



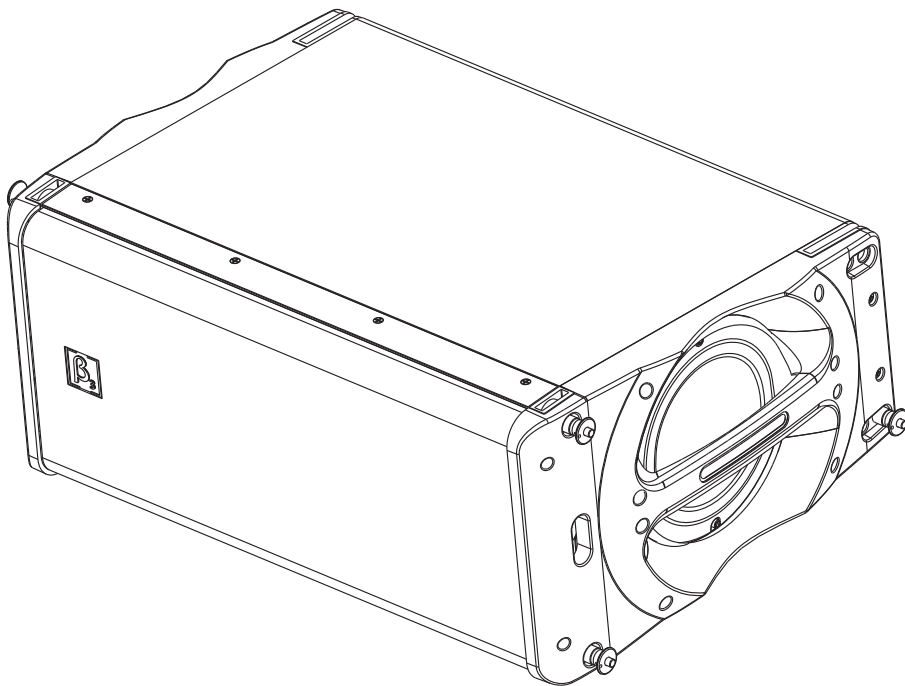
Beta Three

SLA10H

8" 5-Transducer 3-Way Full Range Speaker

SLA Series medium-size Line Array System

User Manual





UM-SLA10H-20180331 Ver B



SAFETY INSTRUCTIONS

PLEASE READ THIS MANUAL FIRST

Thank you for a buying β_3 product. Read this manual first as it will help you operate the system properly. Please keep this manual for future reference.

⚠ WARNING: *This product must be installed by professionals. When using hanging brackets or rigging other than those supplied with the product, please ensure they comply with the local safety codes.*

| | | |
|---|---|---|
|  | CAUTION RISK OF ELECTRICAL SHOCK DO NOT OPEN |  |
| CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL. | | |

| | | |
|--|---|---|
|  | AVIS RISQUE DE CHOC ÉLECTRIQUE NE PAS OUVRIR |  |
| ATTENTION : POUR RÉDUIRE LE RISQUE DE DÉCHARGE ÉLECTRIQUE, NE RETIREZ PAS LE COUVERCLE (OU L'ARRIÈRE). IL NE SE TROUVE À L'INTÉRIEUR AUCUNE PIÈCE POUVANT ÊTRE RÉPARÉE PAR L'USAGER. S'ADRESSER À UN RÉPARATEUR COMPÉTENT. | | |

 **The exclamation point within an equilateral triangle is intended to alert you to the presence of important operating and servicing instructions.**

⚠ ATTENTION: *Don't refit the system or spare parts without being authorized as this will void the warranty.*


⚠ WARNING: *Don't place naked flames (such as candles) close to the equipment.*

1. Read the instruction manual first before using this product.
2. Please keep this manual for future reference
3. Pay attention to all warnings.
4. Obey all operating instructions.
5. Do not expose this product to rain or moisture.
6. Clean this equipment with a dry cloth.
7. Do not block any ventilation openings. Install according to manufacturer's instructions .
8. Do not install this product near any heat source, such as a, heater, burner, or any other equipment with heat radiation .
9. Only use spare parts supplied by the manufacturer.
10. Pay attention to the safety symbol on the outside of the cover.



CONTENTS

| | |
|---------------------------------|---|
| PRODUCT INTRODUCTION | 3 |
| Main Features | 3 |
| Product Description | 3 |
| Application | 3 |
| CONNECTION | 4 |
| Terminal Plate | 4 |
| NL8 Connection | 4 |
| System Connection Demonstration | 4 |
| INSTALLATION | 5 |
| Installation Guidance | 5 |
| TECHNICAL SPECIFICATION | 6 |
| Specification Sheet | 6 |
| Frequency Response | 7 |
| Impedance Curve | 7 |
| Harmonic Distortion | 8 |
| Dimension Drawing | 9 |

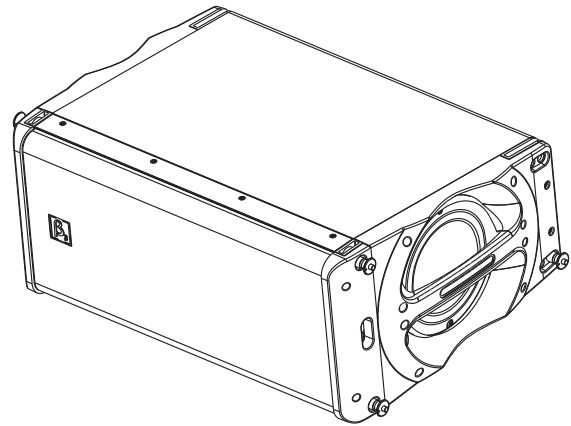
 Product information may be updated without notification, please visit www.elderaudio.com for latest update.

SLA10H

8" 5-Transducer 3-Way Full Range Speaker

Main Features

- SLA10H is a full range speaker of medium-size line array system. It comprises dual 8" ferrite magnetic sub units, a 10" ferrite magnetic alto unit and dual treble drivers with its diaphragm diameter 44mm.
- Computer aided design to optimize frequency and phase response.
- T shape cabinet structure, easy installation and uninstillation with lockpins, 10° adjustable cabinet angle range.
- 2xSLA10H and 1xSLA212B make up an excellent point source system.
- With the customized hanging wares, the system can be used both for hanging and be put on the ground.



Product Description

SLA10H is a full range speaker of medium-size line array system. It comprises dual 8" ferrite magnetic sub units, a 10" ferrite magnetic MF unit and dual 44mm titanium diaphragm HF drivers. The fact proves its crossover point is perfect. Regarding structure of SLA10H, it applies the appearance with new surface painting process by advanced painting technology. And its T shape structure makes hardware installation and uninstillation easily by lockpins. Furthermore, the speaker can be conveniently adjusted 10 degrees vertically by angle adjustment.

High-power voice coil is fit for its 75 mm MF unit. The material of voice coil skeleton is high intensity TIL and the voice coil is wrapped by round copper wires, which not only strengthen its power handling ability, but also improve its sensitivity.

As for its sub unit, the material of voice coil skeleton is high intensity ASV and the 50mm high-power voice coil is wrapped by high temperature resistant round copper wires, which not only strengthen its power handling ability, but also improve its sensitivity.

44mm titanium voice coil of its HF driver is wrapped by aluminum flat wire ring. Patented technology of the high frequency waveguide and horns also help a lot to sound quality that completely satisfies customers' demand.

SLA10H cabinet is made up of 15 mm thick laminate, brand-new acoustic design with compact, smart and fashionable appearance. Its polyurethane paint stands wear and tear. The tensile resistance of itself is up to 3500N. Customized lifting hardware is applied to installation. The speaker itself is not influenced by other external force, but its own weight, when lifting going on.

The weight of all speakers suffered by customized hardware is reasonable designed by our engineers. And the hardware can suffer the max pulling force 45000N, 7 times to the safety standards of entire product.

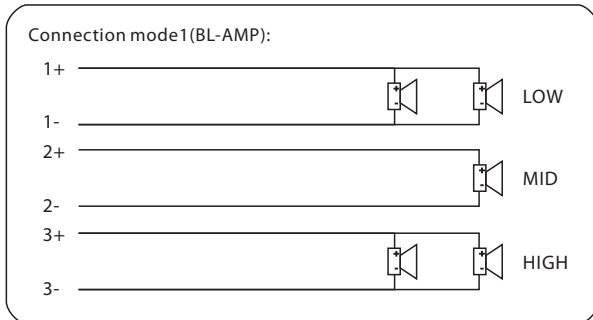
The front plate adopts overall grill design with grill material Q235, powder spray technology, which make the grill not only has high strength, but also has good salt-resistance. It can resist salt spray (5% sodium hydroxide) up to 96 hours and in practical application it can remain no rust in 5 years. Rain proof can be achieved by external stretching cloth design for iron grill. SLA10H full range speaker, working with SLA212B bass speaker, is used to the application including large-size gymnasium, theater, arena, outdoor living performance venue, etc.

Applications

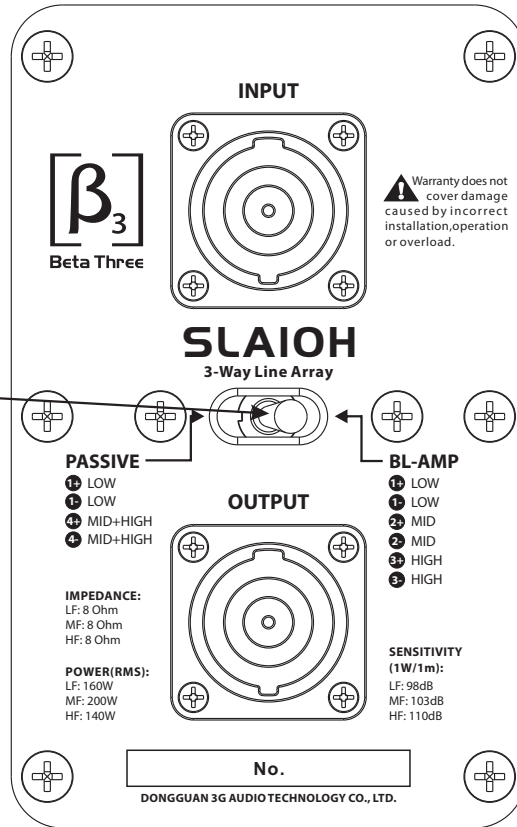
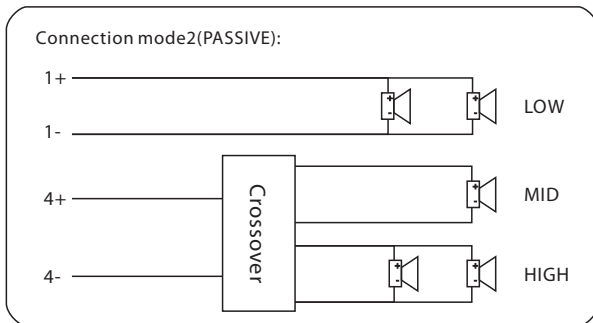
- Large-size gymnasium
- Theater
- Arena
- Living performance venues

Two NL8 connectors are available for amplifier connections. Paralleled connector is very convenient for another speaker connection.

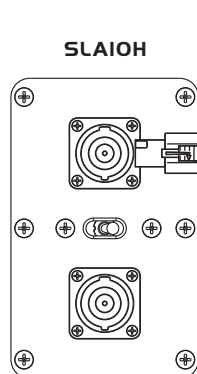
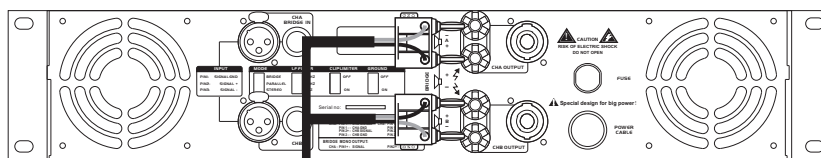
Terminal Plate



Note: According to the corresponding connection mode, choose the direction of the toggle switch.



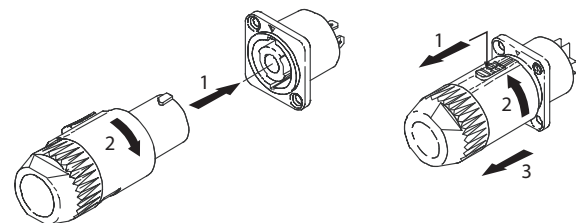
System Connection Demonstration



NL8 Connection

1: Connection

2: Disconnection

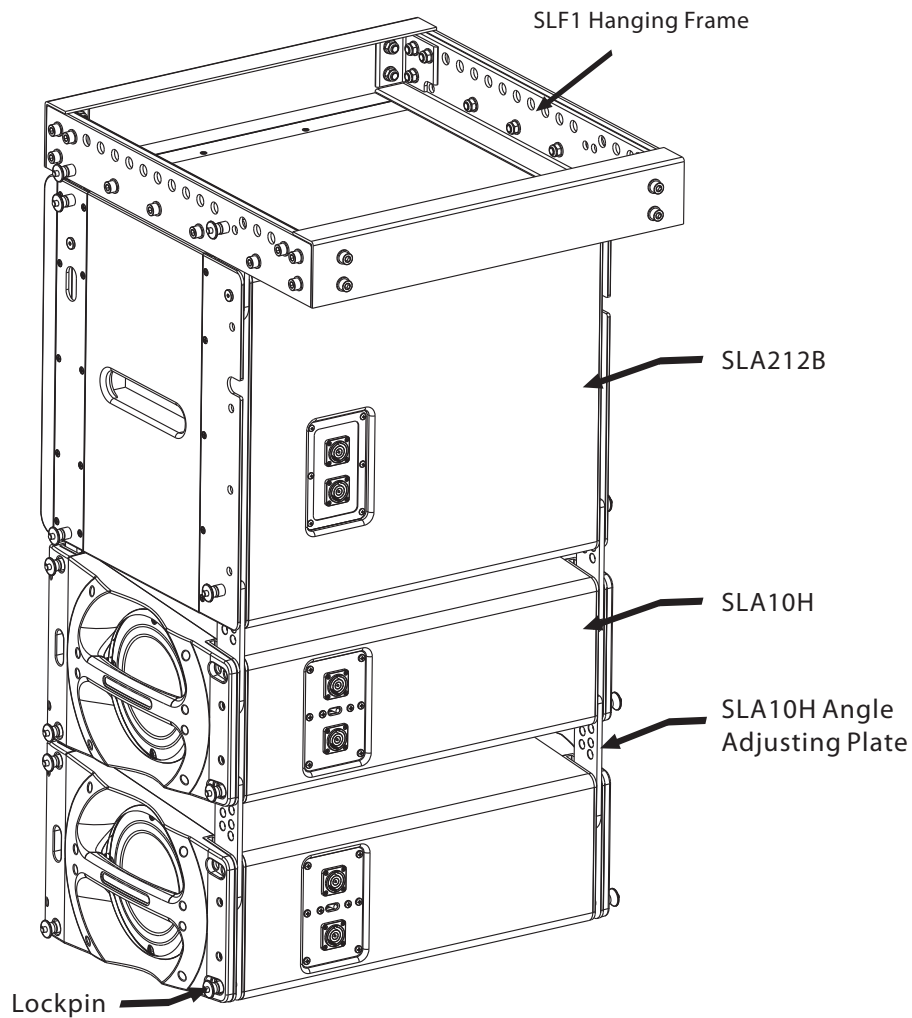


Note: The output impedance of speaker and amplifier should be matched.

Note: The polar of speaker and amplifier should be correctly connected.

Installation Guidance

- (1) SLA10H has customized hanging wares for convenient and easy hanging and installation.
- (2) The hanging wares include SLF1 hanging bracket,SLA10H cabinet front and rear hanging ware and the lockpins.
- (3) The rear hanging ware is fixed on the cabinet for easy and fast field vertical angle adjustment between the speakers.
- (4) The hanging frame of SLF1 is welding steel frame, which can hang multiple SLA10H. But optional accessories are provided according to actual requirements.



Warning: Make sure the mounting accessories safety factor not less than 5:1 or meet the local standard during installation.

Specification Sheet

| | |
|--|---|
| Product: | Passive Paint Wooden Full Range Speaker |
| HF Driver: | 2 x 44mm HF Compression driver |
| MF Driver: | 1 x 10" MF woofer |
| LF Driver: | 2 x 8" LF woofer |
| Frequency Response(-3db)¹: | 50Hz-20kHz |
| Sensitivity(1w@1m)²: | LF:98dB MF:103dB HF:110dB |
| Maximum. SPL(1m)³: | LF:110dB/116dB(PEAK) HF:121dB/127dB(PEAK) |
| Power(RMS)⁴: | LF:160W, MF:200W, HF:140W |
| Dispersion (H x V) : | 40 ° x 60 ° |
| Rated Impedance: | 8 ohms |
| Crossover point: | 1.The bass through,MF/HF: 2.8kHz 2.The bass through,MF: 100Hz-4kHz, HF: 900Hz-20kHz |
| Recommend using the crossover point: 1.6kHz-3kHz | |
| Cabinet: | Trapezoidal cabinet,Plywood |
| Installation: | Specialized hardware |
| Paint: | Black Polyurethane painting for cabinet & Black Powder coated grille,Grill with cloth. |
| Connector: | NL8 x 2 (LF:1+ 1-;MF:2+ 2-;HF:3+ 3-; MF/HF:4+ 4-) |
| Dimension(WXDxH): | 665 x 471 x 283mm (26.2 x 18.5 x 11.1in) |
| Packing Dimension(WXDxH): | 770 x 580 x 395mm (30.3 x 22.8 x 15.6in) |
| Net Weight: | 31.0kg(68.2 lb) |
| Gross Weight: | 33.0kg(72.6 lb) |

Speaker Testing Method

1. Frequency Response

Use pink noise to test the speaker in the anechoic chamber, adjust the level to make the speaker work at its rated impedance and set the output power at 1W, then test the frequency response 1m away from the speaker.

2. Sensitivity

Use full range Pink noise which has been modified using an EQ curve to test the speaker in the anechoic chamber, increasing the signal to make the speaker work at its rated impedance and set the power output at 1W, then test the sensitivity 1m away from the speaker.

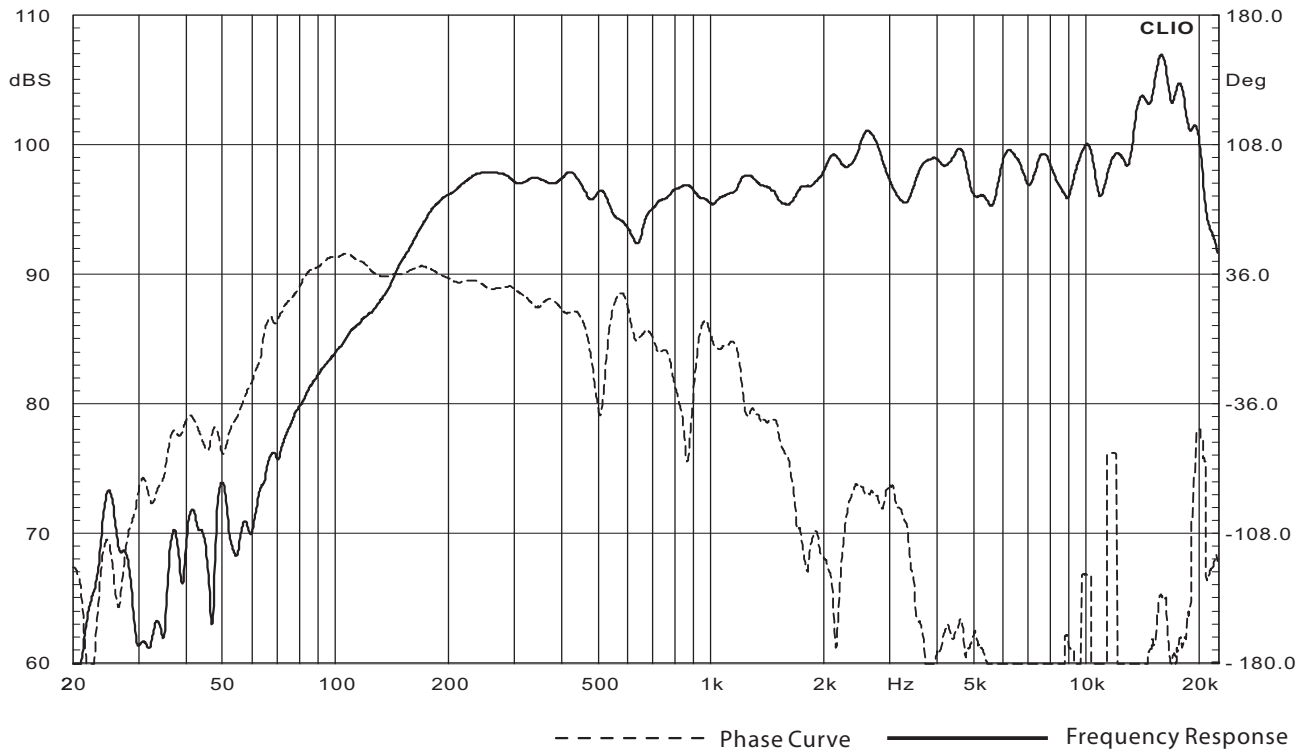
3. MAX.SPL

Use full range Pink noise which has been modified using an EQ curve to test the speaker in the anechoic chamber, increase the signal to make the speaker work at its maximum power output level, then test the SPL 1m away from the speaker.

4. Rated Power

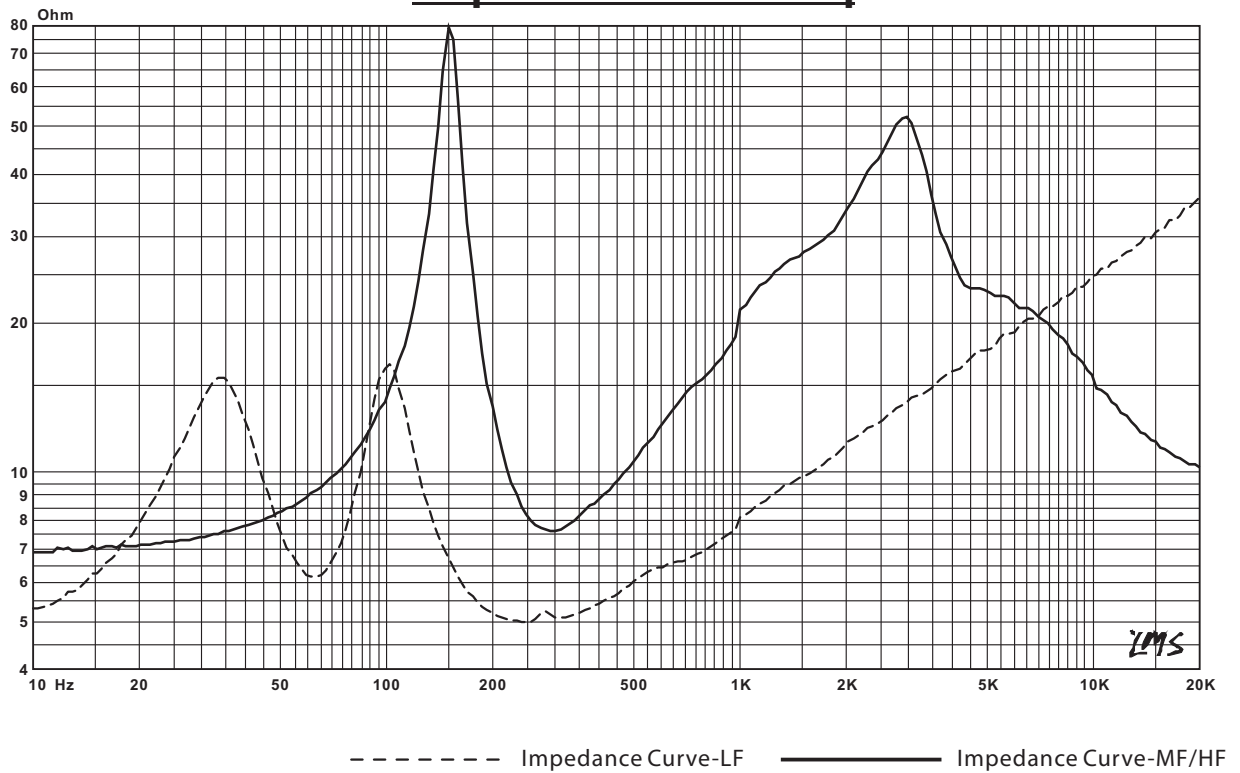
Use pink noise to the IEC#268-5 standard to test the speaker, increase the signal for a continuous period of 100 hours, the rated Power is the power when the speaker will show no visible or measurable damage.

Frequency Response/Phase Curve



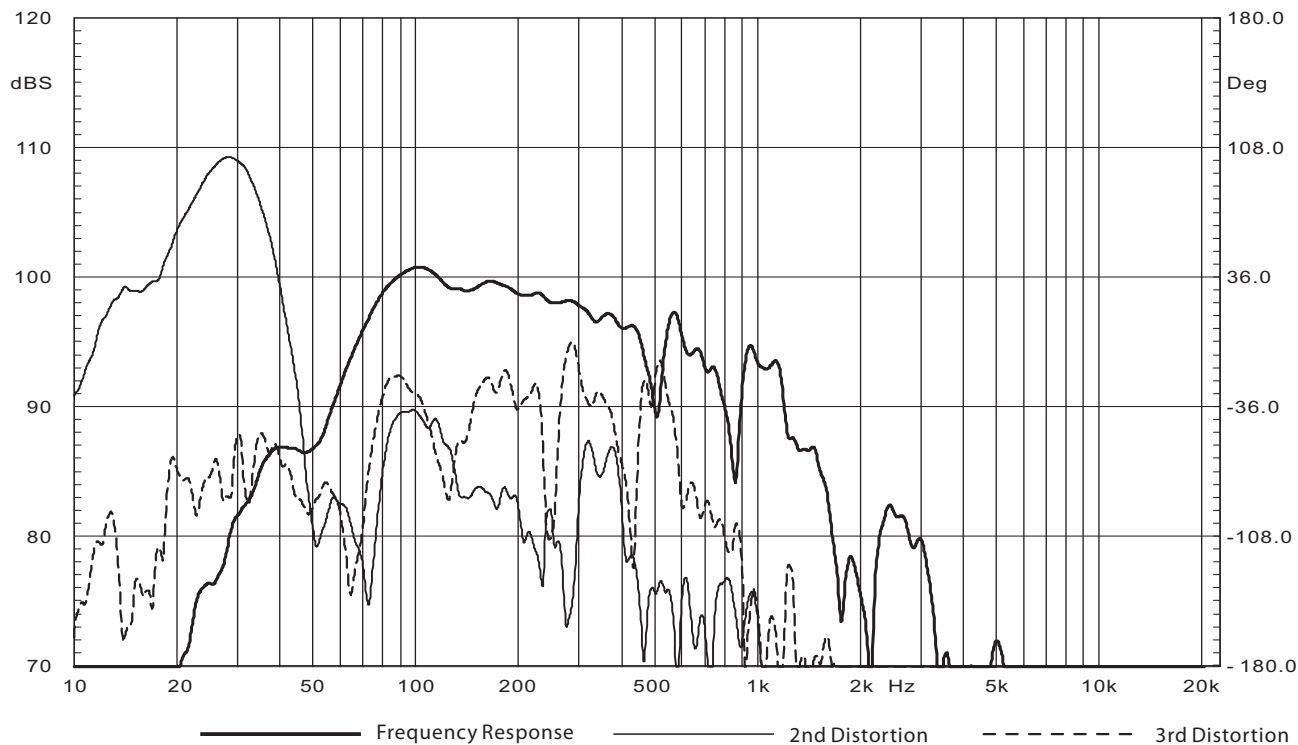
Impedance Curve

Impedance vs Freq

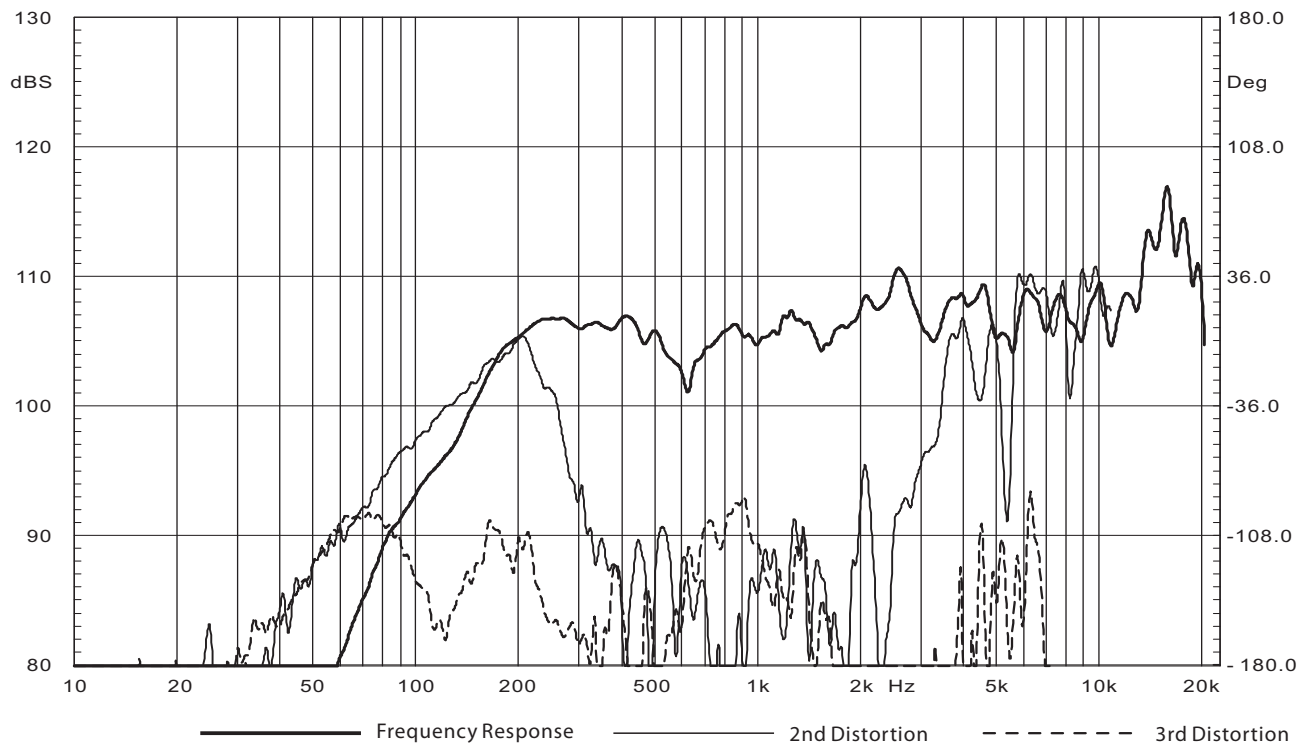




Harmonic Distortion-LF

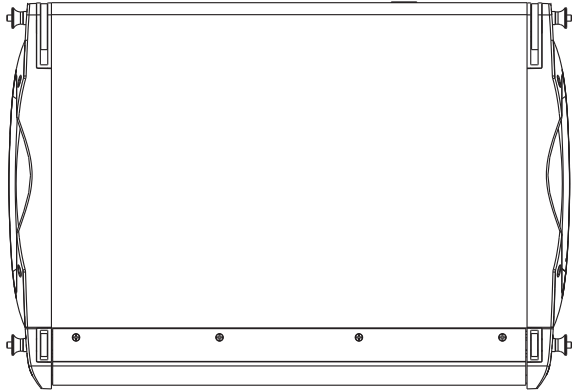


Harmonic Distortion-MF/HF

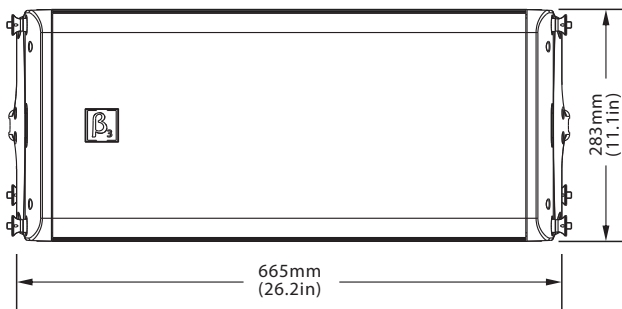


Dimension Drawing

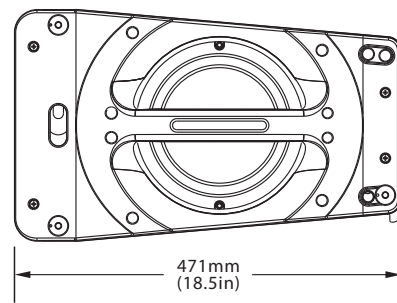
Top view



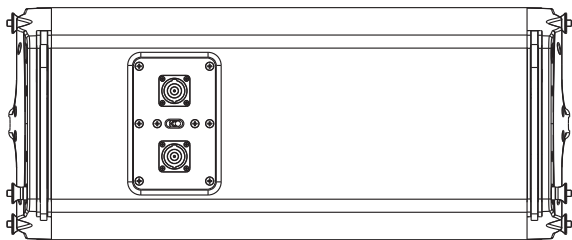
Front view



Side view



Back view



Notes:



Beta Three

www.beta3pro.com.