

15P80Nd

LOW FREQUENCY TRANSDUCER
P80 Series

KEY FEATURES

- 1.600 W program power
- High sensitivity: 101 dB (1W / 1m)
- FEA optimized neodymium magnetic circuit
- Forced air convection for low power compression
- Conex spider

- Waterproof cone with treatment for both sides
- 4" DUO double layer in/out voice coil
- Extended controlled displacement: X_{max} ± 7,5 mm
- 52 mm peak-to-peak excursion before damage





TECHNICAL SPECIFICATIONS

Nominal diameter	380 mm	15 in
Rated impedance		8 Ω
Minimum impedance		7 Ω
Power capacity ¹		800 W _{AES}
Program power ²		1.600 W
Sensitivity	101 dB 1W /	′ 1m @ Z _N
Frequency range	40	- 4.000 Hz
Recom. enclosure		$V_{b} = 75 I$
(Bass-reflex design)	I	F _b = 59 Hz
Voice coil diameter	101,6 mm	4 in
BI factor		23,8 N/A
Moving mass		0,098 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	39 Hz
D.C. Voice coil resistance, R _e	5,1 Ω
Mechanical Quality Factor, Q _{ms}	5,1
Electrical Quality Factor, Q _{es}	0,22
Total Quality Factor, Qts	0,21
Equivalent Air Volume to C _{ms} , V _{as}	184 I
Mechanical Compliance, C _{ms}	168 μm / N
Mechanical Resistance, R _{ms}	4,7 kg / s
Efficiency, η ₀	4,9 %
Effective Surface Area, S _d	$0,088 \text{ m}^2$
Maximum Displacement, X _{max} ⁴	7,5 mm
Displacement Volume, V _d	660 cm ³
Voice Coil Inductance, L _e	0,8 mH

Notes:

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

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

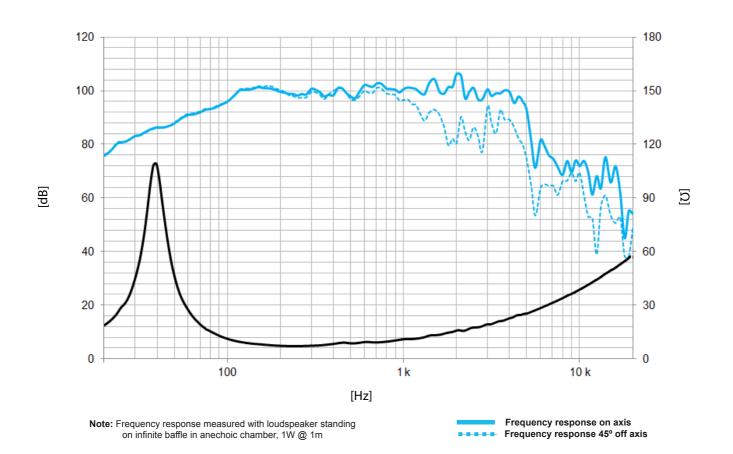
³ T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

 $^{^4}$ The X_{max} is calculated as (L_{vc} - H_{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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MOUNTING INFORMATION

Overall diameter	388 mm	15,3 in
Bolt circle diameter	370 mm	14,6 in
Baffle cutout diameter:		
- Front mount	352 mm	13,9 in
Depth	160 mm	6,3 in
Net weight	6 kg	13,2 lb
Shipping weight	7 kg	15,4 lb

DIMENSION DRAWING

