MODEL #: 83-WB08-01

3.3 INCH (83 MM) HIGH POWER, MIDBASS RANGE SPEAKER

PART #: 93009

The 93009 midbass driver delivers robust sound to a variety of audio systems and applications. Use this speaker in high-power systems with compact enclosures for the best results.

- Midbass speaker
- 3.3" (83 mm) basket diameter
- 20 watt, 8 ohm, 84 dB SPL
- 0.8" aluminum voice coil, polyimide film former
- Neodymium magnet, stamped steel basket
- Polypropylene cone, rubber surround

MISCO engineers test and analyze the performance of these speakers using the world's most sophisticated loudspeaker measurement systems including the Klippel Analyzer and the Klippel QC, which are used to validate final design.

Oaktron by MISCO is the premium line of high performance, ready-to-ship transducers for a wide variety of applications including high fidelity, musical instrument, automotive and many more. From elegantly simple to highly specialized designs for unique and demanding applications, there is an Oaktron loudspeaker perfectly suited for your needs.

Primary Specifications

Size, Nominal (inch & mm)	3" (77 mm)
Rated Impedance (Ω)	8
Continuous Power (W)	20
Sensitivity (dB SPL) [1]	84
Frequency Range (Hz)	125 - 20, 000
Resonant Frequency (Fs) (Hz) +/- 15%	155

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More Specifications

Application	Casino Gaming, Home Audio, Outdoor , Pro Sound
RoHS Compliant	Yes
DC Resistance (Re) (Ω)	6.1
Program Power (W)	40
Continuous Power (W)	20

Small Signal Parameters

Nominal Impedance (Z) (Ω)	8
DC Resistance (Re) (Ω)	6.1
Voice Coil Inductance (Le) (mH)	0.18
Resonant Frequency (Fs) (Hz) +/- 15%	155
Mechanical Q Factor (Qms)	4.69
Electrical Q Factor (Qes)	1.73
Total Q Factor (Qts)	1.26
Moving Mass (Mms) (gm)	3.5
Suspension Compliance (Cms) (mm/N)	0.28
Mechanical Resistance (Rms) (kg/s)	0.76
Surface Area of Diaphragm (Sd) (cm^2)	33.2
Compliance Equivalent Volume (Vas) (L)	0.44
Maximum Linear Excursion (Xmax) (mm)	2.5
Coil Winding Height (mm)	8.9
Magnetic Gap Height (mm)	4.0
Motor Force Factor (BL) (T•M)	3.5
Efficiency (η_0) (%)	0.10
Efficiency Bandwidth Product (EBP) (Fs/Qes)	92.1

Material Descriptions

Basket Type	Stamped steel with black powder coat
Terminal Size (mm)	5.7 x 0.5 mm, 3.2 x 0.5 mm
Voice Coil Diameter (mm)	19.1
Voice Coil Wire Material	Aluminum
Voice Coil Former Material	Polyimide film (Kapton)
Magnet Material	Neodymium
Magnet Weight (g)	30
Cone Body Material	Polypropylene

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Cone Surround Material	Molded rubber
Spider Material	Cloth
Dust Cap Material	Polypropylene
Net Weight (kg)	0.17

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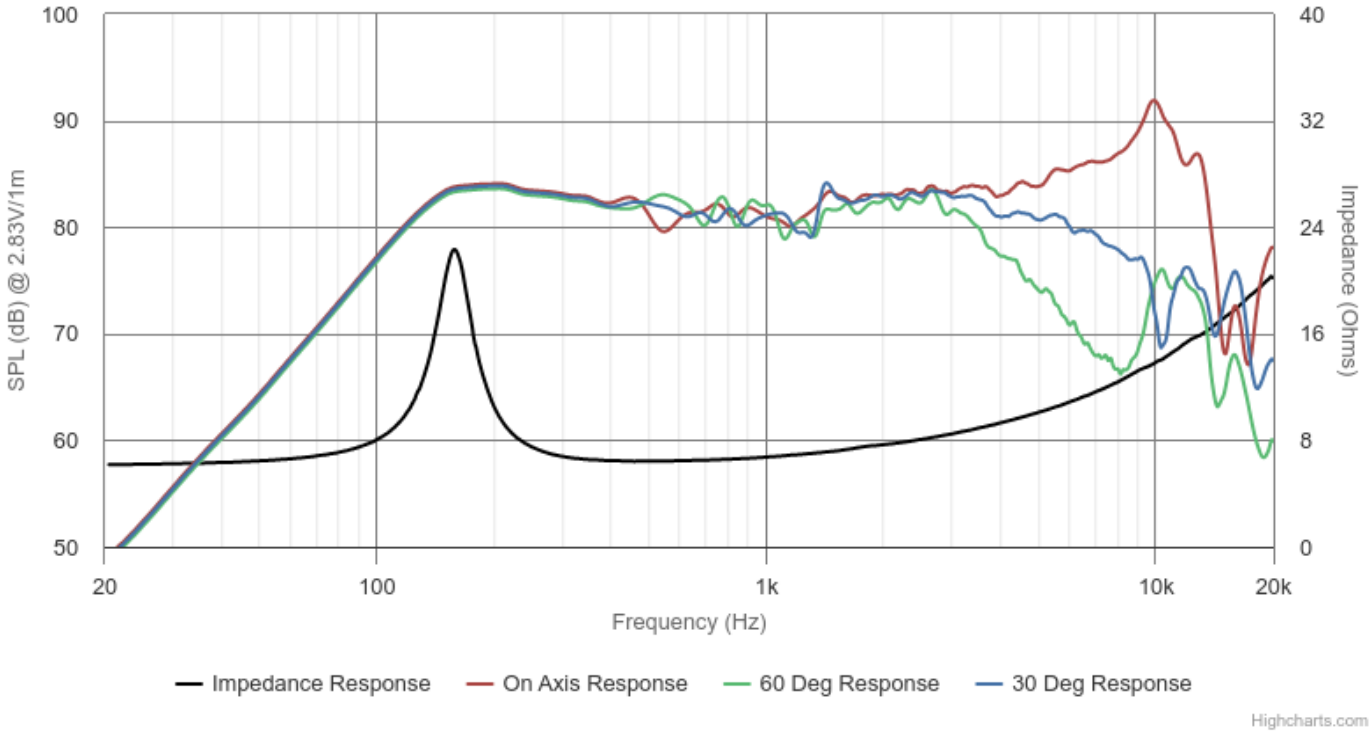
Frequency & Impedance Response



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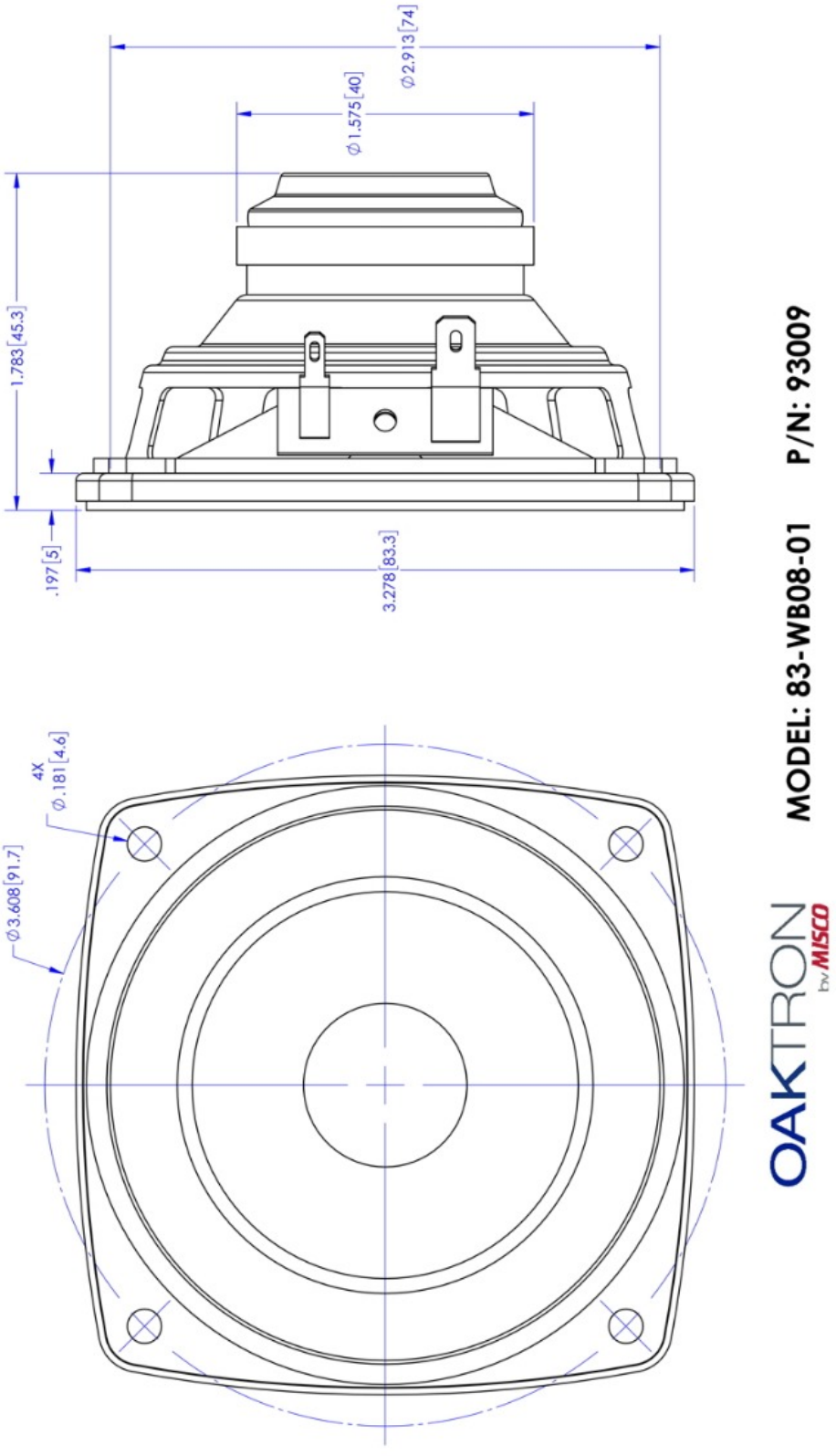

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