

RSW Series Datasheet



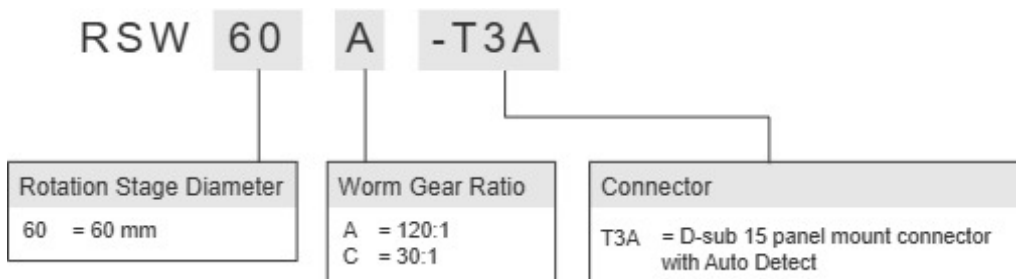
- Speed up to 75 rpm and torque up to 280 N-cm
- 23 mm aperture
- Worm gear driven for continuous rotation
- Two lens holders allow for use as a polarizer mount
- Designed for use with an X-MCC Series stepper motor controller or any 2-phase stepper motor controller
- With AutoDetect, the X-MCC controller configures its settings automatically for the connected peripheral
- Custom versions available

RSW Series Overview

Zaber's RSW precision motorized rotation stage is stepper motor and worm gear driven and capable of continuous rotation. 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 RSW.

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

RSW Series Part Numbering & Options



RSW Series Drawings

- [RSW.png \(Dimension Drawing for the RSW\)](#)

RSW Series Specifications

Built-in Controller	
Recommended Controller	X-MCC (48 V) Recommended
AutoDetect	Yes
Range	360°
Accuracy (unidirectional)	0.08° (1.396000 mrad)
Repeatability	< 0.02° (< 0.349 mrad)
Backlash	< 0.04° (< 0.698 mrad)
Encoder Type	No
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	16.4 mm (0.646")
Motor Type	Stepper (2 phase)
Motor Rated Current	1500 mA/phase
Motor Winding Resistance	2.05 ohms/phase
Inductance	1 mH/phase
Motor Connection	D-sub 15
Default Resolution	1/64 of a step
Mechanical Drive System	Precision Worm Gear
Limit or Home Sensing	Magnetic home sensor
CE Compliant	Yes
Vacuum Compatible	No
Weight	0.62 kg (1.367 lb)

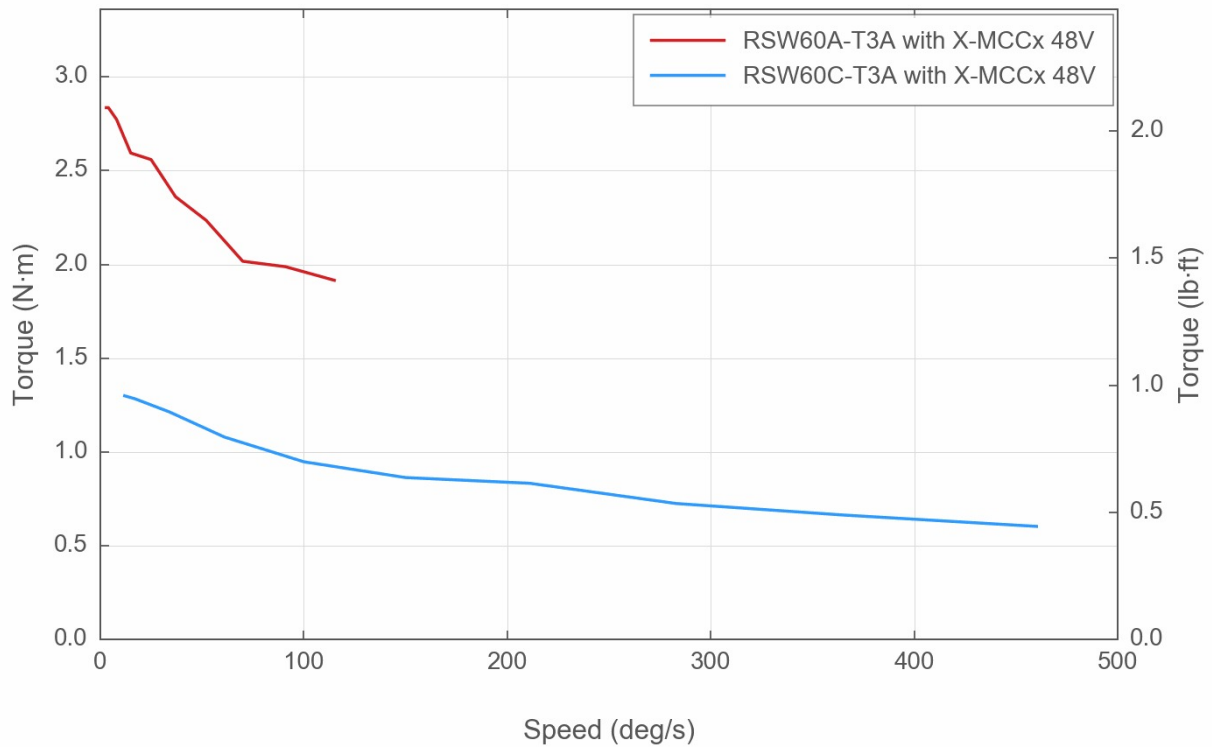
Part Number	Microstep Size (Default Resolution)	Maximum Speed	Minimum Speed	Speed Resolution
RSW60A-T3A	0.000234375° (4.091 µrad)	115°/s (19 rpm)	0.000143°/s (2.496 µrad/s)	0.000143°/s (2.496 µrad/s)

Part Number	Microstep Size (Default Resolution)	Maximum Speed	Minimum Speed	Speed Resolution
RSW60C-T3A	0.0009375° (16.362 μrad)	450°/s (75 rpm)	0.000572°/s (9.983 μrad/s)	0.000572°/s (9.983 μrad/s)

Part Number	Maximum Continuous Torque	Angular Motion Per Motor Rev
RSW60A-T3A	280 N-cm (396.5 oz-in)	3°
RSW60C-T3A	125 N-cm (177.0 oz-in)	12°

RSW Series Charts

Torque Speed Performance



Contact

Email: contact@zaber.com

Phone (toll free Canada/USA): 1-888-276-8033

Phone (direct): 1-604-569-3780

Fax: 1-604-648-8033

Zaber Technologies Inc.

#2 - 605 West Kent Ave. N.

Vancouver, British Columbia

Canada, V6P 6T7

<https://www.zaber.com>