Technical Data Sheet

CMS 403DCe

Product description

The Tannoy CMS 403DCe is a full bandwidth, high power-handling and high sensitivity loudspeaker built around CMS 3.0 – the third generation of Tannoy's revolutionary Ceiling Monitor System technology. Based on an all-new evolution of Tannoy's proprietary Dual Concentric point-source driver, the CMS 403DCe has been fundamentally re-engineered to deliver wider and more consistent broadband directivity, even greater intelligibility, and a more accurate and linear response.

The new Dual Concentric driver design features revolutionary Omnimagnet™ technology and unique patent-pending Torus Ogive Waveguide™ device, together providing more consistent and controlled directivity along with improved high frequency response. Improved time-alignment and greater coherence between LF and HF results in a wider sweet spot for enhanced performance both on- and off-axis. The re-designed baffle provides a subtle extension to the waveguide effect for additional sonic benefits.

Specifically designed for fast, simple and cost effective installation in new and existing buildings, the CMS 403DCe can be entirely angled towards the listener within the fixed ceiling-mounting ring. By discreetly pivoting the loudspeaker towards the desired area of coverage, the problems of difficult speaker placement - particularly in less than perfect room configurations – are easily overcome.

The CMS 403DCe utilizes a 16 ohm driver, making it ideal for use in high performance low-impedance systems (with optimized performance when used in conjunction with Lab.gruppen LUCIA amplifiers). A low-insertion loss 30W transformer is included, with convenient front switching for taps at 30 W, 15 W and 7.5 W, with an additional 3.75 W tap for traditional constant voltage systems.

The CMS 403DCe is supplied with an integral back-can, ready to install as a single unit. The removable locking connector has screw terminals for secure wire termination and loop-thru facility. Strain relief is provided by a clamping mechanism for use with plenum-rated cable or conduit, while the new design's spring-loaded and self-aligning clamps make for even quicker and easier installation. All models are supplied with two tile support rails and one C-ring; a plaster (mud) ring is available as an optional accessory.

Features

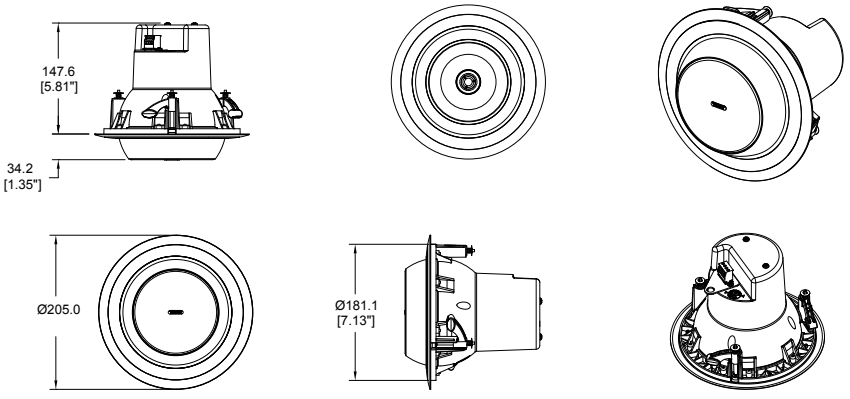
- Advanced new Dual Concentric driver design utilizing Omnimagnet technology
- Torus Ogive Waveguide device for improved broadband directivity
- Improved time alignment and phase coherence, delivering even better sonic performance
- High power and high sensitivity with extended frequency response and very low distortion
- Improved LF performance for applications where genuine bottom-end is a must
- Low insertion-loss, 30 watt line transformer for a more powerful and dynamic performance
- Convenient front-tapping switch for settings
- Adjustable tilt angle with 360-degree rotation to accomodate difficult loudspeaker placements
- Three-clamp, self-aligning mounting system
- UV resistant baffle and grille
- Packaged with classic grille, tile rails and C-ring for quick and easy installation and simple stocking logistics

Physical data

Bezel diameter: 205.0 mm (8.07")

Hole Cutout Diameter: 187.0 mm (7.36")

Front of ceiling to rear of pod: 147.6 mm (5.81")



Applications

- Voice Alarm Systems
- Multizone Foreground Music & Paging Systems
- Boardrooms & Offices
- Business Music Systems
- Airports, Convention Centres, Hotels
- Reception / Waiting Rooms
- Houses of Worship
- Retail Outlets / Shopping Malls
- Lounges / Bars
- Cruise Ships
- Courtrooms

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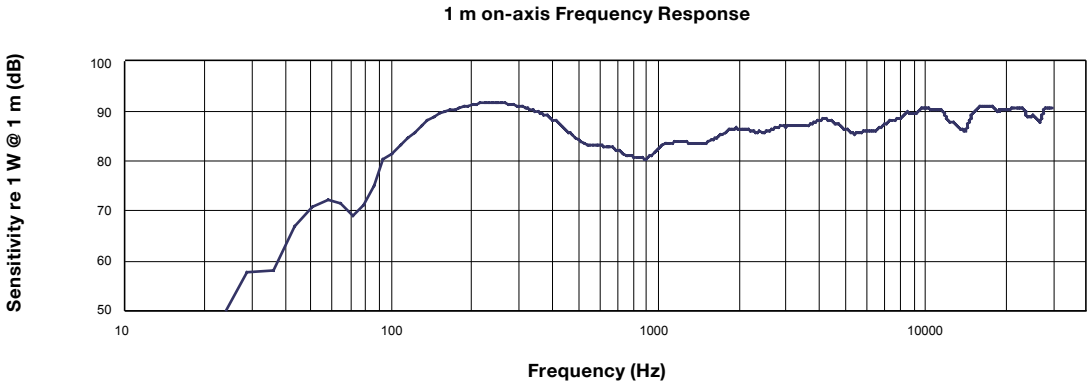
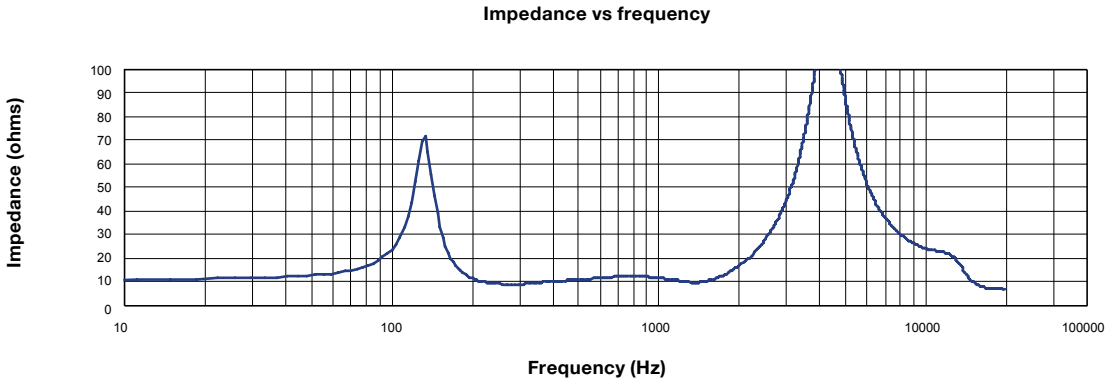
Technical Data Sheet

Performance measurements

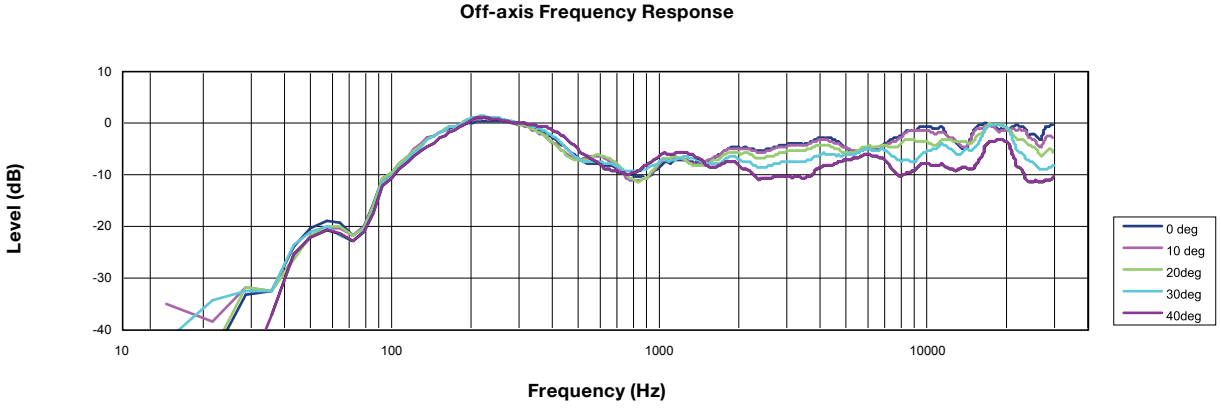
CMS 403DCe



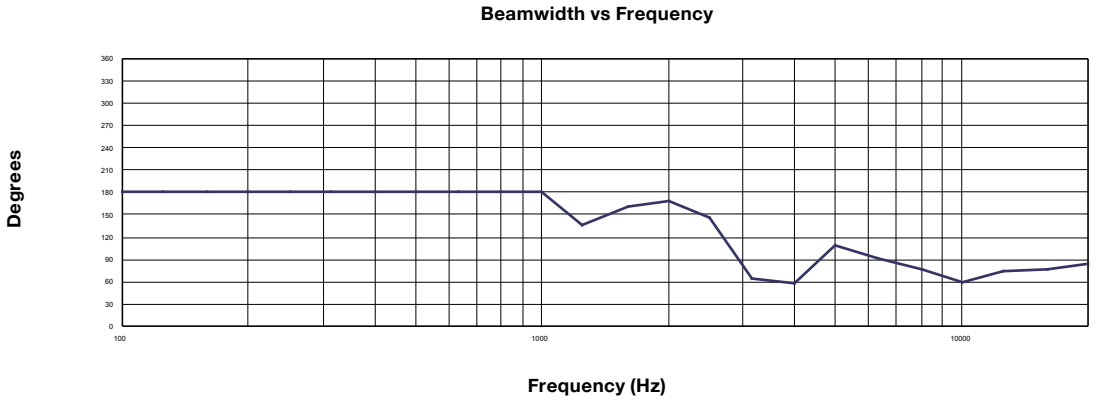
Anechoic Frequency Response



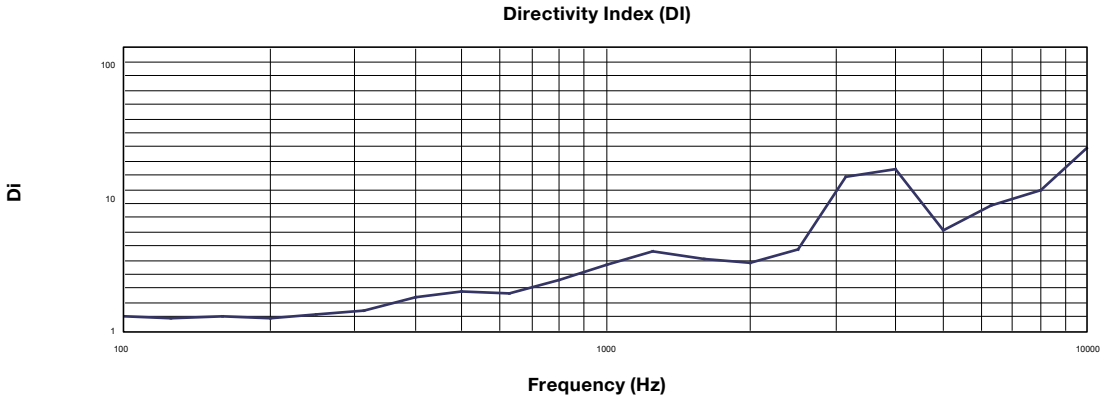
Impedance



Off Axis Response



Beamwidth

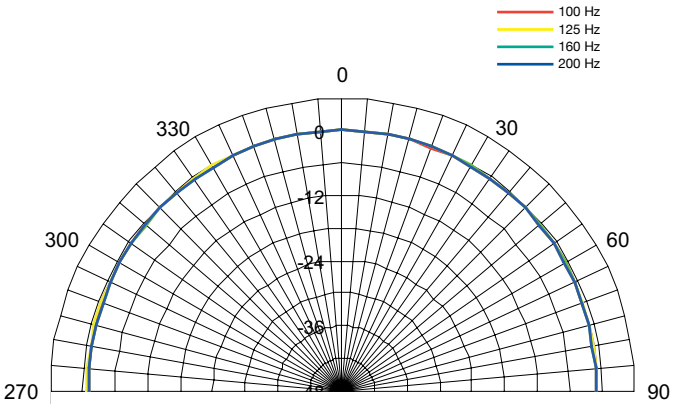


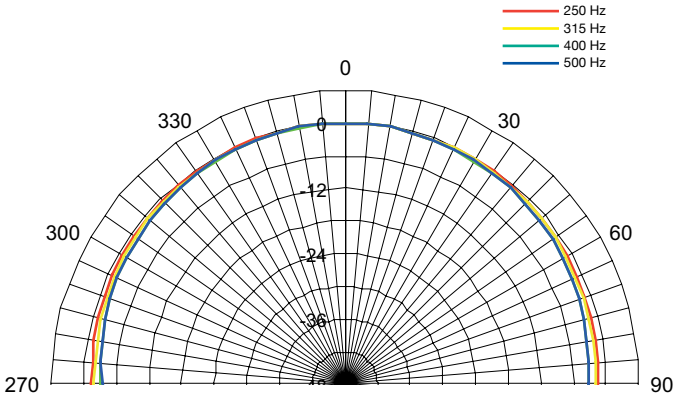
Directivity Index

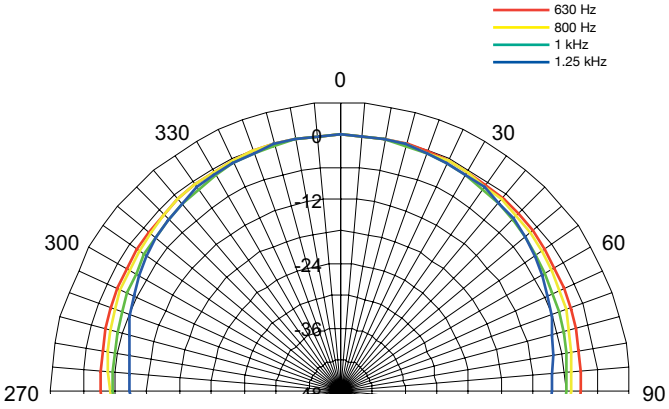
Technical Data Sheet

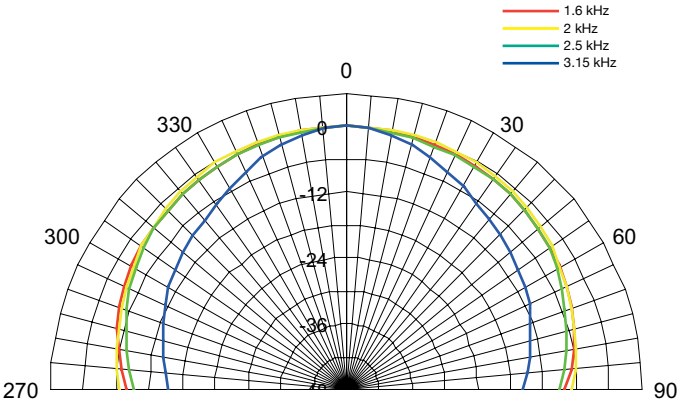
Polar plots (1/3 octave)

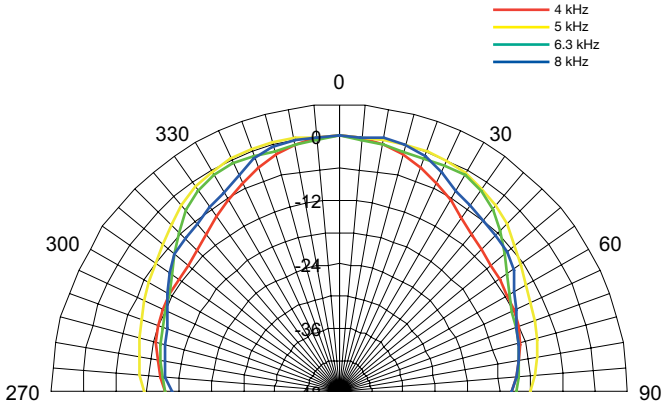
CMS 403DCe

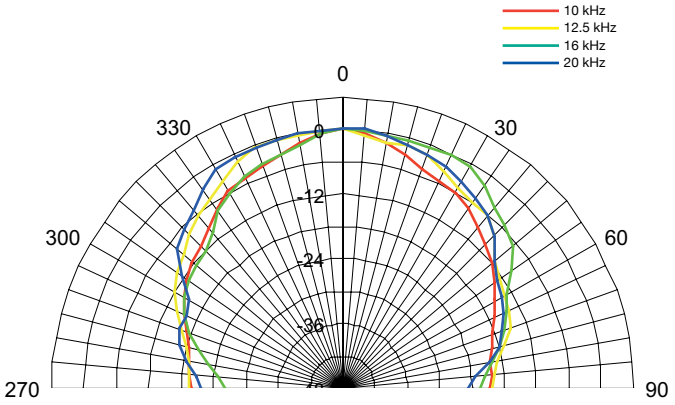












Technical Data Sheet
Specifications

CMS 403DCe

Performance	
Frequency response (-3 dB) [1] BM Backcan	110 Hz - 50 kHz
Frequency range (-10 dB) [1] BM Backcan	80 Hz - 54 kHz
System sensitivity (1 W @ 1 m) [2]	88 dB (1 W = 4 V for 16 Ohms)
Nominal Coverage Angle	90 degrees conical
Power Handling [3]	
Average	60 W
Programme	120 W
Peak	240 W
Recommended Amplifier Power	120 W @ 16 ohms
Nominal Impedance (Lo, Z)	16 ohms
Rated maximum SPL	
Average	106 dB
Peak	112 dB
Transformer Taps (via front rotary switch)	
70 V	30 W (165 Ω) / 15 W (330 Ω) / 7.5 W (660 Ω) / 3.75 W (1320 Ω) / OFF & low impedance operation
100 V	30 W (330 Ω) / 15 W (660 Ω) / 7.5 W (1320 Ω) / OFF & low impedance operation

Transducers	
Dual Concentric point source driver	1 x 100 mm (4.0") Dual Concentric driver, using Omnimagnet technology
Low Frequency	35 mm (1.38") voice coil, treated multi fiber paper pulp cone
High Frequency	20 mm (0.79") PEI dome

Physical	
Enclosure	
Backcan	Reflex loaded UL 94V-0 rated ABS
Baffle	Reflex loaded UL 94V-0 rated ABS
Grille	Steel, with weather resistant coating
Safety Features	Safety ring located at rear of enclosure for load bearing safety bond
Clamping Design	Min / Max clamping range: 0.0 mm (0.0") / 20.0 mm (0.79") Recommended clamp torque: 1.5 Nm
Backcan	
Blind Mount (BM)	Complete with fixed backcan
Connectors	Removable locking connector with screw terminals with "loop through" facility
Compliance	UL-1480, UL-2043, CE
Dimensions	
Bezel diameter	205.0 mm (8.07")
Front of ceiling to rear of pod	147.6 mm (5.81")
Hole cutout diameter	187 mm (7.36")
Net Weight (ea)	2.75 kg (6.06 lbs)
Included Accessories	C-Ring, tile-bridge kit, paint mask, cut-out template, grille
Optional Accessories	Plaster (mud) ring
Packed Quantity	2

Ordering Information Part Number	Colour
8001 7410 CMS 403DCe	**White / Paintable**
8001 4180 CMS 403e Plaster (Mud) Ring	**Zinc Plated Steel**

CE

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

A full range of measurements, performance data, CLF and Ease™ Data for CMS 403DCe 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.