

80mm NEMA 32, GM80S Series Brushless DC Motors

- General Specification

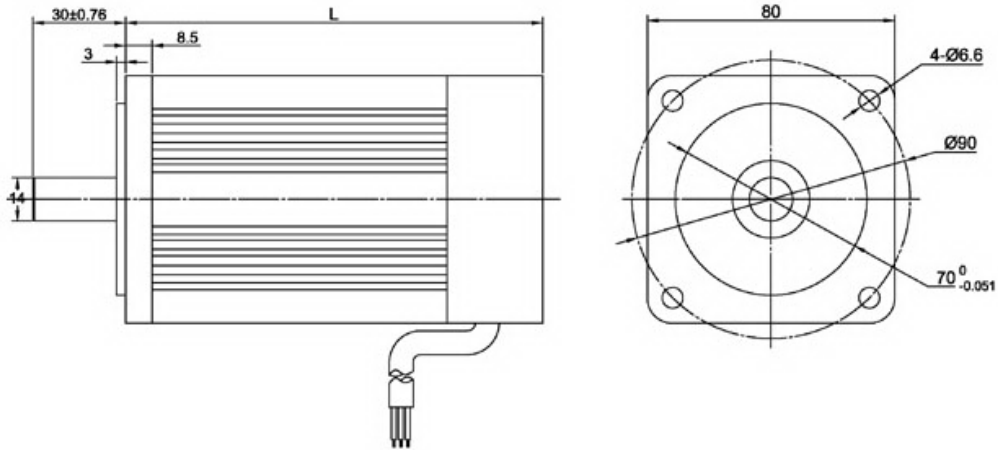
Item	Specifications
Winding type	WYE
Hall effect angle	120 degree electrical angle
Shaft run out	0.025mm
Radial play	0.025mm@460g
End play	0.025mm@400g
Max. radial force	220N @ 20mm from the flange
Max. axial force	60N
Insulation class	Class B
Dielectric strength	500VDC for one minute
Insulation resistance	100MΩMin., 500VDC



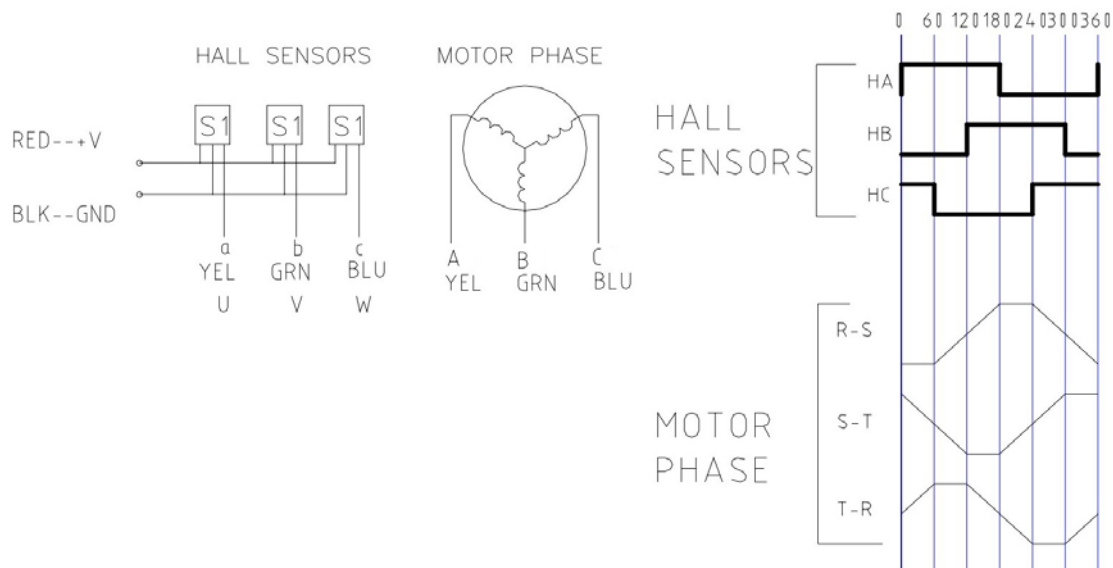
- Technique Specifications

Model		GM80S-85B20	GM80S-85B40	GM80S-85B60	GM80S-105B20	GM80S-105B40	GM80S-105B60	GM80S-120D20	GM80S-120D40	GM80S-120D60	GM80S-140D20	GM80S-140D40
	Number of poles		4									
Number of phase		3										
Rated voltage	VDC	36	36	36	36	36	36	170	170	170	170	170
Rated speed	RPM	2000	4000	6000	2000	4000	6000	2000	4000	6000	2000	4000
Continuous stall torque	Oz-in	136	136	136	204	204	204	306	306	306	425	425
	N.m	0.96	0.96	0.96	1.44	1.44	1.44	2.16	2.16	2.16	3	3
Rated torque	Oz-in	113	113	113	170	170	170	255	255	255	354	354
	N.m	0.8	0.8	0.8	1.2	1.2	1.2	1.8	1.8	1.8	2.5	2.5
Rotor power	W	167	333	500	250	500	750	375	75	1128	523	1047
Peak torque	Oz-in	340	340	340	510	510	510	765	765	765	1062	1062
	N.m	2.4	2.4	2.4	3.6	3.6	3.6	5.4	5.4	5.4	7.5	7.5
Peak current	A	18.55	18.55	18.55	27.7	55.5	83.3	8.84	17.74	26.54	12.3	24.6
Torque constant	Oz-in/A	17.1	9.6	6	17.1	9.6	6	81.2	45.3	28.3	81.2	45.3
	Nm/A	0.121	0.068	0.042	0.121	0.068	0.042	0.573	0.32	0.2	0.573	0.32
Back E.M.F	V/KRPM	12.85	7.2	4.5	12.85	7.2	4.5	60.7	34	21.25	60.7	34
Rotor inertia	kg.c m ²	0.6	0.6	0.6	0.9	0.9	0.9	1.4	1.4	1.4	1.4	1.4
Body length	mm	85	85	85	105	105	105	120	120	120	140	140
Voltage range	VDC	36~325										
Speed Range	rpm	2000~6000										
Weight	Kg	1.7	1.7	1.7	2.3	2.3	2.3	2.9	2.9	2.9	3.5	3.5

- Dimensions (mm)



- Wiring Diagram



- Custom Motor Options

Custom housing to meet your dimensional requirements

Custom shaft options: extended, slotted, cross drilled, hollow shaft etc

Custom winding to meet your specific application needs

Lead wire options: special lengths, heat shrink, Teflon leads, pins, connectors, cable harnesses etc

Bearing & lubricant options for high temperature/humid operations

Encoders, gearboxes, sprockets and pulleys installation