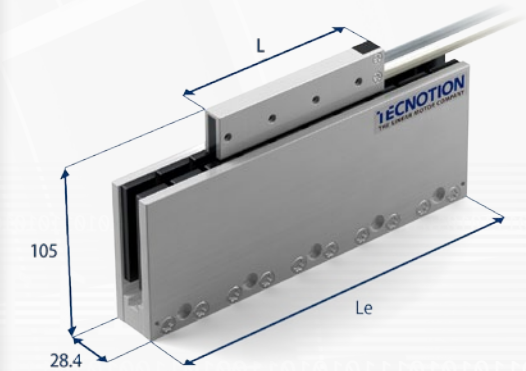


| | Parameter | Remarks | Symbol | Unit | UL3 | | UL6 | | UL9 | | UL12 | |
|-------------|-------------------------------|------------------------|------------------|-----------------------|--|------|-------|------|----------|------|-------|------|
| | | | | | N | S | N | S | N | S | N | S |
| Performance | Winding type | | | | N | S | N | S | N | S | N | S |
| | Motor type, max voltage ph-ph | | | | 3-phase synchronous Ironless, 300V _{dc} | | | | | | | |
| | Peak Force @ 20°C/s | magnet @ 25°C | F _p | N | 240 | | 480 | | 720 | | 960 | |
| | Continuous Force* | coils @ 110°C | F _c | N | 70 | | 140 | | 210 | | 280 | |
| | Maximum Speed** | @ 300 V | v _{max} | m/s | 5 | 12 | 5 | 12 | 5 | 12 | 5 | 12 |
| | Motor Force Constant | coils @ 25°C | K | N/A _{rms} | 68 | 27.5 | 68 | 27.5 | 68 | 27.5 | 68 | 27.5 |
| | Motor Constant | coils @ 25°C | S | N ² /W | 97 | | 195 | | 290 | | 390 | |
| Electrical | Peak Current | magnet @ 25°C | I _p | A _{rms} | 3.5 | 8.7 | 7 | 17.5 | 10.5 | 26.2 | 14.1 | 35 |
| | Maximum Continuous Current | coils @ 110°C | I _c | A _{rms} | 1.03 | 2.6 | 2.1 | 5.1 | 3.1 | 7.6 | 4.2 | 10.2 |
| | Back EMF Phase-Phase Peak | | B _{emf} | V _{dc} / m/s | 55.5 | 22.5 | 55.5 | 22.5 | 55.5 | 22.5 | 55.5 | 22.5 |
| | Resistance per Phase | coils @ 25°C ex. cable | R _f | Ω | 15.9 | 2.6 | 8.0 | 1.28 | 5.3 | 0.85 | 4.0 | 0.64 |
| | Induction per Phase | l < 0.6 l _p | L _f | mH | 13 | 2.0 | 6.5 | 1.0 | 4.2 | 0.7 | 3.2 | 0.5 |
| | Electrical Time Constant | coils @ 25°C | τ _e | ms | 0.8 | | 0.8 | | 0.8 | | 0.8 | |
| Thermal | Maximum Continuous Power Loss | all coils | P _c | W | 67 | | 134 | | 200 | | 270 | |
| | Thermal Resistance | | R _{th} | °C/W | 1.3 | | 0.65 | | 0.43 | | 0.32 | |
| | Thermal Time Constant | minimum | τ _{th} | s | 72 | | 72 | | 72 | | 72 | |
| | Temperature Sensors | | | | PTC 1kΩ and NTC | | | | | | | |
| Mechanical | Coil Unit Weight | ex. cables | M | kg | 0.250 | | 0.470 | | 0.690 | | 0.910 | |
| | Coil Unit Length | ex. cables | L | mm | 106 | | 190 | | 274 | | 358 | |
| | Motor Attraction Force | | F _a | N | 0 | | 0 | | 0 | | 0 | |
| | Magnet Pitch NN | | τ | mm | 42 | | 42 | | 42 | | 42 | |
| | Cable Weight | | m | gr/m | 90 | | 90 | | 90 | | 105 | |
| | Cable Type (Power) | length 1 m | d | mm (AWG) | 5.8 (20) | | | | 6.4 (18) | | | |
| | Cable Type (Sensor) | length 1 m | d | mm (AWG) | 4.3 (26) | | | | 4.3 (26) | | | |



UL3 in 210mm magnet yoke shown

| Magnet yoke dimensions | | | | |
|--------------------------------------|------|-----|-----|-----|
| Le (mm) | 126 | 168 | 210 | 546 |
| M5 bolts | 3 | 4 | 5 | 13 |
| Mass (kg/m) | 11.2 | | | |
| Magnet yokes can be butted together. | | | | |

All specifications ±10%

*Max. continuous force depends on the thermal resistance, cooling surface and ambient temperature of your application. Download our simulation tool to check the motor's thermal behavior in the application.

** Actual values depend on bus voltage. Please check the F/V diagram in our simulation tool.

