

90mm NEMA 34, GM90SA Series Brushless DC Motors

● General Specification

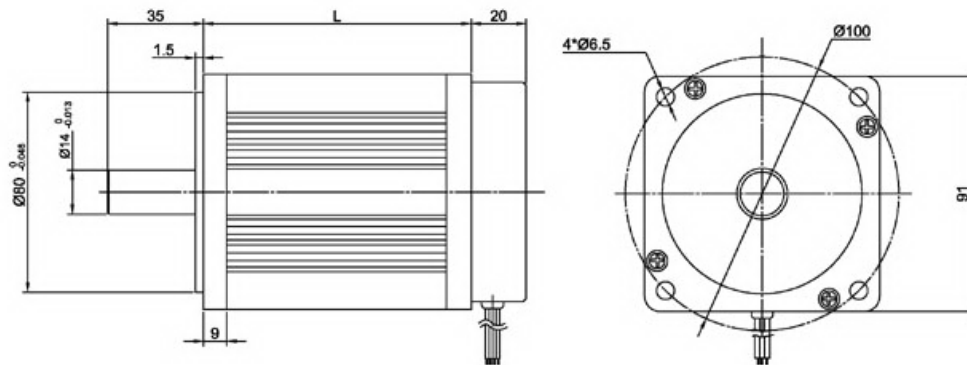
Item	Specifications
Winding type	WYE
Hall effect angle	120 degree electrical angle
Shaft run out	0.05mm
Radial play	0.02mm@460g
End play	0.08mm@400g
Max. radial force	220N @ 20mm from the flange
Max. axial force	60N
Insulation class	Class B
Dielectric strength	500VDC for one minute
Insulation resistance	100MΩMin., 500VDC



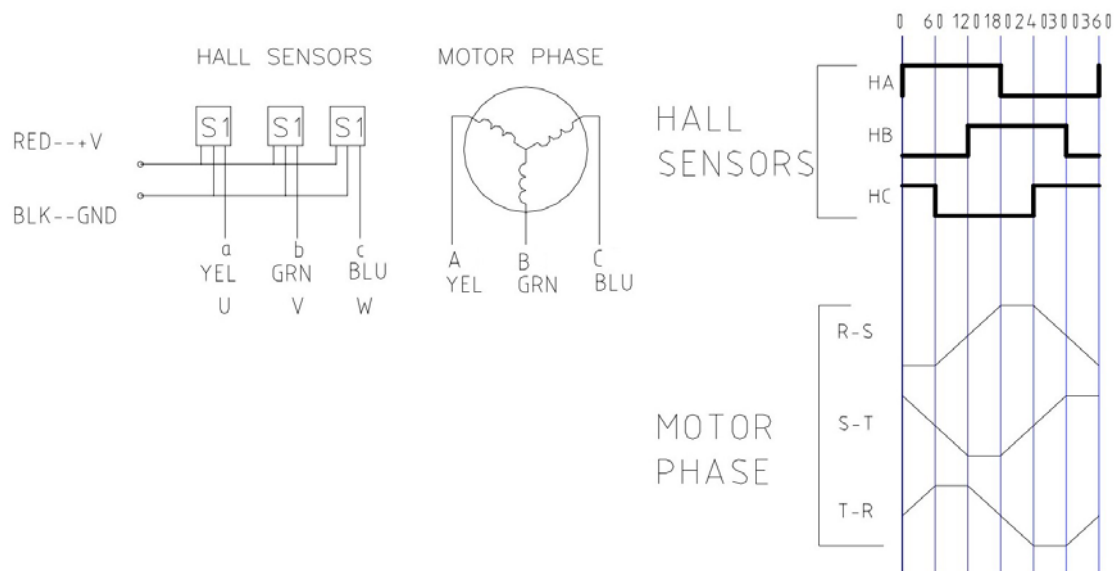
● Technique Specifications

Model		GM90SA- 68A40	GM90SA- A75C40	GM90SA- A88C20	GM90SA- A88C60	GM90SA- A108C20	GM90SA- A108C40	GM90SA- A136F20	GM90SA- A136F60
Number of poles	8								
Number of phase	3								
Rated voltage	VDC	24	48	48	48	48	48	325	325
Rated speed	RPM	4000	4000	2000	6000	2000	4000	2000	6000
Continuous stall torque	Oz-in	85	113	170	170	241	241	397	312
	N.m	0.6	0.8	1.2	1.2	1.7	1.7	2.8	2.2
Rated torque	Oz-in	71	100	142	142	227	213	354	284
	N.m	0.5	0.7	1	1	1.6	1.5	2.5	2
Rotor power	W	209.4	293	209	628	335	628	524	1256
Peak torque	Oz-in	213	300	425	425	680	638	1062	850
	N.m	1.5	2.1	3	3	4.8	4.5	7.5	6
Peak current	A	17.3	24.2	17.4	35	27.8	51.8	6.6	14.7
Torque constant	Oz-in/A	12.3	12.3	24.4	12.2	24.4	12.3	161	57.9
	Nm/A	0.087	0.087	0.172	0.086	0.172	0.087	1.137	0.409
Back E.M.F	V/KRPM	9.2	9.2	18.24	9.06	18.24	9.2	120.3	43.3
Rotor inertia	kg.c m ²	0.45	0.68	0.9	0.9				
Body length	mm	68	75	88	88	108	108	136	136
Voltage range	VDC	12~170			24~325				
Speed Range	rpm	2000~6000							
Weight	Kg	1.4	1.7	2.1	2.1	2.6	2.6	4.1	4.1

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