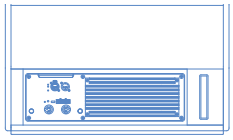
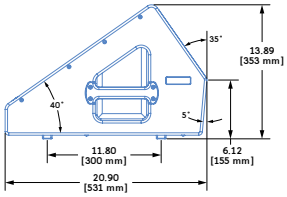
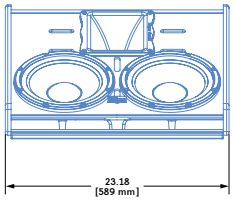
MJF-210 : Low-Profile High-Power Stage Monitor







Dimensions	23.18" w x 13.89" h x 20.90" d (589 mm x 353 mm x 531 mm)
Weight	67 lbs (30.4 kg)
Enclosure	Premium birch plywood
Finish	Black textured
Protective Grille	Powder-coat, hex-stamped steel with black mesh screen

The MJF-210 low-profile high-power stage monitor reproduces audio faithfully with high intelligibility at high outputs levels with ample low-frequency headroom. The self-powered MJF-210 exceeds the stringent requirements of today's touring applications, withstanding the rigors of road and stage while occupying a small, lightweight footprint and a fraction of the truck space of similar monitors requiring external amplification.

The MJF-210's phase-corrected 55 Hz to 18 kHz frequency range ensures that vocals and instruments are reproduced accurately with low distortion and no signal coloration. Exhibiting flat amplitude and phase responses, as well as exceptional impulse response, the MJF-210 surpasses the sonic capabilities of conventional stage monitors while offering the simplicity of self-powered setup and operation.

The MJF-210's durable, vented enclosure houses two high-power, long-excursion, 10-inch low-frequency drivers, as well as a 4-inch diaphragm compression driver coupled to a 50-degree horizontal by 70-degree vertical constant directivity horn. The face of the low-profile cabinet slopes 40 degrees from the stage, ensuring optimal monitoring for the performer, permitting freedom to move upstage and downstage while remaining within the horn's well-behaved, wide vertical coverage.

Drivers are powered by a 3-channel, class D amplifier. The Intelligent AC™ power supply provides automatic voltage selection, EMI filtering, soft current turn-on, and surge suppression.

The optional RMS™ remote monitoring system module provides comprehensive monitoring of loudspeaker parameters from a Mac® or Windows®-based computer. Optional XLR 5-pin connectors allow the use of composite cables carrying both RMS and balanced audio.

Constructed of premium birch plywood, the MJF-210's cabinet is coated with a black-textured finish and includes protective rubber strips on the bottom of the unit that prevent it from vibrating out of position. A hex-stamped steel grille lined with acoustical black mesh protects the drivers.

Features & Benefits

- Self-powered system guarantees simplified setup and operation
- Small lightweight footprint with no external amplification occupies less truck space
- Low profile cabinet preserves onstage sightlines
- Wide vertical coverage permits the freedom to move upstage and downstage
- High peak power ensures excellent transient response
- Flat frequency and phase responses yield high gain before feedback

Applications

- Main vocal monitor
- High output instrument monitor

MJF-210 Specifications

Acoustical	
Operating Frequency Range[1]	55 Hz – 18 kHz
Frequency Response[2]	60 Hz – 16 kHz ±4 dB
Phase Response	200 Hz – 16 kHz ±45˚
Coverage	
Horizontal	50˚
Vertical	70˚
Crossover[4]	
	830 Hz[3]
Transducers	
Low Frequency	Two high-power 10" cone drivers
High Frequency	4" compression driver
Audio Input	
Type	Differential, electronically balanced
Maximum Common Mode Range	±5 V DC
Connectors[4]	XLR female input with XLR male loop output
Input Impedance	10 kΩ differential between pins 2 and 3
Wiring[5]	Pin 1: Chassis/earth through 1 kΩ, 1000 pF, 15 V clamped network to provide virtual ground lift at audio frequencies Pin 2: Signal (+) Pin 3: Signal (–) Pin 4: RMS Pin 5: RMS 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	0.0 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 to produce the maximum peak SPL over the operating bandwidth of the loudspeaker
Amplifier	
Type	3-channel, class D
THD, IM, TIM	‹.02%
Cooling	Convection
Power	
Connector	powerCON 20 with loop output
Voltage Selection	Automatic, continuous from 90–265 V AC
Safety Agency Operating Range	100–240 V AC, 50/60 Hz
Turn-on/Turn-off Points	90 V AC turn-on, no turn-off Internal fuse-protection above 265 V AC
Current Draw: Idle Current	0.26 A rms (115 V AC); 0.25 A rms (230 V AC); 0.28 A rms (100 V AC)
Maximum Long-Term Continuous Current (›10 sec)	1.8 A rms (115 V AC); 1.1 A rms (230 V AC); 2.6 A rms (100 V AC)
Burst Current (‹1 sec)[6]	5.1 A rms (115 V AC); 2.4 A rms (230 V AC); 6.5 A rms (100 V AC)
Maximum Instantaneous Peak Current	5.0 A peak (115 V AC); 2.4 A peak (230 V AC); 6.3 A peak (100 V AC)
Inrush Current	2.3 A peak (115 V AC); 1.2 A peak (230 V AC); 2.3 A peak (100 V AC)
RMS Network (Optional)	
	Equipped with 2-conductor, twisted-pair network, reporting all amplifier operating parameters to host computer

Notes:

1. *Recommended maximum operating frequency range. Response depends on loading conditions and room acoustics.*
2. *Half-space loading, measured with 1/3-octave frequency resolution at 4 meters.*
3. *At this frequency, the transducers produce equal sound pressure levels.*
4. *Audio connectors available as XLR 5-pin or XLR 3-pin connectors. XLR 5-pin connectors accommodate both balanced audio and RMS signals.*
5. *Pins 4 and 5 (RMS) included only with XLR 5-pin connectors.*
6. *AC power cabling must be of sufficient gauge so that under burst current rms conditions, cable transmission losses do not cause the loudspeaker's voltage to drop below the specified operating range.*

MJF-210 — 04.235.004.02 B2

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Architect Specifications

The loudspeaker shall be a self-powered stage monitor; the transducers shall consist of two 10-inch diameter cone drivers and a single 4-inch diaphragm compression driver on a 50-degree x 70-degree horn. The loudspeaker shall incorporate internal processing electronics and a 3-channel amplifier, one channel for each driver. Processing functions shall include equalization, phase correction, signal division, and protection for the low- and high-frequency sections. The crossover point shall be 830 Hz.

Amplifier channels shall be class D. Distortion (THD, IM, TIM) shall not exceed 0.02 percent.

Performance specifications for a typical production unit shall be as follows, measured at 1/3-octave resolution: operating frequency range, 55 Hz to 18 kHz; phase response, 200 Hz to 16 kHz ±45 degrees. Coverage shall be 50 degrees horizontal by 70 degrees vertical.

The audio input shall be electronically balanced with a 10 kOhm impedance and accept a nominal 0 dBV (1.0 V rms, 1.4 V peak) signal. Audio connectors shall be XLR 3-pin, female and male, accommodating balanced audio, or XLR 5-pin, accommodating both balanced audio and RMS. 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 current at 50 or 60 Hz. UL and CE operating voltage range shall be 100 to 240 V AC. Maximum instantaneous peak current draw shall be 5.0 A peak at 115 V AC, 2.4 A peak at 230 V AC, and 6.3 A peak at 100 V AC. Current inrush during soft turn-on shall not exceed 2.3 A peak at 115 V AC. AC power connectors shall be powerCON 20 with loop output.

The loudspeaker shall optionally include the RMS remote monitoring system module.

Loudspeaker components shall be mounted in an acoustically-vented, wedge-shaped enclosure constructed of premium birch plywood with a black-textured, hard-shell finish. The protective grille shall be hex stamped steel with black mesh screen. Dimensions shall be 23.18 inches wide x 13.89 inches high x 20.90 inches deep (589 mm x 353 mm x 531 mm). Weight shall be 67 lbs (30.4 kg). The enclosure's front angle shall be 40 degrees.

The loudspeaker shall be the Meyer Sound MJF-210.