CAT™ 69

Applications

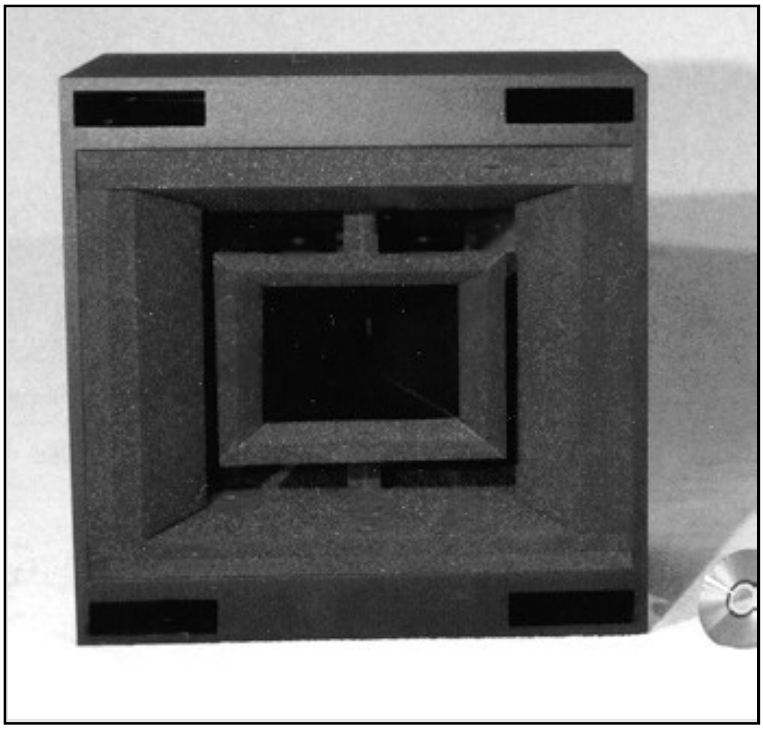
- Houses of Worship
- Auditoriums
- Performing Arts Theaters
- Music Reinforcement
- Reference Monitors

Features

- Controlled Directivity (90ºx50º)
- Increased Power Handling - 450W
- Improved Sensitivity - 98 dB 1W/1M
- Full Range - 50Hz-15kHz
- Production Units 100% TEF™tested
- CAD directivity files available

Factory Installed Options

- Finishes: Oak, Walnut, Carpet, Black, or White
- Mounting Systems: D-Rings with Pan Fittings and All Thread Links
- Connectors: Neutrik Speakon, Binding Posts



CAT 69 shown with standard cloth grille removed.

Advanced Engineering

The Frazier CAT 69 is the result of years of research and development work by Frazier Engineering. The resultant loudspeaker offers high output capacity, controlled directivity, and sonic transparency, in an enclosure of extremely small size and weight. Innovations in horn design, packaging efficiency, and transducer technology have all been applied to the design of the CAT 69. The latest version represents major improvements to a field-proven, effective loudspeaker.

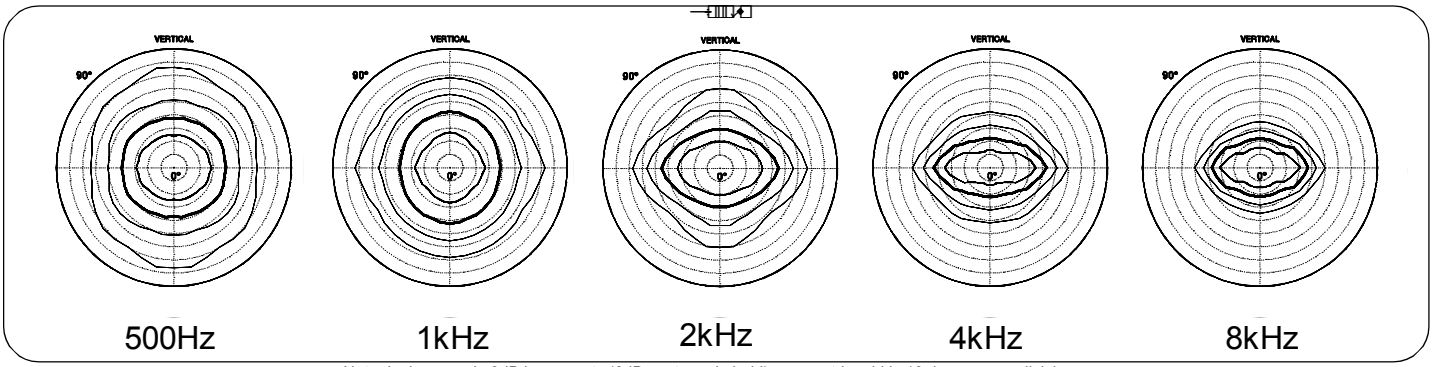
CAT Technology, Frazier Quality

Low and high frequency sections of the CAT 69 combine acoustically to behave as a single device - Coincident Aligned Transducers - resulting in a crossover transition that is inaudible and undetectable at any angle, not just on axis. Benefits of the acoustic performance of the CAT 69 include high quality sound to all seats in the coverage area, minimum excitation of the reverberant field, and maximum gain before feedback. TEF testing of every production unit's response guarantees 100% compliance with published specifications.

Aesthetics

Design criteria for the CAT 69 included visual as well as acoustic considerations. Its compact package helps in the design of unobtrusive arrays. In addition, a variety of finishes may be specified, including real wood veneers. The standard cloth covered grille is available in several colors. In the Frazier CAT 69, you will find a powerful, flexible, and cost-effective tool for use in the design of high performance sound systems.

Octave Averaged Isobars



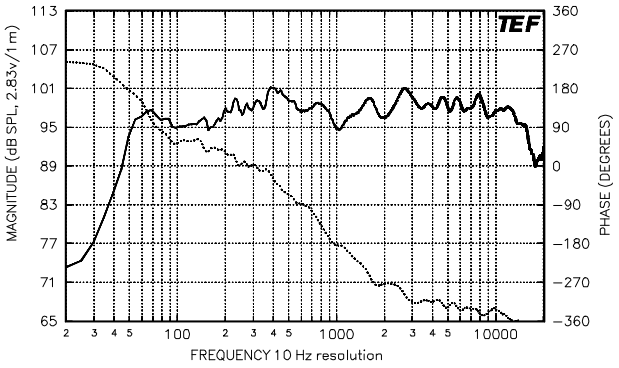
Note: Isobars are in 3dB increments (6dB contours in bold); concentric grid is 10 degrees per division.

ARCHITECTS' and ENGINEERS' SPECIFICATION

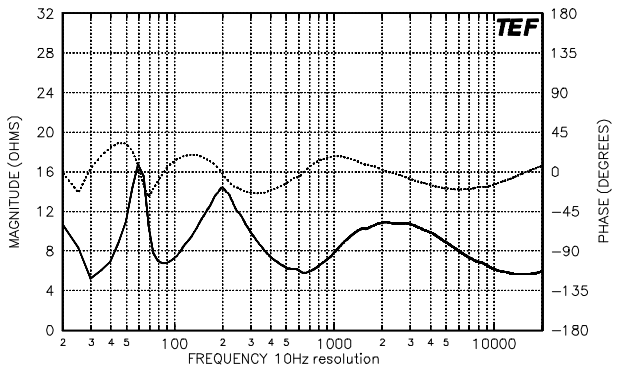
The loudspeaker shall be a two way coaxial system. The low frequency section shall consist of two bass reflex ported 12" (305mm) cone transducers manifolded to a constant directivity horn. The high frequency section shall consist of a constant directivity horn driven by a 1" (25mm) throat, ferrofluid cooled, compression driver. Low and high frequency sections shall be in temporal alignment throughout the coverage pattern without the use of any device external to the loudspeaker. A passive network shall be installed inside the housing and shall provide element-specific signal treatment and crossover filtering. The system amplitude response shall be within plus or minus 3 dB of flat from 50 Hz to 15 kHz on axis. Octave averaged coverage angles (-6 dB relative to on axis levels) shall be 84º horizontal (+6º/-6º), 50º vertical (+8º/-8º) from 2kHz-20kHz; and 84 degrees horizontal (+6º/-6º), 50 degrees vertical (+30º/-8)º from 500 Hz-16kHz. The loudspeaker shall be capable of producing 125dB continuous SPL at a distance of 1 meter with no more than 450 watts electrical input power. Maximum weight shall be 130 lbs. (60kg) and maximum dimensions shall be 26" x 26" x 18" (660mm x 660mm x 457mm). The loudspeaker shall be the Frazier CAT 69.

Power Considerations - The power rating used for the CAT 69 is derived as specified by the AES (AES2-1984). A pink noise signal is clipped to a 2:1 (6dB) peak/RMS ratio and filtered with with low and high pass filters matched to the device bandwidth. This signal is applied to the loudspeaker for a 2 hour period. All appropriate parameters are checked after this exercise to ensure proper performance. The power rating is set as the upper limit of safe operation and is determined by evaluating the RMS voltage applied during the test and the nominal impedance of the loudspeaker. Thus, the power rating = V_{rms}^2/Znom. This test is run on several production units as a final validation of the rating.

Frequency Response (1/6 octave smoothing)



Impedance vs Frequency



Specifications

Bandwidth	50Hz-15kHz +/- 3 dB
Power Handling	450 Watts (See Above)
Sensitivity (2.83vrms/1m)	98 dB SPL
Impedance (Nom./Min.)	8Ω/5.7Ω @ 16kHz
Transducers	2 ea. 12"(305mm) LF, 1 ea. 1"(25mm) HF driver, ferrofluid cooled
Crossover Frequency	1100 Hz
Input Connection	Screw Terminal Cup
Weight	124 lb (56.5 kg)
Dimensions	25-1/4"H x 25-1/4"W x 17-3/8"D (641mm x 641mm x 441mm)
Construction	MDF Lock Mitered
Finishes	Black, White, Oak or Walnut Veneer, Carpet

Directivity (Octave Averaged)

Frequency	Coverage (-6dB)	Q
250Hz	130ºx130º	4.3
500Hz	80ºx75º	9.5
1kHz	80ºx80º	10.5
2kHz	88ºx58º	13.2
4kHz	84ºx42º	18.2
8kHz	78ºx42º	22.9

Model Numbers

Black Textured Finish	F1690
White Textured Finish	F1692
Oak Veneer	F1693
Walnut Veneer	F1694
Ozite[tm] Carpet w/2 carry handles	F1695

Call for CAD data files and mechanical drawings.
Specifications are subject to change without notice.

CAT69

Form 69R794

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