



BLDC MOTOR WITH BUILT-IN SPEED CONTROLLER

By combining the brushless dc motor and speed controller into a single compact, streamline package, GEMS provides this space-saving design that minimizes the wirings and eliminates the motor- driver compatibility issues. These motors with integrated controllers also save on cost over separate motor and controller electronics. Due to the simplicity of wiring, these driver integrated brushless motors are perfect options for the customers who are looking to replace their brushed motors with brushless ones in their products.

IP65 rated motors are available for the wet and dusty environment. All the motors can be custom designed to match with your power source and the needed rated RPM. A wide range of planetary and spur [brushless motor gearboxes](#) can be mounted on GM57BLYI series motors for high torque and low speed applications.

NEMA 23 57MM BRUSHLESS DC MOTOR WITH INTEGRATED SPEED CONTROLLER



All models can be custom designed for 12V or 24V power supply, and the rated speed can be designed to be any number between 1000 rpm and 6000 rpm.



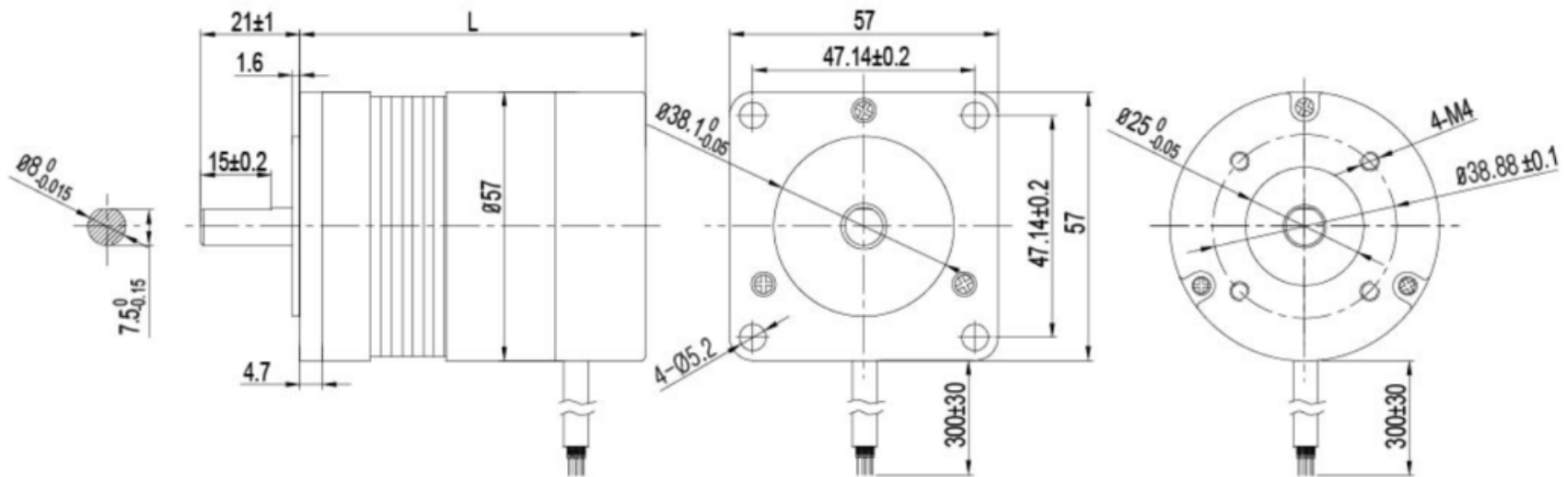
GENERAL SPECIFICATIONS	
Winding connection	Star / WYE
Hall effect angle	120 degree electrical angle
Radial play	0.02mm@450g
End play	0.02mm@450g
Max. radial force	75N @ 10mm from the flange
Max. axial force	15N
Insulation class	Class B
Dielectric strength	500VDC for one minute
Insulation resistance	100MΩ min., 500VDC

MODEL	GM57BLYI45-230	GM57BLYI55-230	GM57BLYI75-230	GM57BLYI45-130	GM57BLYI55-130
Number of pole	4 Poles				

Number of phase		3 Phase				
Rated voltage	Volt	24	24	24	12	12
Rated speed	RPM	3000	3000	3000	3000	3000
Rated torque	Oz-in	8	16	32	8	16
	Nm	0.055	0.11	0.22	0.055	0.11
Rated current	A	1.16	2.4	4.8	2.5	3.6
Power output	Watt	17	35	70	17	35
Peak torque	Oz-in	24	48	96	24	48
	Nm	0.165	0.33	0.66	0.165	0.33
Peak current	A	3.48	7.2	14.4	7.5	14
Back E.M.F	V/KRPM	3.8	6.6	2.3	2.4	2.4
Rotor inertia	g.cm ²	32	75	119	32	42
Body length	mm	65	75	95	65	75
Weight	Kg	0.4	0.5	0.7	0.33	0.44

Dimensions (mm)

Square Flange or Round Flange



Wiring Instructions

Red: +12V or 24V

Black: GND

Blue: PWM or 0-5V Speed Control (Optional)

Brown: Clockwise / Counter-clockwise (Optional)

White: Brake (optional)

Yellow: Speed pulse out, 12 pulse per revolution (optional)



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