

MBC10641 Microstep Driver

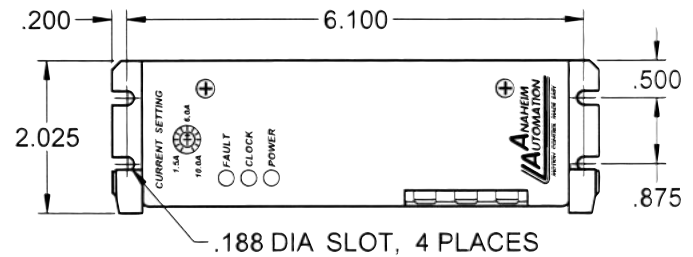
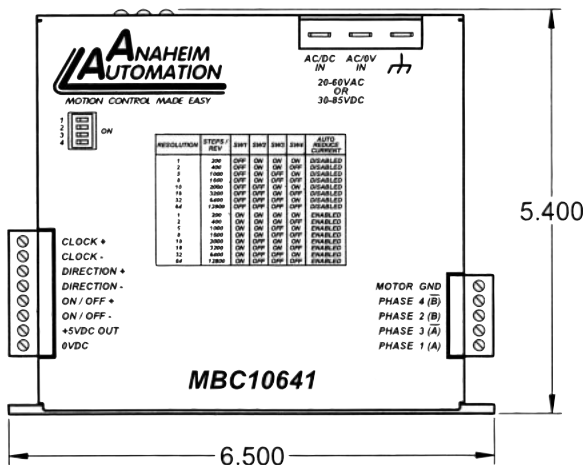


FEATURES

- 10 Amps/Phase Output Current
- Microstepping Drive Operations
- 1, 2, 5, 8, 10, 16, 32 and 64 Step Operations
- Opto Isolated Inputs
- Short Circuit & Miswire Protection
- Motor On/Off Input
- Current Reduction
- Over-Temperature Protection and Over-Voltage Detection



DIMENSIONS



DESCRIPTION

If you need a reliable driver for a mid to large sized stepper motor application, the MBC10641 is the driver for you. This powerful driver delivers excellent torque with smooth microstepping precision. The MBC10641 is designed to work long duty cycles, quickly dissipating heat to ensure productive operation. It features rugged terminal blocks, a rotary pot for current settings, and a visible silkscreen for easy installation.

Versatile as well as powerful, the MBC10641 has a wide amperage range. It is designed to handle stepper motors rated as low as 1.5 Amps/phase, as well as larger motors with current ratings up to 10.0 Amps/phase. The driver operates from a DC voltage of 30-85 VDC or an AC voltage of 20-60VAC, meaning that you can

select either a DC power supply or a more cost effective transformer to power it.

The MBC10641 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, and a built in short circuit and miswire shutdown protection.

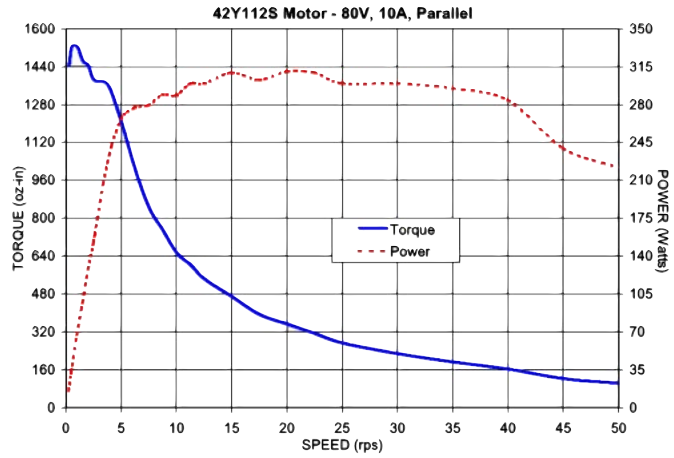
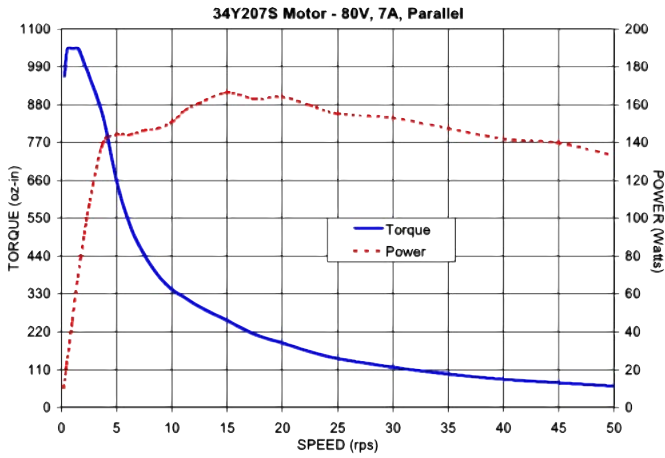
The MBC10641 is a bipolar type driver designed for use with 4, 6, or 8 lead stepper motors, making it compatible for series and parallel installations. The driver has selectable steps per revolution settings up to 12800 step/rev or 0.0281°/step with respect to a 1.8° stepper motor. It

also has a motor current reduction feature that will help keep stepper motors cool at standstill, and LEDs that indicate power, pulses being received, and fault conditions.

Ideal Applications:

Automated machinery or processes that involve food, cosmetics, or medical packaging, labeling, or tamper-evident requirements, cut-to-length applications, electronic assembly, robotics, factory automation, special filming and projection effects, 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.

Torque Speed Curves



Specifications

Power Requirements: 30 VDC to 85 VDC or 20 VAC to 60 VAC

Output Current Range: 1.5 to 10.0 Amps / Phase

Microstepping Resolution: 200 - 12,800 Steps / Rev

Input Clock Frequency: 1 Hz to 400 kHz

Minimum Input Current (Clock & Direction): 7.0 mA

Minimum Input Current (On/Off): 1.0 mA

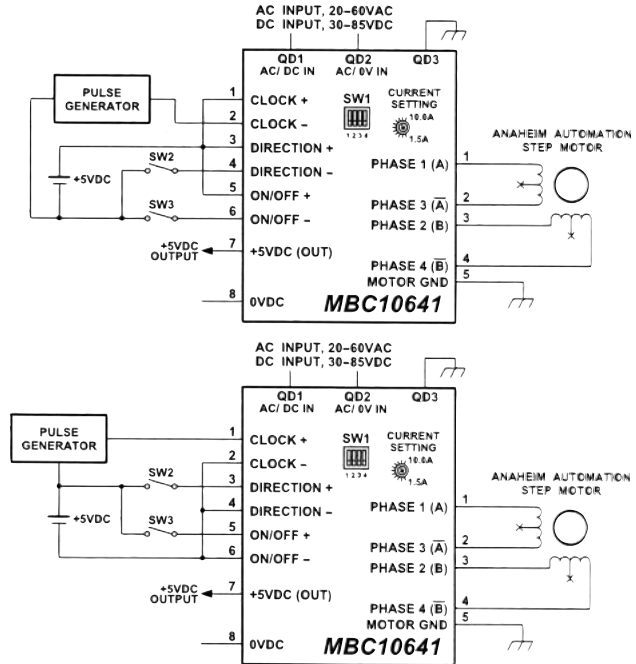
Input Signal Voltage: 3.5 VDC to 24.0 VDC

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.

5VDC Out Current Maximum: 50 mA



ADDITIONAL INFORMATION

Additional Ordering Information

Model #	Description	Input Voltage	Power (Watt)
AA3621	Step Down Transformer	90 - 265 VAC	300
PSA80V4A-1	80VDC, 4A Power Supply	110 / 220	320
DPA10001	Single Axis, 10A Microstepping Driver Pack	90 - 265 VAC	300
DPN10601	Single Axis, 10A Driver Pack with Programmable Controller	90 - 265 VAC	300
DPG10003	Three Axis, 10A Microstepping Driver Pack	90 - 265 VAC	600
DPG10003-02	Three Axis, 10A Driver Pack with DB25 Signal Connection Port	90 - 265 VAC	600
DPG10004	Four Axis, 10A Microstepping Driver Pack	90 - 265 VAC	600