

What do you call a massive ferrite magnet, a 12" polypropylene cone, a rubber surround, and a vented pole piece for thermal management, all combined into one woofer? What about when you add in top-quality engineering, with home audio at the forefront of that woofer's design? What do you call a woofer perfected for vented enclosures and perfect for your next high-end audio project? We call it the 93060.

- Woofer
- 12" (305 mm) basket diameter
- 100 watts, 8 ohms, 88 dB SPL
- 2" copper voice coil, Kapton former
- Ferrite magnet, stamped-steel basket
- Polypropylene cone, rubber surround

*Oaktron by MISCO* is a premium line of high performance, ready-to-ship transducers and drivers for a wide variety of applications including high fidelity, arcade, and casino games, automotive, aerospace 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.

MISCO engineers use the world's most sophisticated loudspeaker measurement systems including the Klippel Analyzer to maximize and validate the speaker's design, as well as the Klippel QC module to ensure perfect unit to unit consistency and reliability.

Pair this woofer with one of our [MISCO Amplifiers](#).



### Primary Specifications

<b>Size, Nominal (inch &amp; mm)</b>	12" (305 mm)
<b>Rated Impedance (<math>\Omega</math>)</b>	8
<b>Continuous Power (W)</b>	100
<b>Sensitivity (dB SPL) <sup>1</sup></b>	88
<b>Frequency Range (Hz)</b>	50 - 2,000
<b>Resonant Frequency (Fs) (Hz) +/- 15%</b>	23

### More Specifications

<b>Application</b>	Home Audio
<b>RoHS Compliant</b>	No
<b>DC Resistance (Re) (<math>\Omega</math>)</b>	6.6
<b>Program Power (W)</b>	200
<b>Continuous Power (W)</b>	100

### Small Signal Parameters

<b>Nominal Impedance (Z) (<math>\Omega</math>)</b>	8
<b>DC Resistance (Re) (<math>\Omega</math>)</b>	6.6
<b>Voice Coil Inductance (Le) (mH)</b>	3.53
<b>Resonant Frequency (Fs) (Hz) +/- 15%</b>	23
<b>Mechanical Q Factor (Qms)</b>	12.3
<b>Electrical Q Factor (Qes)</b>	0.40
<b>Total Q Factor (Qts)</b>	0.39
<b>Moving Mass (Mms) (gm)</b>	111.1
<b>Suspension Compliance (Cms) (mm/N)</b>	0.45
<b>Mechanical Resistance (Rms) (kg/s)</b>	1.28
<b>Surface Area of Diaphragm (Sd) (cm<sup>2</sup>)</b>	539.1
<b>Compliance Equivalent Volume (Vas) (L)</b>	183.50
<b>Maximum Linear Excursion (Xmax) (mm)</b>	6.7
<b>Coil Winding Height (mm)</b>	22.9
<b>Magnetic Gap Height (mm)</b>	9.5
<b>Motor Force Factor (BL) (T•M)</b>	16.2
<b>Efficiency (<math>\eta_0</math>) (%)</b>	0.51
<b>Efficiency Bandwidth Product (EBP) (Fs/Qes)</b>	57.6

### Material Descriptions

<b>Basket Type</b>	Steel
<b>Terminal Size (mm)</b>	5.6 x 5.2 mm
<b>Voice Coil Diameter (mm)</b>	51.31
<b>Voice Coil Wire Material</b>	High temperature copper
<b>Voice Coil Former Material</b>	Kapton
<b>Magnet Material</b>	Ferrite
<b>Magnet Weight (g)</b>	1077.3
<b>Cone Body Material</b>	Polypropylene
<b>Cone Surround Material</b>	Rubber

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<b>Dust Cap Material</b>	Polypropylene
<b>Net Weight (kg)</b>	4.34



## Frequency & Impedance Response

