

86mm NEMA 34, GM86SA Series Brushless DC Motors

● General Specification

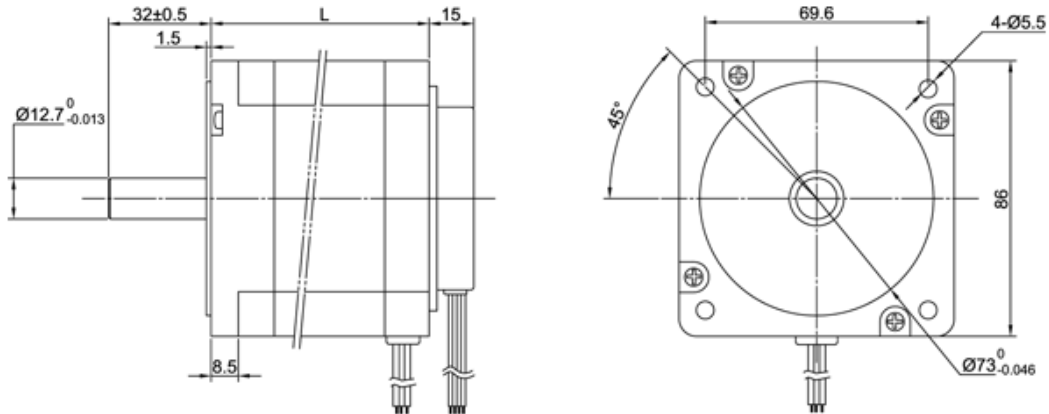
Item	Specifications
Winding type	WYE
Hall effect angle	120 degree electrical angle
Shaft run out	0.05mm
Radial play	0.02mm@460g
End play	0.08mm@400g
Max. radial force	220N @ 20mm from the flange
Max. axial force	60N
Insulation class	Class B
Dielectric strength	500VDC for one minute
Insulation resistance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



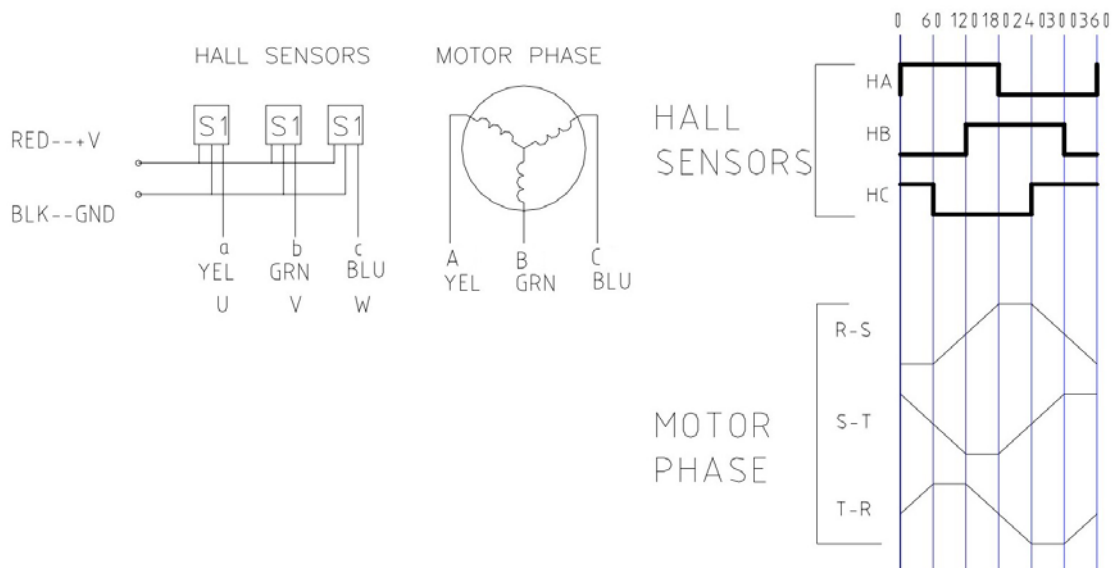
● Technique Specifications

Model		GM86SA-7 1A20	GM86SA-7 1C40	GM86SA-9 8C20	GM86SA-9 8E60	GM86SA-1 25C20	GM86SA-1 25E60
Number of poles		4					
Number of phase		3					
Rated voltage	VDC	24	48	48	310	48	310
Rated speed	RPM	2000	4000	2000	6000	2000	6000
Continuous stall torque	Oz-in	120	120	240	240	360	360
	N.m	0.84	0.84	1.68	1.68	2.52	2.2
Rated torque	Oz-in	100	100	200	200	300	284
	N.m	0.7	0.7	1.4	1.4	2.1	2
Rotor power	W	147	293	293	879	440	1256
Peak torque	Oz-in	300	300	600	600	900	850
	N.m	2.1	2.1	4.2	4.2	6.3	6
Peak current	A	25	24	24.7	10.8	36	15.4
Torque constant	Oz-in/A	11.9	12.3	24.1	55.2	24.8	55.2
	Nm/A	0.084	0.087	0.17	0.39	0.175	0.39
Back E.M.F	V/KRPM	8.9	9.25	18	41.3	18.5	41.3
Rotor inertia	kg.c m ²	0.7	0.7	1.4	1.4	2.1	2.1
Body length	mm	71	71	98	98	125	125
Voltage range	VDC	12~325					
Speed Range	rpm	2000~6000					
Weight	Kg	1.9	1.9	2.6	2.6	4	4

- 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