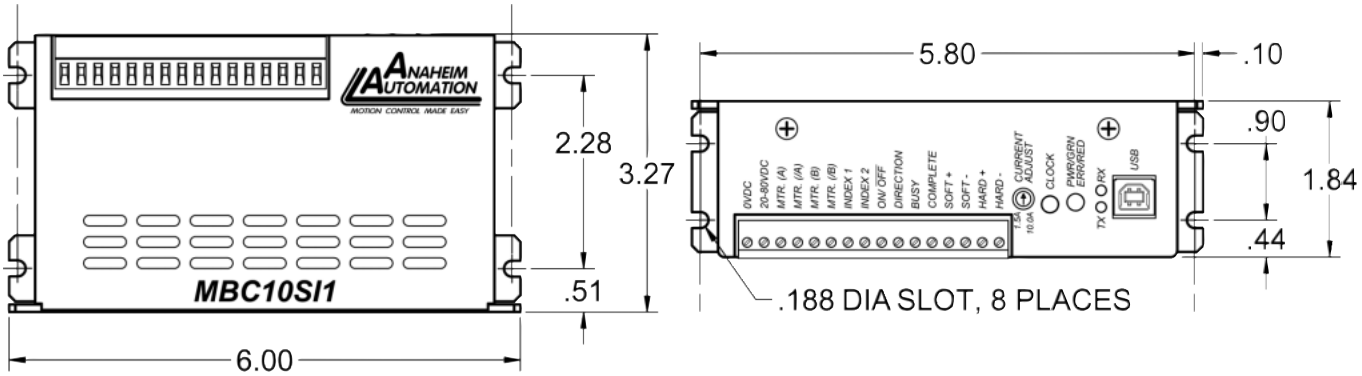
MBC10SI1 - Programmable Simple Indexer/Driver

FEATURES

- **Output Current of 10.0A Peak**
- **2000 Steps/Revolution**
- **On-Board Programmable Simple Indexer with 2 Motion Profiles**
- **Pulses From 1Hz to 50kHz**
- **Directional Soft and Hard Limit Switch Inputs**
- **Complete Output**
- **Busy Output**
- **Motor On/Off Input and Automatic Current Reduction**
- **Short Circuit Protection**

DIMENSIONS



DESCRIPTION

The MBC10SI1 is a low cost single axis step motor driver integrated with a programmable simple indexer. The MBC10SI1 microstep driver/pulse generator has an output current capability of 1.5A minimum to 10.0A maximum (peak rating). The MBC10SI1 driver operates with a DC voltage of 20VDC to 80VDC. The MBC10SI1's internal controller has two different programmable motion profiles. The MBC10SI1 also has directional soft and hard limit switch inputs, a busy output and a complete output letting the user know when an index is finished. The driver features direction control and motor current On/Off capabilities. The "Reduce Current Enabled" feature automatically reduces motor current to 50% of the set value. The driver has built in features to indicate power on (green LED), running (yellow LED) and error conditions (red LED). The MBC10SI1 has a fixed step resolution of 2000 steps/revolution for a 1.8º stepper motor. The bipolar drive configuration handles 4, 6, and 8 lead step motors and is also equipped with over current protection. The MBC10SI1 communicates via USB communication. The easy to use Windows software, is used to directly set up the two different motion profiles.

Ideal Applications:

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

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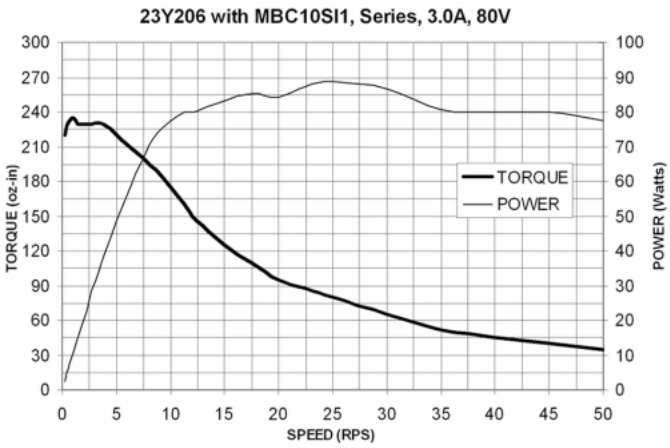
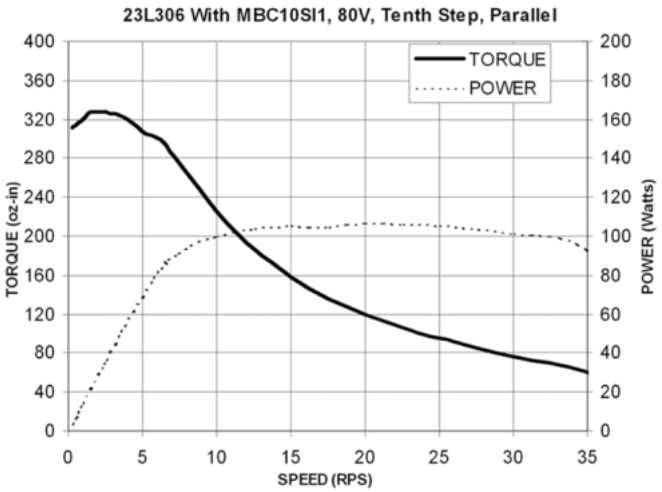
Torque Speed Curves

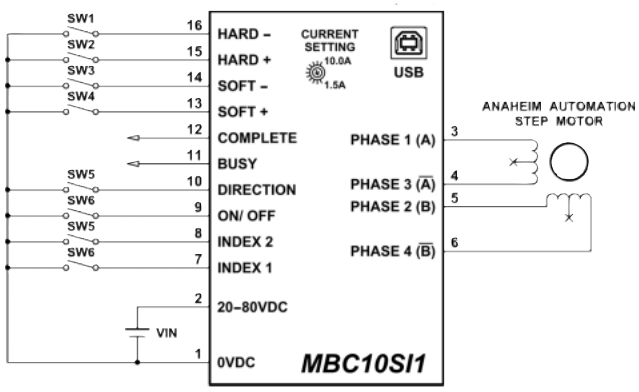




Specifications

Voltage Requirements:	20 - 80 VDC
Profile Inputs (Pins 7 and 8):	Start - Low (0 VDC)
Direction Input (Pin):	CW - High (Open) CWW - Low (0 VDC)
On/Off Input (Pin):	On - High (Open) Off - Low (0 VDC)
Busy Output (Pin):	Open Drain type Output, 75mA Sink, 40VDC Stand Off
Complete Output (Pin 1):	Open Drain type Output, 75mA Sink, 40 VDC Stand Off
Clock Out Fequency (P3, Pin 1):	Min - 1 Hz Max - 50K Hz
Output Current T_A = 25°C	Min - 0.5A peak Max - 10.3A peak
Driver Chopping Frequency:	25K Hz - 30K Hz
Operating Temperature:	0°C - 70°C
LEDs:	Green - Power On Red - Programming Error Yellow - Indexer is busy
Baud Rate Setting:	115200
Data Format:	1 Start Bit, 8 Data Bits, No Parity, 1 Stop Bit

Hookup:



Power Supply Ordering Information

Model #	Description
PSA40V4A	DC Power Supply 40VDC at 4.0 Amps
PSA40V8A	DC Power Supply 40VDC at 8.0 Amps
PSA80V4A	DC Power Supply 80VDC at 4.0 Amps