

15P80Fe/N

LOW FREQUENCY TRANSDUCER
P80 Series

KEY FEATURES

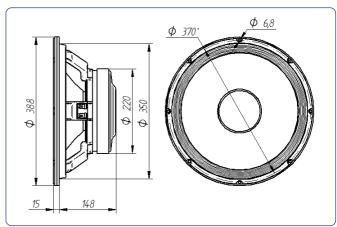
- 1.600 W program power
- High sensitivity: 101 dB (1W / 1m)
- FEA optimized magnetic circuit
- Forced air convection circuit for low power compression
- CONEX spider for higher resistance and consistency
- · Waterproof treatment for both sides of the cone
- 4" duo technology voice coil
- Designed with MMS technology for high control, linearity and low harmonic distortion
- Extended controlled displacement: X_{max} ± 7,5 mm
- Massive mechanical displacement capability: X_{damage} ± 52 mm
- Excellent response in high efficiency and horn loading systems



TECHNICAL SPECIFICATIONS

Nominal diameter	380 mm 15 in
Rated impedance	8 Ω
Minimum impedance	6,3 Ω
Power capacity*	800 W _{AES}
Program power	1600 W
Sensitivity	101 dB 1W @ 1m @ Z _N
Frequency range	30 - 4.000 Hz
Recom. enclosure vol.	40 / 150 I 1,41 / 5,3 ft ³
Voice coil diameter	101,6 mm 4 in
BI factor	22,1 N/A
Moving mass	0,088 kg
Voice coil length	20 mm
Air gap height	12 mm
X _{damage} (peak to peak)	52 mm

DIMENSION DRAWINGS



THIELE-SMALL PARAMETERS**

Resonant frequency, f _s	32 Hz
D.C. Voice coil resistance, R _e	5,3 Ω
Mechanical Quality Factor, Q _{ms}	5,5
Electrical Quality Factor, Q _{es}	0,19
Total Quality Factor, Qts	0,18
Equivalent Air Volume to C _{ms} , V _{as}	305 I
Mechanical Compliance, C _{ms}	279 μm / N
Mechanical Resistance, R _{ms}	3,2 kg / s
Efficiency, η ₀	5 %
Effective Surface Area, S _d	0,088 m ²
Maximum Displacement, X _{max} ***	7,5 mm
Displacement Volume, V _d	660 cm ³
Voice Coil Inductance, Le @ 1 kHz	1,2 mH

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
Depth	163 mm	6,42 in
Net weight	12,5 kg	27,56 lb
Shipping weight	13,5 kg	29,76 lb

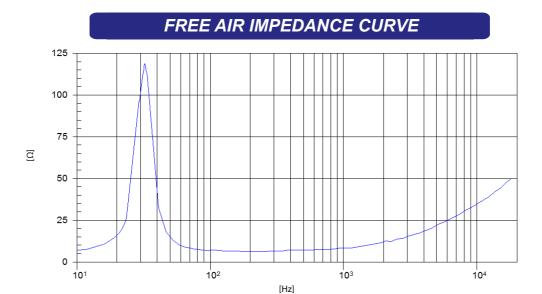
Notes

- * 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.

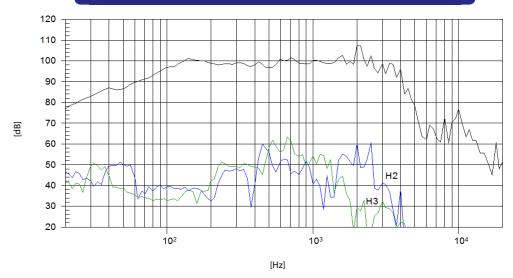


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FREQUENCY RESPONSE AND DISTORTION



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

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