

86mm NEMA 34, GM86S Series Brushless DC Motors

● General Specification

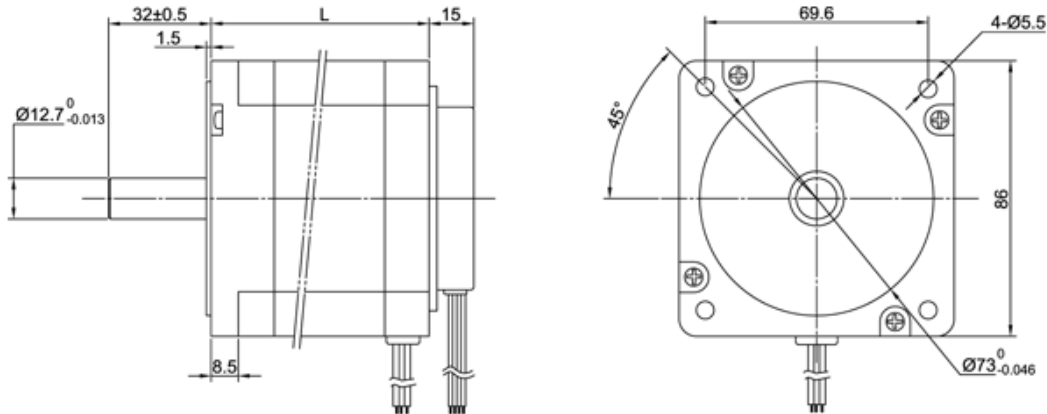
Item	Specifications
Winding type	WYE
Hall effect angle	120 degree electrical angle
Shaft run out	0.05mm
Radial play	0.02mm@460g
End play	0.08mm@400g
Max. radial force	220N @ 20mm from the flange
Max. axial force	60N
Insulation class	Class B
Dielectric strength	500VDC for one minute
Insulation resistance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



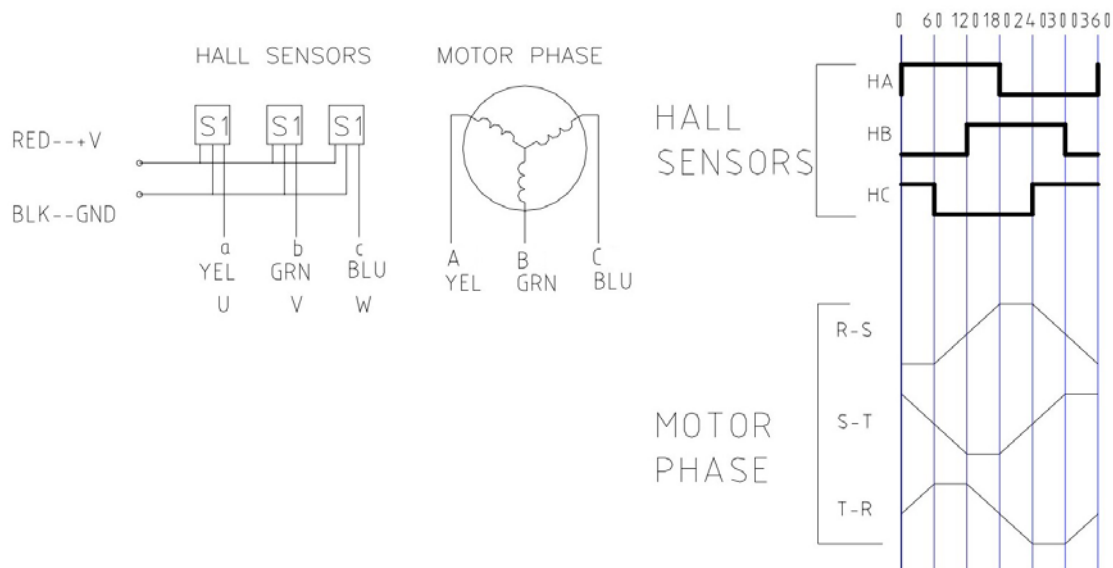
● Technique Specifications

Model		GM86S-58C10	GM86S-58C30	GM86S-71C10	GM86S-71C30	GM86S-98C10	GM86S-98C30	GM86S-125C10	GM86S-125C30
Number of poles		8							
Number of phase		3							
Rated voltage	VDC	48	48	48	48	48	48	48	48
Rated speed	RPM	1000	3000	1000	3000	1000	3000	1000	3000
Continuous stall torque	Oz-in	60	60	120	120	240	240	357	312
	N.m	0.42	0.42	0.84	0.84	1.68	1.68	2.52	2.2
Rated torque	Oz-in	50	50	100	100	200	200	300	300
	N.m	0.35	0.35	0.7	0.7	1.4	1.4	2.1	2.1
Rated power	W	24	110	73	220	147	440	220	660
Peak torque	Oz-in	149	149	300	300	600	600	900	900
	N.m	1.05	1.05	2.1	2.1	4.2	4.2	6.3	6.3
Peak current	A	2.86	8.6	5.7	17.1	11.4	34.3	17.2	51.5
Torque constant	Oz-in/A	46	17	46	17	46	17	46	17
	Nm/A	0.324	0.12	0.324	0.12	0.324	0.12	0.324	0.12
Back E.M.F	V/KRPM	34.28	12.63	34.28	12.63	34.28	12.63	34.28	12.63
Rotor inertia	kg.c m ²	0.4	0.4	0.8	0.8	1.6	1.6	2.4	2.4
Body length	mm	58	58	71	71	98	98	125	125
Voltage range	VDC	12~325							
Speed Range	rpm	1000~3000							
Weight	Kg	1.5	1.5	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