

## 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

- Waterproof treatment for both sides of the cone
- Extended controlled displacement: X<sub>max</sub> ± 7,5 mm
- 52 mm peak-to-peak excursion before damage
- Excellent response in high efficiency and horn loading systems





## TECHNICAL SPECIFICATIONS

| 380 m   | ım 15 in                              |
|---------|---------------------------------------|
|         | 8 Ω                                   |
|         | 6,3 Ω                                 |
|         | 800 W <sub>AES</sub>                  |
|         | 1.600 W                               |
| 101 dB  | 1W / 1m @ Z <sub>N</sub>              |
|         | 30 - 4.000 Hz                         |
| 40/ 150 | I 1,4 / 5,3 ft <sup>3</sup>           |
| 101,6 m | ım 4 in                               |
|         | 22,1 N/A                              |
|         | 0,088 kg                              |
|         | 20 mm                                 |
|         | 12 mm                                 |
|         | 52 mm                                 |
|         | 380 m<br>101 dB<br>40/ 150<br>101,6 m |

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

| Resonant frequency, f <sub>s</sub>                         | 32 Hz                |
|--|----------------------|
| D.C. Voice coil resistance, R <sub>e</sub>                 | 5,3 Ω                |
| Mechanical Quality Factor, Q <sub>ms</sub>                 | 5,5                  |
| Electrical Quality Factor, Q <sub>es</sub>                 | 0,19                 |
| Total Quality Factor, Qts                                  | 0,18                 |
| Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub> | 305 I                |
| Mechanical Compliance, C <sub>ms</sub>                     | $279~\mu m$ / $N$    |
| Mechanical Resistance, R <sub>ms</sub>                     | 3,2 kg / s           |
| Efficiency, η <sub>0</sub>                                 | 5 %                  |
| Effective Surface Area, S <sub>d</sub>                     | 0,088 m <sup>2</sup> |
| 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>                      | 1,2 mH               |

#### Notes

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

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

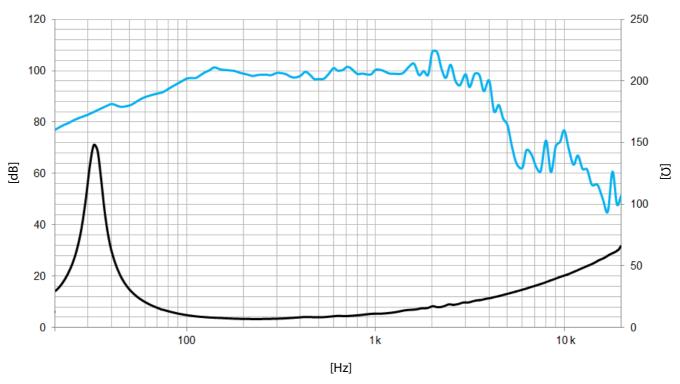
<sup>&</sup>lt;sup>3</sup> T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

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



# 15P80Fe/N

LOW FREQUENCY TRANSDUCER
P80 Series



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

## **MOUNTING INFORMATION**

| Overall diameter        | 388 mm  | 15,28 in |
|-------------------------|---------|----------|
| Bolt circle diameter    | 370 mm  | 14,57 in |
| Baffle cutout diameter: |         |          |
| - Front mount           | 350 mm  | 13,79 in |
| Depth                   | 163 mm  | 6,42 in  |
| Net weight              | 12,5 kg | 27,5 lb  |
| Shipping weight         | 13,5 kg | 29,7 lb  |

## **DIMENSION DRAWING**

