

# 3FR30Nd

### **FULL RANGE FREQUENCY TRANSDUCER**

## **KEY FEATURES**

- 3" full-range compact neodymium loudspeaker
- 60 W program power
- Extended response and low distortion
- · Paper cone and treated cloth surround

- Steel basket
- Ideal for beam-steering application (columns), portable array and compact applications





## **TECHNICAL SPECIFICATIONS**

Nominal diameter	77 mm	3 in
Rated impedance		8 Ω
Minimum impedance		6,4 Ω
Power capacity 1	30	W <sub>AES</sub>
Program power <sup>2</sup>		60 W
Sensitivity	91 dB 1W / 1m	@ Z <sub>N</sub>
Frequency range	180 - 20.000 Hz	
Voice coil diameter	20,3 mm	0,8 in
BI factor	4,	8 N/A
Moving mass	0,0	02 kg
Voice coil length	10,	5 mm
Air gap height		3 mm

# THIELE-SMALL PARAMETERS 3

Resonant frequency, f <sub>s</sub>	180 Hz
D.C. Voice coil resistance, Re	5,5 Ω
Mechanical Quality Factor, Q <sub>ms</sub>	9,5
Electrical Quality Factor, Q <sub>es</sub>	0,60
Total Quality Factor, Qts	0,55
Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub>	0,55 l
Mechanical Compliance, C <sub>ms</sub>	357 μm / N
Mechanical Resistance, R <sub>ms</sub>	0,26 kg / s
Efficiency, η <sub>0</sub>	0,52 %
Effective Surface Area, S <sub>d</sub>	0,003 m <sup>2</sup>
Maximum Displacement, X <sub>max</sub> <sup>4</sup>	4,5 mm
Displacement Volume, V <sub>d</sub>	13,5 cm <sup>3</sup>
Voice Coil Inductance, L <sub>e</sub> @ 1 kHz	0,3 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).

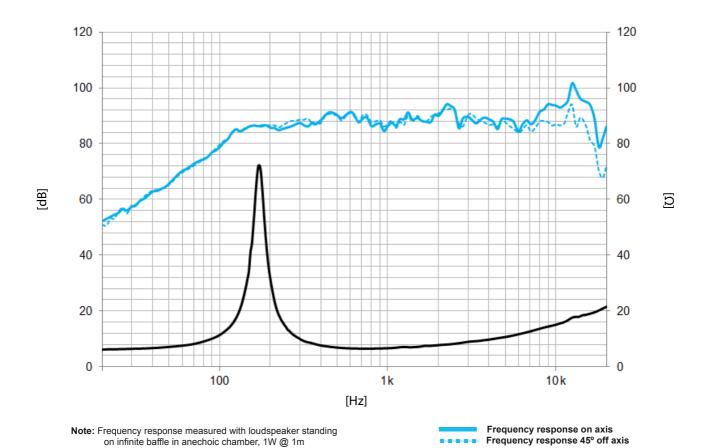
 $<sup>^4</sup>$  The  $\rm X_{max}$  is calculated as ( $\rm L_{vc}$  -  $\rm H_{ag}$ )/2 + ( $\rm H_{ag}$ /3,5), where  $\rm L_{vc}$  is the voice coil length and  $\rm H_{ag}$  is the air gap height.

<sup>&</sup>lt;sup>5</sup> Product designed by Acústica Beyma S.L.



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## **MOUNTING INFORMATION**

Overall diameter	93,5 mm	3,7 in
Bolt circle diameter	85 mm	3,3 in
Baffle cutout diameter:		
- Front mount	75 mm	2,9 in
Depth	41 mm	1,6 in
Net weight	0,25 kg	0,5 lb
Shipping weight	0,40 kg	0,9 lb

## **DIMENSION DRAWING**

