

# RS62-EZ

#### **RS62-EZ PRODUCT SPECIFICATIONS**

| System Type                              | 6.5" coax, open-ceiling, ported (32 W transformer for 25/70.7/100 V or voice coil direct) |  |  |
|--|---|--|--|
| Impedance (Nominal) <sup>1</sup>         | 16 Ω  |  |  |
| Sensitivity dB @ 2.83 V / 1 M            | 88.2 dB   |  |  |
| Sensitivity dB @ 1 W / 1 M $^{\rm 2}$    | 91.2 dB   |  |  |
| Sensitivity dB @ 1 W / 4 M               | 74 dB   |  |  |
| Frequency Response (±3 dB) <sup>3</sup>  | 100 Hz - 22 kHz   |  |  |
| Frequency Response (±10 dB) <sup>3</sup> | 80 Hz - 22 kHz  |  |  |
| Max. Program Power <sup>4</sup>          | 64 W  |  |  |
| Max. Continuous Power RMS 5              | 32 W  |  |  |
| Max. Power SPL @ 1 M <sup>6</sup>        | 108.9 dB  |  |  |
| Max. SPL @ 4 M                           | 93 dB   |  |  |
| Coverage Angle @ ±6 dB                   | 500 Hz: 360°   1 kHz: 150°   2 kHz: 105°   4 kHz: 74°                                     |  |  |
| Coverage Angle (Avg. 2-10 kHz)           | 85.8°   |  |  |
| Directivity Factor (Q)                   | 3.6 (averaged 100 Hz - 10 kHz)   7.1 (2 kHz)  |  |  |
| Directivity Index (DI)                   | 5.5 dB (averaged 100 Hz - 10 kHz)   8.5 dB (2 kHz)  |  |  |
| Tap Selector                             | 6 position rotary switch with transformer bypass  |  |  |
| Transducer: Low-Frequency Driver         | 165 mm (6.5") polypropylene cone, butyl rubber surround                                   |  |  |
| Transducer: High-Frequency Driver        | 19 mm (0.75") silk dome with BroadBeam Ring™  |  |  |
| Low-Frequency Voice Coil                 | 25.4 mm   1"  |  |  |
| Crossover Frequency                      | 3 kHz   |  |  |
| Network Type: Low Pass                   | 6 dB per octave, 1st order  |  |  |
| Network Type: High Pass                  | 6 dB per octave, 1st order  |  |  |
| Enclosure Material                       | Injection molded ABS, glass fiber reinforced  |  |  |
| Grille                                   | Powder-coated aluminum  |  |  |
| Inputs                                   | 4-position ceramic terminal connector   |  |  |
| Colors                                   | Black or white (paintable)  |  |  |
| Height                                   | 264.2 mm   10.4"  |  |  |
| Diameter                                 | 256 mm   10.1"  |  |  |
| Weight                                   | 2 kg   4.4 lbs  |  |  |
| Packaging                                | One per box   |  |  |
| Included Accessories                     | Hanging hardware, weather plug, cover plate   |  |  |
| Optional Accessories                     | AC-BC-1, AC-SLT-10, AC-RSEZ-H10 & H20 & H50   |  |  |
| Certifications                           | CE, EN54, RoHS, UL 1480A  |  |  |
|  |   |  |  |

#### Description

The RS62-EZ is a 6.5", coaxial speaker designed for open-ceiling applications. Hanging hardware is included and features built-in hanging bracket and screw on cover plate for fast, easy, and secure installation. The unit may be mounted direct-toconduit via the locking cover plate (see installation instructions for additional information). The RS62-EZ speaker incorporates 4-position ceramic terminal block input connector and a 6-position tap switch with transformer bypass position.

#### **Features**

- One 6.5" (165 mm) coaxial driver with BroadBeam Ring<sup>™</sup> technology for consistently smooth highfrequency directivity.
- Weatherized components for indoor and outdoor applications.
- Includes hanging hardware with galvanized steel cables and hanging bracket for fast, easy, and secure installation. Unit may be hung or mounted direct-to-conduit via locking cover plate.
- Enclosure constructed of injection molded ABS with glass fiber reinforcement for lasting durability in indoor or outdoor applications.
- Easy access six-position rotary switch for 25, 70.7, and 100 V applications with transformer bypass position.
- Aluminum grille with protective powder-coated finish.
- Built-in thermal fuse.
- Unit ships in eco-friendly, recyclable packaging.
- UL 1480A
- High-quality black or white paint finish. Speaker is paintable.
- Included accessories: hanging hardware, weather plug, cover plate.

<sup>1</sup> Impedance listed per IEC 60268-5

<sup>2</sup> 1 W/1 M sensitivity determined using nominal impedance

<sup>3</sup> Frequency response measured in half or full space as dictated

- by speaker mounting configuration
- <sup>4</sup> Max program power is 3 dB above max continuous power
- <sup>5</sup> Continuous power rating, EIA-426-B test
- <sup>6</sup> Max output based on max continuous power

The specifications data was measured in an anechoic chamber, according to EN 54-24. Reference axis: Axis is on the center of speaker grille and perpendicular to the speaker grille. Reference plane: Plane is on the speaker grille and perpendicular to the reference axis. Horizontal plane: Plane is containing the reference axis and perpendicular to the reference plane.

## RS62-EZ

Open-Ceiling Speaker

| 70.7 V | Output          | 100 V | Output          | 25 V  | Output          |
|--------|-----------------|-------|-----------------|-------|-----------------|
| 32 W   | 104 dB<br>156 Ω | 32 W  | 104 dB<br>312 Ω | 4 W   | 95 dB<br>156 Ω  |
| 16 W   | 101 dB<br>312 Ω | 16 W  | 101 dB<br>625 Ω | 2 W   | 92 dB<br>312 Ω  |
| 8 W    | 98 dB<br>625 Ω  | 8 W   | 98 dB<br>1250 Ω | 1 W   | 89 dB<br>625 Ω  |
| 4 W    | 95 dB<br>1250 Ω | 4 W   | 95 dB<br>2500 Ω | 0.5 W | 86 dB<br>1250 Ω |
| 2 W    | 92 dB<br>2500 Ω |       |                 |       |                 |

#### **Transformer Taps**

#### **Applications**

Designed for superior off-axis performance and easy installation, the RS62-EZ offers attractive styling in an economical speaker for open-ceiling uses. The RS62-EZ includes hanging cables and a built-in mounting plate for suspending the speaker and a threaded opening to top of its cover plate for direct-to-conduit mounting. Cost-effective engineering with high-performance sound makes the RS62-EZ speaker ideal for music and paging applications in retail, grocery stores, restaurants, hotels, casinos, museums, trade shows, and conference rooms. For applications where additional bass is required, SoundTube's RS1201i-II-T 10" subwoofer may be used.

#### **Patented Technologies**

SoundTube Entertainment and the MSE Audio Group constantly develop new technologies which enhance audio product performance. SoundTube Entertainment innovations are protected by multiple U.S. and international patents, which explicitly cover SoundTube dome, enclosure and dispersion technologies. The MSE Audio Group actively defends its patents in order to protect SoundTube resellers and end-users.

#### **Technical Data and Specification Tools**

SoundTube Entertainment strives to provide complete and effective technical information and data to dealers, engineers and designers. All data is available from SoundTube Entertainment or at www.soundtube.com.

Technical data and downloads include:

- EASE<sup>™</sup> data 3-D polar plots.
- EASE<sup>™</sup> Address 2-D modeling for distributed systems
- AutoDesk<sup>®</sup> Revit<sup>®</sup> software
- Tech Sheets technical information and architectural specs for system
  engineers
- SoundTubeSPEC<sup>™</sup> Proprietary speaker placement software

#### Independent Data Acquisition and Verification

All data for SoundTube speakers is independently collected from and verified by NWAA Labs (www.nwaalabs.com) using their proprietary MACH testing system. All data is collected and analyzed 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 shall consist of one 165 mm (6.5") low-frequency driver and one 19 mm (0.75") high-frequency driver. The low-frequency voice coil diameter shall be 25.4 mm (1").

Performance specifications of a typical production unit shall be as follows: usable frequency response shall extend from 80 Hz - 22 kHz (±10 dB). Measured in sensitivity (2.83 V input, 1 M) shall be at least 86 dB. The speaker shall have a nominal impedance of 16  $\Omega$ . The speaker shall be available for 25, 70.7, and 100 V modes and shall include a six-position tap switch with a transformer bypass position. Rated power capacity shall be at least 32 W continuous (RMS) and conform to EIA-426-B testing. Maximum continuous output at 1 M shall be 108.9 dB.

The low-frequency transducer shall have a polypropylene cone with a butyl rubber surround. The high-frequency transducer shall have a silk dome tweeter with BroadBeam Ring<sup>™</sup> technology.

Installation shall be by galvanized steel cable attached to the speaker chassis via fixed cable end that interlocks with integrated mounting bracket. The external wiring input connector shall be a four-position ceramic terminal block for low impedance or distributed systems and shall accept from 10 - 22-gauge wire. The system shall be for indoor and outdoor applications and shall have a weather-resistant plug protecting all wire connectors inside the cover plate.

The enclosure shall be constructed of injection-molded ABS. The grille shall be constructed of powder-coated aluminum for lasting performance in the elements. Overall cabinet dimensions shall be no more than 264.2 mm (10.4") in height by 256 mm (10.1") in diameter. The unit shall weigh no more than 2 kg (4.4 lbs) and shall include hanging hardware and weather-resistant cover plate plug.

The system shall be the SoundTube RS62-EZ with hanging hardware for both low and high impedance applications.

#### SoundTube<sup>®</sup>

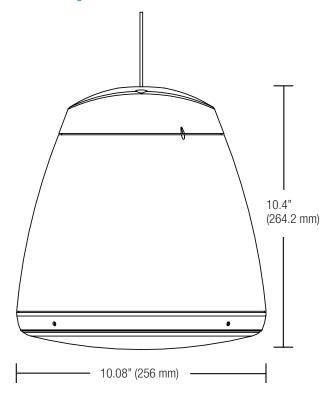
13720 W. 109th St. Lenexa, KS 66215 Phone: 913.663.5600 Fax: 913.663.3200 Toll Free: 855.663.5600 www.mseaudio.com

All SoundTube speakers come with a 5-year limited warranty and 3-year warranty on all electronics.

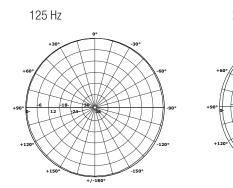




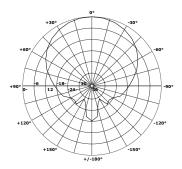
#### **Mechanical Drawings**

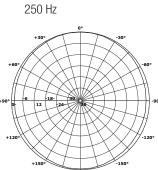


#### **Plots**

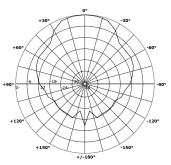


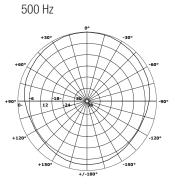
2,000 Hz



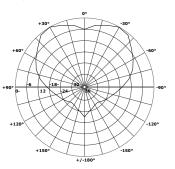


4,000 Hz

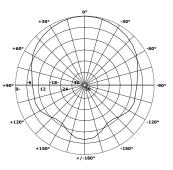




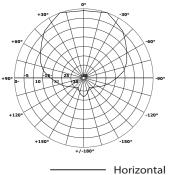
8,000 Hz



1,000 Hz



10,000 Hz



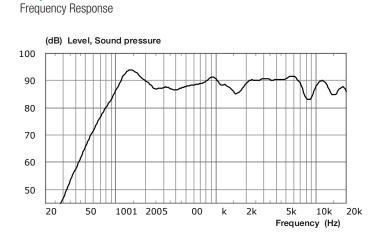
Technical data, EASE<sup>™</sup> plots, SoundTubeSPEC<sup>™</sup> software and product downloads available at www.soundtube.com

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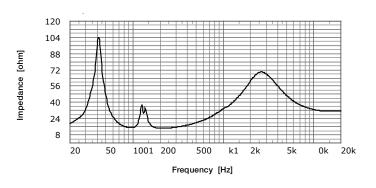


### RS62-EZ Open-Ceiling Speaker

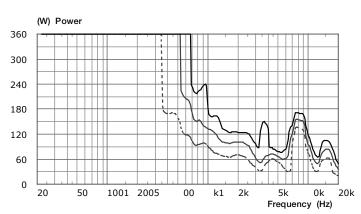
Graphs



Phase/Impedance Response



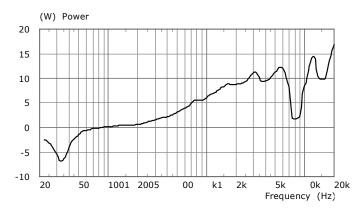
Vertical Beamwidth



Frequency Response of the Loudspeaker Type RS62-EZ

1W@4m - EN54-24 Compliance 15 10 5 relative level [dB] 0 250 315 400 500 630 800 100 1250 200 2500 315 400 500 6 200 25 99 000 8 -5 -10 -15 -20 -25 -30 frequency [Hz]

Directivity Index (DI)



#### RS62-EZ

| Octave Band Filter | Declared Coverage<br>Angle | Measured Coverage<br>Angle |  |
|--------------------|----------------------------|----------------------------|--|
| 500 Hz I 1 W / 4 m | 360                        | 360                        |  |
| 1 kHz   1 W / 4 m  | 150                        | 150                        |  |
| 2 kHz   1 W / 4 m  | 105                        | 102.5                      |  |
| 4 kHz   1 W / 4 m  | 74                         | 70                         |  |