



Features

- Integrated water-cooling module, with high cooling efficiency, reliability, and long lifetime
- Extremely high thrust density, extremely low surface temperature rise, with higher continuous force and peak force
- Suitable for high vacuum environment

Applications

- Vacuum equipment
- Healthcare
- Semiconductor equipment
- Automotive

Description

This motor adopts combination design, integrating ultra-thin water-cooling plates with high cooling efficiency into the planar voice coil motor, achieving high thrust density and low surface temperature rise. It can be customized to be compatible with high vacuum according to the customer's requirements. Zero stiffness or constant stiffness magnetic levitation gravity compensation is optional.

Technical Specifications

	WVCM155-12	WVCM310-12
Travel range	±6 mm	±6 mm
Clearance of side of coil	3 mm	3 mm
Continuous force	155 N	310 N
Peak force	320 N	640 N
Force constant	40.6 N/A	81.2 N/A
Back EMF constant	40.6 V/(m/s)	81.2 V/(m/s)
Electrical resistance	4.92 ohms	9.84 ohms
Electrical inductance	4.02 mH	8 mH
Electrical time constant	0.82 ms	0.82 ms
Continuous current	3.82 A	3.82 A
Continuous power	71.72 W	143.6 W
Peak current	7.88 A	7.88 A
Peak power	305.5 W	611 W
Drive voltage	48 V	96 V
Motor constant	18.3 Sqrt(N ² /W)	25.88 Sqrt(N ² /W)
Min. flow	1.2 L/min	1.2 L/min
Pressure drop	1.5 Bar	1.5 Bar
Weight of coil assembly	2370 g	2770 g
Weight of field assembly	5608 g	11770 g