

Q-15 LOUDSPEAKER

KEY FEATURES

- » Hemispherical coverage pattern
- » Accurate, full-range voice announcements
- » High-fidelity music reproduction
- » High sensitivity (94 dB 1 W/1 m)
- » High SPL capability (119.5 dB 1 m)
- » High power handling capability (350 W continuous RMS)
- » Standard white (paintable) and black available

Specifications: Model Q-15 Loudspeaker

System Type	15" (381 mm) true coaxial
Impedance (nominal) ¹	4 ohms
Sensitivity dB @ 2.83 V/1 m	97 dB
Sensitivity dB @ 1 W/1 m ²	94 dB
Frequency Response (-3 dB) ³	90 Hz - 17 kHz
Frequency Response (-10 dB) ³	50 Hz - 20 kHz
Max. Continuous Peak Power ⁴	700 W
Max. Continuous Power RMS ⁵	350 W
Max. Power SPL @ 1 m ⁶	119.5 dB
Coverage Angle (±6 dB @ 2 kHz)	85°
Coverage Angle (±6 dB @ 10 kHz)	125°
Coverage Angle (Avg. 500 Hz - 10 kHz)	145°
Transformer	Optional 250 W
Transducer - Low-Frequency Driver	15" (381 mm) treated pulp fiber
Transducer - High-Frequency Driver	4" (102 mm) titanium compression driver
Low-Frequency Voice Coil	4-1/2" (114 mm)
Crossover Frequency	1500 Hz
Network Type - Low Pass	Second order
Network Type - High Pass	Second order
Enclosure & Reflector Material	Fiberglass with gelcoat finish; rust-resistant hardware
Inputs	Hard-wire leads
Colors	White (paintable) and black
Height	33" (840 mm)
Diameter	Sphere: 27" (685 mm) Reflector: 32" (815 mm)
Weight	63 lbs. (28.6 kg)
Shipping Weight	88 lbs. (39.9 kg)
Packaging	One per box
Optional Accessories	250-Watt Line Transformer (TX250), Hanging Kit (HKL), Universal Beam Clamp (BCL)
Regulatory - CE	Approved
RoHS	Approved

¹ Impedance listed per IEC 60268-5 with a minimum less than 80% the nominal impedance

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

DESCRIPTION

The Model Q-15 omnidirectional loudspeaker is designed to offer high-power, high-fidelity music reproduction with enhanced low-frequency response and high SPL capability at high sound pressure levels. Broad dispersion of all frequencies is achieved with a 15" true coaxial driver where LF and HF share a common magnetic circuit and proprietary dispersion technologies, providing clear, full-range voice announcements and high-fidelity foreground music.

The Q-15 offers a hemispherical coverage pattern and is distinguished by its high sensitivity and high power handling capability. It can evenly cover a large area with fewer speakers. It comes fully assembled and ready to mount using our hanging kit.

Model Q-15 Combo Kits are available, creating a lower-cost single source of sound using multiple loudspeakers in large and acoustically difficult spaces. Q-15 Combo systems are available in two or four Q-15 speaker configurations.

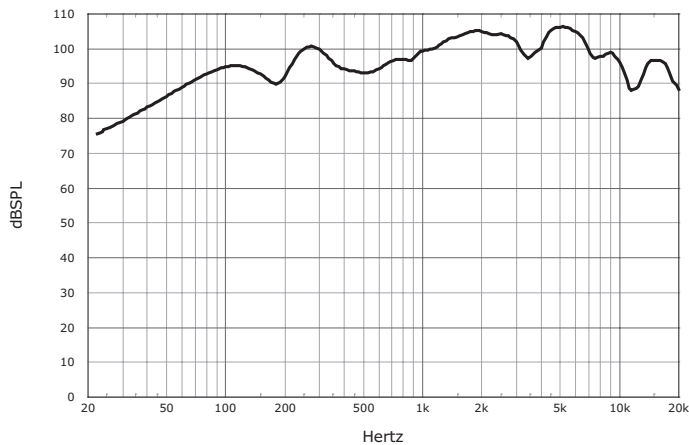
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Q-15

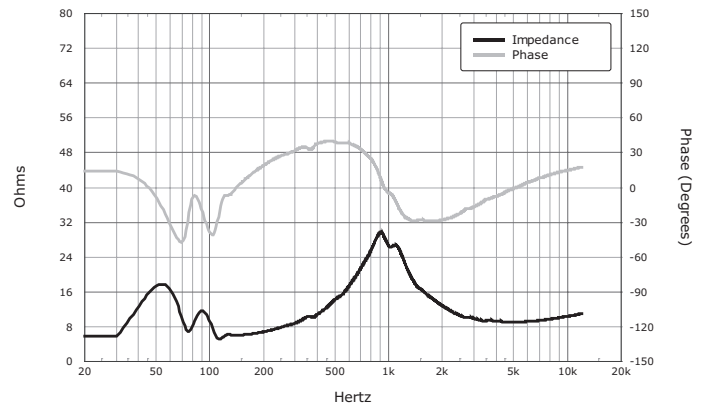
High-Powered Loudspeaker for Extended Low-Frequency Response and High Sound Pressure Levels

GRAPHS AND PLOTS

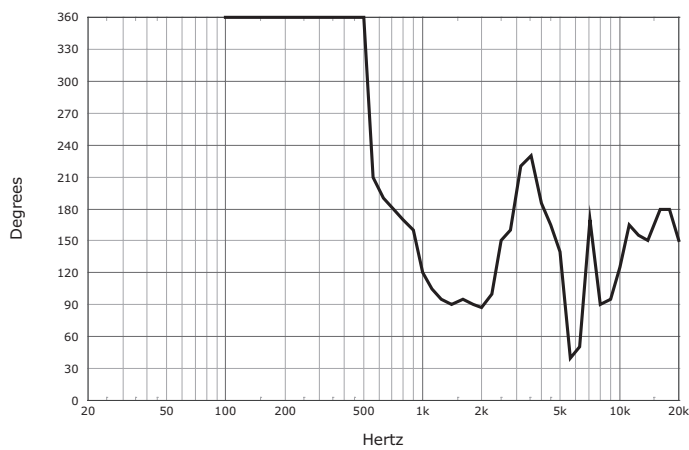
Hemispherical Frequency Response



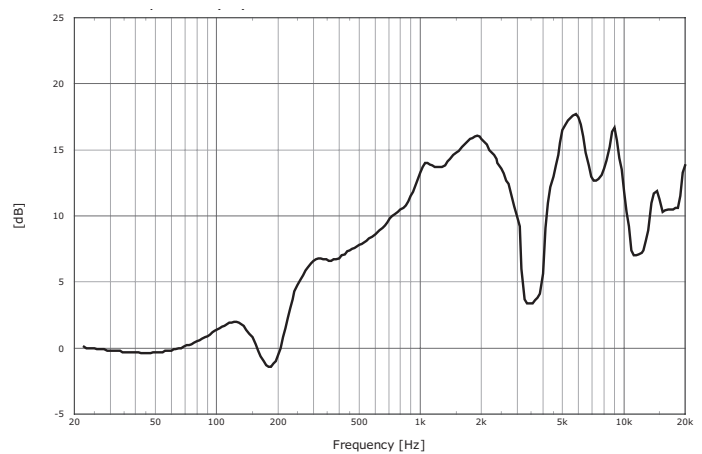
Impedance/Phase



Vertical Beamwidth (± 6 dB)



Directivity Index (DI)

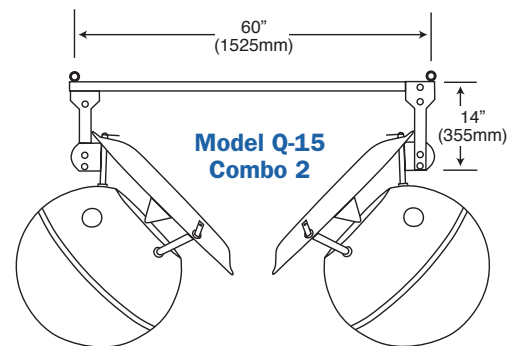


MODEL Q-15 COMBO KITS

In acoustically difficult spaces where more than one speaker is required, Q-15 Combo systems create a single source of sound using multiple Q-15 loudspeakers. Q-15 Combo systems are available in two or four speaker configurations. In larger spaces, Combo systems offer superior performance from a single source at lower cost.

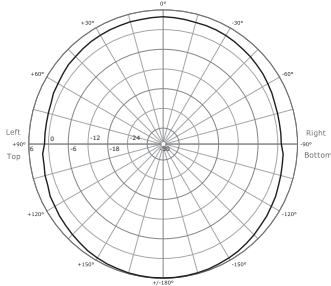
Model Q-15 Combo 2: Includes two Q-15 Loudspeakers, BK2 Bracket and two ATB Adjustable Tilt Brackets

Model Q-15 Combo 4: Includes four Q-15 Loudspeakers, BK4 Bracket and four ATB Adjustable Tilt Brackets

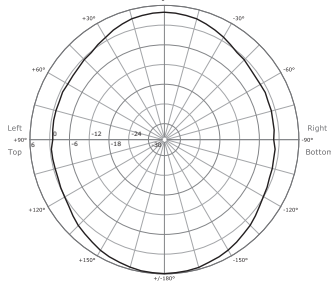


POLAR PLOTS (±6 dB)

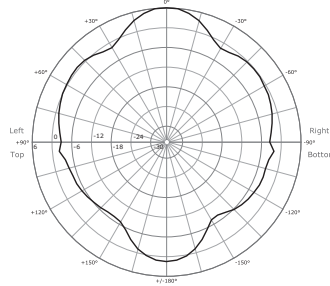
125 Hz



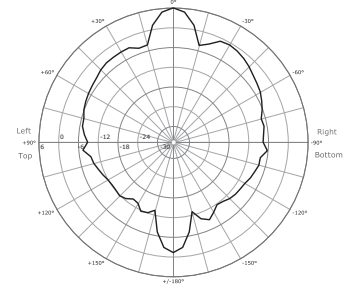
250 Hz



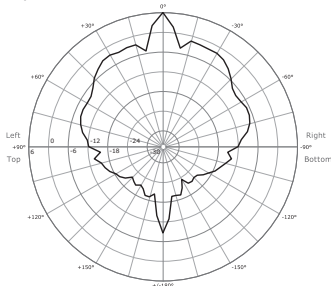
500 Hz



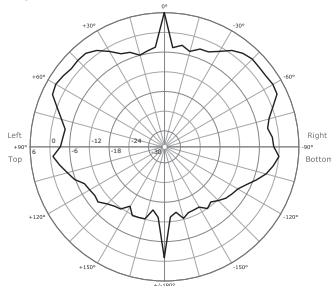
1,000 Hz



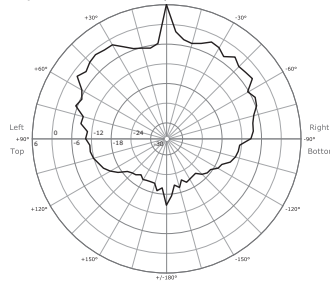
2,000 Hz



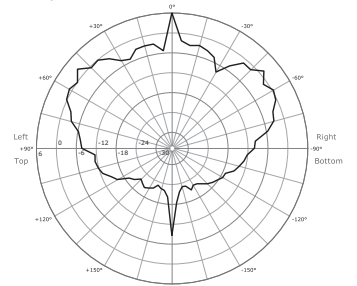
4,000 Hz



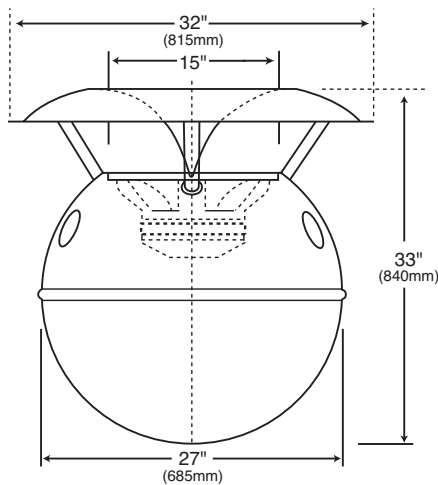
8,000 Hz



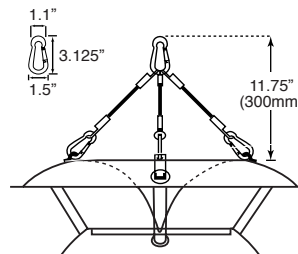
10,000 Hz



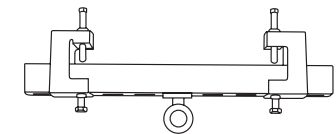
MECHANICAL DRAWINGS



ACCESSORIES



Hanging Kit (HKL)
Three-way cable for single-point suspension.



Universal Beam Clamp (BCL)

Line Matching Transformer (TX250)

The Model TX250 is a 250-Watt line matching transformer for the Model Q-15 with taps for 70- and 100-Volt constant voltage systems. The TX250 is designed for factory mounting in the Q-15 reflector. Connection to system wiring is via 6" color-coded flying leads. Available taps – 70 Volt: 250, 125, 62.5 and 31.25 Watts; 100 Volt: 250, 125 and 62.5 Watts.

Q-15

High-Powered Loudspeaker for Extended Low-Frequency Response and High Sound Pressure Levels

APPLICATIONS

Providing high-power, high-fidelity foreground music and voice with extended low-frequency at high sound pressure levels, the Q-15 loudspeaker is ideal for applications such as gymnasiums, ice rinks, arenas, churches, swimming pools, open public areas, bars/nightclubs and much more.

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 Soundsphere 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 15-inch (381 mm) treated pulp fiber woofer with coaxial 4-inch 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 50 Hz to 20 kHz (-10 dB). The vertical polar coverage shall be 145° ±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 350 Watts continuous (RMS) and conform to EIA-426-B testing. Calculated maximum continuous output at 1 meter shall be 119.5 dB.

The complete loudspeaker shall be no more than 33 inches (840 mm) in height. The driver shall be mounted in a spherical enclosure made of fiberglass with gelcoat finish that is no more than 27 inches (685 mm) in diameter. The reflector shall be no more than 32 inches (815 mm) in diameter. The complete loudspeaker

shall weigh no more than 63 lbs. (28.6 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 three-element Hanging Kit (HKL) for single-point suspension; and a Universal Beam Clamp (BCL).

The system shall be the **Soundsphere® Model Q-15** for wide-range, wide-coverage sound dispersion and extended low-frequency response.

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.



All specifications are subject to change without notice.

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