

35mm Brushless DC Motor-IE



Specifications:

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

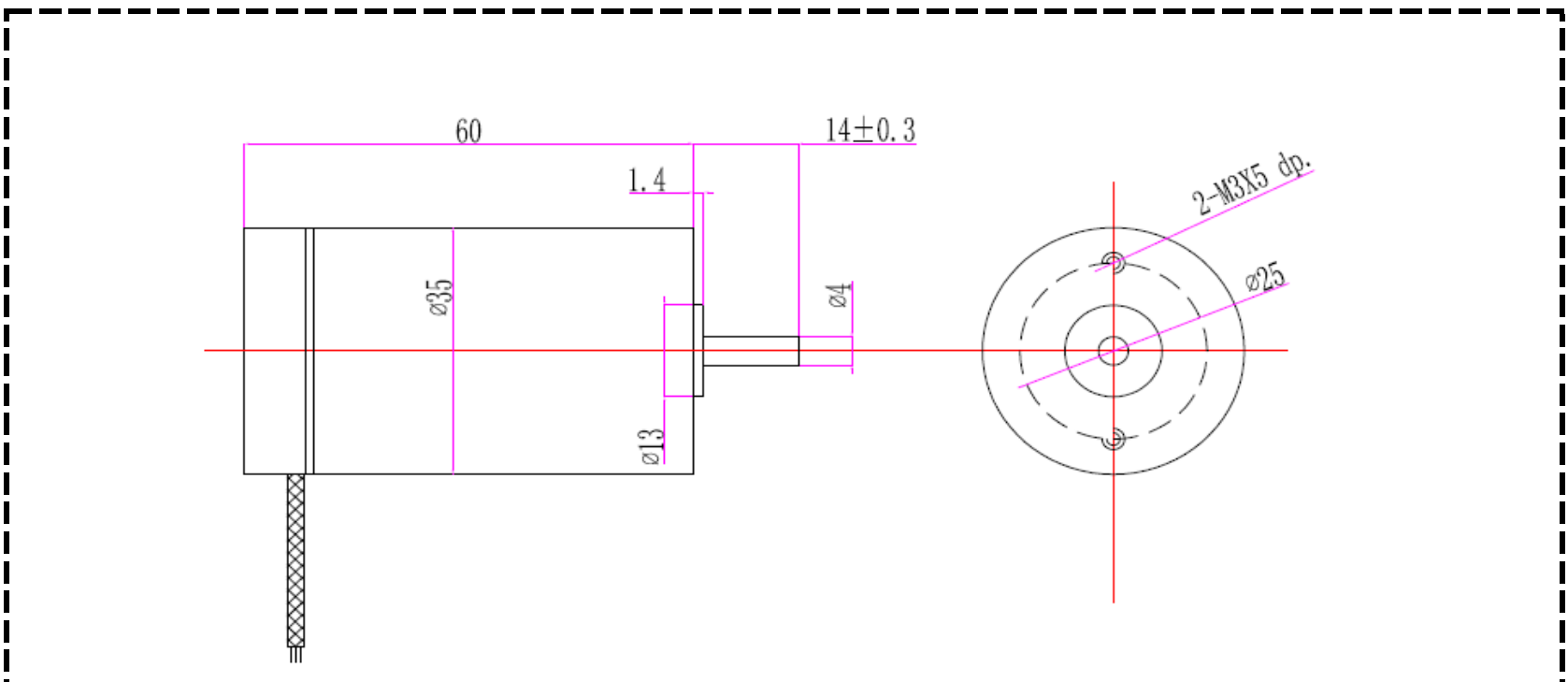
Model		DN3560-12-023-I	DN3560-12-098-I	DN3560-12-143-I	DN3560-24-015-I	DN3560-24-021-I
Nominal Voltage	V	12	12	12	24	24
Rated Speed	RPM	5529	13008	18719	4250	5031
Rated Current	A	1.64	6.1	8.85	0.61	0.74
Rated Torque	mNm	22.93	38.16	38.55	21.43	22.88
Rated Efficiency	%	68	71	71	65	68
Phase Resistance	R	1.5	0.35	0.24	8.8	6.5
Output Power	W	22.52	97.94	142.89	15.19	20.85
Max. Efficiency	%	68	71	71	65	68
No-Load Speed	RPM	6740	15440	22200	5280	6100
No-Load Current	A	0.25	0.83	1.2	0.1	0.11
Stall Torque	mNm	127.65	242.29	245.85	109.86	130.58
Friction Torque	mNm	4.12	6.01	6.05	4.18	4.01
Back EMF Constant	mV/RPM	1.72	0.76	0.53	4.38	3.82
Torque Constant	mNm/A	16.47	7.24	5.04	41.81	36.45
Slope of Speed vs. Torque Curve	RPM/mNm	52.8	63.73	90.3	48.06	46.71
Mechanical time Constant	mS	13.42	16.2	22.95	12.22	11.87
Rotor Inertia	g-cm ²	24.27	24.27	24.27	24.27	24.27
Max. Angular Acceleration	10 ³ rad/s ²	52.59	99.83	101.3	45.26	53.8
Sensor		Hall Sensor	Hall Sensor	Hall Sensor	Hall Sensor	Hall Sensor
Driver Recommendation		DR3006IE	DR3006IE	DR3006IE	DR3006IE	DR3006IE
Weight	g	220	220	220	220	220
Motor Body Length	"L"	60	60	60	60	60

Model		DN3560-24-024-I	DN3560-24-069-I	DN3560-24-102-I	DN3560-24-152-I	DN3560-24-233-I
Nominal Voltage	V	24	24	24	24	24
Rated Speed	RPM	5281	10255	12813	13471	18651
Rated Current	A	1.04	2.09	2.91	4.76	5.31
Rated Torque	mNm	28.26	33.43	37.97	57.47	50.52
Rated Efficiency	%	63	72	73	71	78
Phase Resistance	R	5.6	2	1.35	0.9	0.6
Output Power	W	23.6	68.68	102.27	152.3	233.21
Max. Efficiency	%	63	72	73	71	78
No-Load Speed	RPM	6680	12130	15000	16000	21200
No-Load Current	A	0.18	0.28	0.37	0.65	0.57
Stall Torque	mNm	134.95	216.27	260.44	363.58	420.18
Friction Torque	mNm	5.92	5.17	5.54	9.08	6.07
Back EMF Constant	mV/RPM	3.44	1.93	1.57	1.46	1.12

Torque Constant	mNm/A	32.87	18.45	14.96	13.97	10.66
Slope of Speed vs. Torque Curve	RPM/mNm	49.5	56.09	57.6	44.01	50.45
Mechanical time Constant	mS	12.58	14.25	14.64	11.18	12.82
Rotor Inertia	g-cm ²	24.27	24.27	24.27	24.27	24.27
Max. Angular Acceleration	10 ³ rad/s ²	55.6	89.11	107.31	149.81	173.13
Sensor		Hall Sensor	Hall Sensor	Hall Sensor	Hall Sensor	Hall Sensor
Driver Recommendation		DR3006IE	DR3006IE	DR3006IE	DR3006IE	DR3006IE
Weight	g	220	220	220	220	220
Motor Body Length	"L"	60	60	60	60	60

Model		DN3560-12-015-I	DN3560-24-011-I			
Nominal Voltage	V	12	24			
Rated Speed	RPM	3865	3063			
Rated Current	A	0.94	0.48			
Rated Torque	mNm	19.75	22.67			
Rated Efficiency	%	71	64			
Phase Resistance	R	2.3	11.8			
Output Power	W	14.88	11.26			
Max. Efficiency	%	71	64			
No-Load Speed	RPM	4600	3840			
No-Load Current	A	0.13	0.08			
Stall Torque	mNm	123.58	112.03			
Friction Torque	mNm	3.16	4.59			
Back EMF Constant	mV/RPM	2.54	6			
Torque Constant	mNm/A	24.29	57.34			
Slope of Speed vs. Torque Curve	RPM/mNm	37.22	34.28			
Mechanical time Constant	mS	9.43	8.68			
Rotor Inertia	g-cm ²	24.18	24.18			
Max. Angular Acceleration	10 ³ rad/s ²	51.11	46.33			
Sensor		Hall Sensor	Hall Sensor			
Driver Recommendation		DR3006IE	DR3006IE			
Weight	g	220	220			
Motor Body Length	"L"	60	60			

Outline Drawing



Performance Curve

