

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

- Weatherproof cone with treatment for both sides
- 4" DUO double layer in/out voice coil
- Extended controlled displacement: X<sub>max</sub> ± 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 <sup>1</sup>	8	800 W <sub>AES</sub>
Program power <sup>2</sup>		1.600 W
Sensitivity	101 dB 1W /	1m @ Z <sub>N</sub>
Frequency range	40 -	4.000 Hz
Recom. enclosure		V <sub>b</sub> = 75 I
(Bass-reflex design)	F	<sub>b</sub> = 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 <sub>damage</sub> (peak to peak)		52 mm
Notes:		

## **THIELE-SMALL PARAMETERS<sup>3</sup>**

Resonant frequency, f <sub>s</sub>	39 Hz
D.C. Voice coil resistance, R <sub>e</sub>	5,1 Ω
Mechanical Quality Factor, Q <sub>ms</sub>	5,1
Electrical Quality Factor, Q <sub>es</sub>	0,22
Total Quality Factor, Q <sub>ts</sub>	0,21
Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub>	184 I
Mechanical Compliance, C <sub>ms</sub>	168 μm / N
Mechanical Resistance, R <sub>ms</sub>	4,7 kg / s
Efficiency, η <sub>0</sub>	4,9 %
Effective Surface Area, S <sub>d</sub>	0,088 m²
Maximum Displacement, X <sub>max</sub> <sup>4</sup>	7,5 mm
Displacement Volume, V <sub>d</sub>	660 cm <sup>3</sup>
Voice Coil Inductance, L <sub>e</sub>	0,8 mH

<sup>3</sup> 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).

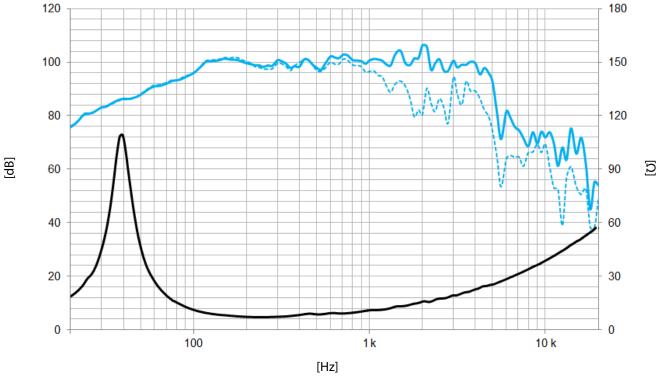
<sup>4</sup> The X<sub>max</sub> is calculated as  $(L_{vc} - H_{ag})/2 + (H_{ag}/3,5)$ , where  $L_{vc}$  is the voice coil length and  $H_{ag}$  is the air gap height.

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

<sup>2</sup> Program power is defined as power capacity + 3 dB.







Note: Frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m Frequency response on axis Frequency response 45° off axis

## **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	161 mm	6,3 in
Net weight	6 kg	13,2 lb
Shipping weight	7 kg	15,4 lb

