AMT 2DM860H
Stepper Motor and Drive

Key Features:

* The new 32-bit DSP technology

* Optically isolated differential inputs (26LS32)

* Extra-low noise and vibration

* The range of micro steps is 2-128

* Built in 500 times high frequency micro steps

* Driver 2 phase step motor with 4leads,6leads and 8leads

* Current settings is optional between ratings

* Current will automatically halved when stand still

* Pulse frequency response up to 250KHz

* Over voltage, Under voltage, short circuit protection

* Alarm output function I / O ports

* Alarm clear input ENA

2DM860 is newest digital stepper motor driver launched, 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, 2DM860 driver greatly improved stability and reduced noise under subdivision. It also has an 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.

For technical assistance regarding this product   T +44 (0) 191 268 2022   E sales@amtechltd.co.uk
please contact a member of our customer service team   F +44 (0) 191 268 2092   www.amtechltd.co.uk
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Specifications

Parameters	Min	Typical	Max	Unit
Output Current (Peak)	2.1	-	8.4	Amps
Supply voltage	24	80	100	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/s² Max
Storage Temp.	-10°C －80°C	
Weight	Approx. 0.58 Kg	

Dimensions (mm)

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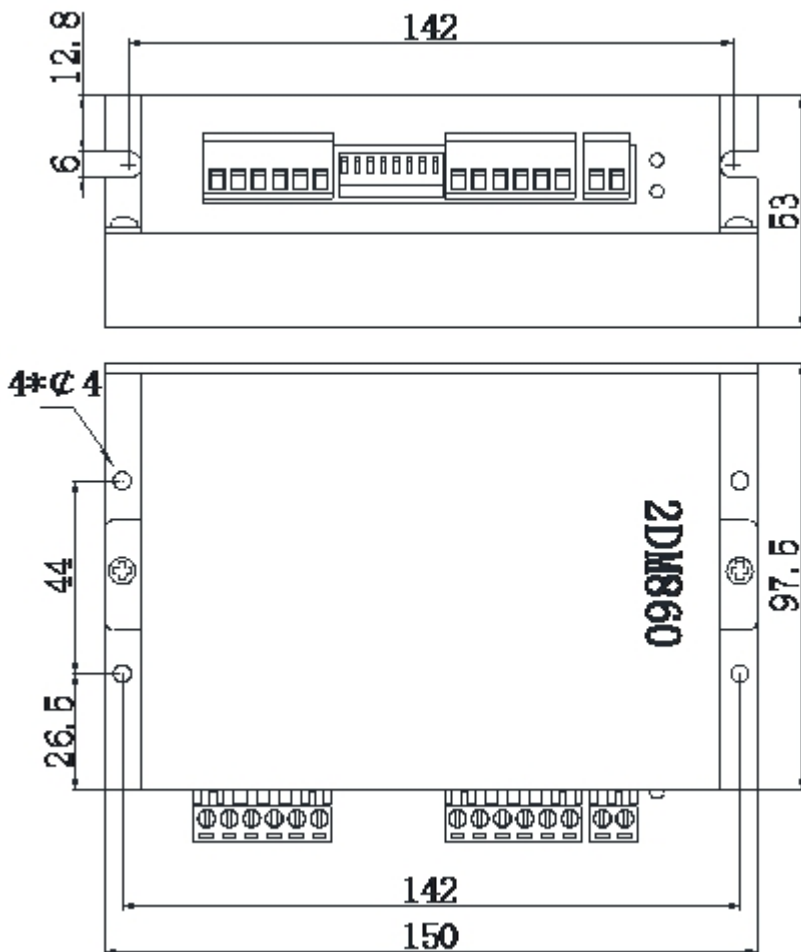
Current Setting

Current Setting AVG(A)	Peak Value(A)	SW1	SW2	SW3
1.5	2.1	OFF	OFF	OFF
2.25	3.15	ON	OFF	OFF
2.88	4.03	OFF	ON	OFF
3.42	4.78	ON	ON	OFF
4.06	5.69	OFF	OFF	ON
4.60	6.44	ON	OFF	ON
5.25	7.35	OFF	ON	ON
6.0	8.4	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
40000	OFF	OFF	OFF	OFF

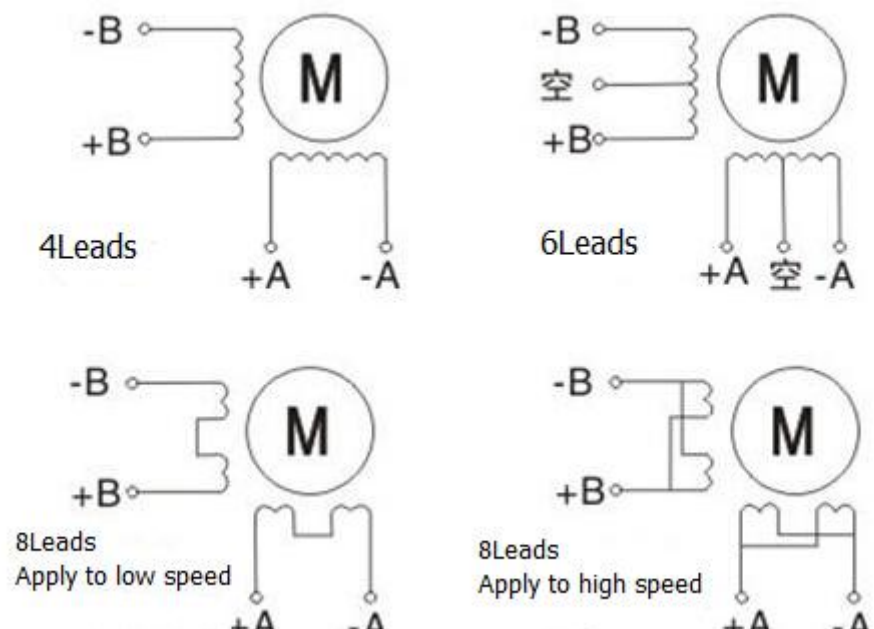* SW4: ON=Full current, SW4 : OFF=Half current

P1 Pin Assignment

Signal	Function	Descriptions
PLS+	Input signal positive end	Connected to + 5V power supply, + 5V ~ + 24V can be driven, above 5V need current limiting resistor.
PLS-	Pulse signal	Falling edge, pulse from high to low whenever the motor step. Input resistance 220Ω, requirements; low 0-0.5V, high 4-5V, pulse width <2.5uS.
DIR+	Input signal positive end	Connected to + 5V power supply, + 5V ~ + 24V can be driven, above 5V need current limiting resistor.
DIR-	Direction control signal	Used to change the direction, input resistance 220Ω, requirements; low 0-0.5V, high 4-5V, pulse width <2.5uS.
ENA+	Input signal positive end	Connected to + 5V power supply, + 5V ~ + 24V can be driven, above 5V need current limiting resistor.
ENA-	Motor release signal	Off active (low) when power motor current, the drive stops working, the motor is in a free state.
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	 4Leads 6Leads 8Leads Apply to low speed 8Leads Apply to high speed
+V GND	DC voltage input	Between DC24~100V， More details please refer to motor specs