

ESR3000D Technical Data Sheet

Introduction

ESR3000D Amplifier with Control & Diagnostics Tool

The ESR3000D is three-way, active control and amplification system specially designed for the KV2 Audio ESR215MkII full range series loudspeaker systems. It houses all signal processing and amplification, as well as providing control and crossover function for an external subwoofer cabinet, (utilizing an external amplifier). ESR3000D is now configurable via the front panel or remotely using KV2 Control & Diagnostics Tool.

The ESR3000D powers the ESR215MkII. Each unit incorporates six amplifiers consisting of two 100-watt, Class AB, push pull, low intermodulation amplifiers 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 amplifiers for bass. The ESR3000D stereo configuration powers two ESR cabinets accordingly.

Features

The amplifier compliment inside the ESR3000D 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

Configurable via the front panel or remotely using KV2 Control & Diagnostics Tool.

Product code: KVV 987 433 (250V)
KVV 987 432 (230V)
KVV 987 431 (115V)



Application

Specifically designed as the amplification and control elements for the ESR215MkII loudspeaker system in a 4RU mount module with Control & Diagnostics tool

- Fixed installation
- Music venues
- Classical and opera concerts

Output Channels		Signal Input	
Number of Channels	2 (stereo)	Input Sensitivity	1.55V RMS
Total Output Power	2x 1300W	Input Impedance	20kΩ (balanced)
High Frequency Amplifier Specification		Speaker Output	
Type	Class AB - Push Pull - Low IM Design, Transformer balanced output	Speaker Output	2x AP6 female
Rated Continuous Power	100W	Features	
Distortion	<0.02%	Network	Ethernet: SMNP, Webserver
Operating Bandwidth	2.5kHz to 40kHz	Power Requirements	
Mid Frequency Amplifier Specification		Power Connector	2x Neutrik PowerCon®
Type	Class AB - Push Pull - Low IM Design, Transformer balanced output	Operating Voltage	115V / 230V / 250V
Rated Continuous Power	200W	Operating Voltage Range	100 to 120V@60Hz 205 to 240V@50Hz 225 to 260V@50Hz
Distortion	<0.02%	Recommended Amperage	2x10A 115V 2x5A 230V 2x5A 250V
Operating Bandwidth	400Hz to 2,5kHz	Physical Dimensions	
Low Frequency Amplifier Specification		Height	177 mm (6.97"), 4RU
Type	High efficiency, Current-Enhancing, Switched-Rail Amplifier	Width	481.4 mm (18.95")
Rated Continuous Power	1000W	Depth	455.3 mm (17.93")
Distortion	<0.02%	Weight	39 kg (86lbs)
Operating Bandwidth	20Hz to 400Hz		

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Architectural Specifications

The Stereo Power Amplifier-Controller shall provide three individual application specific electronic channels of amplification for one ESR215MkII, 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 1.55V 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. The Power Amplifier-Controller shall have a Ethernet connector supporting Ethernet standard (RJ45, T-658B wiring). Output connectors shall be 6 pin Amphenol AP6. 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.

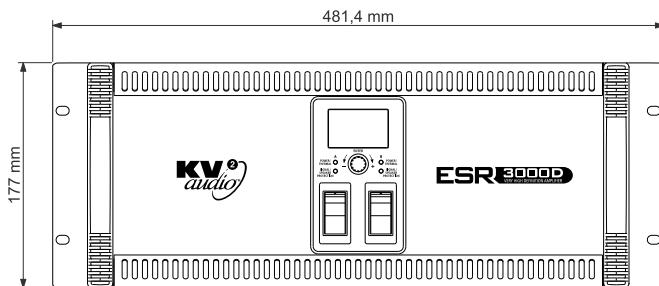
The front panel will have display and Rotation encoder with Enter push-button. The Power Amplifier-Controller shall have two Neutrik PowerCon connectors for mains supply, with an operating voltage range of 100 to 120V @ 60Hz, 205 to 240V @ 50Hz. and 225 to 260V @ 50Hz. A soft start circuit will limit 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 / 6.97" 4RU x 481.4 mm / 18.9" x 455.3 mm / 17.9". The total weight will not exceed 39kg /86lbs.

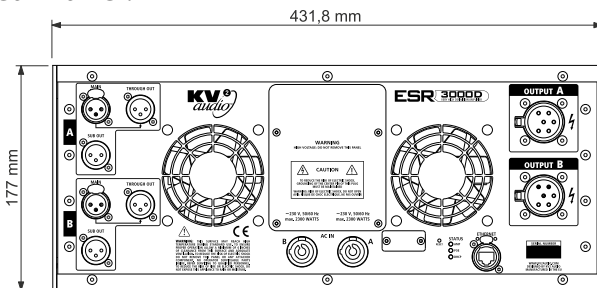
The Power Amplifier-Controller shall be the KV2 Audio ESR3000D. The Power Amplifier-Controller shall be specifically for the ESR215MkII.

Dimensional Drawings

Front Panel:



Rear Panel:



Side Panel:

