

15P80/Fe LOW FREQUENCY TRANSDUCER

P80 Series

KEY FEATURES

- 1.600 W program power •
- High sensitivity: 100 dB (1W / 1m) •
- FEA optimized magnetic circuit. •
- Forced air convection circuit for low power compression. •
- CONEX spider for higher resistance and consistency. .
- Waterproof treatment for both sides of the cone. .
- 4" duo technology voice coil. .
- Extended controlled displacement: $X_{max} \pm 7,5$ mm
- Massive mechanical displacement capability:
- X_{damage} ± 52 mm

TECHNICAL SPECIFICATIONS

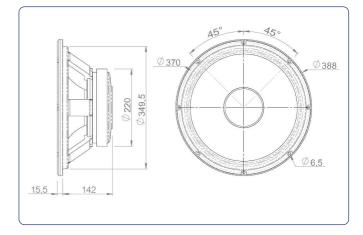
Nominal diameter Rated impedance	380 mm 15 in 8 Ω
Minimum impedance	5,5 Ω
Power capacity*	800 W _{AES}
Program power	1600 W
Sensitivity	100 dB 1W @ 1m @ Z _N
Frequency range	30 - 4.000 Hz
Recom. enclosure vol.	40 / 150 l 1,41 / 5,3 ft ³
Voice coil diameter	100 mm 4 in
BI factor	23,4 N/A
Moving mass	0,097 kg
Voice coil length	20 mm
Air gap height	12 mm
X _{damage} (peak to peak)	52 mm

THIELE-SMALL PARAMETERS**

Resonant frequency, f _s D.C. Voice coil resistance, R _e	32 Hz 5,3 Ω
Mechanical Quality Factor, Q _{ms}	6,5
Electrical Quality Factor, Q _{es}	0,19
Total Quality Factor, Q _{ts}	0,18
Equivalent Air Volume to C _{ms} , V _{as}	282 I
Mechanical Compliance, C _{ms}	257 μm / N
Mechanical Resistance, R _{ms}	2,9 kg / s
Efficiency, η ₀	4,63 %
Effective Surface Area, S _d	0,088 m²
Maximum Displacement, X _{max} ***	7,5 mm
Displacement Volume, V _d	660 cm ³
Voice Coil Inductance, L _e @ 1 kHz	1,2 mH



DIMENSION DRAWINGS



MOUNTING INFORMATION

Overall diameter Bolt circle diameter	388 mm 370 mm	15,28 in 14,57 in
Baffle cutout diameter:		
- Front mount	349,5 mm	13,76 in
- Rear mount	355 mm	13,98 in
Depth	157,5 mm	6,2 in
Volume displaced by driver	5,5 I	0,19 ft ³
Net weight	12,36 kg	27,2 lb
Shipping weight	13,30 kg	29,3 lb

Notes:

 * The power capaticty is determined according to AES2-1984 (r2003) standard. Program power is defined as the transducer's ability to handle normal music program material.

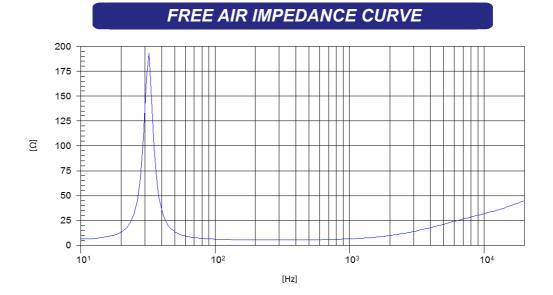
** T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

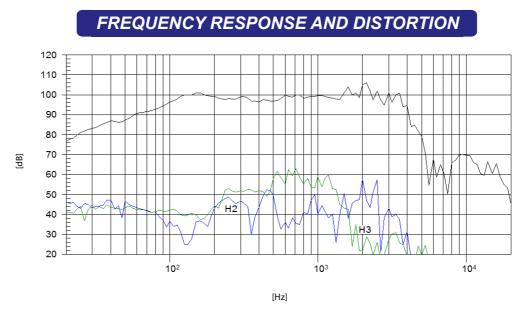
*** The X_{max} is calculated as (L_{vc} - H_{ag})/2 + (H_{ag}/3,5), where L_{vc} is the voice coil length and H_{ag} is the air gap height.



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

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