beyma

PROFESSIONAL LOUDSPEAKERS
www.beyma.com

8P300Fe/N

LOW FREQUENCY TRANSDUCER
P200 Series

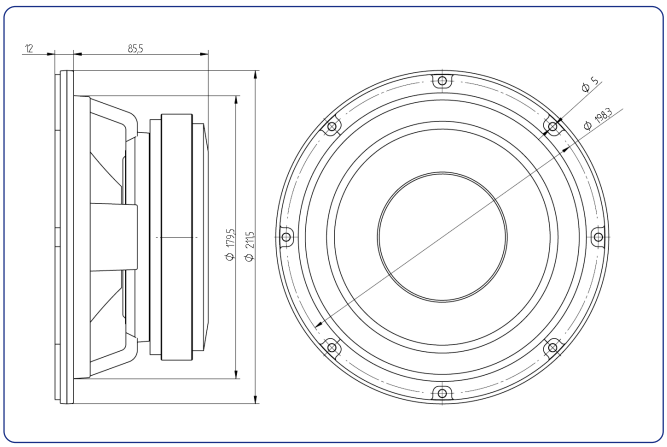
KEY FEATURES

- 600 W program power
- Sensitivity: 94 dB
- Extended controlled displacement: X_{max} ± 6 mm
- Extended mechanical displacement capability: X_{damage} ± 24 mm
- Designed with MMSS technology for high control, symmetry and linearity
- Shorting cup for low harmonic distortion
- CONEX spider
- Waterproof carbon fiber loaded paper cone with Santoprene™ surround

TECHNICAL SPECIFICATIONS

Nominal diameter	200 mm	8 in
Rated impedance		8 Ω
Minimum impedance		6,7 Ω
Power capacity*		300 W_{AES}
Program power		600 W
Sensitivity	94 dB	1W / 1m @ Z_N
Frequency range		55 - 8.000 Hz
Recom. enclosure vol.	10 / 30 l	0,35 / 1,06 ft^3
Voice coil diameter	63,5 mm	2,5 in
Bl factor		11,6 N/A
Moving mass		0,025 kg
Voice coil length		15 mm
Air gap height		7 mm
X_{damage} (peak to peak)		24 mm

DIMENSION DRAWINGS



THIELE-SMALL PARAMETERS**

Resonant frequency, f_s	53 Hz
D.C. Voice coil resistance, R_e	5,2 Ω
Mechanical Quality Factor, Q_{ms}	14,3
Electrical Quality Factor, Q_{es}	0,32
Total Quality Factor, Q_{ts}	0,31
Equivalent Air Volume to C_{ms}, V_{as}	24,8 l
Mechanical Compliance, C_{ms}	362 μm / N
Mechanical Resistance, R_{ms}	0,58 kg / s
Efficiency, η_0	1,1 %
Effective Surface Area, S_d	0,022 m^2
Maximum Displacement, X_{max} * **	6 mm
Displacement Volume, V_d	132 cm^3
Voice Coil Inductance, L_e @ 1 kHz	0,4 mH

MOUNTING INFORMATION

Overall diameter	211,5 mm	8,33 in
Bolt circle diameter	198,3 mm	7,81 in
Baffle cutout diameter:		
- Front mount	179,5 mm	7,07 in
Depth	97,5 mm	3,84 in
Net weight	4 kg	8,82 lb
Shipping weight	4,25 kg	9,37 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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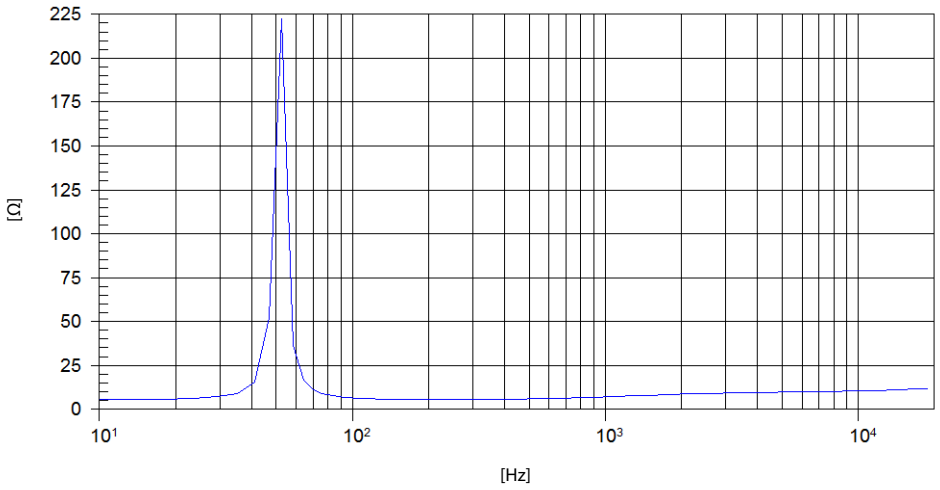
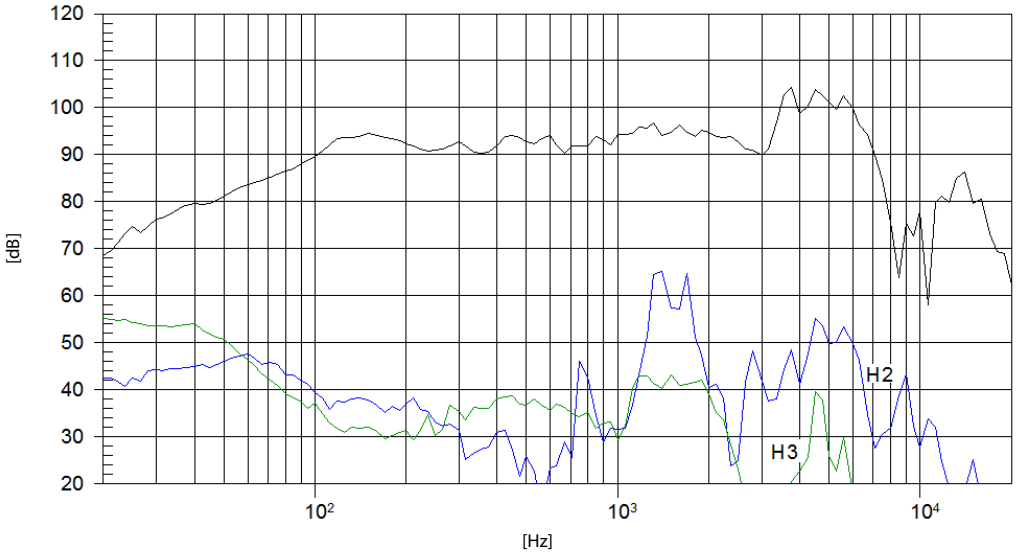
FREE AIR IMPEDANCE CURVE



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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