

# GM2804 Encoder Specifications Standard

## Appearance requirements

NO.	Project	Requirement	Remarks
1	Motor diameter (mm)	$\Phi 35 \pm 0.05 \text{ mm}$	Factory Inspection Items
2	Motor length (mm)	$25 \pm 0.2$ (with encoder) mm	Factory Inspection Items
3	Motor slot/pole number	12N/14P	Factory Inspection Items
4	Axial outer diameter (mm)	$\Phi 8 - 0.008 / -0.012$ mm	Factory Inspection Items
5	Inner diameter of shaft (mm)	$6.5 + 0.05 / 0$ mm	Factory Inspection Items
6	wire length (mm)	$60 \pm 3$ mm Without Plug	Factory Inspection Items
7	The color of the line	24# black silicone terminal wire	Factory Inspection Items
8	weight (g)	$51 \pm 0.2 \text{ g}$	Factory Inspection Items
9	plug	PH3P	Factory Inspection Items
10	Axial clearance (virtual position)	0	Factory Inspection Items

## Performance Requirement

NO.	Project		Requirement	Remarks
1	No-load	voltage (V)	10V	KV box
		current (A)	$0.09 \pm 0.05$ A	Factory Inspection Items
		speed (RPM)	1602~1771 RPM	Factory Inspection Items
2	Load	voltage (V)	10	Factory Inspection Items
		current (A)	0.8	Factory Inspection Items
		torsion ( $G \bullet cm$ )	250-350	Factory Inspection Items
3	Number of windings (T)		Low-temperature 0.19*1-100T Y connection method	
4	Wired internal resistance of finished product (mΩ)		9Ω±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)	Factory Inspection Items
5	high voltage test		DC500V 1mA 2 Seconds	Factory Inspection Items
6	The rotor housing jumps		≤0.1mm	Process sampling items
7	Translation (shaft extension view)		Clockwise (unified test wiring)	Factory Inspection Items
8	High temperature test		60°C Keep 100 hours, and the motor can work normally after 24 hours at room temperature	Process sampling items

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9	Cold test	-20°C Keep for 100 hours, and the motor can work normally after 24 hours at room temperature	Process sampling items
10	maximum power	$\leq 25\text{W}$	
11	Use voltage range	2-3S (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