

# ESR2800D Technical Data Sheet

## Introduction

### ESR2800D Amplifier with Control & Diagnostics Tool

The ESR2800D 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 and amplification, as well as providing control and crossover function for an external subwoofer cabinet if needed utilizing an external amplifier. THE ESR2800D is now configurable via the front panel or remotely using KV2 Control & Diagnostics Tool.

The ESR2800D powers the ESR212. 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 1000-watt, high-efficiency, current-enhancing switch mode technology amplifiers for bass. The ESR2800D stereo configuration powers two ESR cabinets accordingly.

## Features

The amplifier compliment inside the ESR2800D 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 987 459 (250V)**  
**KVV 987 458 (230V)**  
**KVV 987 457 (115V)**



## Application

**Specifically designed as the amplification and control elements for the ESR212 loudspeaker system in a 4RU mount module with Control & Diagnostics tool**

- Fixed installation
- Music venues
- Classical and opera concerts

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	500Hz to 2,5kHz

Low Frequency Amplifier Specification	
Type	High efficiency, Current-enhancing switch mode
Rated Continuous Power	1000W
Distortion	<0.02%
Operating Bandwidth	20Hz to 500Hz

Signal Input	
Input Sensitivity	1.0V 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 three individual application specific electronic channels of amplification for one ESR212, 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 1.0V 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. 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.

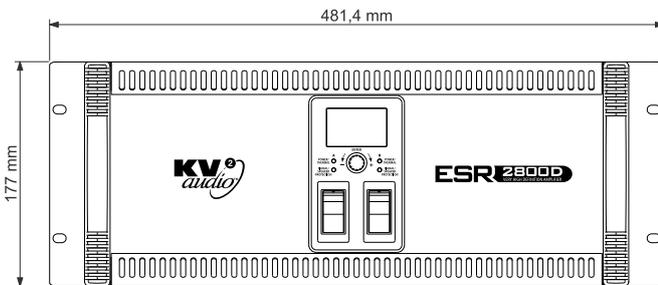
The front panel will have display and Rotation encoder with Enter push-button. The Power Amplifier-Controller shall have two Neutrik PowerCon connectors for mains supply, with an operating voltage range of 100 to 120V @ 60Hz, 205 to 240V @ 50Hz. and 225 to 260V @ 50Hz. A soft start circuit will limit 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 36kg /679.37lbs.

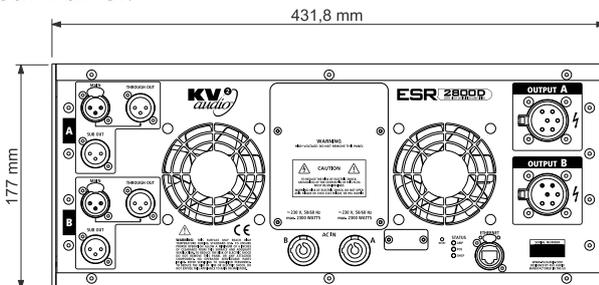
The Power Amplifier-Controller shall be the KV2 Audio ESR2800D. The Power Amplifier-Controller shall be specifically for the ESR212.

## Dimensional Drawings

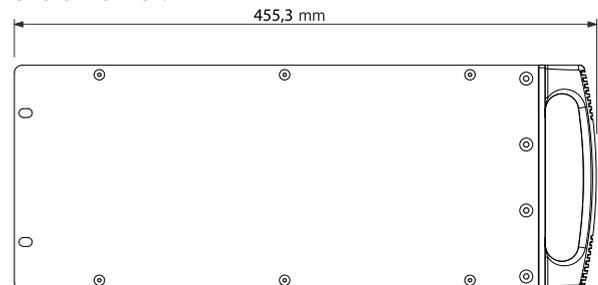
Front Panel:



Rear Panel:



Side Panel:



The future of sound. Made perfectly clear.



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