

# 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 Protection
- Motor On/Off Input
- Current Reduction
- Over-Temperature and Over-Voltage Detection
- RoHS Compliant

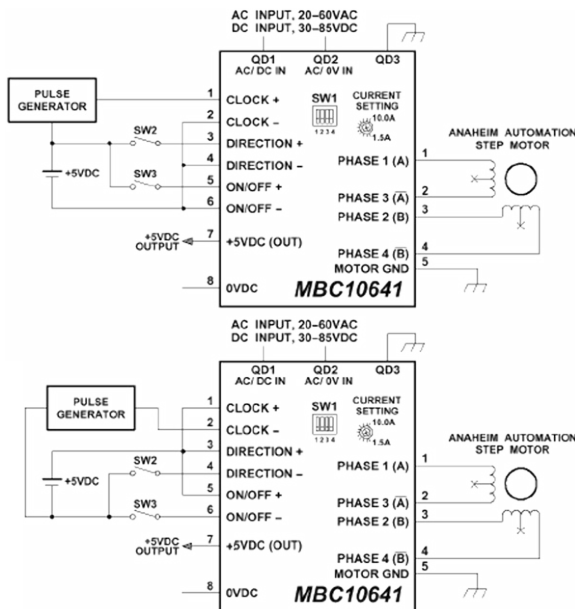


DESCRIPTION

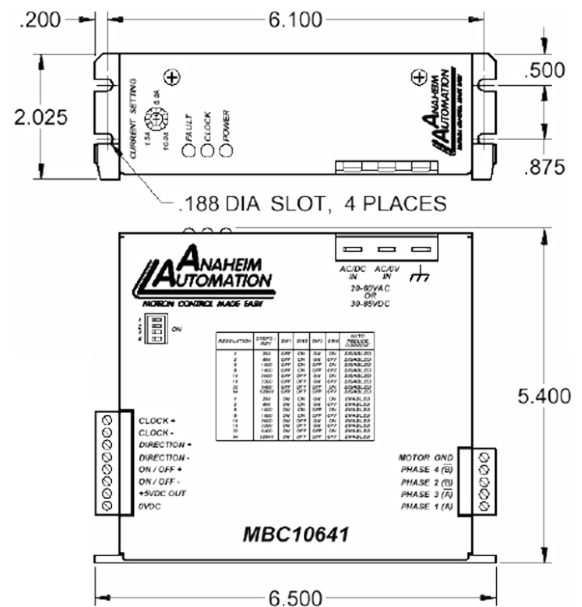
The MBC10641 Microstep Motor Driver has an output capability from 1.5 Amps Minimum to 10 Amps Maximum (Peak Rating). The MBC10641 driver operates from either a transformer, whose input can be wired from 90-265 VAC or a DC voltage of 30 to 85 Volts. The inputs are opto-isolated with a minimum sourcing of 7 mA per input (5VDC Minimum to 24VDC Maximum). The clock input is set to receive either positive or negative edge clocks with a maximum frequency of 400K Hz. The direction input is current sourcing for CW and no current for CCW. The ON/OFF feature is current sourcing to de-energize the step motor and no current to energize the motor. Reduce Current Enabled automatically reduces motor current 70% after last step (1 sec delay). The driver has built-on features to indicate power on (Green LED), clocks being received (Yellow LED), and fault conditions (Red LED). Protection devices have been added to this driver for Phase-to-Phase short-circuit, motor mis-wire conditions, over-voltage and over-temperature.

WIRING/DIMENSIONS

## Hookup Diagrams



## Dimensions



L010145

## Specifications

<b>Power Requirements:</b>	30 VDC to 85 VDC or 20 VAC to 60 VAC
<b>Output Current Range:</b>	1.5 to 10.0 Amps / Phase
<b>Microstepping Resolution:</b>	200 - 12,800 Steps / Rev
<b>Input Clock Frequency:</b>	1 Hz to 400 kHz
<b>Minimum Input Current (Clock &amp; Direction):</b>	7.0 mA
<b>Minimum Input Current (On/Off):</b>	1.0 mA
<b>Input Signal Voltage:</b>	3.5 VDC to 24.0 VDC
<b>Storage Temperature:</b>	0 to 50 °C
<b>Absolute Maximum Driver Temperature:</b>	70 °C
<b>Driver Type:</b>	Bipolar, Compatible with 4, 6, and 8 Lead Motors. Series or Parallel connection.
<b>5VDC Out Current Maximum:</b>	50 mA

## Additional Ordering Information

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