



## Features

- Advanced new Dual Concentric driver design utilizing Omnimagnet technology
- Torus Ogive Waveguide device for improved broadband directivity
- Tight, uniform 70 degree dispersion pattern for high-ceiling applications
- 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, 60 Watt line transformer for a more powerful and dynamic performance
- Convenient front-tapping switch for settings
- Magnetically-adhering grille system for easy custom painting and optional Arco designer grilles for minimal architectural impact
- Three-clamp, self-aligning mounting system
- UV/weather resistant UL94V-0 ABS construction for structural integrity
- Packaged with classic grille, tile rails and C-ring for quick and easy installation and simple stocking logistics
- Five year warranty

## 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

## Product description

The Tannoy CMS 803DCQ 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. The new “Q” variant, designed specifically for high-ceiling applications, incorporates a proprietary waveguide design with a tight, uniform 70-degree conical dispersion pattern.

Based on an all-new evolution of Tannoy’s proprietary Dual Concentric point-source driver, the CMS 803DCQ 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 for more consistent 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.

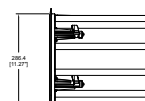
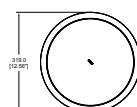
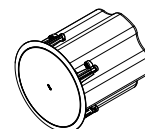
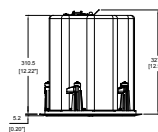
The CMS 803DCQ also features extra clamp extension to accommodate thicker ceiling panels, and a locking design that prevents inadvertent over-screwing. Magnetic grille attachment enables easy removal and fitting for custom painting and tapping changes with grilles now available as either traditional style (inset in bezel) or new Arco™ style which conceals the entire unit for more architect-friendly aesthetic appeal.

The CMS 803DCQ 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 60 W transformer is included, with convenient front bezel switching for taps at 60 W, 30 W and 15 W, with an additional 7.5 W tap for traditional constant voltage systems.

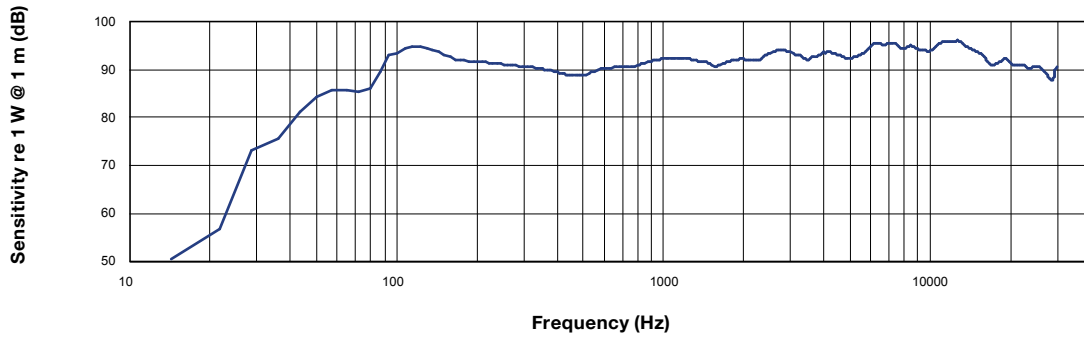
The CMS 803DCQ is available in two variants. The BM (Blind Mount) version is supplied with an integral back-can, ready to install as a single unit, while the CMS 803DCQ PI (Pre-Install) is supplied without a back-can (separate back-can available). The zinc plated steel back-cans have an integrated, recessed termination box. 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 classic grille, two tile support rails and one C-ring; Arco grille and plaster (mud) ring are available as optional accessories.

## Physical data

<b>Bezel diameter:</b>	319.0 mm (12.56")	<b>Hole Cutout Diameter:</b>	295.0 mm (11.61")
<b>BM Model:</b>		<b>PI Model:</b>	
Front of ceiling to rear of backcan	310.5 mm (12.22")	Front of ceiling surface to rear of speaker unit	125.6 mm (4.94")
Front of ceiling to top of safety loop	327.7 mm (12.90")	Front of accessory backcan bezel to top of safety loop	168.5 mm (6.63")

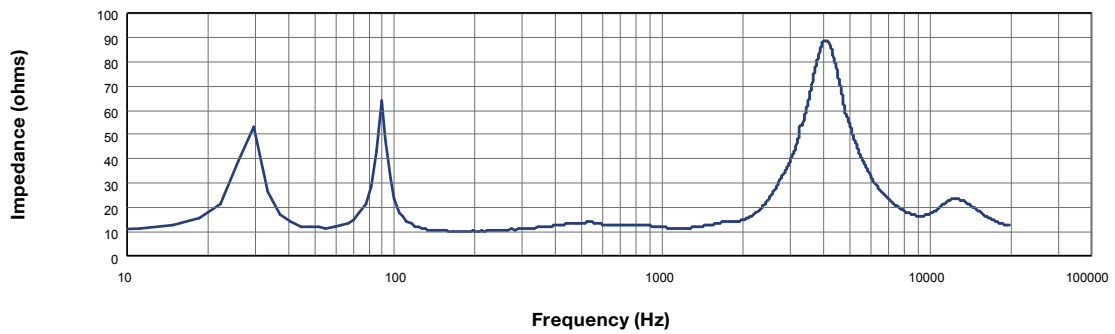


### 1 m on-axis Frequency Response



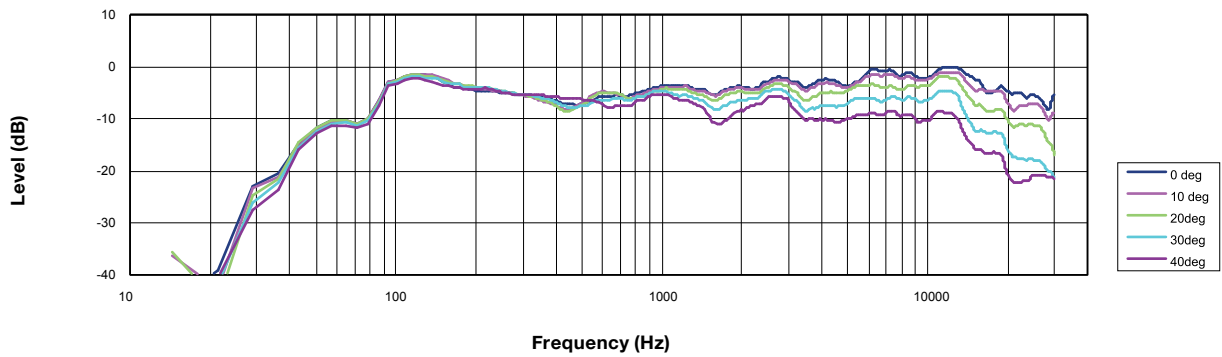
### Anechoic Frequency Response

### Impedance vs frequency



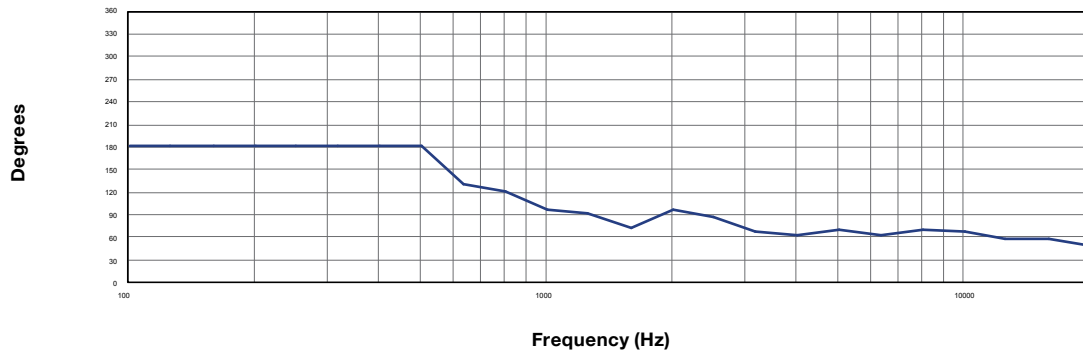
### Impedance

### Off-axis Frequency Response



### Off Axis Response

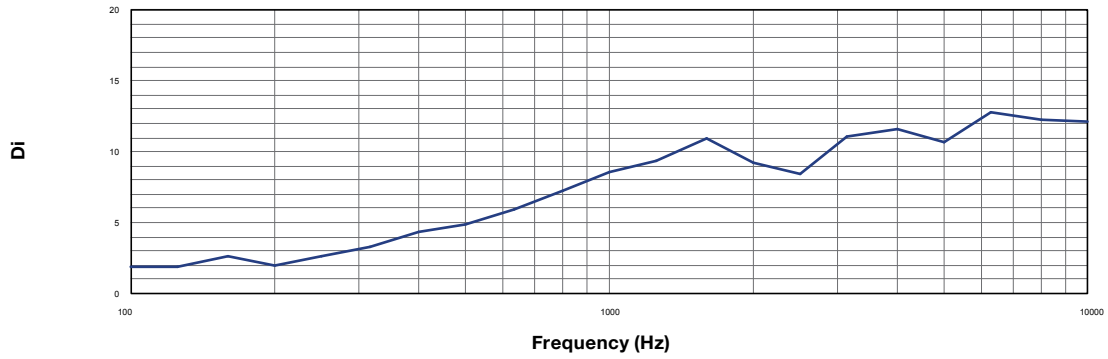
### Beamwidth vs Frequency



### Beamwidth

---

### Directivity Index (DI)



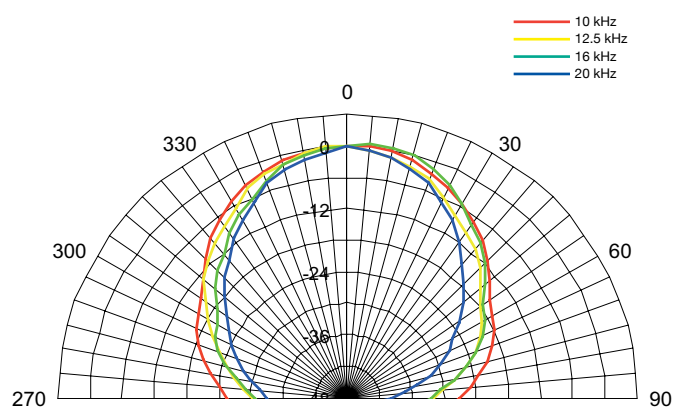
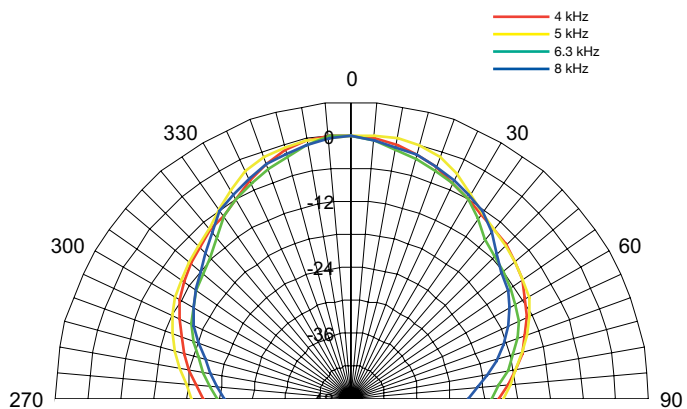
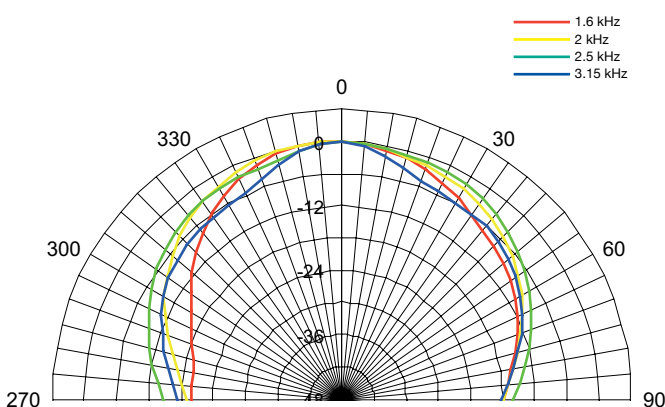
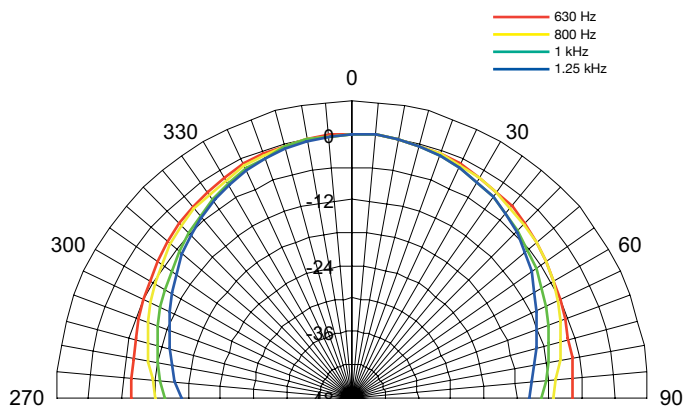
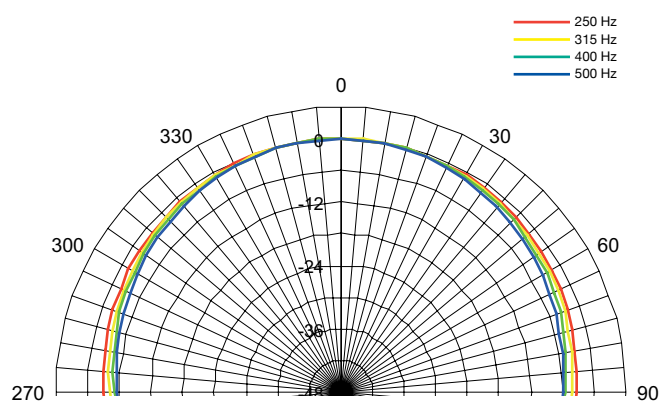
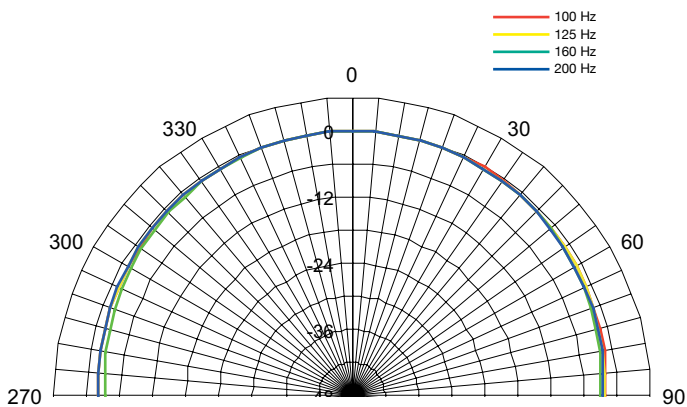
### Directivity Index

---

# Technical Data Sheet

## Polar plots (1/3 octave)

# CMS 803DCQ



# Technical Data Sheet

## Specifications

# CMS 803DCQ

### Performance

<b>Frequency response (-3 dB) <sup>(1)</sup></b>	47 Hz - 30 kHz
<b>Frequency range (-10 dB) <sup>(1)</sup></b>	40 Hz - 35 kHz
BM Backcan	
<b>Frequency range (-10 dB) <sup>(1)</sup></b>	41 Hz - 35 kHz
PI Backcan	
<b>System sensitivity (1 W @ 1 m) <sup>(2)</sup></b>	93 dB (1 W = 4 V for 16 Ohms)
<b>Nominal Coverage Angle</b>	60 degrees conical
<b>Power Handling <sup>(3)</sup></b>	
Average	90 W
Programme	180 W
Peak	360 W
<b>Recommended Amplifier Power</b>	180 W @ 16 ohms
<b>Nominal Impedance (Lo, Z)</b>	16 ohms
<b>Rated maximum SPL</b>	
Average	113 dB
Peak	119 dB
With THP60 - Average	111 dB
<b>Transformer Taps (via front rotary switch)</b>	
70 V	60 W (83 Ω) / 30 W (165 Ω) / 15 W (330 Ω) / 7.5 W (660 Ω) / OFF & low impedance operation
100 V	60 W (165 Ω) / 30 W (330 Ω) / 15 W (660 Ω) / OFF & low impedance operation

### Transducers

<b>Dual Concentric point source driver</b>	1 x 200 mm (8.0") Dual Concentric driver, using Omnimagnet technology
<b>Low Frequency</b>	44 mm (1.75") voice coil, treated multi fiber paper pulp cone
<b>High Frequency</b>	25 mm (1.00") PEI dome

### Physical

<b>Enclosure</b>	
Backcan	Zinc plated steel
Baffle	Reflex loaded UL 94V-0 rated ABS
Grille	Steel, with weather resistant coating
<b>Safety Features</b>	Safety ring located at rear of enclosure for load bearing safety bond
<b>Clamping Design</b>	Security toggle clamp
<b>Cable Entry Options</b>	Cable clamp & squeeze connector for conduit up to 22 mm
<b>Connectors</b>	Removable locking connector with screw terminals with "loop through" facility
<b>Compliance</b>	UL-1480, UL-2043, CE
<b>Dimensions</b>	
Bezel diameter	319.0 mm (12.56")
Front of ceiling to rear of backcan	310.5 mm (12.22")
Front of ceiling to top of safety loop	327.7 mm (12.90")
<b>Hole cutout diameter (all models)</b>	295 mm (11.61")
<b>Net Weight (ea)</b>	8.5 kg (18.74 lbs)
<b>Included Accessories</b>	C-Ring, tile-bridge kit, paint mask, cut-out template, grille
<b>Optional Accessories</b>	Plaster (mud) ring
<b>Packed Quantity</b>	2

### Ordering Information

Part Number	Colour
<b>8001 7490</b> CMS 803DCQ	White / Paintable
<b>8001 4650</b> CMS 803 Plaster (Mud) Ring	Zinc Plated Steel
<b>8001 7900</b> CMS 803 Arco Grille	White / Paintable



**LISTED**  
UL-1480,  
UL-2043

#### 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 803DCQ 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.

Copyright (c) 2014 Tannoy Limited. All rights reserved.