

ElectroForce® Test Instrument Specifications

Instrument Model:	3100	3200	3330	3510	3520/3550
Electromagnetic Load Capacity:					
Peak/max sine	± 22 N	± 225 N	± 3000 N	± 7500 N	± 7500 N - Model 3520
High force option	NA	± 450 N	NA	N/A	± 15000 N - Model 3550
Static or RMS (continuous)					
High force option	± 22 N	± 160 N	± 2100 N	± 5300 N	± 5300 N - Model 3520
	NA	± 320 N	NA	N/A	± 10600 N - Model 3550
Displacement:	5 mm	12.5 mm	25 mm	50 mm	50 mm
Electromechanical Option:	NA	50 mm	150 mm	NA	N/A
<i>Note: Electromechanical actuator provides static test capability, slack/creep compensation and ease of test setup.</i>					
Linear Velocity:					
Minimum ¹ :	0.0025 micron/s	0.006 micron/s	0.012 micron/s	0.025 micron/s	0.025 micron/s
Maximum ² :	1.0 m/s	3.2 m/s	2.0 m/s	1.5 m/s	1.5 m/s
Frequency:					
Minimum:	0.00001 Hz	0.00001 Hz	0.00001 Hz	0.00001 Hz	0.00001 Hz
Maximum ² :	100 Hz	200 Hz	100 Hz	100 Hz	50 Hz
DMA ^{2,3,4} :	75 Hz	150 Hz	75 Hz	40 Hz	35 Hz
<i>Note: Performance curves are available upon request.</i>					
Dimensions (H/W/D)⁵:					
Height	51.8 cm	88.4 cm	122 cm	270 cm	250 cm
Width	29.2 cm	50.2 cm	61 cm	99 cm	85 cm
Depth	17.2 cm	48.3 cm	56 cm	82 cm	82 cm
Weight:	18 kg	80 kg	118 kg	1050 kg	750 kg
Test Space Size⁶:	0 to 165 mm	0 to 406 mm	0 to 500 mm 0 to 855 mm optional	0 to 1000 mm	0 to 1000 mm
Torsional Motor Option:					
Standard					
Peak/max	NA	± 5.6 N-m	± 24 N-m	± 50 N-m	± 50 N-m
Static or RMS (continuous)	NA	± 5.6 N-m	± 24 N-m	± 42 N-m	± 42 N-m
High Torque Option					
Peak/max	NA	NA	± 50 N-m	N/A	± 70 N-m
Static or RMS (continuous)	NA	NA	± 42 N-m	N/A	± 50 N-m
Rotation	NA	Multi-turn (± 10 revolutions max)	Multi-turn (± 10 revolutions max)	Multi-turn (± 10 revolutions max)	Multi-turn (± 10 revolutions max)

¹ Slower velocities attainable with optional high resolution displacement transducers.

² Varies depending on test protocol, fixture mass and specimen stiffness.

³ Optional Dynamic Mechanical Analysis (DMA) software.

⁴ DMA performance specification applies to base system.

⁵ Dimensions can vary with optional features.

⁶ Space between load cell and motor shaft.

Specifications are subject to change

Applications and Fixtures

Bose carries an extensive line of test equipment accessories. ElectroForce test instruments can be integrated with a variety of specimen fixtures, measurement transducers, environmental chambers and saline baths. Contact the ElectroForce Systems Group for test frame options and accessory packages to meet your specific testing needs.

