

## 3FR30Nd

FULL RANGE FREQUENCY TRANSDUCER
Preliminary Data Sheet

### **KEY FEATURES**

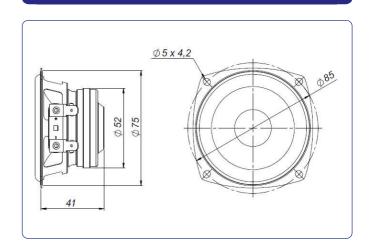
- 3" full-range compact neodymium loudspeaker
- 60 W program power
- Extended response and low distortion
- Demodulation copper cap for constant impedance curve
- Paper cone and treated cloth surround
- Steel basket
- Ideal for beam-steering application (columns), portable array and compact applications



## TECHNICAL SPECIFICATIONS

Nominal diameter Rated impedance	77 mm	n 3 in 8 Ω
Minimum impedance		6,4 Ω
Power capacity*		30 W <sub>AES</sub>
Program power		60 W
Sensitivity	92 dB 1W /	1m @ Z <sub>N</sub>
Frequency range	200 - 2	0.000 Hz
Voice coil diameter	20,3 mm	0,8 in
BI factor		4,6 N/A
Moving mass		0,002 kg
Voice coil length		10,5 mm
Air gap height		3 mm

## **DIMENSION DRAWINGS**



## THIELE-SMALL PARAMETERS\*\*

Resonant frequency, f <sub>s</sub>	188 Hz
D.C. Voice coil resistance, R <sub>e</sub>	5,4 Ω
Mechanical Quality Factor, Q <sub>ms</sub>	8,1
Electrical Quality Factor, Q <sub>es</sub>	0,58
Total Quality Factor, Qts	0,54
Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub>	0,56 l
Mechanical Compliance, C <sub>ms</sub>	362 μm / N
Mechanical Resistance, R <sub>ms</sub>	0,29 kg / s
Efficiency, η <sub>0</sub>	0,63 %
Effective Surface Area, S <sub>d</sub>	0,003 m <sup>2</sup>
Maximum Displacement, X <sub>max</sub> ***	4,5 mm
Displacement Volume, V <sub>d</sub>	13,5 cm <sup>3</sup>
Voice Coil Inductance, L <sub>e</sub> @ 1 kHz	0,2 mH

## **MOUNTING INFORMATION**

Overall diameter Bolt circle diameter	93,5 mm 85 mm	3,68 in 3,35 in
Baffle cutout diameter: - Front mount Depth	75 mm 41 mm	2,95 in 1,61 in
Net weight Shipping weight	0,25 kg 0,40 kg	0,55 lb 0,95 lb

#### Notes

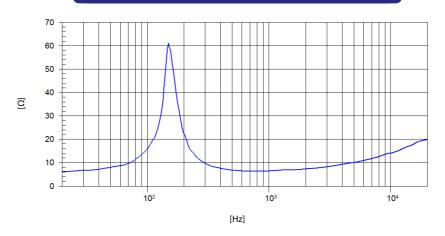
- \* The power capacity is determined according to AES2-1984 (r2003) standard. Program power is defined as the transducer's ability to handle normal music program material.
- \*\* T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out 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).
- \*\*\* 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.



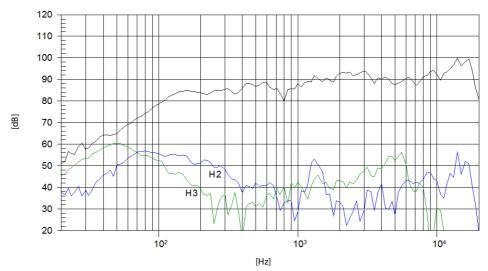
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## FREE AIR IMPEDANCE CURVE



### FREQUENCY RESPONSE AND DISTORTION



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

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