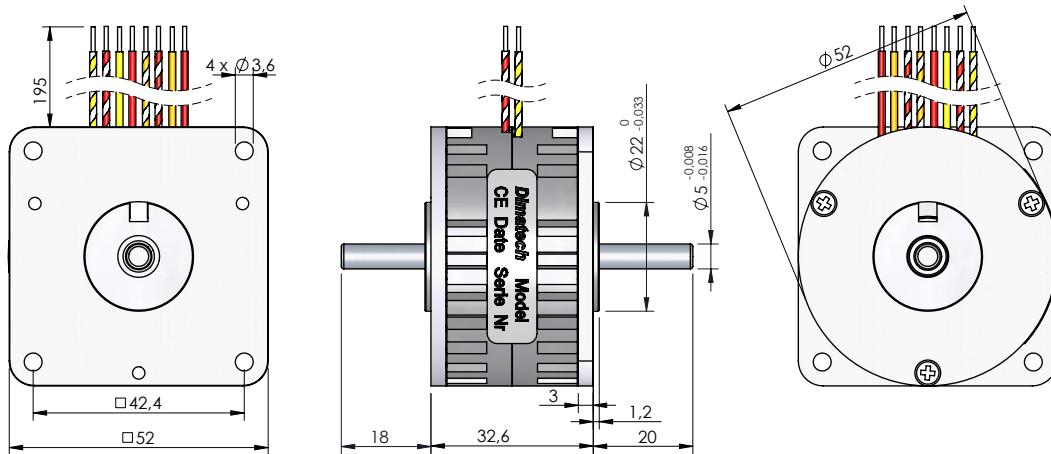
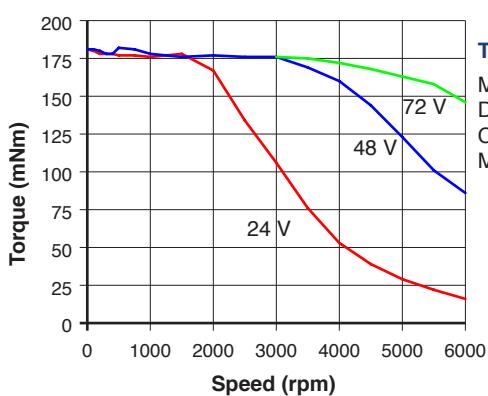


2-phase stepper motor, 100 steps per revolution



	Connection	WINDING			
		A	B	parallel	serial
1 Phase resistance	ohm	$\pm 14\%$	0.35	1.4	2.2
2 Phase inductance	mH	$\pm 20\%$	0.7	2.8	5
3 Nominal current (1 phase ON)	A	typical	5.3	2.6	2
4 Boosted current (1 phase ON)	A	typical	12.2	6.1	4.6
5 Induced voltage at 600 rpm	V	$\pm 10\%$	2.38	4.76	6.3
6 Torque constant	mNm/A	$\pm 10\%$	37.9	75.8	100.3
7 Static torque	mNm	$\pm 10\%$		200	
8 Boosted static torque	mNm	typical		450	
9 Reluctant torque	mNm	typical		20	
10 Friction torque	mNm	max		7	
11 Thermal resistance (coil-air)	$^{\circ}\text{C}/\text{W}$	typical		7.3	
12 Thermal time constant	min	typical		18	
13 Max temperature for coils	$^{\circ}\text{C}$	max		+100	
14 Recom. ambient temperature range	$^{\circ}\text{C}$	typical		-20 to +50	
15 Number of pole pairs	-	-		25	
16 Phase shift	degree	± 5		90	
17 Phase fluctuation	degree	max		5	
18 Maximum speed	rpm	max		5000	
19 Rotor inertia	$\text{kgm}^2 \cdot \text{e}^{-7}$	typical		9.4	
20 Weight	g	typical		250	
21 Electrical time constant	ms	typical		2	
22 Max angular acceleration (boosted)	rad/s^2	typical		450000	
23 Insulation voltage	V	typical		500	



Test conditions:

Motor: DM50 coil A
Driver: IDS640
Current: 5.3 A
Mode: micro-steps