stepper motor driver launched by using the latest 32-bit DSP control technology, the user can set any segment within 25600 and multi-range current value within rated current, with built-in micro technology, 2DM556 driver greatly improved stability and reduced noise under subdivision. Integrating automatic parameter tuning function inside, it also can adjust the optimal operation parameters automatically for different motors to maximize the performance of the motor.

Specifications

Parameters	Min	Typical	Max	Unit
Output Current (Peak)	1.4	-	5.6	Amps
Supply voltage	24	36	60	VDC
Logic Input Current	7	10	-	mA
Pulse input frequency	-	-	250	KHz
Low Level Time	2.5	-	-	μsec

Cooling	Natural Cooling or Forced Convection	
Environment	Space	Avoid dust, oil frost and corrosive gases
	Ambient Temperature	0°C – 65°C
	Humidity	<80%RH
	Vibration	5.9m/s ² Max
Storage Temp.	-10°C – 80°C	
Weight	Approx. 0.26 Kg	

DIP Switch setting

Current Setting

Current Setting AVG(A)	Peak Value (A)	SW1	SW2	SW3
1.0	1.4	OFF	OFF	OFF
1.5	2.1	ON	OFF	OFF
1.92	2.7	OFF	ON	OFF
2.28	3.2	ON	ON	OFF
2.71	3.8	OFF	OFF	ON
3.07	4.3	ON	OFF	ON
3.5	4.9	OFF	ON	ON
4.4	4.5	ON	ON	ON

Microstep Setting

Step/Rev	SW5	SW6	SW7	SW8
400	OFF	ON	ON	ON
800	ON	OFF	ON	OFF
1600	OFF	OFF	ON	ON
3200	ON	ON	OFF	ON
6400	OFF	ON	OFF	ON
12800	ON	OFF	OFF	ON
25600	OFF	OFF	OFF	ON
1000	ON	ON	ON	OFF
2000	OFF	ON	ON	OFF
4000	ON	OFF	ON	OFF
5000	OFF	OFF	ON	OFF
8000	ON	ON	OFF	OFF
10000	OFF	ON	OFF	OFF
20000	ON	OFF	OFF	OFF
25000	OFF	OFF	OFF	OFF

* SW4: ON=Full current, SW4 : OFF=Half current

P1 Pin Assignment

Signal	Name	Remark
PLS+	Pulse signal+	Compatible with 5v or 24v
PLS-	Pulse signal-	Compatible with 5v or 24v
DIR+	Direction control signal+	Compatible with 5v or 24v
DIR-	Direction control signal-	Compatible with 5v or 24v
ENA+	Enable signal+	Compatible with 5v or 24v
ENA-	Enable signal-	Compatible with 5v or 24v
ALM+	Alarm output positive	Open collector output
ALM-	Alarm output negative	Open collector output

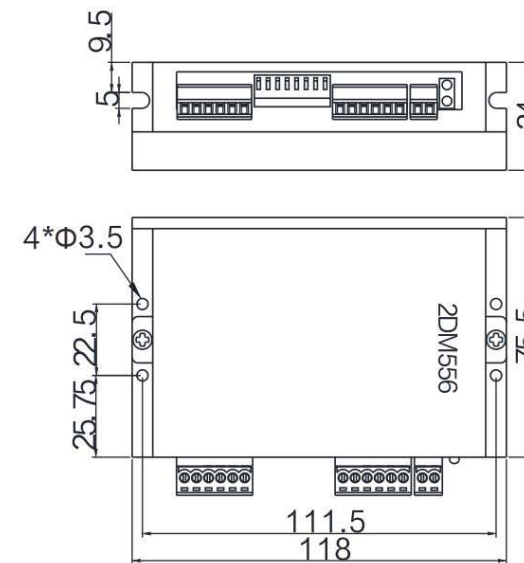
P2 Pin Assignment

The P2 I/o high voltage interface description

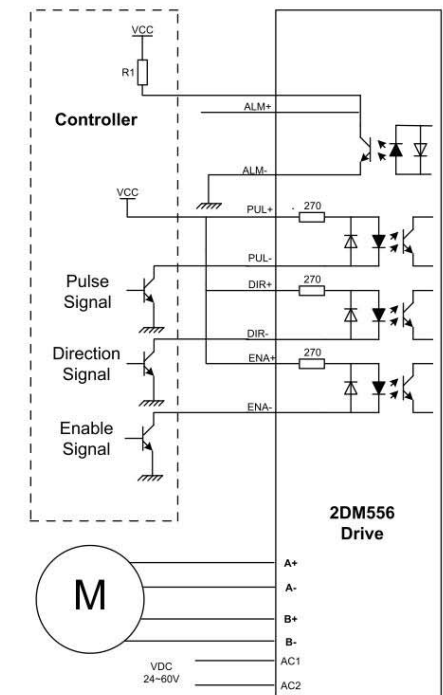
Name	Function	Instructions
A+, A-, B+, B-	Electrical wiring	
+V GND	DC voltage input	Between DC24~60V, More details please refer to motor specs

Dimensions

Dimensions size in mm



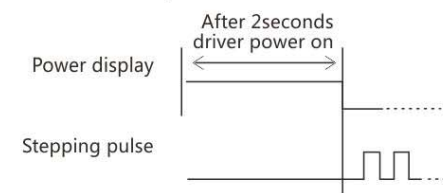
Wiring



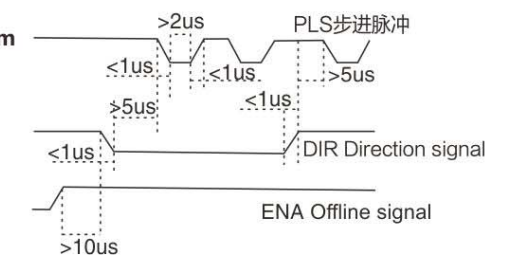
Remark:* VCC is compatible with 5V or 24V; R1(3~5K) must be connected to control signal terminal.

Signal waveform and timing

Power on sequence



Input signal waveform and timing



Note:

Driver power-up time depends on the applied AC driver voltage Magnitude, under 36v power-up time need 2seconds typically.

DISTRIBUTOR:

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