ESR2600D Technical Data Sheet

Introduction

Product code: KVV 987 514 (250V)
KVV 987 513 (230V)
KVV 987 512 (115V)

ESR2600D Amplifier with Control & Diagnostics

The ESR2600D is a two channel (stereo) three-way, active control and amplification system specially designed for the KV2 Audio ESR106 full range loudspeaker system. It houses all signal processing and amplification, as well as providing control and crossover functions for adding external subwoofer cabinets if required, utilizing external amplifiers. The ESR26000D is now configurable via the front panel or remotely using the KV2 Control & Diagnostics Tool.

The ESR2600D 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 amplifiers for mids and two 1000-watt, high-efficiency, current-enhancing switching technology amplifiers for bass. The ESR2600D stereo configuration powers two ESR cabinets accordingly.

Application

Specifically designed as the amplification and control unit for the ESR106 loudspeaker system in a 4RU mount module with integrated Control & Diagnostics.

- Fixed Installations
- Theatre and Music venues
- Houses of worship
- Classical and opera concerts

Features

The amplifier compliment inside the ESR2600D 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 switching design

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

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	2.4kHz 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	450Hz to 2.4kHz
Low Frequency Amplifier Specification	
Type	High efficiency, Current-Enhancing, Switched-Rail Amplifier
Rated Continuous Power	1000W
Distortion	<0.02%
Operating Bandwidth	20Hz to 450Hz

Signal Input	
Input Sensitivity	1.55V RMS
Input Impedance	20kΩ (balanced)
Speaker Output	
Speaker Output	2x AP6 female
Features	
Network	Ethernet: SMNP, Webserver
Power Requirements	
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	36 kg (79.37lbs)

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Architectural Specifications

The Stereo Power Amplifier/Controller shall provide six individual application specific electronic channels of amplification for two ESR106's, 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 switching technology.

The input sensitivity shall be 1.55V RMS, the input Impedance shall be 20Kohm. Power Outputs of the six channels shall be 2x 100W RMS High Frequency section, 2x 200W RMS Mid high frequency section, 2x 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 <0.02% 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 an 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.

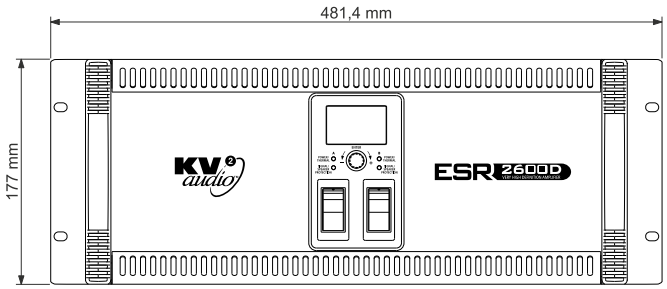
The front panel will have a display and Rotation encoder with an Enter push-button. The Power Amplifier/Controller shall have two Neutrik PowerCon connectors for mains supply, with an operating voltage range of 100 to 120V @ 60Hz, 205 to 240V @ 50Hz and 225 to 260V @ 50Hz. A soft start circuit will limit inrush power. The Power Amplifier/Controller shall have recommended Amperage of 10A @115V, 5A @230V, 5A @250. Two 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 36kg /79.37lbs.

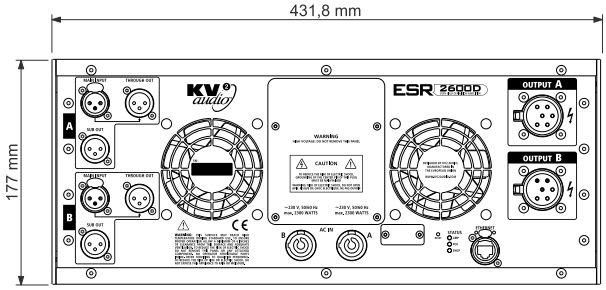
The Power Amplifier/Controller shall be the KV2 Audio ESR2600D. The Power Amplifier-Controller shall be specifically for the ESR106.

Dimensional Drawings

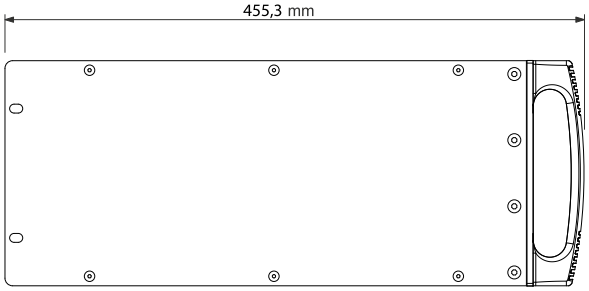
Front Panel:



Rear Panel:



Side Panel:



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