SOVOX

MX3068

SPECIFICATION

Passive three-way screen-channel loudspeaker with an 18-inch woofer and an integrated mid/high horn raising sensitivity, single-amplifier driven. Hall depth ≤ 16 m/23 m[1]

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



- 18-inch woofer: 97 dB driver sensitivity, 75.5 mm voice coil, 22.5 mm winding.
- SOVOX ADM™ oil-coated, cloth-edged loose-pressed paper cone balances low moving mass, damping and durability.
- Dedicated 6.5-inch cone midrange supports focused reproduction through the critical dialogue band.
- 2-inch titanium-diaphragm compression driver provides efficient high-frequency reproduction.
- ▲ Integrated horn provides 100° × 60° nominal coverage across the principal seating area.
- ▲ 500 Hz / 2.8 kHz passive crossovers enable operation from a single amplifier channel at an 8-ohm nominal load.
- ■ 388 mm enclosure depth packages an 18-inch three-way system for behind-screen installation.

02 OVERVIEW

The MX3068 is a passive three-way screen-channel loudspeaker for medium and large commercial cinema auditoria, intended for the L/C/R main channels behind acoustically transparent screens. A single 18-inch low-frequency driver, a dedicated 6.5-inch cone midrange and a 2-inch compression driver share one cabinet, covering 40 Hz–20 kHz (±3 dB, 2π) with usable extension to 28 Hz; an integrated mid/high horn raises sensitivity and provides 100° × 60° nominal coverage.

The 18-inch woofer uses a SOVOX ADM™ oil-coated, cloth-edged loose-pressed paper cone with a 75.5 mm voice coil and 22.5 mm winding. A dedicated 6.5-inch cone driver carries the dialogue band, and the 2-inch compression driver combines a 44.4 mm CCAW voice coil with a titanium diaphragm. Passive crossovers at 500 Hz and 2.8 kHz allow one amplifier channel to drive the complete three-way system at an 8-ohm nominal load, reducing amplifier channels and wiring. The one-piece bass-reflex enclosure (PVC-laminated MDF with integrated horn) measures 670 × 983 × 388 mm (W × H × D) and weighs 47 kg; its 388 mm depth suits the restricted space behind screens, with screen-frame mounting or guided suspension.

03 APPLICATIONS

Behind-screen main channels · Medium to large commercial auditoriums

04 SPECIFICATIONS

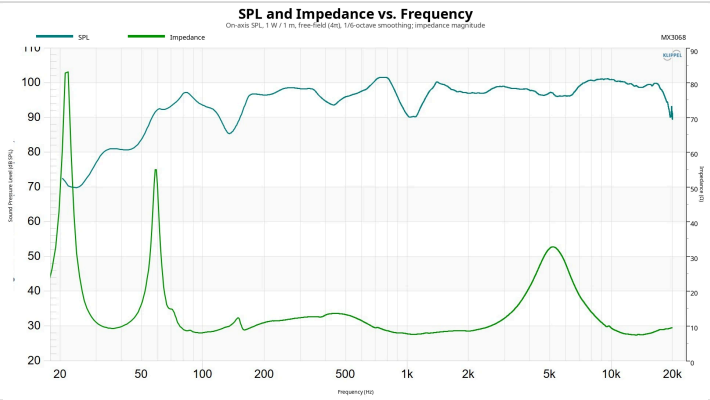
MODEL	MX3068
PRODUCT TYPE	Cinema Screen Speaker
SYSTEM TYPE	3-Way, Passive
DRIVER CONFIGURATION	18" LF+ 6.5" MF + 2" HF
NOMINAL IMPEDANCE	8Ω
FREQUENCY RESPONSE (±3 DB @ 2Π)[2]	40 Hz–20 kHz
FREQUENCY RANGE (-10 DB @ 2Π)[2]	28 Hz–20 kHz
AES 100-HOUR POWER RATING[3]	750W
AES 2-HOUR POWER RATING	937.5W
PROGRAM POWER[4]	1500W
SENSITIVITY (2Π) @1W/1m	101dB
RATED MAXIMUM SPL /1m @ 2Π	129.8dB
CALCULATED MAXIMUM SPL /1m @ 2Π[5]	135.8dB
CROSSOVER FREQUENCY	500 Hz 2.8 kHz passive
RECOMMENDED HPF	25 Hz, LR24
COVERAGE ANGLE (H×V)	100° × 60°
ENCLOSURE TYPE	Bass-reflex enclosure with built-in horn
ENCLOSURE MATERIAL / FINISH	MDF · PVC laminate
INPUT CONNECTORS	Binding posts
MOUNTING OPTIONS	Screen-frame mounting or suspended installation under guidance
DIMENSIONS W×H×D (mm)	W670 × H983.2 × D388 mm
NET WEIGHT	47 kg

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05 FREQUENCY RESPONSE

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

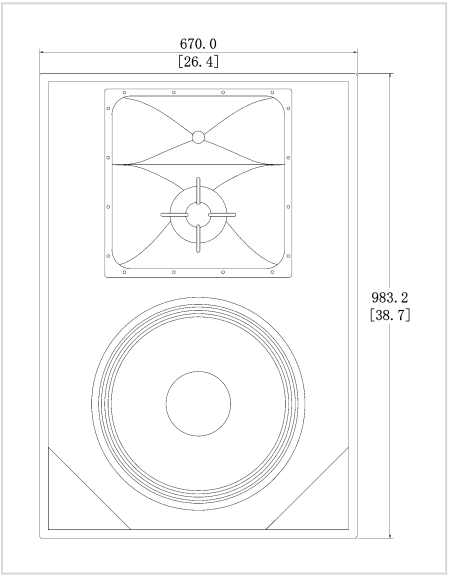
MX3068



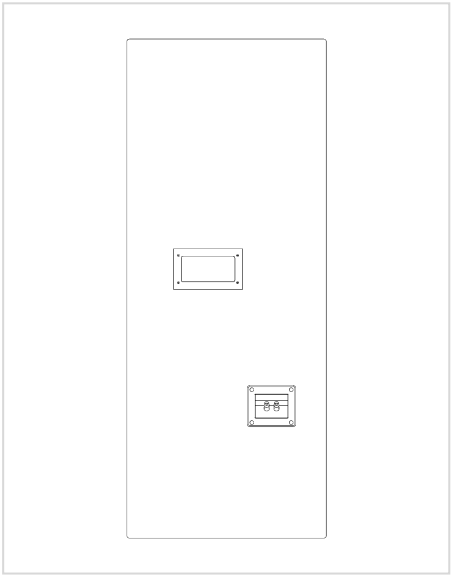
06 DIMENSIONAL DRAWINGS

Front, side and top views, dimensioned in millimetres

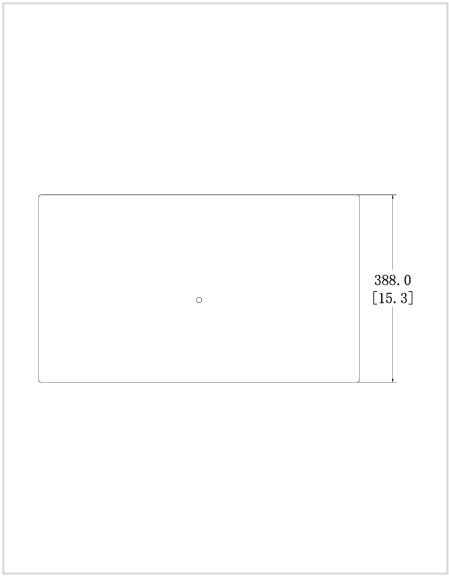
THREE EQUAL IMAGE FRAMES · FIT WITHOUT CROPPING



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: 85 dB for screen channels plus 20 dB peak headroom, measured at the reference listening position (RLP); hall depth = listening distance x 1.5. 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; the hall depth above has been verified at drive-unit level, where the 6.5-inch cone midrange is the limiting unit and sets the recommended figure.

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