SOVOX

ES12

SPECIFICATION

Coaxial two-way surround loudspeaker for the side- and rear-wall channels, with a 12-inch coaxial driver in a circular cabinet with integrated ambient lighting, long- or short-arm brackets for two-axis aiming and height-channel suspension. Hall width ≤ 17 m/24 m[1]

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



- 12-inch coaxial driver and 2-inch dome tweeter on one axis, so coverage shape does not change with mounting angle.
- Round sealed enclosure with integrated ambient lighting, making the cabinet part of the auditorium design.
- 100° × 100° nominal coverage, identical in wall-mount and flown configurations.
- ▲ φ450 mm round cabinet with a sloped back (292 mm deep at top, 137 mm at bottom) for tight wall or corner placement.
- ▲ Long-arm / short-arm brackets adjust horizontally and vertically; the cabinet can also be flown as a height channel.
- ■ 4 Ω nominal; verify amplifier current capability and cable loss when specifying the amplifier; 10 kg.

02 OVERVIEW

The ES12 is the largest-diameter, highest-output surround loudspeaker in the ES Eclipse Series, for the side-wall and rear-wall channels of wider seating areas, suitable for wall or ceiling mounting, flush wall fixing, and ceiling suspension as a height channel for immersive formats such as Dolby Atmos. It pairs a 12″ coaxial driver with a 2″ dome HF section and delivers 45 Hz–20 kHz (±3 dB) and 100° × 100° nominal coverage from a φ450 mm circular sealed enclosure.

Low and high sections share a common axis, while the circular sealed cabinet continues the family's visual identity and integrates ambient lighting; the cabinet back is sloped, 292 mm deep at the top and 137 mm at the bottom. The 4 Ω nominal impedance governs how many cabinets can share one channel and the cable size required, so amplifier current capability and cable loss must be checked at system design; 96 dB sensitivity and a 270 W AES 100-hour rating define its output capability. Long- and short-arm brackets provide horizontal and vertical aiming; a flush wall bracket is available where aiming is not required. Net weight 10 kg.

03 APPLICATIONS

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

04 SPECIFICATIONS

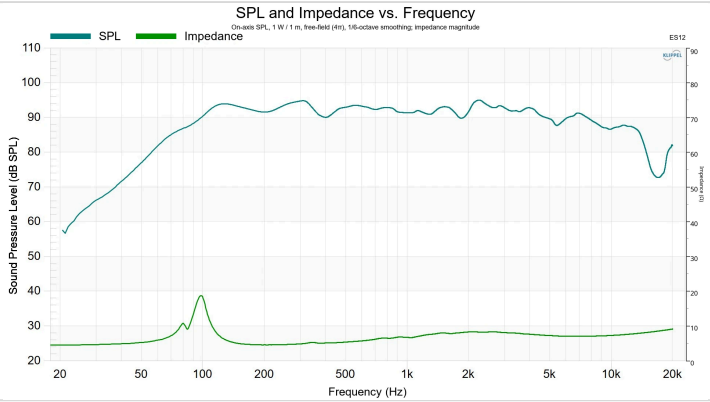
MODEL	ES12
PRODUCT TYPE	Cinema Surround Speaker
SYSTEM TYPE	Coaxial two-Way, Passive
DRIVER CONFIGURATION	12"coaxial +2″ HF dome
NOMINAL IMPEDANCE	4Ω
FREQUENCY RESPONSE (±3 DB @ 2Π)[2]	45 Hz–20 kHz
FREQUENCY RANGE (-10 DB @ 2Π)[2]	38 Hz–20 kHz
AES 100-HOUR POWER RATING[3]	270W
AES 2-HOUR POWER RATING	337.5W
PROGRAM POWER[4]	540W
SENSITIVITY (2Π) @1W/1m	96dB
RATED MAXIMUM SPL /1m @ 2Π	120.3dB
CALCULATED MAXIMUM SPL /1m @ 2Π[5]	126.3dB
CROSSOVER FREQUENCY	2.5 kHz
RECOMMENDED HPF	40 Hz
COVERAGE ANGLE (H×V)	100°×100°
ENCLOSURE TYPE	Sealed enclosure
ENCLOSURE MATERIAL / FINISH	MDF + PVC · Carbon fiber + PVC
INPUT CONNECTORS	Binding posts
MOUNTING OPTIONS	Wall / ceiling
DIMENSIONS W×H×D (mm)	φ450 × D292/137 mm
NET WEIGHT	10 kg

Office: Room A401, Gaosheng Building, Zhongxin Road, Bao'an District, Shenzhen,China
Factory: SOVOX Technology Park, Qingling Road, Huiyang District, Huizhou,China
Email · info@sovox.com
Web · www.sovox.com
© 2026 SOVOX. All rights reserved.
Specifications subject to change without notice.

05 FREQUENCY RESPONSE

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

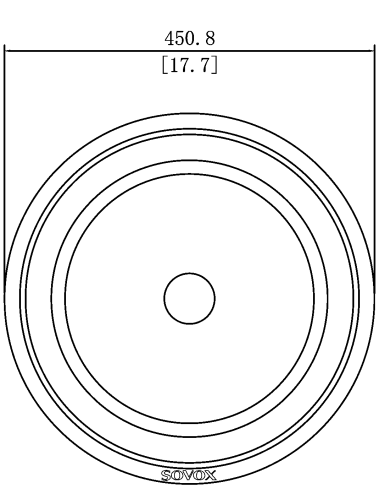
ES12



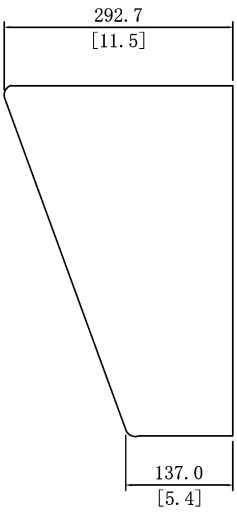
06 DIMENSIONAL DRAWINGS

Front, side and top views, dimensioned in millimetres

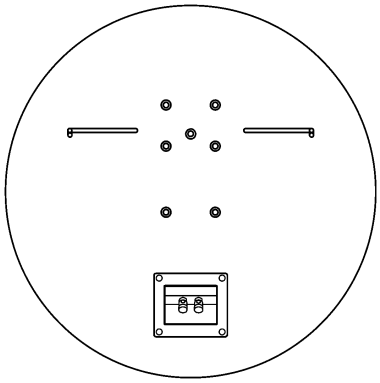
THREE EQUAL IMAGE FRAMES · FIT WITHOUT CROPPING



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.

Office: Room A401, Gaosheng Building, Zhongxin Road, Bao'an District, Shenzhen,China
Factory: SOVOX Technology Park, Qingling Road, Huiyang District, Huizhou,China
Email · info@sovox.com
Web · www.sovox.com

© 2026 SOVOX. All rights reserved.
Specifications subject to change without notice.