

KEY FEATURES

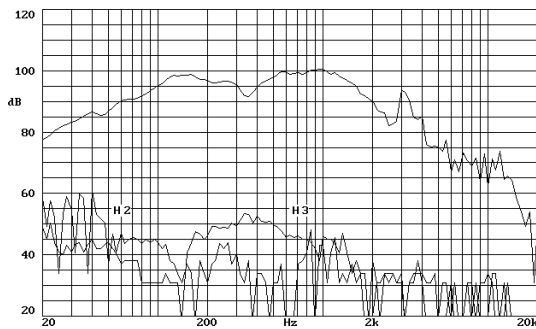
- High power handling (500 w AES)
- 4" (100 mm) copper round wire voice coil
- Excellent sensitivity: 98 dB
- Large Xmax: 7.5 mm.
- Extremely low resonant frequency: 27 Hz
- Designed for subwoofer and woofer applications



GENERAL DESCRIPTION

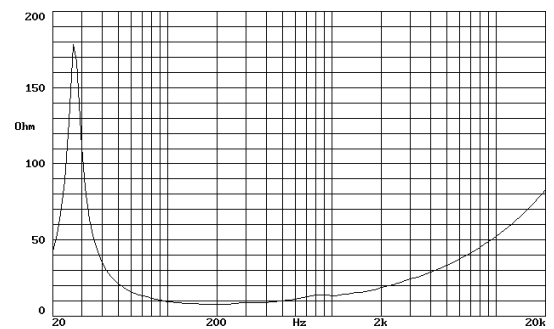
This 15" model has been designed specifically to reinforce the low frequency range at very high power levels. The voice coil diameter (4") and its high stiffness cone give this loudspeaker an uncommon resistance to the most demanding requirements, both thermal and mechanical. The voice coil has an optimised winding length to increase linear excursion, obtaining an Xmax of 7.5 mm. The magnetic structure construction generates a symmetrical magnetic field and, at the same time, provides an efficient thermal path which contributes to heat dissipation. The SM 115/K has been designed for subwoofer and woofer applications, specially for using in compact bass-reflex enclosures.

FREQUENCY RESPONSE AND DISTORTION CURVES

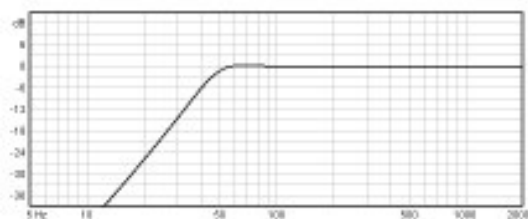


Note: on axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1w @ 1m.

FREE AIR IMPEDANCE CURVE

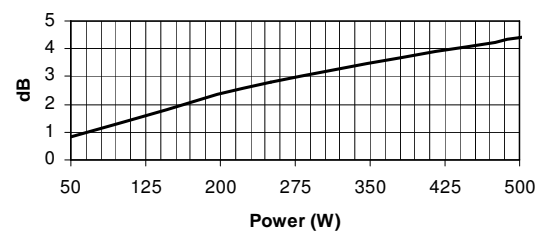


PREDICTED LOW FREQUENCY RESPONSE



Note: Bass-reflex cabinet, Vb=90 l, fb=45 Hz

POWER COMPRESSION LOSSES



Note: These losses are calculated from a five minutes AES power test applying band limited pink noise (25-1200 Hz). The loudspeaker is free-air standing.

TECHNICAL SPECIFICATIONS

Nominal diameter	380 mm. 15 in.
Rated impedance	8 ohms.
Minimum impedance	6.5 ohms.
Power capacity *	500 w AES
Program power	1000 w
Sensitivity	98 dB 2.83v @ 1m @ 2 π
Frequency range	25 - 2000 Hz
Recom. enclosure vol.	60 / 150 l 2.12 / 5.3 ft. ³
Voice coil diameter	100 mm. 4 in.
Magnetic assembly weight	8.8 kg. 19.4 lb.
BL factor	20.5 N / A
Moving mass	0.106 kg.
Voice coil length	21 mm.
Air gap height	9 mm.
X damage (peak to peak)	30 mm.

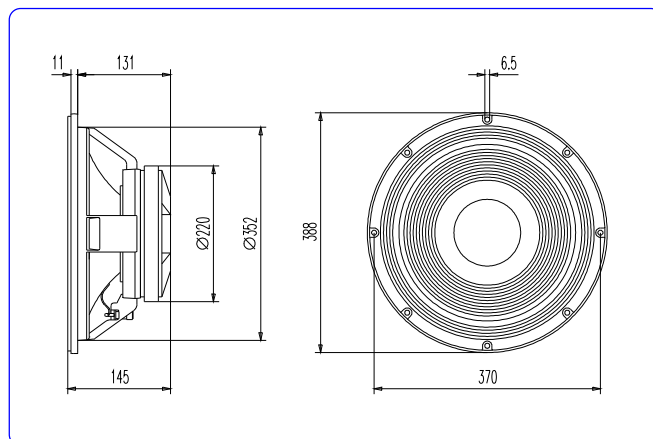
MOUNTING INFORMATION

Overall diameter	388 mm. 15.28 in.
Bolt circle diameter	370 mm. 14.57 in.
Baffle cutout diameter:	
- Front mount	352 mm. 13.86 in.
- Rear mount	355 mm. 13.98 in.
Depth	145 mm. 5.7 in.
Volume displaced by driver	7 l 0.25 ft. ³
Net weight	10.2 kg. 22.49 lb.
Shipping weight	11.3 kg. 24.91 lb.

THIELE-SMALL PARAMETERS **

Resonant frequency, fs	27 Hz
D.C. Voice coil resistance, Re	5.8 ohms.
Mechanical Quality Factor, Qms	9.01
Electrical Quality Factor, Qes	0.26
Total Quality Factor, Qts	0.25
Equivalent Air Volume to Cms, Vas	345 l
Mechanical Compliance, Cms	320 μ m / N
Mechanical Resistance, Rms	2.1 kg / s
Efficiency, η_0 (%)	2.5
Effective Surface Area, Sd (m ²)	0.0880 m ²
Maximum Displacement, Xmax	7.5 mm.
Displacement Volume, Vd	660 cm ³
Voice Coil Inductance, Le @ 1 kHz	1.2 mH

DIMENSION DRAWINGS



MATERIALS

- **Voice coil:** copper round wire with high temperature bonding strength. Apical former able to withstand high temperatures.
- **Cone:** high stiffness paper cone.
- **Surround:** treated cloth to guarantee good retaining of elasticity in despite of continuing use.
- **Spider:** cotton spider.
- **Metal parts:** anti-corrosion coated parts designed to resist aggressive environmental conditions.
- **Basket:** specially designed die cast aluminium basket to avoid disturbing resonances.
- **Magnet:** ferrite magnet.

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).



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