

30mm Brushless DC -With Internal Drive



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

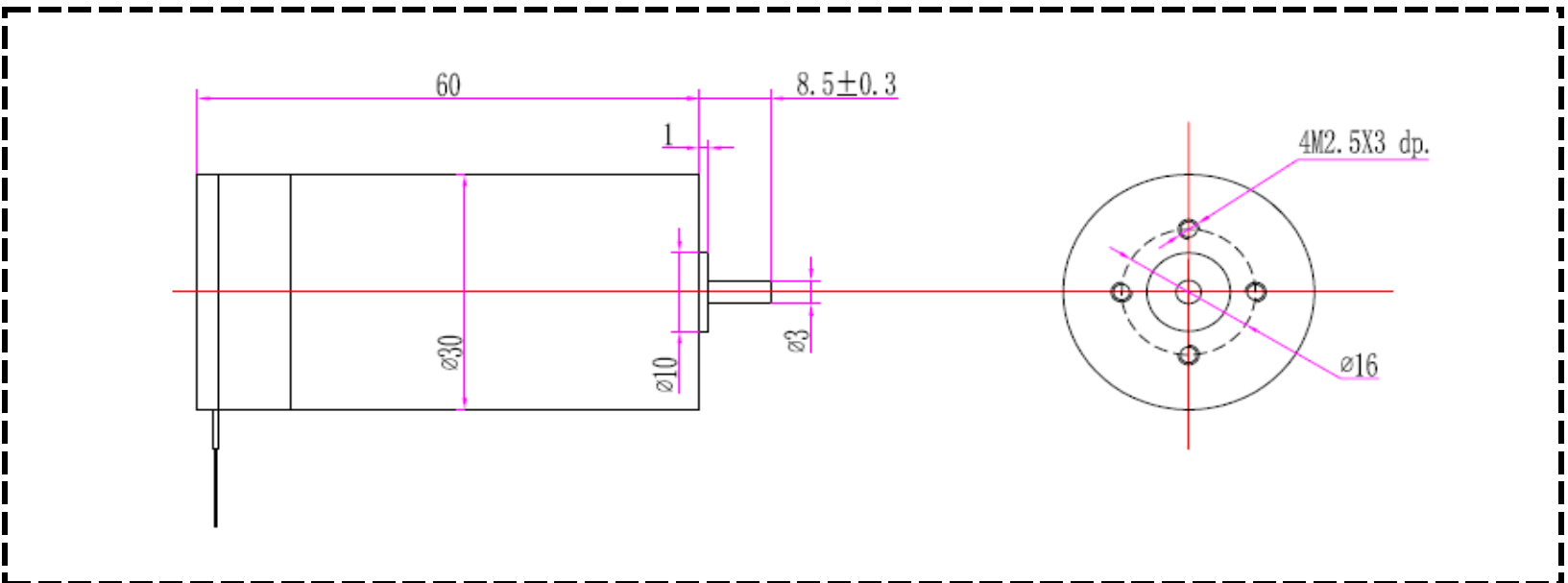
Model		DM3060-12-016-	DM3060-18-014-	DM3060-24-011-	DM3060-24-025-	DM3060-24-029-
		04-I	03-I	03-I	04-I	05-I
Nominal Voltage	V	12	18	24	24	24
Rated Speed	RPM	4949	3232	3374	4691	5501
Rated Current	A	1.14	0.66	0.5	0.79	1.01
Rated Torque	mNm	17.99	23.88	21.05	27.34	28.8
Rated Efficiency	%	68	68	62	71	69
Phase Resistance	R	2.1	5.5	12	5.5	4.7
Output Power	W	16.14	13.84	10.94	24.88	28.86
Max. Efficiency	%	68	68	62	71	69
No-Load Speed	RPM	6000	3930	4310	5590	6660
No-Load Current	A	0.17	0.1	0.09	0.11	0.15
Stall Torque	mNm	102.74	134.53	96.99	170	165.55
Friction Torque	mNm	3.15	4.24	4.57	4.4	5.01
Back EMF Constant	mV/RPM	1.94	4.44	5.32	4.19	3.5
Torque Constant	mNm/A	18.53	42.4	50.78	39.97	33.4
Slope of Speed vs. Torque Curve	RPM/mNm	58.4	29.21	44.44	32.88	40.23
Mechanical time Constant	mS	9.79	4.89	7.45	5.51	6.74
Rotor Inertia	g-cm ²	16	16	16	16	16
Max. Angular Acceleration	10 ³ rad/s ²	64.21	84.08	60.62	106.25	103.47
Sensor		Hall Sensor	Hall Sensor	Hall Sensor	Hall Sensor	Hall Sensor
Driver Recommendation		DR3002IE	DR3002IE	DR3002IE	DR3002IE	DR3002IE
Weight	g	200	200	200	200	200
Motor Body Length	"L"	60	60	60	60	60

Model		DM3060-24-039-	DM3060-24-047-	DM3060-24-060-	DM3060-24-091-	DM3060-24-072-
		07-I	07-I	08-I	14-I	17-I
Nominal Voltage	V	24	24	24	24	24
Rated Speed	RPM	7161	7065	8671	14789	17943
Rated Current	A	1.2	2.11	1.63	3.1	4.51
Rated Torque	mNm	27.36	42.59	31.91	33.06	41.62
Rated Efficiency	%	72	63	74	69	72
Phase Resistance	R	3.5	2.8	2.3	1.5	0.9
Output Power	W	39.25	47.08	60.23	90.68	153
Max. Efficiency	%	72	63	74	69	72
No-Load Speed	RPM	8470	8970	10080	17820	21120
No-Load Current	A	0.16	0.37	0.2	0.45	0.59
Stall Torque	mNm	176.98	200.5	228.24	194.36	276.71
Friction Torque	mNm	4.23	9.05	4.46	5.62	6.26
Back EMF Constant	mV/RPM	2.77	2.56	2.34	1.31	1.11

Torque Constant	mNm/A	26.43	24.45	22.3	12.5	10.61
Slope of Speed vs. Torque Curve	RPM/mNm	47.86	44.74	44.16	91.68	76.33
Mechanical time Constant	mS	8.02	7.5	7.4	15.36	12.79
Rotor Inertia	g-cm ²	16	16	16	16	16
Max. Angular Acceleration	10 ³ rad/s ²	110.62	125.31	142.65	121.48	172.94
Sensor		Hall Sensor	Hall Sensor	Hall Sensor	Hall Sensor	Hall Sensor
Driver Recommendation		DR3002IE	DR3002IE	DR3002IE	DR3002IE	DR3002IE
Weight	g	200	200	200	200	200
Motor Body Length	"L"	60	60	60	60	60

Model		DM3060-24-002-02-1				
Nominal Voltage	V	24				
Rated Speed	RPM	2072				
Rated Current	A	0.23				
Rated Torque	mNm	10.42				
Rated Efficiency	%	44				
Phase Resistance	R	46				
Output Power	W	2.45				
Max. Efficiency	%	44				
No-Load Speed	RPM	3240				
No-Load Current	A	0.06				
Stall Torque	mNm	28.91				
Friction Torque	mNm	3.76				
Back EMF Constant	mV/RPM	6.56				
Torque Constant	mNm/A	62.6				
Slope of Speed vs. Torque Curve	RPM/mNm	112.09				
Mechanical time Constant	mS	18.78				
Rotor Inertia	g-cm ²	16				
Max. Angular Acceleration	10 ³ rad/s ²	18.07				
Sensor		Hall Sensor				
Driver Recommendation		DR3002IE				
Weight	g	200				
Motor Body Length	"L"	60				

Outline Drawing



Performance Curve

