Application Solutions

RSH-462

VOICE-RANGE EXPONENTIAL FOCUSED ARRAY HORN SYSTEM WITH MOUNTING BRACKET

SPECIFICATIONS

Loudspeaker Type:	Exponential FocusedArray™ Horn System
Operating Range:	400 Hz to 8 kHz 600 Hz to 4 kHz (± 4dB)
Max Input Ratings:	300W continuous, 750W program 49 volts RMS, 110 volts momentary peak
Recommended Power Amplifier:	630W to 900W @ 8 ohms
Usable LF Limit:	400 Hz
Throat Entrance Diameter:	4 x 2”
Axial Sensitivity (1W/1m):	118 dB SPL (600 Hz to 4 kHz 1/3 octave bands) 117 dB SPL (250 Hz to 4 kHz speech range)
Maximum Output:	143 dB SPL / 150 dB SPL (peak)
Nominal Impedance:	11 ohms
Minimum Impedance:	10.8 ohms @ 570 Hz
Nominal –6dB Beamwidth:	60°H (+1° / -4°, 1600 Hz to 4000 Hz) 20°V (+20° / -0°, 1600 Hz to 4000 Hz)
Axial Q:	27.5 1.6 to 4 kHz
Axial DI:	14.4
Required Signal Processing:	400 Hz high pass filter (24 dB/Oct) 8 kHz low pass filter (12 db/Oct) (for 4 x M200 driver standalone)
Construction:	Hand laminated, reinforced composite fiberglass Interior: Black gelcoat Exterior: Grey gelcoat
Drivers:	4 x M200 ferrofluid-cooled
Supplied Accessories:	Stainless steel mounting bracket (304 grade)
Optional Accessories:	Digital system processor
Dimensions - Height: **Width:** **Depth:**	28.5 inches (723.9 mm) 24.5 inches (622.3 mm) 22.5 inches (571.5 mm)
Weight (loudspeaker):	54.2 lbs (24.58 kg)
Weight (loudspeaker with bracket assembly):	71.3 lbs (32.34 kg)
Shipping Weight:	85 lbs (39 kg)

NOTES:

1. Sensitivity: Free field pink noise measurement at 40 ft (12.2 m) at 50% power; extrapolated to 1 meter and an input of 2.83 volts RMS.
2. Watts: All wattage figures are calculated using the rated nominal driver impedance.

APPLICATIONS

- Voice alert systems
- Large public gatherings
- Industrial paging
- Tone signaling

FEATURES

- 2-inch (51mm) throat exit X four
- High efficiency
- High power output
- Non-metallic diaphragms
- Highly resistant to harsh environments
- IP65 rating

DESCRIPTION

The RSH-462 is a complete horn/driver system designed for use in standalone voice-range sound reinforcement and announcement/signaling applications. The RSH-462 provides focused, very high output sound projection, with predictable performance and exceptional long-term durability. The horn portion of the assembly is a handcrafted one-piece Patented FocusedArray™ wave-guide, precision molded in hand-laminated, reinforced fiberglass for optimum performance. With substantial fiberglass layering and integral throat and driver flange construction, the horn is built to withstand substantial loads. The inherent strength and rigidity of fiberglass construction enhances sonic efficiency by preventing sound energy loss as well as providing an inherently weather-resistant installed loudspeaker system.

The compression drivers are high output, high sensitivity loudspeakers that are configured with the diaphragm facing forward, isolating the voice coil and magnetic structure of each driver from the environment. The one-piece, non-metallic diaphragm/suspension offers exceptional resistance to the effects of humidity, dust, and corrosive atmospheres. The large area, low compression phase plug and large magnet structure exhibits extremely low distortion at high outputs while maintaining high efficiency and low power compression. A fiberglass rear cover protects the drivers from the effects of weather and corrosion. A stainless steel mounting bracket assembly is included with the loudspeaker system.

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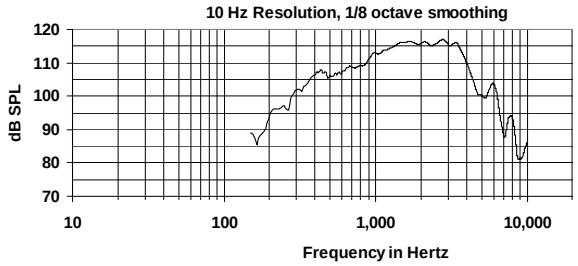
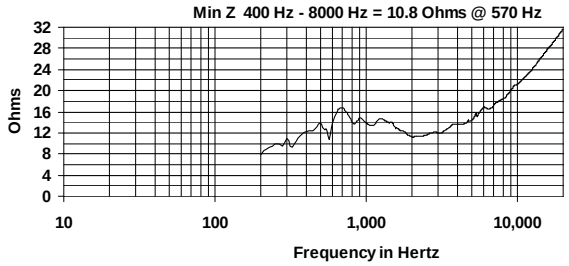
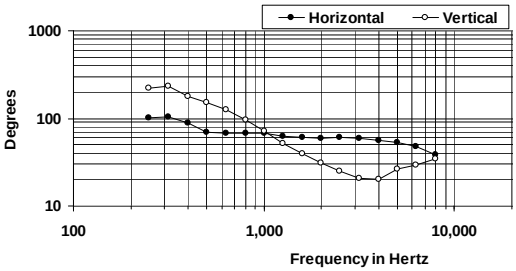
FREQUENCY RESPONSE



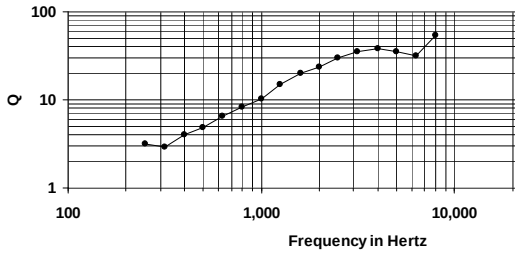
IMPEDANCE



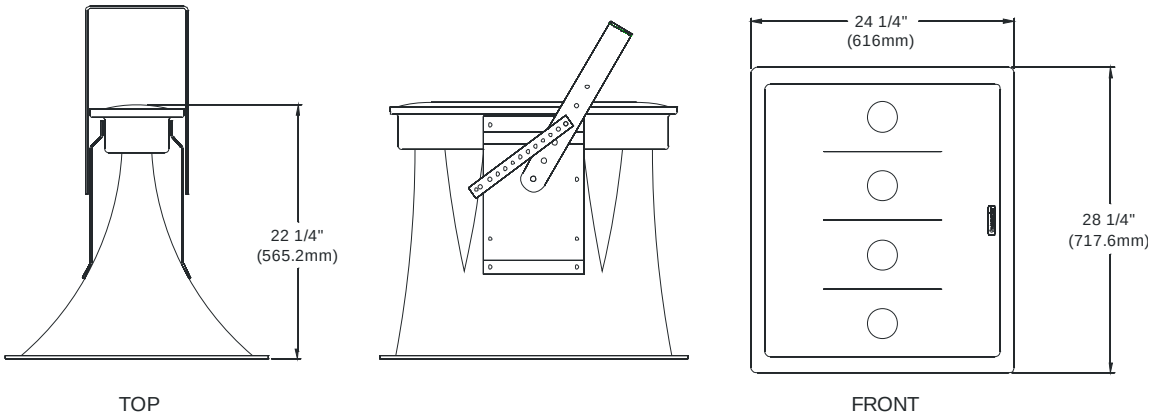
BEAMWIDTH



AXIAL Q



DIMENSIONS



ARCHITECTURAL SPECIFICATIONS

The drivers shall be a four 2-inch (51 mm) exit compression type, specifically designed for midrange frequency response. Each 2-inch (51mm) driver shall be mounted within a line array design fiberglass exponential horn with an integral fiberglass weather resistant cover incorporating gland nut cable ingress. The horn and driver combination shall have an amplitude response of 600 Hz to 4 kHz dB (+/- 4.0 dB), with an input capability of 49V RMS, 118 dB sensitivity at 1 meter / 2.83V between 600 Hz - 4 kHz, and a nominal impedance of 11 ohms. Each driver shall incorporate a large magnet structure, a one-piece, non-metallic diaphragm/suspension, and a copper-clad aluminum edgewound voice coil on a Kapton former immersed in Ferrofluid. The compression ratio shall be 1.84 to 1. Each diaphragm assembly shall be field replaceable. The horn/driver system shall weigh 54.2 lbs (24.58 kg). The horn/driver system with the factory-installed bracket assembly shall weigh 71.3 lbs (32.34 kg).

Community strives to improve its products on a continual basis. Specifications are therefore subject to change without notice.

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