

# 15CXA400Fe

**COAXIAL TRANSDUCER** 

### **KEY FEATURES**

- Program power: 800 / 160 W (LF / HF)
- Sensitivity: 98 / 105 dB (1W / 1m) (LF / HF)
- 4" voice coil woofer
- 2.85" voice coil compression driver
- Common ferrite magnet system design

- Demodulating rings in both LF and HF units
- Composite Titanium / Polyester HF diaphragm
- Weatherproof LF cone
- 60° coverage horn for HF dispersion control





## **TECHNICAL SPECIFICATIONS**

Nominal diameter	380 mm		15 in
Rated impedance (LF/HF)			8 / 16 Ω
Minimum impedance (LF/HF)		6,	3 / 11,3 Ω
Power capacity 1 (LF/HF)		400 /	80 W <sub>AES</sub>
Program power <sup>2</sup> (LF/HF)		80	0 / 160 W
Sensitivity (LF/HF <sup>3</sup> )	98 dB	1W /	1m @ Z <sub>N</sub>
	105 dB	1W /	1m @ Z <sub>N</sub>
Frequency range		40 - 2	20.000 Hz
Recom. HF crossover	1,5 kHz or higher (12 dB/oct min slope)		
Voice coil diameter (LF/HF)	101,6	mm	4 in
	72,4	mm	2,85 in
BI factor			18,2 N/A
Moving mass			0,090 kg
Voice coil length			16 mm
Air gap height			10 mm
X <sub>damage</sub> (peak to peak)			51 mm

### THIELE-SMALL PARAMETERS4

Resonant frequency, f <sub>s</sub>	40 Hz
D.C. Voice coil resistance, R <sub>e</sub>	6,3 Ω
Mechanical Quality Factor, Q <sub>ms</sub>	16,4
Electrical Quality Factor, Q <sub>es</sub>	0,43
Total Quality Factor, Qts	0,42
Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub>	191 I
Mechanical Compliance, C <sub>ms</sub>	175 μm / N
Mechanical Resistance, R <sub>ms</sub>	1,4 kg / s
Efficiency, η <sub>0</sub>	2,75 %
Effective Surface Area, S <sub>d</sub>	0,088 m <sup>2</sup>
Maximum Displacement, X <sub>max</sub> ⁵	6 mm
Displacement Volume, V <sub>d</sub>	350 cm <sup>3</sup>
Voice Coil Inductance, Le	1 mH

#### Notes

<sup>&</sup>lt;sup>1</sup> The power capaticty is determined according to AES2-1984 (r2003) standard.

<sup>&</sup>lt;sup>2</sup> Program power is defined as power capacity + 3 dB.

<sup>&</sup>lt;sup>3</sup> Sensitivity was measured at 1m distance, on axis, with 1W input, averaged in the range 1 - 7 kHz

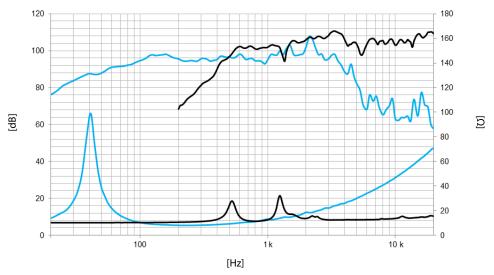
<sup>4</sup> T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

 $<sup>^{\</sup>rm 5}$  The X<sub>max</sub> is calculated as (L<sub>vc</sub> - H<sub>ag</sub>)/2 + (H<sub>ag</sub>/3,5), where L<sub>vc</sub> is the voice coil length and H<sub>ag</sub> is the air gap height.



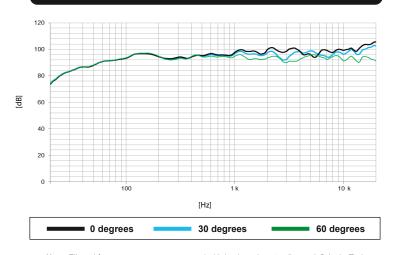
# 15CXA400Fe

**COAXIAL TRANSDUCER** 



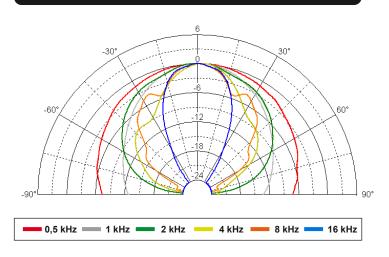
Note: Frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

### FILTERED FREQUENCY RESPONSE



Note: Filtered frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m using filter FD-2XA

### **POLAR PATTERN**



## **MOUNTING INFORMATION**

Overall diameter	388 mm	15,3 in
Bolt circle diameter	370 mm	14,6 in
Baffle cutout diameter:		
- Front mount	352 mm	13,8 in
Depth	193 mm	7,6 in
Volume displaced by driver	7 I	0,25 ft <sup>3</sup>
Net weight	11,9 kg	26,2 lb
Shipping weight	12,4 kg	27,3 lb

### **DIMENSION DRAWING**

