



SSD2505M

- 32 bit DSP control technology
- 16 constant-torque microstep settings, 200 microsteps the highest
- 500Kpps pulse response frequency
- Input voltage range: DC24-50V
- Less torque attenuation, with 3000rpm efficient working speed
- Position and warning output signal for easy monitoring and control
- Current intelligent adjust to reduce vibration, noise and heat, increased 35% efficiency
- Single and double pulse selection, default setting: pulse + direction control
- Excellent high-speed performance and rigidity, perfectly integrated the advantages of servo and stepper

Typical Application:

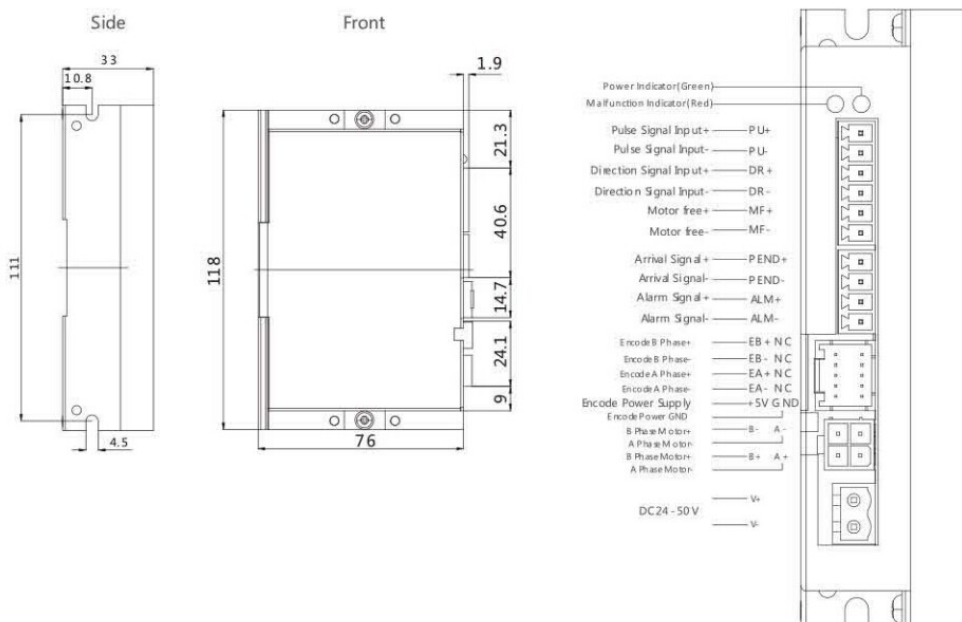
Widely used in engraving machine, special industrial sewing machine, stripping machine, marking machine, cutting machine, plotter, CNC machine and other automation equipments.

Product Details

Description

SSD2505M takes the advantages of 32-bit DSP control technology and power angle control technology, maximum speed reaches more than 3000rpm. It's high-speed torque attenuation is much lower than ordinary open-loop stepper drive, which can greatly enhance the high-speed performance and torque efficiency, and reduce motor heating / vibration, thus to enhancing machine's efficiency and accuracy. The use of load-based current control technology can effectively reduce motor heat, extend motor life. The position and warning output signal will assist host computer to monitor and control. And the position warning function ensures safe operation of processing machine.

Product Diagram



Description

Product Diagram

Microstep Setting

Motor Selection

Terminal Assignment

Microstep Setting

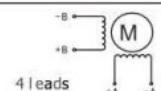
Microstep	2	4	8	16	32	64	128	256	5	10	20	25	40	50	100	200
PU/Rev	Default (400)	800	1600	3200	6400	12800	25600	51200	1000	2000	4000	5000	8000	10000	20000	40000
SW8	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
SW7	ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF
SW6	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF
SW5	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
SW4	Reserved															
SW3	Position Error Value OFF=90°, ON=360°															
SW2	Motor rated direction OFF=CW, ON=CCW															
SW1	Single/Double Signal OFF=PU&DR, ON=CW&CCW															

Matched Motors

Motor Selection

Model No.	Voltage	Max. Current	Motor Encoder	
SSD2505M-C011	DC(24-50V)	2.3A	YK242EC51E1	YK242EC67E1
SSD2505M		5A	YK257EC56E1	YK257EC76E1
SSD2505M-C531		5A	YK257EH76E1	
SSD2505M-C231		5.8A	YK260EC86E1	

Terminal Assignment

Mark	Function	Notes
PWR	Power Indicator	When power on, the green LED lights
ALM	Malfunction Indicator	Flicker 1 time:Over-current or short-circuit;Flicker continuously two times:Over-voltage;Flicker continuously 3 times:Under-voltage;Flicker continuously 5 times:tracking error or overproof.
PU+	Input signal photoelectric isolate+	+5V is standard signal input voltage.Add a resistor to shift to 24V input voltage.
PU-	SW1=OFF PU is Pulse Signal	Effects on falling edge ,motor runs one step as pulse input change from high to low.Input resistance is 220Ω.Requirement:input low:0-0.5V,input high:4-5V , pulse width>2.5μs
	SW1=ON PU is clockwise pulse signal	
DR+	Direction input signal pulse +	+5V is standard signal input voltage.Add a resistor to shift to 24V input voltage.
DR-	SW1=OFF PU is Pulse Signal	Use it to change the direction. Input resistance is 220Ω. Requirement:low level:0-0.5V,high level:4-5V
	SW1=ON PU is CCW Pulse signal	Effects on falling edge,motor goes one step as the pulse input change from "high" to "low". Input resistance is 220Ω.Requirement:low level:0-0.5V,high level:4-5V,Pulse width>2.5μs.
MF+	Input signal photoelectric isolate+	+5V is standard signal input voltage.Add a resistor to shift to 24V input voltage.
MF-	Motor Free Signal -	When effects, it cut off motor current, the driver stops working and sets the motor free.
Pend+	Arrival Output Input +	When driver finished input pulse directive,and Arrival signal effective.Pend+ connect pull-up resistor to power supply positive,Pend- connect with power supply negative. Max drive current is 50mA.
Pend-	Arrival Output Input -	
ALM+	Arrival Signal Input +	When Over-current,over-voltage,low-voltage or error happens,Alarm Signal is effective. ALM+ connect with pull-up resistor to power supply positive and ALM- connect with Power supply negative.
ALM-	Arrival Signal Input -	
EB+/-EB-	Encoder B phase input +/-	Encoder B phase input +/-
EA+/-EA-	Encoder A phase input +/-	Encoder A phase input +/-
VCC	Encoder Power Supply	The 5V power supply for Encoder.
EGND	Encoder GND	Encoder Ground.
+A,-A	Motor Connection	 <p>4 leads</p>
+B,-B		