CS-154/CS-304 Wide Range Speaker

DESCRIPTION

TOA’s CS-154 and CS-304 speakers are for outdoor-use, they use wide-range horns that can provide background music or paging announcements which have high quality sound. They are designed to produce high output with an increase of the speaker acoustic conversion efficiency, by the use of a horn in combination with a cone speaker. The CS-154 and CS-304 use constant directivity horns (90° horizontal) to control sound directivity, realizing uniform and clear sound dispersion over a wide area. These wide-range speakers are also designed to stand up to the rigorous weather conditions when installed outdoors.* The speakers' ABS resin enclosure is light in weight, structurally strong and resistant to impacts. Since the enclosures are also treated with weatherproof polyurethane resin paint, they are extremely resistant to the effects of ultraviolet light. The speakers also comply with IP65 Standard requirements for dust proof and waterproof capabilities. In addition, the internal speaker parts feature a special weatherproof treatment to enhance the waterproof properties of the entire speaker. Stainless-steel brackets and screws further protect the unit from rust and corrosion. Speaker impedance can be easily changed externally with a rotary switch, facilitating changes in impedance during and after speaker installation.

CS-154: 15W/10W/5W (100V line) and 15W/7.5W/5W/2.5W (70V line)
CS-304: 30W/20W/10W (100V line) and 30W/15W/10W/5W (70V line)

FEATURES

- Wide-range paging speaker for voice paging, background music and tone signaling distribution.
- Constant directivity horn improves directivity characteristics and ensure uniform and clear sound dispersion.
- High sensitivity: up to 98 dB (1W/1m)
- Weatherproof polyurethane resin paint permits the speaker to withstand demanding environmental conditions.*
- IP65 standard compliant.
- Lightweight ABS resin enclosure that is mechanically strong and resistant to impact.
- Stainless steel hardware protects the speaker from corrosion.
- Stainless steel mounting bracket for easy installation and aiming in wall, pole or ceiling-mount applications.
- Ideal for schools, parking facilities, boats, industrial, parks, swimming pools, and so on.

* Do not install the speaker face-up from a horizontal plane nor in such a way that the paper cone is exposed to direct sunlight.

If water accumulates on the paper cone, or ultraviolet rays are radiated on it, this may cause the paper cone to deteriorate, leading to speaker malfunction.
CHARACTERISTIC DIAGRAMS

**Frequency Response**

1W/1m: 1/3 Octave Pink Noise

**Beamwidth vs. Frequency**

**Directivity Factor vs. Frequency**

**Polar Response**
TOA Corporation

ARCHITECTURAL AND ENGINEERING SPECIFICATIONS

The speaker shall be a wide-range weatherproof horn speaker suitable for paging, background music and tone signaling distribution. The speaker component shall be a 12 cm (4.72") cone-type speaker, treated for weather-resistance. The speaker shall include a transformer having multiple taps (5W, 10W, 15W at 100 V and 2.5W, 5W, 7.5W, 15W at 70V). The sensitivity at a distance of 1m with a 1W input level applied shall be 97 dB. The speaker shall have a frequency response of 150 - 15,000 Hz. Horizontal and vertical dispersion at –6 dB below the on-axis reference at 2 kHz shall be 110° (H) x 85° (V).

The speaker shall have an IEC 529 splash-proof rating of IP65. The speaker shall have an operating temperature of -20°C to +55°C (-4°F to 131°F). The speaker enclosure shall be constructed of ABS resin and coated with polyurethane resin paint to resist long-term exposure to ultraviolet light. The grille shall be constructed of a protective aluminum net to prevent damage, gray paint. All mounting hardware, including screws and bolts, shall be stainless steel, which protects the speaker from corrosion. The wide-range weatherproof horn speaker shall include an integral speaker cable, 2-core cymbre cord with diameter of 6 mm (0.24") diameter.

Dimensions shall be 366(W) x 230(H) x 272(D) mm (14.40" x 9.06" x 10.71"). Weight shall be 2.8 kg (6.17 lb.).

The wide-range weatherproof horn speaker shall be TOA model CS-154.

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Dimensions shall be 366(W) x 230(H) x 272(D) mm (14.40" x 9.06" x 10.71"). Weight shall be 3.1 kg (6.83 lb.).

The wide-range weatherproof horn speaker shall be TOA model CS-304.

Note: Do not install the speaker face-up from a horizontal plane nor in such a way that the paper cone is exposed to direct sunlight. If water accumulates on the paper cone, or ultraviolet rays are radiated on it, this may cause the paper cone to deteriorate, leading to speaker malfunction.

ARCHITECTURAL AND ENGINEERING SPECIFICATIONS

The speaker shall be a wide-range weatherproof horn speaker suitable for paging, background music and tone signaling distribution. The speaker component shall be a 12 cm (4.72") cone-type speaker, treated for weather-resistance. Rated input shall be 15 W. The speaker shall include a transformer having multiple taps (5W, 10W, 15W at 100 V and 2.5W, 5W, 7.5W, 15W at 70V). The sensitivity at a distance of 1m with a 1W input level applied shall be 97 dB. The speaker shall have a frequency response of 150 - 15,000 Hz. Horizontal and vertical dispersion at –6 dB below the on-axis reference at 2 kHz shall be 110° (H) x 85° (V).

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