
Reflex Horn Speaker

The Reflex Horn Speaker, rated at 30W, shall be designed for both indoor and outdoor paging applications, as well as for background music reproduction. The model designed for use in high-impedance (70V/100V lines) system and standard model for low-impedance 16 ohms system shall be available. The speaker shall feature newly developed diaphragms employing special heat-resistant polyimide film to prevent the diaphragm from absorbing moisture and changing shape, as well as to improve the low frequency characteristics. High speaker efficiency shall have also been realized by minimizing the gap produced when the diaphragm bobbin is installed in the magnetic circuitry slit. The speaker shall be designed to ensure high speech clarity and sound quality suitable for music reproduction. External hardware (screws, bolts, nuts) shall be made of stainless steel, and the mounting bracket and the horn itself shall be treated with 50-micron thick powder paint coating which is about three times thicker than that of the conventional horns. All of these factors shall combine to ensure the speaker's excellent weatherproofing and corrosion resistance. In addition, the external horn flare shall be made of aluminum that is more shock-resistant than resin.

High-impedance model shall be equipped with an input impedance selector switch (4 steps for 100V line, and 5 steps for 70V line)

which facilitates the ease of impedance settings without requiring disassembly. The switch shall be also equipped with an OFF

position to prevent speaker damage resulting from incorrect impedance setting.

Rated Input : 30W

Sensitivity(1W, 1m): 110 dB

Frequency Response: 200 - 6k Hz

Dust/Water Protection: IP65

The speaker shall be the TOA model TC-631/631M.

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The specified horn speaker shall be designed especially for outdoor applications. The horn speaker shall be a reflex horn type suitable for paging and tone signaling distribution. The speaker component shall be a compression driver with a polyimide diaphragm to prevent deformation from heat and improve low frequency characteristics.

The horn speaker shall be a horn speaker that has been proved to provide 100 or more hours of operation at 50W in a continuous load test employing a test signal that meets the International Electrotechnical Commission (IEC) 60268-1: 1985 standard. Power handling shall be 50 W. Rated impedance shall be selectable (200 ohms, 330 ohms, 670 ohms for 100V line; 100 ohms, 200 ohms, 330 ohms and 670 ohms for 70 V line). The sensitivity measured at 1m with 1 W of power shall be 111 dB. Frequency response shall be 200 Hz to 6k Hz.

Horizontal and vertical dispersion at -6 dB below the on-axis reference at 2k Hz shall be 50° (H) x 50° (V). The paging horn shall comply with the IEC IP65 standard for dust and water resistance and operate within a temperature range from -20°C to +60°C (-4°F to +140°F).

The speaker shall feature shock-resistant aluminum oval horn. The mounting bracket, bracket holder and the horn flare shall be treated with 50-micron thick powder paint coating, and external hardware (screws, bolts, nuts) shall be made of stainless steel. The paging horn shall include an integral speaker cable, insulated polyvinyl chloride type, with strain-relief, 6 mm (0.24") diameter and 600 mm (1.97') length. Dimensions shall be $\phi 400 \times 376(D)$ mm ($\phi 15.75'' \times 14.8''$). Weight shall be 4 kg (8.82 lb).

The reflex horn speaker shall be TOA model TC-651M or equivalent.