

PDO2035

AC Full/Half Step Drive w/ Oscillator



Product Features

- AC input 110V or 220V switch selectable, 50-60 Hz
- DC bus voltage 28 VDC full load, 35 VDC nominal
- Switch selectable motor current from 0.125-2.0 amps/phase
- Full and half step switch selectable
- Selectable automatic 50% idle current reduction
- Optically isolated inputs/outputs
- Internal oscillator for velocity control
- Selectable speed range
- Pluggable screw terminal connectors
- Dual H-bridge, pulse width modulated amplifier switching at 20-30 kHz
- Ideal for 4, 6 or 8 leaded step motors NEMA sizes 11, 14, 17 and 23

Description

The PDO2035 stepper drive is packaged in a rugged steel case. Integral heat sink, mounting brackets, and connectors are included with each drive. The drive comes factory set for 110 VAC operation, but can be switched to operate on 220 single-phase VAC as well. The drive is recommended for use with NEMA 11, 14, 17, and 23 frame step motors to create a complete stepper motion solution. Pluggable mating screw terminal blocks are provided with each drive for connecting the motor, AC input, and I/O.

The PDO2035 provides the user with two modes of operation to choose from, Pulse & Direction or Oscillator, selectable during set up via DIP switch. DIP switches are also provided for setting the step resolution and motor current. Pulse & Direction mode allows the PDO2035 to receive step pulses from an indexer, motion controller, PLC, or other external controller. Oscillator mode controls the speed of the motor relative to an on-board potentiometer. An external analog voltage or potentiometer may also be used to control speed. In oscillator mode the STEP input starts and stops the motor, while the DIR input controls direction of rotation.

The PDO2035 also provides a tach output and an enable input. The tach output provides a means for measuring motor speed. It generates 1 pulse per motor step. The enable input allows the user to turn off the motor current with a digital signal. When the enable input is activated the drive cuts power to the motor, which means the motor is disabled and has no torque.

Specifications

Model Number	PDO2035
Part Number	5000-060
Supply Voltage	110/220 VAC
Supply Voltage Type	AC
Control Modes	<ul style="list-style-type: none">• Step & Direction• Velocity (Oscillator)
Output Current	0.125-2.0 A/phase
Communication Ports	NA
Encoder Feedback	No
Step Resolution	<ul style="list-style-type: none">• Full• Half
Idle Current Reduction	50%
Setup Method	Switch / potentiometer
Digital Inputs	3
Digital Outputs	1
Analog Inputs	1 single-ended
Dimensions	6.8 x 4.0 x 1.75 inches
Weight	NA
Operating Temperature Range	0-70 °C
Ambient Temperature Range	0-50 °C
Ambient Humidity	90% max, non-condensing
Status LEDs	1 red (power)
Circuit Protection	NA

Software

Software Downloads	There is no software related to this product.
Sample Code	There are no sample code documents at this time.

Mechanical Outline

