

D110 AC Micro-stepping Driver

Introduction

The D110 is an AC stepping motor driver with high performance micro step division, multiple current control parameters, low heating smooth movement suitable for Nema42 and Nema56 2-phase and 4-phase hybrid stepper motors.

Features

- Micro-stepping control high accuracy step control at low speed
- High speed and high torque: phase voltage up to DC140V, high-torque at high speed.
- Single Chip Microcomputer and programmable array control core consists of high control performance, large power IGBT Amplifier tube made by Fairchild Co. USA
- Reliability & high integrated level of control circuit, dust-proof, over temperature, over current and over voltage protection

Applications

Suitable for a wide range of stepping motors, from NEMA size 42 & 56
Applications heavy weight XYZ tables like Milling machine, CNC Routers, laser cutters, grinding machines etc.

Specifications

Output current	0.5 ~ 8.0 AMP
Supply voltage (AC)	110VAC recommended, 220VAC maximum
Pulse input frequency	0 ~ 50 KHz
Minimum input pulse width	10uS
Cooling	Built in Cooling fan
Operating Environment	Environment Avoid dust, oil fog and corrosive gases Ambient Temperature 0 °C - 50 °C Humidity 40%RH - 90%RH Operating Temperature 80 Max °C
Storage Temperature	20 °C - 65 °C
Weight	Approximate weight 1.2 KG

Control Signal Connector P1 pins

PIN	Terminal	Description
1	CP+	Pulse (+) Input
2	CP-	Pulse (-) Input
3	DIR+	Direction (+) Input
4	DIR-	Direction (-) Input
5	Enabled+	Power down (+) Input
6	Enabled -	Power down (-) Input

Fault detection FLT

Faulty case	Faulty cause
Having power amplification But motor can't run	No CP, signal input or its polarity reverses.
Motor can only run to one way	Wrong U/D input:
Motor can work normally, but it may lose steps.	(1) The controller control rise and drop is too fast. (2) Mechanical system is not smooth or overloaded (3) Electromotor resonate (4) Electromotor or connecting circuit has leakage or poor contact

Mechanical Dimension

Measurement are in metric each inch = 25.4 mm

