

12P80NdV2 LOW FREQUENCY TRANSDUCER P80 Series

KEY FEATURES

- 700 W_{AES} power handling capacity
- High sensitivity: 100 dB (1W / 1m)
- Wide usable frequency range
- Low harmonic distortion
- Low power compression losses

- Weatherproof cone with treatment for both sides
- 4" DUO double layer in/out aluminium voice coil
- Conex spider
- Extended controlled displacement: Xmax ± 7,5 mm
- 52 mm peak-to-peak excursion before damage





TECHNICAL SPECIFICATIONS

Nominal diameter	300 mm	12 in
Rated impedance		8 Ω
Minimum impedance		6,7 Ω
Power capacity ¹		700 W _{AES}
Program power ²		1.400 W
Sensitivity	100 dB 1W /	1m @ Z _N
Frequency range	50 -	4.000 Hz
Recom. enclosure		V _b = 40 I
(Bass-reflex design)	F _b = 72 Hz	
Voice coil diameter	101,6 mm	4 in
BI factor		23,7 N/A
Moving mass		0,074 kg
Voice coil length		20 mm
Air gap height		12 mm
X _{damage} (peak to peak)		52 mm

THIELE-SMALL PARAMETERS³

Resonant frequency, f _s	47 Hz
D.C. Voice coil resistance, R _e	5 Ω
Mechanical Quality Factor, Q _{ms}	5,2
Electrical Quality Factor, Q _{es}	0,20
Total Quality Factor, Q _{ts}	0,19
Equivalent Air Volume to C _{ms} , V _{as}	65 I
Mechanical Compliance, C _{ms}	152 μm / N
Mechanical Resistance, R _{ms}	4,2 kg / s
Efficiency, η ₀	3,4 %
Effective Surface Area, S _d	0,055 m²
Maximum Displacement, X _{max} ⁴	7,5 mm
Displacement Volume, V _d	412 cm ³
Voice Coil Inductance, L _e	0,9 mH

Notes:

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

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

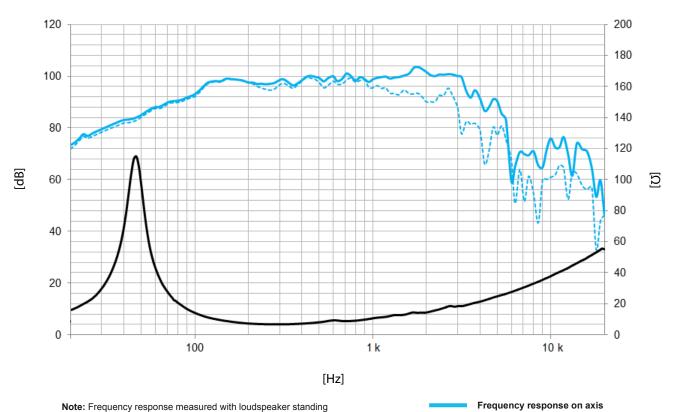
^a T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

⁴ The X_{max} is calculated as (L_{vc} - H_{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: Frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

MOUNTING INFORMATION

Depth

DIMENSION DRAWING

Frequency response 45° off axis

Overall diameter 312 mm 12,3 in Bolt circle diameter 298 mm 11,7 in Baffle cutout diameter: 283 mm - Front mount 11,1 in Ø 312 132 mm 5,2 in Net weight 5,6 kg 12,3 lb **Shipping weight** 6,3 kg 13,9 lb

⊕ 298 283 Polarity: + 120 132