

## Micro Air Pump ZR320-02PM Specification

### 1. Scope of application

This specification is suitable for miniature air pump ZR320-2PM DC:3.0V DC:4.5V DC:6V DC:12V.

### 2. Test conditions:

#### 2-1 Test environment temperature and humidity:

ambient temperature 20°C, relative humidity 65%RH is the standard

Test in the following environment: ambient temperature 5-45 °C, relative humidity 30-80% RH

#### 2-2 Test orientation: horizontal

#### 2-3 load: air

### 3. Performance:

3-1	Rated voltage	DC:3.0V	DC:4.5V	DC:6V	DC:12V
3-2	Use voltage	DC2.2V~3.7V	DC3.0V~4.5V	DC5.2V~6.5V	DC10.8V~13.2V
3-3	Load current	< 650mA	< 580mA	< 500mA	< 280mA

Note: The above load current refers to the current value when the rated voltage supply air pump is used to inflate to the highest pressure in a 100ml container.

#### 3-4 Noise: Put a 5cm thick sponge under the pump body and place it 30cm away from noise meter

The suction pressure is measured from 0 to -40kpa under rated voltage.

Less than 60dB

#### 3-5 Flow: $\geq 1.8$ LPM

**3-6 Maximum pressure:** The maximum pressure value when the suction pressure is increased from 0 to stop when the rated voltage is used  $\leq -55$ kpa

#### 3-7 Operating temperature range:

The air pump works well between temperature 5°C to 50°C and humidity 30%RH to 80%RH.

#### 3-8 Storage temperature range:

Keep the air pump in good condition between temperature -20°C to 60°C and humidity 30%RH to 85%RH.

### 4. Reliability test:

#### 4-1 Low temperature characteristics:

After placing it at -20° C for 72 hours, take it out and place it at room temperature (20° C $\pm$ 5° C) for 2 hours. Re-test checks 3-3 3-4 3-5 3-6

The test results are normal.

#### 4-2 High temperature characteristics:

After being placed at 60° C for 72 hours, take it out and place it at room temperature (20° C $\pm$ 5° C) for 2 hours. Re-test checks 3-3 3-4 3-5 3-6

The test results are normal.

#### 4-3 High temperature and high humidity:

Leave out for 72 hours in an environment with a temperature of 60° C and a humidity of 80-85% and place it at room temperature (20° C $\pm$ 5° C) for 2 hours. Re-test checks 3-3 3-4 3-5 3-6

The test results are normal.

#### 4-4 Low-temperature environment test:

After 5 hours at 5°C, there is no abnormality in the test at this temperature.

**4-5 High temperature environment test:**

There is no abnormality in the test at this temperature after 5 hours at 50°C.

**4-6 Life test:**

In a 500ml container, open for 10 seconds and stop for 5 seconds as a cycle test.

After 30,000, follow the test requirements of 3-3 3-4 3-5 3-6

Pressure within the attenuation range of 15%.

**5. Other**

**5-1 Drop test:** Use standard packaging methods and place them on the concrete floor from the front, side, and corners from a height of 50cm.

Its performance and structure are not abnormal in free fall.

**5-2 Abnormal test:**

There is no burning or smoke after continuous power-on for 8 hours at the maximum voltage.

**5-3 Motor terminal:**

There is no abnormality with 0.3 kg weight and terminal load. The terminal must be soldered at a soldering iron temperature of 380°C, and the operation must be completed within 2S

**5-4 Appearance:** The product must not be damaged or dirty.