

Modular three-way, bi-amplified screen-channel system with dual 18-inch LF and twin 12-inch midranges, plus a 3-inch compression driver. Hall depth ≤ 27 m/37 m¹

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

- Dual 18-inch woofers with 99 mm voice coils, oil-treated tight-pressed cones and large Y30 ferrite magnetic assemblies leave headroom for sustained low-frequency dynamics.
- Twin 12-inch midranges side by side expand both radiating area and power handling in the dialogue band.
- 3-inch compression driver with HLMS™ dual shorting rings (copper sleeve + aluminium ring) for linear motor behaviour at high output.
- ▲ 220 Hz LR24 active crossover, bi-amplified, driving the low-frequency and mid/high sections from independent amplifier channels.
- ▲ Sealed mid/high enclosure with an internal horn keeps reflex airflow out of the midband; the mid/high module can be angled on top of the LF cabinet, with an optional acoustic baffle.
- Drivers and horns are fully internal for a shallow installation depth; the two modules can be carried and serviced separately, the heaviest piece being 72 kg.



02 OVERVIEW

The M380 is a modular three-way, bi-amplified screen channel system in the SOVOX M Series for large commercial auditoria, covering behind-screen main channels as well as screening and dubbing rooms. It pairs a dual-18-inch low-frequency module with a mid/high module carrying twin 12-inch midranges and a 3-inch compression driver, covering 37 Hz–18 kHz (±3 dB, half-space) with a 26 Hz–20 kHz usable range and 90° × 45° nominal coverage.

The 18-inch woofers pair 99 mm voice coils and oil-treated tight-pressed cones with large Y30 ferrite magnetic assemblies, sized for sustained low-frequency duty. The twin 12-inch midranges sit in a sealed mid/high enclosure with an integrated horn, keeping the upper module compact and acoustically controlled, while the 3-inch titanium-diaphragm compression driver uses the HLMS™ copper-sleeve-plus-aluminium-ring dual shorting structure. The system crosses over actively at 220 Hz (LR24), with independent amplifier channels for the low-frequency and mid/high sections and a 2.0 kHz passive network linking the midrange to the high frequencies. Drivers and horns are fully internal, so the enclosures stay shallow; the mid/high module can be angled on top of the LF cabinet, with an optional acoustic baffle behind the screen.

03 APPLICATIONS

Behind-screen main channels · Large commercial auditoriums · Dubbing rooms · Large-format screens · Dome cinemas

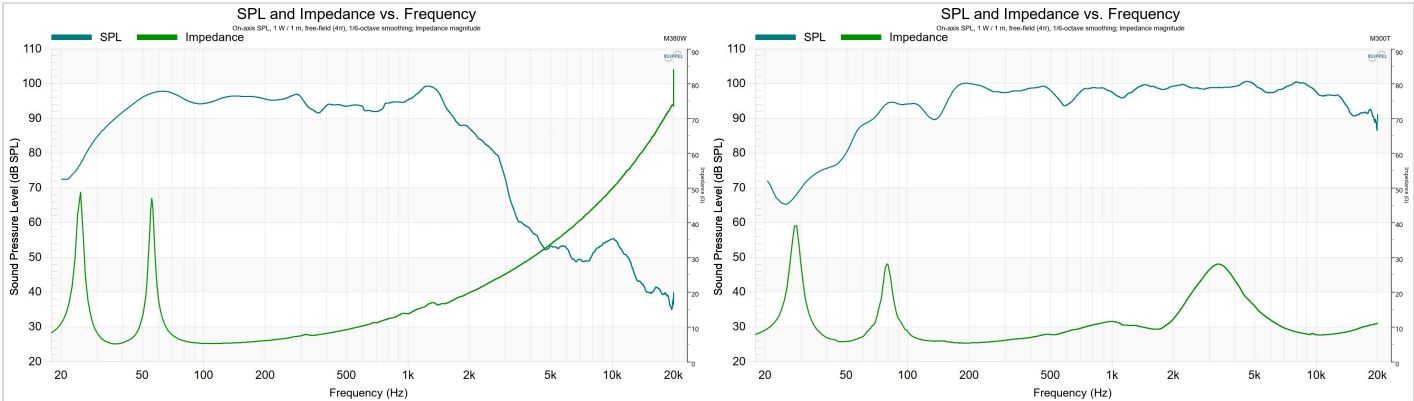
04 SPECIFICATIONS

M380 ACTIVE CROSSOVER SYSTEM		
PRODUCT TYPE	Cinema Screen Loudspeaker System	
SYSTEM TYPE	3-Way, Bi-Amplified	
FREQUENCY RESPONSE (±3 DB @ 2Π) ²	37 Hz–18 kHz	
FREQUENCY RANGE (-10 DB @ 2Π) ²	26 Hz–20 kHz	
COVERAGE ANGLE (H×V)	90° × 45°	
	M380(W) LF MODULE	M300(T) MF / HF MODULE
DRIVER CONFIGURATION	18"LF × 2	12"MF × 2 + 3"HF
NOMINAL IMPEDANCE	4Ω	4Ω
AES 100-HOUR POWER RATING ³	1200W	600W
AES 2-HOUR POWER RATING	1500W	750W
PROGRAM POWER ⁴	2400W	1200W
SENSITIVITY (2Π) @ 1W/1m	102dB	102dB
RATED MAXIMUM SPL / 1m @ 2Π	132.8dB	129.8dB
CALCULATED MAXIMUM SPL / 1m @ 2Π ⁵	138.8dB	135.8dB
CROSSOVER FREQUENCY	LR-24 dB/oct @220 Hz (LF–MF HF)	2.0 kHz passive (MF–HF)
RECOMMENDED HPF	25 Hz, LR24	-
ENCLOSURE TYPE	Bass-reflex enclosure	Sealed enclosure with built-in horn
ENCLOSURE MATERIAL / FINISH	MDF · PVC	MDF · PVC
INPUT CONNECTORS	Binding posts	Binding posts
MOUNTING OPTIONS	Screen-frame mounting	Mounted on top of the LF module
DIMENSIONS W×H×D (mm)	W760 × H1202 × D571.5 mm	W410 × H961 × D302 mm
NET WEIGHT	72 kg	25.5 kg

05 FREQUENCY RESPONSE

On-axis frequency response, 1W/1 m, free-field, 1/6-octave smoothing⁶

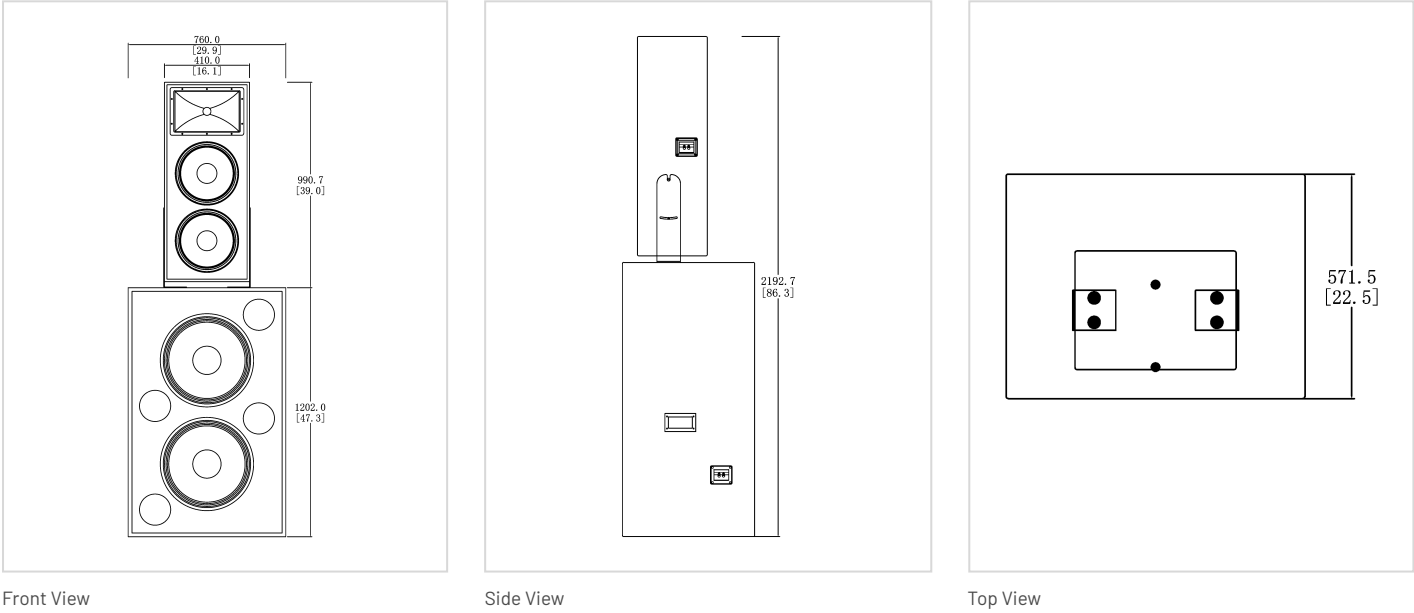
M380(W) · M300(T)



06 DIMENSIONAL DRAWINGS

Front, side and top views, dimensioned in millimetres

THREE EQUAL IMAGE FRAMES · FIT WITHOUT CROPPING



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 (2 π) conditions, representative of typical cinema baffle-wall installation. Frequency-response graphs are measured in an anechoic free-field (4 π) environment unless otherwise noted. In the low-frequency region the same loudspeaker measures about 6 dB higher under 2 π than under 4 π (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 (2 π) 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 (4 π) environment with 1/6-octave smoothing; the frequency response and sensitivity in the specification table are stated under half-space (2 π) conditions. Lower readings in the low-frequency region of the graph therefore reflect the difference in convention rather than a difference in performance. 2 π -format curves are available on request.