

58mm Brushless DC Motor



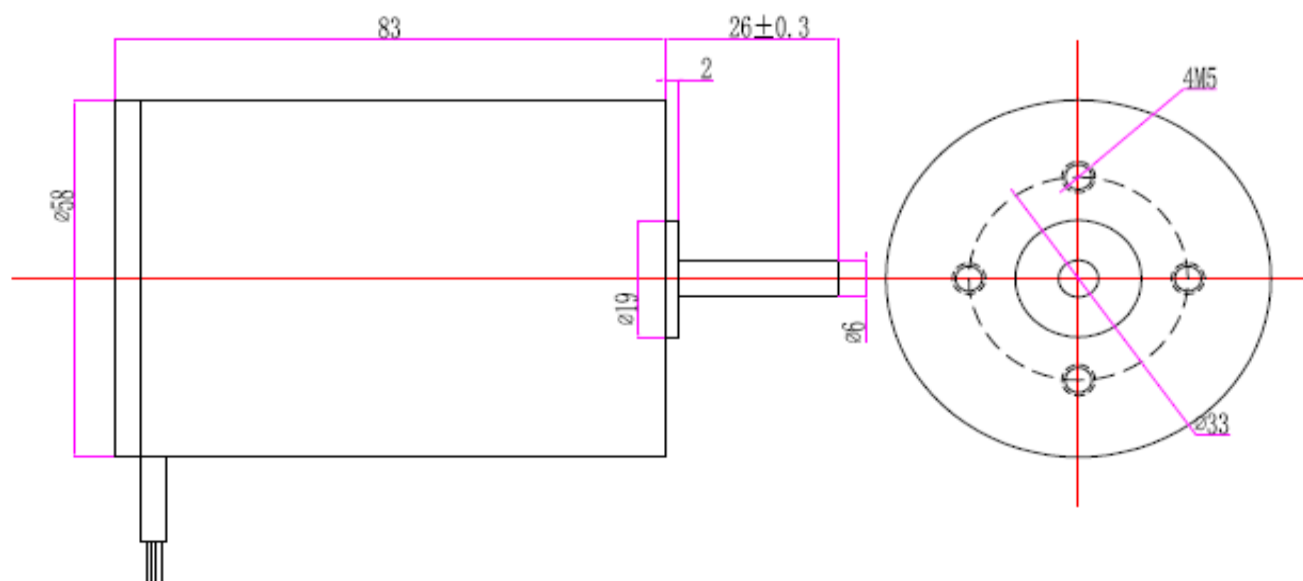
5883

General Specifications

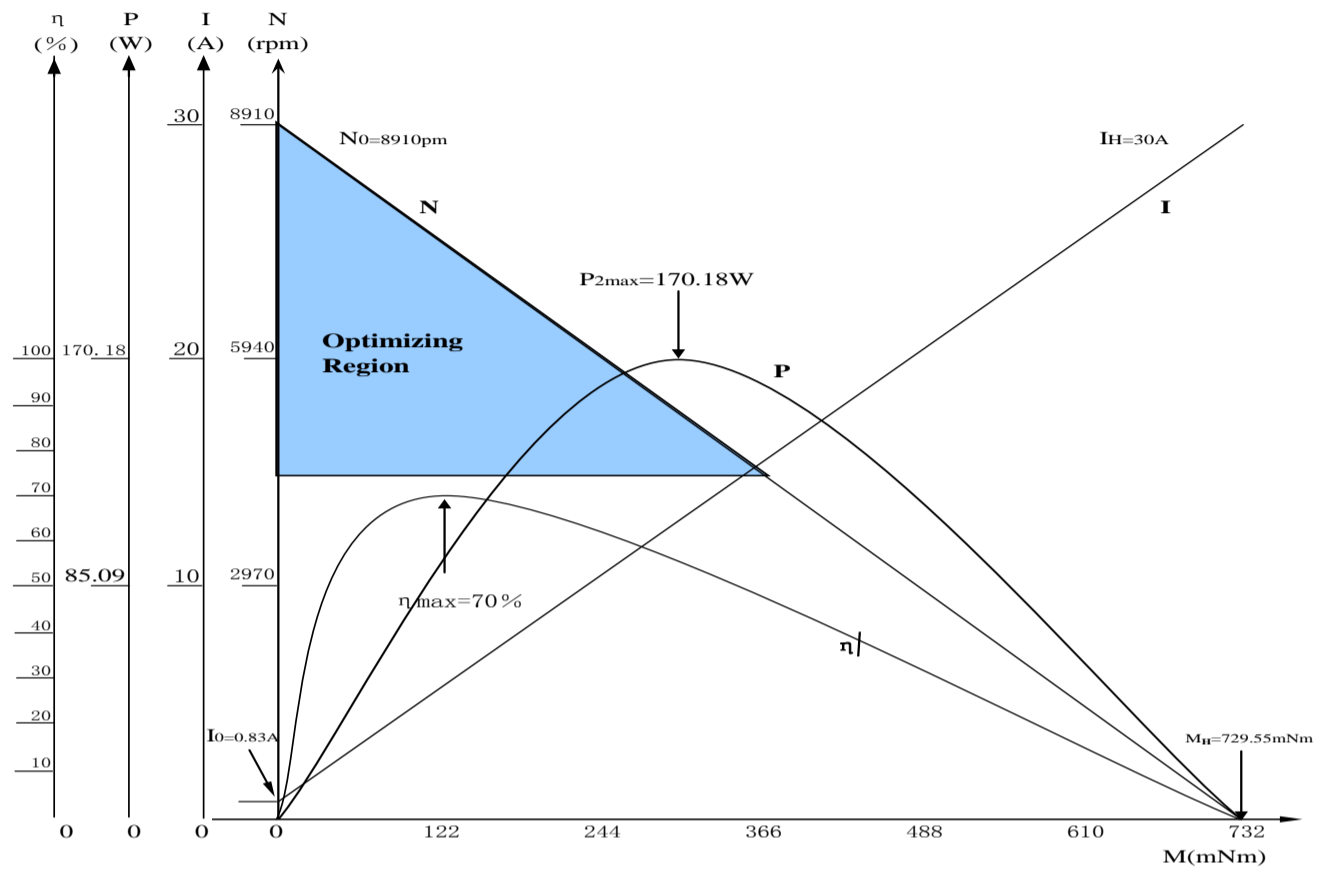
Number of phases	3
Number of poles	2
Operating temperature range	-30°C ~ 85°C
Commutation	Electrically commutated
Bearing type	Shielded ball bearings
Housing material	Black anodized aluminum
Magnet material	Sintered Nd-Fe-B
Direction of rotation	Reversible
Insulation Class	Class B (130°C max.)
Dielectric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

Model		DM5883-24-058	DM5883-24-123	DM5883-24-170	DM5883-24-005
Nominal Voltage	V	24	24	24	31
Rated Speed	RPM	4494	5532	7407	806
Rated Current	A	1.56	5.08	5.75	0.3
Rated Torque	mNm	58.8	135.45	123.06	51.97
Rated Efficiency	%	74	65	70	49
Phase Resistance	W	2.4	1.08	0.8	39
Output Power	P	57.74	123.44	170.18	5.12
Max. Efficiency	%	74	65	70	49
No-Load Speed	RPM	5220	6900	8910	1170
No-Load Current	A	0.19	0.84	0.83	0.07
Stall Torque	mNm	422.52	683.36	729.55	167.25
Friction Torque	mNm	8.18	26.85	20.76	16.15
Back EMF Constant	mV/RPM	4.51	3.35	2.62	24.16
Torque Constant	mNm/A	43.07	31.96	25.01	230.73
Slope of Speed vs. Torque Curve	RPM/mNm	12.35	10.1	12.21	7
Mechanical time Constant	mS	16.29	13.31	16.1	9.22
Rotor Inertia	g-cm ²	125.9	125.9	125.9	125.9
Max. Angular Acceleration	10 ³ rad/s ²	33.56	54.28	57.95	13.28
Sensor		Hall Sensor	Hall Sensor	Hall Sensor	Hall Sensor
Driver Recommendation		DR2404	DR2404	DR2404	DR2404
Weight	g	998	998	998	998
Motor Body Length	"L"	83	83	83	83

Outline Drawing



Performance Curve



58mm Brushless DC Motor



5840

General Specifications

Number of phases	3
Number of poles	8
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
Shaft Option	Double shaft

Model		DM5840-12-030	DM5840-12-050	DM5842-12-070	DM5842-24-100	DM5842-24-150
Rated Voltage	V	12	12	12	24	24
Rated Speed	RPM	3000	6000	8000	15000	20000
Rated Torque	mNm	100	120	130	200	150
Output Power	P	30	50	70	100	150
No-Load Speed	RPM	4000	7000	9500	17500	23,000
No-Load Current	A	0.3	0.5	0.9	0.8	1.3

Outline Drawing

