

# MLA05641 - Stepper Motor Driver



## FEATURES

- 250 VAC Power Input
- High Torque Output
- Output Current 5.0 Amps Peak
- 200 to 12,800 Steps/Rev (1, 2, 5, 8, 10, 16, 32 and 64 Selectable Step Operations)
- Short Circuit Protection
- Over-Temperature and Over-Voltage Shutdown
- No Minimum Inductance
- Optical Isolation
- Motor ON/OFF Input



## DESCRIPTION

If you're looking for big time stepper performance from a small driver, the MLA05641 is your answer. This powerful microstepping driver provides excellent torque in a compact and low profile enclosure. The MLA05641 is also very easy to use. It features rugged terminal blocks, a rotary pot for current settings, and a visible silkscreen for easy installation and configuration.

Versatile as well as powerful, the MLA05641 has a wide amperage range. It is designed to handle a minimum current of 1.0 Amp to a maximum current of 5.0 Amps per phase. It operates from a AC voltage of 95-250 Volts, making it a great fit for almost any stepper application.

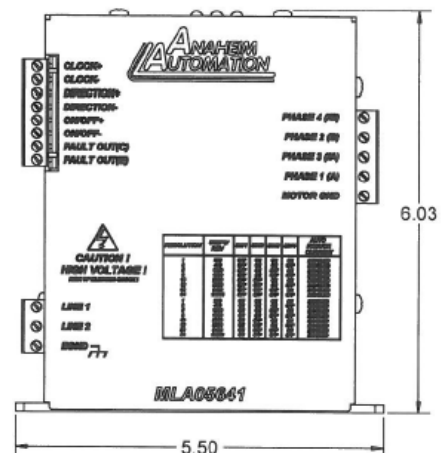
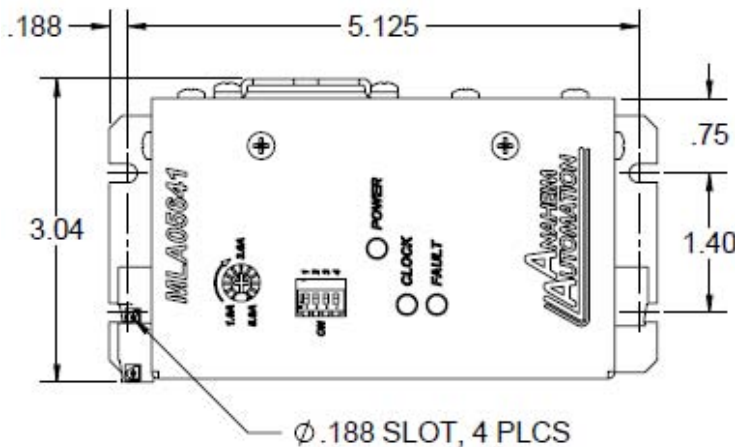
The MLA05641 features optically isolated inputs that are 3.5 - 24VDC compatible. The clock input can be set to receive either sinking or sourcing clock signals at frequencies up to 400KHz. The driver also features direction control, motor on/off capabilities, fault output and a built in short circuit and miswire shutdown protection.

The MLA05641 is a bipolar type driver designed for use with 4, 6, or 8 lead stepper motors, making it compatible for series and parallel installations. The driver has a 12,800 steps per revolution or 0.028° per step resolution, with respect to a 1.8° stepper motor. It also has a motor current reduction feature that will help keep stepper motors cool at standstill, and LEDs that indicate power and pulses being received, and fault conditions.

### Ideal Applications:

Automated machinery or processes that involve food, cosmetic, or medical packaging, labeling, or tamper-evident requirements, cut-to-length applications, electronic assembly, robotics, factory automation, special filming and projection effects, medical diagnostics, inspection and security devices, conveyor and material handling systems, metal fabrication (CNC machinery), pump flow control, XY and rotary tables, equipment upgrades or wherever precise positioning or speed control is required.

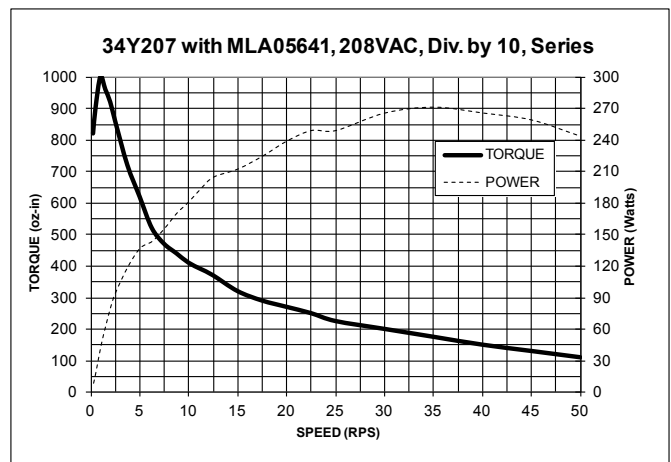
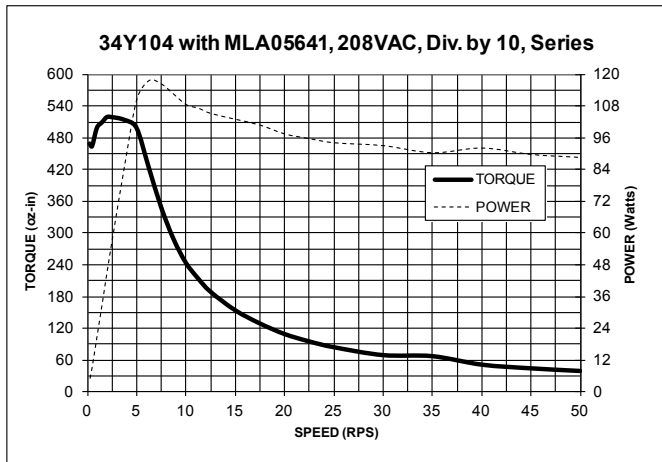
## DIMENSIONS



\*All units in inches

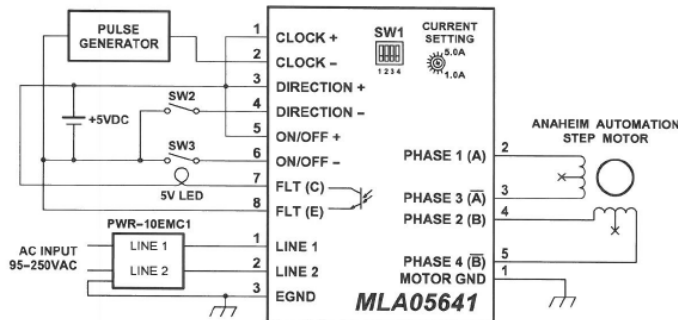
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## Torque Speed Curves

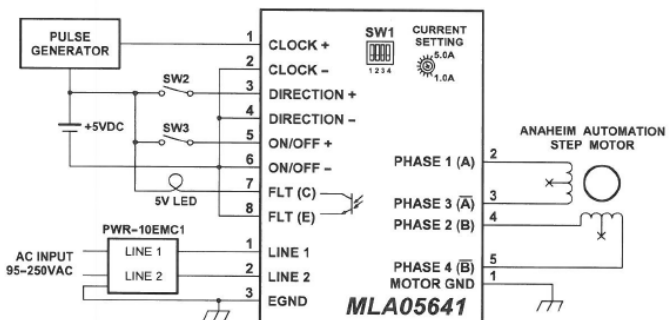


ADDITIONAL INFORMATION

### Sinking Inputs:



### Sourcing Inputs:



\*Note: The 10EMC1 filter is required at the power input of the MLA05641 Driver.

## Specifications

Power Requirements:	95 - 250VAC
Output Current Range:	1.0 - 5.0 Amps (Peak)
Microstepping Resolution:	12,800 Steps/Revolution (Div-by-64)
Input Signal Voltage:	3.5 - 24.0 VDC
Input Clock Frequency:	0 - 400 KHz
Minimum Input Current: (Isolated Inputs)	7.0mA
Storage Temperature:	0° to + 50° C
Absolute Maximum Driver Temperature:	70° C
Driver Type:	Bipolar, Compatible with 4, 6, and 8 Lead Motors. Series or Parallel connection.