

GM8112 Specifications Standard

Appearance requirements

NO.	Project	Requirement	Remarks
1	Motor diameter (mm)	$\Phi 89.5 \pm 0.05 \text{ mm}$	/
2	Motor length (mm)	26 ± 0.2 (without encoder) mm	/
3	Motor slot/pole number	36N/42P	/
4	Axial outer diameter (mm)	$\Phi 25 - 0.008 / -0.012 \text{ mm}$	/
5	Inner diameter of shaft (mm)	$\Phi 22 + 0.05 / +0.1 \text{ mm}$	/
6	wire length (mm)	$610 \text{ mm} \pm 3 \text{ mm}$ Without Plug	/
7	The color of the line	24#black silicone wire	/
8	weight (g)	$428 \pm 1 \text{ g}$	/
9	plug	2.5 pitch connector	/
10	Axial clearance (virtual position)	0	/

Performance Requirement

NO.	Project		Requirement	Remarks
1	No-load	voltage (V)	22V	KV box
		current (A)	$0.3 \pm 0.1 \text{ A}$	/
		speed (RPM)	380~420 RPM	/
2	Load	voltage (V)	20	/
		current (A)	2	/
		torsion ($G \bullet cm$)	6000-9000	/
3	Number of windings (T)		0.4*1-33T Y connection method	
4	Wired internal resistance of finished product (mΩ)		$4.2\Omega \pm 5\%$ (The resistance will change with the ambient temperature. If the resistance exceeds the standard range due to environmental changes, the standard should be signed again)	/
5	high voltage test		DC500V 1mA 2 Seconds	/
6	The rotor housing jumps		$\leq 0.1 \text{ mm}$	/
7	Translation (shaft extension view)		Clockwise (unified test wiring)	/
8	High temperature test		60°C Keep 100 hours, and the motor can work normally after 24 hours at room temperature	/
9	Cold test		-20°C Keep for 100 hours, and the motor can work normally after 24 hours at room temperature	/
10	maximum power		$\leq 80 \text{ W}$	
11	Use voltage range		3-5S (calculated according to lithium battery 3.7-4.2V/S)	Constant power
12	service environment		Temperature: -20~60°C, humidity: 10~90%RH	Normal temperature and humidity