



V12 HP

TANNOY®



Product Description

For higher SPL applications, the V12 HP delivers extended frequency response with high sound pressure levels, extremely low distortion, outstanding clarity, crystal clear intelligibility, definition and detail from its Tannoy PowerDual™ drive unit. A system optimised for use where such higher output levels are required for live sound reinforcement, high quality public address or large scale music reinforcement installations.

The 300mm (12.00") point source, constant directivity PowerDual™ uses larger high frequency and mid bass magnet assemblies and voice coils to increase efficiency, power handling and output SPL. This is on top of all the features of the standard Tannoy Dual Concentric™ transducers, the reinforced paper mid bass cone and double rolled cambric surround for high sensitivity, as well as the dual magnet assembly and Tulip WaveGuide™ for the high frequency unit.

Being coincidentally aligned to a point source ensures the high frequency and mid bass sections deliver a smooth, uniform frequency response over a wide coverage area; unachievable with discrete two-way designs in the vertical plane, as massive cancellations appear off axis at the crossover frequency. The 75 degree conical dispersion of the PowerDual™ allows either vertical or horizontal mounting without compromising sound quality. The wide dispersion, even coverage pattern and high power handling means that the V12 HP excels in applications as diverse as theme pubs and nightclubs, theatre front of house and effects and side fill in movie theatres and cinemas, right through to class leading audio reproduction in houses of worship, theme parks, leisure venues, sports and multi-use stadiums.

Although designed to perform without any external controller, a Tannoy digital system controller will further enhance performance by equalising the system to improve bass performance; this as well as providing a 2-way crossover function to facilitate use with a separate subwoofer system.

Available in black or white, the rugged multi-ply birch cabinet has asymmetrical profile and convenient aspect ratio to allow installation in a variety of configurations. Supplied with a carrying handle, a blanking plate over a 35mm pole mount location, 8 x M10 bracket inserts for landscape or portrait mounting and 8 x M10 flying inserts. Tannoy's proprietary mounting hardware provides multiple options including wall mount, yoke, ceiling saddle, pole clamp, pole mount and eyebolts.

Features

- 300mm (12.00") point source PowerDual™ driver
- 75 degree controlled conical dispersion for optimum coverage and forward gain
- Compact, versatile enclosure
- High power handling
- High efficiency and low distortion
- Rugged birch plywood construction
- Convenient aspect ratio
- Integral carry handle
- Integral mounting and flying points
- Secure-ET™ hardware mounting options
- Five year loudspeaker warranty

Applications

- Live sound reinforcement
- High quality public address
- Theme pubs and nightclubs
- Movie theatre and cinema
- Side fill in large-scale music reinforcement
- Theme parks and leisure venues
- Sports and multi-use stadiums
- Audio visual
- Houses of worship

Tannoy United Kingdom
 Tannoy North America
 Tannoy Deutschland
 Tannoy France

T: 00 44 (0) 1236 420199
 T: 00 1 (519) 745 1158
 T: 00 49 (180) 1111 881
 T: 00 33 (0)1 7036 7473

E: enquiries@tannoy.com
 E: inquiries@tannoyna.com
 E: anfragen@tannoy.com
 E: ventes@tannoy.com

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TECHNICAL SPECIFICATIONS

System V12 HP

System Type	Full Range - Vented
Frequency Response (-3dB) ⁽¹⁾	70Hz - 25kHz
Frequency Range (-10dB) ⁽¹⁾	55Hz - 38kHz
System Sensitivity (1W @ 1m) ⁽²⁾	97dB (1W = 2.83V for 8 Ohms)
Dispersion (-6dB)	75 degrees conical
Driver Complement	300mm (12.00") Dual Concentric™
Crossover	Passive 1.4kHz with dynamic HF protection
Directivity Factor (Q)	8.2 averaged 1kHz to 10kHz
Directivity Index (DI)	8.8 averaged 1kHz to 10kHz
Rated Maximum SPL⁽²⁾	
Average	120dB
Peak	126dB
Power Handling	
Average	200W
Programme	400W
Peak	800W

Recommended Amplifier Power 400W @ 8 Ohms

Nominal Impedance 8 Ohms

Distortion

10% Full Power (12.65V)	2nd Harmonic	3rd Harmonic
250Hz	0.56%	0.23%
1kHz	2.36%	1.88%
10kHz	2.68%	0.08%
1% Full Power (4V)	2nd Harmonic	3rd Harmonic
250Hz	0.14%	0.14%
1kHz	0.38%	0.94%
10kHz	1.03%	0.05%

Construction

Enclosure	37.5 litre vented, 15mm (0.62") internally braced birch plywood enclosure and 15mm (0.62") MDF front baffle.
Finish	Textured black or white paint, with custom colours on request. Foam covered, powder coated perforated steel grille.
Connectors	2 x Speakon NL4MP in/out
Fittings	Recessed rear mounted carrying handle Blanking plate allows installation of a 35mm pole-mounting socket 8 x M10 bracket inserts allowing for landscape or portrait mounting 8 x M10 flying inserts
Optional Accessories	Black or white power coated perforated steel grille
Dimensions	486 x 370 x 375mm (H x W x D) 19.13 x 14.57 x 14.76" (H x W x D)
Weight	20kg (44.0lbs)

Notes:

(1) Average over stated bandwidth. Measured at 1 metre on axis.

(2) Unweighted pink noise input, measured at 1 metre in an anechoic chamber

A full range of measurements, performance data, CLF and Ease™ Data can be downloaded from www.tannoy.com

Full independent verification of published specifications carried out by NWA Labs, California can also be obtained from the downloads section of www.tannoy.com

Tannoy operates a policy of continuous research and development. The introduction of new materials or manufacturing methods will always 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.

Ordering Information

PART NUMBER	MODEL NAME	COLOUR	PACKED QUANTITY
8001 3090	V12 HP	Black	1
8001 3091	V12 HP	White	1

Tannoy United Kingdom
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T: 00 33 (0)1 7036 7473

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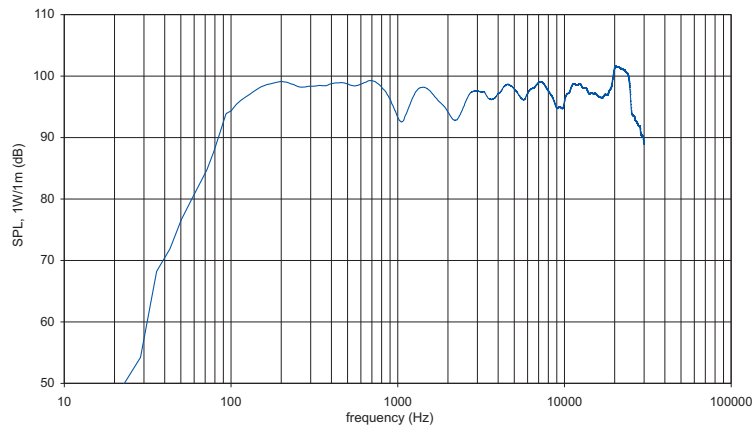


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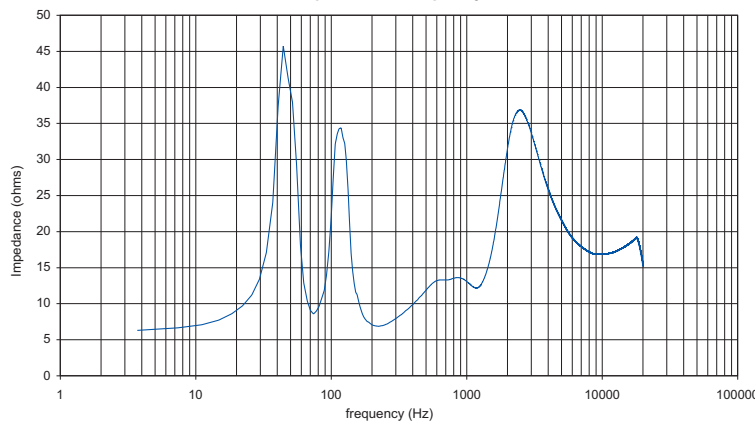
PERFORMANCE MEASUREMENTS

1m on-axis frequency response

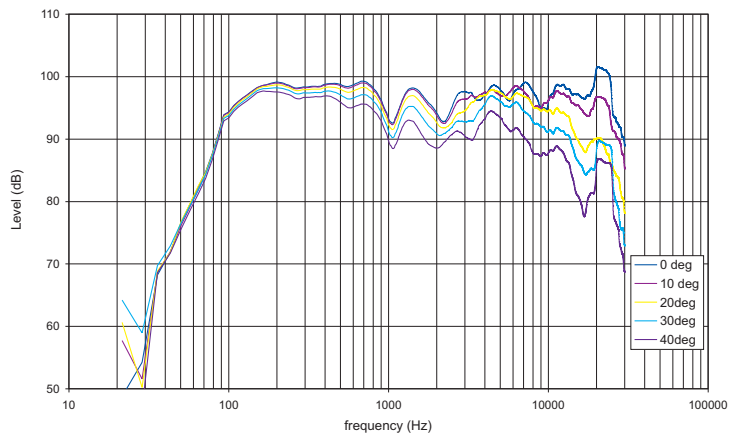


ANECHOIC
FREQUENCY
RESPONSE

Impedance vs frequency



IMPEDANCE



OFF AXIS
RESPONSE

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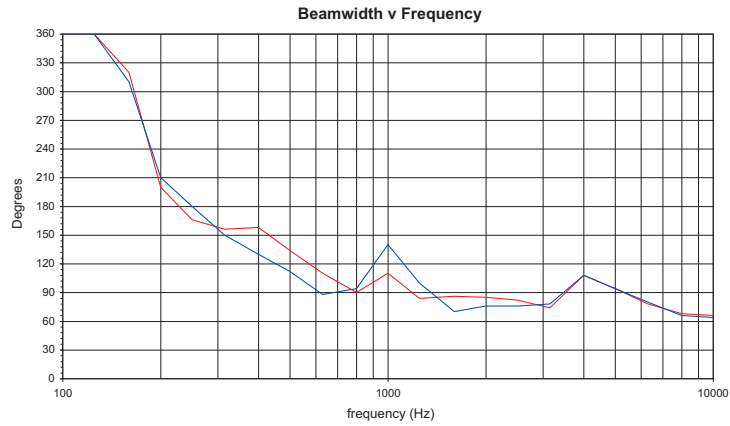
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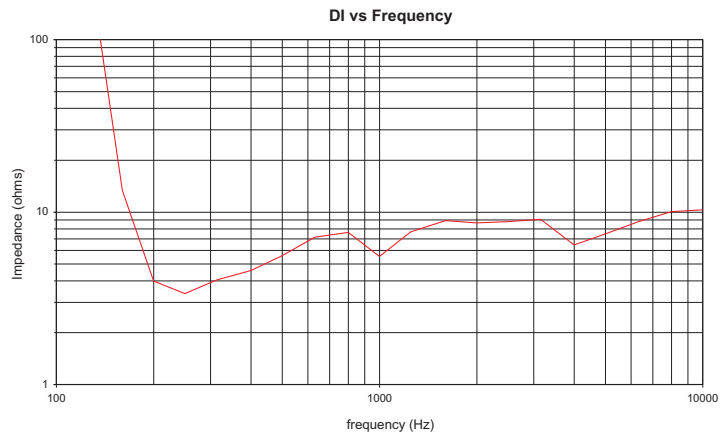
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PERFORMANCE MEASUREMENTS



BEAMWIDTH



DIRECTIVITY INDEX

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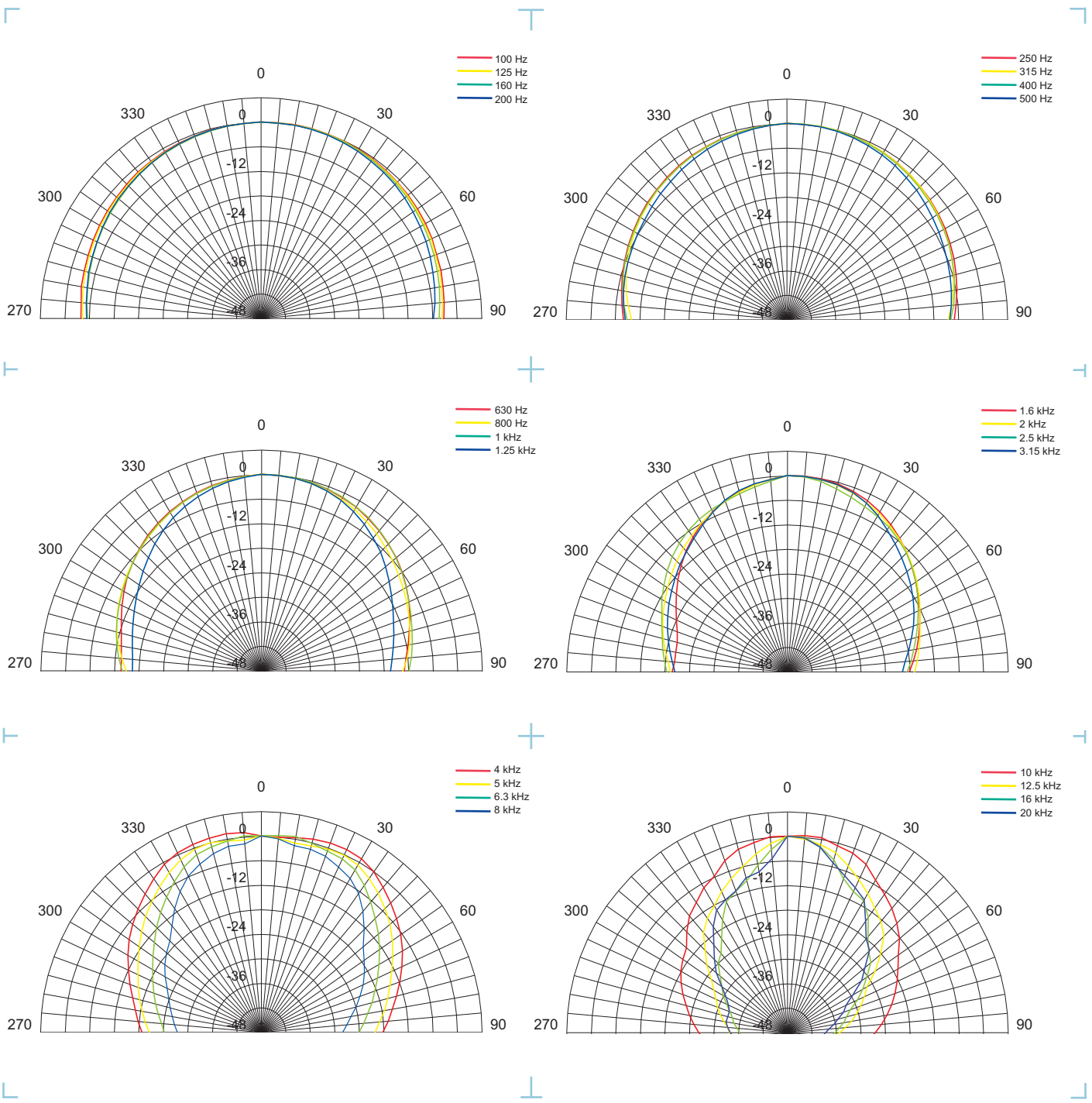
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PERFORMANCE MEASUREMENTS POLAR PLOTS (1/3 OCTAVE)



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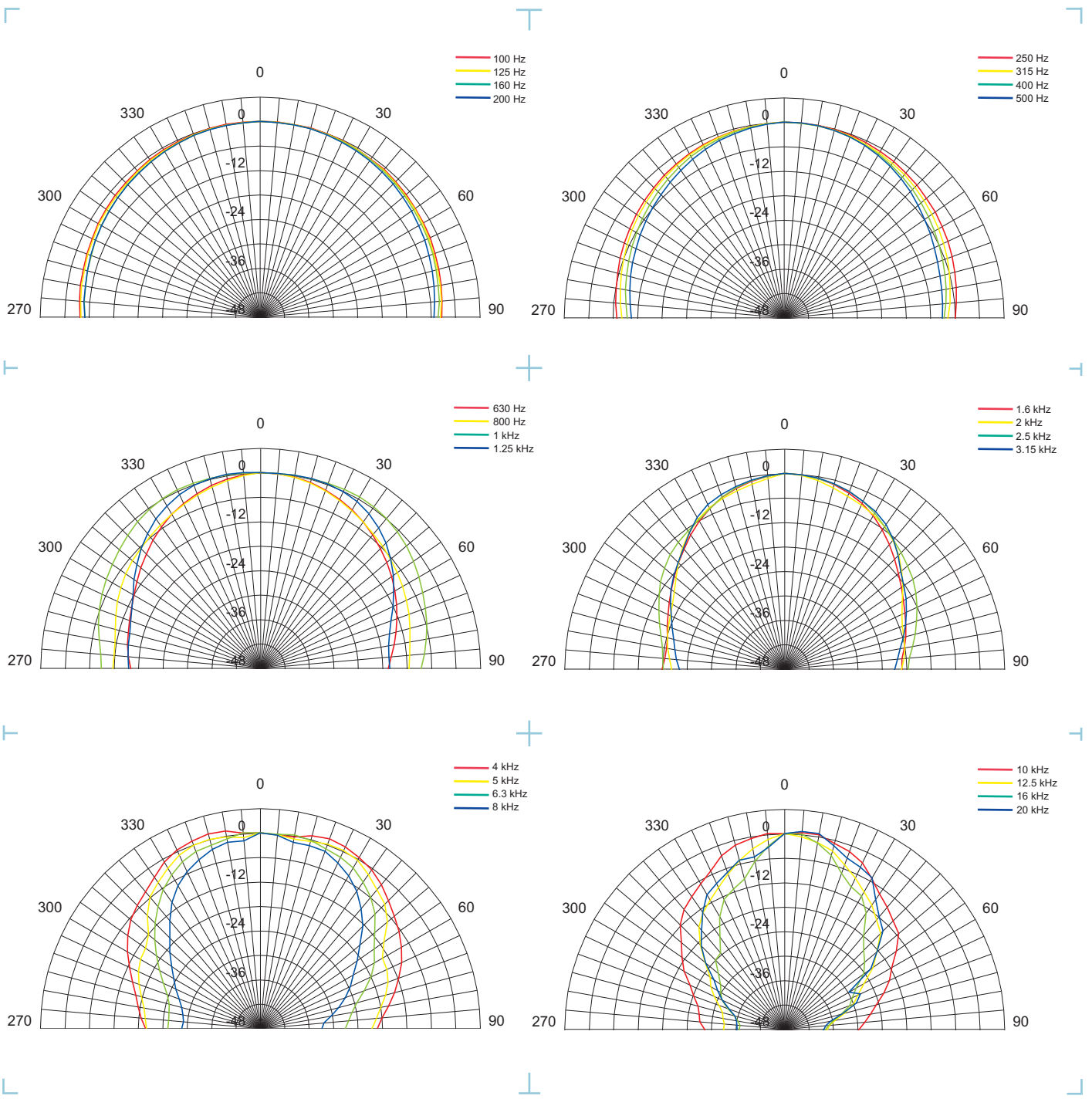
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PERFORMANCE MEASUREMENTS



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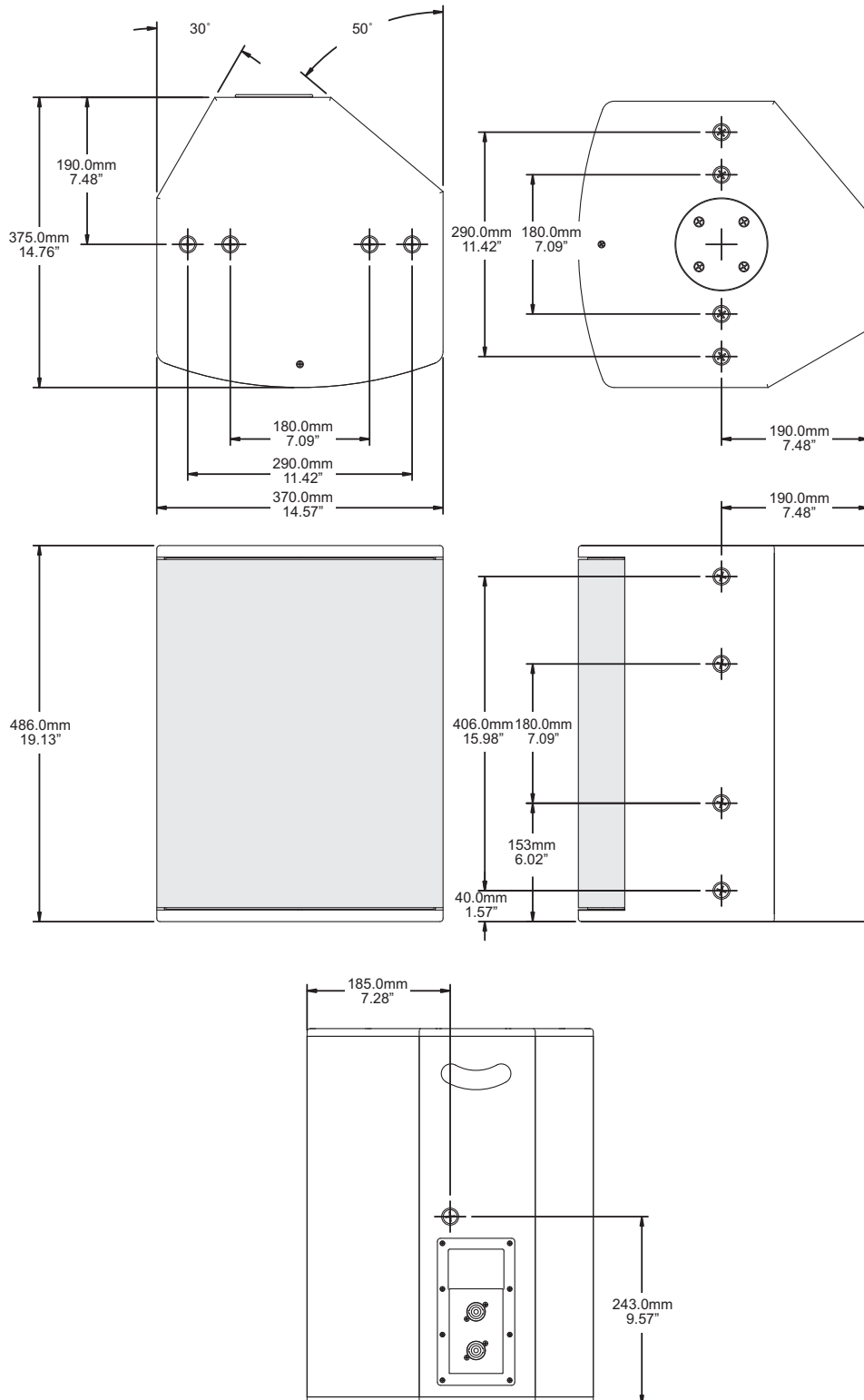
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DIMENSIONAL SKETCHES



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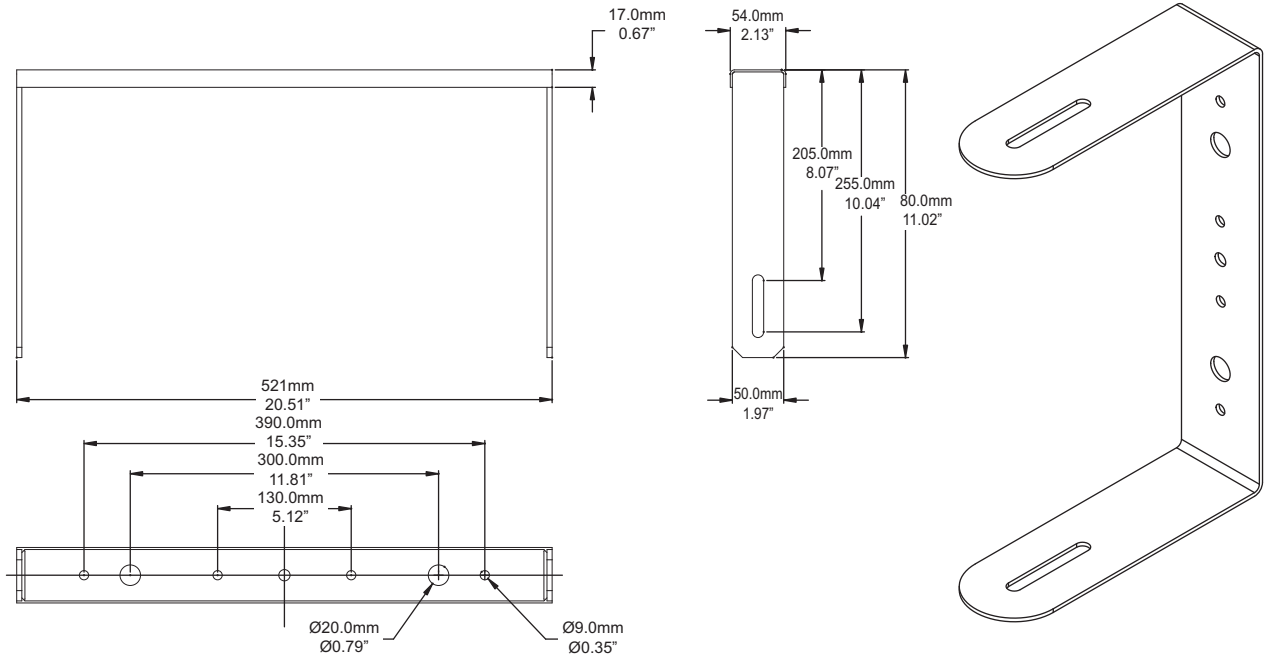


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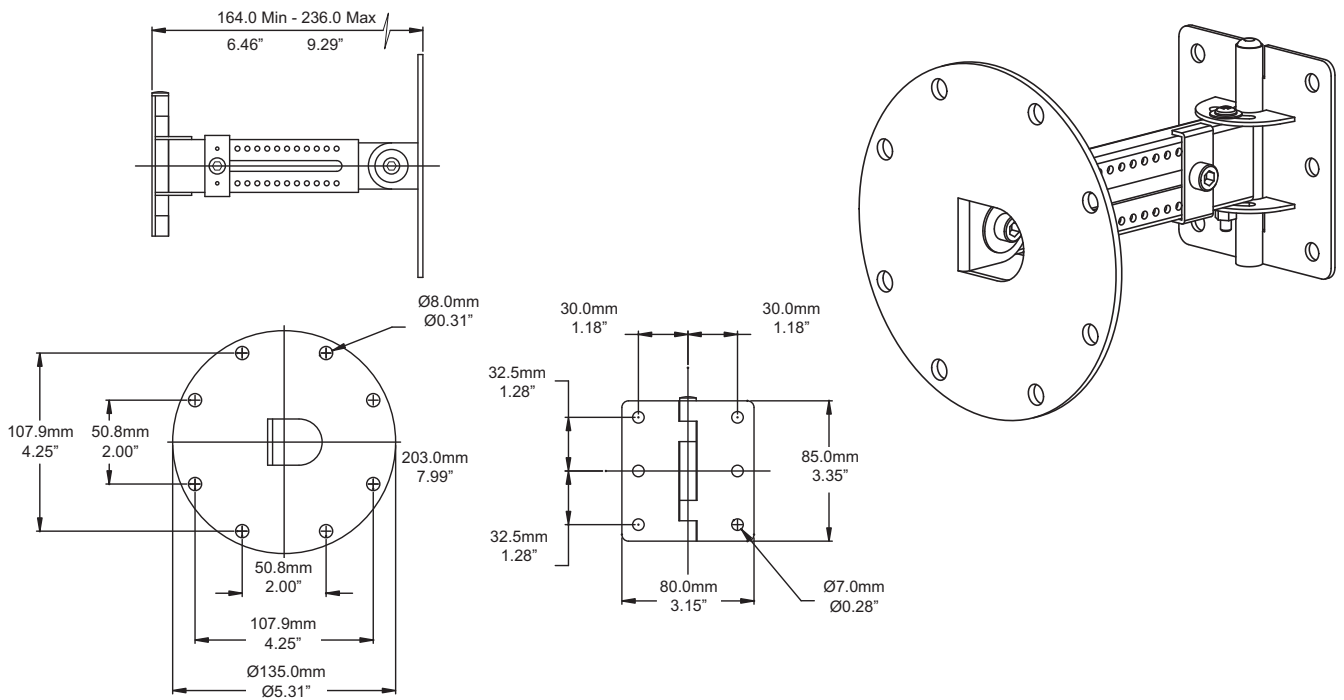
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MOUNTING OPTIONS & HARDWARE

V12Y Yoke



V8B Bracket



SPEAKER END OF MOUNTING BRACKET

WALL END OF MOUNTING BRACKET

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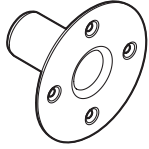
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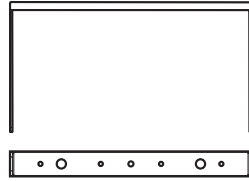
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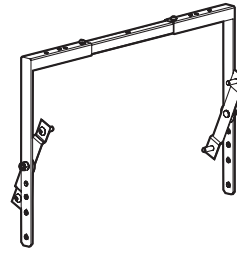
MOUNTING OPTIONS & HARDWARE



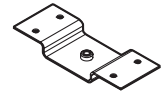
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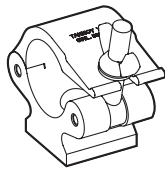
V12Y



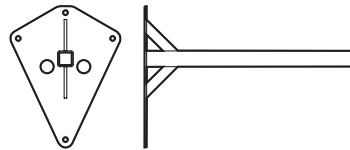
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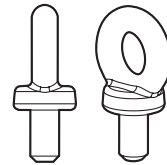
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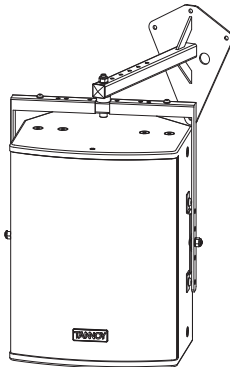
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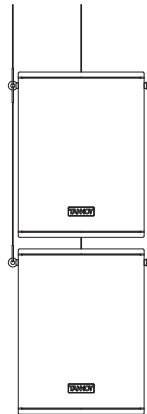
VMB



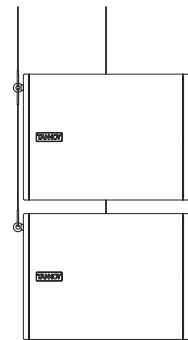
VEB



V12 - VMY - VMB



FLYING MOUNT VERTICAL



FLYING MOUNT HORIZONTAL

Ordering Information

PART NUMBER	MODEL NAME	COLOUR	PACKED QUANTITY
8001 3180	V12Y	Black	1
8001 3181	V12Y	White	1
8001 2780	VMY	Black	1
8001 2790	VMY	White	1
8001 2800	VMB	Black	1
8001 2810	VMB	White	1
8001 2820	VEB	-	1
8001 2830	VCS	Black	1
8001 2840	VCS	White	1
8001 2860	VTH	Black	1
8001 2870	VTH	White	1
8001 2850	VPC	-	1

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Architectural specifications

The loudspeaker shall consist of a 300mm (12.00") full range, single point source PowerDual™ transducer. The low and the high frequency elements shall be combined by an internal passive crossover network operating at 1.4kHz, with 2nd order high pass, 2nd order low pass. A configurable switching arrangement on the input panel allows the user to select between full range passive or bi-amped two way powering modes.

Performance of the loudspeaker, without any electronic control shall meet or exceed the following criteria: Frequency response measured at 1 metre on axis with swept sine wave shall be 70Hz - 25kHz (+/-3dB). Sensitivity shall be at least 97dB (anechoic) for 2.83 Volts @ 1 metre and shall be capable of producing a peak output level of 126dB (anechoic) on axis at 1 metre.

The dispersion of the loudspeaker shall be 75 degrees conical (-6dB). The system shall have a nominal impedance of 8 Ohms, maximum power handling shall be 800 Watts (programme). The enclosure shall be an optimally tuned 37.5 litre vented enclosure of birch plywood construction. The enclosure shall be fitted with an integral carrying handle, blanked off recess for optional pole-mount socket installation, 8 x M10 bracket inserts for landscape or portrait mounting and 8 x M10 mounting points for flying hardware.

The enclosure shall not exceed the following dimensions (H x W x D): 486 x 370 x 375mm (19.13 x 14.57 x 14.76")

The loudspeaker shall be the Tannoy...V12 HP.

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