# **EX28 Technical Data Sheet**

Product code: KVV 987 462 - 250V, KVV 987 461 - 230V, KVV 987 460 - 115V

#### Introduction

The EX28 is a 2.5-way full-range active loudspeaker system that builds on the success of the EX26 whilst adding further low frequency extension. Its compact profile makes it ideal for a multitude of FOH and infill applications in Theatres, Leisure venues, Houses of Worship and Concert Halls, where the ultimate quality from a discreet loudspeaker solution is required. Two individually designed 8" neodymium mid - bass woofers are utilised for extended low frequency performance, whilst one unit incorporates KV2 Audio SLA Transcoil technology for improved vocal performance, along with a neodymium compression driver mounted on a 100° by 80° horn.

#### **Features**

- Professional, Baltic birch construction with wear resistant polymer coating
- 126dB sustained output, 132dB peak with very high dynamic range and low noise floor
- 500W of total power with complete on-board speaker management system
- 450W high efficiency, current enhancing, switching low frequency amplifier
- Very high quality 50W, low IM distortion, Class AB, high frequency amplifier with transformer balanced output
- Compact low profile cabinet design allows for use as a front fill or in under balcony applications with high pass filter to adjust equalization and phase response
- Wide dispersion 100° H x 80° V rotatable horn
- SLA Technology 1.75" (44 mm) Titanium diaphragm compression driver with complex geometry phase plug for higher output, exceptionally low distortion, extended frequency response and neodymium magnet structure
- Two 8" woofers feature neodymium magnetic motor structures that dramatically increase force and lower distortion with an additional AIC Trans coil operating on one of the woofers for improved dynamics and definition
- Revolutionary new Krampera filtering creates a 2.5-way system for exceptional vocal clarity
- Proprietary top and side handle design for simplified handling and carrying, each integrates one M10 suspension point
- Additional side and bottom M10 points for flexible brackets, rigging and installation
- "Top-hat" pole mount fitted at the base of the cabinet
- LED indicators for signal present and Power ON status

**System Acoustic Perfomance** 



## **Application**

Purposely designed as a stand-alone unit for extremely high quality vocal reproduction and output

- Theatres, Churches and houses of worship
- Conference and presentations
- Front of stage and balcony infill
- Full range portable PA when used with subwoofers for larger Multi-Media applications and small live music applications

| Max SPL Long-term                                                                                | 126dB                                                                    |
|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Max SPL Peak                                                                                     | 132dB                                                                    |
| -3dB Response                                                                                    | 62Hz to 20kHz                                                            |
| -10dB Response                                                                                   | 52Hz to 28kHz                                                            |
| Crossover Point                                                                                  | 2kHz                                                                     |
| High Frequency Section                                                                           |                                                                          |
| Acoustic Design                                                                                  | Horn Loaded                                                              |
| High Horn Coverage Horizontal / Vertical                                                         | 100° x 80°                                                               |
| Rotatable Horn                                                                                   | YES                                                                      |
| Throat Exit Diameter / Diaphragm Size                                                            | 1" / 1.75"                                                               |
| Diaphragm Material                                                                               | Titanium                                                                 |
| Magnet Type                                                                                      | Neodymium                                                                |
| High Frequency Amplifier Specification                                                           |                                                                          |
| High Frequency Amplifier Specification                                                           | on                                                                       |
| <b>High Frequency Amplifier Specification</b> Type                                               | on<br>Class AB Push-Pull                                                 |
| . , , , ,                                                                                        |                                                                          |
| Туре                                                                                             | Class AB Push-Pull                                                       |
| Type Rated Continuous Power                                                                      | Class AB Push-Pull<br>50W                                                |
| Type Rated Continuous Power Distortion                                                           | Class AB Push-Pull<br>50W<br><0.05%                                      |
| Type Rated Continuous Power Distortion Operating Bandwidth                                       | Class AB Push-Pull<br>50W<br><0.05%                                      |
| Type Rated Continuous Power Distortion Operating Bandwidth Low Frequency Section                 | Class AB Push-Pull 50W <0.05% 2.0kHz to 28kHz                            |
| Type Rated Continuous Power Distortion Operating Bandwidth Low Frequency Section Acoustic Design | Class AB Push-Pull 50W <0.05% 2.0kHz to 28kHz  Front Loaded, Bass Reflex |

| Low Frequency Amplifier Specification |                                                                |  |
|---------------------------------------|----------------------------------------------------------------|--|
| Type                                  | High efficiency, Current-Enhancing,<br>Switched-Rail Amplifier |  |
| Rated Continuous Power                | 450W                                                           |  |
| Distortion                            | <0.05%                                                         |  |
| Operating Bandwidth                   | 62Hz to 2.0kHz                                                 |  |
| Signal Input                          |                                                                |  |
| Input Sensitivity                     | 0,775V RMS                                                     |  |
| Input Impedance                       | 20 kΩ                                                          |  |
| Power                                 |                                                                |  |
| Power Connector                       | Neutrik PowerCon®                                              |  |
| Operating Voltage Range               | 100 to 120V @ 60Hz   230 to 250V @ 50Hz                        |  |
| Recommended Amperage                  | 6A 115V / 3A 230V                                              |  |
| Cabinet                               |                                                                |  |
| Cabinet Material                      | Baltic birch                                                   |  |
| Handles                               | 1                                                              |  |
| Pole Mount                            | 35 mm                                                          |  |
| Color                                 | "Orange peeled" Matt Black or any RAL                          |  |
| Physical Dimensions                   |                                                                |  |
| Height                                | 668 mm (26.29")                                                |  |
| Width                                 | 260 mm (10.23")                                                |  |
| Depth                                 | 320 mm (12.59")                                                |  |
| Weight                                | 23 kg (50.7lbs)                                                |  |

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#### **Architectural Specifications**

The Loudspeaker shall be a 2.5-way full-range Active driven design, using SLA Technology - (Super Live Audio). Amplifier power, electronic crossovers, phase alignment, equalisation and speaker protection are integrated into the EX28's amplifier module.

The Loudspeaker enclosure shall consist of two 8" Neodymium magnet structure Mid Bass woofers, (one unit incorporates bespoke KV2 Transcoil Technology) and one 1" Titanium Compression high frequency driver mounted to a low compression, constant directivity horn assembly. The very compact cabinet enclosure shall be made from re-enforced Baltic Birch Ply, with toughened impact and wear resistant paint finish. The Loudspeaker woofer components shall be protected by an acoustically full size transparent rigid metal grille.

The enclosure shall incorporate one ergonomically designed recessed handle on the top of the cabinet and one on the side of the enclosure. The top handle provides a single M10 hang point as well as four additional M6 bracket points and repeated M10 point on the bottom

of the enclosure when utilising a EX28 Horizontal bracket (KVV987533). There are two side mounted M10 hang points, (one in the side handle) that can be used with the EX28 Vertical bracket (KVV987532) or eyebolts.

The EX28 Amplifier provides a 450W high efficiency -current enhancing switching design amplifier for low-mid and a 50W low distortion Class AB Push-Pull amplifier for high frequency.

The EX28 Amplifier features a control a panel featuring AC power in, XLR connector audio input and output, level control potentiometer -/+ 6dB, LED status light (power, limit/thermal signal input indicator) and a 90Hz high pass filter switch.

The EX28 Amplifier shall have an input Impedance of 20Kohm. The input sensitivity shall be 0.775V RMS.

The EX28 Amplifier shall have a Neutrik PowerCon connector for mains supply, with an operating voltage range of 100 to 120V @ 60Hz or 230 to 250V @ 50Hz.

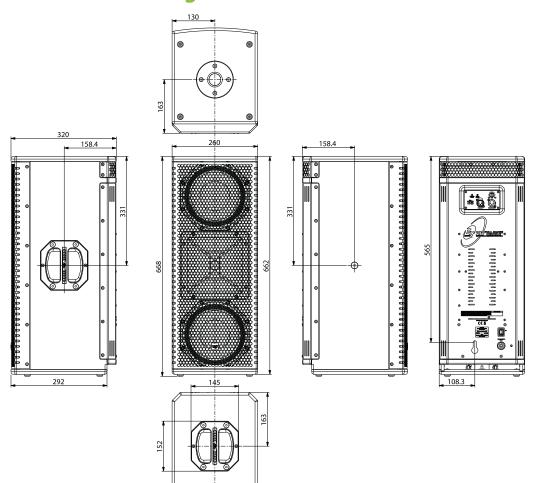
The Power Amplifier shall have recommended amperage of 6A @115V, 3A @230V.

Temperature controlled variable speed fan will assist internal convection cooling systems.

The System acoustic performance shall be -3dB 62Hz -20kHz. The system maximal long term SPL shall be 126dB.

The Speaker shall have dimensions of: Height 668 mm / 26.29", Width 260 mm / 10.23", Depth 320 mm / 12.59", The weight shall not exceed 23 kg (50.7lbs).

#### **Dimensional Drawings**







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