Professional Series

Model 2203H 300 mm (12 in) Low Frequency Loudspeaker

200 W continuous program

100 mm (4 in) edgewound copper voice coil

25 Hz-2 kHz response

91 dB sensitivity, 1 W, 1 m (3.3 ft)

The Model 2203H is a 300 mm (12 in) low frequency loudspeaker that delivers the accuracy and extended bandwidth of the larger Model 2231H. Flat, deep bass (±2 dB, 40 Hz to 800 Hz, measured on axis) and excellent transient response favor its use in systems such as studio monitors, where small size and maximum bandwidth are of critical importance.

The magnetic assembly of the 2203H incorporates JBL's unique Symmetrical Field Geometry (SFG), which reduces second harmonic distortion to inconsequential levels.

The 2203H also features the unique JBL mass-controlling ring, a die-cast ring which adds moving mass to the cone assembly, bringing the free-air resonance down to 16 Hz. This allows the use of a comparatively small enclosure, yet ensures smooth bass response to the lower limits of human hearing.

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The combination of a powerful 8.5 kg (18⅝ lb) magnetic structure, a rugged cone assembly, and a 100 mm (4 in) diameter edgewound copper ribbon voice coil enable the 2203H to achieve 200 W continuous program power capacity, exceptional sensitivity, and smooth acoustic output.

Architectural Specifications

The transducer shall have a nominal diameter of 300 mm (12 in), an overall depth not greater than 121 mm (4¾ in), and weigh at least 9.9 kg (21¾ lb). The frame shall be of cast aluminum to resist deformation, and the magnetic assembly shall utilize a ferrite magnet and produce a symmetrical magnetic field at the voice coil gap. In addition, an aluminum ring encircling the pole piece shall act to reduce flux modulation. The voice coil shall incorporate a mass-controlling ring and have a nominal diameter of 100 mm (4 in), be made of edgewound copper wire, and operate in a magnetic field of not less than 1.2 T (12,000 gauss). Measured sensitivity (SPL 1 W, 1 m (3.3 ft) averaged from 100 to 500 Hz) shall be at least 91 dB on axis. As an indication of electro-mechanical efficiency the BI factor shall be at least 22 T•m. On-axis frequency response measured at a distance of 1.8 m (6 ft) or more in a free-field environment shall extend from 40 to 800 Hz ±2 dB and usable frequency response shall extend from 25 Hz to 2 kHz. Nominal impedance shall be 8 Ω.

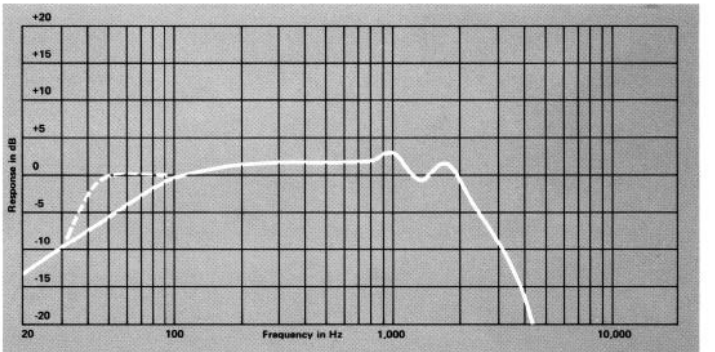
The loudspeaker shall be capable of withstanding a power input of 200 W continuous program or a 100 W continuous sine wave signal swept at all frequencies within one-half octave of the frequency at which minimum impedance occurs, and sustain this performance for a minimum of one hour without damage.

The transducer shall be JBL Model 2203H.

Specifications

Nominal Diameter	300 mm	12 in
Nominal Impedance	8 Ω	
Power Capacity[1]	200 W continuous program	
Sensitivity[2]	91 dB SPL, 1 W, 1 m (3.3 ft)	
Frequency Range	25 Hz to 2 kHz	
Highest Recommended Crossover Frequency	800 Hz	
Nominal Free Air Resonance	16 Hz	
Voice Coil Diameter	100 mm	4 in
Voice Coil Material	Edgewound copper ribbon	
Magnetic Assembly Weight	8.5 kg	18⅝ lb
Flux Density	1.2 T (12,000 gauss)	
BI Factor	22 T•m	
Recommended Enclosure Volume	40–85 L	1½–3 ft³
Baffle Cutout Diameter Front or Rear Mounting	280 mm	11⅛ in
Depth	121 mm	4¾ in
Net Weight	9.9 kg	21¾ lb
Shipping Weight	10.5 kg	23⅛ lb

1. Continuous program power is defined as 3 dB greater than continuous sine wave power (RMS). It is a conservative expression of the transducer's ability to handle normal speech and music program material.
2. Averaged from 100 to 500 Hz.



The solid line depicts the frequency response of Model 2203H in a closed box of 280 L (10 ft³) volume. The response of a typical production unit, including all peaks and dips, does not deviate more than 2 dB from this curve. The dotted curve represents a typical application of the loudspeaker, mounted in 57 L (2 ft³) with a port tuning the enclosure to 28 Hz.

JBL **Professional Division**

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