Specification: **Inertial Actuator IFX400-100**

**Rated Force:**
1334 N peak at 66 Watt at 120 Hz, with coil at 140°C, due to displacement limit. (mounted in a ≥ 500 lb block)
250 Newtons per Ampere at 120 Hz; 36 Newtons per Ampere above 200 Hz, with coil at 140°C.
The force constant in independent of the direction and amount of current.

**Electrical:**
Coil resistance: 2.1 Ohm
Time constant: ≤ .9 millisecond

**Temperature:**
- Drop in force constant for 100°C rise: 20%
- Increase in resistance for 100°C rise: 39%
- Internal temperature rise at 22 Watt input: 120°C (mounted on a 200 square cm X 2 cm thick aluminum)
- Max internal temperature: 140°C

**Static Armature Stiffness:**
- Internal spring constant: 1120 Newtons per mm
- Resonance frequency of armature 114 Hz. (unit mounted on a ≥ 500 lb block)

**Mechanical:**
- Max armature displacement: ± 2 mm (internal hard stops)
- Max armature displacement for infinite spring life: ± 1 mm
- Total weight: 4.8 Kg. Armature weight: 2.18 Kg
- Dimensions: 94 mm diameter, 119 mm long
- Mounting: Four 10-24 screws on 38 mm BC
- Housing completely sealed, no external moving parts

**Fatigue Life:**
- Infinite fatigue life if armature amplitude does not exceed 1.0 mm
- This translates into a max force of 1334 N at 120 Hz.
- For other frequencies: F≤.093 X f^2, where F is the force in Newtons and f is the frequency in Hz.

**Stray Magnetic Field:**
- Mounting surface: .07 Tesla max. Cylinder surface: .07 Tesla max