

4FR40

FULL RANGE FREQUENCY TRANSDUCER

Preliminary Data Sheet

KEY FEATURES

- 4" full-range compact ferrite loudspeaker
- 80 W program power
- Extended response and low distortion
- Paper cone and Santoprene[™] surround

- · Pressed steel basket
- Ceramic magnet
- Ideal form beam-steering application (columns), portable array and compact applications





TECHNICAL SPECIFICATIONS

| Nominal diameter | 100 mm | 4 in |
|-----------------------------|----------------------|--------------------|
| Rated impedance | | 8 Ω |
| Minimum impedance | | 7,3 Ω |
| Power capacity ¹ | 400 W _{AES} | |
| Program power ² | | 800 W |
| Sensitivity | 87 dB 1W / 1 | m @ Z _N |
| Frequency range | 100 - 20.000 Hz | |
| Voice coil diameter | 20,3 mm | 0,8 in |
| BI factor | | 4,2 N/A |
| Moving mass | 0, | 0044 kg |
| Voice coil length | | 7,7 mm |
| Air gap height | | 5 mm |
| | | |

THIELE-SMALL PARAMETERS 3

| Resonant frequency, f _s | 92 Hz |
|--|-----------------------|
| D.C. Voice coil resistance, R _e | 6,4 Ω |
| Mechanical Quality Factor, Q _{ms} | 11,3 |
| Electrical Quality Factor, Q _{es} | 0,96 |
| Total Quality Factor, Qts | 0,88 |
| Equivalent Air Volume to C _{ms} , V _{as} | 2,8 l |
| Mechanical Compliance, C _{ms} | 668 μm / N |
| Mechanical Resistance, R _{ms} | 0,23 kg / s |
| Efficiency, η ₀ | 0,22 % |
| Effective Surface Area, S _d | 0,0055 m ² |
| Maximum Displacement, X _{max} ⁴ | 3 mm |
| Displacement Volume, V _d | 11 cm ³ |
| Voice Coil Inductance, L _e @ 1 kHz | 0,2 mH |

Notes

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

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

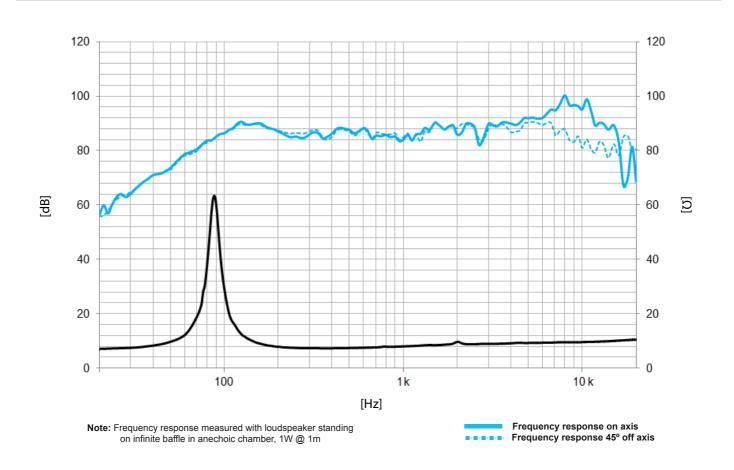
³ T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

 $^{^4}$ 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

| 118,2 mm | 4,6 in |
|----------|---------------------------|
| 108,2 mm | 4,3 in |
| | |
| 92 mm | 3,6 in |
| 60 mm | 2,4 in |
| 0,55 kg | 1,2 lb |
| 0,75 kg | 1,6 lb |
| | 92 mm 60 mm 0,55 kg |

DIMENSION DRAWING

