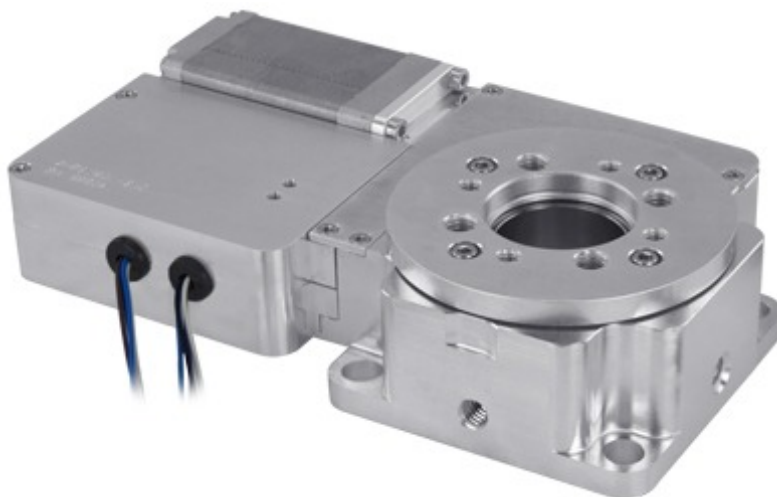


## X-RSW60A-SV2 Datasheet



- Vacuum compatible to  $10^{-6}$  Torr
- Speed up to 100 °/s and torque up to 100 N-cm
- 20 kg load capacity
- Worm gear driven for continuous rotation
- Integrated stepper motor controller and motor driver allows for easy-to-use control
- Only 4 feedthrough wires required to control all units in the daisy-chain via serial port (with an X-PIB adaptor)

## X-RSW-SV2 Series Overview

For more information about the basics of a vacuum system and considerations to keep in mind when gathering requirements for your application, read our technical article, "Motion Device Design Considerations for Vacuum Applications".

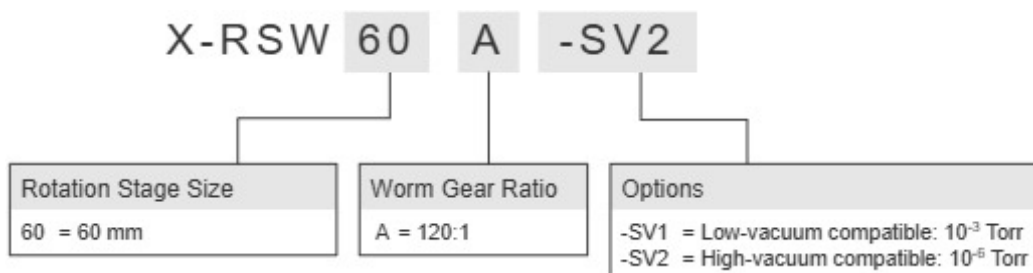
Zaber's X-RSW-SV2 Series devices are high-vacuum compatible, computer-controlled, motorized rotary stages with built-in controllers. They are stand-alone units requiring only a standard 24 - 48 V power supply.

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.

The X-RSW-SV2 is designed with vacuum compatible materials to minimize outgassing and allow for faster pump down times. Like all of Zaber's products, the X-RSW-SV2 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/vacuum-compatible-stages/X-RSW-SV2>

## X-RSW-SV2 Series Part Numbering & Options



## X-RSW60A-SV2 Drawings

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

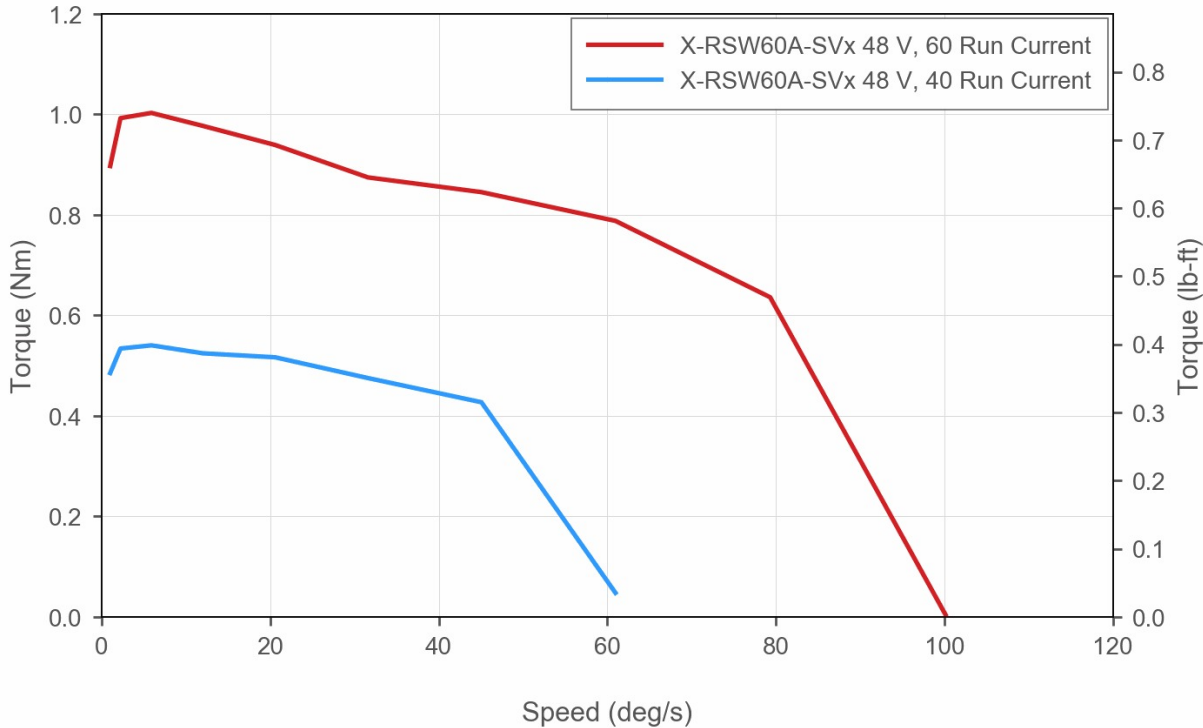
## X-RSW60A-SV2 Specifications

<b>Microstep Size (Default Resolution)</b>	<b>0.000234375° (4.091 μrad)</b>
Built-in Controller	Yes
Range	360°
Accuracy (unidirectional)	0.14° (2.443000 mrad)
Repeatability	< 0.02° (< 0.349 mrad)
Backlash	< 0.04° (< 0.698 mrad)
Maximum Speed	100°/s (17 rpm)
Minimum Speed	0.000143°/s (2.496 μrad/s)
Speed Resolution	0.000143°/s (2.496 μrad/s)
Encoder Type	No
Communication Interface	RS-232
Communication Protocol	Zaber ASCII (Default), Zaber Binary
Data Cable Connection	Teflon flying leads with M8 4 pin M/F
Maximum Torque	100 N-cm (141.6 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")
Power Supply	24-48 VDC
Power Plug	None, use X-PIB
Maximum Current Draw	950 mA
Angular Motion Per Motor Rev	3°
Motor Steps Per Rev	200
Motor Type	Stepper (2 phase)
Motor Rated Current	1300 mA/phase
Inductance	1 mH/phase
Default Resolution	1/64 of a step
Mechanical Drive System	Precision Worm Gear
Limit or Home Sensing	Magnetic home sensor
Manual Control	No
Operating Temperature Range	0-50 °C
CE Compliant	Yes

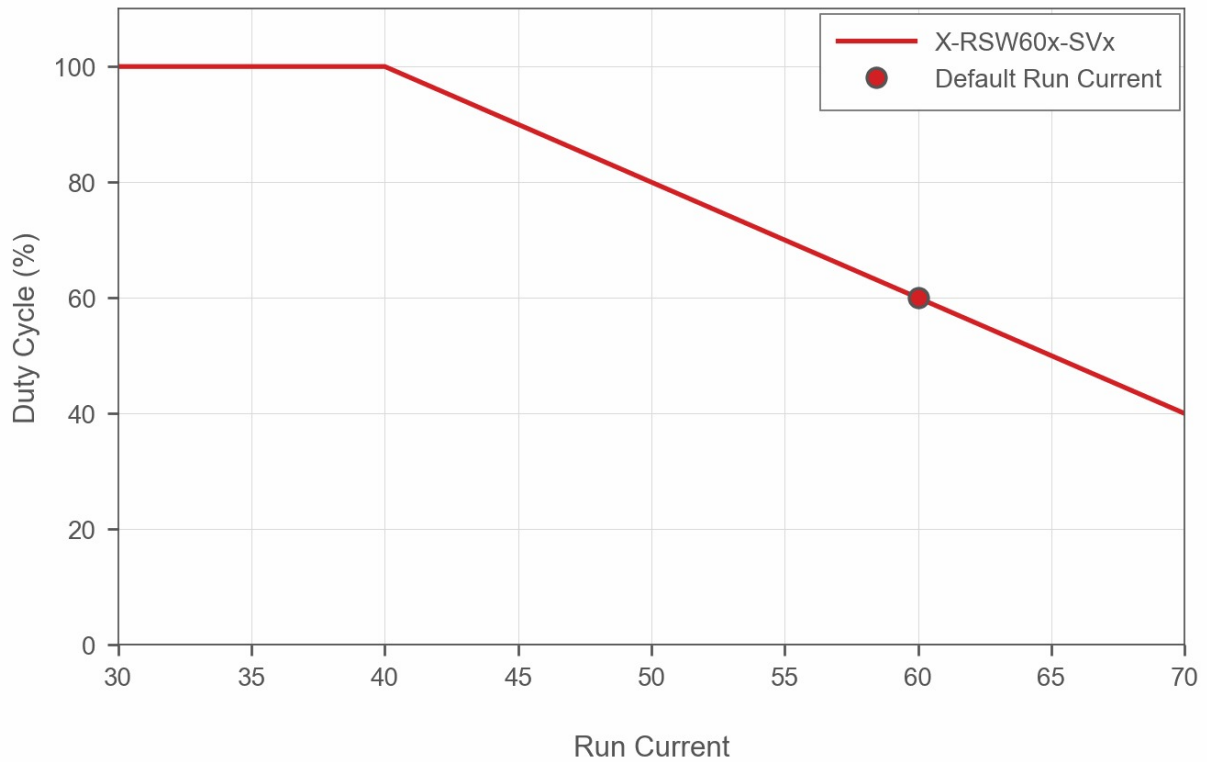
<b>Microstep Size (Default Resolution)</b>	<b>0.000234375° (4.091 μrad)</b>
Vacuum Compatible	High vacuum (10 <sup>-6</sup> Torr)
Weight	0.72 kg (1.587 lb)

### X-RSW-SV2 Series Charts

**Torque Speed Performance**



## Recommended Duty Cycle



## Contact

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