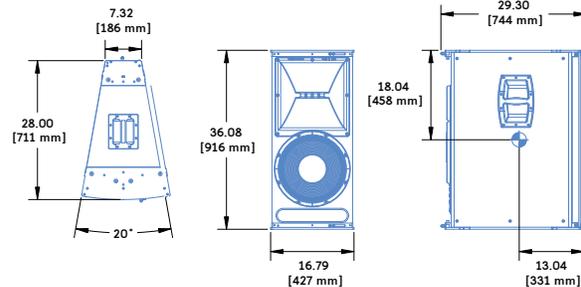




JM-1P : Arrayable Loudspeaker



- Dimensions** 16.79" w x 36.08" h x 29.30" d (427 mm x 916 mm x 744 mm)
- Weight** 147 lbs (66.68 kg)
- Enclosure** Multi-ply hardwood
- Finish** Black textured
- Protective Grille** Hex-stamped steel with black mesh screen
- Rigging** Aluminum end plates with side links for arraying units; threaded metric M10 points for rigging accessories; optional pickup plate and vertical grid for suspending arrays with uptilt or downtilt

The JM-1P self-powered loudspeaker is a high-Q, arrayable loudspeaker suited for a wide range of applications. Utilizing Meyer Sound's patented REM™ technology and trapezoidal cabinet design, the JM-1P can be deployed in tightly-packed array clusters to deliver coverage that is proportional to the number of units in the array. While JM-1P point source arrays are optimized for horizontal installations, they can also be used vertically when necessary. With its scalable coverage and versatile QuickFly® rigging options, the JM-1P loudspeaker can be used for touring, rental, and fixed installations.

Boasting a wide operating frequency range of 53 Hz to 18 kHz, the JM-1P delivers a remarkably smooth sound with ample low-frequency headroom. Designed and manufactured at Meyer Sound headquarters in Berkeley, California, the JM-1P's drivers include one low-frequency 15-inch long excursion cone driver, and one high-frequency 4-inch compression driver with an REM manifold coupled to an extremely accurate horn. The JM-1P is distinguished by its constant-Q horn that provides a 20-degree horizontal by 60-degree vertical coverage. The unit's consistent polar response and trapezoidal enclosure allow for tightly packed arrays with minimal overlap in high frequencies.

The JM-1P's sophisticated onboard amplification and processing produces consistent and predictable results in any system design. A proprietary two-channel, class AB/H power amplifier with complementary MOSFET output stages yields a total power output of 1275 W (2550 W peak). Built-in signal processing includes an electronic crossover, driver protection, and correction filters for achieving flat phase and frequency responses. Each amplifier channel has peak and rms limiters that prevent driver overexcursion and regulate voice coil temperatures. Limiting activity is easily monitored with the rear panel limit LEDs.

The optional RMS™ remote monitoring system provides comprehensive monitoring of system parameters on a Windows®-based computer.

The JM-1P's end plates include captive GuideALinks™ and quick-release pins that allow the unit to be easily linked to other JM-1Ps in arrays. The optional MPA-JM1 pickup plate suspends JM-1P horizontal arrays of up to four units with uptilt or downtilt from a single hanging point; two pickup plates can suspend arrays of up to six units from a single hanging point or motor using the MTGSB-4B spreader bar. For additional flexibility, the optional MTG-JM1 vertical grid suspends vertical arrays of up to six units.

Constructed of premium birch plywood, the durable JM-1P enclosure is coated with a black-textured, hard-shell finish. A hex-stamped, steel grille with acoustical black mesh protects the unit's drivers. Other options include weather protection and custom color finishes for fixed installations and applications with specific cosmetic requirements. The optional MDB-JM1 dolly board transports the JM-1P safely and securely; multiple dolly boards can be interlocked to transport up to three linked JM-1Ps.



JM-1P horizontal array (six units) with two MPA-JM1 pickup plates suspended from a single point using the MTGSB-4B spreader bar

FEATURES & BENEFITS

- Tightly controlled coverage yields scalable coverage proportional to the number of arrayed units
- Exceptional size to power ratio
- QuickFly rigging offers the flexibility of both horizontal and vertical arrays
- Consistent and predictable array performance ensures accurate system design

APPLICATIONS

- Theatrical sound reinforcement
- Houses of worship
- Portable and installed AV systems
- Centerfill and sidefill in large-scale systems
- Theme parks, stadiums, concert halls, and nightclubs

JM-1P SPECIFICATIONS

ACOUSTICAL	<p>Operating Frequency Range¹ 53 Hz – 18 kHz Frequency Response² 56 Hz – 16.5 kHz ±4 dB Phase Response 580 Hz – 16 kHz ±45° Maximum Peak SPL³ 138 dB Dynamic Range >110 dB</p>
COVERAGE	20° horizontal x 60° vertical
CROSSOVER⁴	520 Hz
TRANSDUCERS	<p>Low Frequency High-power 15" cone driver with neodymium magnet Nominal impedance: 2 Ω Voice coil size: 4" Power handling capability: 1200 W (AES)⁵</p> <p>High Frequency 4" compression driver Nominal impedance: 8 Ω Voice coil size: 4" Diaphragm size: 4" Exit size: 1.5" Power handling capability: 250 W (AES)⁵</p>
AUDIO INPUT	<p>Type Differential, electronically balanced Maximum Common Mode Range ±15 V DC, clamped to earth for voltage transient protection Connectors Female XLR input with male XLR loop output or VEAM all-in-one connector (integrates AC, audio, and network) Input Impedance 10 kΩ differential between pins 2 and 3 Wiring Pin 1: Chassis/earth through 220 kΩ, 1000 pF, 15 V clamp network to provide virtual ground lift at audio frequencies Pin 2: Signal + Pin 3: Signal – Case: Earth ground and chassis DC Blocking Differential DC blocking up to the maximum common mode voltage CMRR >50 dB, typically 80 dB (50 Hz – 500 Hz) RF Filter Common mode: 425 kHz; Differential mode: 142 kHz TIM Filter Integral to signal processing (<80 kHz) Nominal Input Sensitivity 0 dBV (1.0 V rms, 1.4 V peak) continuous is typically the onset of limiting for noise and music Input Level Audio source must be capable of producing +20 dBV (10 V rms, 14 V peak) into 600 Ω in order to produce maximum peak SPL over the operating bandwidth of the loudspeaker</p>
AMPLIFIER	<p>Type Two-channel complementary MOSFET output stages (class AB/H) Output Power⁶ 1275 W (1 x 1000 W, 1 x 275 W) Total Output⁷ 2550 W peak THD, IM, TIM <.02% Load 2 Ω low channel; 8 Ω high channel Cooling⁸ QuietCool™ with convection cooling at low to mid audio levels; fan-assisted only at high audio levels</p>
AC POWER	<p>Connector PowerCon® with loop output or VEAM Voltage Selection Automatic, two ranges, each with high-low voltage tap (uninterrupted) Safety Agency Rated Operating Range 95–125 V AC; 208–235 V AC, 50/60 Hz Turn-on and Turn-off Points 85–134 V AC; 165–264 V AC Current Draw: Idle Current 0.50 A rms (115 V AC); 0.28 A rms (230 V AC); 0.56 A rms (100 V AC) Maximum Long-Term Continuous Current (>10 sec) 4.55 A rms (115 V AC); 2.50 A rms (230 V AC); 5.25 A rms (100 V AC) Burst Current (<1 sec)⁹ 8.0 A rms (115 V AC); 4.1 A rms (230 V AC); 9.2 A rms (100 V AC) Ultimate Short-Term Peak Current Draw 20.8 A peak (115 V AC); 13.0 A peak (230 V AC); 21.6 A peak (100 V AC) Inrush Current 7.1 A peak (115 V AC); 8.4 A peak (230 V AC); 7.1 A peak (100 V AC)</p>
RMS NETWORK (OPTIONAL)	Equipped with two-conductor twisted-pair network, reporting all operating parameters of amplifiers to system operator's host computer

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. Measured with music, free field, referred to 1 meter.
4. At this frequency, the transducers produce equal sound pressure levels.
5. Power handling is measured under AES standard conditions: transducers driven continuously for two hours with a band limited noise signal having a 6 dB peak-average ratio.
6. 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.
7. Peak power based on the maximum unclipped peak voltage the amplifier will produce for at least 100 milliseconds into the nominal load impedance.
8. Fan controlled by audio level, remaining off at turn-on and at low to mid audio levels and operating only at high audio levels, making it virtually inaudible.
9. AC power cabling must be of sufficient gauge so that under burst current rms conditions, cable transmission losses do not cause the voltage to drop below the specified operating range at the loudspeaker.



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ARCHITECT SPECIFICATIONS

The loudspeaker shall be a self-powered, full-range system; the transducers shall consist of a 15-inch diameter cone driver and a 4-inch diaphragm compression driver on a 20-degree horizontal by 60-degree vertical horn. The loudspeaker system shall incorporate internal processing electronics and a two-channel amplifier, one channel for each driver. Processing functions shall include equalization, phase correction, signal division, and protection for the high- and low-frequency sections. The crossover point shall be 520 Hz.

Each amplifier channel shall be class AB/H with complementary MOSFET output stages. Burst capability for the low-frequency channel shall be 1000 watts total with nominal 2-ohm resistive load and 275 watts for the high-frequency channel with nominal 8-ohm resistive load. Peak power shall be 2550 watts. 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 shall be 53 Hz to 18 kHz; phase response shall be ±45° from 580 Hz to 16 kHz; maximum peak SPL shall be 138 dB at 1 meter, free field.

The audio input shall be electronically balanced with a 10 kΩ impedance and accept a nominal 0 dBV (1.0 V rms, 1.4 V peak) signal. Connector shall be XLR (A-3) type female with parallel looping male or VEAM all-in-one multipin connector. RF filtering shall be provided, and CMRR shall be greater than 80 dB from 50 Hz to 500 Hz.

The internal power supply shall perform automatic voltage selection, EMI filtering, soft current turn-on, and surge suppression. Power requirements shall be nominal 100, 110, or 230 V AC line at 50 or 60 Hz. UL and CE operating voltage range shall be 100 to 240 V AC. Maximum peak current draw during burst shall be 8.0 A at 115 V AC, 4.1 A at 230 V AC, and 9.2 A at 100 V AC. Current inrush during soft turn-on shall not exceed 7.1 A at 115 V AC, 8.4 A at 230 V AC, and 7.1 A at 100 V AC.

power connectors shall be either a PowerCon with loop output or VEAM all-in-one multipin connector.

The loudspeaker system shall provide facilities for installing Meyer Sound's optional RMS remote monitoring system.

All components shall be mounted in an acoustically vented trapezoidal enclosure constructed of multi-ply hardwood with a black textured, hard-shell finish. The enclosure shall include end plates with GuideALinks for linking units in horizontal and vertical arrays; threaded metric M10 points accommodate Meyer Sound proprietary rigging hardware. The front protective grille shall be powder-coated, hex-stamped steel with black mesh screen.

Dimensions shall be 16.79" wide x 36.08" high x 29.30" deep (427 mm x 916 mm x 744 mm). Weight shall be 147 lbs (66.68 kg).

The loudspeaker shall be the Meyer Sound JM-1P.