

Specifications: Model Q-8 Loudspeaker

System Type	8" (203 mm) coaxial
Impedance (nominal) ¹	8 ohms
Sensitivity dB @ 2.83 V/1 m	93 dB
Sensitivity dB @ 1 W/1 m²	93 dB
Frequency Response (- 3 dB) ³	200 Hz - 17 kHz
Frequency Response (-10 dB) ³	80 Hz - 20 kHz
Max. Continuous Peak Power ⁴	200 W
Max. Continuous Power RMS ⁵	100 W
Max. Power SPL @ 1 m ⁶	113 dB
Coverage Angle (±6 dB @ 2 kHz)	135°
Coverage Angle (±6 dB @ 10 kHz)	190°
Coverage Angle (Avg. 500 Hz - 10 kHz)	175°
Transformer	Optional 100 W
Transducer - Low-Frequency Driver	8" (203 mm) treated pulp fiber
Transducer - High-Frequency Driver	3/4" (19 mm) mylar
Low-Frequency Voice Coil	2" (50.8 mm)
Crossover Frequency	1500 Hz
Network Type - High Pass	First order
Enclosure & Reflector Material	Fiberglass with gelcoat finish; rust-resistant hardware
Inputs	Hard-wire leads
Colors	White (paintable); custom colors available
Height	19" (483 mm)
Diameter	Sphere: 16" (406 mm) Reflector: 20" (508 mm)
Weight	22.5 lbs. (10.2 kg)
Shipping Weight	30 lbs. (13.6 kg)
Packaging	One per box
Optional Accessories	100-Watt Line Matching Transformer (TX100), Hanging Kit (HK), 24" Hanging Kit Extension (HKEXT), Mounting Bracket (MBM), Universal Beam Clamp with safety strap (BCM), Medium Screen (SM), Medium Screen with Weather Filter (SWFM)
Regulatory – CE	Approved
RoHS	Approved

$^{\rm 1}\,\mbox{Impedance}$ listed per IEC 60268-5 with a minimum less than 80% the nominal impedance

Q-8 LOUDSPEAKER

KEY FEATURES

- » Hemispherical coverage pattern
- » Accurate, full-range voice announcements
- » Enhanced high-fidelity music reproduction
- » High sensitivity
- » High power handling capability
- » Hanging or surface mount
- » Standard white (paintable) and custom colors available

DESCRIPTION

The Model Q-8 is more robust than our compact Soundsphere loudspeaker models, offering greater sensitivity and power handling capability. Broad dispersion of all frequencies is achieved with an 8" coaxial driver and proprietary dispersion technologies, providing clear, full-range voice announcements and high-fidelity foreground and background music.

The Q-8 offers a hemispherical coverage pattern and is distinguished by its high sensitivity (93 dB 1 W/1 m) and high power handling capability (100 W RMS). It can evenly cover a large area with fewer speakers. The Q-8 comes fully assembled and ready to mount using our hanging kit or surface mounting bracket.

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 $^{^{\}rm 2}$ 1 W 1 m sensitivity determined using nominal impedance

³ Frequency response measured in half or full space as dictated by speaker mounting configuration

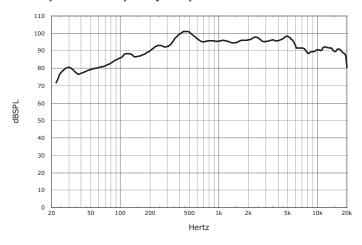
⁴ Max. continuous peak power is 3 dB above max. continuous power

⁵ Continuous power rating, EIA-426-B test

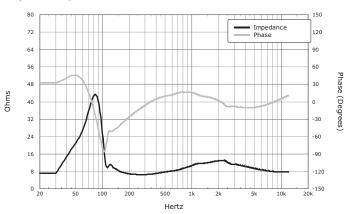
⁶ Max. output based on max. continuous power

GRAPHS AND PLOTS

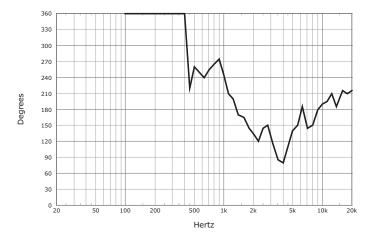
Hemispherical Frequency Response



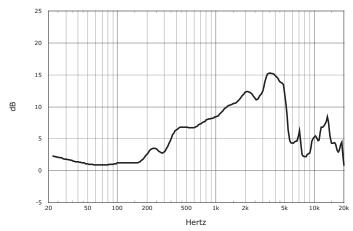
Impedance/Phase



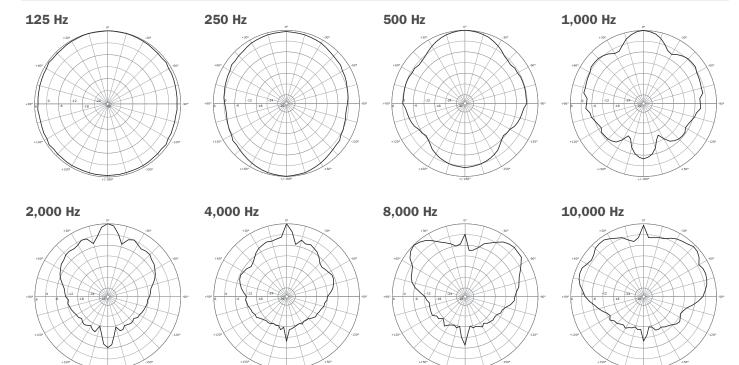
Vertical Beamwidth (±6 dB)



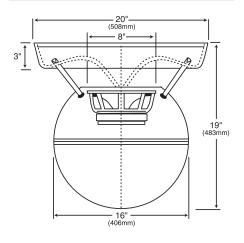
Directivity Index (DI)



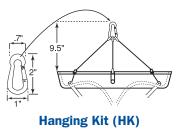
POLAR PLOTS (±6 dB)



MECHANICAL DRAWINGS



ACCESSORIES







Mounting Bracket (MBM)

For mounting speaker on a flat surface.



Universal Beam Clamp (BCM) With safety strap.

Line Matching Transformer (TX100)

The Model TX100 is a 100-Watt line matching transformer for the Model Q-8 with taps for 25-, 70- and 100-Volt constant voltage systems. The TX100 is designed for factory mounting in the Q-8 reflector. Connection to system wiring is via color-coded flying leads. Available taps -25 Volt - 25, 12.5 Watts; 70 Volt and 100 Volt - 100, 50, 25, 12.5 Watts.



Medium Screen (SM) Protects speaker driver from foreign objects.



Medium Screen with Weather Filter (SWFM)

Protection from foreign objects, plus a water protection barrier.

Q-8

Omnidirectional Loudspeaker Offering High Sensitivity & Power Handling Capabilities

APPLICATIONS

Providing high-fidelity, full-range music and voice, the Q-8 loudspeaker is ideal for applications such as restaurants, bars/nightclubs, hotel lobbies/atriums, courtrooms, gymnasiums, educational facilities, churches, retail stores, shopping centers, airports and anywhere clear voice announcements and high-fidelity foreground music are required.

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.

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 Soudsphere or at www.soundsphere.com.

Technical data and downloads include:

EASE™ Data — 3-D polar plots

EASE™ Address — 2-D modeling for distributed systems

Technical Data Sheets — Technical information and architectural specs for system engineers

Distributed System Quick Planning Guide — Online configuration tool and step-by-step guide are available to assist in the design of effective public area distributed sound systems using Soundsphere omnidirectional loudspeakers

Independent Data Acquisition and Verification

All data for Soundsphere loudspeakers is independently collected from and verified by an industry-recognized independent testing facility. All data is collected and analysed according to ASTM, ISO and AES standards using EASERA, TEF and MLSSA. Full balloon data including both phase and magnitude is compiled into a variety of formats including EASE 4.x, GLL and CLF.

ARCHITECTURAL SPECIFICATIONS

The loudspeaker driver shall consist of one 8-inch (203 mm) treated pulp fiber woofer with a 3/4-inch (19 mm) mylar dome tweeter mounted coaxially.

Performance specifications of a typical production unit shall be as follows: Useable frequency response shall extend from 80 Hz to 20 kHz (-10 dB). The vertical polar coverage shall be 175° ±6 dB. Measured sensitivity (1 Watt/1 meter) shall be at least 93 dB. The speaker shall have a rated impedance of 8 ohms. The speaker shall be available for 25-, 70- and 100-Volt modes and shall include 6 power tap selection leads for use with electrical wire nuts or crimp caps. Rated power capacity shall be at least 100 Watts continuous (RMS) and conform to EIA-426-B testing. Calculated maximum continuous output at 1 meter shall be 113 dB.

The complete loudspeaker shall be no more than 19 inches (483 mm) in height. The driver shall be mounted in a spherical enclosure made of fiberglass with gelcoat finish that is no more than 16 inches (406 mm) in diameter. The reflector shall be no more than 20 inches (508 mm) in diameter. The complete loudspeaker shall weigh no more than 22.5 lbs. (10.2 kg). All hardware shall be rust- and

corrosion-resistant stainless or plated steel.

Optional accessories shall include: a 100-Watt Line Matching Transformer (TX100) with taps for 25-, 70- and 100-Volt constant voltage systems; a Mounting Bracket (MBM) to mount flat against a ceiling surface; a three-element Hanging Kit (HK) for single-point suspension; a 24" Hanging Kit Extension (HKEXT); a Universal Beam Clamp (BCM) with safety strap; a Medium Screen (SM) to protect the speaker from foreign objects; and a Medium Screen with Weather Filter (SWFM) that additionally offers a water protection barrier.

The system shall be the **Soundsphere® Model Q-8** for high-sensitivity, high-power sound dispersion.

WARRANTY

Soundsphere® loudspeakers are warranted against failure or malfunction due to defects in materials or workmanship for a period of five years from date of original purchase. Speaker electronics are warranted for three years. Defective units will be repaired or replaced at our option if delivered prepaid to our factory. Repaired or replaced units will be returned at our expense. Warranty does not cover appearance or damage caused by abuse, misuse, neglect, accident, or exceeding maximum rated power. Warranty does not cover labor costs involved in removing and/or reinstalling the defective unit, nor any liability due to accidents caused by improper installation. Warranty is extended to original purchaser and is not transferable.



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