



## Product description

VLS 15 is a passive column array loudspeaker with a complement of 7 × 3.5" (89 mm) LF transducers mounted in vertical array with an assembly of densely spaced 8 × 1" (25 mm) HF transducers mounted co-axially over a section of the LF (in an intuitively engineered, super-imposed chassis).

VLS Series is the first range of products to incorporate FAST™ (Focussed Asymmetrical Shaping Technology), delivering unique acoustic performance benefits including asymmetrical vertical dispersion, gently shaping the coverage towards the lower quadrant of the vertical axis.

VLS 15 packages this performance in a slender and narrow profile, aesthetically refined, powder-coated aluminium chassis with curved stainless steel grille; ensuring a sleek and ultra-discrete appearance. Like the other 2 models in the range, VLS 15 can be ordered in either black or white as standard, with custom RAL colours available.

The device is fully compliant with EN54 - 24 and IP65 rated for dust and water ingress, salt spray and UV resistant and subject to rigorous high/low operational temperature and humidity testing – making VLS 15 suitable for both indoor and outdoor use. Mounting is made easy via supplied flying and mounting brackets.

Specification and design is aided by the use of Ease Focus v2.0 software, a generic, intuitive and easy to use three-dimensional acoustic simulation software. The software and relevant tutorials are free to download from the Tannoy website.

VLS 15 features an integrated low insertion loss line transformer, configurable to various tappings via rotary switch, for use in high voltage distributed audio systems (100 V / 70 V).

## Features

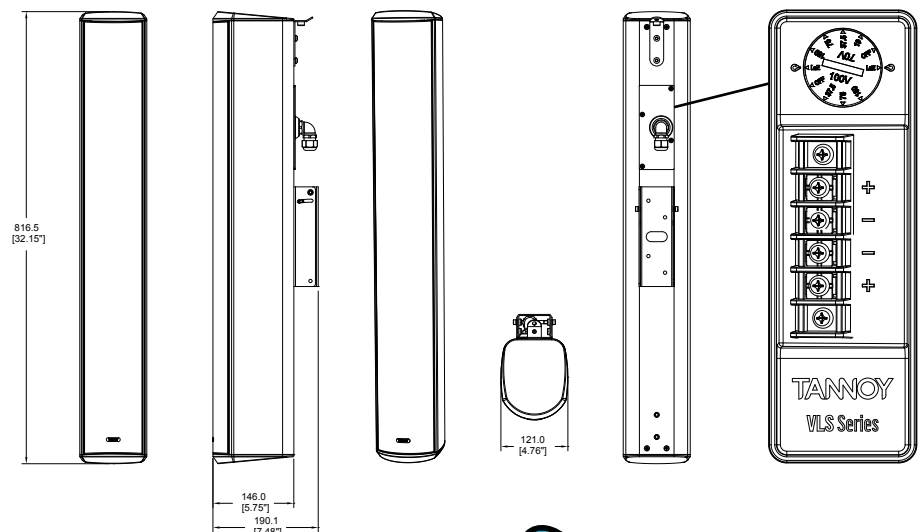
- Certified to EN54 - 24
- 7 × 3.5" (89 mm) woofers
- 8 × 1" (25 mm) metal dome tweeters
- FAST (Focussed Asymmetrical Shaping Technology) delivers improved intelligibility in typical listening plane and greater flexibility in mounting location
- Asymmetrical vertical dispersion: +6 degrees / -22 degrees (-8 degree bias)
- Highly consistent coverage pattern
- Peak output 120 dB
- Sleek architecturally-sensitive profile
- Easy to install, mounting brackets included
- Easily accessible transformer tapping switch
- IP65 rated for water and dust ingress protection
- Available in black or white
- Integrated low insertion loss transformer for 100 V / 70 V operation

## Applications

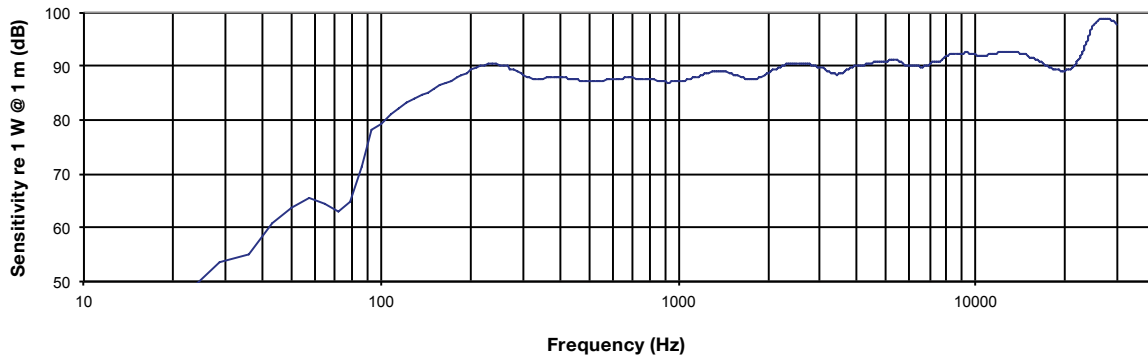
- Houses of Worship
- Transportation hubs
- Retail spaces and concourses
- Conference rooms
- Lecture theatres
- Auditoria
- Gymnasiums
- Convention centers
- Museums
- Stadium concourses
- Multipurpose venues
- Challenging acoustic spaces
- Architecturally sensitive spaces

## Physical data

<b>Driver complement:</b>	7 × 3.5" (89 mm) woofers, 8 × 1" (25 mm) metal dome tweeters
<b>Dimensions HxWxD:</b>	816.5 × 121 × 146 mm (32.1 × 4.8 × 5.7")
<b>Weight:</b>	10.5 kg (23.1 lbs)
<b>Enclosure:</b>	Aluminium extrusion
<b>Finish:</b>	Paint Ral 9003 (white) & Ral 9004 (black)
<b>Protective Grille:</b>	Painted stainless steel

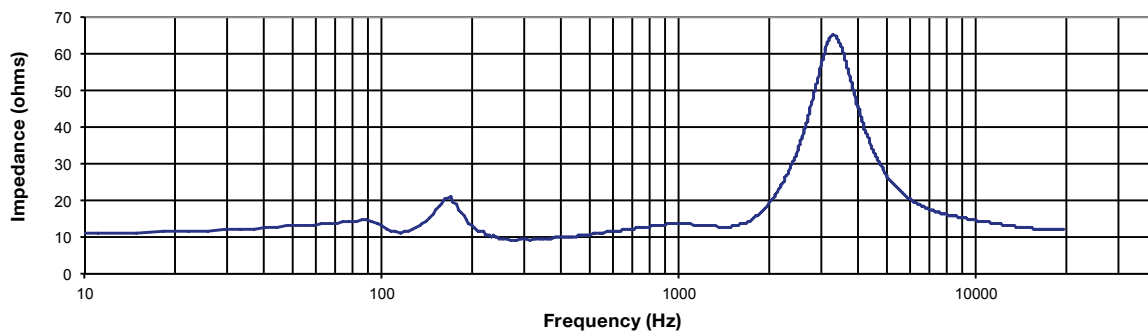


### 1 m on-axis frequency response



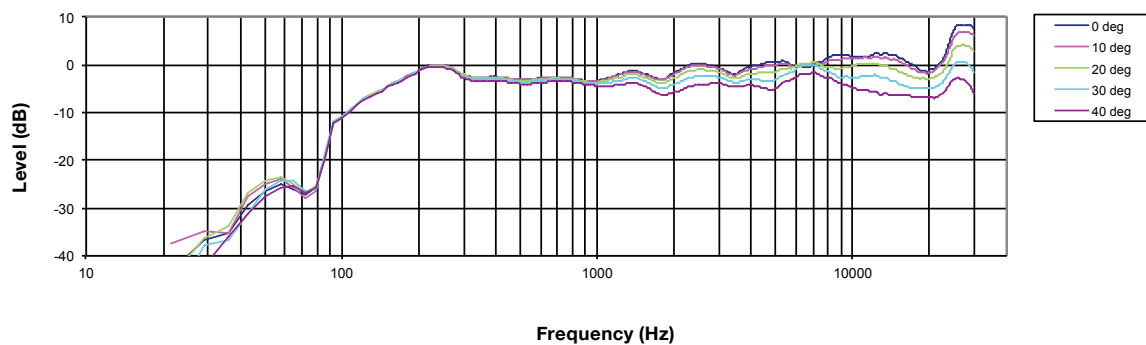
### Anechoic frequency response

### Impedance vs frequency



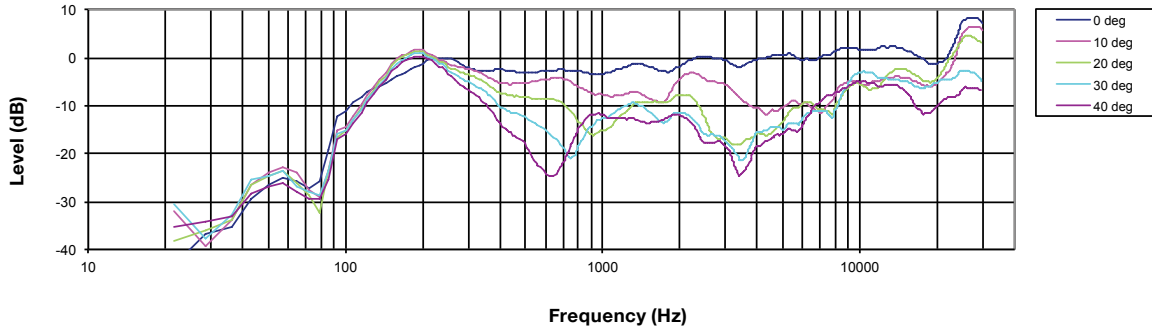
### Impedance

### Horizontal off-axis frequency response



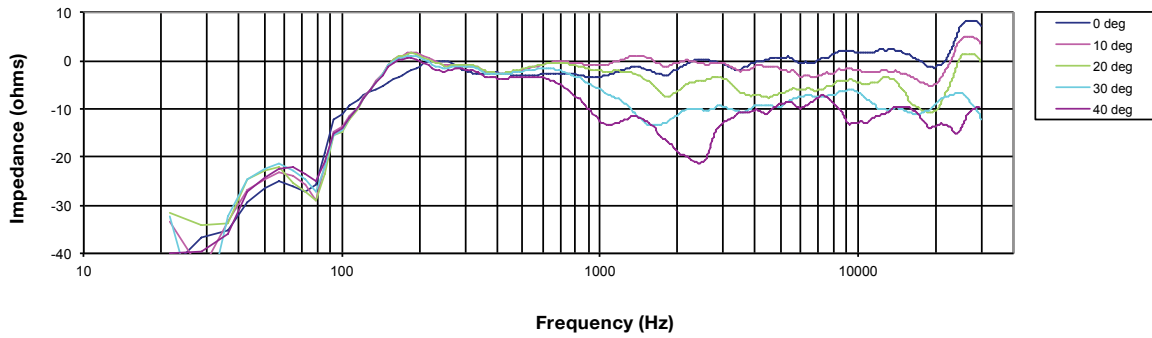
### Off-axis response

Upper vertical off-axis frequency response



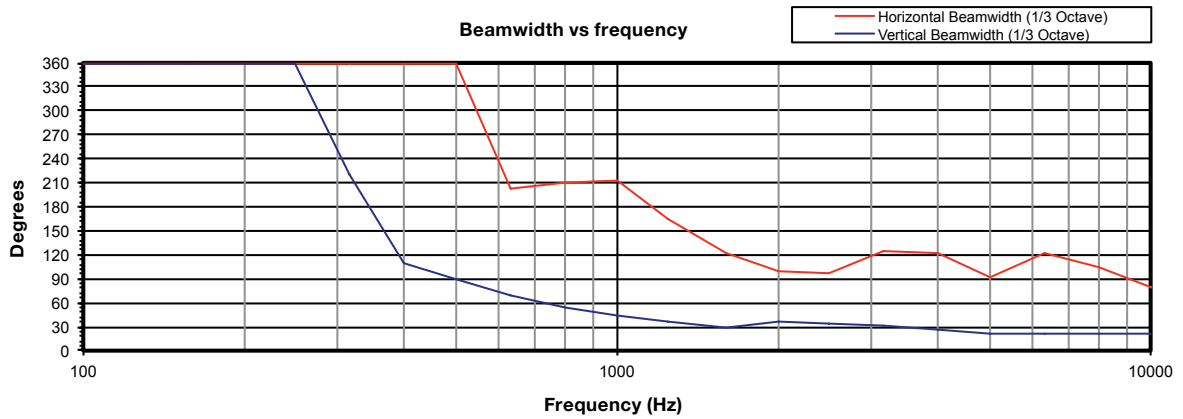
Off-axis response

Lower vertical off-axis frequency response

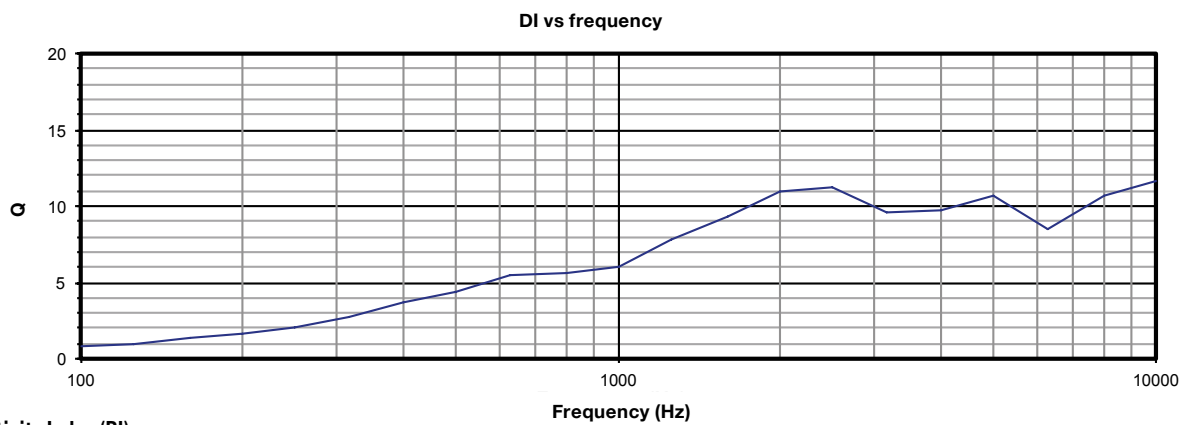


Off-axis response

Beamwidth vs frequency



Beamwidth

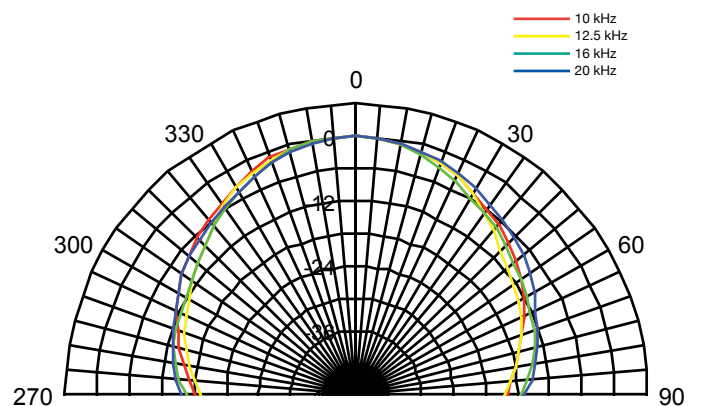
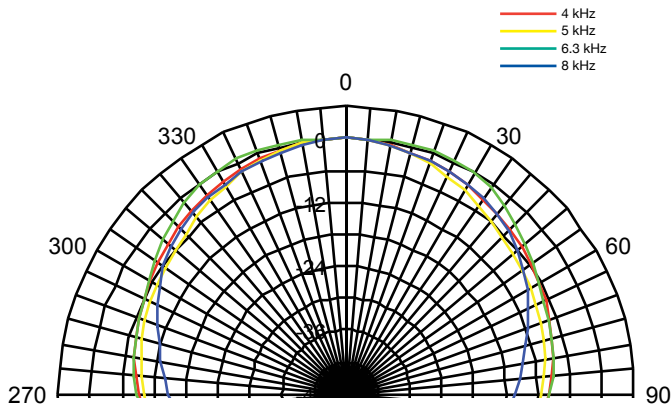
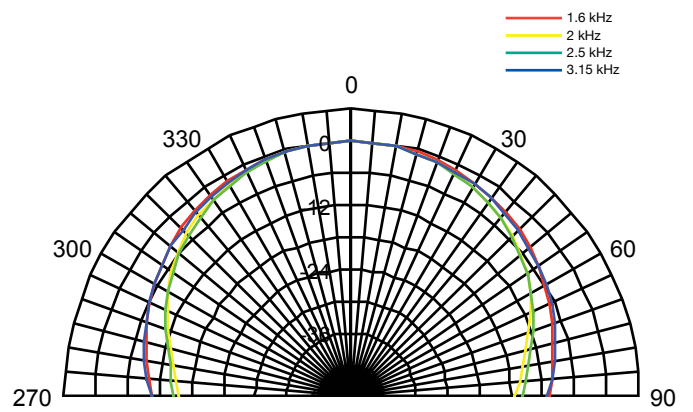
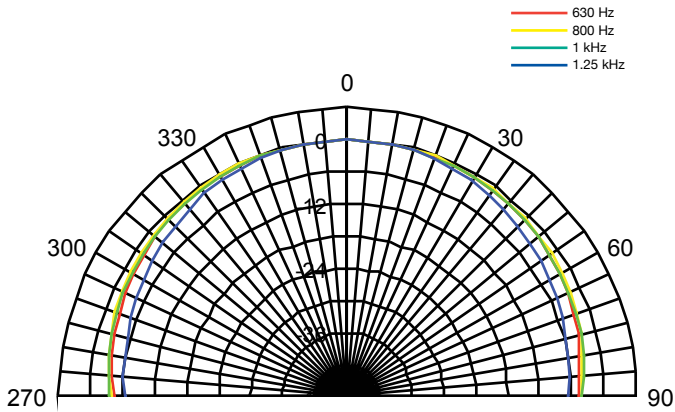
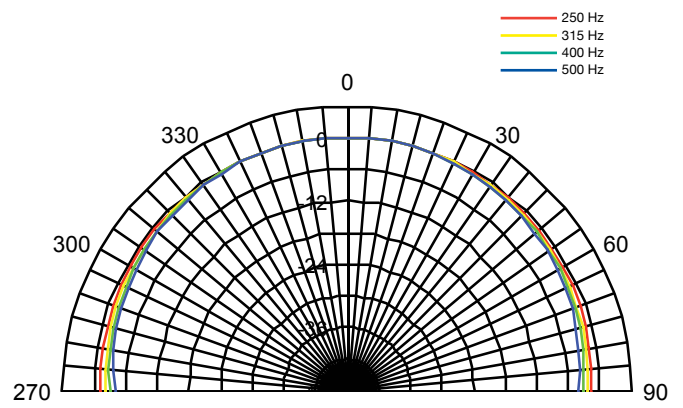
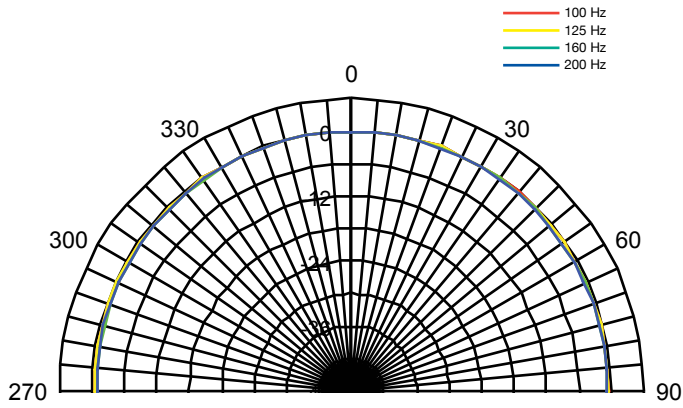


Directivity Index (DI)

# Technical Data Sheet

Polar plots (1/3 octave) horizontal

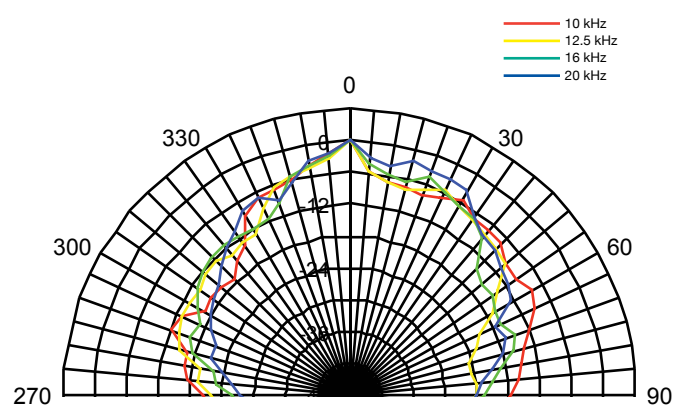
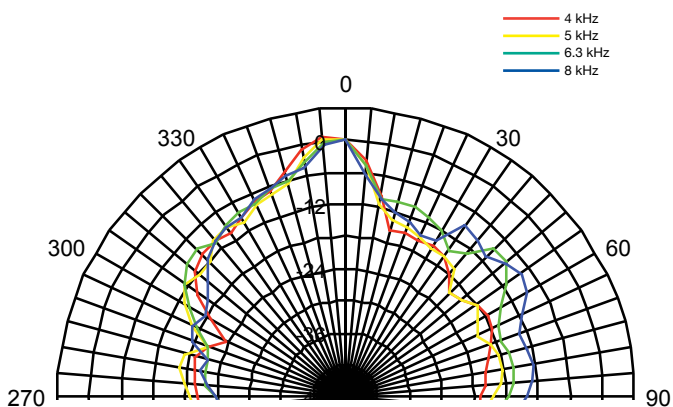
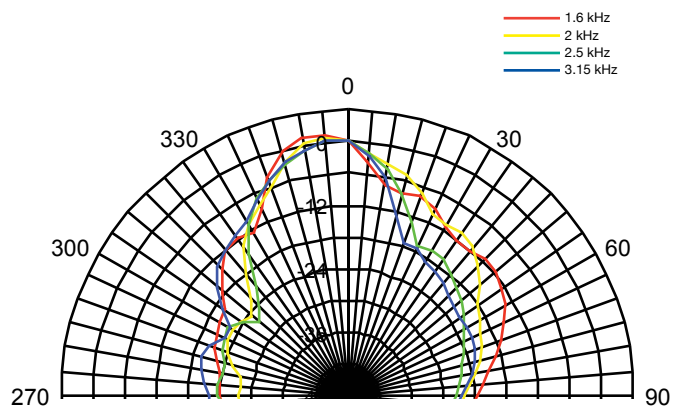
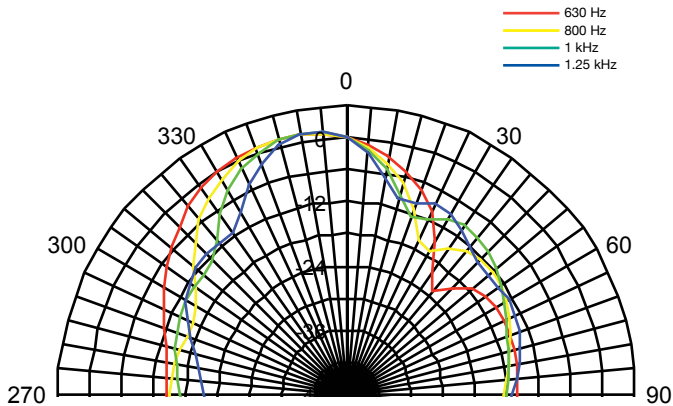
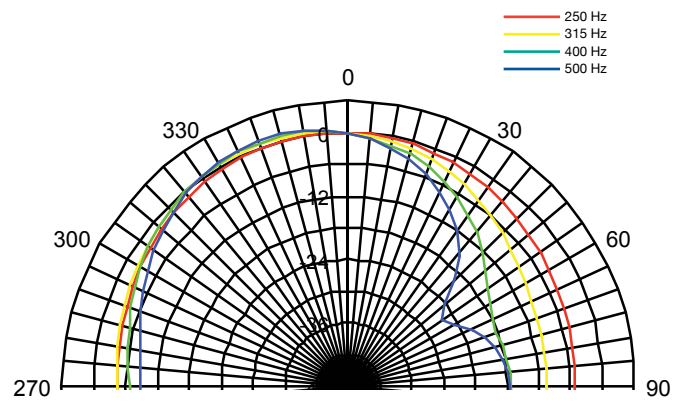
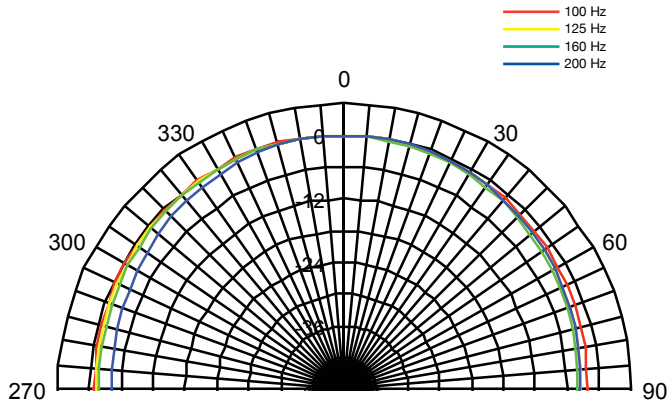
# VLS 15



# Technical Data Sheet

## Polar plots (1/3 octave) vertical

# VLS 15



## Performance

<b>Frequency response (-3 dB) <sup>(1)</sup></b>	150 Hz - 30 kHz
<b>Frequency range (-10 dB) <sup>(1)</sup></b>	110 Hz - 35 kHz
<b>System sensitivity (1 m, Lo Z) <sup>(2)</sup></b>	91 dB
<b>Sensitivity as per EN54 <sup>(4 M, through transformer)</sup></b>	77 dB
<b>Horizontal dispersion (-6 dB)</b>	130 degrees horizontal
<b>Vertical dispersion (-6 dB)</b>	+ 6 degrees / - 22 degrees (-8 degree bias)
<b>Driver complement</b>	7 x 3.5" (89 mm) woofers 8 x 1" metal dome tweeters
<b>Crossover</b>	Passive network utilising Focussed Asymmetrical Shaping Technology (FAST) Crossover point 2.5 kHz
<b>Directivity factor (Q)</b>	9.1 averaged 1 kHz to 10 kHz
<b>Directivity Index (DI)</b>	9.6 averaged 1 kHz to 10 kHz
<b>Power Handling <sup>(3)</sup></b>	
Average	200 W
Programme	400 W
Peak	800 W
<b>Recommended Amplifier Power</b>	600 W @ 8 ohms
<b>Nominal Impedance (Lo Z)</b>	12 ohms
<b>Maximum SPL as per EN54 <sup>(4 M, through transformer)</sup></b>	98 dB
<b>Rated maximum SPL (1 m, Lo Z) <sup>(2)</sup></b>	
Average	114 dB
Peak	120 dB
<b>Transformer Taps (via front rotary switch)</b>	
70 V	150 W (33 Ω) / 75 W (66 Ω) / 37.5 W (133 Ω) / 19 W (265 Ω) / 9.5 W (530 Ω) / 5 W (1050 Ω) OFF & low impedance operation
100 V	150 W (66 Ω) / 75 W (133 Ω) / 37.5 W (265 Ω) / 19 W (530 Ω) / 9.5 W (1050 Ω) OFF & low impedance operation

## Coverage angles <sup>(4)</sup>

	Horizontal plane	Vertical plane
<b>500 Hz</b>	226°	80°
<b>1 kHz</b>	191°	41°
<b>2 kHz</b>	131°	37°
<b>4 kHz</b>	119°	98°

## Distortion

	Harmonics		
		2nd	3rd
<b>10% full power (15.5 V)</b>	<b>250 Hz</b>	1.60%	0.91%
	<b>1 kHz</b>	0.14%	0.15%
	<b>10 kHz</b>	0.63%	0.26%
<b>1% full power (4.9 V)</b>	<b>250 Hz</b>	0.57%	0.43%
	<b>1 kHz</b>	0.06%	0.06%
	<b>10 kHz</b>	0.21%	0.14%

## Physical

<b>Enclosure</b>	Aluminium extrusion
<b>Finish</b>	Paint RAL 9003 (white) & RAL 9004 (black) Custom RAL colours available (additional cost and lead-time)
<b>Connectors</b>	Barrier strip
<b>Fittings</b>	Flying bracket, wall mount bracket, input panel cover plate and gland
<b>Dimensions (H x W x D)</b>	816.5 x 121 x 146 mm (32.1 x 4.8 x 5.7")
<b>Net Weight (ea)</b>	10.5 kg (23.1 lbs)
<b>Packed Quantity</b>	1

## Ordering Information

<b>Part Number</b>	<b>Colour</b>
8001 7870	Black
8001 7871	White



This product is environmentally protected to IP65 rated standard.

### Notes:

1. Average over stated bandwidth. Measured in an IEC baffle in an Anechoic Chamber
2. Unweighted pink noise input, measured at 1 metre on axis
3. Long term power handling capacity as defined in EIA - 426B test
4. The reference point for the reference axis (acoustic centre) is 536 mm up from the bottom of the column. The axis of maximum radiation in the vertical plane is - 8 ° below horizontal.

A full range of measurements, performance data, CLF and Ease™ Data for VLS 15 can be downloaded from [www.tannoypro.com](http://www.tannoypro.com).

Tannoy operates a policy of continuous research and development. The introduction of new materials or manufacturing methods may introduce variations in actual performance; however, actual performance always will equal or exceed the published specifications, which Tannoy reserves the right to alter without prior notice. Please verify the latest specifications when dealing with critical applications.

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