SOVOX

MC312

SPECIFICATION

Three-way coaxial surround loudspeaker for the side- and rear-wall channels, with a 12-inch coaxial mid-high section and ribbon super-tweeters on a common axis, radiating laterally across the seating area, with aim-adjustable wall mounting and height-channel suspension. Hall width ≤ 18 m/25 m[1]

01 FEATURES ● Performance | ▲ Engineering | ■ Economy & Maintenance



- 12-inch coaxial mid/high driver and 2-inch dome tweeter on one axis, spreading energy laterally along the side and rear walls.
- Two ribbon super-tweeters extend the ultra-high band further, with HF response to 25 kHz.
- 100° × 100° nominal coverage, identical in wall-mount and flown configurations.
- ▲ 2.5 kHz / 4.5 kHz passive crossover inside the enclosure, so only one connection point is needed.
- ▲ U-shaped one-piece bracket adjusts horizontally; wall-mounted directly or suspended on threaded rods as a height channel.
- ■ 4 Ω nominal; verify amplifier current capability and cable loss when specifying the amplifier; 14.6 kg, 319 mm deep.

02 OVERVIEW

The MC312 is a three-way coaxial surround loudspeaker in the MC Series for the side-wall and rear-wall channels of wider seating areas, suitable for wall or ceiling mounting, and for ceiling suspension on threaded rods as a height channel for immersive formats such as Dolby Atmos. It combines a 12″ coaxial mid-high driver, a 2″ dome HF section and two ribbon super-tweeters, delivering 52 Hz–25 kHz (±3 dB) and 100° × 100° nominal coverage from a 319 mm deep bass-reflex enclosure.

The 12″ coaxial unit places the mid and high sections on one axis, with the two ribbon super-tweeters carrying the upper band. The 4 Ω nominal impedance governs how many cabinets can share one channel and the cable size required; amplifier current and cable loss must still be checked. At 96 dB sensitivity and a 310 W AES 100-hour rating it is the higher-output member of the family within the same cabinet size. The U-shaped bracket provides horizontal aiming for direct side-wall mounting or ceiling suspension; the bass-reflex MDF cabinet carries a textured paint finish and weighs 14.6 kg net.

03 APPLICATIONS

Surround channels (including height channels) · Large commercial auditoriums · Dolby Atmos and other immersive-audio auditoriums · Dome cinemas

04 SPECIFICATIONS

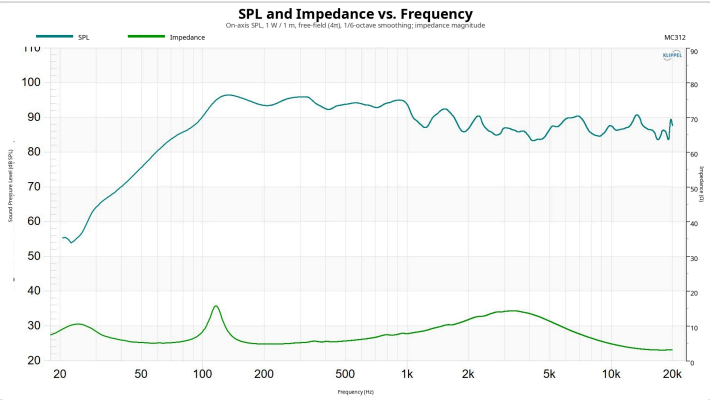
MODEL	MC312
PRODUCT TYPE	Cinema Surround Speaker
SYSTEM TYPE	Coaxial three-Way, Passive
DRIVER CONFIGURATION	12"coaxial +2″ HF dome + Ribbon UHF × 2
NOMINAL IMPEDANCE	4Ω
FREQUENCY RESPONSE (±3 DB @ 2Π)[2]	52 Hz–25 kHz
FREQUENCY RANGE (-10 DB @ 2Π)[2]	45 Hz–25 kHz
AES 100-HOUR POWER RATING[3]	310W
AES 2-HOUR POWER RATING	387.5W
PROGRAM POWER[4]	620W
SENSITIVITY (2Π) @1W/1m	96dB
RATED MAXIMUM SPL /1m @ 2Π	120.9dB
CALCULATED MAXIMUM SPL /1m @ 2Π[5]	126.9dB
CROSSOVER FREQUENCY	2.5 kHz 4.5 kHz
RECOMMENDED HPF	40 Hz
COVERAGE ANGLE (H×V)	100°×100°
ENCLOSURE TYPE	Bass-reflex enclosure
ENCLOSURE MATERIAL / FINISH	MDF · Textured paint
INPUT CONNECTORS	Binding posts
MOUNTING OPTIONS	Wall / ceiling
DIMENSIONS W×H×D (mm)	W406 × H487 × D319 mm
NET WEIGHT	14.6 kg

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05 FREQUENCY RESPONSE

On-axis frequency response, 1W/1 m, free-field, 1/6-octave smoothing[6]

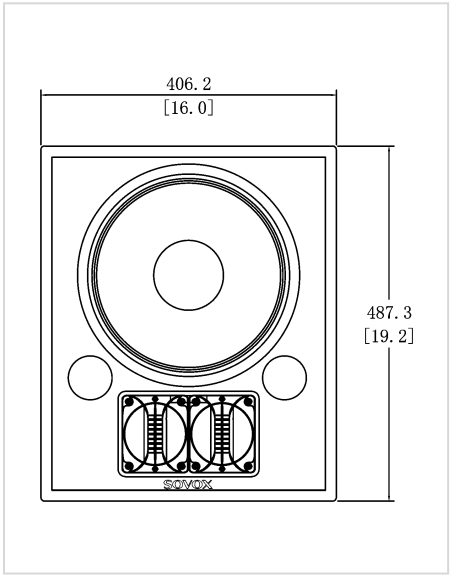
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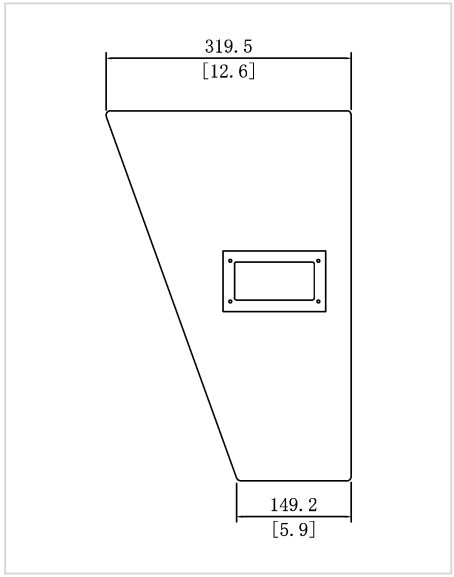
06 DIMENSIONAL DRAWINGS

Front, side and top views, dimensioned in millimetres

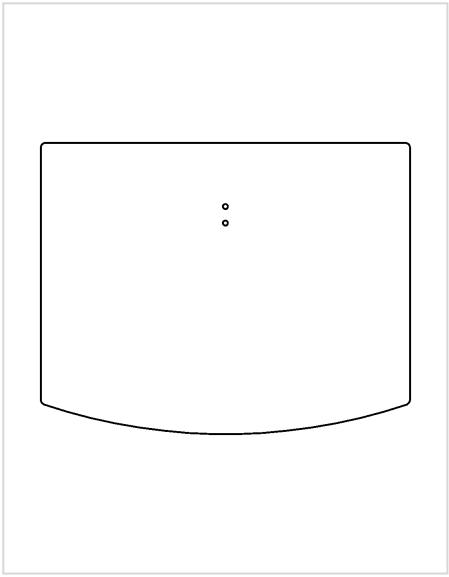
THREE EQUAL IMAGE FRAMES · FIT WITHOUT CROPPING



Front View



Side View



Top View

SPECIFICATION NOTES

1 Two length values are given: the first is the usable range on continuous power, the second on program power. Program power is a short-term maximum output and is not a level the system can sustain continuously. Target levels follow the SMPTE ST 202 / RP 200 cinema reference level: 82 dB for surround plus 20 dB peak headroom; hall width = lateral distance from the loudspeaker to the hall centre axis x 2. Listening distance is derived from free-field distance attenuation. The continuous-power range uses the rated maximum SPL in this table; the program-power range uses the rated value +3 dB (program power being twice the continuous power). The calculated maximum SPL (rated +6 dB, short-term peak) is not used for these figures.
Screen loss, power compression, system limiting and room gain are not included - this is a theoretical estimate, not a measured guarantee; on-site verification is recommended. Operating beyond the recommended figure may result in, but is not limited to: dynamic compression, increased distortion, extraneous noise, and in severe cases equipment damage.

2 Low-frequency response and sensitivity specifications are referenced to half-space (2π) conditions, representative of typical cinema baffle-wall installation. Frequency-response graphs are measured in an anechoic free-field (4π) environment unless otherwise noted. In the low-frequency region the same loudspeaker measures about 6 dB higher under 2π than under 4π (in practice 3–6 dB depending on frequency and baffle conditions); this is a difference of measurement convention, not of performance.

3 Rating based on an IEC filtered random-noise test signal, band-limited 50 Hz–20 kHz, with a peak-to-average ratio of 6 dB

4 Recommended amplifier output at the applicable impedance should not exceed the program power, giving an unclipped output waveform while avoiding loudspeaker damage; an amplifier capable of at least the RMS continuous power (AES 100 h) is recommended to realize full loudspeaker performance. The actual amplifier match should be determined by calculation for the listening distance (see note 1).

5 Calculated maximum SPL is derived from the rated (continuous) power and half-space (2π) sensitivity and is a calculated, not measured, figure; at a 6 dB peak-to-average ratio it exceeds the rated value by 6 dB, representing short-term peak capability rather than a level the system can sustain.

6 The frequency-response graphs on this page are measured on-axis at 1 W/1 m in an anechoic free-field (4π) environment with 1/6-octave smoothing; the frequency response and sensitivity in the specification table are stated under half-space (2π) conditions. Lower readings in the low-frequency region of the graph therefore reflect the difference in convention rather than a difference in performance. 2π-format curves are available on request.

7 Passive, single-amplifier-channel enclosure; hall width above derived from its AES 100-hour rating and system sensitivity, with drive-unit-level verification pending.

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