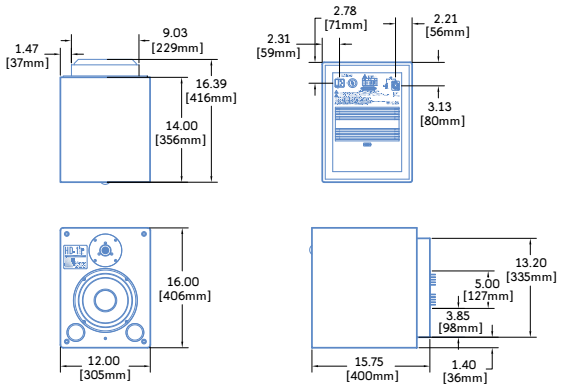
HD-1 High Definition Audio Monitor

thinking sound Meyer Sound®



Dimensions 12.00 inches W x 16.00 inches H x 16.39 inches D (+ 0.5 inches for HF dome clearance) (305 mm x 406 mm x 416 mm)
Weight 51 lbs (23.1 kg)
Enclosure Premium birch plywood
Finish Oak veneer with smooth medium-gloss black

The HD-1 high definition audio monitor is a self-powered loudspeaker designed for ultra-precise near-field monitoring. Optimized to approximate a point-source radiator, the HD-1 yields exceptionally broad directivity with a generous "sweet spot." Its patented circuitry minimizes time delay response and deviations from linear phase.

The HD-1 incorporates a 2-channel power amplifier and a sophisticated active crossover with optimized pole-zero filters for acoustical transparency and a flat frequency response. The power amplifier features complementary MOSFET output stages and operates at class A at low to moderate levels (less than 90 dB SPL) and class AB at high levels.

The HD-1 delivers a high peak SPL with a dynamic range of over 100 dB, with extremely low distortion. Its free field frequency response is flat (within ±1 dB) from 40 Hz to 20 kHz, with each unit being individually calibrated at Meyer Sound's Berkeley, California factory. The HD-1 has an active, balanced input that is switchable between a +4 dBu and –10 dBV nominal operating level.

The HD-1's transducers include a low-frequency 8-inch cone driver and a high-frequency 1-inch soft dome tweeter. The low-frequency driver's ample magnet and 2-inch voice coil yield high efficiency with rapid heat dissipation. The tweeter employs a silk-infused dome that affords smooth frequency response while minimizing breakup and coloration. The proprietary drivers are housed in a vented cabinet and individually tested for maximum linearity and low distortion.

Features & Benefits

- Unprecedented accuracy for mixes that translate consistently
- Exceptional transparency for fine control of EQ and effects
- Consistent, smooth coverage pattern for a very wide "sweet spot"
- Individual alignment provides matched pairs with pinpoint imaging
- Flat low-frequency response down to 32 Hz without subwoofers
- High peak power minimizes distortion and compression

Solutions

- Near-field tracking and mixing studio monitor
- High-end stereo and surround sound playback systems
- Mastering studio reference monitor
- Surround mixing for postproduction

HD-1 Specifications

Acoustical	
Frequency Response[1]	32 Hz – 22 kHz
Free Field	32 Hz – 22 kHz at –3 dB
	40 Hz – 20 kHz ±1 dB[2]
Maximum SPL	125 dB peak (120 dB at 1 meter)
Signal to Noise Ratio	>110 dB (noise floor 20 dBA @ 1 meter)
Coverage	
Coverage	60 degrees symmetrical
Crossover	
	Optimized pole-zero filters to complement transducer response and to achieve acoustical transparency and flat phase
Transducers	
Low Frequency	One 8-inch cone driver
High Frequency	One 1-inch dome tweeter
Audio Input	
Type	10 kOhm impedance, electronically balanced
Connector	XLR 3-pin female
Nominal Input Level	+4 dBu or –10 dBV, switchable
Ampli er	
Type	2-channel complementary MOSFET output stages (class A at low to moderate levels; class AB at high levels)
Output Power[3]	225 W (low frequency, 150 W; high frequency, 75 W)
THD, IM, TIM	<.02%
AC Power	
Connector	3-pin IEC male receptacle
Voltage Selection	Selector switch for 100, 120, 220, and 240 V AC; 50–60 Hz
Rated Voltage Range[4]	90–250 V AC, 50–60 Hz

	120 V AC	220 V AC	100 V AC
Current Draw: Idle	0.40 A rms	0.23 A rms	0.47 A rms
Maximum Long-Term Continuous (>10 sec)	1.15 A rms	0.62 A rms	1.32 A rms
Burst (<1 sec)	1.82 A rms	0.99 A rms	2.16 A rms
Maximum Instantaneous Peak	5.60 A peak	3.20 A peak	6.05 A peak

Environmental	
Operating Temperature	0° C to +45° C
Non-operating Temperature	–40° C to +75° C
Humidity	To 95 percent at 45° C (non-condensing)
Operating Altitude	To 5,000 m (16,404 ft)
Non-operating Altitude	To 12,000 m (39,000 ft)
Shock	30 g 11 msec on each of 6 sides
Vibration	10 Hz – 55 Hz (0.010 m peak-to-peak excursion)

Notes:

1. *Subject to room loading. Specified for 8 feet actual distance between HD-1 cabinet and a single boundary surface.*
2. *1/3-octave resolution.*
3. *Amplifier wattage rating based on the maximum unclipped burst sine-wave rms voltage the amplifier will produce for at least 0.5 seconds into the nominal load impedance.*
4. *Indicates the safety agency rated voltage range under normal operating conditions.*

Unless otherwise specified, all acoustical measurements are performed at 1/2 meter from front baffle on tweeter axis. Acoustical decibels are specified re 20 uPa.

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UL LISTED 3K59 COMMERCIAL AUDIO SYSTEM

HD-1 — 04.550.037.01 G

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Architect Specifications

The loudspeaker shall be a self-powered, high-definition studio monitor. The transducers shall include one 8-inch diameter cone driver and one 1-inch dome tweeter.

The loudspeaker system shall incorporate internal processing electronics and a 2-channel amplifier, one channel for each driver. The power amplifier shall feature complementary MOSFET output stages and operate as class A at low to moderate levels (less than 90 dB SPL) and class AB at high levels. Burst capability shall be 225 W total with a nominal 8 Ohm resistive load. 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: frequency response shall be 32 Hz to 22 kHz; maximum peak SPL shall be 120 dB at 1 meter; coverage shall be 60 degrees by 60 degrees.

The audio input shall be electronically balanced with a 10 kOhm impedance and accept a nominal input level of +4 dBv or –10 dBU (switchable). The audio connector shall be XLR 3-pin female.

Power requirements shall be nominal 100, 110, 220, or 240 V AC line current at 50–60 Hz. UL and CE operating voltage range shall be 90–250 V AC. Maximum peak current draw during burst shall be 1.82 A rms at 120 V AC and 0.99 A rms at 220 V AC. The AC power connector shall be a 3-pin IEC male receptacle.

Loudspeaker components shall be mounted in an oak veneer enclosure with a smooth medium-gloss black finish. Dimensions shall be 12.00 inches wide x 16.00 inches high x 16.39 inches deep (305 mm x 406 mm x 416 mm). Weight shall be 51 lbs (23.1 kg).

The loudspeaker shall be the Meyer Sound HD-1.