Model P300 Stepper Motor Driver



General Specification

Model P300 is a low cost compact open frame bipolar stepper driver which gives a maximum output current of 1A per phase, in full stepping mode or six microstepping ranges. The driver uses a full bridge bipolar pulse width modulated MOSFET technique to control stepper motors in 2-phase or 4-phase modes.

Key Features

- Supply voltage 18V 36V dc.
- Output current 0.2A 1.0A / phase
- PWM constant current bipolar drive
- 7 operation modes with maximum 64 microstepping options
- Opto-isolated digital signal inputs
- Low noise and vibration drive performance

Power Input

The standard power input for the P300 is a dc input voltage of 18-36V. Alternatively, an unregulated, smoothed, rectified ac transformer output can be used as the supply. In this case, the rectified ac peak voltage must be <38V and the transformer secondary ac output must be <23V. The correct input voltage polarity should be observed when connecting the driver.

Microstepping Resolution Selection				
Sw 2	Sw 3	Sw 4	Div	Steps
On	On	On	Full	200
On	On	Off	2	400
On	Off	On	4	800
On	Off	Off	8	1600
Off	On	On	16	3200
Off	On	Off	32	6400
Off	Off	On	64	12800
Off	Off	Off	64	12800

Switch 1

Position

On

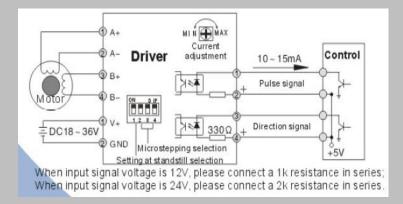
Off

Additional Specifications

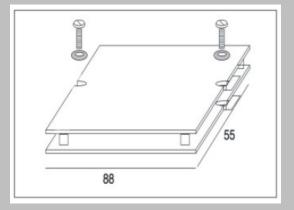
Dimensions Mass Pulse Input Signal Direction Input Signal Input Impedance Operating Temperature Humidity Range Heat Dissipation 22 x 55 x 88 mm 150g Photocoupler input voltage 3.5-5.5V Photocoupler input voltage 3.5-5.5V 330 Ω -10°C to +45°C 40-85% RH

For phase currents >0.8A, additional heatsinking is needed.

Connection Diagram



Board Dimensions (mm)



Standstill

Current

Full

Half

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