

# 8CX300Nd COAXIAL TRANSDUCER



### **KEY FEATURES**

- High power handling: 250/50 w AES (LF/HF)
- High sensitivity: 96/102 dB (LF/HF)
- Low resonant frequency: 57 Hz
- Extended controlled displacement: Xmax ± 6mm
- Extended mechanical displacement capability: Xdamage ± 24mm
- Designed with MMSS technology for high control, symmetry and linearity
- Demodulating ring for low harmonic distortion
- CONEX spider for higher resistance and consistency
- Waterproof Carbon Fiber loaded paper cone with Santoprene™ surround for high efficiency
- Excellent off-axis response
- 70° conical dispersion
- PM4 diaphragm for natural sound

### TECHNICAL SPECIFICATIONS

Nominal diameter	200 mm. 8 in.
Rated impedance	8 ohms
Minimum impedance	6.1ohms
Power capacity*(LF/HF)	250 / 50 w AES
Program power(LF/HF)	500 / 100 w
Sensitivity (LF/HF)	96 dB / 102 dB 1W @ 1m @ 2π
Frequency range	40 - 20000 Hz
Recom. HF crossover	1.5kHz or higher (12dB/oct. min slope)
Voice coil diameter	63.5 mm. 2.5 in.
Magnetic assembly wei	<b>ght</b> 1.9 kg. 4.18 lb.
BL factor	9.85 N / A
Moving mass	0.014 kg.
Voice coil length	15 mm
Air gap height	7 mm
X damage (peak to pea	<b>k)</b> 24 mm

# THIELE-SMALL PARAMETERS\*\*

Resonant frequency, fs	57 Hz
D.C. Voice coil resistance, Re	5 ohms
Mechanical Quality Factor, Qms	9.25
Electrical Quality Factor, Qes	0.27
Total Quality Factor, Qts	0.26
Equivalent Air Volume to Cms, Vas	35 I
Mechanical Compliance, Cms	517 <b>µ</b> m / N
Mechanical Resistance, Rms	0.57 kg / s
Efficiency, no (%)	2.43
Effective Surface Area, Sd (m <sup>2</sup> )	0.0220 m <sup>2</sup>
Maximum Displacement, Xmax***	6 mm
Displacement Volume, Vd	132 cm <sup>3</sup>
Voice Coil Inductance, Le @ 1 kHz	0.19 mH



# **DIMENSION DRAWINGS**



#### **MOUNTING INFORMATION**

Overall diameter Bolt circle diameter	212 mm. 198 mm.	6.10 in. 5.57 in.
- Front mount	181 mm.	7.12 in.
- Rear mount	183 mm.	7.20 in.
Overall Depth	105 mm.	4.13 in.
Mounting Depth	94 mm.	3.7 in.
Volume displaced by driver	1.5 l.	0.056 ft. <sup>3</sup>
Net weight	2.6 kg.	5.72 lb.
Shipping weight	3 kg.	6.6 lb.

Notes:

\*The power capacity is determined according to AES2-1984 (r2003) standard.

Program power is defined as the transducer's ability to handle normal music program material.

\*\*T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

\*\*\*The Xmax is calculated as (Lvc - Hag)/2 + Hag/3.5, where Lvc is the voice coil length and Hag is the air gap height.



PROFESSIONAL LOUDSPEAKERS

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### LF FREQUENCY RESPONSE AND DISTORTION



Note: on axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 2.83V @ 1m.



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