beyma
PROFESSIONAL LOUDSPEAKERS

15P80/Nd

LOW FREQUENCY TRANSDUCER

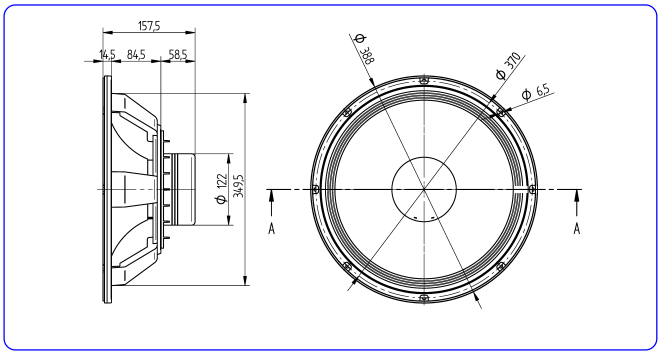
KEY FEATURES

- 800 w AES power handling
- Sensitivity: 100 dB @ 2.83v
- 4" duo technology voice coil
- Forced air convection circuit for low power compression
- Extended controlled displacement: Xmax ± 7.5mm
- Massive mechanical displacement capability: 52 mm p-p

TECHNICAL SPECIFICATIONS

Nominal diameter	380 mm. 15 in.
Rated impedance	8 ohms
Minimum impedance	6.1 ohms
Power capacity*	800 w AES
Program power	1600 w
Sensitivity	100 dB 2.83v @ 1m @ 2π
Frequency range	25 - 4000 Hz
Recom. enclosure vol.	40 / 150 l 1.4 / 5.3 ft.³
Voice coil diameter	100 mm. 4 in.
Magnetic assembly weight	4.62 kg 10.16 lb.
BL factor	22.8 N / A
Moving mass	0.105 kg.
Voice coil length	20 mm
Air gap height	12 mm
X damage (peak to peak)	52 mm

DIMENSION DRAWINGS



THIELE-SMALL PARAMETERS**

Resonant frequency, fs	54 Hz
D.C. Voice coil resistance, Re	5.3 ohms.
Mechanical Quality Factor, Qms	7.95
Electrical Quality Factor, Qes	0.36
Total Quality Factor, Qts	0.34
Equivalent Air Volume to Cms, Vas	90.43 l
Mechanical Compliance, Cms	83.6 µm / N
Mechanical Resistance, Rms	4.45 kg / s
Efficiency, ηo (%)	3.8
Effective Surface Area, Sd (m²)	0.0880 m²
Maximum Displacement, Xmax* **	7.5 mm
Displacement Volume, Vd	660 cm³
Voice Coil Inductance, Le @ 1 kHz	1.6 mH

MOUNTING INFORMATION

Overall diameter	388 mm. 15.28 in.
Bolt circle diameter	370 mm. 14.57 in.
Baffle cutout diameter:	
- Front mount	349.5 mm. 13.76 in.
- Rear mount	355 mm. 13.98 in.
Depth	157.5 mm. 6.2 in.
Volume displaced by driver	5.5 l 0.19 ft.³
Net weight	6 kg. 13.3 lb.
Shipping weight	6.5 kg. 14.3 lb.

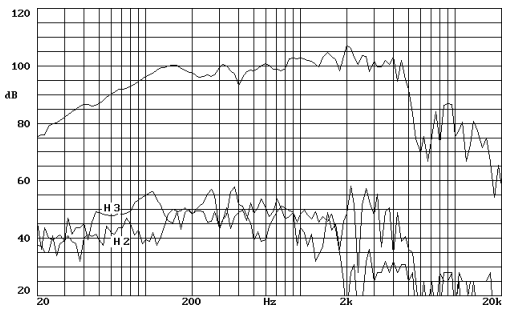
Notes:

*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.

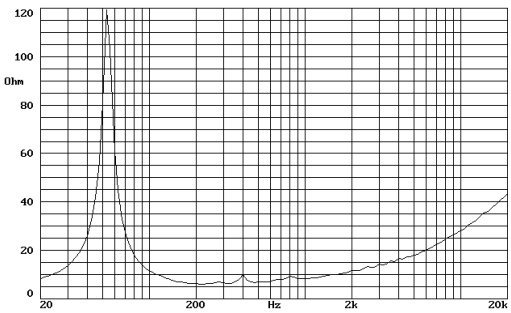
***The Xmax is calculated as (Lvc - Hag)/2 + Hag/3.5, where Lvc is the voice coil length and Hag is the air gap height.

FREQUENCY RESPONSE AND DISTORTION



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

FREE AIR IMPEDANCE CURVE



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