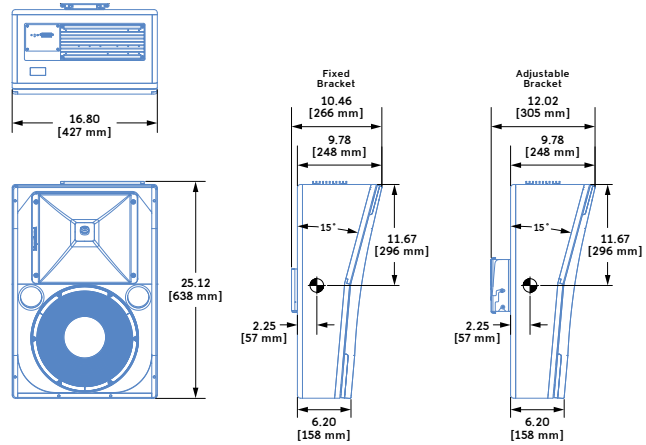


# HMS-12 High-Power Cinema Surround Loudspeaker



- Dimensions** 16.80" w x 25.12" h x 9.78" d (427 mm x 638 mm x 248 mm)
- Weight** 46 lbs (20.9 kg) with mounting bracket
- Enclosure** Multi-ply hardwood
- Finish** Black textured
- Protective Grille** Acoustically transparent, black cloth-covered frame
- Mounting** Rear attachment points for optional wall-mount brackets (fixed or adjustable), hinge bracket, U-bracket, or half-yoke

The HMS-12 high-power cinema surround loudspeaker, with IntelligentDC technology, is optimized for use in cinemas, theatres, screening rooms, and other surround applications. The self-powered, full-range HMS-12 maintains a wide dynamic range, exceptional fidelity, and clarity during the most demanding of digital soundtracks. As part of Meyer Sound's Cine-Studio series, the HMS-12 integrates seamlessly with Acheron® screen channel loudspeakers, as well as with other HMS surround loudspeakers. Boasting a wide frequency range of 59 Hz to 18 kHz and a maximum peak SPL of 133 dB at 1 meter, with very low distortion, the HMS-12 delivers the full intensity and nuance of cinema surround channels to every listener without compromise.

The HMS-12's transducers include one 12-inch low-frequency, long-excursion cone driver and one 3-inch diaphragm high-frequency compression driver on a symmetrical, constant-directivity 100-degree horn that delivers exceptional consistency. The proprietary drivers

— designed and manufactured at Meyer Sound's headquarters in Berkeley, California — are powered by two channels of onboard amplification that include an active crossover, driver protection circuitry, and correction filters for flat phase and frequency responses.

The versatile HMS-12 can be mounted on walls or ceilings at fixed or adjustable angles with the optional wall-mount brackets (fixed or adjustable), hinge bracket, U-bracket, or half-yoke, allowing units to be deployed per the requirements of any surround application or immersive cinema format.

With IntelligentDC technology, the HMS-12 receives DC power and balanced audio from a single Phoenix™ 5-pin male connector. Powering the unit from an external source eliminates the need for AC conduits while still preserving the advantages of self-powered systems. The HMS-12's amplifier and signal-processing circuits store DC power and tolerate voltage drops, thereby accommodating

light-gauge cables and lengthy cable runs.

The HMS-12 requires an external MPS-488HP IntelligentDC power supply. The single-space 19-inch rack unit distributes DC power and balanced audio to up to eight HMS-12 loudspeakers, or other Meyer Sound IntelligentDC loudspeakers. Composite multiconductor cables, such as Belden® 1502 or equivalent, can deliver both DC power and balanced audio to loudspeakers at cable lengths up to 150 feet with just 1 dB of loss in peak SPL using 18 AWG wire. Longer cable runs are possible with heavier gauges. Meyer Sound's RMS remote monitoring system is optionally available for the MPS-488HP.

Meyer Sound's industry-leading, self-powered technology not only delivers unparalleled and consistent audio fidelity but also simplifies installation, whether designing new rooms from scratch or adding surround channels to existing setups. The HMS-12's textured finish and black cloth grille blend smartly with any theatre decor.

## FEATURES & BENEFITS

- Exceptional fidelity and extended high-frequency performance
- Constant-directivity horn yields uniform response throughout coverage area
- Extraordinarily flat amplitude and phase responses for tonal accuracy
- Seamless integration with Acheron screen channel loudspeakers, as well as with other HMS surround loudspeakers
- IntelligentDC power affords the flexibility of lengthy cable runs without AC conduits
- Mounts on walls or ceilings with optional wall-mount bracket (fixed or adjustable), hinge bracket, U-bracket, or half-yoke

## APPLICATIONS

- Cinemas and theatres
- Screening rooms
- Surround mixing for production and postproduction facilities
- Immersive surround applications

## HMS-12 SPECIFICATIONS

<b>ACOUSTICAL</b>	<p><b>Operating Frequency Range</b><sup>1</sup> 59 Hz – 18 kHz</p> <p><b>Frequency Response</b><sup>2</sup> 63 Hz – 17 kHz ±4 dB</p> <p><b>Phase Response</b> 240 Hz – 18 kHz ±45°</p> <p><b>Maximum Peak SPL</b><sup>3</sup> 130 dB</p> <p><b>Dynamic Range</b> 110 dB</p>
<b>COVERAGE</b>	100° symmetrical
<b>CROSSOVER</b> <sup>4</sup>	840 Hz
<b>TRANSDUCERS</b>	<p><b>Low Frequency</b> One 12" long-excursion cone driver</p> <p><b>High Frequency</b> One 3" diaphragm compression driver</p>
<b>CONNECTOR OPTIONS</b>	<p>Phoenix</p> <p><b>Wiring:</b> 5-Pin Male</p> <p><b>DC Power (-)</b> Pin 1</p> <p><b>DC Power (+)</b> Pin 2</p> <p><b>Audio Shield, Chassis/Earth</b><sup>5</sup> Pin 3</p> <p><b>Audio (-)</b> Pin 4</p> <p><b>Audio (+)</b> Pin 5</p>
<b>AUDIO INPUT</b>	<p><b>Type</b> Differential, electronically balanced</p> <p><b>Maximum Common Mode Range</b> ±15 V DC, clamped to earth for voltage transient protection</p> <p><b>Input Impedance</b> 10 kΩ differential between positive (+) and negative (-) audio pins</p> <p><b>DC Blocking</b> Differential DC blocking up to the maximum common mode voltage</p> <p><b>CMRR</b> &gt;50 dB, typically 80 dB (50 Hz – 500 Hz)</p> <p><b>RF Filter</b> Common mode: 425 kHz; Differential mode: 142 kHz</p> <p><b>TIM Filter</b> &lt;80 kHz, integral to signal processing</p> <p><b>Nominal Input Sensitivity</b> 6.0 dBV (2.0 V rms) continuous is typically the onset of limiting for noise and music</p> <p><b>Input Level</b> Audio source must be capable of producing +16 dBV (6.3 V rms, 9.0 V peak) into 600 Ω to produce the maximum peak SPL over the operating bandwidth of the loudspeaker</p>
<b>AMPLIFIER</b>	<p><b>Type</b> 2-channel with active crossover</p> <p><b>Output Power</b><sup>6</sup> 300 W</p> <p><b>THD, IM, TIM</b> &lt;.02%</p> <p><b>Load</b> 4 Ω low channel, 8 Ω high channel</p> <p><b>Cooling</b> Convection</p>
<b>DC POWER</b>	<p><b>Voltage Requirement</b> 48 V DC</p>
<p><b>Meyer Sound Power Supply Required</b> For information and specifications on the MPS-488HP IntelligentDC external power supply, refer to its datasheet.</p>	

### NOTES:

1. Recommended maximum operating frequency range. Response depends on loading conditions and room acoustics.
2. Free field, measured with 1/3-octave frequency resolution at 4 meters.
3. Free field, measured with music, referred to 1 meter.
4. At this frequency, the transducers produce equal sound pressure levels.
5. Audio shield, chassis/earth through 1 kΩ, 1000 pF, 15 V clamped network to provide virtual ground lift at audio frequencies.
6. Amplifier wattage rating based on the maximum unclipped burst sine wave rms voltage the amplifier will produce into the nominal load impedance.



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## ARCHITECT SPECIFICATIONS

The loudspeaker shall be a self-powered, full-range system; its transducers shall include one 12-inch low-frequency, long excursion cone driver and one 3-inch diaphragm high-frequency compression driver.

The loudspeaker system shall incorporate internal processing electronics and a 2-channel amplifier, one channel for each driver. Processing functions shall include equalization, phase correction, signal division, and driver protection. The crossover point shall be 840 Hz. Amplifier output power shall be 300 W total. Distortion (THD, IM, TIM) shall not exceed 0.02%.

Performance specifications for a typical production unit shall be as follows, measured at 1/3-octave resolution: operating frequency range, 59 Hz to

18 kHz; phase response, 240 Hz to 18 kHz ±45 degrees; maximum peak SPL, 130 dB at 1 meter, free field. Coverage shall be 100-degree horizontal by 100-degree vertical.

The loudspeaker shall be equipped with a single Phoenix 5-pin male connector (two pins for DC power and three pins for balanced audio). The audio input shall be electronically balanced with a 10-kΩ impedance and accept a nominal 6.0 dBV (2.0 V rms) input signal. DC blocking and RF filtering shall be provided, and CMRR shall be greater than 50 dB and typically 80 dB (50 Hz to 500 Hz).

Power requirements for the loudspeaker shall be a Meyer Sound MPS-488HP IntelligentDC power supply

capable of delivering 48 V DC.

All components shall be mounted in an enclosure constructed of multi-ply hardwood with a black textured finish. The cabinet shall include rear attachment points for optional wall-mount brackets (fixed or adjustable), wall-mount hinge bracket, U-bracket, or half-yoke. The protective grille shall be an acoustically transparent, black cloth-covered frame. Dimensions for the loudspeaker shall be inches wide x 25.12 inches high x 9.78 inches deep (427 mm x 638 mm x 248 mm) without mounting bracket. Weight with mounting bracket shall be 46 lbs (20.9 kg).

The loudspeaker shall be the Meyer Sound HMS-12.