

3FR30 FULL RANGE FREQUENCY TRANSDUCER

KEY FEATURES

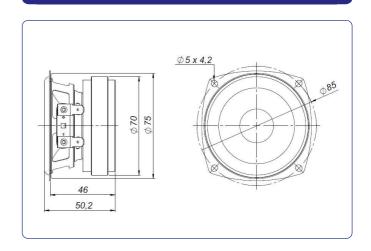
- 3" full-range compact ferrite loudspeaker
- 60 W program power
- Extended response and low distortion
- Paper cone and treated cloth surround
- Steel basket
- Ideal for beam-steering application (columns), portable array and compact applications



TECHNICAL SPECIFICATIONS

Nominal diameter	77 mm 3 in
Rated impedance	8 Ω
Minimum impedance	6,5 Ω
Power capacity*	30 W _{AES}
Program power	60 W
Sensitivity	91 dB 1W / 1m @ Z _N
Frequency range	160 - 20.000 Hz
Voice coil diameter	20,3 mm 0,8 in
BI factor	4,9 N/A
Moving mass	0,0022 kg
Voice coil length	10,5 mm
Air gap height	3 mm

DIMENSION DRAWINGS



THIELE-SMALL PARAMETERS**

Resonant frequency, f _s	160 Hz
D.C. Voice coil resistance, R _e	5,6 Ω
Mechanical Quality Factor, Q _{ms}	8
Electrical Quality Factor, Q _{es}	0,52
Total Quality Factor, Qts	0,49
Equivalent Air Volume to C _{ms} , V _{as}	0,67 l
Mechanical Compliance, C _{ms}	430 μm / N
Mechanical Resistance, R _{ms}	0,28 kg / s
Efficiency, η ₀	0,5 %
Effective Surface Area, S _d	0,003 m ²
Maximum Displacement, X _{max} ***	4,5 mm
Displacement Volume, V _d	13,5 cm ³
Voice Coil Inductance, L _e @ 1 kHz	0,25 mH

MOUNTING INFORMATION

Overall diameter Bolt circle diameter	93,5 mm 85 mm	3,68 in 3,35 in
Baffle cutout diameter: - Front mount	75,9 mm	2.98 in
Depth	46 mm	1,81 in
Net weight	0,57 kg	1,25 lb
Shipping weight	0,70 kg	1,54 lb

Notes

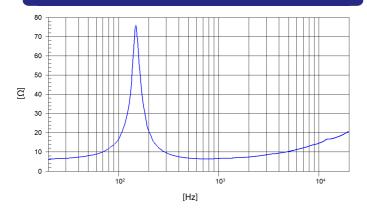
- * The power capacity is determined according to AES2-1984 (r2003) standard. Program power is defined as the transducer's ability to handle normal music program material.
- ** T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with 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 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.



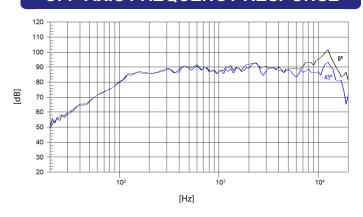
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FULL RANGE FREQUENCY TRANSDUCER

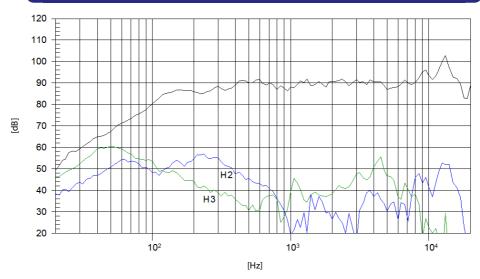
FREE AIR IMPEDANCE CURVE



OFF-AXIS FREQUENCY RESPONSE



FREQUENCY RESPONSE AND DISTORTION



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

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