

Sonic Motor Application Guideline

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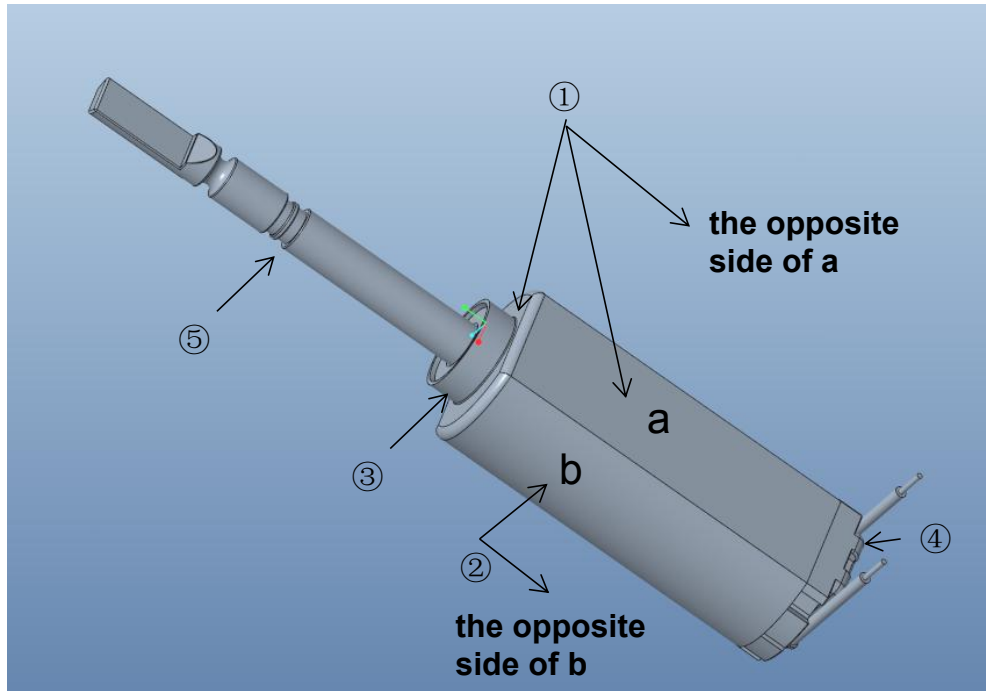
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1. Precautions for structural installation

Recommended terminal application: electric toothbrush

The recommended mounting and fixing method description:



① Before installation, the motor should get three sides (as indicated in the picture) pasted with foam or silicone.

PS: foam or silicone thickness: $\geq 0.3\text{mm}$

② The curved sides (as indicated in the picture) should away from the surrounding a distance of $\geq 0.1\text{mm}$

③ The metal ring part (as indicated in the picture) should be fixed with its surrounding structure as tightly as possible, under the premise of ensuring convenient installation.

④ The end cap side (as indicated in the picture) should away from the surrounding a distance of $\geq 0.3\text{mm}$, to ease motor installation

⑤ The waterproof layer (as indicated in the picture) needs to be installed in conjunction with the waterproof ring to prevent moisture/water from entering the motor body.

The whole motor should avoid direct contact with metal parts to avoid resonance noise.

2. The suggested power supply parameter and the PWM power supply description

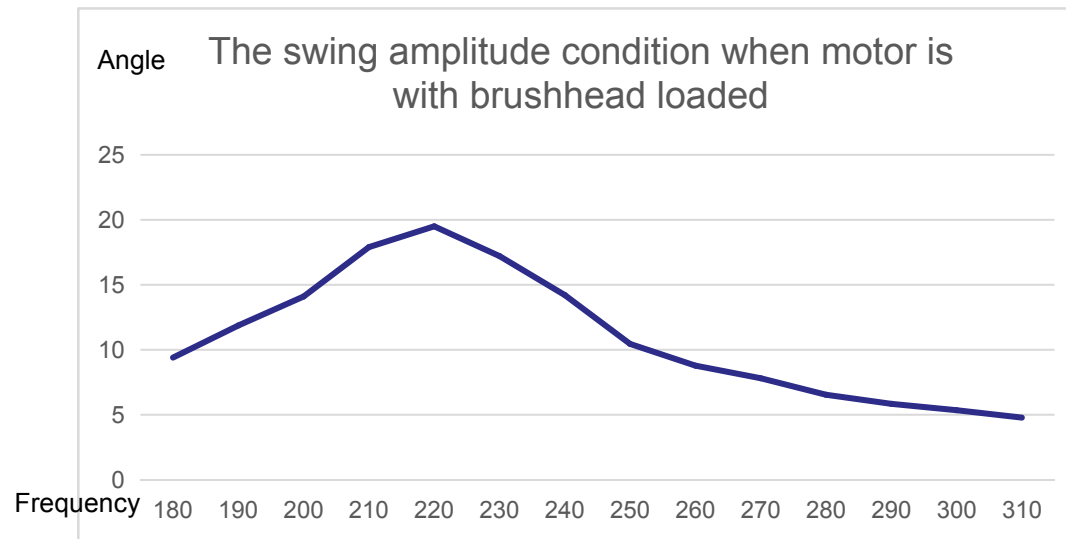
This motor requires PWM power supply, and the battery current needs to be converted through the motherboard to power the motor.

The recommended power supply parameters are as follows:

Frequency: 230Hz

Duty cycle: 45%

Voltage: 4.1V



The relationship between the swing amplitude and frequency of the motor with brushhead loaded.

3. Other precautions

- ① Please be careful not to immerse the motor in liquid substances (such as: water, alcohol, etc.)
- ② The pressure upon the steel shaft during installation cannot exceed 10Kg.
- ③ The high frequency of the motor may cause loosening of screws, fasteners, etc., so please make a corresponding risk assessment.
- ④ The weight of brush head is suggested to be in the range of 3.8~6g, otherwise the resonance frequency may get reduced, and the swing of the toothbrush get declined.



Thank you