

RSB-E Series Datasheet



- Speeds up to 500 rpm
- Continuous 360° rotation stage
- Multiple motor configurations
- Encoder position feedback with slip/stall detection and automatic recovery
- Designed for use with an X-MCC Series stepper motor controller or any 2-phase stepper motor controller
- With AutoDetect, the X-MCC controller configures its settings automatically for the connected peripheral

RSB-E Series Overview

Zaber's RSB-E Series motorized rotation stages feature a compact footprint, low profile, and a load capability of up to 50 kg. With a maximum rotational speed of 500 rpm, these rotation stages are ideal for the rapid positioning of light loads. A built-in motor encoder allows for closed-loop operation and slip/stall recovery features.

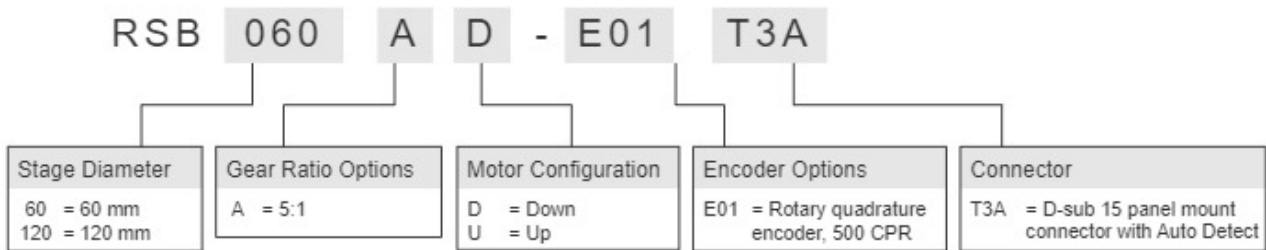
There are two motor configurations available: up and down. Motor up configurations allow flush mounting of the device to a flat surface, and motor down configurations allow for full 360° movement of loads that extend past the edge of the stage top.

The stages are designed to connect directly to our X-MCC Series universal motor controllers, or they

can be used with any 2-phase stepper motor controller through the panel mount DB15 connector. Set up is easy with AutoDetect. Once connected, the X-MCC controller will automatically detect and configure the RSB-E.

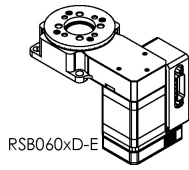
For more information visit: <https://www.zaber.com/products/rotary-stages/RSB-E>

RSB-E Series Part Numbering

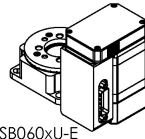


RSB-E Series Drawings

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RSB060-E Rotation Stage
 dimensions in mm



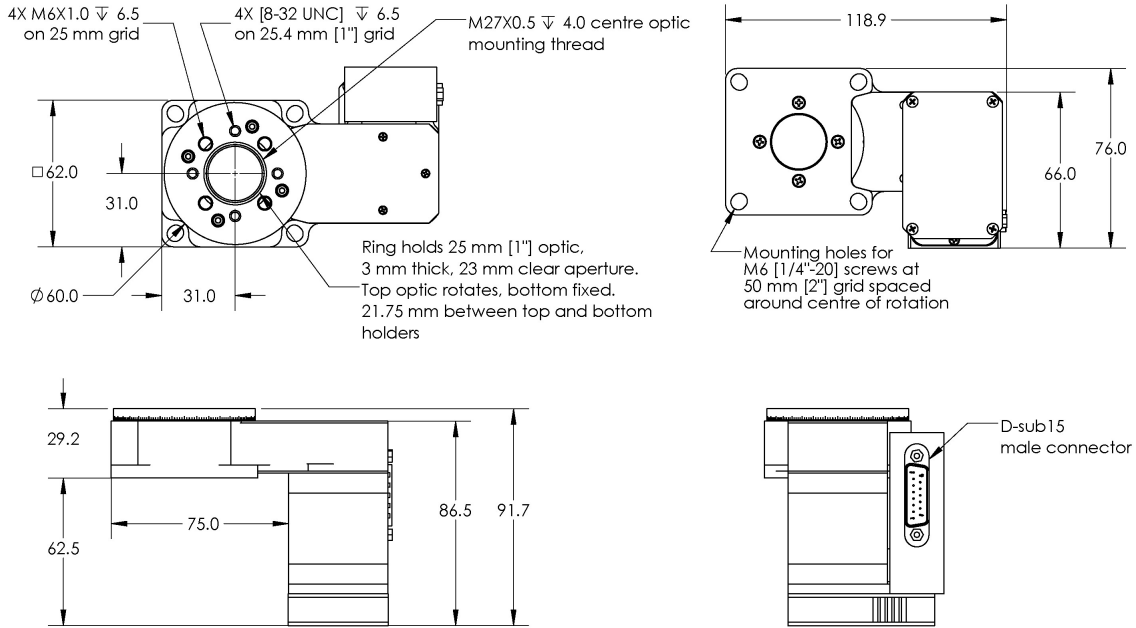
RSB060xD-E



RSB060xU-E

*See product page for complete list of available models at www.zaber.com

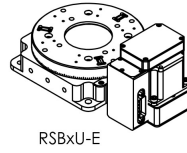
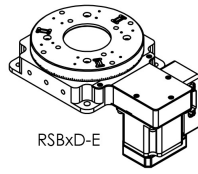
RSB060xD-E shown below



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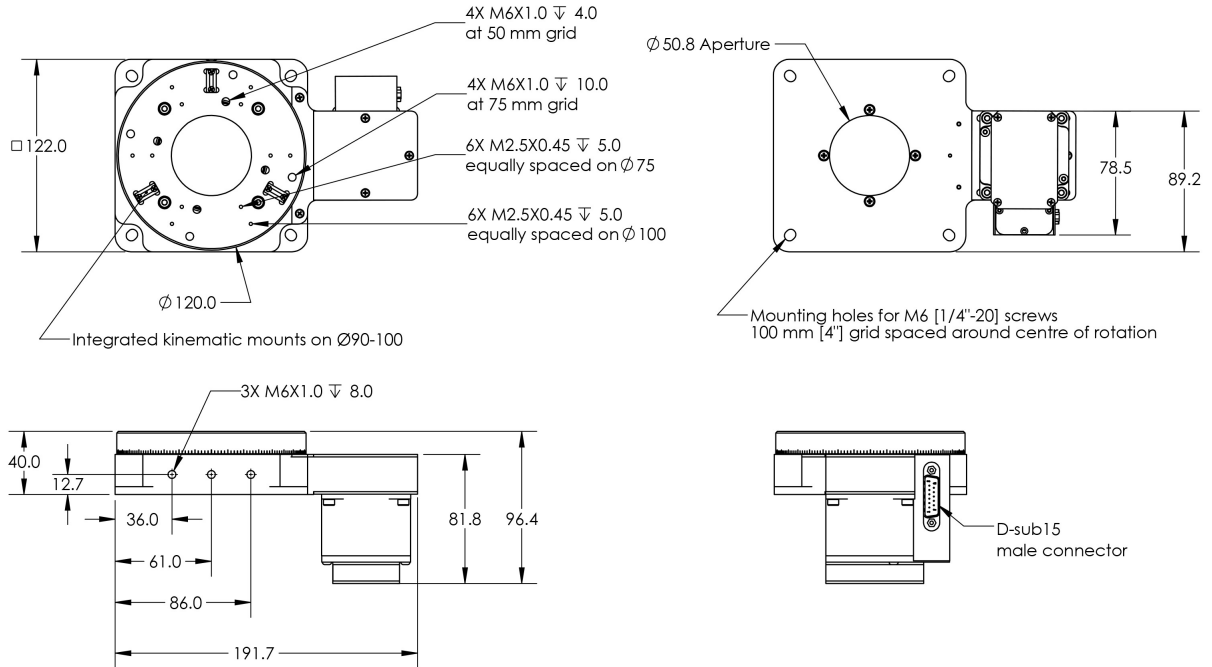
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RSB-E Rotation Stage
dimensions in mm



RSBxD-E shown below

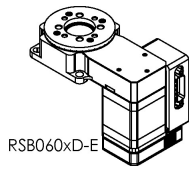
*See product page for complete list of available models at www.zaber.com



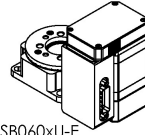
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RSB060-E Rotation Stage
 dimensions in mm



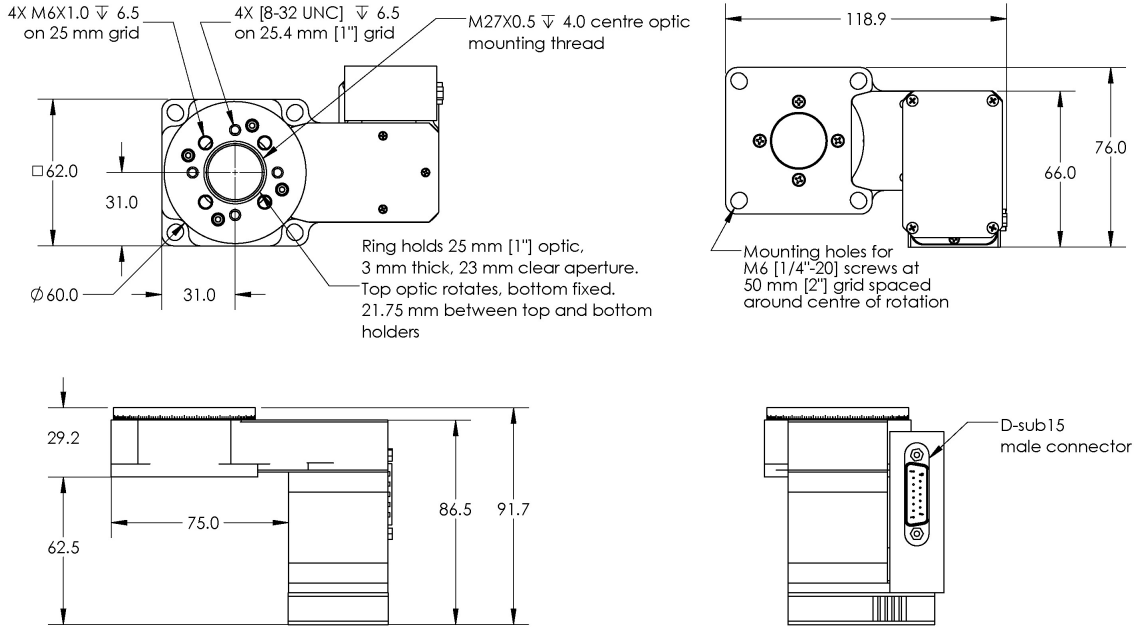
RSB060xD-E



RSB060xU-E

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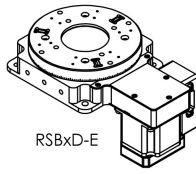
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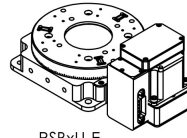
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RSB-E Rotation Stage
 dimensions in mm



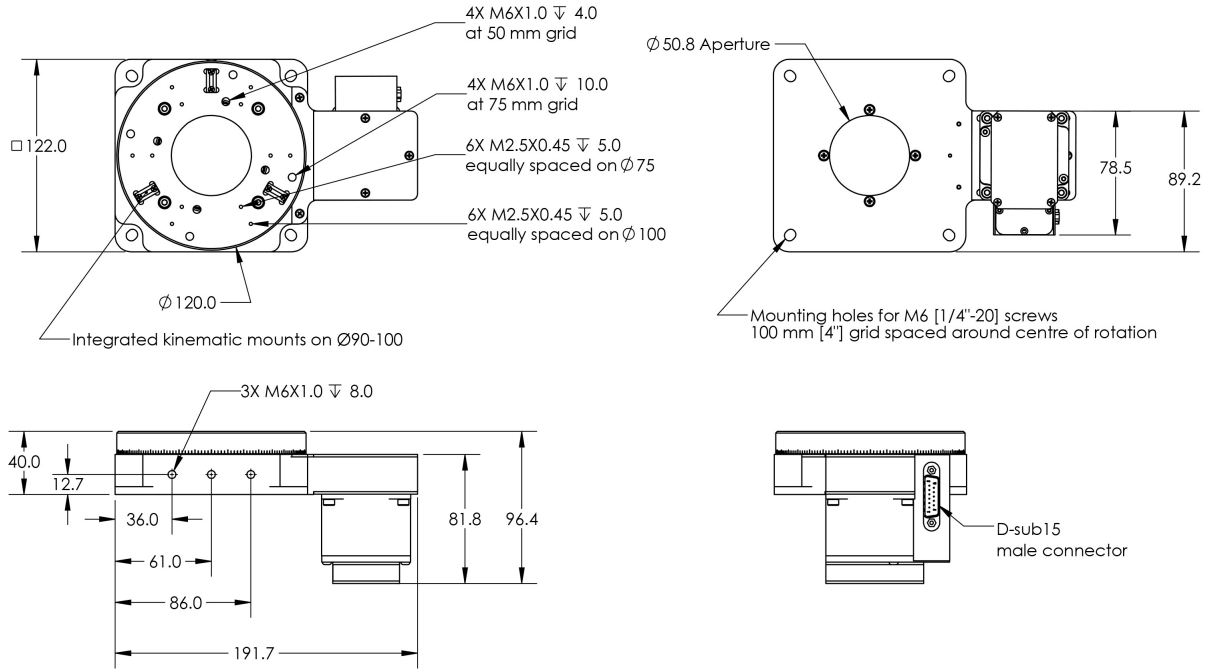
RSBxD-E



RSBxU-E

RSBxD-E shown below

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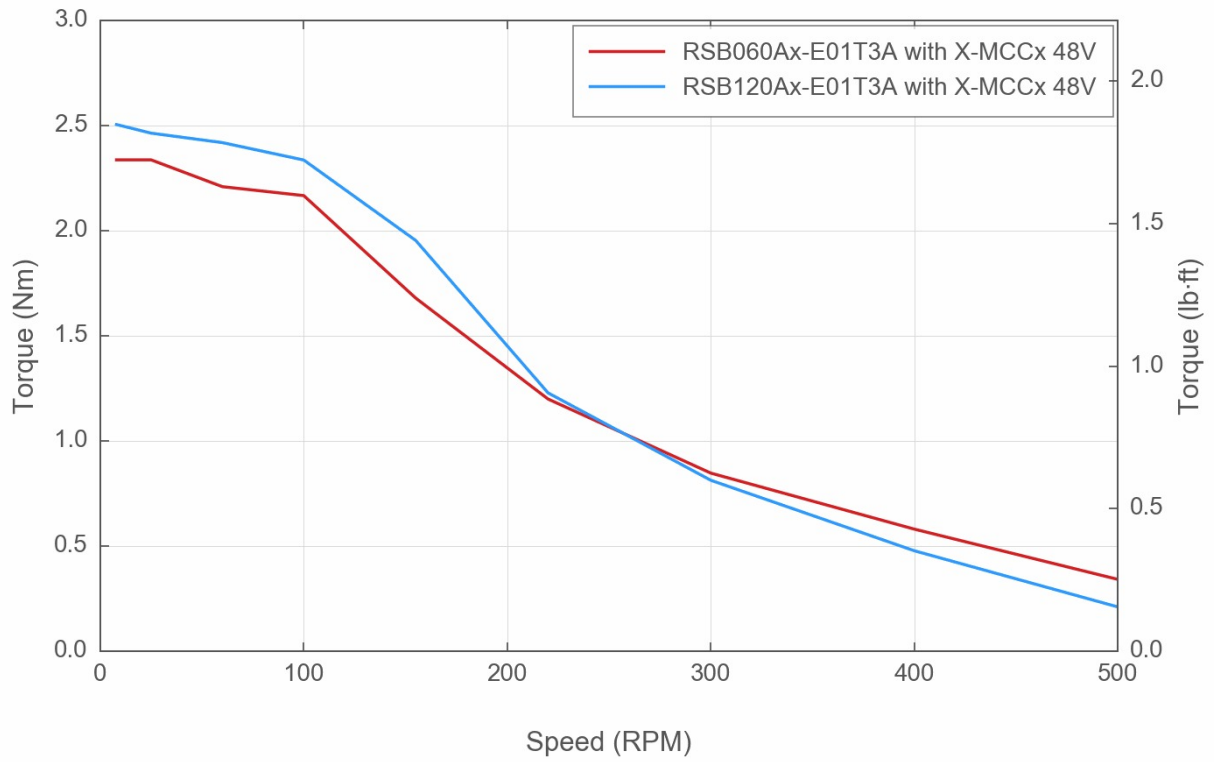
RSB-E Series Specifications

Specification	Value	Alternate Unit
Microstep Size (Default Resolution)	0.005625°	98.173 µrad
Built-in Controller	No	
Recommended Controller	X-MCC (48 V) Recommended	
AutoDetect	Yes	
Range	360°	
Accuracy (unidirectional)	0.2°	3.490000 mrad
Repeatability	< 0.01°	< 0.174 mrad
Backlash	< 0.1°	< 1.745 mrad
Maximum Speed	3000°/s	500 rpm
Minimum Speed	0.003434°/s	59.934 µrad/s
Speed Resolution	0.003434°/s	59.934 µrad/s
Encoder Resolution	500 CPR	2000 states/rev
Encoder Type	Rotary quadrature encoder	
Maximum Continuous Torque	230 N-cm	325.7 oz-in
Maximum Centered Load	200 N	44.9 lb
Maximum Cantilever Load	410 N-cm	580.6 oz-in
Stage Top Dimension	60 mm	2.362"
Angular Motion Per Motor Rev	72°	
Motor Type	Stepper (2 phase)	
Motor Rated Current	2300 mA/phase	
Motor Winding Resistance	1 ohms/phase	
Inductance	2.2 mH/phase	
Motor Connection	D-sub 15	
Default Resolution	1/64 of a step	
Mechanical Drive System	Synchronous belt	
Limit or Home Sensing	Magnetic home sensor	
Mounting Interface	M6 and #8-32 threaded holes	
Vacuum Compatible	No	
RoHS Compliant	Yes	
CE Compliant	Yes	

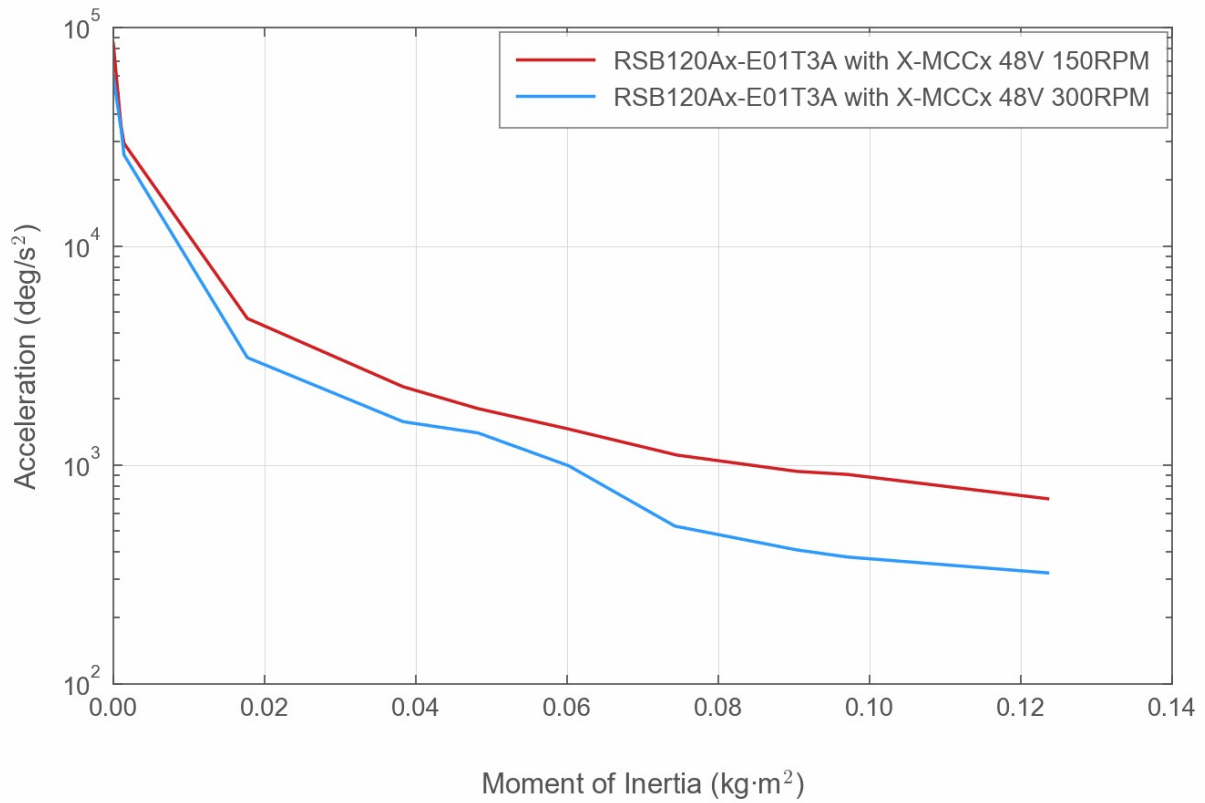
Specification	Value	Alternate Unit
Weight	0.84 kg	1.852 lb

RSB-E Series Charts

Torque Speed Performance



Angular Acceleration



Contact

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