



Features

- Compact design
- High velocity and acceleration
- High thrust, high dynamic response
- Excellent positioning accuracy up to nano level

Applications

- Healthcare
- Semiconductor equipment
- Automotive

Description

This motor adopts low-profile design with direct-drive planar voice coil motor, which features compact design, high dynamic response, and positioning accuracy.

Technical Specifications

	UVCM15-4	UVCM40-5	UVCM110-5
Travel range	±2 mm	±2.5 mm	±2.5 mm
Clearance of side of coil	2 mm	3.5 mm	3.5 mm
Continuous force	15 N	40 N	110 N
Peak force	35 N	100 N	280 N
Force constant	7.4 N/A	31.2 N/A	75.9 N/A
Back EMF constant	7.4 V/(m/s)	31.2 V/(m/s)	75.9 V/(m/s)
Electrical resistance	3.3 ohms	14.8 ohms	13.37 ohms
Electrical inductance	2.93 mH	26.8 mH	19.38 mH
Electrical time constant	0.89 ms	1.81 ms	1.45 ms
Continuous current	2.03 A	1.29 A	1.45 A
Continuous power	13.56 W	24.64 W	30.21 W
Peak current	4.73 A	3.23 A	3.69 A
Peak power	76.62 W	154.01 W	236.88 W
Drive voltage	48 V	48 V	96 V
Motor constant	4.07 Sqrt(N ² /W)	8.11 Sqrt(N ² /W)	13.8 Sqrt(N ² /W)
Thermal resistance constant	4.56 W/°C	3.2 W/°C	2.48 W/°C
Max. coil temperature	100 °C	100 °C	100 °C
Weight of coil assembly	260 g	650 g	912 g
Weight of field assembly	520 g	1404 g	5580 g