



- Continuous 360° rotation stage
- Speeds up to 300 rpm
- 50.8 mm aperture
- Built-in controller; daisy-chains with other Zaber products
- Multiple motor configurations
- Encoder position feedback with slip/stall detection and automatic recovery

## Product Description

Zaber's X-RSB-E Series rotation stages have a 120 mm table diameter and a 50.8 mm (2 inch) aperture. They feature a compact footprint, low profile, and a load capability of up to 50 kg. With a maximum speed of 300 rpm, these rotation stages are ideal for the rapid positioning of light loads to within a fraction of a degree.

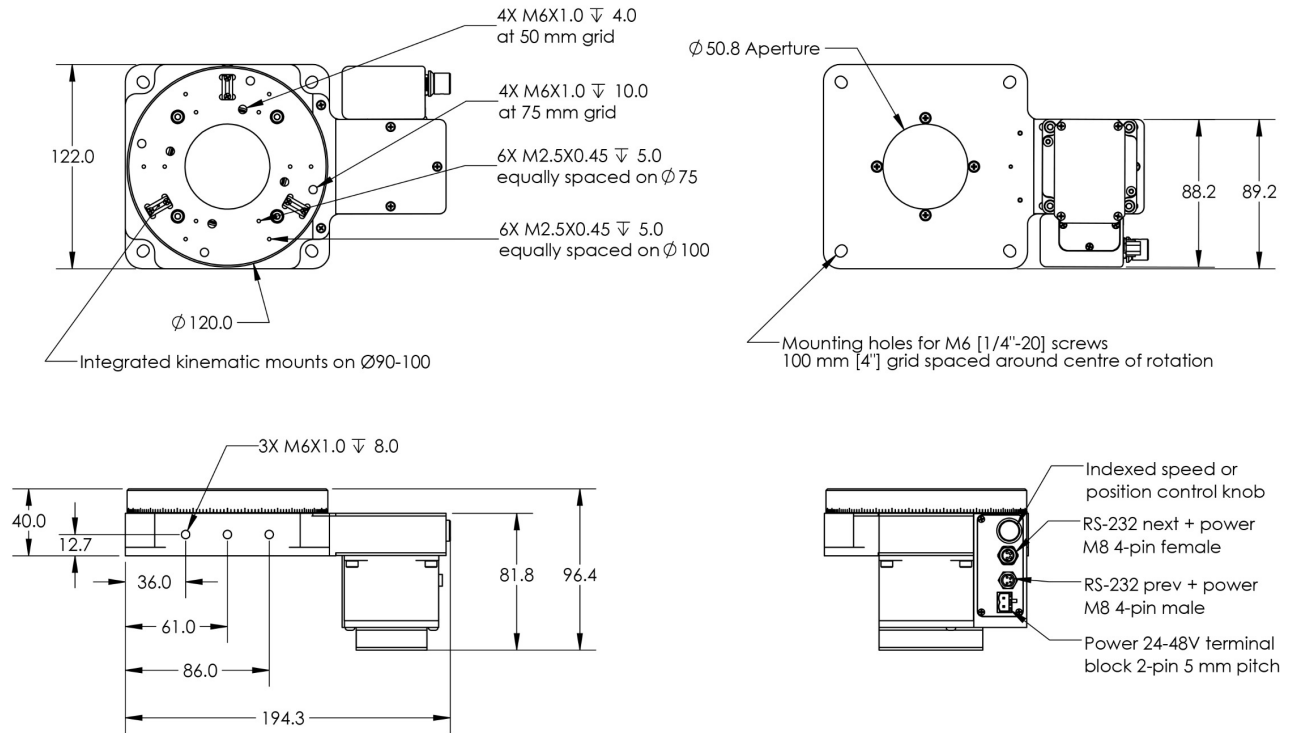
They are stand-alone units requiring either a standard 24 V or 48 V power supply. A built-in motor encoder allows for closed-loop operation and slip/stall recovery features. There are two motor configurations available: up and down. Motor up configurations allow flush mounting of the device to a flat surface, and motor down configurations allow for a full 360° movement of loads that extend past the edge of the stage top. An indexed knob provides convenient manual control for versatile operation even without a computer.

These stages connect to the RS-232 port or USB port of any computer, and they can be daisy-chained with any other Zaber products. The daisy-chain also shares power, making it possible for multiple X-Series products to share a single power supply. Convenient locking, 4-pin, M8 connectors on the unit allow for secure connection between units. Like all of Zaber's products, the X-RSB-E Series is designed to be 'plug and play' and very easy to set up and operate.

## Dimension Drawings

\*See product page for complete list of available models at [www.zaber.com](http://www.zaber.com)

X-RSBxD-E shown below



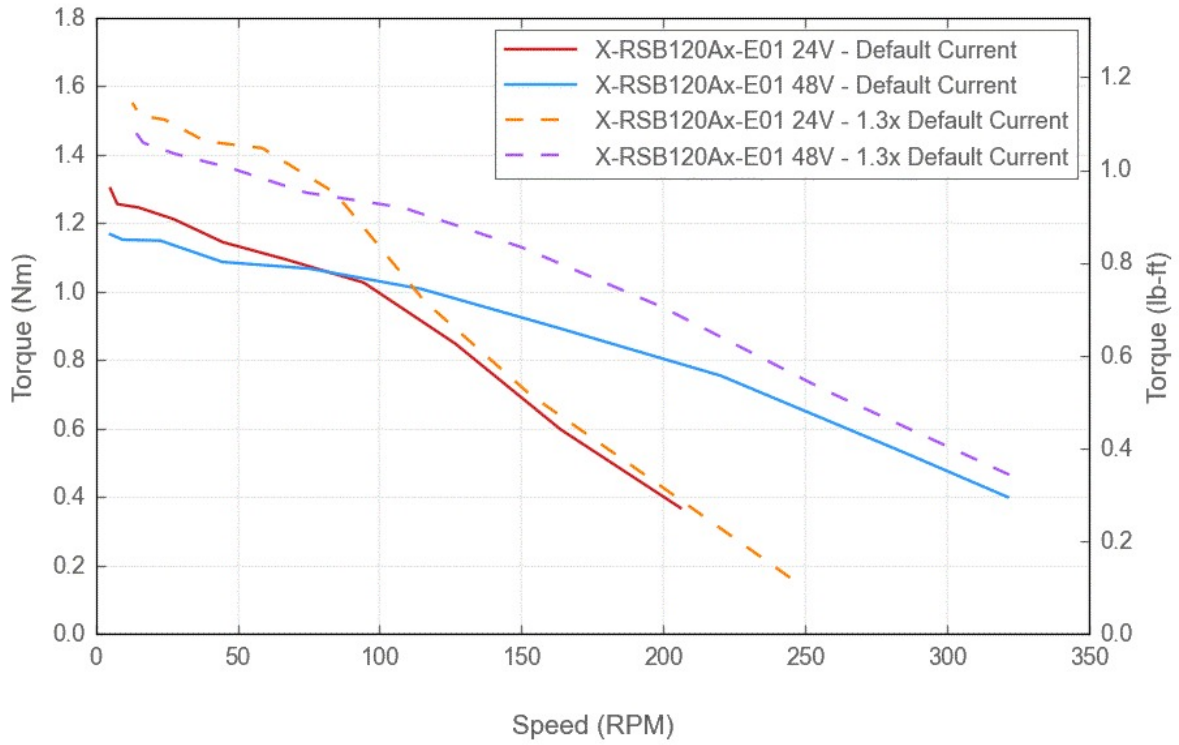
## Product Specifications

Specification	Value	Alternate Unit
Microstep Size (Default Resolution)	0.005625°	98.173 μrad
Built-in Controller	Yes	
Range	360°	
Accuracy (unidirectional)	0.19°	3.315500 mrad
Repeatability	< 0.02°	< 0.349 mrad
Backlash	< 0.19°	< 3.316 mrad
Maximum Speed	1800 °/s	300.0 rpm
Minimum Speed	0.026 °/s	453.778 μrad/s
Speed Resolution	0.026 °/s	
Encoder Resolution	500 CPR	2,000 states/rev
Encoder Type	Motor mounted rotary quadrature encoder	
Communication Interface	RS-232	
Communication Protocol	Zaber ASCII (Default), Zaber Binary	
Maximum Continuous Torque	120 N·Å c m	169.9 oz"Å i n
Maximum Centered Load	500 N	112.1 lb
Maximum Cantilever Load	2000 N·Å c m	2,832.2 oz"Å i n
Stage Top Dimension	120 mm	4.724 "
Maximum Current Draw	1200 mA	
Power Supply	24 - 48 VDC	
Power Plug	2-pin Screw Terminal	
Motor Steps Per Rev	200	
Motor Type	Stepper (2-phase)	
Motor Rated Current	2100 mA/phase	
Inductance	7.2 mH/phase	
Default Resolution	1/64 of a step	
Data Cable Connection	Locking 4-pin M8	
Mechanical Drive System	Synchronous belt	
Limit or Home Sensing	Magnetic home sensor	
Manual Control	Yes	
Axes of Motion	1	
LED Indicators	Yes	
Mounting Interface	Kinematic with M2.5 and M6 threaded holes	

Specification	Value	Alternate Unit
Operating Temperature Range	0 - 50 °C	
RoHS Compliant	Yes	
CE Compliant	Yes	
Weight	2.14 kg	4.718 lb

Specification Charts

**Torque Speed Performance**



**Angular Acceleration**

