

Stepper Motors

200 mNm

Two phase with Disc Magnet,
100 steps per revolution

Series DM52100N

| | Winding | 5300 | | 2000 | | Connection |
|--|---------|------------|--------|----------|--------|------------------------------------|
| | | Parallel | Serial | Parallel | Serial | |
| 1 Phase resistance (at 20°C) | ± 14% | 0,35 | 1,4 | 2,2 | 8,8 | Ω |
| 2 Phase inductance | ± 20% | 0,7 | 2,8 | 5 | 20 | mH |
| 3 Nominal current (1 phase ON) | typ. | 5,3 | 2,6 | 2 | 1 | A |
| 4 Boosted current (1 phase ON) | typ. | 12,2 | 6,1 | 4,6 | 2,3 | A |
| 5 Induced voltage at 600 min ⁻¹ | ± 10% | 2,38 | 4,76 | 6,3 | 12,6 | V DC |
| 6 Torque constant | ± 10% | 37,9 | 75,8 | 100,3 | 200,5 | mNm/A |
| 7 Static torque | ± 10% | 200 | | | | mNm |
| 8 Boosted static torque | typ. | 450 | | | | mNm |
| 9 Reluctant torque | typ. | 20 | | | | mNm |
| 10 Friction torque | max. | 7 | | | | mNm |
| 11 Thermal resistance (coil-air) | typ. | 7,3 | | | | °C/W |
| 12 Thermal time constant | typ. | 18 | | | | min |
| 13 Recommended ambient temperature range | typ. | -20 ... 50 | | | | °C |
| 14 Max temperature for coils | max. | 100 | | | | °C |
| 15 Number of pole pairs | | 25 | | | | |
| 16 Phase shift | ± 5% | 90 | | | | ° |
| 17 Phase fluctuation | max. | 5 | | | | ° |
| 18 Maximum speed | max. | 5 000 | | | | min ⁻¹ |
| 19 Rotor inertia | typ. | 9,4 | | | | kgm ² · e ⁻⁷ |
| 20 Mass | typ. | 250 | | | | g |
| 21 Electrical time constant | typ. | 2 | | | | ms |
| 22 Max angular acceleration (boosted) | typ. | 450 000 | | | | rad/s ² |
| 23 Insulation voltage | typ. | 500 | | | | V DC |

