

| PERFORMANCE | | Winding codes | 3TA | 3WA |
|-----------------|-----------------------------------|---------------|---------------------|------|
| | | UNIT | FREE AIR CONVECTION | |
| F _p | Peak force | N | 1320 | 1320 |
| F _c | Continuous force | N | 371 | 370 |
| F _s | Stall force | N | 281 | 281 |
| K _t | Force constant | N/Arms | 106 | 54.2 |
| K _u | Back EMF constant (*) | Vrms/(m/s) | 61.3 | 31.3 |
| K _m | Motor constant | N·V/W | 40.8 | 40.7 |
| R ₂₀ | Electrical resistance at 20°C (*) | Ohm | 4.51 | 1.18 |
| L ₁ | Electrical inductance (*) | mH | 51.2 | 13.4 |
| I _p | Peak current | Arms | 20.5 | 40.0 |
| I _c | Continuous current | Arms | 3.64 | 7.10 |
| I _s | Stall current | Arms | 2.75 | 5.38 |
| P _c | Max. continuous power dissipation | W | 128 | 128 |

| SPECIFICATIONS | | UNIT | 3TA | 3WA |
|-----------------|-------------------------------------|------|-------|-------|
| U _{dc} | Nominal input voltage | VDC | 600 | 600 |
| τ_{th} | Thermal time constant | s | 1780 | 1780 |
| R _{th} | Thermal resistance | K/W | 0.861 | 0.861 |
| 2 τ_p | Magnetic period | mm | 32 | 32 |
| M _w | Magnetic way mass | kg/m | 8.12 | 8.12 |
| M _m | Motor mass (magnetic way excluded) | kg | 4.49 | 4.49 |
| F _a | Attraction force | N | 2900 | 2900 |
| F _d | Max. detent force (average to peak) | N | 14 | 14 |
| v _s | Stall speed | mm/s | 0.18 | 0.18 |
| G _m | Mechanical gap | mm | 0.80 | 0.80 |

Notes: (*) terminal to terminal.

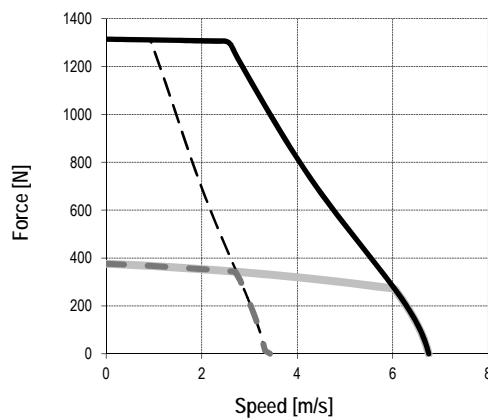
Ambient temperature = 20 °C. Max. coil temperature = 130 °C.

Hypothesis and tolerances are in ETEL's Handbook.

Carriage's dissipation area is 0.07 m² and minimal stroke is 2 times the motor length.

Caution: Any use of the motor beyond speed/force limit could lead to hazardous voltage and serious injuries. Customer is responsible for setting safeties/limitations that will keep the motor in its safe operating area. ETEL cannot be held responsible if the motor is used in an improper way.

Force = f(speed) for 3TA



Force = f(speed) for 3WA

