

The 93086 is an 8", 8 ohm high-power extended range music and voice speaker with a coaxially mounted PEI dome tweeter. This unique coax is ideal for high power foreground music systems and mounts into industry standard back cans.

- Extended range music and voice speaker
- 8" (203 mm) steel basket diameter
- 100 watt, 8 ohm, 92 dB SPL
- 2" copper voice coil, Kapton former
- PEI dome tweeter, coaxially mounted
- Paper cone, ferrite magnet

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 confirm the final design.



## Primary Specifications

|                                              |             |
|----------------------------------------------|-------------|
| <b>Size, Nominal (inch &amp; mm)</b>         | 8" (203 mm) |
| <b>Rated Impedance (<math>\Omega</math>)</b> | 8           |
| <b>Continuous Power (W)</b>                  | 100         |
| <b>Sensitivity (dB SPL) <sup>1</sup></b>     | 92          |
| <b>Frequency Range (Hz)</b>                  | 35 - 20,000 |
| <b>Resonant Frequency (Fs) (Hz) +/- 15%</b>  | 47          |

## More Specifications

|                                                 |                      |
|-------------------------------------------------|----------------------|
| <b>Application</b>                              | Voice Communications |
| <b>RoHS Compliant</b>                           | No                   |
| <b>DC Resistance (Re) (<math>\Omega</math>)</b> | 5.7                  |
| <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>        | 5.7    |
| <b>Voice Coil Inductance (Le) (mH)</b>                 | 0.85   |
| <b>Resonant Frequency (Fs) (Hz) +/- 15%</b>            | 47     |
| <b>Mechanical Q Factor (Qms)</b>                       | 16.59  |
| <b>Electrical Q Factor (Qes)</b>                       | 0.39   |
| <b>Total Q Factor (Qts)</b>                            | 0.29   |
| <b>Moving Mass (Mms) (gm)</b>                          | 28.37  |
| <b>Suspension Compliance (Cms) (mm/N)</b>              | 0.34   |
| <b>Mechanical Resistance (Rms) (kg/s)</b>              | 0.55   |
| <b>Surface Area of Diaphragm (Sd) (cm<sup>2</sup>)</b> | 226.98 |
| <b>Compliance Equivalent Volume (Vas) (L)</b>          | 25.06  |
| <b>Motor Force Factor (BL) (T•M)</b>                   | 11.5   |
| <b>Efficiency (<math>\eta_o</math>) (%)</b>            | 0.81   |
| <b>Efficiency Bandwidth Product (EBP) (Fs/Qes)</b>     | 119.59 |

## Material Descriptions

|                                   |                         |
|-----------------------------------|-------------------------|
| <b>Basket Type</b>                | Stamped steel           |
| <b>Terminal Size (mm)</b>         | 2.8 x 0.5               |
| <b>Voice Coil Diameter (mm)</b>   | 51                      |
| <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>         | Paper composite         |
| <b>Cone Surround Material</b>     | Natural rubber          |
| <b>Dust Cap Material</b>          | Felt                    |
| <b>Net Weight (kg)</b>            | 3.63                    |

