PUIaudio

Data Sheet AS04008PR-6

The **AS04008PR-6** is designed for applications that require robust low-frequency response in compact designs.

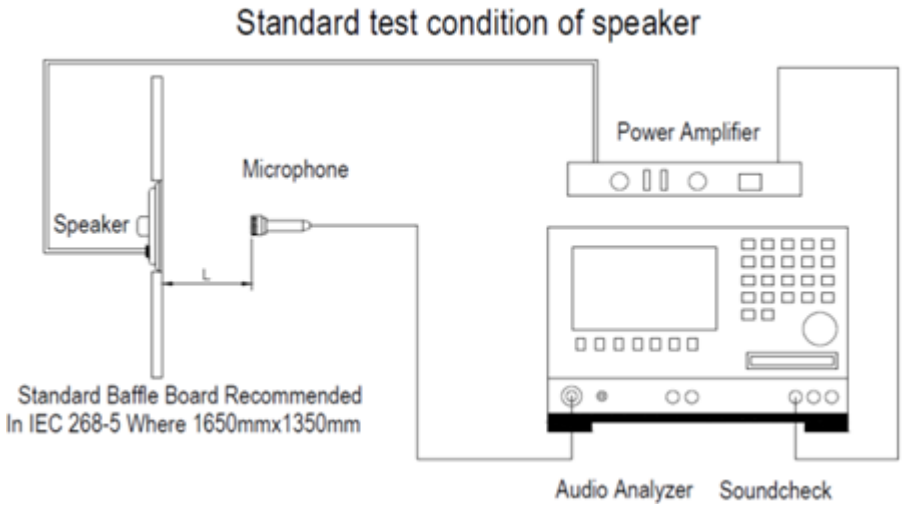
## Features:

- 86dBSPL: 1W dissipation, distance = 0.5m
- 3.0W continuous dissipation
- 170Hz free-air resonance
- 40mm diameter x 19mm dimensions

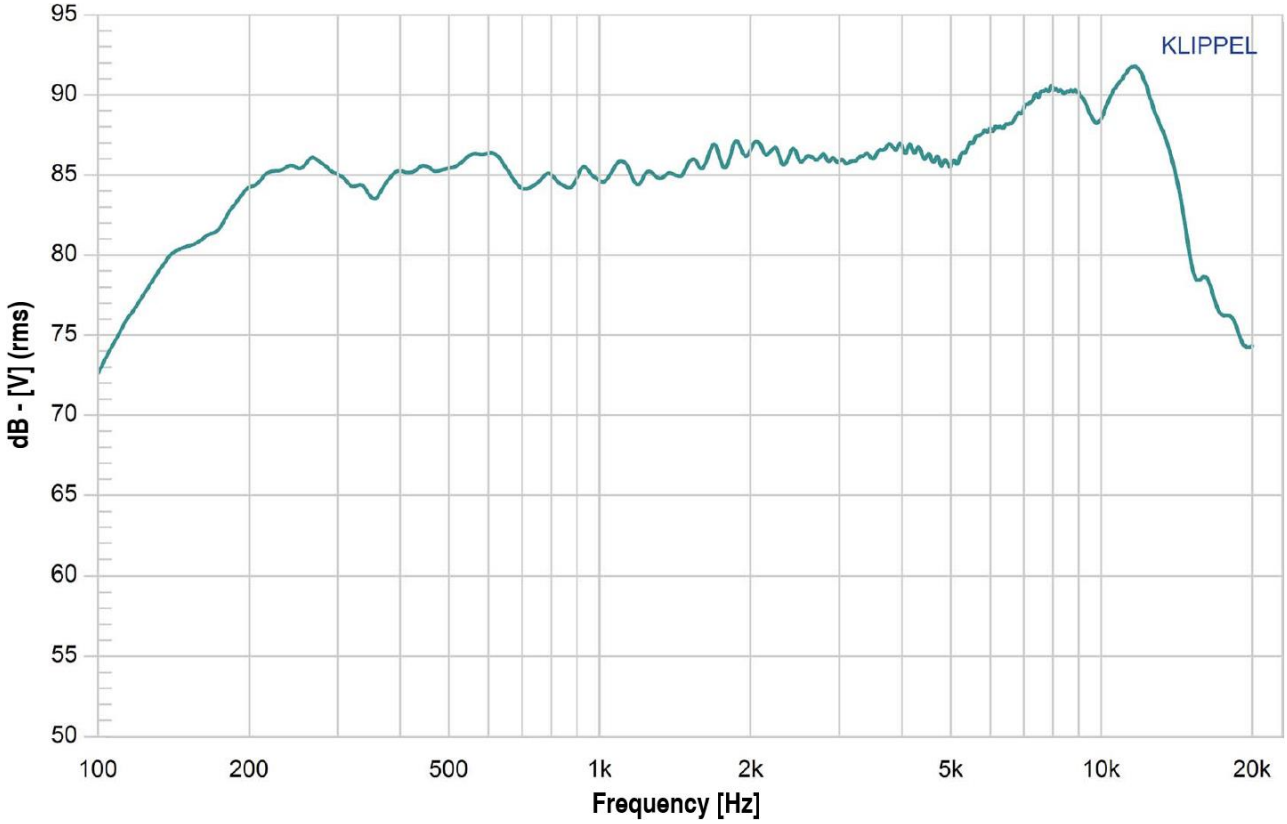
## Specifications

| Parameters | Values | Units |
|---|---|---|
| Rated Input Power | 3.0 | Watts |
| Maximum Input Power | 4.0 | Watts |
| Impedance | 8 ±15% | Ohms |
| Sensitivity (SPL @ 2kHz)<br>$P_{DRIVE}$ = 1.0W, distance = 0.5m<br>f = ave. 0.6kHz, 0.8kHz, 1.0kHz, 1.2kHz | 86 ±3 | dB |
| Resonant Frequency ($f_0$) | 170 ±20% | Hz |
| Frequency Range (-10 dB) | $f_0 \leq f \leq 20{,}000$ | Hz |
| Total Harmonic Distortion (THD)<br>f = 1 kHz, $P_{DRIVE}$ = 1.0W | ≤ 5 | % |
| Frame Material | ABS + 15% GF | - |
| Magnet Material | NdFeB | - |
| Diaphragm Material | Sponge + Paper | - |
| Weight | 13.5 | gm |
| Buzz, Rattle, etc. | Not audible with $P_{DRIVE}$ = 3.0W, sine wave | - |
| Polarity | Applying positive dc current to "+" terminal moves diaphragm forward | - |
| Operating Temperature Range | $-25 \leq T_O \leq 50$ | °C |
| Storage Temperature Range | $-40 \leq T_S \leq 85$ | °C |
| Environmental Compliance | RoHS/REACH | - |

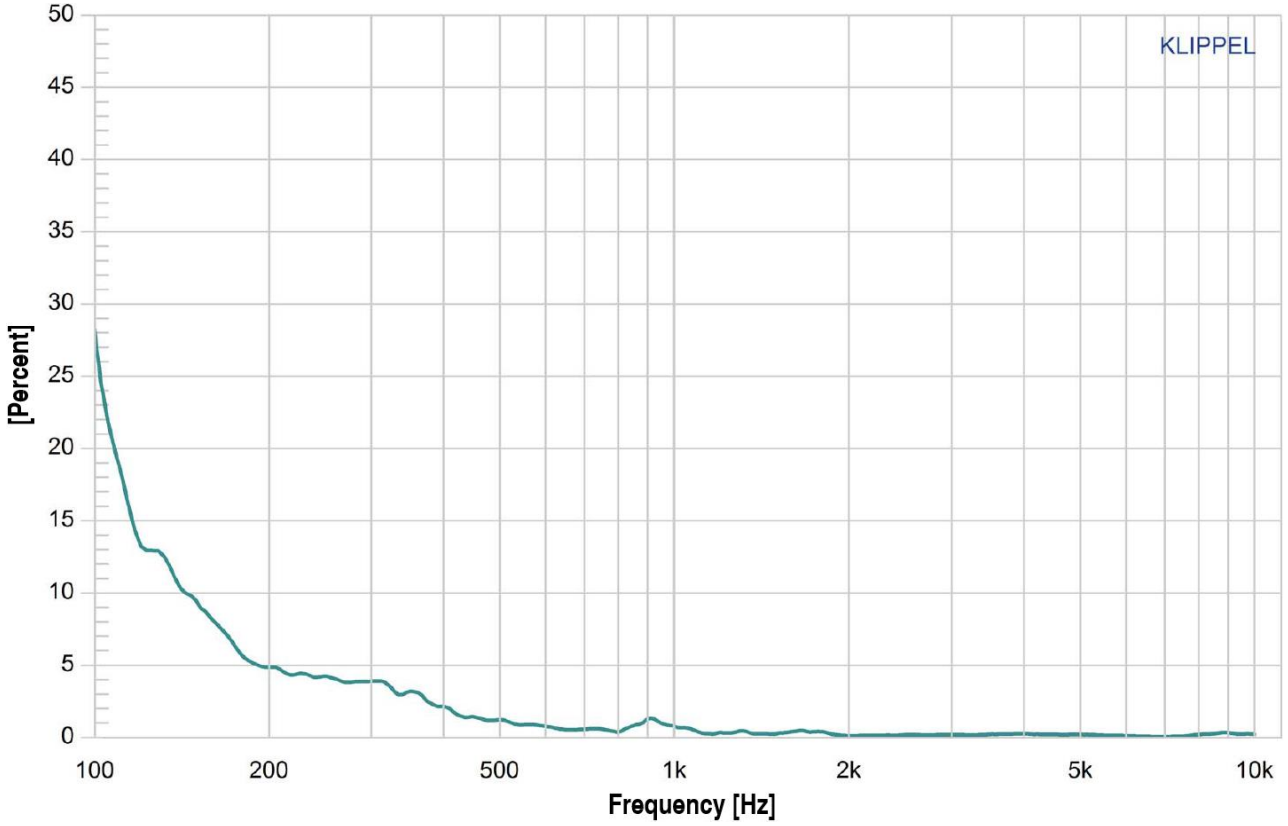
## Measurement Method (measured with $P_{DRIVE}$ = 1.0, distance = 0.5m)



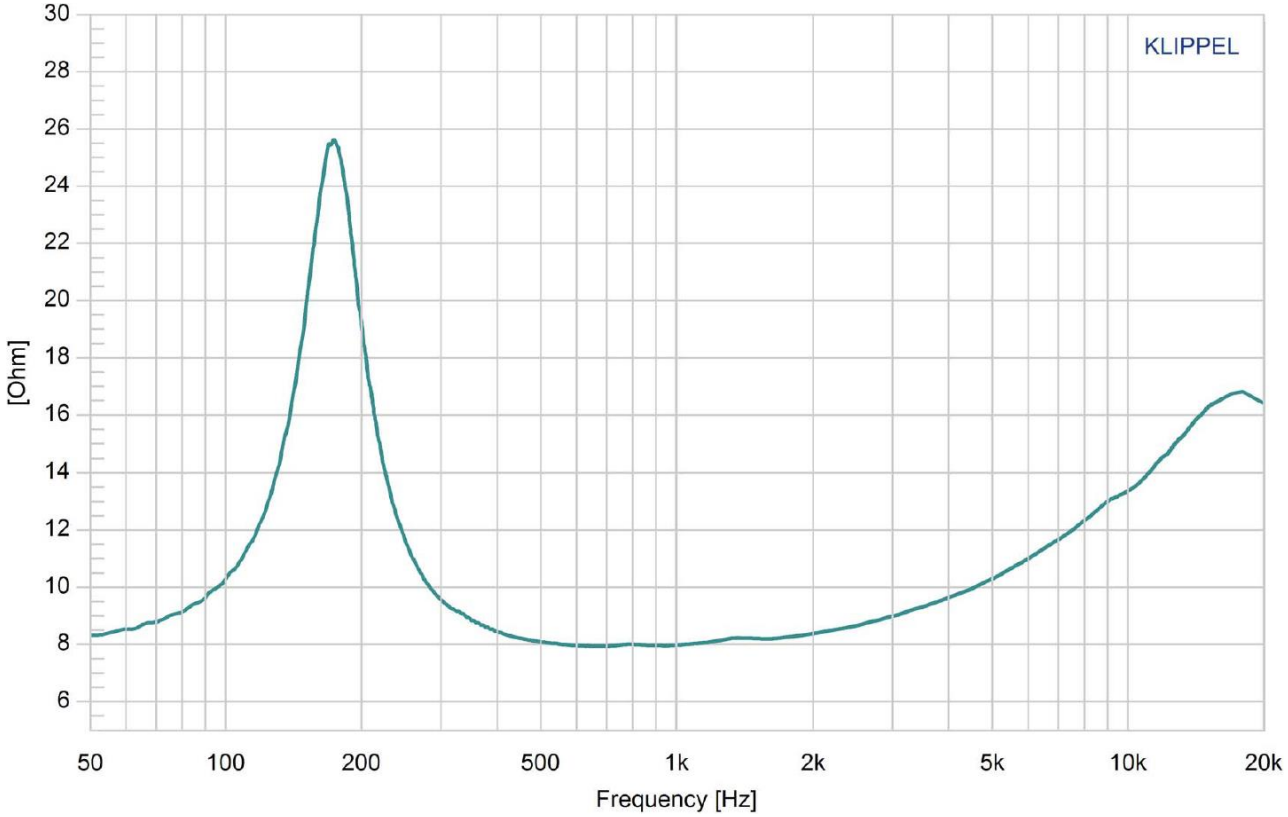

## Typical Frequency Response ($P_{DRIVE}$ = 1.0W, distance = 0.5m)



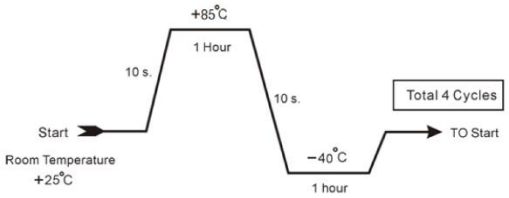
## Typical THD vs. Frequency ($P_{DRIVE}$ = 1.0W)



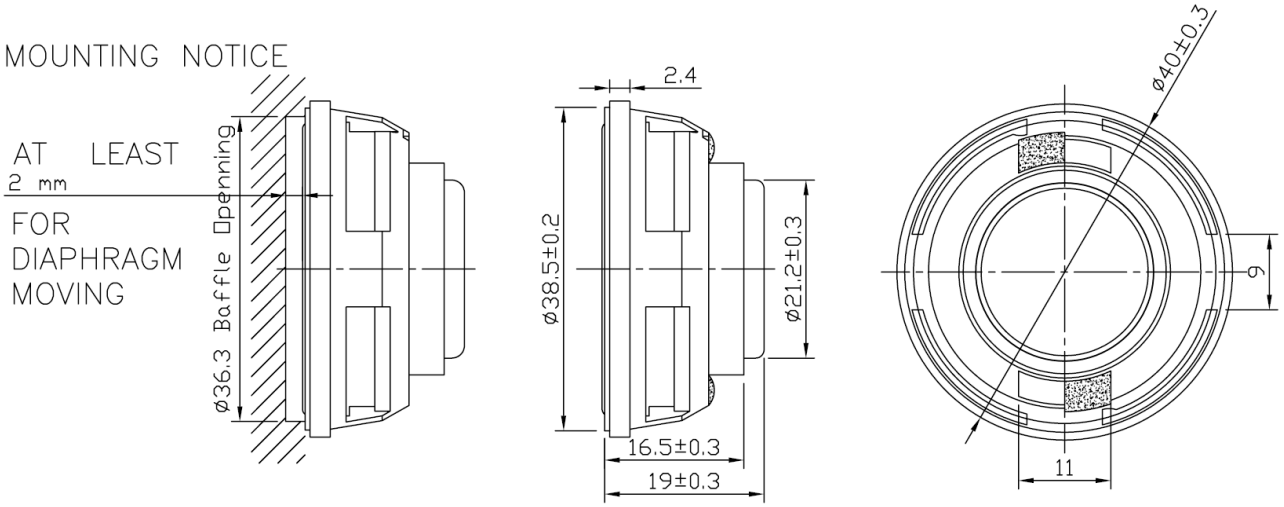

## Impedance Response



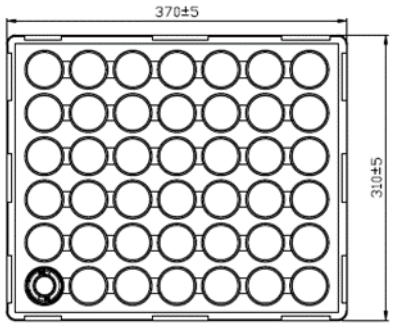
## Reliability Testing

| Type of Test | Test Specifications | Judgement |
|---|---|---|
| High Temperature Test GB2423.2-81 | 96 hours at +85°C ± 2°C followed by one hour in normal room temperature | SPL shall not deviate by ±3dB. Resonant frequency shall not deviate by ±50Hz. (compared with pre-test measurement) |
| Low Temperature Test GB2423.1-81 | 96 hours at -40°C ± 2°C followed by one hour in normal room temperature | |
| Humidity Test GB5170.18-87 | 96 hours at +40°C ± 2°C with relative humidity between 90% and 95% followed by 6 hours in normal room temperature | |
| Temperature Cycle Testing GB5170.18-87 |  | SPL shall not deviate by ±4dB. Resonant frequency shall not deviate by ±80Hz. (compared with pre-test measurement) |
| Vibration Test GB11606.8-89 | Frequency 30±15 Hz, Amplitude 1.5 mm for 3 Hours | SPL shall not deviate by ±3dB. (compared with pre-test measurement) |
| Drop Test GB2423.8-81 | 75 cm free falling on concrete floor, 10 times. | |
| Load Test GB/T12060.5-2011 | Speaker should not fail after applying 20Hz ~ 20kHz pink noise with HPF rated power input (RMS), 96 hours. | |

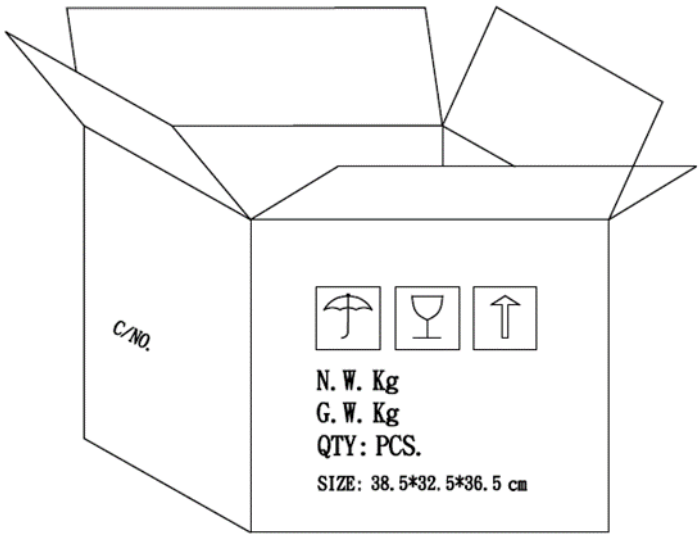
## Dimensions (Measured in mm. Tolerance = ±0.2mm.)

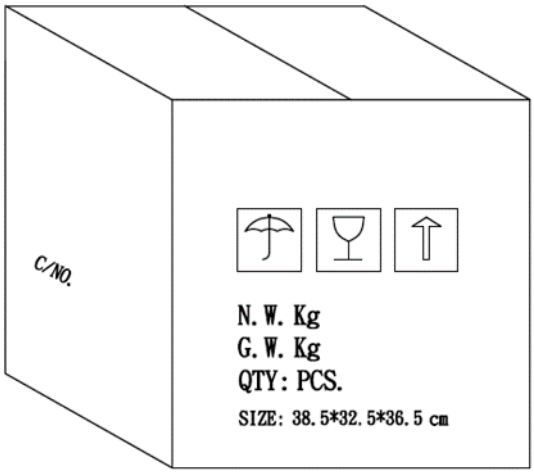


## Packaging




NOTE
42 set per Layer
Total 14 Layer per box
Total 588 set per box
38.5*32.5*36.5 cm
HF+ROHS 2



## Measurement & Standard Reference

Abstract from GB/T 9396-1996 and IEC 268-5:1989: methods of measurement for main characteristics of loudspeakers.

**5.1 Rated sine voltage.**

A sinusoidal signal voltage specified by the manufacturer which makes the speaker work continuously in the rated frequency range, without causing electrical or mechanical damage to the speaker. The continuous voltage time is 1 hour.

**5.2 Rated sine power.**

The rated sine power corresponding with the rated sine voltage defined by: $U_S^2/R$, where $U_s$ indicates the rated sin voltage and R indicates the rated impedance of the speaker.

**5.3 Rated noise power.**

The rated sine power corresponding with the rated sine voltage defined by: $U_n^2/R$, where $U_n$ indicates the rated sin voltage and R indicates the rated impedance of the speaker.

**Specifications Revisions**

| Revision | Description | Date | Approved |
|---|---|---|---|
| A | Datasheet released from Engineering | 03/25/2024 | KH |

Notes:

1. Unless otherwise specified:
   A. All dimensions are in millimeters.
   B. Default tolerances are ±0.2mm and angles are ±3°.
2. Specifications subject to change or withdrawal without notice.

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