



PN: A0100008FP12PA

DWG #:DB17-049 WEB

SPECIFICATION

PRODUCT: Loudspeaker

STETRON PART NUMBER: A0100008FP12PA

DESCRIPTION: 103 x 103 x 32.5mm/8ohms/RoHS

RFQ: QB13175-V12- Website

STETRON APPROVALS	PREPARED BY	CHECKED BY	APPROVED BY
SIGNATURE	CS		
DATE	25-Feb-26		

CUSTOMER APPROVAL	SIGNATURE	DATE

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REVISION HISTORY

Rev Level	Date	Description	Page #	Changed By
0.0	10-July-2017	Original	All Pages	RS
0.1	27-Sep-2017	Updated dims for frame lip and front gasket	Pg. 5	RS
0.2	11-Oct-2017	Updated frame height and dimensions related to flange	Pg. 5	RS
0.3	18-Nov-2017	Add speaker marking	Pg. 5	YL
0.4	01-Nov-2018	Official Version Release	All Pages	YL



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1. Scope

This document contains the required electrical, acoustic, mechanical and reliability information for a loudspeaker.

2. Test Conditions

	Standard Conditions	Preferred Conditions
Temperature	15 to 35°C	20 ± 2°C
Humidity	25 to 75%	63 to 67%
Air Pressure	86 to 106kPa	86 to 106kPa

*Note: Above atmospheric test conditions are for acoustic parameters only

3. Electrical Requirements

- 3.1 Rated Impedance** 8 Ω ±20% (1.0kHz/1Vrms)
- 3.2 Rated Power** 4.0W (RMS)
- 3.3 Max Power** 8.0W (RMS)

4. Acoustical Requirements

- 4.1 Sound Pressure Level** 93 ± 3dB (on IEC 268-5 Baffle in anechoic chamber @ 1W/1.0m avg @ 0.4, 1.4, 2.6 and 4.0 kHz)
- 4.2 Resonant Frequency (Fo)** 500 Hz ± 20% @ 1Vrms constant voltage – free air
- 4.3 Frequency Range** 500Hz to 5 kHz (SPL-10dB) @ 1W/1.0m

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4.4 Buzz and Rattle

No audible buzzing shall occur at $\geq 0.3\text{m}$ distance when a rated power (5.65Vrms) sine wave from 500Hz to 5kHz is applied to the speaker.

*See Test circuit (Fig 1) and Frequency Response (Fig 2) and Impedance (Fig 3) below.

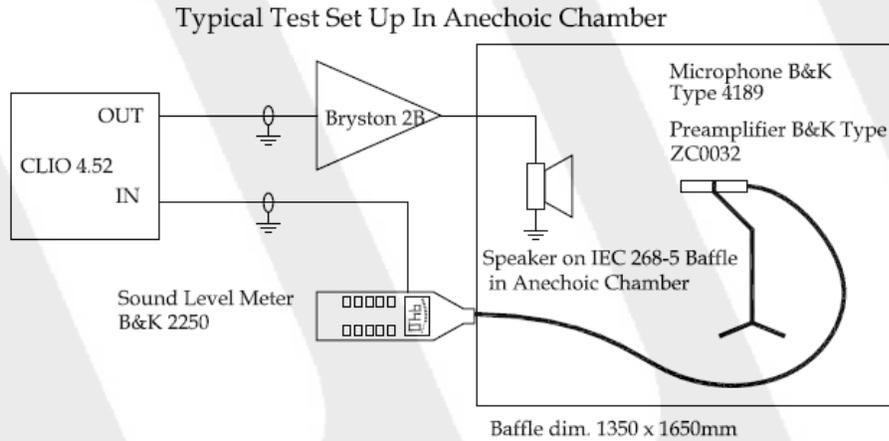


Fig 1. Test set up in Anechoic Chamber

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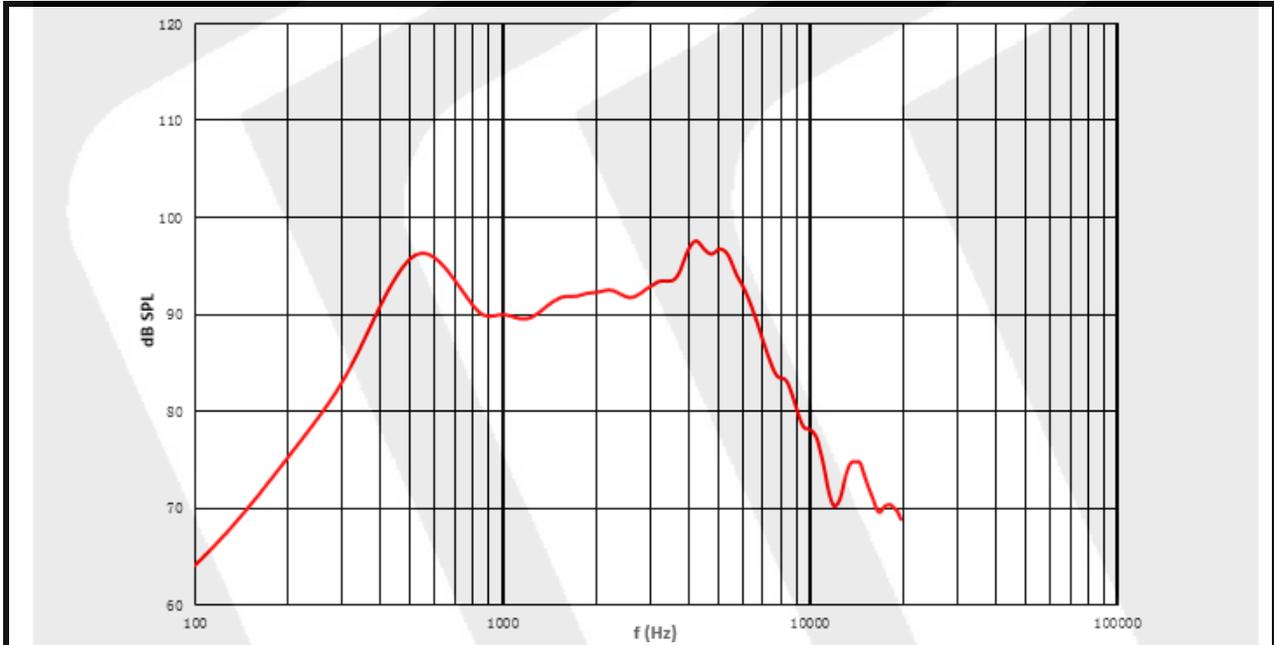


Fig 2. Typical Frequency response @ 1W/1m

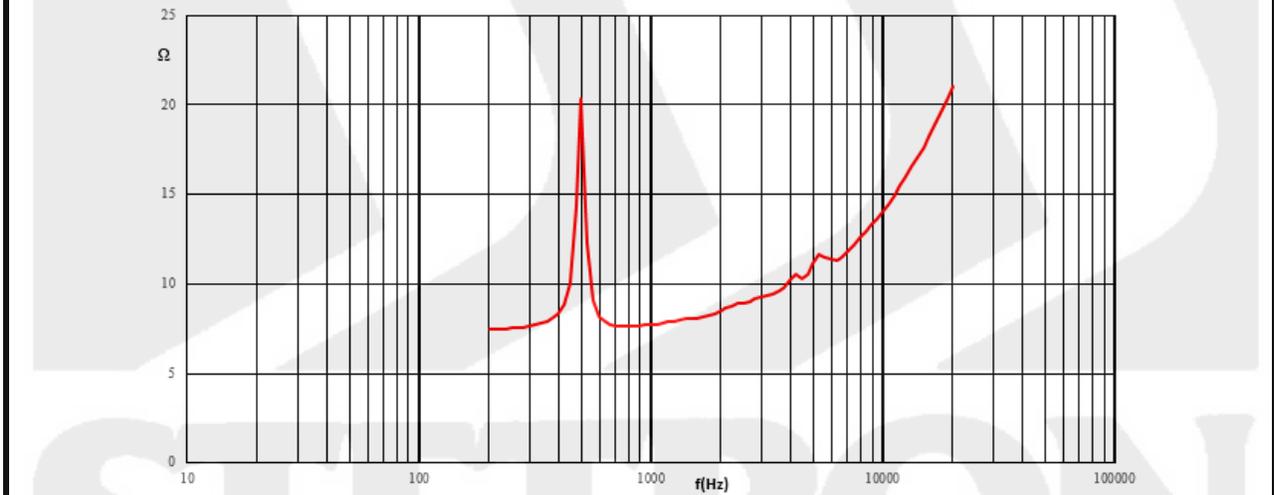


Fig 3. Typical Impedance Curve

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5. Reliability

5.1 High Temperature

Speakers are exposed to $70^{\circ}\text{C} \pm 3^{\circ}\text{C}$, RH (random) for 96 hrs.

5.2 Humidity

Speakers are exposed to $40^{\circ}\text{C} \pm 3^{\circ}\text{C}$, 90 - 95% for 96 hrs.

5.3 Low Temperature

Speakers are exposed to $-25^{\circ}\text{C} \pm 3^{\circ}\text{C}$; RH (random) for 96 hrs.

5.4 Rated Power

Speakers are exposed continuously to rated power (5.65Vrms) white noise (20 Hz to 20 kHz) for 96 hrs.

5.5 Max Power

Speakers are fed with a white noise (20 Hz to 20 kHz) of 8W (8.0Vrms) for 1min.

*Note: After any of the above tests (5.1 to 5.5) leave speakers for 1 hr at room temperature and speakers must meet items 3.1, 4.1, 4.2, and 4.4.

5.6 Drop Test

Speakers properly packaged in their shipping carton are dropped on each side of the carton except the top from a height of 80cm (Carton GW \leq 10 kg) or 60 cm (10 kg < Carton GW \leq 25 kg). After test there shall be no audible buzz or rattle and the speakers shall not exhibit any physical damage.

5.7 Transportation and Storage

$T_{\text{max}} = +70^{\circ}\text{C}$, $T_{\text{min}} = -25^{\circ}\text{C}$

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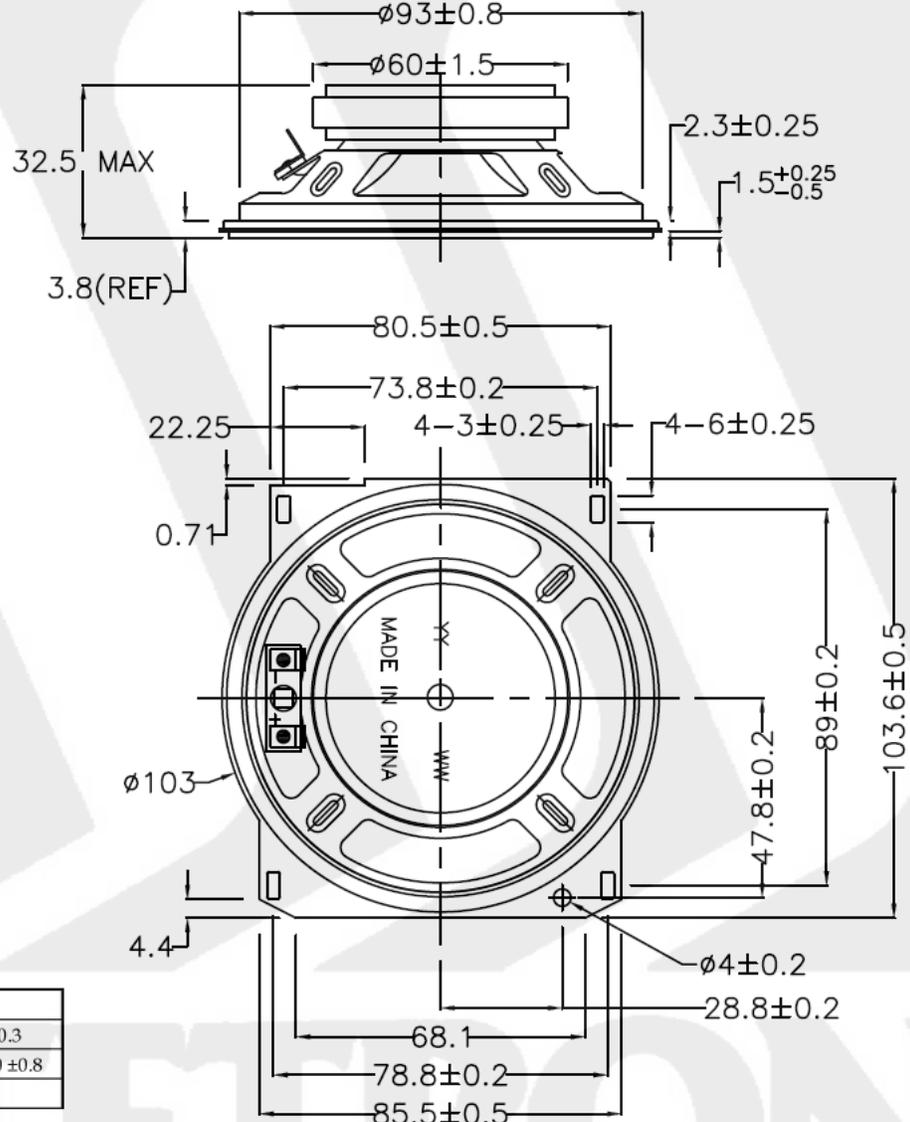
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6. Mechanical Layout and Dimensions



Tolerance Table	
below 6 ±0.2	> 6 to 30 ±0.3
> 30 to 80 ±0.5	> 80 to 120 ±0.8
> 120 to 250 ±1.0	> 250 ±1.3

All dimensions in mm

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