

SPECIFICATION

FOR APPRONAL

Customer : _____

Product Name : Dynamic Speaker _____

Model Name : VS50240R8F220P2L50 _____

Drawing No. : VS20220514018.01 _____

Signature of Voise

Approved by	Checkde by	Issued by	Date

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1. Revision

Rev.No.	Date	Page	Description of Revision
1.0	2020/5/19		Preliminary

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2. Scope

This document contains required environmental, electrical, acoustic, mechanical, package and reliability test requirement

3. General Characteristics

- 2.1 Out-Diameter : 50 mm
- 2.2 Height : 24 mm
- 2.3 Weight : 80 g
- 2.4 Operating Temperature : -20~+60°C without loss of function
- 2.5 Store Temperature : -30~+60°C without loss of function

4. Electrical and Acoustic Characteristics.

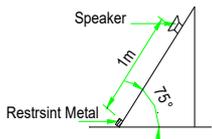
Test condition : 15 ~ 35 °C Temp., 25% ~ 75% RH, 86~106 kPa Refer to IEC60268-1

No	Items	Specification
1	Impedance	8 Ω ± 15% (1Vrms at 0.6KHz)
2	Sound Pressure Level	85 dB ± 3dB (1m/1w at 0.6,0.8,1.0,1.2,kHz Ave)
3	Resonance Frequency(fo)	220 Hz ± 20% at 1V
4	Frequency Range	fo ~20KHz
5	Input Power	Rated 2 W / Max. 5 W
6	Distortion	Less than 5% at 1kHz 1W
7	Buzz and Rattle	Should not be audible buzzes,rattles when the 4V sine wave signal swept at frequency range.
8	Polarity	When a positive DC current is applied to the voice coil terminal marked (+) , the diaphragm shall move to forward.
9	Magnet	Φ40X19X6 mm

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5. Reliability Test

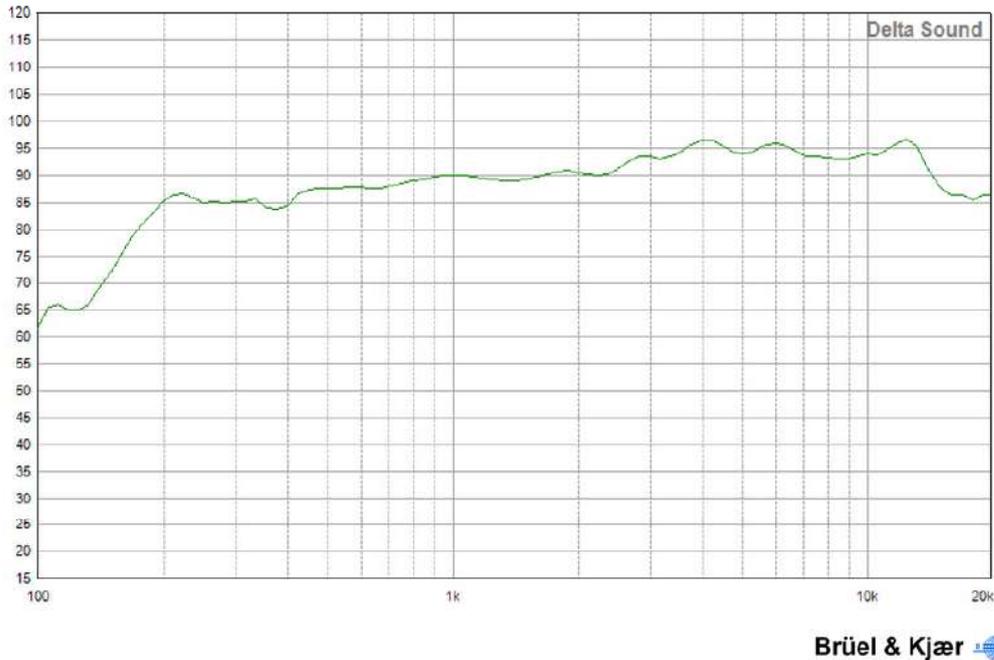
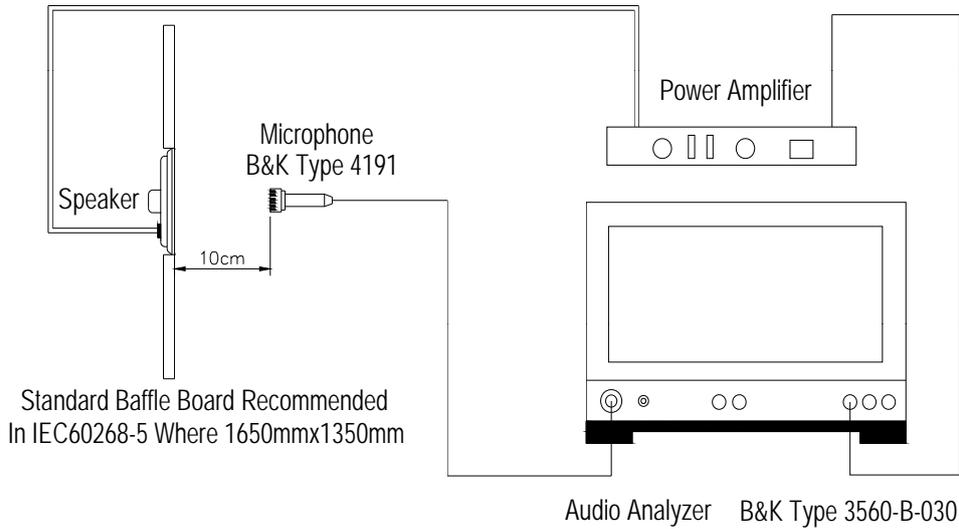
After test(1~7item), the speaker S.P.L . difference shall be within $\pm 3\text{dB}$, and the appearance not exist any change to be harmful to normal operation

No	Items	Specification
1	High Temp.Test	Keep 24 hours at $+60\pm 3\text{ }^\circ\text{C}$,and leave 3 houres in normal temperature and then check.
2	Low Temp.Test	Keep 24 hours at $-20\pm 3\text{ }^\circ\text{C}$,and leave 3 houres in normal temperature and then check.
3	Humidity Test	Keep 24 hours at $-20\pm 3\text{ }^\circ\text{C}$,relative humidity 85 to 90% and leave 4 houres in normal temperature and then check.
4	Thermal Shock Test	Each temperature cycle shall consist of 2 hours at $+25\pm 3\text{ }^\circ\text{C}$ followed by 2hours at $+60\pm 3\text{ }^\circ\text{C}$,and followed by 2hours at $-30\pm 3\text{ }^\circ\text{C}$ with a 20 to 40 minutes transition time between each 2 temperature extremes. The test duration is for 10 cycle.
5	Vibration Test	Being applied vibration of amplitude of 1.5mm with 10-55-10Hz band of vibration frequency,X.Y.Z.3 direction.2 hours each, total 6 hours.
6	Drop Test	A speaker is dropped from 1m in length on 75° inclination to a board 20mm thick hard wood board. and be nothing mechanical damage. tatol 6 times. <div style="text-align: right;">  </div>
7	Load test	Loading white noise with input rate power for 96 hours, then placed in natural condition for 1 hour and then check.
8	Insulation test	When they are measured with DC 100V the insulation resistance between v.c. terminal and frame must be more than 1 M Ω

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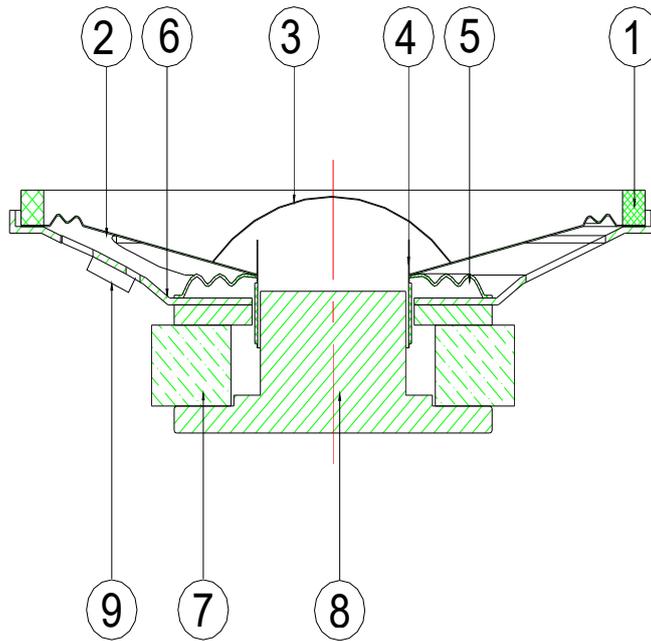
6. Measurement Method & Frequency Response curve

Standard test condition of speaker



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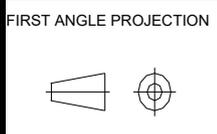
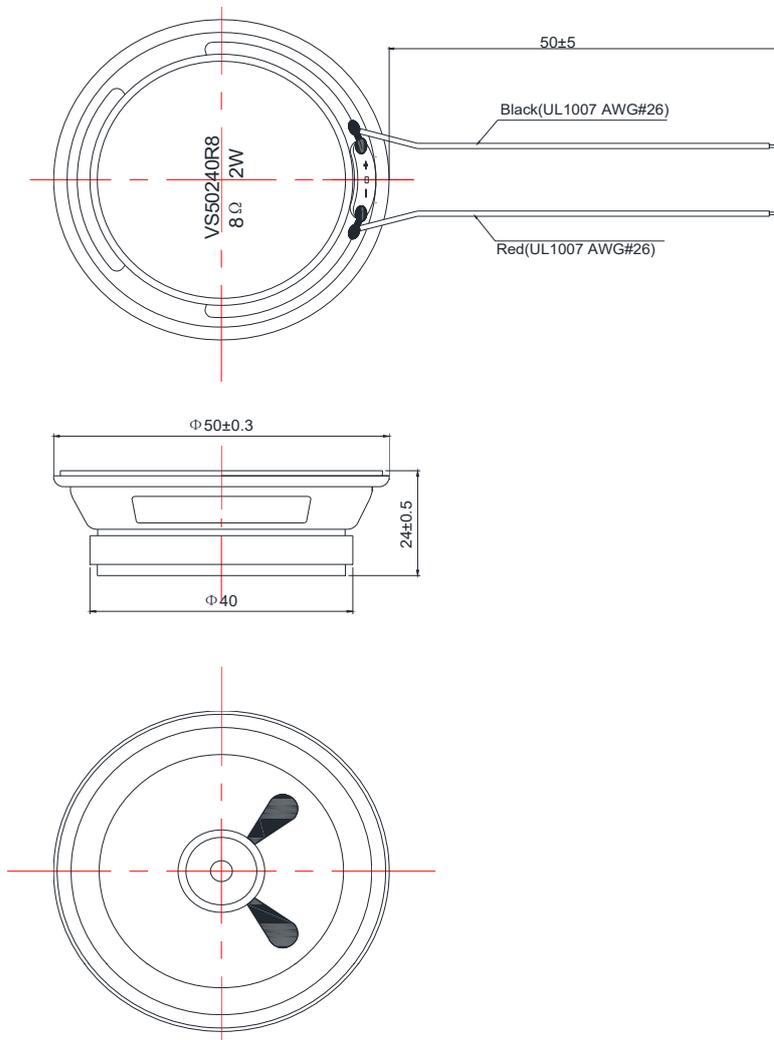
7. Mechanical layout



9	Terminal	1	White Fiber	
8	T yoke	1	SPCC	
7	Magnet	1	Ferrite	
6	Frame	1	SPCC	
5	Spider	1	Cotton Yarn	
4	Voice Coil	1	Kraft Paper+PSV	
3	Dust Cap	1	Paper	
2	Cone	1	Cloth+Paper	
1	Gasket	1	Paper	
No.	Part Name	Q'ty	Material	Remarks

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8. Dimensions



UNIT : mm
 Tolerance : ±0.2

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9. Packing

Each minimum package unit of products shall be in a carton box and it shall be clearly marked with Part Number ,quantity and outgoing inspection number.

There shall be no mechanical damage on products during in storage.

30 pcs per tray

5 trays for unit

Total:150 pcs per carton

Size:30.5×30.5×19.5cm