

TECHNICAL SPECIFICATIONS

FM850

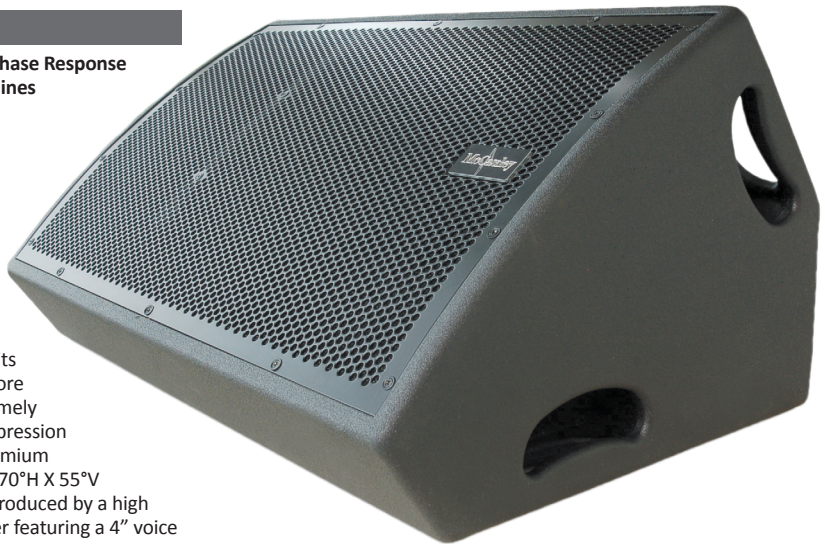
Product Group: FM Series Stage Monitor
System Type: 2-Way, 15" x 1.4", 70°x55°

FEATURES AND ADVANCES

- Extraordinary Output with Flat Frequency and Phase Response
- Light Weight and Low Profile, Maintaining Sightlines
- Medium Q 70°H X 55°V CNFE Horn Provides Consistent HF Pattern
- High Gain Before Feedback
- Weather and Wear Resistant
- Ergonomic Design

PRODUCT DESCRIPTION

The FM850 is a premium stage monitor designed to exceed the expectations of the most discerning performers and engineers. This portable, low-profile, high output stage monitoring system exhibits a flat amplitude and phase response, high gain before feedback, and provides unmatched SPL in an extremely ergonomic form. The 1.4" exit high frequency compression driver features a 3" titanium diaphragm and neodymium magnet structure, coupled with a new proprietary 70°H X 55°V CNFE waveguide. Low and mid frequencies are reproduced by a high efficiency, high power handling 15" cone transducer featuring a 4" voice coil and Neodymium magnet structure.



CONSTRUCTION

The enclosure of the FM850 is constructed of 12-ply void free birch hardwood plywood and is coated with a weather and wear resistant Pro Coat™ polyurea hybrid finish. The FM850 is triple cut to allow use from three different angles on stage. Both Neutrik NL4 connectors are located in a recessed jack panel that allows the connection of multiple monitors to a single amplifier. The recess also prevents the cable connectors from damage if the monitor is repositioned, or the cable is stepped on. Components in the front of the enclosure are protected by a curved grill made from perforated steel that is coated with heat cured epoxy powder, and lined with acoustically transparent foam. Cam-Lock quick release fasteners allow easy access to the loudspeakers with only a screw driver. The FM850 is available as a single unit, or in mirror image pairs.

APPLICATIONS

- Performing Arts Centers
- House of Worship
- Main Vocal Monitor
- High Output Monitor For Drums and Keyboards
- Front Fill
- Stage Fill

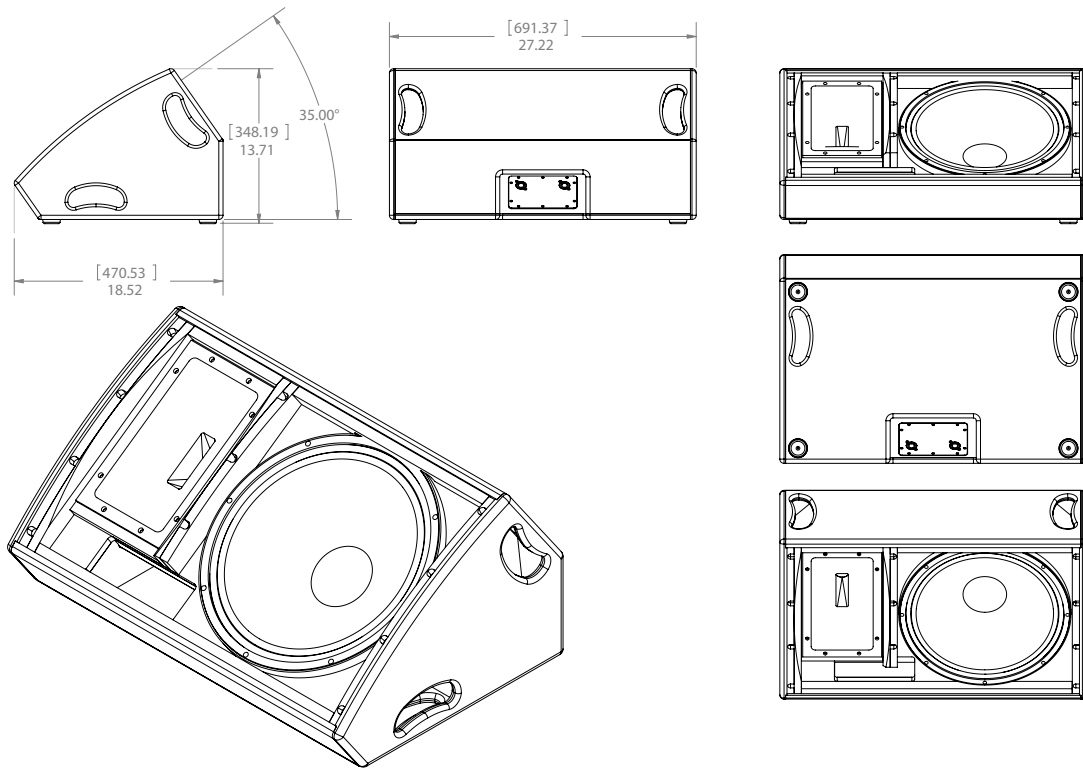
PERFORMANCE PARAMETERS

Coverage	70°x55°
Frequency Response	
-10dB	50Hz - 20kHz
+/- 3dB	60Hz - 17Hz
Sensitivity	
LF	98dB @ 2.83V 1 m
HF	109dB @ 2.83V 1 m
Maximum SPL	(cont. / peak)
LF	131dB / 137dB
HF	134dB / 140dB
Crossover Values	
LF	LP 1190 hz, 24 dB/oct Linkwitz Riley
HF	HP 1400 hz, 48 dB/oct Linkwitz Riley
Power Ratings	
LF - AES	1000w @ 8Ω
HF - AES	220w @ 16Ω

PHYSICAL PROPERTIES

Weight	56lbs / 25.5kgs
Dimensions	
inches	13.7 H x 27.2 W x 18.5 D
centimeters	34.8 H x 69.1 W x 47.0 D
Enclosure Material	5/8" 12 ply birch laminate
Finish	Procoat™ Polyurea-Hybrid Weatherproofing (Black is standard, White and / or Custom Colors Available)
Transducers	
LF	(1) 15" Cone Transducer, 4" Voice Coil
HF	(2) 3" Diaphragm, 1.4" Exit Compression Driver
Connectors	Neutrik™ Speakon NL4
LF	Pins 1+ / 1-
HF	Pins 2+ / 2-

DIMENSIONAL ILLUSTRATIONS



ARCHITECTS AND ENGINEERS SPECIFICATIONS

The two-way full range loudspeaker system shall incorporate one 4" (101.6 mm) voice coil, 15" (381 mm) diameter LF transducer and one 1.4" (35.56 mm) exit, 3" (76.2 mm) diaphragm compression driver HF transducer.

The high frequency transducer shall be mounted to a medium Q CNFE acoustic horn with a nominal horizontal coverage pattern of 70° and a nominal vertical coverage pattern of 55°.

The LF drivers shall be mounted in an optimally vented enclosure tuned for maximum low frequency response.

The system frequency response shall vary no more than ± 3 dB from 60 Hz to 17 kHz measured on axis. The low frequency transducers shall produce a Sound Pressure Level (SPL) of 98 dB SPL at a distance of 1 meter with an electrical power input of 1 Watt, and shall be capable of producing a maximum peak output of 137 dB SPL on axis at 1 meter. The high frequency transducer shall produce an acoustic Sound Pressure Level (SPL) of 111 dB SPL on axis at 1 meter with an electrical power input of 1 Watt, and shall be capable of producing a peak output of 140 dB SPL on axis at 1 meter.

Each low frequency transducer shall handle 800 Watts of amplifier power (per AES ref Standard AES2-1984-r2003) and shall have a nominal impedance of 8 Ohms. The high frequency transducer shall handle 220 Watts of amplifier power (per AES ref Standard AES2-1984-r2003) and shall have a nominal impedance of 16 Ohms.

The loudspeaker enclosure shall have a maximum weight of 56 lbs. (25.5 kg) and shall measure 13.7" (348 mm) high, 27.2" (691 mm) wide, and 18.5" (185 mm) in depth. The structure of the enclosure shall be constructed of 12-ply void-free birch hardwood plywood and shall have a weather and wear resistant ProCoat(tm) polyurea hybrid finish.

Input connectors shall be two, Neutrik Speakon NL4 locking connectors. Pins 1+, 1- shall be wired to the LF transducers, while Pins 2+, 2- shall be wired to the HF transducers.

Components in the front of the enclosure are to be protected by a curved grill made from perforated steel that is coated with heat cured epoxy powder, and lined with acoustically transparent foam.

The 2-way full range loudspeaker shall be the McCauley Sound model FM850.