

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
- 4" duo technology voice coil

- Weatherproof treatment for both sides of the cone
- Extended controlled displacement: X_{max} ± 7,5 mm
- 52 mm peak-to-peak excursion before damage
- Excellent response in high efficiency and horn loading systems





TECHNICAL SPECIFICATIONS

Nominal diameter	380 m	m 15 in
Rated impedance		8 Ω
Minimum impedance		6,3 Ω
Power capacity 1		800 W _{AES}
Program power ²		1.600 W
Sensitivity	101 dB 1	IW / 1m @ Z _N
Frequency range		30 - 4.000 Hz
Recom. enclosure vol.	40/ 150 I	1,4 / 5,3 ft ³
Voice coil diameter	101,6 m	m 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

THIELE-SMALL PARAMETERS 3

Resonant frequency, f _s	32 Hz
D.C. Voice coil resistance, Re	5,3 Ω
Mechanical Quality Factor, Q _{ms}	5,5
Electrical Quality Factor, Qes	0,19
Total Quality Factor, Qts	0,18
Equivalent Air Volume to C _{ms} , V _{as}	305 I
Mechanical Compliance, C _{ms}	$279~\mu m$ / 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} ⁴	7,5 mm
Displacement Volume, V _d	660 cm ³
Voice Coil Inductance, Le	1,2 mH

Notes

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

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

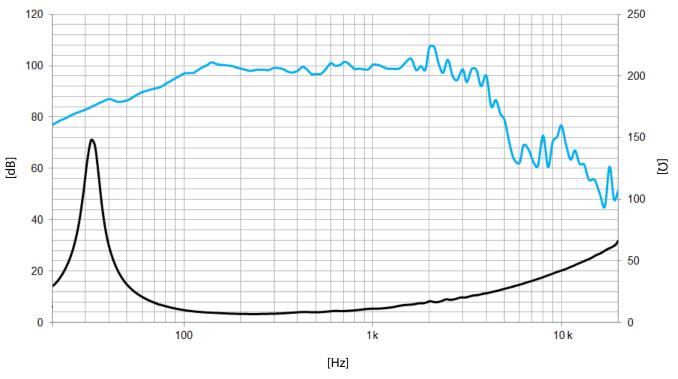
³ T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

 $^{^4}$ The X_{max} is calculated as $(L_{VC} - H_{aq})/2 + (H_{aq}/3,5)$, where L_{VC} is the voice coil length and H_{aq} 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

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	164 mm	6,5 in
Net weight	12,5 kg	27,5 lb
Shipping weight	13,5 kg	29,7 lb

DIMENSION DRAWING

