

Q-12AWR

Q-12AWR

SOUNDSPHERE
LOUDSPEAKERS



Specifications: Q-12AWR

Mounting hardware included

Nominal Impedance	8 ohms
Power Handling	250W
Sensitivity dB @ 2.83V/1M	97 dB
Sensitivity dB @ 1W/1M (2)	97 dB
Frequency Response (± 3 dB)	120 Hz - 13 kHz
Frequency Response (± 10 dB)	65 Hz - 15 kHz
Max. Program Power	500 W
Max. Continuous Power RMS	250 W
Max. Power SPL @ 1 M	121
Max. Power SPL @ 4M	109
70.7 Volt Transformer Taps	250 / 121.0
100 Volt Transformer Taps (dB)	250 / 121
Transformer insertion loss (dB)	≤ 1 dB
Transformer Options	Optional 250 W
Transducer - Low Frequency Driver	12" (305 mm) treated pulp fiber
Low Frequency Voice Coil	76 mm / 3"
Coverage Angles	Vertical / 180
Coverage Angle (-6 dB @ 2 kHz) raw	95
Enclosure - material	Fiberglass with gelcoat finish; rust-resistant hardware
Inputs	Hard-wire leads
Height (SM = Height)	635 mm / 25"
Diameter (SM = Width)	560 mm / 22"
Weight	17.6 kg / 39 lbs.
Shipping Weight	21.8 kg / 48 lbs
Regulatory - CE	approved
Regulatory - RoHS	approved

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Key Features

- » Hemispherical coverage pattern
- » Accurate, full-range voice announcements
- » Enhanced high-fidelity music reproduction
- » High sensitivity (94 dB 1 W/1 m)
- » High SPL capability (118 dB @ 1 m)
- » Exclusive patent-pending Poly-Exponential Incidence Reflector
- » Hanging or surface mount
- » Standard white (paintable) and black available

Description

For high sound pressure levels in:

- Gymnasiums
- Ice Rinks
- Arenas
- Churches
- Swimming Pools
- Transportation Terminals
- Factories
- Open Public Areas
- Bars & Nightclubs
- And applications where clear voice announcements and high-fidelity foreground music are required at high sound levels.

Soundsphere's Model Q-12A omnidirectional loudspeaker provides a more powerful sound system where clear voice announcements and high-fidelity foreground music at high sound pressure levels are required. Applications include gymnasiums, ice rinks, transportation terminals, factories and nightclubs.

Along with its hemispherical coverage pattern, the Q-12A loudspeaker provides high sensitivity (97dB 1W/1m) and high SPL capability (121dB 250W/1m), and utilizes our exclusive patent-pending Poly-exponential Incidence Reflector. This loudspeaker can be mounted using our hanging kit or mounting bracket and comes in both standard and custom colors.

Weather-Resistant Speakers Available for Outdoor Sound Systems

The Q-12A is also available in a weatherproof configuration (Q-12AWR) for outdoor use, featuring a protective screen over the holes and driver to prevent birds from nesting in the speaker.

Applications

Providing high-power, high-fidelity foreground music and voice, the Q-12A loudspeaker is ideal for applications such as gymnasiums, ice rinks, arenas, churches, swimming pools, transportation terminals, factories, open public areas, bars/nightclubs and anywhere that clear voice announcements and high-fidelity foreground music are required at high sound pressure levels.

PATENTED SOUNDSPHERE TECHNOLOGIES

Soundsphere and MSE Audio Group constantly develop new technologies that enhance audio product performance. Soundsphere innovations are protected by multiple patents that explicitly cover Soundsphere's dispersion and enclosure technologies. MSE Audio Group actively defends its patents in order to protect Soundsphere resellers and end users.

Patented Soundsphere Technologies

Soundsphere and MSE Audio Group constantly develop new technologies that enhance audio product performance. Soundsphere innovations are protected by multiple U.S. and international patents, which explicitly

cover Soundsphere dispersion, enclosure and dome technologies. MSE Audio Group actively defends its patents in order to protect Soundsphere resellers and end users.

Technical Data and Specification Tools

Technical Data

Soundsphere strives to provide complete and effective technical information and data to dealers, engineers and designers. All data are available from SoundTube Entertainment or at www.soundtube.com. Technical data and downloads include: EASE™ data - 3-D polar plots. EASE™ Address - 2-D modeling for distributed systems Autodesk® Revit® software Tech Sheets - Technical information and architectural specs for system engineers SoundTubeSPEC™ - Proprietary speaker placement software

Data Acquisition and Verification

All data for Soundsphere speakers are independently collected from and verified by NWAALabs (www.nwaalabs.com) using their proprietary MACH testing system. All data are collected and analyzed according to ASTM, ISO and AES standards using EASRA, TEF and MLSSA. Full balloon data including both phase and magnitude are compiled into a variety of formats including EASE 4.x, GLL and CLF.

Architectural Specifications

The loudspeaker driver shall consist of one 12-inch (304.8 mm) treated pulp fiber woofer with a 2.8" (72 mm) titanium compression driver sharing a common magnetic circuit. Performance specifications of a typical production unit shall be as follows: Useable frequency response shall extend from 65 Hz to 15 kHz. The vertical polar coverage shall be 155° ±6 dB. Measured sensitivity (1 Watt/1 meter) shall be at least 94 dB. The speaker shall have a rated impedance of 4 ohms. The speaker shall be available for 70- and 100-volt modes and shall include 4 power tap selection leads for use with electrical wire nuts or crimp caps. Rated power capacity shall be at least 250 Watts continuous (RMS) and conform to EIA-426-B testing. Calculated maximum continuous output at 1 meter shall be 118 dB. The complete loudspeaker shall be no more than 25 inches (635 mm) in height. The driver shall be mounted in a spherical enclosure made of fiberglass with gelcoat finish that is no more than 22 inches (260 mm) in diameter. The reflector shall be no more than 26 inches (660 mm) in diameter. The complete loudspeaker shall weigh no more than 39 lbs. (17.6 kg). Hardware shall be rust and corrosion resistant, constructed of stainless steel, plated steel or aluminum. Optional accessories shall include: a 250-Watt Line Matching Transformer (TX250) with taps for 70- and 100-Volt constant voltage systems; a Mounting Bracket (MBL) to mount flat against a ceiling surface; a three-element Hanging Kit (HKL) for single-point suspension; a Universal Beam Clamp (BCL); a Large Screen (SL) to protect the speaker from foreign objects; and a Large Screen with Weather Filter (SWFL) that additionally offers a water protection barrier. The system shall be the Soundsphere® Model Q-12A for wide-range, wide-coverage sound dispersion at high sound pressure levels.

Soundsphere

8005 W 110th St., Suite 208

Overland Park, KS 66210

Phone 913.663.5600

Fax

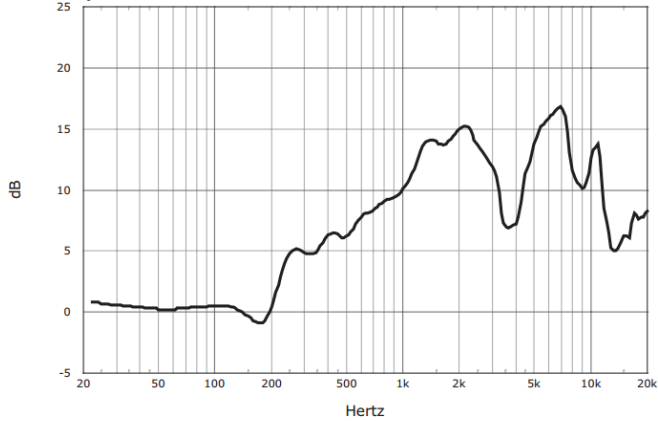
Toll Free 855.663.5600

<https://soundsphere.mseaudio.com>

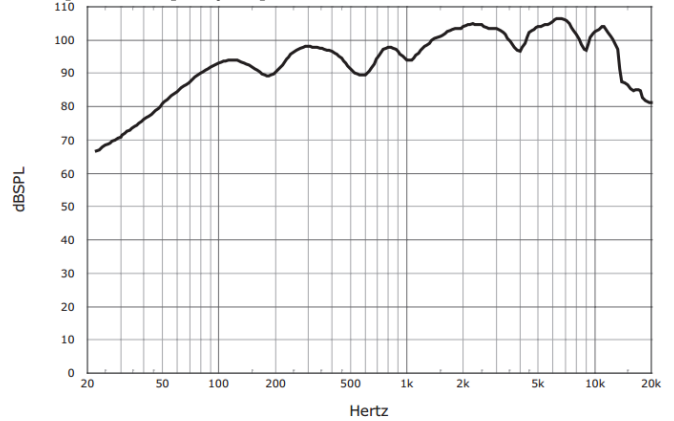
All Soundsphere products come with a 5-year limited warranty.

Graphs and Plots

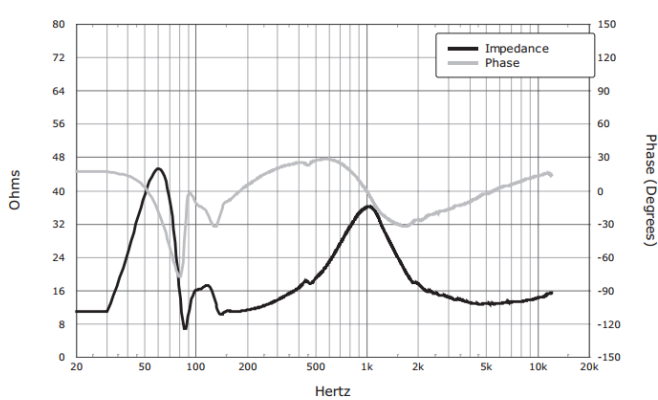
Directivity Index



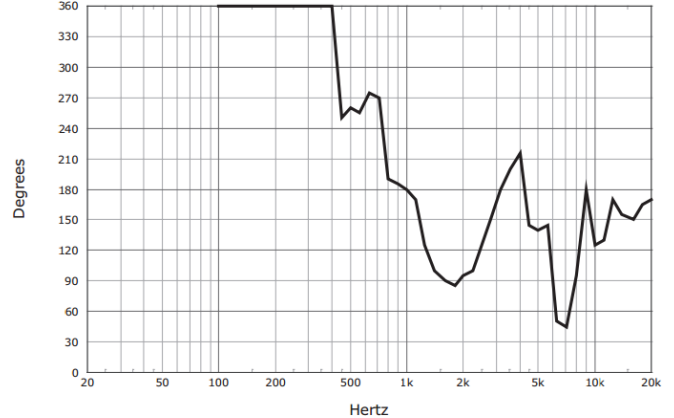
Hemispherical Frequency Response



Impedance/Phase



Vertical Beamwidth (+/- 6 dB)

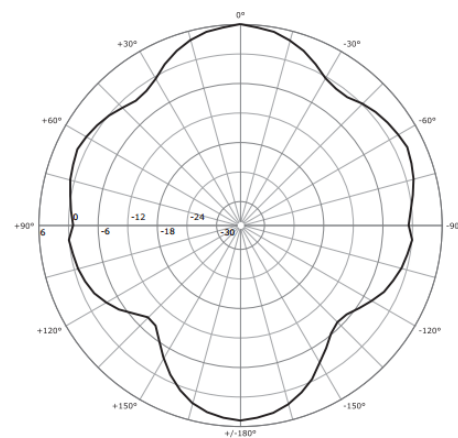
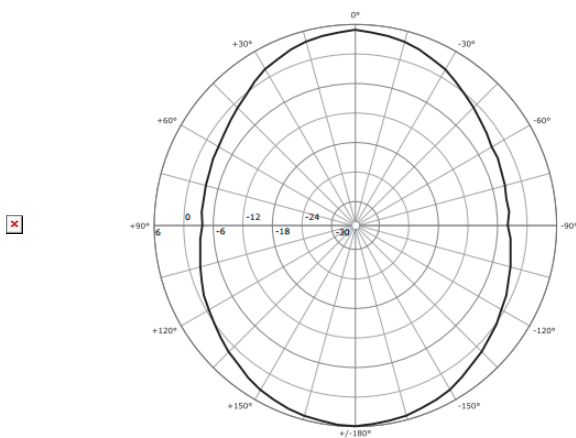


**125
Hz**

250 Hz

500 Hz

**500
Hz**



**2000
Hz**

4000 Hz

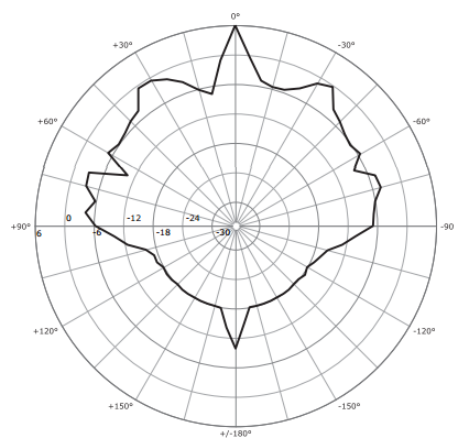
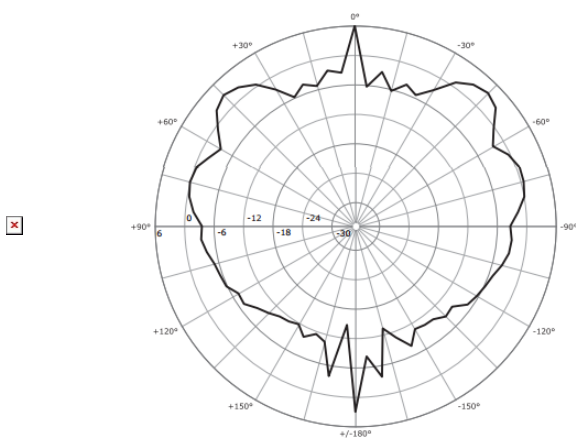
8000 Hz

**8000
Hz**

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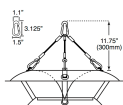


Optional Accessories

Line Transformer (TX250)



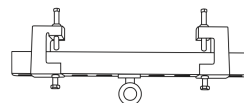
Driver Protection Screen (SL)



Hanging Kit (HKL)



Driver Protection Screen (SWFL)



Universal Beam Clamp (BCL)