

17mm Brushless DC Motor



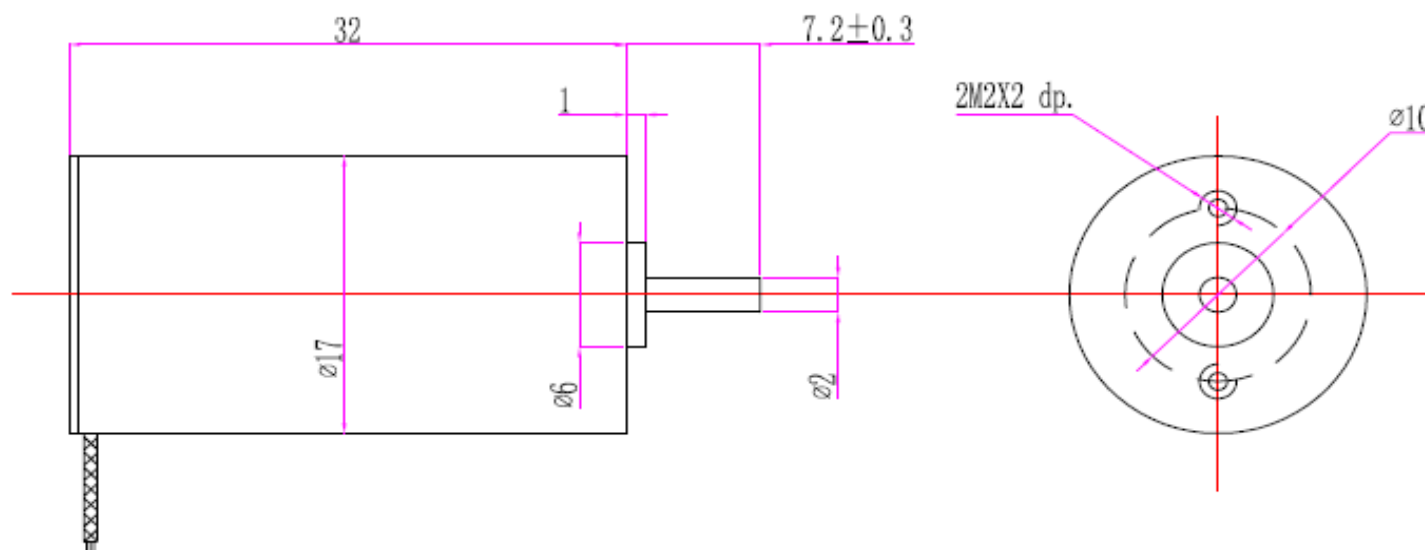
1732

General Specifications

Number of phases	3
Number of poles	2
Operating temperature range	-30°C ~ 85°C
Commutation	Electrically commutated
Bearing type	Shielded ball bearings
Housing material	Black anodized aluminum
Magnet material	Sintered Nd-Fe-B
Direction of rotation	Reversible
Insulation Class	Class B (130°C max.)
Dielectric strength	500 VDC for one minute
Insulation resistance	100Mohms min., 500VDC

Model		DM1732-05	DM1732-12-000	DM1732-12-003	DM1732-12-007	DM1732-12-018	DM1732-24-002
Nominal Voltage	V	5	12	12	12	12	24
Rated Speed	RPM	3324	2979	10487	19447	26017	6808
Rated Current	A	0.2	0.14	0.38	0.67	1.31	0.26
Rated Torque	mNm	1.28	1.13	2.22	2.44	3.86	2.13
Rated Efficiency	%	47	26	55	62	68	28
Phase Resistance	W	10.1	58	10.1	4.5	1.9	58
Output Power	W	0.5	0.36	3.1	7.3	17.77	1.52
Max. Efficiency	%	47	26	55	62	68	28
No-Load Speed	RPM	5,000	6,840	14340	24,840	31,760	14400
No-Load Current	A	0.05	0.05	0.08	0.12	0.2	0.09
Stall Torque	mNm	3.82	1.99	8.26	11.22	21.37	4.03
Friction Torque	mNm	0.43	0.64	0.60	0.53	0.70	1.12
Back EMF Constant	mV/RPM	0.9	1.33	0.78	0.46	0.37	1.3
Torque Constant	mNm/A	8.58	12.7	7.45	4.41	3.49	12.45
Slope of Speed vs. Torque Curve	RPM/mNm	1308.67	3,431.52	1,736.33	2,213.99	1,486.38	3571
Mechanical time Constant	mS	7.67	20.12	10.18	12.98	8.72	20.94
Rotor Inertia	g-cm ²	0.56	0.56	0.56	0.56	0.56	0.56
Max. Angular Acceleration	10 ³ rad/s ²	68.23	35.59	147.48	200.35	381.56	72.01
Sensor		Sensorless	Sensorless	Sensorless	Sensorless	Sensorless	Sensorless
Driver Recommendation		DR1802	DR1802	DR1802	DR1802	DR1802	DR1802
Weight	g	27.5	27.5	27.5	27.5	27.5	27.5
Motor Body Length	"L"	32	32	32	32	32	32

Outline Drawing



Performance Curve

