

ESR3000MkII Technical Data Sheet

Introduction

The ESR3000MkII is three-way, active control and amplification system specially designed for the KV2 Audio ESR full range series loudspeaker systems. It houses all signal processing, amplification and subwoofer crossover function if required, utilising an external subwoofer amplifier. The ESR3000MkII powers the ESR215MkII. Each unit incorporates six amplifiers consisting of two 100-watt, Class AB, push pull, low intermodulation amplifier for high frequencies, two 200-watt, Class AB, push pull, low intermodulation design for mids and two a 1000-watt, high-efficiency, current-enhancing switch mode technology amplifier for bass. The ESR3000MkII stereo configuration powers two ESR cabinets accordingly.

Features

The amplifier compliment inside the ESR3000MkII Amplifier is as follows:

- High Frequency - 2x 100-watt, Class AB, push pull, low intermodulation design
- Mid Frequency - 2x 200-watt, Class AB, push pull, low intermodulation design
- Low Frequency - 2x 1000-watt, high-efficiency, current-enhancing switch mode

Product code: KVV 987 277 (250V)
KVV 987 276 (230V)
KVV 987 275 (115V)



Application

Custom designed as an aesthetically – easily integratable high performance unit for multi-tasking installation projects of recorded and live music performance

- Fixed installation
- Nightclubs
- Multi-use venues
- Large bars

Output Channels

Number of Channels	2 (stereo)
Total Output Power	2x 1300W

High Frequency Amplifier Specification

Type	Class AB - Push Pull - Low IM Design, Transformer balanced output
Rated Continuous Power	100W
Distortion	<0.02%
Operating Bandwidth	2.5kHz to 40kHz

Mid Frequency Amplifier Specification

Type	Class AB - Push Pull - Low IM Design, Transformer balanced output
Rated Continuous Power	200W
Distortion	<0.02%
Operating Bandwidth	400Hz to 2,5kHz

Low Frequency Amplifier Specification

Type	High efficiency, Current-Enhancing, Switched-Rail Amplifier
Rated Continuous Power	1000W
Distortion	<0.02%
Operating Bandwidth	20Hz to 400Hz

Signal Input

Input Sensitivity	2.2V RMS
Input Impedance	20kΩ (balanced)

Speaker Output

Speaker Output	2x AP6 female
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Power

Power Connector	2x Neutrik PowerCon®
Operating Voltage	115V / 230V / 250V
Operating Voltage Range	100 to 120V@60Hz 205 to 240V@50Hz 225 to 260V@50Hz
Recommended Amperage	2x10A 115V 2x5A 230V 2x5A 250V

Physical Dimensions

Height	177 mm (6.97"), 4RU
Width	481.4 mm (18.95")
Depth	455.3 mm (17.93")
Weight	39 kg (86lbs)

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Architectural Specifications

The Stereo Power Amplifier-Controller shall provide three individual application specific electronic channels of amplification for one ESR215, with internal loudspeaker protection, filter networks and equalization using SLA Technology (Super Live Audio). The output Topology shall be Multi-disciplined for each individual output channel, consisting of Class AB Push-Pull low Intermodulation Mosfet design, High Efficiency High Power bandwidth and Current-Enhancing switch mode.

The input sensitivity shall be 3.0V RMS, the input Impedance shall be 20Kohm. Power Outputs of the three channels shall be 100W RMS High Frequency section, 200W RMS Mid high frequency section, 1000W RMS Low bass frequency section. The Power Amplifier- Controller shall have an operating bandwidth of 20Hz to 40kHz and an operating distortion factor of less than <math><0.02\%</math> across all output channels. The Power Amplifier-Controller shall have rear panel electronically balanced XLR input connectors, with XLR thru connectors as well as XLR Subwoofer outputs fed from a fixed 70Hz crossover frequency. Output connectors shall be 6 pin Amphenol AP6. The amplifier will have a +/- 6dB Subwoofer Gain control and a pushbutton switch to activate Full range or Crossover mode. The Power Amplifier-Controller shall have front panel indicators for Power, Limit/Thermal and Signal present. Two Thermal Breaker switches shall be used for switch on/off of each channel. The Power Amplifier-Controller shall have two Neutrik PowerCon connectors for mains supply, with an operating voltage range of 100 to 120V @ 60Hz, 205 to 240V @ 50Hz. and 225 to 260V @ 50Hz. A soft start circuit will limit inrush power. The Power Amplifier-Controller shall have recommended Amperage of 20A @115V, 10A @230V, 10A @250. 2 x Temperature controlled variable speed fans will assist internal convection cooling systems. The Amplifier chassis and enclosure shall have dimensions of 177 mm / 7.0" x 481.4 mm / 18.9" x 455.3 mm / 17.9". The total weight will not exceed 39kg /86lbs.

The Power Amplifier-Controller shall be the KV2 Audio ESR3000. The Power Amplifier-Controller shall be specifically for the ESR215.

Dimensional Drawings

