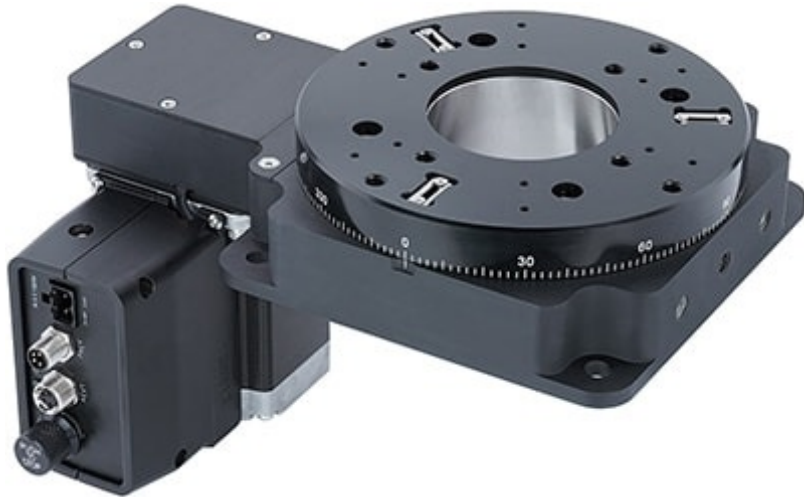


X-RSB060AD Datasheet



- Speeds up to 1,200 rpm
- Continuous 360° rotation stage
- Multiple motor configurations
- Built-in controller; daisy-chains with other Zaber products

X-RSB Series Overview

Zaber's X-RSB Series rotation stages feature a compact footprint, low profile, and a load capability of up to 50 kg. With a maximum speed of 1,200 rpm, these rotation stages are ideal for the rapid positioning of light loads to within a fraction of a degree.

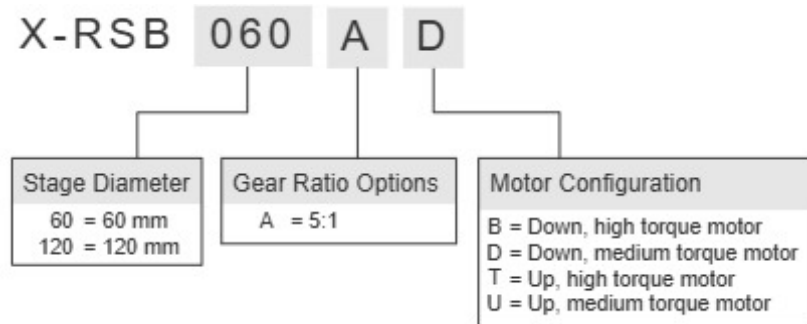
They are stand-alone units requiring either a standard 24 V or 48 V power supply. There are two motor configurations available: up and down. Motor up configurations allow flush mounting of the device to a flat surface, and motor down configurations allow for a full 360° movement of loads that extend 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 Series is designed to be 'plug and play' and very easy to set up and operate.

For more information visit: <https://www.zaber.com/products/rotary-stages/X-RSB>

X-RSB Series Part Numbering & Options



X-RSB060AD Drawings

- [X-RSB060.png \(Drawing for the X-RSB060\)](#)

X-RSB060AD Specifications

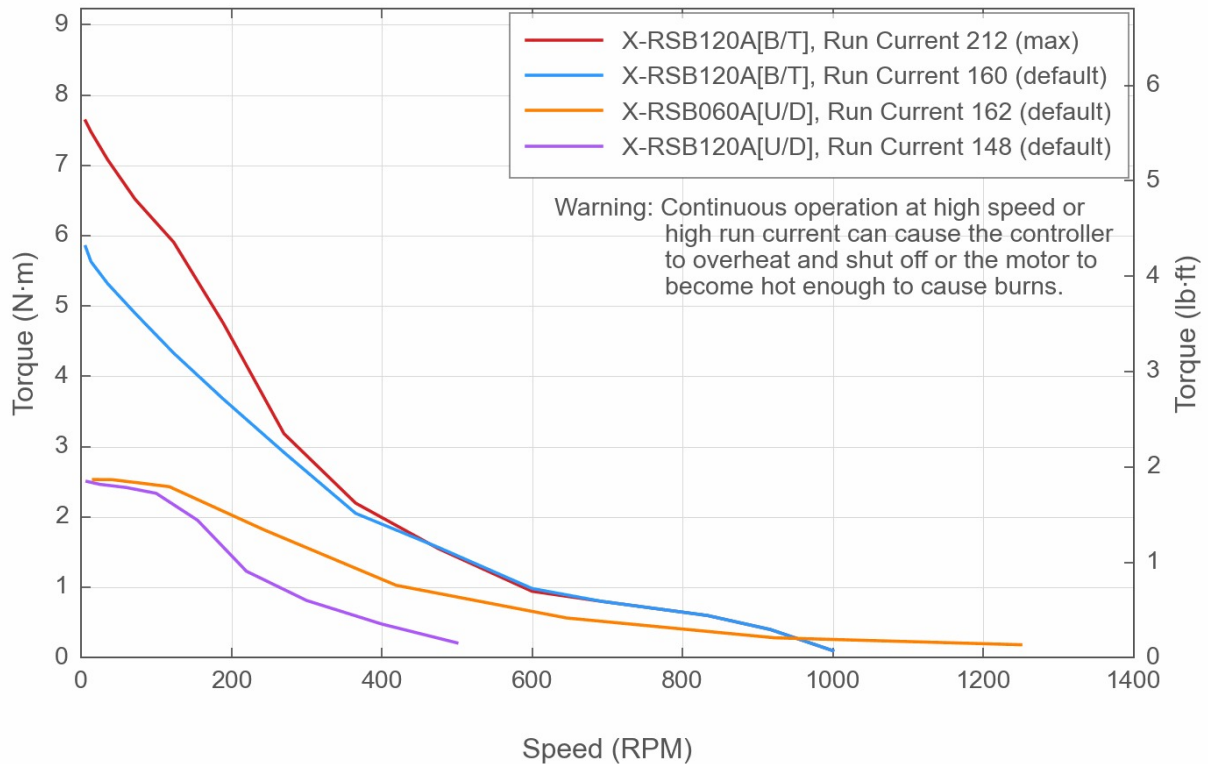
Microstep Size (Default Resolution)	0.005625° (98.173 μrad)
Built-in Controller	Yes
Range	360°
Accuracy (unidirectional)	0.2° (3.490000 mrad)
Repeatability	< 0.001° (< 0.017 mrad)
Backlash	< 0.1° (< 1.745 mrad)
Maximum Speed	7200°/s (1200 rpm)
Minimum Speed	0.003434°/s (59.934 μrad/s)
Speed Resolution	0.003434°/s (59.934 μrad/s)
Encoder Type	No
Communication Interface	RS-232
Communication Protocol	Zaber ASCII (Default), Zaber Binary
Data Cable Connection	Locking 4-pin M8
Maximum Continuous Torque	230 N-cm (325.7 oz-in)
Maximum Centered Load	200 N (44.9 lb)
Maximum Moment (Transverse)	410 N-cm (580.6 oz-in)
Stage Top Dimension	60 mm (2.362")
Radial Error Motion	+/- 4 μm (+/- 0.000157")
Axial Error Motion	< 4 μm (< 0.000157")
Tilt Error Motion	+/- 0.0033° (+/- 57.60 μrad)
Bearing Plane Offset	16.37 mm (0.644")
Power Supply	24 - 48 VDC
Power Plug	2-pin Screw Terminal
Maximum Current Draw	2000 mA
Angular Motion Per Motor Rev	72°
Motor Steps Per Rev	200
Motor Type	Stepper (2-phase)
Motor Rated Current	2300 mA/phase
Inductance	2.8 mH/phase
Default Resolution	1/64 of a step
Mechanical Drive System	Synchronous belt

Microstep Size (Default Resolution)	0.005625° (98.173 μrad)
Limit or Home Sensing	Magnetic home sensor
Manual Control	Yes
Axes of Motion	1
LED Indicators	Yes
Mounting Interface	M6 and #8-32 threaded holes
Operating Temperature Range	0 - 50 °C
CE Compliant	Yes
Vacuum Compatible	No
Weight	0.82 kg (1.808 lb)

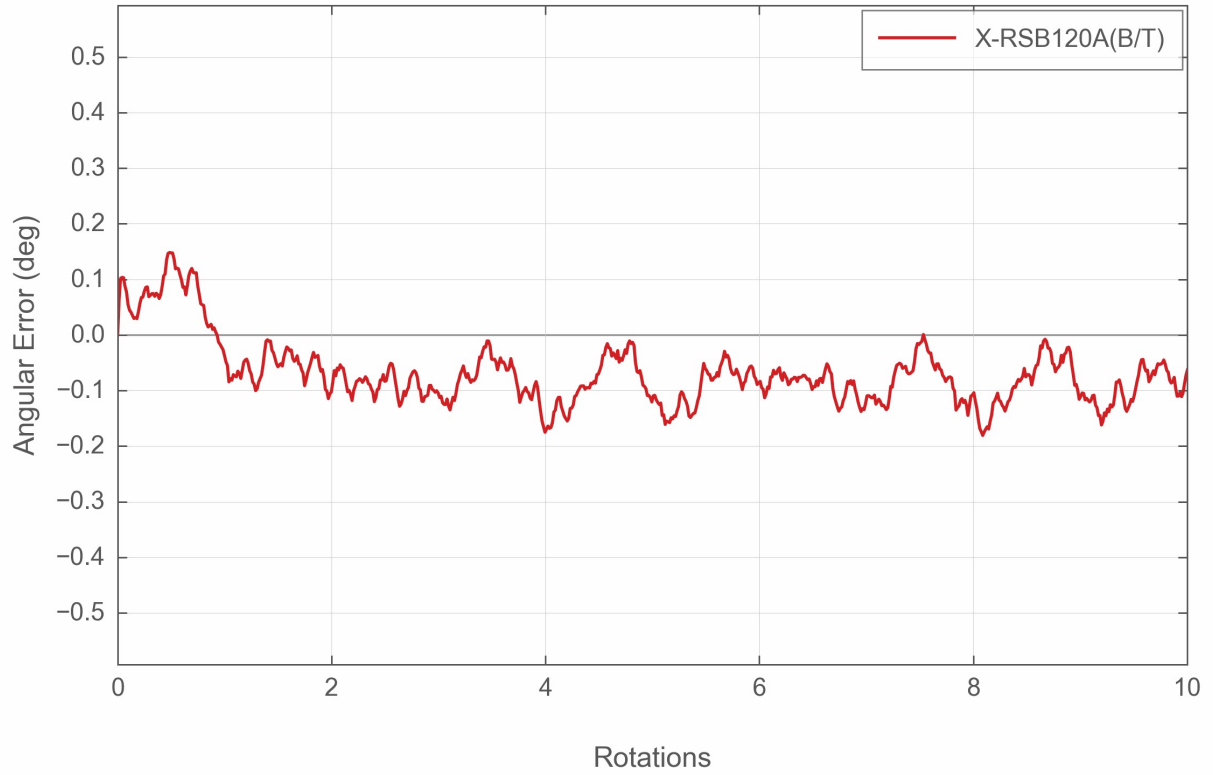
X-RSB Series Charts

Torque Speed Performance

48V

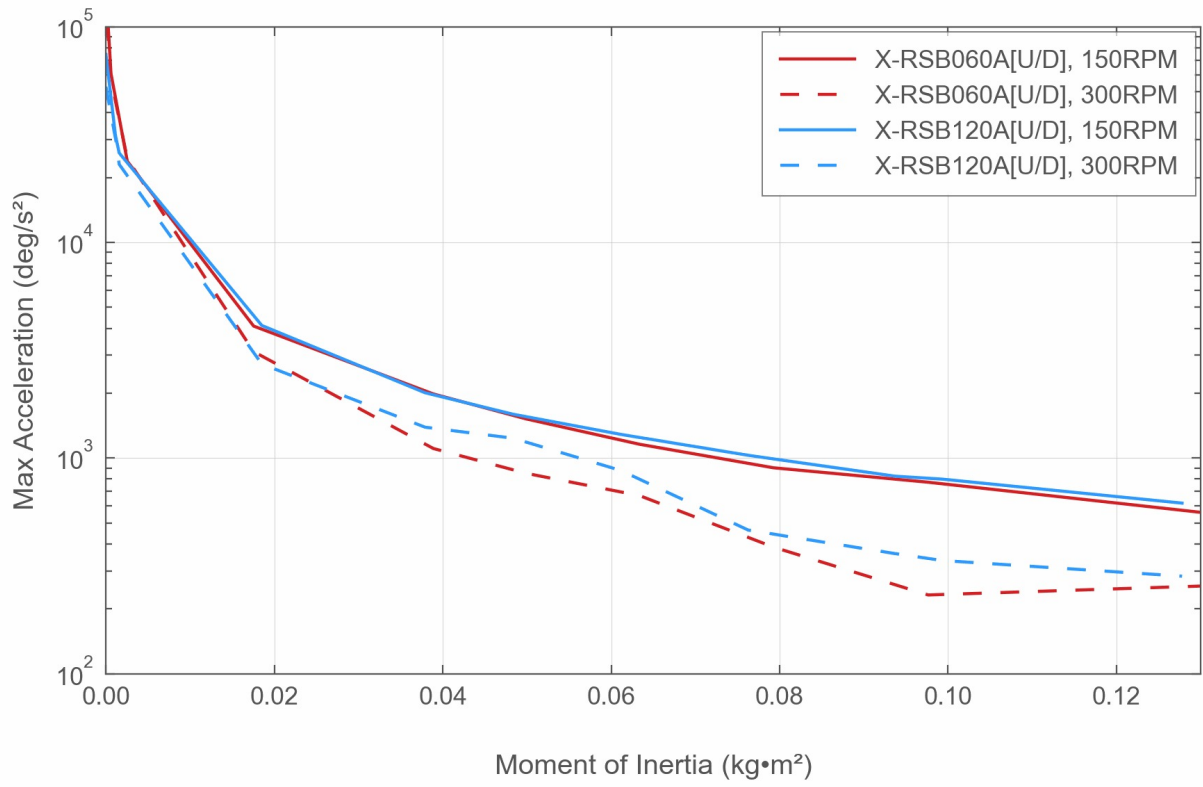


Typical Accuracy



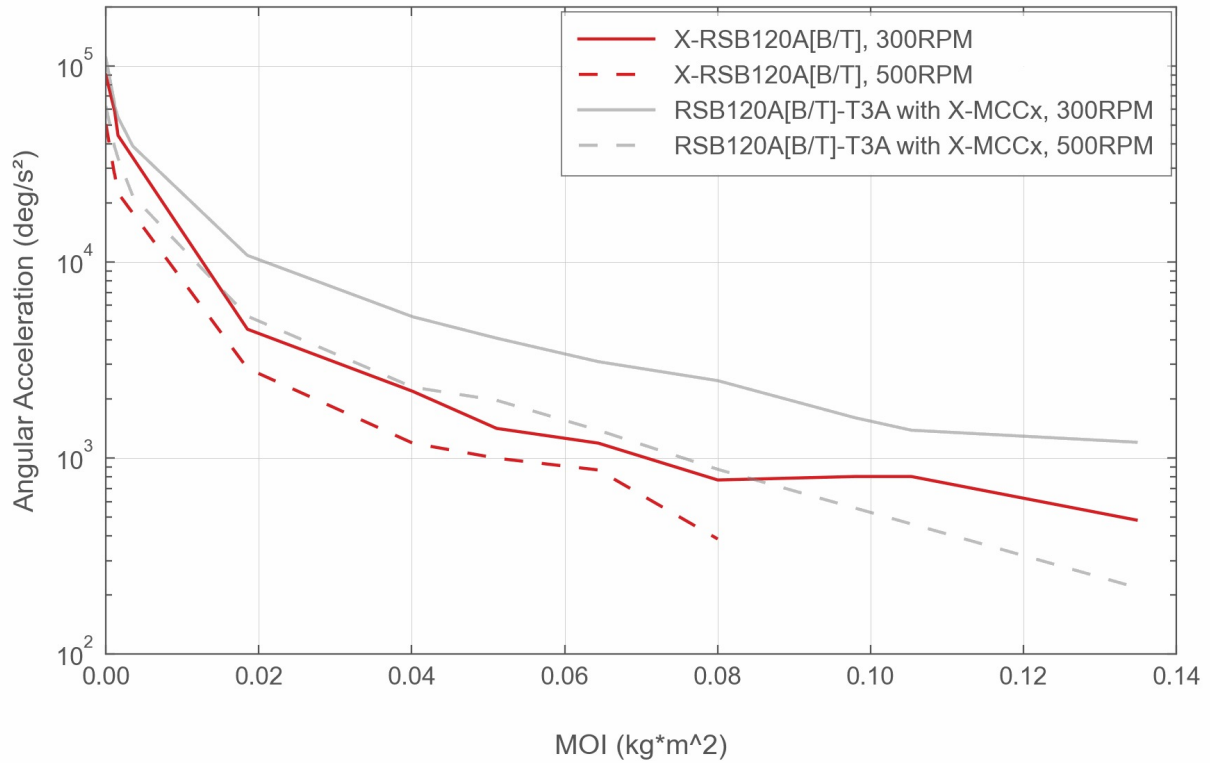
Angular Acceleration

48V, Default Run Current



Angular Acceleration

48V, Run Current 212 (max)



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