

Vitkovets CNC

Комплетующие системы ЧПУ

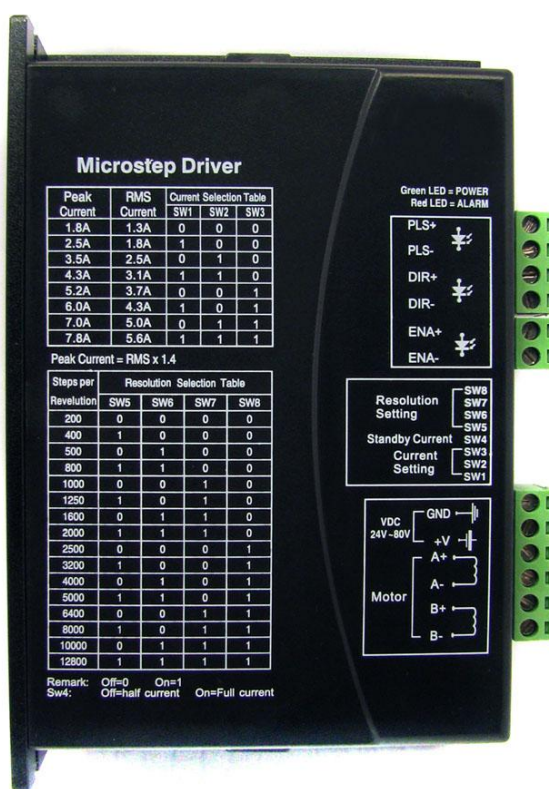
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CNC Stepper Motor Driver 7.9A



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Product Description

The Stepper Motor Driver 7.9A is a high performance microstepping drive based on pure-sinusoidal current control technology. Owing to the above technology and the self-adjustment technology (self-adjust current control parameters) according to different motors, the driven motors can run with smaller noise, lower heating, smoother movement and have better performances at higher speed than most of the drives in the markets. It is suitable for driving 2-phase hybrid stepping motors.

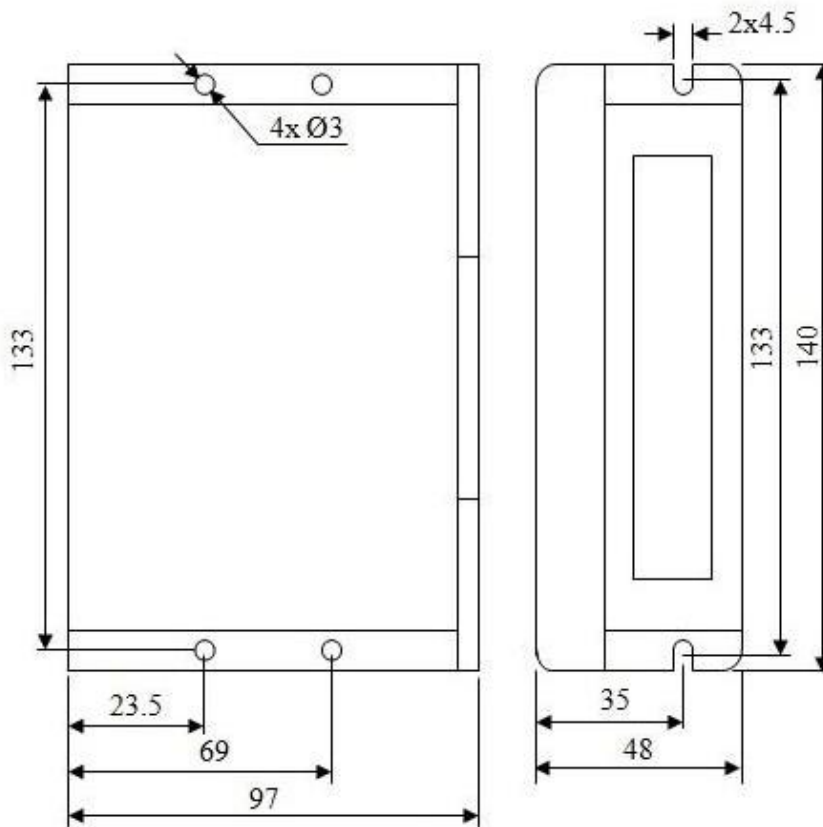
Suitable for a wide range of stepping motors, from NEMA23/34/42. It can be used in various kinds of machines, such as X-Y tables, engraving machines, labeling machines, laser cutters, pick-place devices, and so on. Particularly adapt to the applications desired with low noise, low heating, high speed and high precision.

Features :

- ✧ High performance, cost-effective
- ✧ Supply voltage DC24-80V
- ✧ Output current up to 7.9A
- ✧ Self-adjustment technology
- ✧ Pure-sinusoidal current control technology
- ✧ Pulse input frequency up to 200 KHz
- ✧ TTL compatible and optically isolated input
- ✧ Automatic idle-current reduction
- ✧ 15 selectable resolutions in decimal and binary, up to 12,800 steps/rev
- ✧ Suitable for 2-phase motors
- ✧ Support PUL/DIR and CW/CCW modes
- ✧ Short-voltage, over-voltage, over-current protections

Electrical Specifications:

Parameters				
	Min	Typical	Max	Unit
Output current(A)	1.3	-	7.8	A
Supply voltage(V)	24	48	80	VDC
Pulse input frequency	-	-	200	KHZ
Pulse Low Level Time	2.5	-	-	us



Sizes:

Current Settings:

Peak Current	RMS Current	SW1	SW2	SW3
1.8A	1.3A	0	0	0
2.5A	1.8A	1	0	0
3.5A	2.5A	0	1	0
4.3A	3.1A	1	1	0
5.2A	3.7A	0	0	1
6.0A	4.3A	1	0	1
7.0A	5.0A	0	1	1
7.8A	5.6A	1	1	1

Peak current=RMSx1,4

Microstep Setting:

Step/Rev	SW5	SW6	SW7	SW8
200	0	0	0	0
400	1	0	0	0
500	0	1	0	0
800	1	1	0	0
1000	0	0	1	0
1250	1	0	1	0

1600	0	1	1	0
2000	1	1	1	0
2500	0	0	0	1
3200	1	0	0	1
4000	0	1	0	1
5000	1	1	0	1
6400	0	0	1	1
8000	1	0	1	1
10000	0	1	1	1
12800	1	1	1	1

Remark: off: =0 on:=1

SW4: OFF=half current ON = Full current

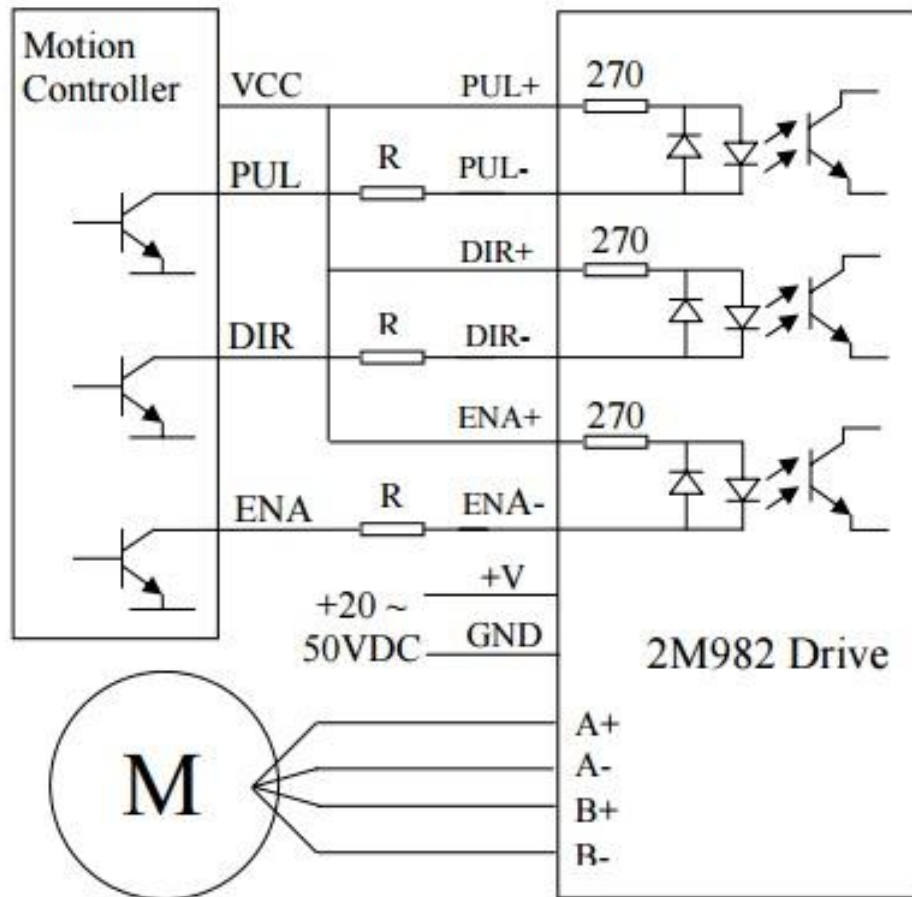
P1 Pin Assignment

Signal	Signal Function and Descriptions
PUL+ PUL -	Pulse or Step Input TTL differential input with high-going pulse, 1 μ s min width. For +12V or +24V operation, a current limiting resistor had to be pull up or connected in series from the PULPUL+ to the VCC.
DIR+ DIR-	Direction Input Logic High = positive (CW) rotation—4.0 ~ 5.0V Logic Low = negative (CCW) rotation—0 ~ 0.5V The DIR signal must be stable for at least 5ms before the DIR- drive receives the first pulse.
ENA+ ENA-	Enable Input Logic High = Drive Enabled Logic Low = Drive Disabled ENA- This input, if left unconnected, is regconised as Logic High by the drive, and it will be enabled.

P2 Pin Assignment

P2	Signal Function and Descriptions
GND +V	DC Power Ground +V DC Power Supply, +24VDC ~ +80VDC
A+ A- B+ B-	The diagrams illustrate various motor wiring configurations for a motor (M) with terminals A+, A-, B+, and B-: 4 Leads Motor: A+ and A- are connected to the motor terminals, and B+ and B- are connected to the motor terminals. 6 Leads Motor: Full Coil: A+ and A- are connected to the motor terminals, and B+, NC, and B- are connected to the motor terminals. Half Coil: A+ and A- are connected to the motor terminals, and B+ and B- are connected to the motor terminals. 8 Leads Motor: Series: A+ and A- are connected to the motor terminals, and B+ and B- are connected to the motor terminals. Parallel: A+ and A- are connected to the motor terminals, and B+ and B- are connected to the motor terminals.

Wiring



$R=0$ if $VCC=5V$

$R=1K$ (Power $>0.125W$) if $VCC=12V$;

$R=2K$ (Power $>0.125W$) if $VCC=24V$;

R must be connected to control signal terminal.