

42mm NEMA 17, GM42SA Series Brushless DC Motors

● General Specification

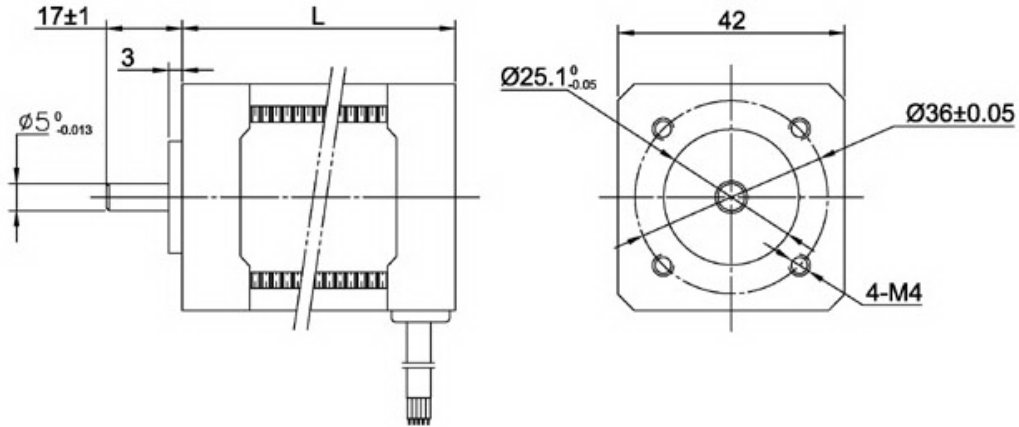
Item	Specifications
Winding type	WYE
Hall effect angle	120 degree electrical angle
Shaft run out	0.05mm
Radial play	0.025mm@400g
End play	0.025mm@400g
Max. radial force	15N @ 10mm from the flange
Max. axial force	10N
Insulation class	Class B
Dielectric strength	500VDC for one minute
Insulation resistance	100MΩMin., 500VDC



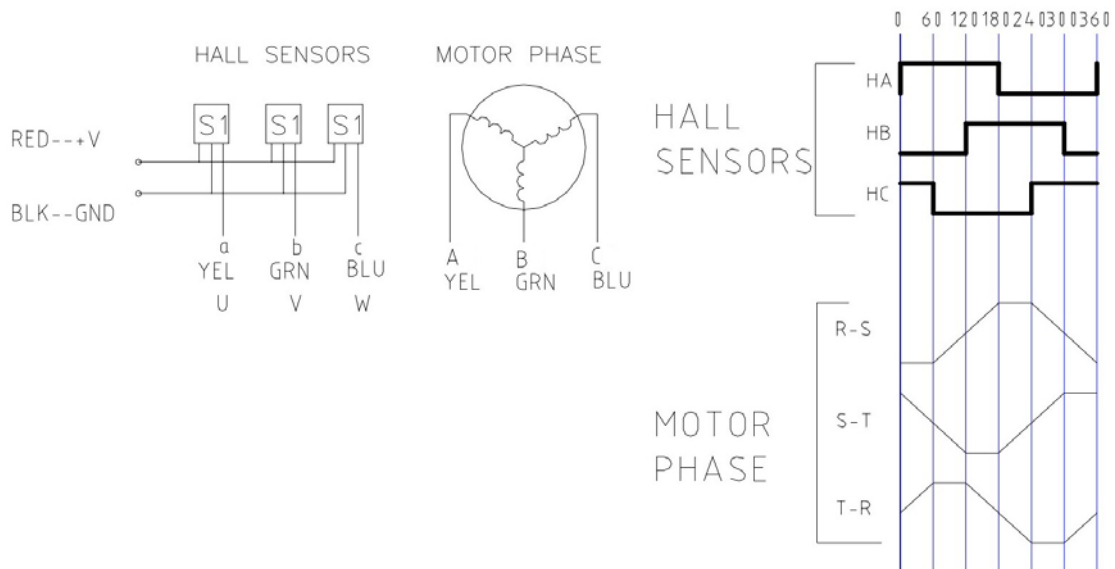
● Technique Specifications

Model		GM42SA -41A20	GM42SA -41A40	GM42SA -41A80	GM42SA -61A20	GM42SA -61A40	GM42SA -61A80	GM42SA -81A20	GM42SA -81A40	GM42SA -81A80
Number of poles		8								
Number of phase		3								
Rated voltage	VDC	24	24	24	24	24	24	24	24	24
Rated speed	RPM	2000	4000	8000	2000	4000	8000	2000	4000	8000
Continuous stall torque	Oz-in	10.2	10.2	10.2	20.4	20.4	20.4	31.9	31.9	31.9
	N.m	0.072	0.072	0.072	0.144	0.144	0.144	0.225	0.225	0.225
Rated torque	Oz-in	8.9	8.9	8.9	17.7	17.7	17.7	26.9	26.9	26.9
	N.m	0.063	0.063	0.063	0.125	0.125	0.125	0.19	0.19	0.19
Rotor power	W	13	26	52	26	52	104	39.5	79	158
Peak torque	Oz-in	26.9	26.9	26.9	53.1	53.1	53.1	80.7	80.7	80.7
	N.m	0.19	0.19	0.19	0.375	0.375	0.375	0.57	0.57	0.57
Peak current	A	2.7	5.4	10.8	5.3	10.6	21.2	7.25	14.5	29
Torque constant	Oz-in/A	10.5	5	2.8	10.5	5	2.8	10.5	5	2.8
	Nm/A	0.074	0.035	0.02	0.074	0.035	0.02	0.074	0.035	0.02
Back E.M.F	V/KRPM	7.82	3.33	2.1	7.82	3.66	2.1	7.82	3.33	2.1
Rotor inertia	g.c m ²	24	24	24	48	48	48	72	72	72
Body length	mm	41	41	41	61	61	61	81	81	81
Voltage range	VDC	12~48								
Speed Range	rpm	2000~8000								
Weight	Kg	0.3	0.3	0.3	0.45	0.45	0.45	0.6	0.6	0.6

- 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