



# PUIaudio



Data Sheet

HD-EMC0903-LW27

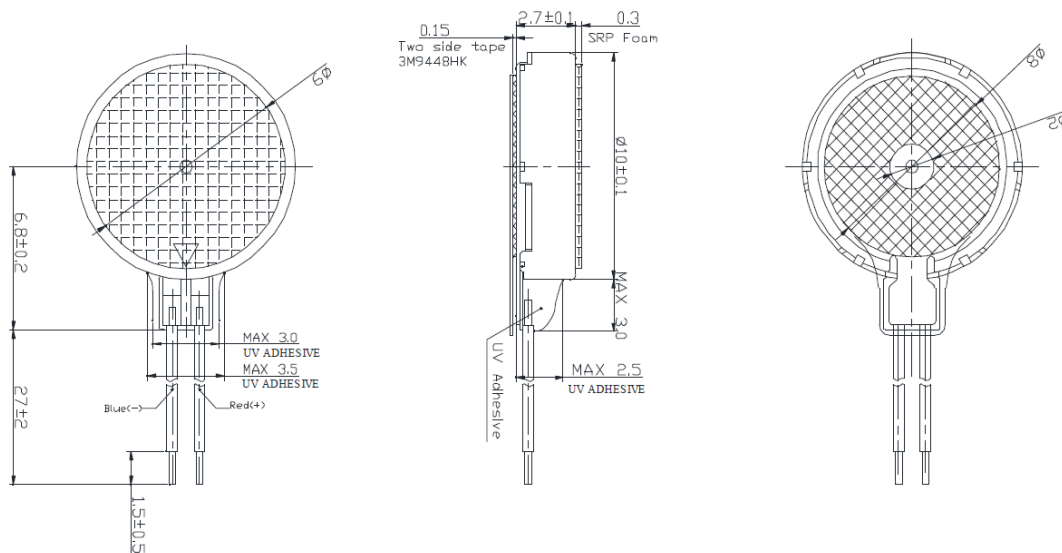
## Features:

- 80mA rated current
- 10,000 rpm rated speed
- Coin style housing and lead wires for easy implementation.
- Brushless ERM motor

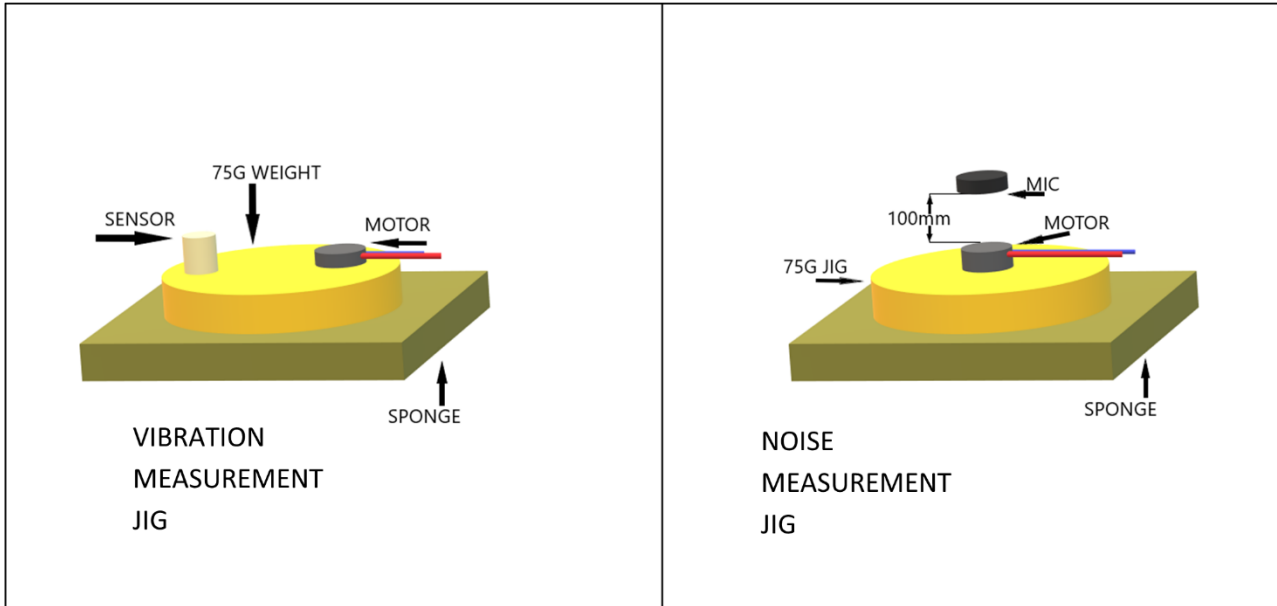
## Specifications

Parameters	Values	Units
Input Voltage	3.0	V <sub>DC</sub>
Operating Voltage Range (DC)	2.5 ~ 3.8	V <sub>DC</sub>
Starting Voltage	2.5	V <sub>DC</sub>
Direction of Rotation	CW	-
Rated Speed Rated Voltage, Rated Load, Motor Fixed	10,000 ± 3,000	RPM
Rated Load Current Maximum at 3.0 V <sub>DC</sub> , Rated Load, Motor Fixed	80	mA
Starting Current Maximum at 2.5 V <sub>DC</sub> , Rotor Locked	200	mA
Mechanical Noise	≤ 50	dB
Weight		Grams
Storage Temperature	-20 ~ +70	°C
Operating Temperature	-20 ~ +70	°C
Environmental Compliances	RoHS/REACH	-

## Dimensions



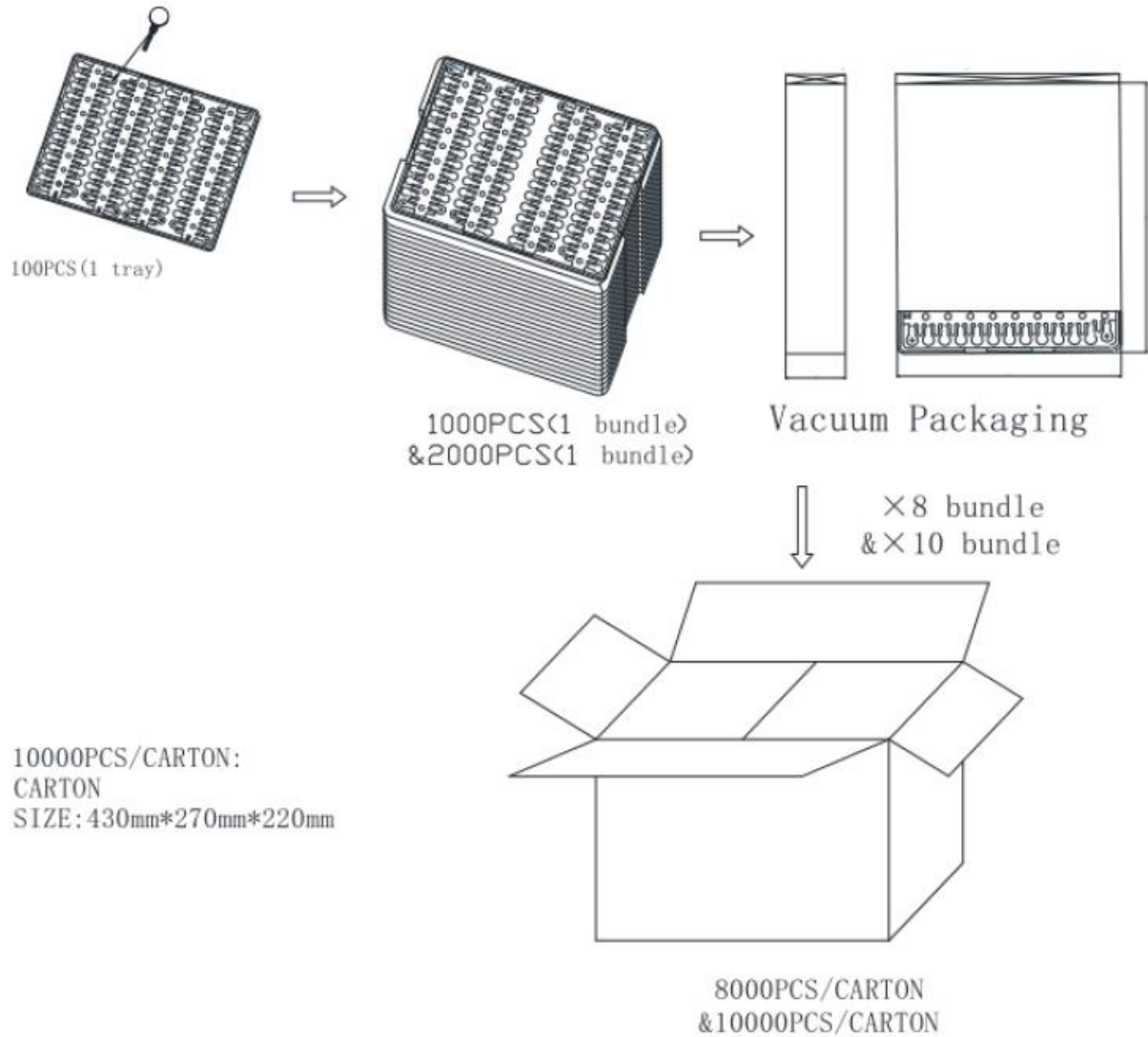
## Measurement Methods (Standard Jig)



## Reliability Testing

Type of Test	Test Specifications	Judgement
Life Test	At rated voltage (3V): Cycle: 2s on, 1s continuous Cycle Count: 500,000	Allow device to rest 4 hours after each test. The following specifications must be met: <ol style="list-style-type: none"> <li>1. Rotating speed (initial <math>\pm 30\%</math>)</li> <li>2. Rated Load Current (initial <math>\pm 30\%</math>)</li> <li>3. Starting Voltage (2.5V Max)</li> </ol>
High Temperature Test	Temperature: +80°C Test Duration Time: 96 hours	
Low Temperature Test	Temperature: -30 $\pm$ 2°C Test Duration Time: 96 hours	
Humidity Test	Temperature: +65°C Relative Humidity: 90~95% Test Duration Time: 96 hours	
Thermal Shock Test	Temperature Cycle: -40 to +80°C Cycle Time: 2 hours Test Repetition: 10 cycles (20 hours total)	
Vibration Test	Vibration: 10 ~ 55 ~ 10 Hz, 2.2G acceleration Test Axis: XYZ Test Repetition: 30 minutes per axis (30 minutes total)	
Drop Test	Drop Condition: 1.5m onto iron plate at weight 150g Test Repetition: 1 time per side (6 total)	

## Packaging



### Specifications Revisions

Revision	Description	Date	Approved
A	RELEASED FROM ENGINEERING	12/13/2024	JD

Note:

- Unless otherwise specified:
  - All dimensions are in millimeters.
  - Default tolerances are  $\pm 0.5\text{mm}$  and angles are  $\pm 3^\circ$ .
- Specifications subject to change or withdrawal without notice.