

# ESR215S Technical Data Sheet

## Introduction

The ESR215S is a large scale full-range 3-way loudspeaker system with a wide horizontal dispersion of 110 degrees. Designed for use with the ESR3000MkII tri-amplified stereo electronic control pack, the ESR215S loudspeaker system features two 15" woofers, an 8" mid-range driver and the same large scale NPVD 3" compression driver found in KV2 Audio's VHD mid-hi enclosures. With a wide and smooth frequency response the ESR215S is ideal for theatre or stadium applications. Like the ESR212, it incorporates multiple M10 fly points and various brackets and flyware are also available.

## Features

- High-output, full-range 3-way loudspeaker system
- 132dB sustained output
- Wide dispersion at high frequencies, controlled at lowmids to reduce indoor reflections
- Mid/High horn design provides optimized transducer loading and controlled dispersion
- Patent-Pending 3" diaphragm nitride-titanium compression driver with complex geometry phase plug and neodymium magnetic motor structure for higher output and lower distortion performance
- Eight-inch midrange Transcoil driver with 3" (76 mm) neodymium magnetic motor structure for increased control and output and decreased distortion and weight
- Proprietary midrange heat dissipation system controls voice coil temperature, ensures high dynamics and extends transducer lifespans
- Front-loaded, 15-inch mid-bass driver with 3.00" (76 mm) voice coil assembly and ferrite magnetic motor structure
- Professional, exterior-grade Baltic birch construction with wear-resistant polymer coating Proprietary corner and side handle designs for simplified handling and carrying
- Acetal copolymer high impact, low friction feet allowing other cabinets lock-in and easy cabinet movement
- Six internal corner and one back brace with M10 suspension points and side and top and bottom handles with M10 suspension points. A total of 17 suspension points are available for custom installation applications
- Requires ESR3000MkII unit for control electronics and amplification



## Application

**Intentionally designed for use in Theatres and Cultural Centers to provide the highest audio quality from single Column enclosures for stage sides and prosceniums for medium to larger venues**

- Fixed Installations
- Music venues
- Classical and opera concerts

### System Acoustic Performance

|                   |               |
|-------------------|---------------|
| Max SPL Long-term | 132dB         |
| Max SPL Peak      | 135dB         |
| -3dB Response     | 37Hz to 22kHz |
| -10dB Response    | 30Hz to 28kHz |
| Crossover Point   | 400Hz, 2.5kHz |

### High Frequency Section

|  |                                 |
|--|---------------------------------|
| Acoustic Design                          | Horn Loaded                     |
| High Horn Coverage Horizontal / Vertical | 110° x 40°                      |
| Rotatable Horn                           | NO                              |
| Sensitivity                              | 110dB                           |
| High Frequency Amplifier Requirement     | 100W from ESR3000MkII Amplifier |
| Throat Exit Diameter / Diaphragm Size    | 1.4" / 3"                       |
| Diaphragm Material                       | Nitride Titanium                |
| Magnet Type                              | Neodymium                       |

### Mid Range Section

|  |                                 |
|--|---------------------------------|
| Acoustic Design                            | Horn Loaded                     |
| Mid Horn Coverage Horizontal / Vertical    | 110° x 40°                      |
| Rotatable Horn                             | NO                              |
| Sensitivity                                | 108dB                           |
| Midrange Amplifier Requirement             | 200W from ESR3000MkII Amplifier |
| Woofer Size / Voice Coil Diameter / Design | 8" / 3" / Trans Coil            |
| Diaphragm Material                         | Epoxy Reinforced Cellulose      |
| Magnet Type                                | Neodymium                       |

### Low Frequency Section

|  |                                  |
|--|----------------------------------|
| Acoustic Design                            | Front Loaded, Bass Reflex        |
| Sensitivity                                | 102dB                            |
| Subwoofer Amplifier Requirement            | 1000W from ESR3000MkII Amplifier |
| Number of Drivers                          | 2                                |
| Woofer Size / Voice Coil Diameter / Design | 15" / 3" / Inside Outside        |
| Diaphragm Material                         | Epoxy Reinforced Cellulose       |
| Magnet Type                                | Ferrite                          |

### Speaker Input

|               |                    |
|---------------|--------------------|
| Speaker Input | Amphenol AP-6 male |
|---------------|--------------------|

### Speaker Output

|                |   |
|----------------|---|
| Speaker Output | - |
|----------------|---|

### Cabinet

|                  |  |
|------------------|--|
| Cabinet Material | Baltic birch                             |
| Handles          | 4  |
| Color            | "Orange peeled"<br>Matt Black or any RAL |

### Physical Dimensions

|        |                   |
|--------|-------------------|
| Height | 1509 mm (59.40")  |
| Width  | 450 mm (17.72")   |
| Depth  | 400 mm (15.75")   |
| Weight | 69 kg (152.12lbs) |

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## Architectural Specifications

The three-way full range loudspeaker system shall incorporate two 15-inch mid-bass (LF) transducers a 8-inch mid-range (MR) speaker and a 1.4-inch exit compression driver high frequency (HF) transducer. The LF drivers shall be mounted above and below the mid-hi horn tuned for optimum mid-bass response and dispersion. The HF and MR transducers shall be loaded on a integrated, constant directivity, wide dispersion mid-high horn assembly. The system shall have a nominal coverage pattern of 110° (horizontal) x 40° (vertical).

The loudspeaker enclosure shall have a rectangular shape and shall incorporate, two top handles. Enclosure incorporates M10 suspension points, three M10 suspension points on the top, one in the handles, three M10 on the bottom and one M10 suspension point on the back.

The speaker cabinet shall be finished with an ultra wear resistant black polymer coating and fitted with a weather resistant perforated steel grill.

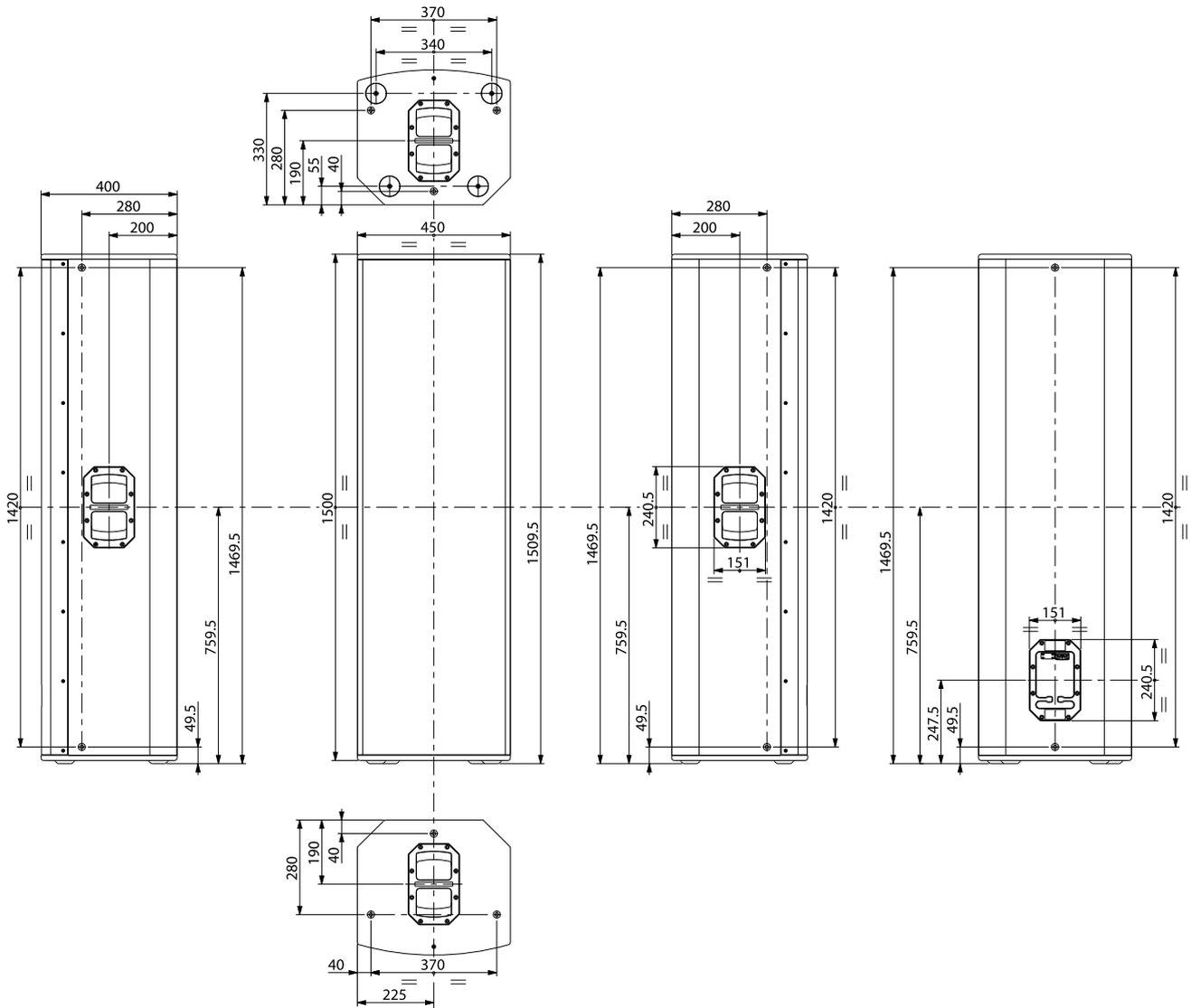
The system shall receive power from a separate ESR3000MkII Amplifier.

ESR3000MkII Amplifier - Controller module consisting of separate power amplifiers for high, midrange and midbass transducers as well as signal processing including electronic band pass crossover filters, phase alignment, time correction, equalization and speaker protection.

The speaker system shall connect to the Amplifier/Controller Module via proprietary cables terminated in Amphenol AP-6 connectors.

The three-way mid / high loudspeaker system shall be the KV2 Audio ESR215S.

## Dimensional Drawings



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