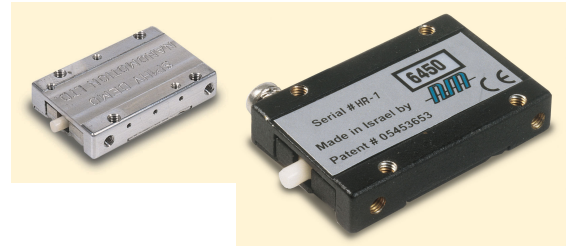


# HR-1 Servo Motor

### Performance

Maximum Allowable Velocity:	250 [mm/sec]
Dynamic Stall Force:	3.5 to 4.5 [N]
Static Holding Force	3.5 [N] (reference value)
Non-Energized Stiffness	0.8 to 1 [N/m]
Nominal Preload on Stage	18 [N]
Kf	0.5 to 1 [N/Volt command] - Driver and command dependant
Kfv	12 to 18 [N · sec/m]
Offset	1 to 2 [V] - Driver dependant
Attainable Resolution	Better than 100 nm – See application notes
Nominal Lifetime	20,000 hours under nominal operating conditions



### Electrical

Maximal Voltage:	280Vrms, 39.6KHz, sine wave
Maximal Current consumption:	120 – 250 mA rms ( Cable length dependant)
Maximal Power Consumption:	5W

### Environmental

Ambient Temperature:	0 - 50°C
Storage:	-40°C - +70°C
Humidity:	0 - 80% non condensing
Vacuum level (high-vacuum motors):	10 <sup>-7</sup> Torr (guaranteed only after baking)
Vacuum level (ultra-high-vacuum motors):	10 <sup>-10</sup> Torr (guaranteed only after baking)
Maximal Baking Temperature (vacuum)	120°C (140°C for ultra high vacuum motor)

### Physical Dimensions

Length:	40.5mm
Width:	25.7mm
Height:	8mm
Weight:	20 g high & ultra high vacuum motors 30g standard motor

