

Stepper Motors

62 mNm

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

Series DM40100R

	Winding	2630		1550		0940		Connection	
		Parallel	Serial	Parallel	Serial	Parallel	Serial		
1 Phase resistance (at 20°C)	± 14%	0,9	3,8	2,9	11,8	7,5	30	Ω	
2 Phase inductance	± 20%	1,15	4,6	3,3	13,2	9	36	mH	
3 Nominal current (1 phase ON)	typ.	2,63	1,32	1,55	0,78	0,94	0,47	A	
4 Boosted current (1 phase ON)	typ.	5,09	2,55	4,6	2,3	1,81	0,91	A	
5 Induced voltage at 600 min ⁻¹	± 10%	1,47	2,95	2,5	5	4,14	8,27	V DC	
6 Torque constant	± 10%	23,4	46,9	39,8	79,6	65,8	131,6	mNm/A	
7 Static torque	± 10%	62							mNm
8 Boosted static torque	typ.	120							mNm
9 Reluctant torque	typ.	3							mNm
10 Friction torque	max.	1							mNm
11 Thermal resistance (coil-air)	typ.	14							°C/W
12 Thermal time constant	typ.	12							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.	10 000							min ⁻¹
19 Rotor inertia	typ.	2,7							kgm ² · e ⁻⁷
20 Mass	typ.	125							g
21 Electrical time constant	typ.	1,2							ms
22 Max angular acceleration (boosted)	typ.	444 000							rad/s ²
23 Insulation voltage	typ.	500							V DC

