

42mm NEMA 17, GM42S Series Brushless DC Motors

● General Specification

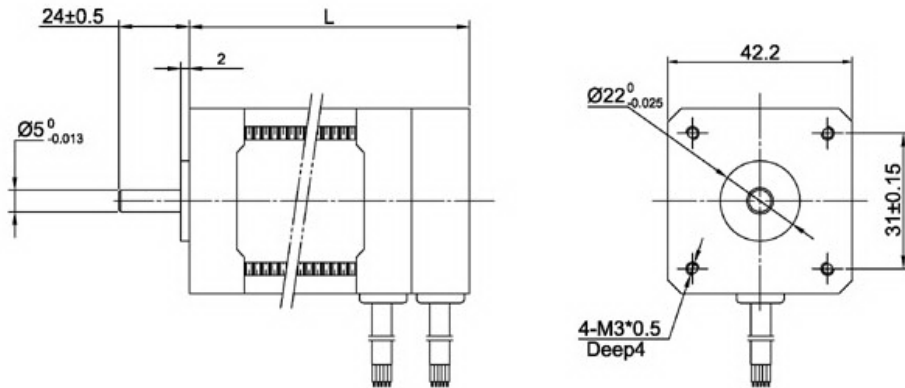
Item	Specifications
Winding type	WYE
Hall effect angle	120 degree electrical angle
Shaft run out	0.025mm
Radial play	0.02mm@450g
End play	0.08mm@450g
Max. radial force	28N @ 20mm from the flange
Max. axial force	10N
Insulation class	Class B
Dielectric strength	500VDC for one minute
Insulation resistance	100MΩMin., 500VDC



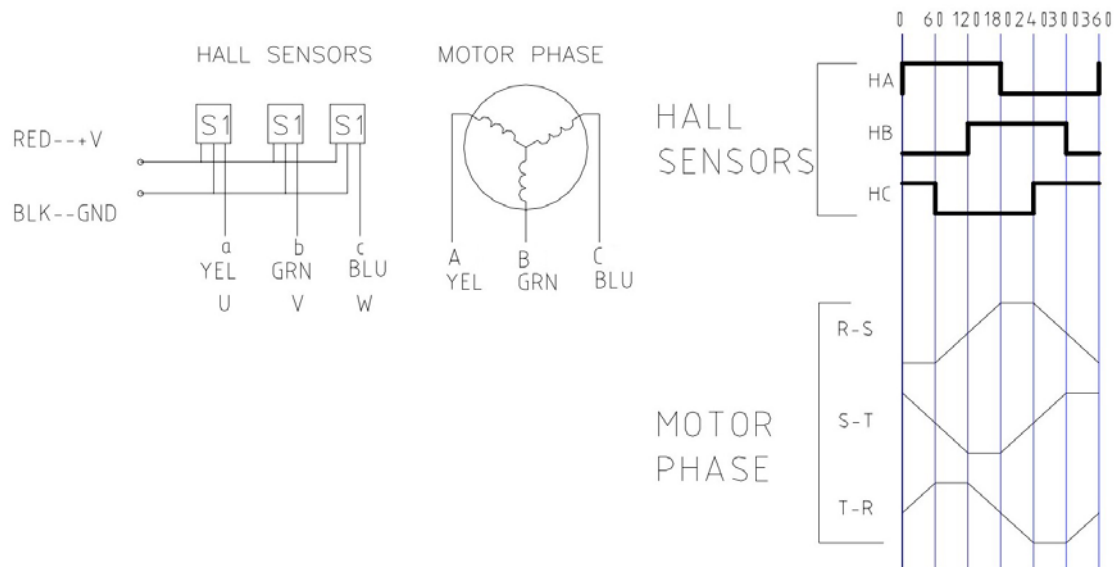
● Technique Specifications

Model		GM42S -45A10	GM42S -45A30	GM42S -45A40	GM42S -60A10	GM42S -60A30	GM42S -60A40	GM42S -75A10	GM42S -75A30	GM42S -75A40
Number of poles		8								
Number of phase		3								
Rated voltage	VDC	24	24	24	24	24	24	24	24	24
Rated speed	RPM	1000	3000	4000	1000	3000	4000	1000	3000	4000
Continuous stall torque	Oz-in	13.6	13.6	13.6	26.9	26.9	26.9	39.7	39.7	39.7
	N.m	0.096	0.096	0.096	0.19	0.19	0.19	0.28	0.28	0.28
Rated torque	Oz-in	11.3	11.3	11.3	22.7	22.7	22.7	34	34	34
	N.m	0.08	0.08	0.08	0.16	0.16	0.16	0.24	0.24	0.24
Rated power	W	8.3	25	33.2	16.6	50	67	25	75	100
Peak torque	Oz-in	34	34	34	80.7	80.7	80.7	102	102	102
	N.m	0.24	0.24	0.24	0.57	0.57	0.57	0.72	0.72	0.72
Peak current	A	1.3	3.9	5.2	2.6	7.8	10.4	3.9	11.72	15.63
Torque constant	Oz-in/A	22.9	8.5	6.4	22.9	8.5	6.4	22.0	4.3	6.4
	Nm/A	0.162	0.06	0.045	0.162	0.06	0.045	0.162	0.03	0.045
Back E.M.F	V/KRPM	17.1	6.3	4.8	17.1	6.3	4.8	17.1	6.3	4.8
Rotor inertia	g.c m ²	24	24	24	48	48	48	72	72	72
Body length	mm	48	48	48	64	64	64	79	79	79
Voltage range	VDC	12~48								
Speed Range	rpm	1000~4000								
Weight	Kg	0.3	0.3	0.3	0.44	0.44	0.44	0.56	0.56	0.56

- **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