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PROFESSIONAL LOUDSPEAKERS
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12XA30Nd

COAXIAL TRANSDUCER

KEY FEATURES

- 12” bass loudspeaker and 2” exit compression driver
- Power handling: 350 / 90 W_{AES} (LF / HF)
- High sensitivity: 98 / 105 dB (1W / 1m) (LF / HF)
- Extended and linear frequency response
- Demodulating rings in both LF and HF units
- 4” aluminium voice coil for LF unit
- 2,85” aluminium voice coil for HF unit
- Composite Titanium / Polyester HF diaphragm
- Common neodymium magnet system design (low weight)
- Designed for compact bass-reflex cabinets





TECHNICAL SPECIFICATIONS

Nominal diameter	300 mm	12 in
Rated impedance (LF/HF)		8 / 16 Ω
Minimum impedance (LF/HF)		7,6 / 13,5 Ω
Power capacity [1] (LF/HF)		350 / 90 W_{AES}
Program power [2] (LF/HF)		700 / 180 W
Sensitivity (LF/HF [3])	98 dB	1W / 1m @ Z_N
	105 dB	1W / 1m @ Z_N
Frequency range		40 - 20.000 Hz
Recom. HF crossover		1,8 kHz or higher (12 dB/oct min slope)
Voice coil diameter (LF/HF)	101,6 mm	4 in
	72,4 mm	2,85 in
Bl factor		18,2 N/A
Moving mass		0,047 kg
Voice coil length		16 mm
Air gap height		9 mm
X_{damage} (peak to peak)		28 mm

THIELE-SMALL PARAMETERS [4]

Resonant frequency, f_s	35 Hz
D.C. Voice coil resistance, R_e	6,8 Ω
Mechanical Quality Factor, Q_{ms}	8
Electrical Quality Factor, Q_{es}	0,22
Total Quality Factor, Q_{ts}	0,21
Equivalent Air Volume to C_{ms}, V_{as}	172 l
Mechanical Compliance, C_{ms}	430 μm / N
Mechanical Resistance, R_{ms}	1,4 kg / s
Efficiency, η_0	3,3 %
Effective Surface Area, S_d	0,053 m^2
Maximum Displacement, X_{max} [5]	6 mm
Displacement Volume, V_d	318 cm^3
Voice Coil Inductance, L_e	1,3 mH

Notes:

[1] The power capaticty is determined according to AES2-1984 (r2003) standard.

[2] Program power is defined as power capacity + 3 dB.

[3] Sensitivity was measured at 1m distance, on axis, with 1W input, averaged in the range 1 - 7 kHz

[4] 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).

[5] The X_{max} is calculated as $(L_{vc} - H_{ag})/2 + (H_{ag}/3{,}5)$, where L_{vc} is the voice coil length and H_{ag} is the air gap height.

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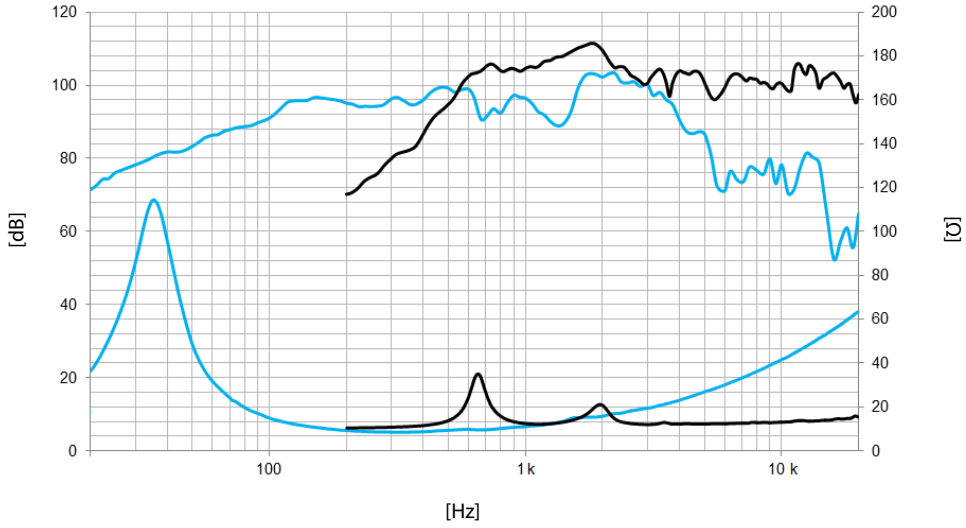
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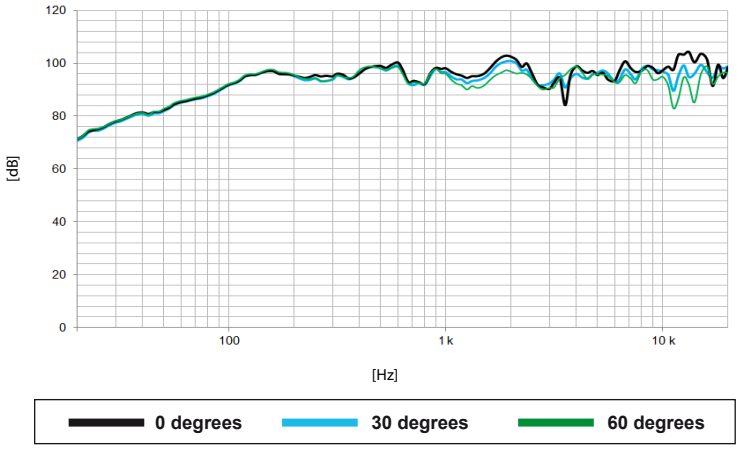
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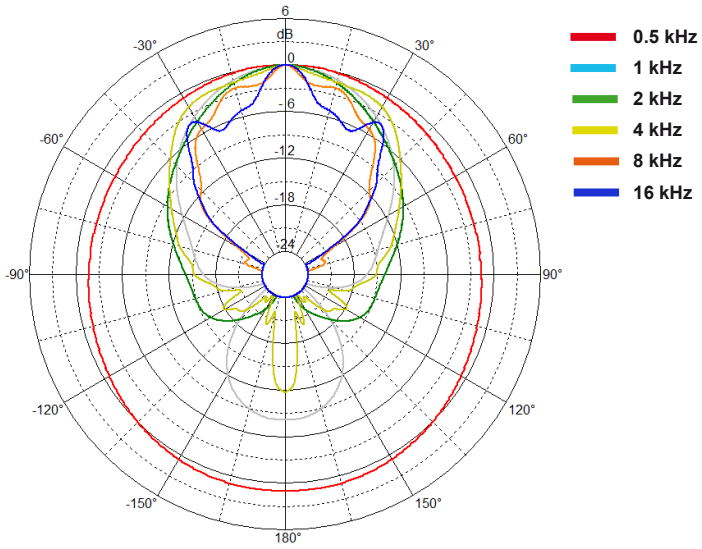
Note: Frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

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	312 mm	12,3 in
Bolt circle diameter	298 mm	11,7 in
Baffle cutout diameter:		
- Front mount	283 mm	11,1 in
Depth	152 mm	6,0 in
Net weight	6,3 kg	13,9 lb
Shipping weight	7 kg	15,4 lb

DIMENSION DRAWING

