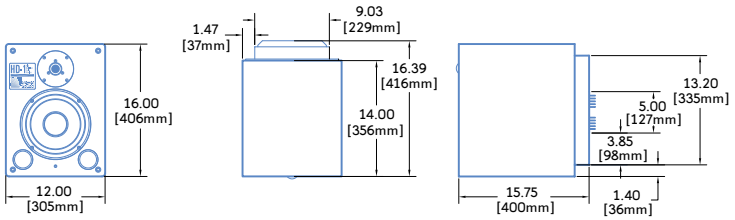
thinking sound Meyer Sound

HD-1 : High Definition Audio Monitor



Dimensions	12.00" w x 16.00" h x 16.39" d (+ 0.5" for HF dome clearance) (304 mm x 406 mm x 416 mm)
Weight	51 lbs (23.13 kg)
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 delays and deviations from linear phase.

The HD-1 incorporates a two-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 responses while minimizing breakup and coloration. Both 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 to 32 Hz without subwoofers
- High peak power minimizes distortion and compression

Applications

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

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	
	60˚ horizontal by 60˚ vertical
Crossover	
	Optimized pole-zero filter combinations to complement transducer response and to achieve acoustical transparency and flat phase
Transducers	
Low Frequency	8" cone driver
	Voice coil size: 2"
High Frequency	1" dome tweeter
	Voice coil size: 1"
Audio Input	
Type	10 kΩ impedance, electronically balanced
Connector	XLR female
Nominal Input Level	+4 dBu or –10 dBV, switchable
Amplifier	
Type	Two-channel complementary MOSFET output stages (class A at low to moderate levels; class AB at high levels)
Output Power	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
Operating Range	90–260, 50/60 Hz
Current Draw:	
Idle Current	0.40 A rms (120 V AC); 0.23 A rms (220 V AC); 0.47 A rms (100 V AC)
Maximum Long-Term Continuous Current (›10 sec)	1.15 A rms (120 V AC); 0.62 A rms (220 V AC); 1.32 A rms (100 V AC)
Burst Current (‹1 sec)[3]	1.82 A rms (120 V AC); 0.99 A rms (220 V AC); 2.16 A rms (100 V AC)
Ultimate Short-Term Peak Current	5.60 A peak (120 V AC); 3.20 A peak (220 V AC); 6.05 A peak (100 V AC)

Notes:

1. *Subject to room loading. Specified for 8 feet actual distance between HD-1 cabinet and a single boundary surface.*
2. *One-third octave resolution.*
3. *Amplifier wattage rating based on the maximum unclipped burst sine-wave rms voltage that the amplifier will produce for at least 0.5 seconds into the nominal load impedance.*

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.

THX APPROVED

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UL LISTED 3K59 COMMERCIAL AUDIO SYSTEM

HD-1 – 04.550.037.01 E

MEYER SOUND LABORATORIES INC.
2832 San Pablo Avenue
Berkeley, CA 94702

T: +1 510 486.1166
F: +1 510 486.8356

techsupport@meyersound.com
www.meyersound.com

Architect Specifications

The loudspeaker shall be a self-powered, high-definition studio monitor. The transducers shall include one 8-inch diameter cone driver with a 2-inch voice coil, and one 1-inch dome tweeter with a 1-inch voice coil.

The loudspeaker system shall incorporate internal processing electronics and a two-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 watts 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 (A-3) type female.

Powering requirements shall be nominal 100, 110, 220, or 240 V AC line current at 50 or 60 Hz. UL and CE operating voltage range shall be 90 to 260 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 a premium birch plywood enclosure with a smooth medium-gloss black or wood finish. Dimensions shall be 12.00" wide x 16.00" high x 16.39" deep (305 mm x 406 mm x 416 mm). Weight shall be 51 lbs (23.13 kg).

The loudspeaker shall be the Meyer Sound HD-1 high definition audio monitor.