

## RSM40B-E03T4A Datasheet



- 50 N load capacity
- 0.02° repeatability
- 21 mm total height
- 4 mm aperture
- Worm gear driven for continuous rotation
- 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

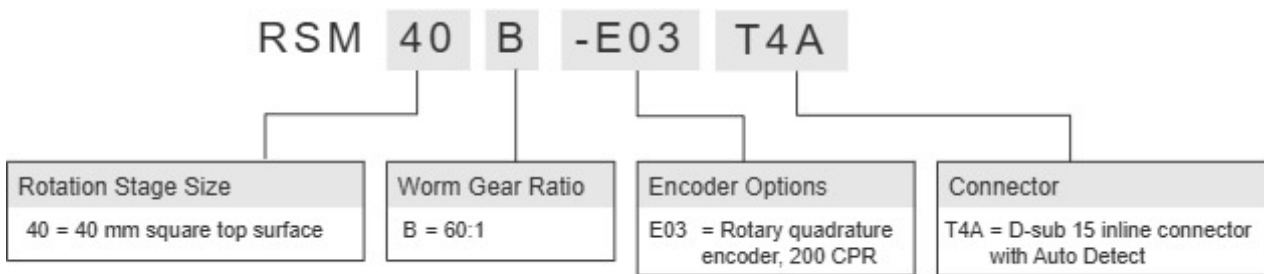
## RSM-E Series Overview

Zaber's RSM-E Series rotation stages are our most compact stepper and worm gear driven devices. Self-aligning feet and mounting points make it easy to set up multi-axis tilt or gimbal systems using the GSM tilt devices or AP146 and AB147 brackets.

RSM-E stages are designed to interface with our X-MCC Series universal motor controllers. Set up is easy with AutoDetect. Once connected, the X-MCC controller will automatically detect and configure the RSM-E.

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

## RSM-E Series Part Numbering & Options



## RSM40B-E03T4A Drawings

- [RSM-E.png \(Drawing for the RSM-E\)](#)

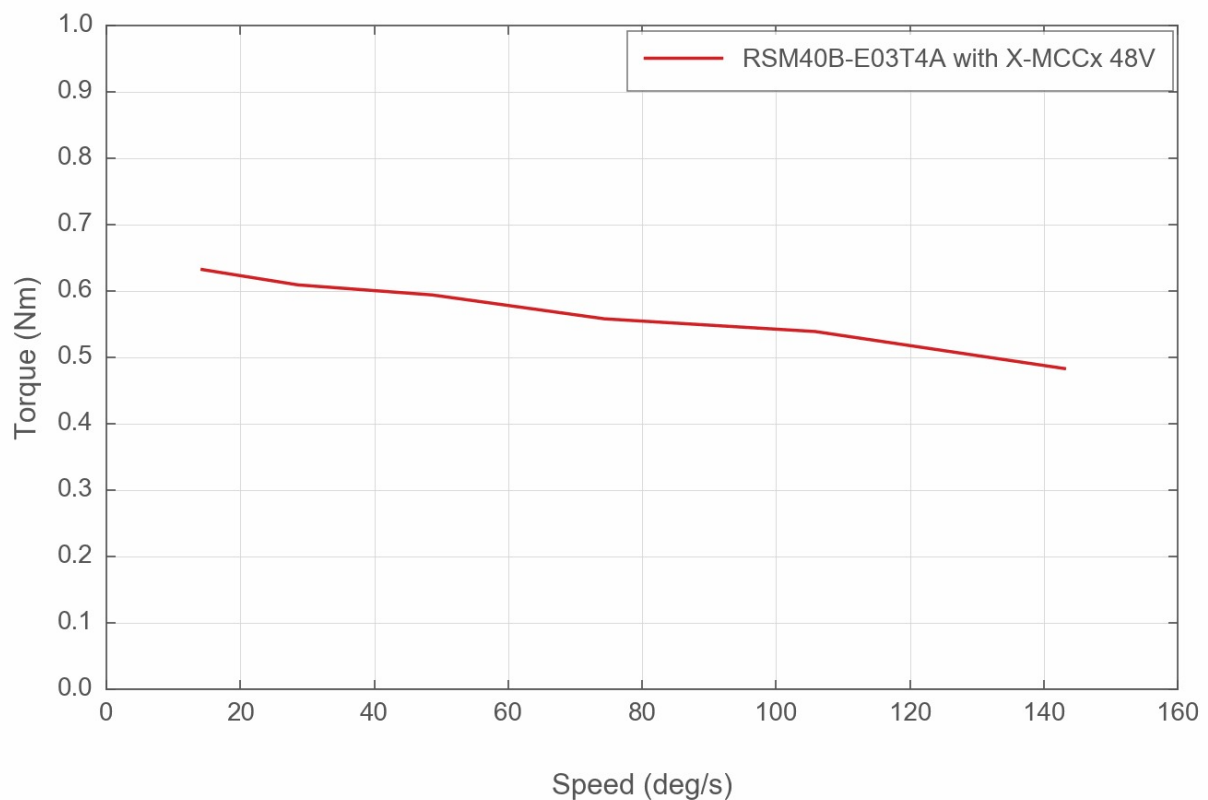
## RSM40B-E03T4A Specifications

<b>Microstep Size (Default Resolution)</b>	<b>0.00046875° (8.181 μrad)</b>
Built-in Controller	No
Recommended Controller	X-MCC (48 V) Recommended
AutoDetect	Yes
Range	360°
Accuracy (unidirectional)	0.14° (2.443000 mrad)
Repeatability	< 0.02° (< 0.349 mrad)
Backlash	< 0.04° (< 0.698 mrad)
Maximum Speed	120°/s (20 rpm)
Minimum Speed	0.000286°/s (4.992 μrad/s)
Speed Resolution	0.000286°/s (4.992 μrad/s)
Encoder Resolution	200 CPR (800 states/rev)
Encoder Type	Rotary quadrature encoder
Maximum Continuous Torque	60 N-cm (85.0 oz-in)
Maximum Centered Load	50 N (11.2 lb)
Maximum Moment (Transverse)	100 N-cm (141.6 oz-in)
Stage Top Dimension	40 mm (1.575")
Radial Error Motion	+/- 10 μm (+/- 0.000394")
Axial Error Motion	< 4 μm (< 0.000157")
Tilt Error Motion	+/- 0.011° (+/- 191.99 μrad)
Bearing Plane Offset	11 mm (0.433")
Angular Motion Per Motor Rev	6°
Motor Steps Per Rev	200
Motor Type	Stepper (2 phase)
Motor Rated Current	600 mA/phase
Motor Winding Resistance	6.5 ohms/phase
Inductance	3.5 mH/phase
Motor Connection	D-sub 15
Default Resolution	1/64 of a step
Motor Frame Size	NEMA 08
Mechanical Drive System	Precision Worm Gear

<b>Microstep Size (Default Resolution)</b>	<b>0.00046875° (8.181 μrad)</b>
Limit or Home Sensing	Magnetic home sensor
Manual Control	Yes
Mounting Interface	M2 and M3 mounting holes
Operating Temperature Range	0-50 °C
CE Compliant	Yes
Vacuum Compatible	No
Weight	0.255 kg (0.562 lb)

## RSM-E Series Charts

### Torque Speed Performance



## Contact

Email: [contact@zaber.com](mailto: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>