

Stepper Motors

180 mNm

Two phase with Disc Magnet,
100 steps per revolution, microstepping motor

Series DM52100R

	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%	2,15	4,3	5,65	11,35	V DC
6 Torque constant	± 10%	34,1	68,2	90,25	180,45	mNm/A
7 Static torque	± 10%	180				mNm
8 Boosted static torque	typ.	400				mNm
9 Reluctant torque	typ.	10				mNm
10 Friction torque	max.	5				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.	4				°
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.	400 000				rad/s ²
23 Insulation voltage	typ.	500				V DC

