

KEY FEATURES

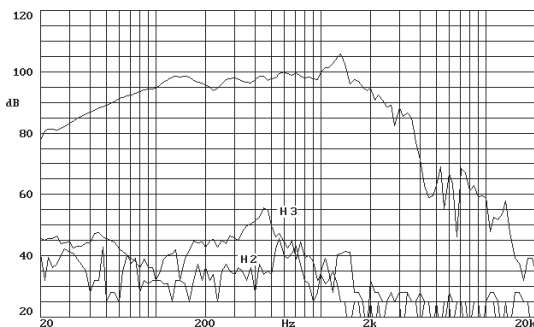
- High power handling (900 W_{AES})
- 4.5" edgewound copper voice coil with polyimide fiber glass former
- Large X_{max} allowing longer voice coil displacements
- Dual spider configuration of improved temperature behaviour: retain good mechanical properties at high power
- Additional heat dissipation due to the use of a metal intercooler
- Designed for high demanding subwoofer and woofer applications



GENERAL DESCRIPTION

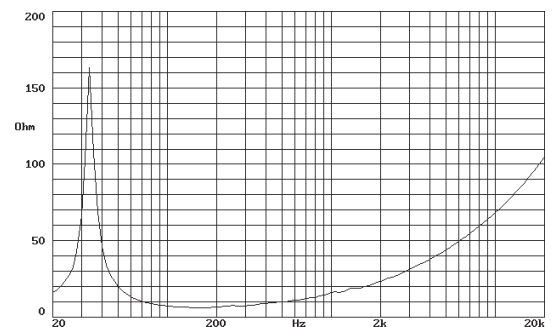
This 18" bass loudspeaker has been specifically designed to deliver high impact bass response, with exceptional high power handling capacity (900 W_{AES}). It incorporates an edgewound copper ribbon voice coil (4.5" diameter) made of high quality materials: high temperature magnet wire and polyimide fiber glass former. Another point of interest is its massive vented magnetic structure, which combined with an optimum cooling system allows a fast heat exchange, thus reducing the thermal power compression. Furthermore, the use of a dual spider assembly assures that this loudspeaker can handle a real high power with an extremely controlled voice coil displacement. This model covers the low frequency range with smooth response, low harmonic distortion and high efficiency. It is mostly recommended for high demanding subwoofer and woofer applications.

FREQUENCY RESPONSE AND DISTORTION CURVES

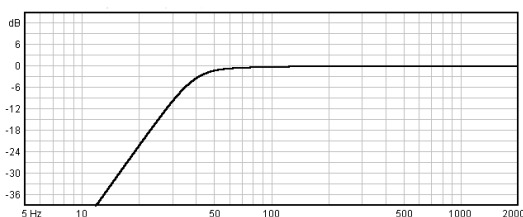


Note: on axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1w @ 1m.

FREE AIR IMPEDANCE CURVE

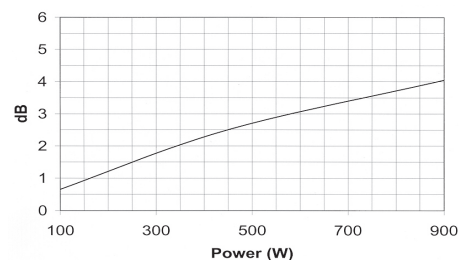


PREDICTED LOW FREQUENCY RESPONSE



Note: Bass-reflex cabinet, V_b=150 l, f_b=38 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	460 mm.	18 in.
Rated impedance	8 ohms.	
Minimum impedance	6.3 ohms.	
Power capacity*	900 w AES	
Program power	1800 w	
Sensitivity	98 dB	2.83v @ 1m @ 2 π
Frequency range	25 - 1500 Hz	
Recom. enclosure vol.	80 / 200 l	2.8 / 7 ft. ³
Voice coil diameter	114 mm.	4.5 in.
Magnetic assembly weight	10 kg.	22 lb.
BL factor	24.4 N / A	
Moving mass	0.190 kg.	
Voice coil length	25 mm.	
Air gap height	11 mm.	
X damage (peak to peak)	40 mm.	

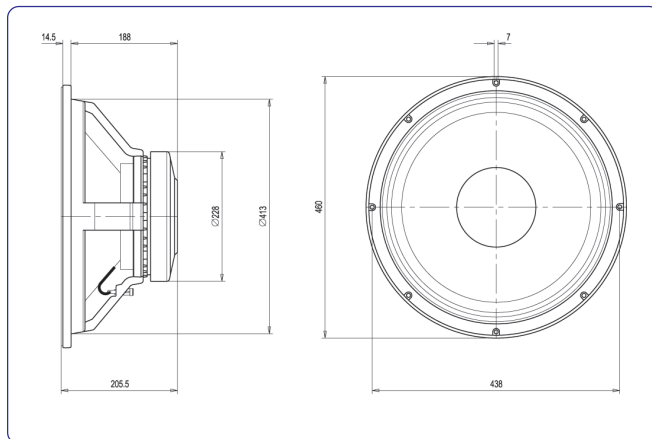
MOUNTING INFORMATION

Overall diameter	460 mm.	18.11 in.
Bolt circle diameter	438 mm.	17.24 in.
Baffle cutout diameter:		
- Front mount	415 mm.	16.34 in.
- Rear mount	400 mm.	15.75 in.
Depth	205.5 mm.	8.09 in.
Volume displaced by driver	13 l	0.46 ft. ³
Net weight	12.60 kg.	27.78 lb.
Shipping weight	14.50 kg.	31.97 lb.

THIELE-SMALL PARAMETERS**

Resonant frequency, fs	36 Hz
D.C. Voice coil resistance, Re	5.3 ohms.
Mechanical Quality Factor, Qms	8.88
Electrical Quality Factor, Qes	0.39
Total Quality Factor, Qts	0.37
Equivalent Air Volume to Cms, Vas	210 l
Mechanical Compliance, Cms	103 μ m / N
Mechanical Resistance, Rms	5.5 kg / s
Efficiency, η_0 (%)	2.5
Effective Surface Area, Sd (m ²)	0.1200 m ²
Maximum Displacement, Xmax	9 mm.
Displacement Volume, Vd	1075 cm ³
Voice Coil Inductance, Le @ 1 kHz	1.4 mH

DIMENSION DRAWINGS



MATERIALS

- **Voice coil:** edgewound copper wire with high temperature bonding strength. Polyimide fiber glass former able to withstand high temperatures.
- **Cone:** special cone prepared to endure high displacement forces.
- **Surround:** treated cloth to assure good retaining of elasticity in despite of continuing use.
- **Spider:** dual spider combination that maintains good mechanical properties at high applied power.
- **Metal parts:** anti-corrosion coated back plate designed to resist aggressive environmental conditions
- **Basket:** specially designed die cast aluminium basket to avoid disturbing resonances.
- **Magnet:** high Curie temperature ferrite.

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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