

Active Driven Systems



ES
ESR
SL



The ES System

As the first product developed by KV2 and continually refined over the last decade, the ES Series has become renowned for its unique and versatile capabilities. Its performance has amazed audio professionals around the globe, staggered by the output and clarity of such a compact yet powerful system. The ES Series is an embodiment of KV2 Audio's design philosophies.

A truly scalable system, it is compact and modular with all the electronics and amplification housed in separate, portable units – the EPAK2500 and 2500R. Placing the active electronics package outboard results in a lighter, easier to handle system with much more flexibility. Its compact size reduces transport costs and either ground stacked or flown, it is quick and easy to setup, cutting labour costs dramatically. The EPAK2500/R control unit incorporates four amplifiers. Electronic crossover filters, time alignment, equalization, system protection, and level controls are all done onboard, utilizing industry leading 20MHz digital conversion where required.

The ES1.0 Mid/High speaker and the EPAK2500/R make up the core of the ES system. Each ES1.0 requires an EPAK2500/R to power it and the three way cabinet includes a 12" horn loaded mid bass driver, 6" horn loaded mid speaker, and 1.75 inch Titanium compression driver. You can rotate the ES1.0 horn assembly in order to run the system in a vertical or horizontal configuration, or couple two ES1.0 cabinets together horizontally to create a very powerful, long throw ES solution.

As well as driving the three way ES1.0 cabinet, a fourth amplifier channel in the EPAK 2500/R control unit is dedicated to powering a choice of ES series subwoofers. The ES1.5 is a lightweight single 15" enclosure, the ES1.8 a horn reflex, single 18" subwoofer and the ES2.5 / 2.6 a double 15", twin asymmetrical design, available in either four ohm (ES2.5) or eight ohm (ES2.6) versions.



Simple to set up and use, the ES System has been designed for plug and play operation. It would take a dozen or more outboard components, sophisticated measuring equipment and a degree in acoustic engineering to achieve the optimization we've built into the EPAK2500/R. A multi position switch allows you to select from various subwoofer combinations, you decide which plug and play bass modules you want to use, select and go.

The meticulously designed control electronics inside the EPAK2500/R constantly monitor and preserve the relationship between each amplifier and component, delivering exactly the right amount and type of power throughout the system. When you're able to perfectly match an amplifier with a transducer, you start to unlock incredible performance that is impossible to achieve with passive systems. Total system reliability increases dramatically as does sound quality. With this kind of precision and efficiency built in, you'll be amazed at the quality, depth, level and resolution produced by an ES system.



Easy to Fly

Easy to Fly - The ES System can be quickly flown in a variety of different configurations to suit a wide range of applications. Simply clip the pins into place through the fly bars on each side of the cabinets and lift away, fast, easy and safe.



The ES System takes up far less space both in the venue and the back of the truck. Easily installed magnetic wheel boards can be attached to all subwoofers, along with durable custom made covers.

ES1.0

The ES1.0 is a 3-way, very high output, active-driven, mid/high/mid-bass module designed as part of a complete ES system driven by the EPAK 2500/R control and amplification unit. The ES1.0 is compact, lightweight and can be combined with a variety of ES series subwoofers. As a single system it offers one of the highest quality portable sound reinforcement solutions on the market today. When coupled with another ES1.0 (running two horizontally per side) it becomes an even more powerful tool, providing peak SPL of 139dB and a throw of up to 40 metres for applications of up to 3000 people.

ES1.5

The ES1.5 is a single 15", extremely compact, high output subwoofer weighing just 28kg (61.6lbs) designed as part of the ES Series speaker system. Used singularly or in multiples of up to three, alongside a single ES1.0 mid high cabinet, the system is powered by the EPAK2500/R Amplifier ensuring fast, easy set up with perfect balance and complete control. The EPAK 2500/R also allows up to two ES1.5's to be used alongside an ES1.8, where the ES1.5 can either be flown alongside an ES1.0 or ground stacked with the ES1.8.



	ES1.0	ES1.5	
System Acoustic Performance	Max SPL Long-term	131dB	127dB (134dB - 3x ES1.5)
	Max SPL Peak	134dB	130dB (137dB - 3x ES1.5)
	-3dB Response	130Hz to 20kHz	40Hz to 130Hz
	-10dB Response	85Hz to 28kHz	36Hz to 130Hz
	Crossover Point	130Hz, 500Hz, 2.5kHz	130Hz
	Dimensions H/W/D	700 mm (27.55") x 450 mm (17.71") x 450 mm (17.71")	700 mm (27.55") x 450 mm (17.71") x 450 mm (17.71")
	Weight	34 kg (74.8lbs)	30.8 kg (67.9lbs)

EPAK2500

The EPAK 2500 is a four-way, active control and amplification unit specifically designed for the ES Series modular loudspeaker system. It not only houses all signal processing and four individual amplifiers but also controls the allocation of power depending on the number of bass modules employed. The EPAK 2500 is enclosed in a road-rugged case with side handles and a built in cable storage compartment. Easily transported on a trolley this unique amplification system has its electronics mounted on an independent suspension system that isolates it from the shocks and impacts typically encountered on the road. A large aluminum heat sink provides passive cooling along with two demand-sensitive fans for added reliability.

EPAK2500R

Rack mount version of our popular EPAK2500 four-way, active control and amplification unit specifically designed for the ES Series modular loudspeaker system. Two shock mounted fans move air across the heatsinks which seal and protect the electronic components. This minimizes maintenance cycles and improves the components lifespan and reliability. Both the EPAK2500 and EPAK2500R utilize KV2's industry leading 20 MHz sampling for on board time alignment and phase correction of all components in the ES system.



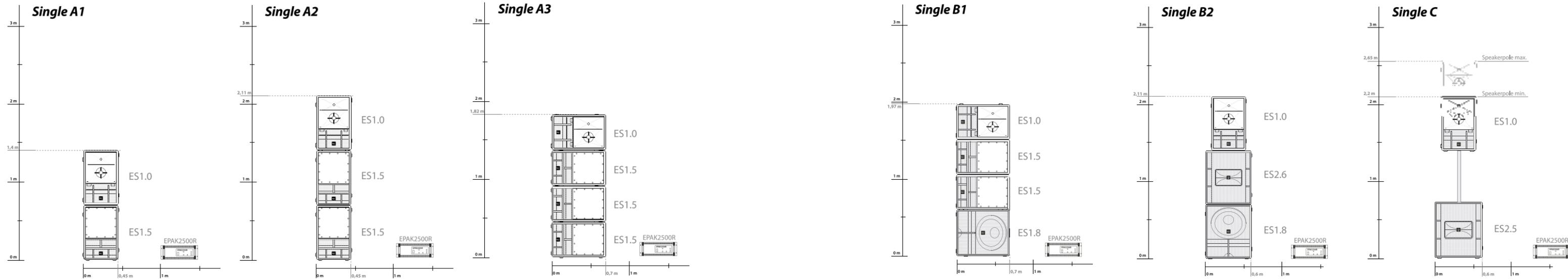
EPAK2500

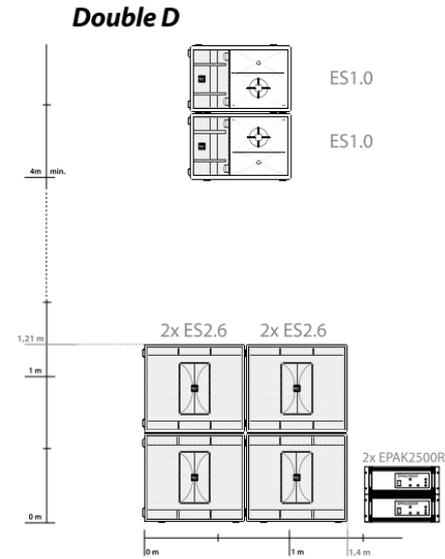
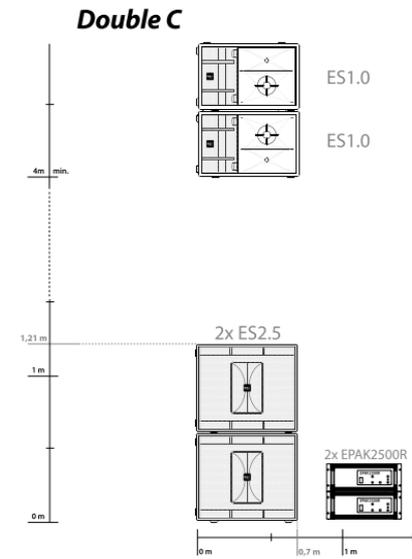
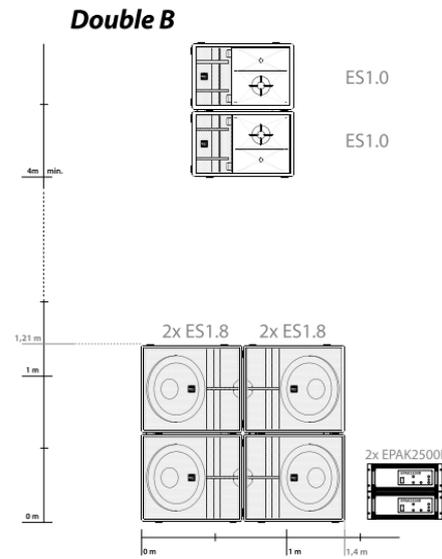
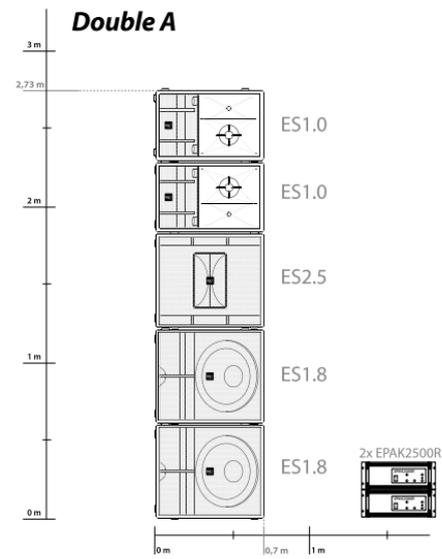
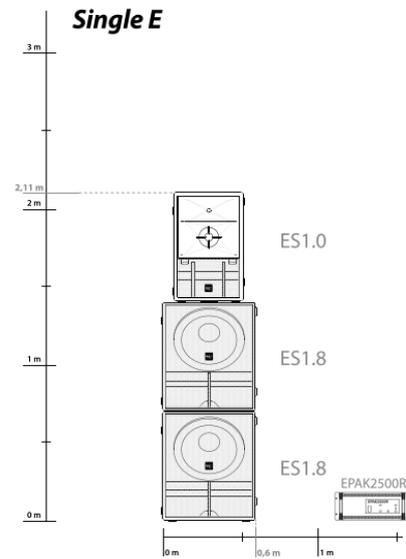
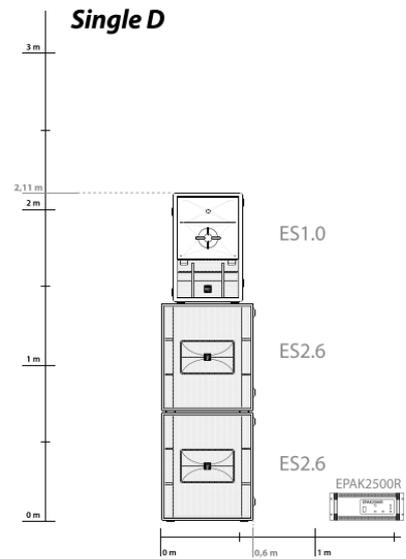


EPAK2500R

System Acoustic Performance	High Frequency Amplifier		
	Type	Class AB Push-Pull low inter-modulation Mosfet design with transformer balanced output	Class AB Push-Pull low inter-modulation Mosfet design with transformer balanced output
	Rated Continuous Power	100W	100W
	Distortion	<0.05%	<0.05%
	Operating Bandwidth	2.5kHz to 28kHz	2.5kHz to 28kHz
	Mid Frequency Amplifier		
	Type	Class AB Push-Pull low inter-modulation Mosfet design with transformer balanced output	Class AB Push-Pull low inter-modulation Mosfet design with transformer balanced output
	Rated Continuous Power	200W	200W
	Distortion	<0.05%	<0.05%
	Operating Bandwidth	500Hz to 2.5kHz	500Hz to 2.5kHz
	Low Frequency Amplifier		
	Type	High efficiency, Low frequency, Current-enhancing switch mode	High efficiency, Low frequency, Current-enhancing switch mode
	Rated Continuous Power	1600W	1600W
	Distortion	<0.05%	<0.05%
	Operating Bandwidth	20Hz to 130Hz	20Hz to 130Hz
Dimensions H/W/D	719 mm (28.30") x 478 mm (18.82") x 305 mm (12")	177 mm (6.96") x 481.4 mm (18.95") x 415.4 mm (16.35")	
Weight	32 kg (70.4lbs)	30 kg (66lbs)	

Configurations







ESR Full Range Wide Dispersion Active Speaker System

The ESR range has been developed for a particular niche in the market where an all in one box is needed to give clear detailed reproduction over a wide area. The ESR212 and 215 are three way full range enclosures with wide dispersion characteristics. They can be used vertically for theatre, church or cultural centre type installations or horizontally mounted to give excellent coverage over a tiered seating area for stadium or grandstand type applications.

Similar to our popular ES range, the ESR cabinets are fully active and driven by a proprietary amplifier, which delivers equalized, and time aligned accurate signal to each of the components.

Two ESR cabinets can be driven by a single ESR3000 High Definition Stereo Amplifier, which houses all signal processing and amplification, as well as providing control for two different external subwoofer cabinet configurations if required.

In situations where extended bass response is not needed but full range high definition audio reproduction with extremely good coverage is required, the ESR Range offers an ideal solution. Economies of scale are achieved by the requirement of only one ESR amplifier to run a three way active stereo system where other systems would require processors and multiple amplifiers to achieve a similar configuration.

ESR212

The ESR212 is a full-range 3-way loudspeaker system designed for use with the ESR3000 tri-amplified stereo electronic control pack. The ESR212 loudspeaker system features state of the art transducer design. Comprising of two 12" woofers, a 6" midrange driver and a 1" compression driver, the ESR212 delivers full range high definition audio over large spaces. It has a dispersion of 90 degrees by 40 degrees and can be installed either vertically or horizontally. The ESR212 has various M10 fly points as well as custom designed fly ware and brackets.

ESR215

The ESR215 is a large scale full-range 3-way loudspeaker system with a wide horizontal dispersion of 110 degrees. Designed for use with the ESR3000 tri-amplified stereo electronic control pack, the ESR215 loudspeaker system features two 15" woofers, an 8" mid-range driver and the same large scale NPVD 3" compression driver found in KV2 Audio's VHD top boxes. With a wide and smooth frequency response the ESR215 is ideal for theatre or stadium applications. Like the ESR212 it incorporates a number of M10 fly points and various brackets and fly ware are also available.



ESR212

System Acoustic Performance	Max SPL Long-term	128dB
	Max SPL Peak	131dB
	-3dB Response	38Hz to 22kHz
	-10dB Response	28Hz to 28kHz
	Crossover Point	500Hz, 2.5kHz
	Dimensions H/W/D	1135 mm (44.69") x 447 mm (17.6") x 444 mm (17.48")
	Weight	45 kg (99.2lbs)



ESR215

System Acoustic Performance	Max SPL Long-term	132dB
	Max SPL Peak	135dB
	-3dB Response	35Hz to 22kHz
	-10dB Response	28Hz to 28kHz
	Crossover Point	400Hz, 2.5kHz
	Dimensions H/W/D	1515 mm (59.65") x 470 mm (18.50") x 500 mm (19.69")
	Weight	71 kg (156.53lbs)

ESR3000 & ESR2800

The ESR3000 and ESR2800 Amplifiers are three-way, active control and amplification systems specially designed for the KV2 Audio ESR full range series loudspeaker systems. It houses all signal processing and amplification as well as providing control for two different external subwoofer cabinet configurations to run subs if needed utilizing an external amplifier. The ESR3000 powers the ESR215 and the ESR2800 the ESR212.

Each unit incorporates six amplifiers represented by 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 ESR3000 and ESR2800 stereo configuration powers two ESR cabinets accordingly.



ESR2800

ESR3000

	ESR2800	ESR3000	
System Acoustic Performance	High Frequency Amplifier		
	Type	Class AB - Push Pull - Low IM Design, Transformer balanced output	Class AB - Push Pull - Low IM Design, Transformer balanced output
	Rated Continuous Power	100W	100W
	Distortion	<0.02%	<0.02%
	Operating Bandwidth	2.5kHz to 40kHz	2.5kHz to 40kHz
	Mid Frequency Amplifier		
	Type	Class AB - Push Pull - Low IM Design, Transformer balanced output	Class AB - Push Pull - Low IM Design, Transformer balanced output
	Rated Continuous Power	200W	200W
	Distortion	<0.02%	<0.02%
	Operating Bandwidth	500Hz to 2,5kHz	400Hz to 2,5kHz
	Low Frequency Amplifier		
	Type	High efficiency, Current-enhancing switch mode	High efficiency, Current-enhancing switch mode
	Rated Continuous Power	1000W	1000W
	Distortion	<0.02%	<0.02%
	Operating Bandwidth	20Hz to 500Hz	20Hz to 400Hz
	Dimensions H/W/D	177 mm (6.97"), 4RU x 481.4 mm (18.95") x 455.3 mm (17.93")	177 mm (6.97"), 4RU x 481.4 mm (18.95") x 455.3 mm (17.93")
	Weight	36 kg (79.37lbs)	39 kg (86lbs)



SL Slimline Wide Dispersion Speaker System

The new SL412 and SL2.15 speakers incorporate an eye catching slim stylish cabinet design. Designed to integrate either externally through simple wall mounting, suspension, ground stacking, or internal wall fixing, these units can be designed and supplied with custom colors, grill templates and logos, offering a flexible and true designer integrated product. A single yoke assembly with multiple fixed angle and fixing locations, provides a quick and cost effective solution for simple suspension options.

Using KV2 VHD technology, the SL412 loudspeaker utilizes 4 x 12" low mid-range components and the proven and highly respected horn assembly from the VHD1.0, with a single 8" mid-range and 3" large format NPVD compression driver.

This mid-high horn has an extremely coherent-wide horizontal dispersion of over 110 degrees while the purpose designed 4 x 12" configuration dramatically reduces the most common problem of immediate reflections within the 300 - 800Hz range usually associated with wide dispersion loudspeakers.

The end result is full and wide sound propagation exactly where it is required. While the SL412 can be utilized with any of KV2's wide range of sub woofer systems depending on the actual application, the accompanying SL2.15 utilizes the same slim line design to allow for an aesthetically pleasing and acoustically punchy system that can virtually disappear against a wall. The SL2.15 is a 2 x 15" specially designed to output maximum bass response from a it's shallow cabinet design. To achieve deep low bass extension it is recommended to use the SL 2.15 with KV2 18" or 21" subwoofers.

SL3000

The SL3000 Stereo Amplifier drives and controls one SL412 per channel and follows the typical KV2 holistic approach of matching components with high quality electronics for true direct performance. The SL3000 utilises a 1000-watt high efficiency – current enhancing, switch – mode technology, with linear active filter design for the low mid-section, a 200-watt class AB push pull low intermodulation design amplifier for the mid-range and a similar 100-watt design for the high frequencies.

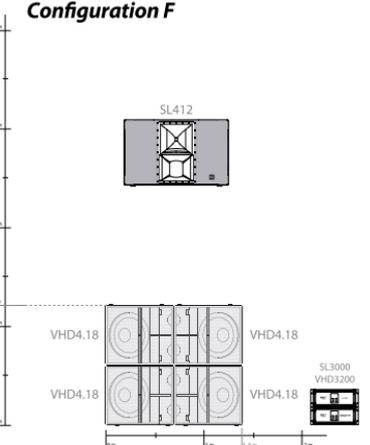
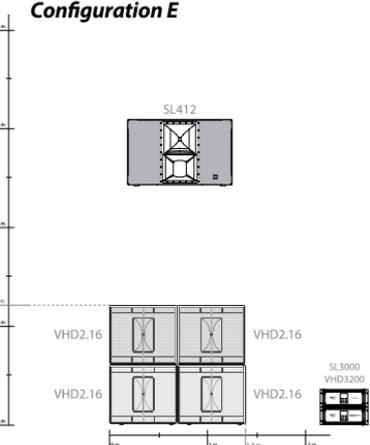
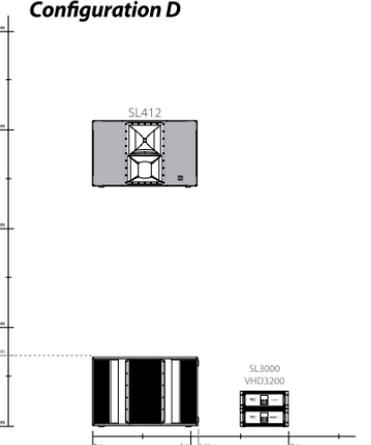
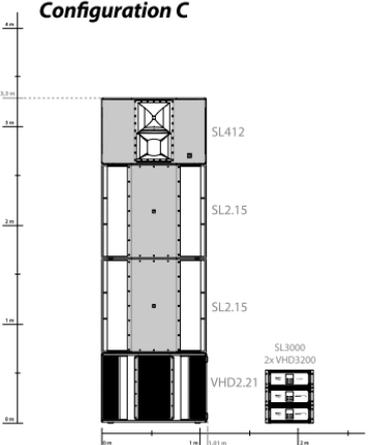
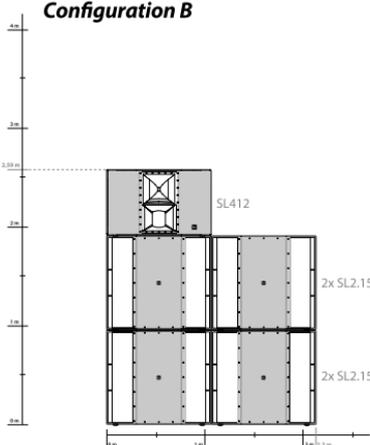
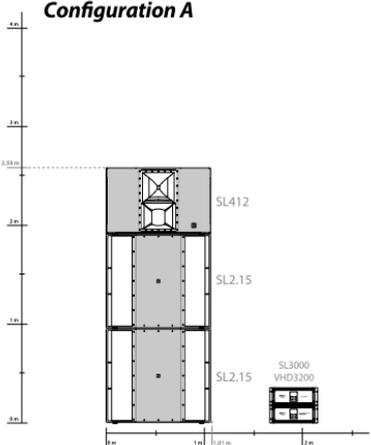
All time alignment, phase correction and equalisation is provided onboard.



SL3000

System Acoustic Performance	High Frequency Amplifier	
	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	
	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	
	Type	High efficiency, Current-enhancing switch mode
	Rated Continuous Power	1000W
Distortion	<0.02%	
Operating Bandwidth	35Hz to 400Hz	
Dimensions H/W/D	177.8 mm (7.0"), 4RU x 481.4 mm (18.95") x 495 mm (19.5")	
Weight	39.2 kg (86.62lbs)	

Configurations



Notes

Active Driven
Systems

- ES
- ESR
- SL



Watch our product videos on **You Tube** .
www.youtube.com/c/KV2Audiocom

