USM-1P/100P *Self-Powered Reinforcement Loudspeaker*

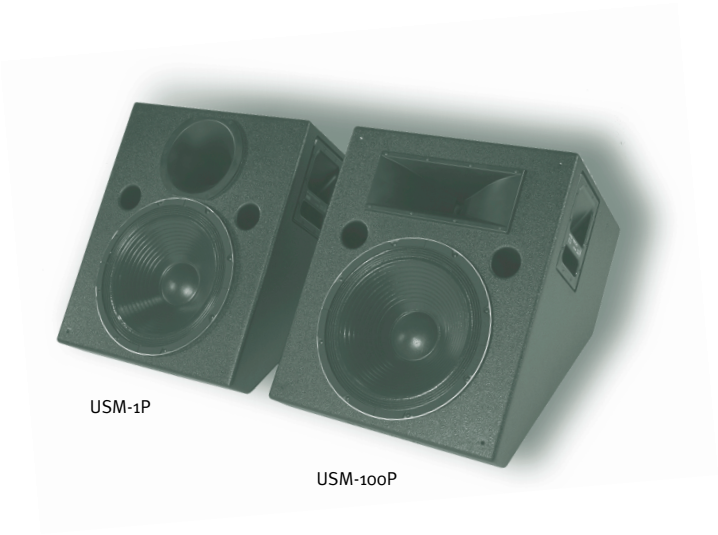
PRELIMINARY

FEATURES

- Integrated control electronics and amplifiers
- Bi-amplified (350 Wrms/channel)
- High-power, flat frequency response
- Phase-corrected
- Constant-Q, HF coverage
- Narrow (UMS-1P) or wide (UMS-100P) HF coverage
- Modular audio input options
- Intelligent AC™ System
- Compatible with the Remote Monitoring System™ (RMS)
- L-Track rigging system

Superior engineering for the art and science of sound.

Meyer Sound



USM-1P

USM-100P

USM-P Series self-powered stage monitors incorporate a 15-inch low frequency cone driver, a 3-inch diaphragm compression driver, phase-corrected processing electronics and a dual channel power amplifier in a rugged enclosure. Compared to conventional designs, USM-P Series monitors are uniquely capable of producing flat phase and amplitude response, full bandwidth reproduction and a near-perfect impulse response. Performance characteristics include a maximum output of 132 dB peak SPL at 1 m with exceptionally low distortion. USM-P Series systems excel in stage monitoring applications that require efficient response down to 30Hz for clean, high level reproduction of bass and drums. An additional benefit of the design engineering and system packaging of the USM-P is its improved linearity and lower susceptibility to feedback.

USM-P monitors can be deployed as stage wedges or flown as side-fill or choir monitors. Rigging is accomplished easily using two L-Track strips on the top panel that work with the cabinet's center of gravity for easy angle adjustment. A short bottom strip serves as an anchor point for fixing tilt angles. The two USM-P Series monitors are identical except for the HF horn configurations. The USM-1P has a narrow beamwidth of 45° H x 45° V to allow close placement with minimal interaction. The USM-100P offers a wider 100° H x 40° V pattern for broad coverage in either wedge or flown applications. Both horns were developed in Meyer Sound's anechoic chamber, with prototype designs measured to 1 degree resolution at 1/36 octave intervals. The horns exhibit a Constant Q characteristic, with uniform beamwidth across the horn's operating range in both the horizontal and vertical planes. Amplitude attenuation outside the beamwidth is rapid and uniform at all frequencies, with minimal side lobing.

The dual channel power amplifier, a proprietary Meyer Class AB/bridged design with complementary power MOSFET output stages, produces 350 Wrms per channel with less than 0.02% distortion. The integral driver protection circuit effectively prevents voice coil overheating and cone over excursion, but without the glaring compression effects typical of many limiters. The Intelligent AC™ power supply provides automatic voltage selection, EMI filtering, high voltage transient suppression and soft start at power-up. The standard audio input module includes an XLR-F input connector, a loop-thru XLR-M output connector and 24V fan connector (fan optional). Other input module options are available. Another optional module allows integration into Meyer Sound's RMS (Remote Monitoring System™), a Windows™-based computer network and software application for monitoring a full range of amplifier and driver operating parameters. Both RMS and audio input modules may be installed in the field using only a Phillips screwdriver.

USM-1P/100P SPECIFICATIONS

Acoustical[1] (each loudspeaker)	**Operating Frequency Range**[2]	30 Hz – 20 kHz
	Free Field	44 Hz – 16 kHz ±3 dB; –6 dB at 40 Hz and 20 kHz
	Half-Space[3]	40 Hz – 16 kHz ±3 dB; –6 dB at 33 Hz and 20 kHz
	Phase Response[4]	±35° 500 Hz – 16 kHz; +90° at 120 Hz
	Maximum Peak SPL[5]	132 dB
	Signal to Noise Ratio	>95 dB (A-weighted noise floor to max SPL)
Coverage	**USM-100P**	–6 db at 100° H x 40° V; -10 dB at 120° H x 60° V
	USM-1P	–6 db at 45° H x 45° V; -10 dB at 60° H x 60° V
Crossover	**USM-100P**	900 Hz
	USM-1P	1000 Hz
Transducers	**Low Frequency**	15-inch cone driver
	High Frequency	3-inch diaphragm compression driver
Standard Audio Input Module	**Type**	Differential balanced input circuit
	Connector	Female XLR; Male XLR Loop
	Impedance	10 kΩ differential (between pins 2 and 3)
	XLR Wiring	Pin 1: chassis; Pin 2: + signal; Pin 3: – signal
	RF Filter	Common Mode: 425 kHz low-pass; Differential Mode: 142 kHz low-pass
	Common Mode Rejection Ratio	>80 dB (50 Hz – 1 kHz); typically 90 dB
Amplifiers	**Type**	Complementary power MOSFET output stages, class AB/bridged
	Output Power	350 Wrms/channel
	THD, IM, TIM	< .02 %
AC Power	**Connector**	PowerCon locking AC connector
	Automatic voltage selection	88 – 264 VAC continuous; 47 – 63 Hz
	Idle RMS Current	115 V: 0.25 Arms 230 V: 0.13 Arms 100 V: 0.3 Arms
	Max Continuous RMS Current (>10 s)	115 V: 2.8 Arms 230 V: 1.4 Arms 100 V: 3.2 Arms
	Max Burst RMS Current (<1 s)	115 V: 3.2 Arms 230 V: 1.6 Arms 100 V: 3.7 Arms
	Max Peak Current During Burst	115 V: 5.0 Apk 230 V: 2.5 Apk 100 V: 5.8 Apk
	Soft Start Turn-on	Inrush current <15 A @115 V
Physical	**Dimensions**	Height: 16.9" (429mm) ; Width: 16.5" (419mm); Length: 22.4" (569mm); Depth (w/grill) 15.19" (386mm)
	Weight	88 lbs (40 kg)
	Enclosure/Finish	5/8" birch plywood/black textured
	Protective Grill	Removable perforated steel grill, charcoal grey foam

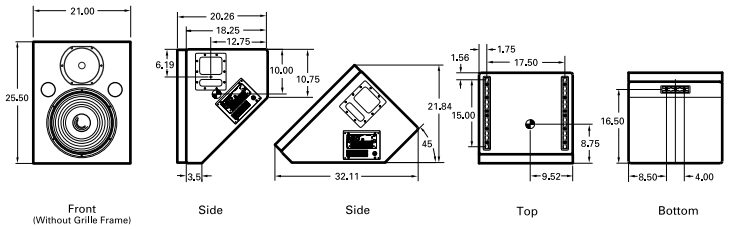
Notes

1. Measurements are taken at 3 m on-axis, 1/3 octave, unless otherwise stated.
2. Response depends on loading conditions and room acoustics.
3. Measured at 1.5 m with the USM-1P on a single boundary.
4. Phase variation from pure delay.
5. Measured at 1 m, with pink noise or music.

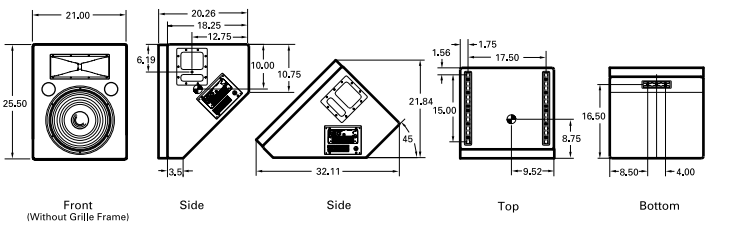
PHYSICAL DIMENSIONS

ALL UNITS IN INCHES

USM-1P



USM-100P



Specifications subject to change without notice

Meyer Sound Laboratories has devoted itself to designing, manufacturing, and refining components that deliver superb sonic reproduction. Every part of every component is designed and built to exacting specifications and undergoes rigorous, comprehensive testing in the laboratories.

Research remains an integral, driving force behind all production. Meyer strives for sound quality that is predictable and neutral over an extended lifetime and across an extended range.

USM-1P/100P - 04.089.005.01A
PRELIMINARY

UL Approval Pending

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