SOVOX

MV3105PRO

SPECIFICATION

High-output three-way, bi-amplified screen-channel system with dual 15-inch LF and a horn-loaded 10-inch midrange, for behind-screen main-channel use, multiplex, screening and dubbing rooms. Hall depth ≤ 24 m/33 m[1]

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



- Dual 15-inch LF module provides ample low-frequency radiating area and sustained output capacity.
- Dedicated 10-inch midrange uses a 75 mm voice coil and a rigid cast-aluminium chassis for the dialogue band.
- 3-inch compression driver with HLMS™ dual shorting rings (copper sleeve + aluminium ring) for mid-high distortion control at high output.
- 100° × 20°–30° nominal coverage; the LF module, 10-inch midrange horn and 3-inch HF horn share a matched 760 mm width for a flush, consistent acoustic line-up behind the screen.

▲ Bi-amplified drive: 300 Hz LR24 active and 1.4 kHz passive crossovers coordinate the three bands, with independent amplifier channels for LF and mid/high.

■ The mid/high module is moulded in lightweight polymeric material (approx. 23.3 kg net); together with the stacked, separable structure this eases transport and allows staged installation and separate service access.

02 OVERVIEW

The MV3105PRO is a high-output three-way, bi-amplified screen channel system in the SOVOX MV Series for large auditoria and longer projection distances, covering behind-screen main channels, multiplex auditoria and screening or dubbing rooms. It pairs a dual-15-inch low-frequency module with a horn-loaded mid/high module carrying a 10-inch midrange and a 3-inch compression driver; the LF module is 760 mm wide, and the system covers 40 Hz–19 kHz (±3 dB, half-space) with a 28 Hz–20 kHz usable range and 100° × 20°–30° nominal coverage.

Twin 15-inch drivers use ADM™ oil-treated tight-pressed cones, with module sensitivity of 103 dB (1 W/1 m, 2π) helping to ease the load on each amplifier channel. A dedicated 10-inch midrange on a rigid cast-aluminium chassis carries the dialogue band, and the 3-inch titanium-diaphragm compression driver uses the HLMS™ copper-sleeve-plus-aluminium-ring dual shorting structure — three bands, each with its own working range. The 10-inch midrange horn and the 3-inch HF horn share the LF module's 760 mm width, keeping the acoustic frontage behind the screen flush — a layout intended to support consistent sound-pressure distribution and dialogue clarity across broad seating areas. The mid/high horn is moulded in lightweight polymeric material (approx. 23.3 kg net), easing transport and installation. The system crosses over actively at 300 Hz (LR24) with independent amplifier channels for LF and mid/high, and a 1.4 kHz passive network links the horn-loaded midrange and HF sections.

03 APPLICATIONS

Behind-screen main channels · Large commercial auditoriums · Large-format screens

04 SPECIFICATIONS

MV3105PRO ACTIVE CROSSOVER SYSTEM

PRODUCT TYPE	Cinema Screen Loudspeaker System
SYSTEM TYPE	3-Way, Bi-Amplified
FREQUENCY RESPONSE (±3 DB @ 2Π)[2]	40 Hz–19 kHz
FREQUENCY RANGE (-10 DB @ 2Π)[2]	28 Hz–20 kHz
COVERAGE ANGLE (H×V)	100° × 20°–30°

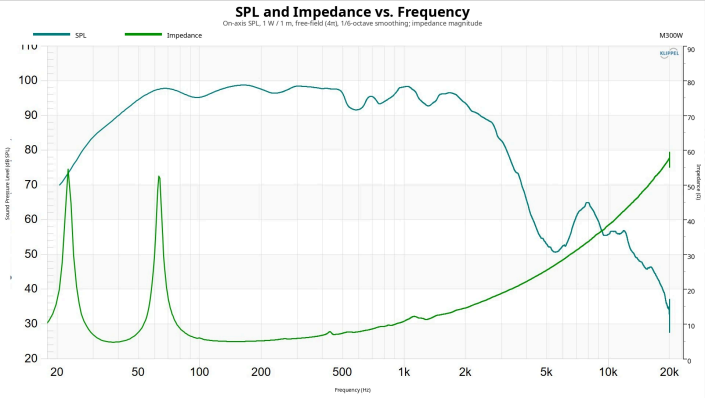
	M300(W) LF MODULE	**MV3105PRO(T)** MF / HF MODULE
DRIVER CONFIGURATION	15"LF × 2	10"MF + 3"HF
NOMINAL IMPEDANCE	4Ω	6Ω
AES 100-HOUR POWER RATING[3]	800W	300W
AES 2-HOUR POWER RATING	1000W	375W
PROGRAM POWER[4]	1600W	600W
SENSITIVITY (2Π) @1W/1m	103dB	104dB
RATED MAXIMUM SPL /1m @ 2Π	132dB	128.8dB
CALCULATED MAXIMUM SPL /1m @ 2Π[5]	138dB	134.8dB
CROSSOVER FREQUENCY	LR-24dB oct @300 Hz (LF–MF HF)	1.4 kHz passive (MF–HF)
RECOMMENDED HPF	25 Hz, LR24	-
ENCLOSURE TYPE	Bass-reflex enclosure	Mid-frequency horn + high-frequency horn
ENCLOSURE MATERIAL / FINISH	MDF · PVC	Polymeric MDI · Textured paint
INPUT CONNECTORS	Binding posts	Binding posts
MOUNTING OPTIONS	Behind-screen installation	Mounted on top of the LF module
DIMENSIONS W×H×D (mm)	W760 × H921 × D465 mm	W760 × H1202 × D571.5 mm
NET WEIGHT	53.3 kg	23.3 kg

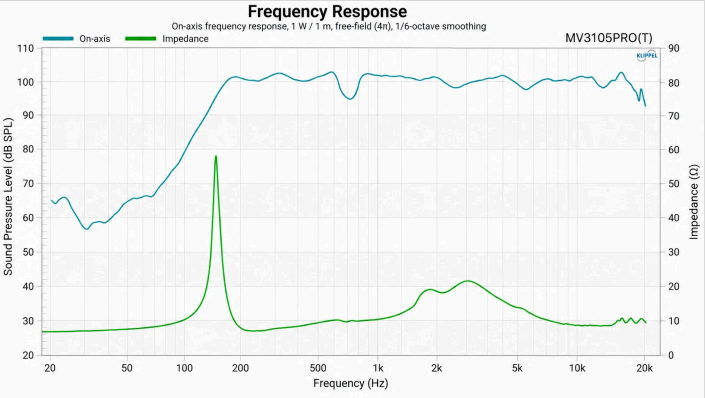
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05 FREQUENCY RESPONSE

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

M300(W) · MV3105PRO(T)

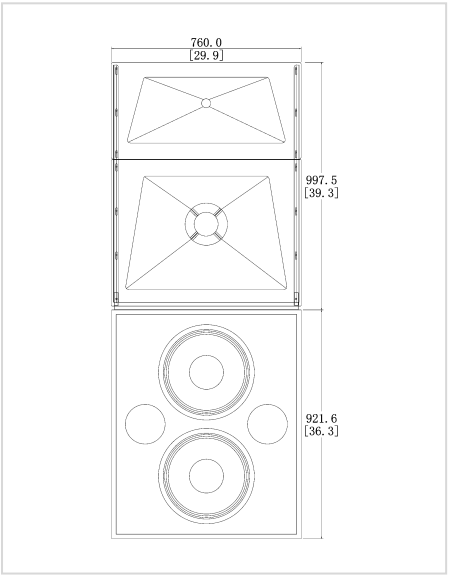




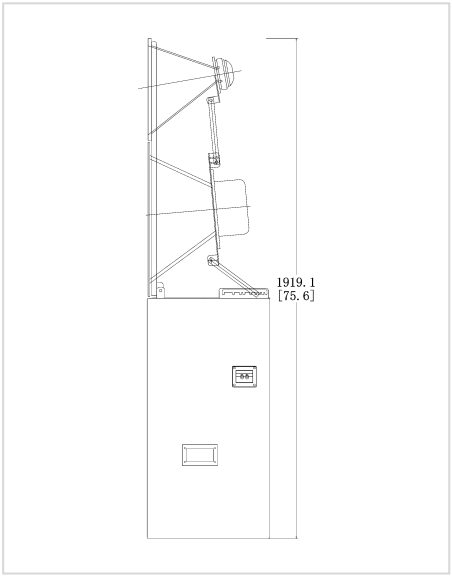
06 DIMENSIONAL DRAWINGS

Front, side and top views, dimensioned in millimetres

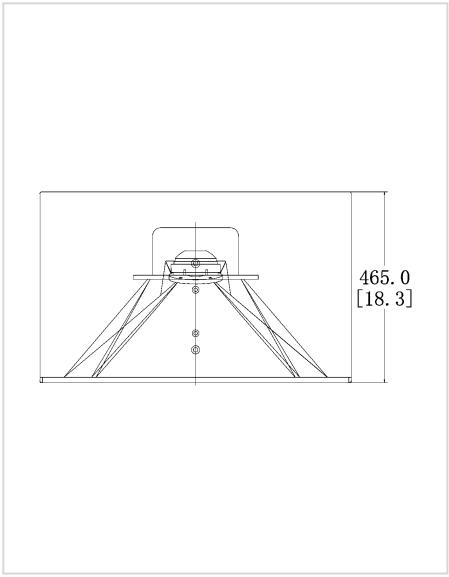
THREE EQUAL IMAGE FRAMES · FIT WITHOUT CROPPING



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.

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