



Product description

VLS 7 is a passive column array loudspeaker with a complement of 7 x 3.5" (89 mm) LF transducers mounted in a vertical array, designed for speech-only applications.

VLS Series is the first Tannoy product 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 7 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 7 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 7 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 7 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

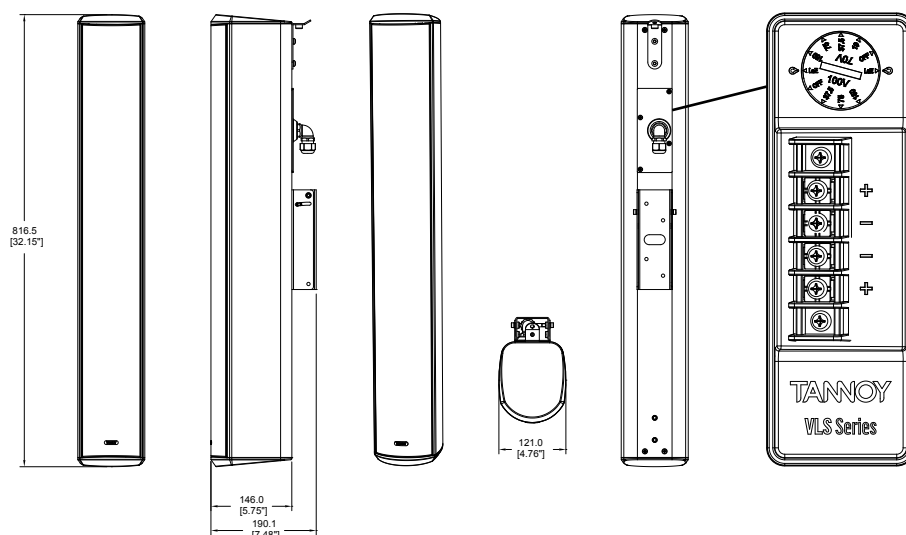
- Certified to EN54 - 24
- 7 x 3.5" (89 mm) full range drivers
- FAST (Focussed Asymmetrical Shaping Technology) delivers improved intelligibility in typical listening plane and greater flexibility in mounting location
- Asymmetrical vertical dispersion: +6 degrees / -22 degrees (-8 degree bias)
- Highly consistent coverage pattern
- Peak output 118 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

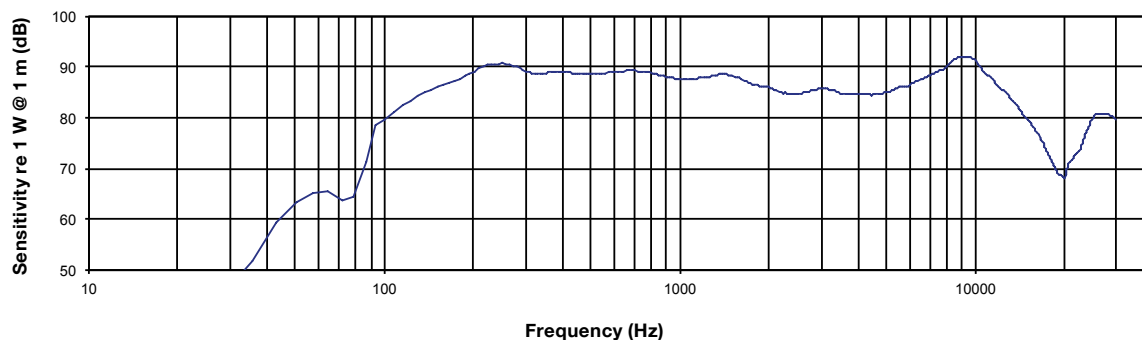
Physical data

Driver complement:	7 x 3.5" (89 mm) full range drivers
Dimensions HxWxD:	816.5 x 121 x 146 mm (32.1 x 4.8 x 5.7")
Weight:	10 kg (22 lbs)
Enclosure:	Aluminium extrusion
Finish:	Paint RAL 9003 (white) & RAL 9004 (black)
Protective grille:	Painted stainless steel



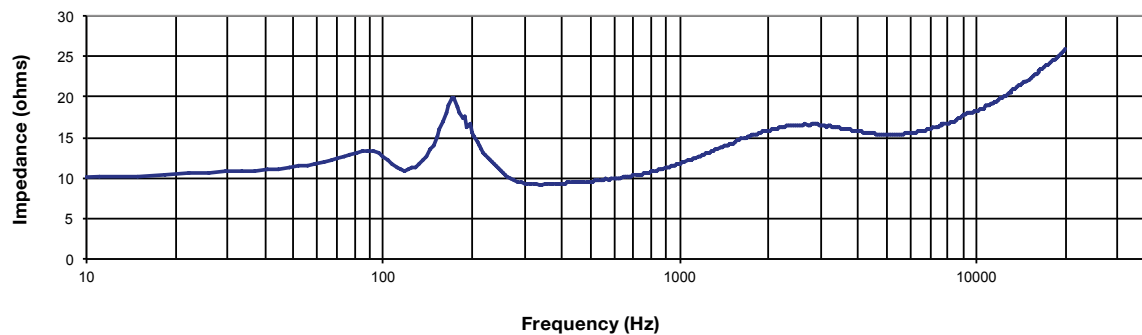
TANNOY

1 m on-axis frequency response



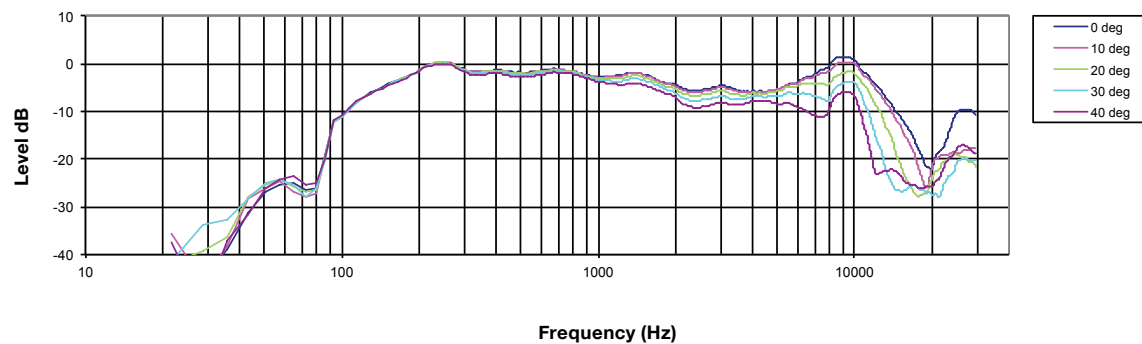
Anechoic frequency response

Impedance vs frequency



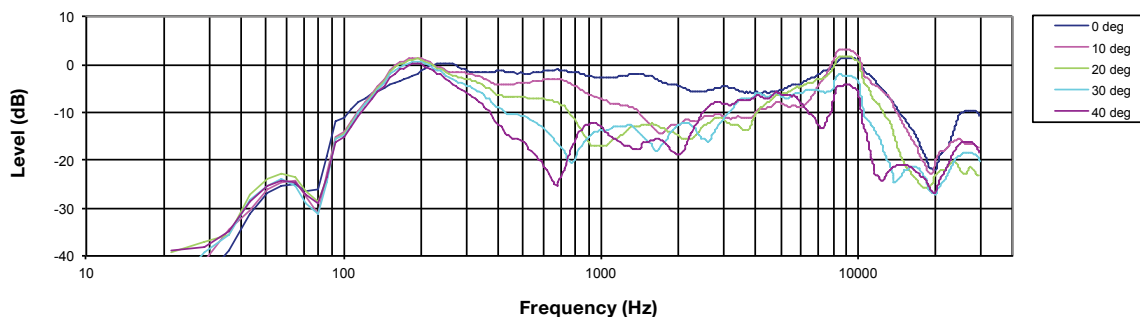
Impedance

Horizontal off-axis frequency response



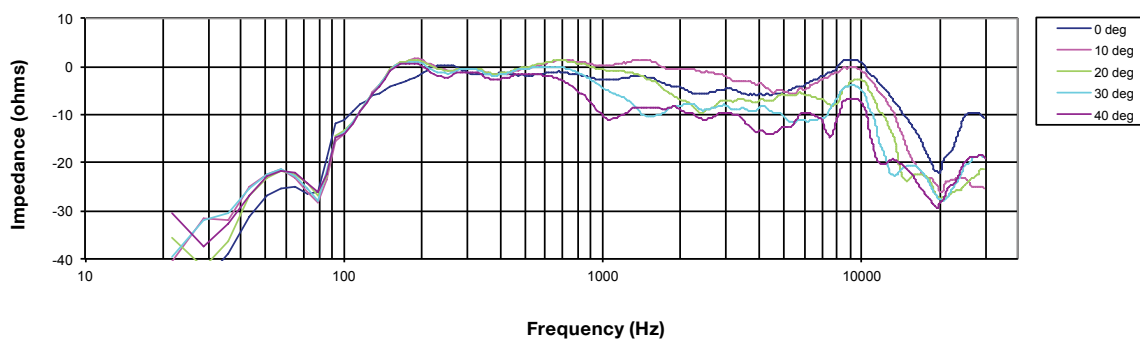
Off-axis response

Upper vertical off-axis frequency response



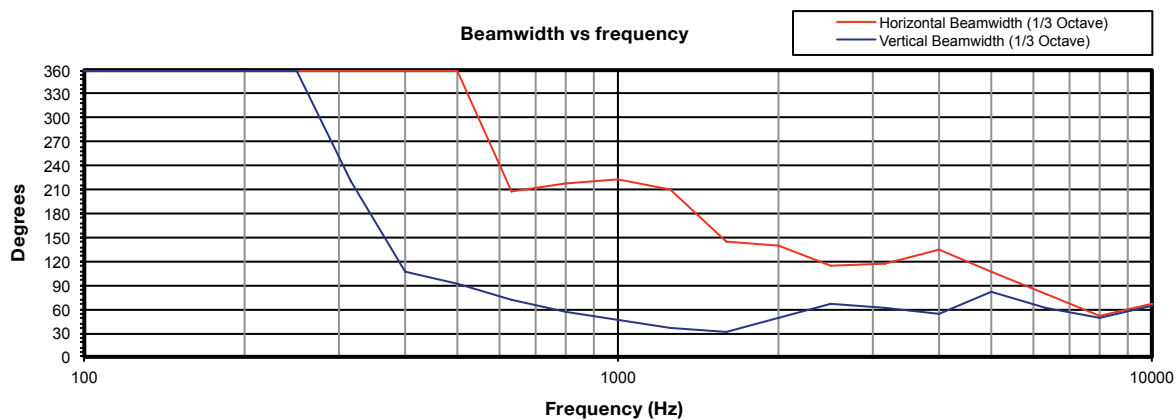
Off-axis response

Lower vertical off-axis frequency response



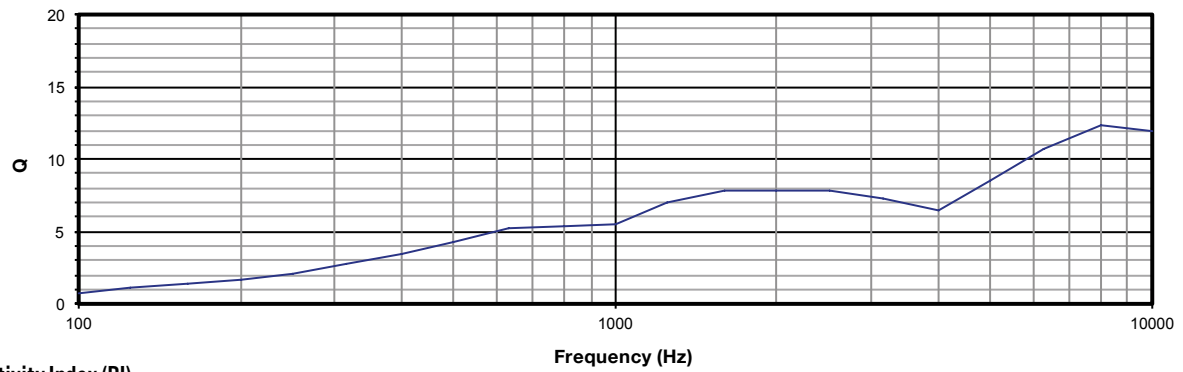
Off-axis response

Beamwidth vs frequency



Beamwidth

DI vs frequency



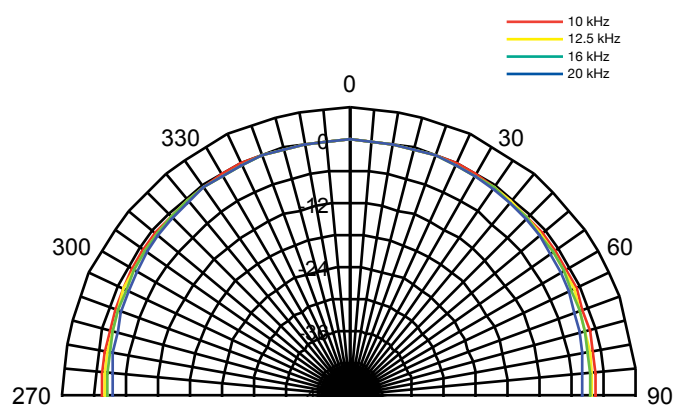
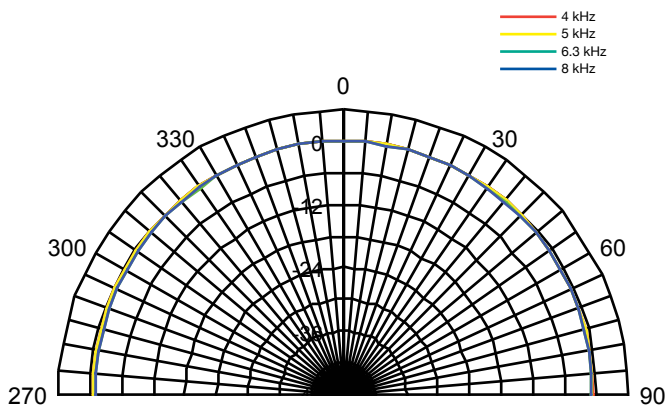
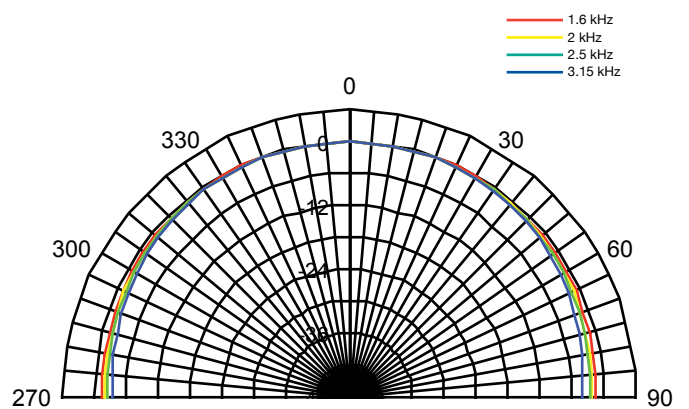
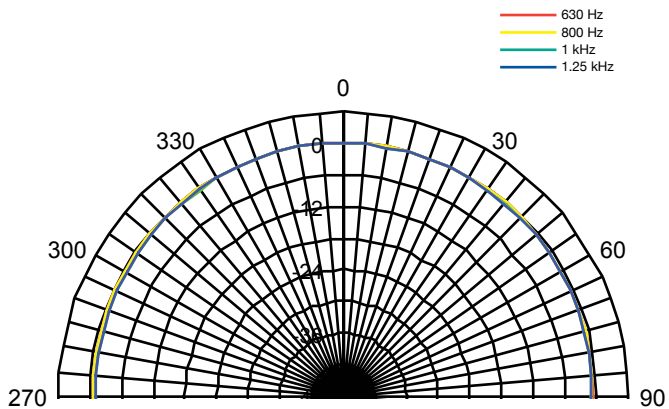
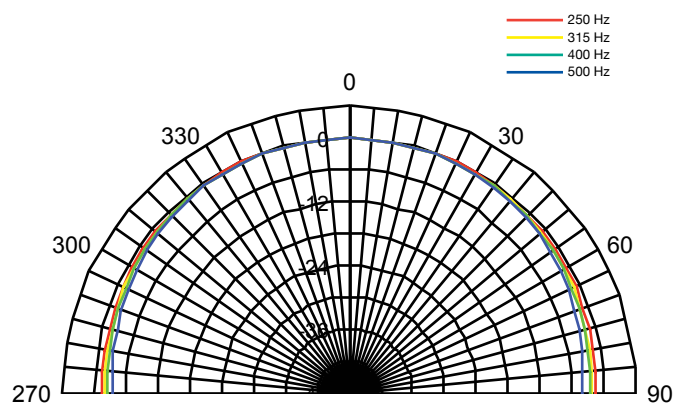
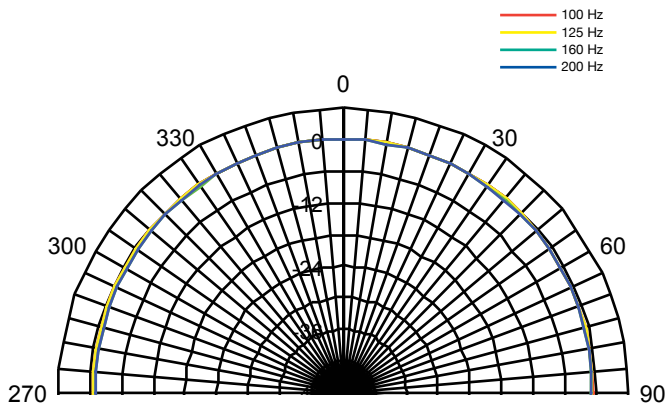
Directivity Index (DI)

Frequency (Hz)

Technical Data Sheet

Polar plots (1/3 octave) horizontal

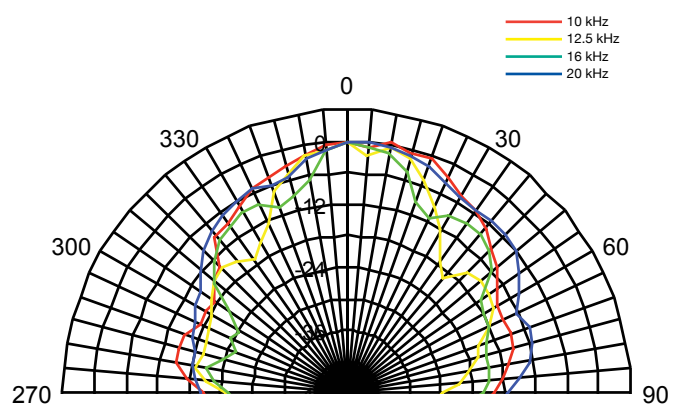
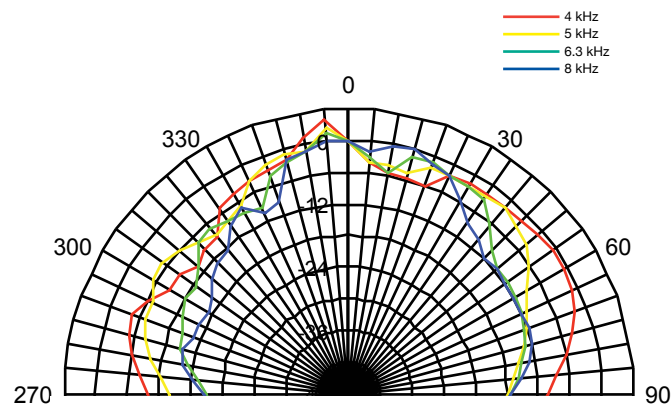
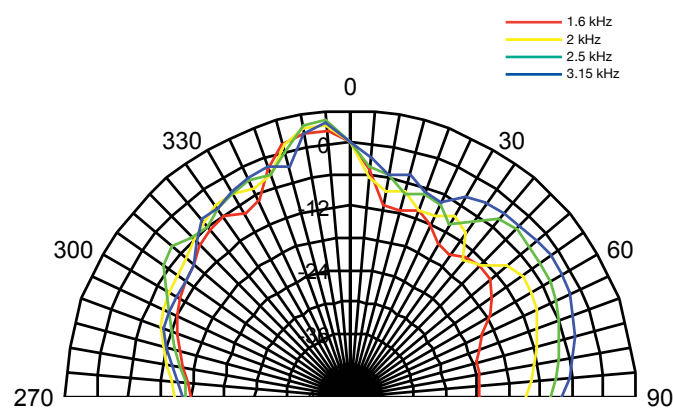
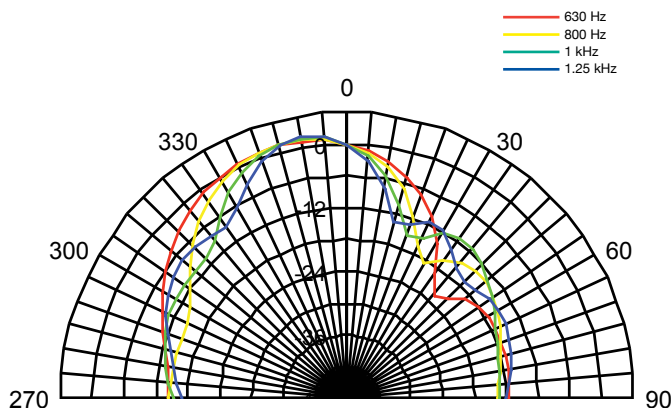
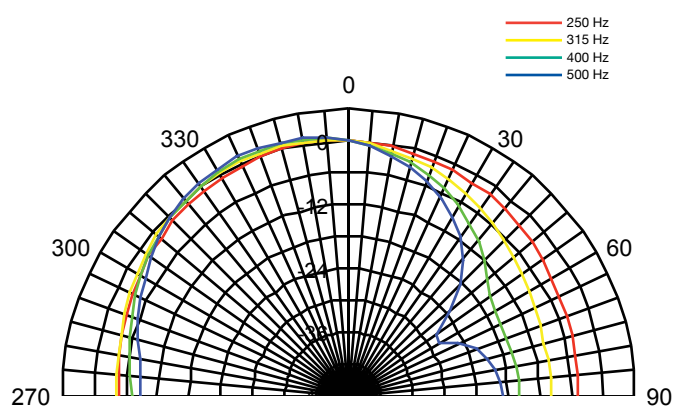
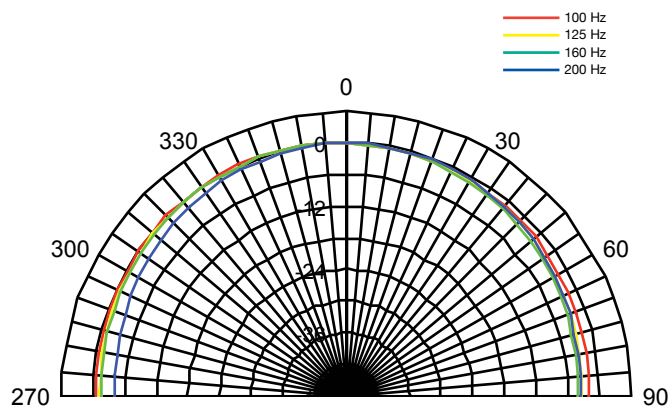
VLS 7



Technical Data Sheet

Polar plots (1/3 octave) vertical

VLS 7



Technical Data Sheet

Specifications

VLS 7

Performance

Frequency response (-3 dB) ⁽¹⁾	150 Hz - 11 kHz
Frequency range (-10 dB) ⁽¹⁾	110 Hz - 14 kHz
System sensitivity (1 m, LoZ) ⁽²⁾	90 dB
Sensitivity as per EN54 ^(4 M, through transformer)	76 dB
Horizontal dispersion (-6 dB)	130 degrees horizontal
Vertical dispersion (-6 dB)	+ 6 degrees / - 22 degrees (-8 degree bias)
Driver complement	7 x 3.5" (89 mm) full range drivers
Crossover	Passive network utilising Focussed Asymmetrical Shaping Technology (FAST)
Directivity factor (Q)	6.1 averaged 1 kHz to 10 kHz
Directivity Index (DI)	7.9 averaged 1 kHz to 10 kHz
Power Handling ⁽³⁾	
Average	150 W
Programme	300 W
Peak	600 W
Recommended Amplifier Power	450 W @ 8 ohms
Nominal Impedance (Lo Z)	12 ohms
Maximum SPL as per EN54 ^(4 M, through transformer)	91 dB
Rated maximum SPL (1 m, Lo Z) ⁽²⁾	
Average	112 dB
Peak	118 dB
Transformer Taps (via front rotary switch)	
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 ⁽⁴⁾

	Horizontal plane	Vertical plane
500 Hz	360°	79°
1 kHz	202°	45°
2 kHz	137°	45°
4 kHz	127°	115°

Distortion

10% full power (13.4 V)	Harmonics		
	2nd	3rd	
250 Hz	1.24%	0.92%	
1 kHz	0.64%	0.05%	
10 kHz	0.86%	0.06%	
1% full power (4.2 V)			
250 Hz	0.47%	0.39%	
1 kHz	0.02%	0.04%	
10 kHz	0.32%	0.02%	

Physical

Enclosure	Aluminium extrusion
Finish	Paint RAL 9003 (white) & RAL 9004 (black) Custom RAL colours available (additional cost and lead-time)
Connectors	Barrier strip
Fittings	Flying bracket, wall mount bracket, input panel cover plate and gland
Dimensions (H x W x D)	816.5 x 121 x 146 mm (32.1 x 4.8 x 5.7")
Net Weight (ea)	10 kg (22 lbs)
Packed Quantity	1

Ordering Information

Part Number	Colour
8001 7860	Black
8001 7861	White



This product is environmentally protected to IP65 rated standard.

Notes:

1. Average over stated bandwidth. Measured at 1 metre on axis in free-field, 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 7 can be downloaded from 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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