

MBC20SC1 Stepper Motor Controller and Driver



FEATURES

- Cost Effective 2-in-1 Step Motor Controller and Driver
- 12-24 VDC Operating Voltage
- 0.06 - 2.00 Amp Output Current
- Compatible with Size 8, 11, 14, 17, 23, and 24 Frame Stepper Motors
- Easy-to-Use Windows Software Included
- Highly Configurable Motion Control
- Encoder Feedback
- USB Type C Interface
- Compact Design Suitable for Operation in Tight Spaces
- Easy to Install

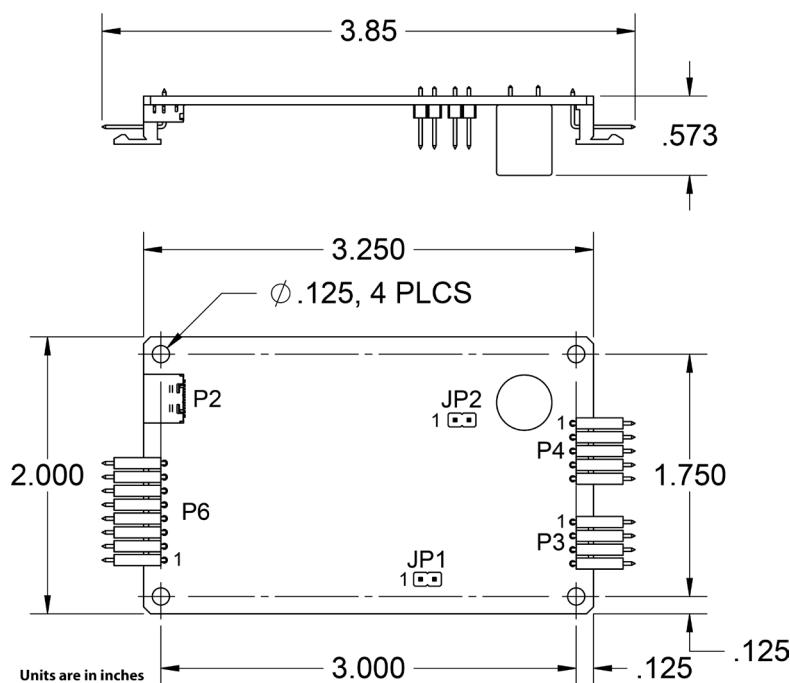
DESCRIPTION

The MBC20SC1 is a miniature, stepper motor controller/driver with quadrature encoder feedback perfect for applications where precision in small spaces is a requirement. With a footprint less than 6" square, this microstepping driver provides great performance and flexibility for a driver its size. The MBC20SC1's main feature is its ability to combine both a motion controller and driver into one compact package, simplifying setup while staying within budget. All you would need is a power, a motor(w/ encoder if precision is needed), and a computer (depending on setup) to get motion started with the MBC20SC1.

The MBC20SC1 is a bipolar type microstepping driver which can deliver 0.06 – 2.0 Amps output current (Selectable with digital commands and through the MBC20WIN software). The driver operates from 12VDC minimum to 24VDC maximum voltage. The driver features microstep resolutions of 200, 400, 800, 1600, 3200, 6400, 12800, 25600 steps/revolution, and built-in over temperature and short circuit shutdown. The inputs are capable of running from either open collector or TTL level logic outputs, or any device that outputs step and direction signals.

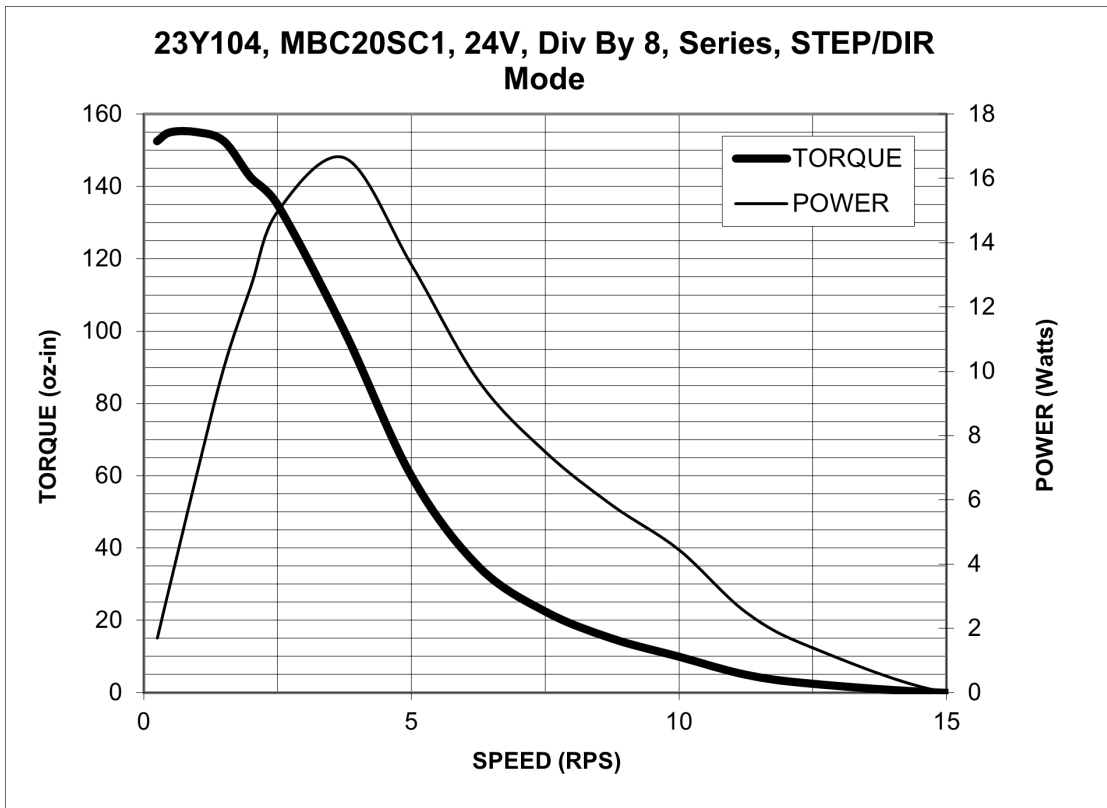
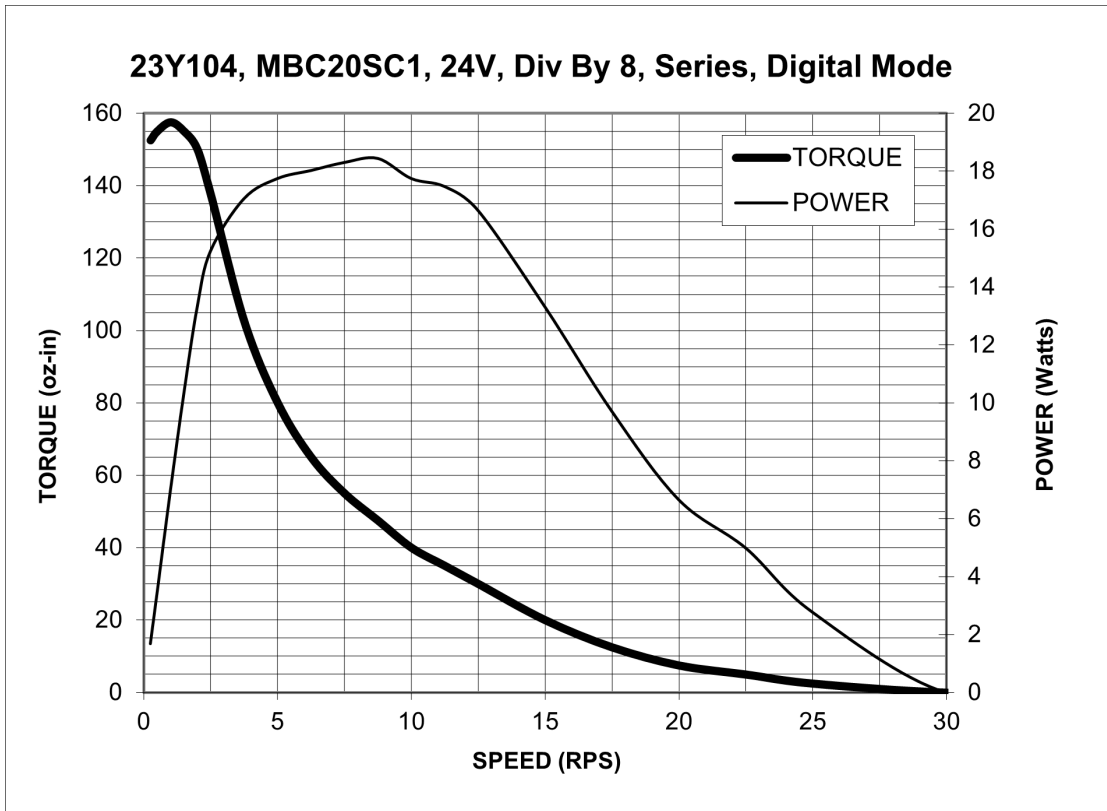
The user can also configure the MBC20SC1 and then have it autostart on powerup. This makes the device capable of simple standalone operation. The easy-to-use Windows software, MBC20WIN, can be used to directly control motion and to configure the MBC20SC1. Additionally, this device has the ability to perform real time functions. "Direct Mode" is used to directly control motion for real time movements requested via serial communication.

DIMENSIONS



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Units are in inches

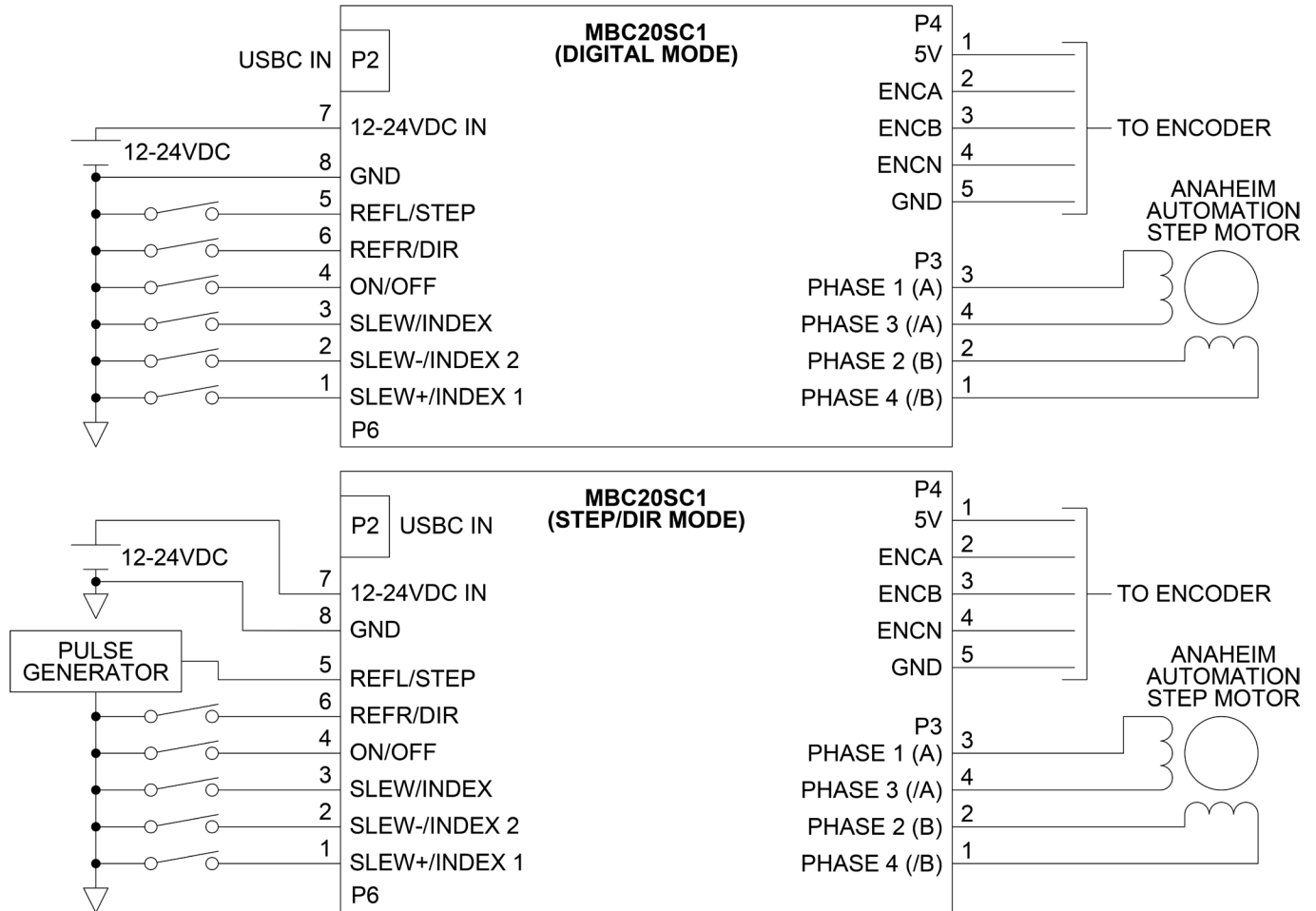


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WIRING DIAGRAM



SPECIFICATIONS

Additional Information

Power Requirements:	12-24VDC	Baud Rate:	38,400 Baud, Fixed
Output Current Range:	0.06 - 2.00 Amps (Peak) 0.04 - 1.40 Amps (RMS)	Data Format:	Half Duplex, 1 Start Bit, 8 Data Bits, No Parity, 1 Stop Bit
Microstepping Resolution:	200, 400, 800, 1600, 3200, 6400, 12800, and 25600 Steps/Revolution	Communication Interface:	Universal Serial Bus
Input Clock Frequency:	0 - 6.6 MHz	Encoder Feedback:	Quadrature, Ch. A, Ch. B, Ch. N, 5VDC Signal Compatibility
Driver Type:	Bipolar, Compatible with 4, 6, and 8 Lead Motors. Series or Parallel Connection	Storage Temperature:	-0° - 150°C
		Absolute Maximum Driver Temperature:	150°C

Additional Ordering Information

PSAM24V2.7A	Power Supply for MBC20SC1 (24V @ 2.7A)
MBC20SC1	Stepper Motor Controller and Driver with DC Input and 2.0A Output Current
23Y104S-LW8	2.0A, 1.8° Step Angle, High Torque Stepper Motor

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