

FRAZIER

CAT™ 499

Data Sheet

Applications

- *Hotel Ballrooms*
- *Convention Centers*
- *Music Reinforcement*
- *Speech Reinforcement*
- *Auditoriums*
- *Room Enhancement Systems*

Features

- *Controlled Directivity (100° conic)*
- *Sensitivity - 97 dB 1W/1M*
- *Bandwidth - 70Hz-15kHz*
- *Power Handling - 150 Watts Pink Noise*
- *Production Units 100% TEF® tested*

Options

- *Frazier Adjustable Wall Mount*
- *Internal Hanging Hardware*
- *70V Line Matching Transformers*

Groundbreaking Design

Based on the popular CAT 40, the CAT 499 sets new standards in electroacoustic performance in a compact multipurpose loudspeaker. Retaining all the attributes that contribute to the CAT 40's unequalled performance, the CAT 499 offers improvements in high frequency directivity and a substantial increase in acoustic output.

Optimized Directivity

Like the CAT 40, The CAT 499 employs horn loading for *both* low and high frequency sections. This feature is essential in maintaining the desired directivity behavior over the widest possible range of frequencies. The high frequency horn incorporate a multitransitional shape that eliminates high-frequency beaming. This horn shape causes no off-axis loss of high frequencies or crossover-range response suckouts common to alternative devices. Systems using the CAT 499 will generate musical, full range sound over their entire coverage area.



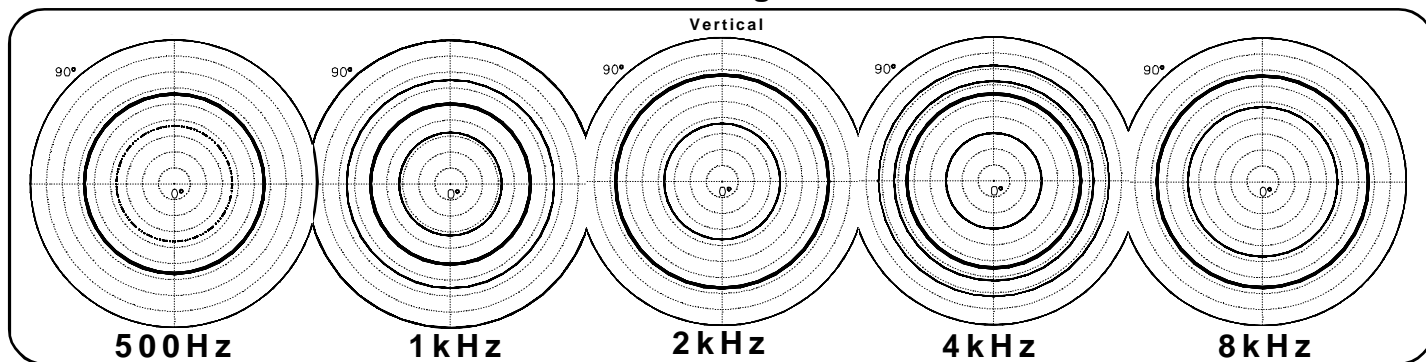
Coincident Performance

As with all Frazier coincident loudspeakers, low and high frequency sections of the CAT 499 behave acoustically as a single device, resulting in a crossover transition that is seamless at any angle. The CAT 499's ability to faithfully reproduce complex transient signals enhances both its intelligibility and its musicality. Every unit is TEF® tested before shipment, a Frazier exclusive.

Designed for Maximum Utility

Housed in the same enclosure as the CAT 40, the CAT 499 builds on a proven problem-solving package. Enclosure depth is kept to a minimum, making the CAT 499 equally useful in recessed, wall-mount, and flown installations. Factory - installed accessories include ceiling baffles, matching transformers, and mounting brackets and hardware.

Octave Averaged Isobars



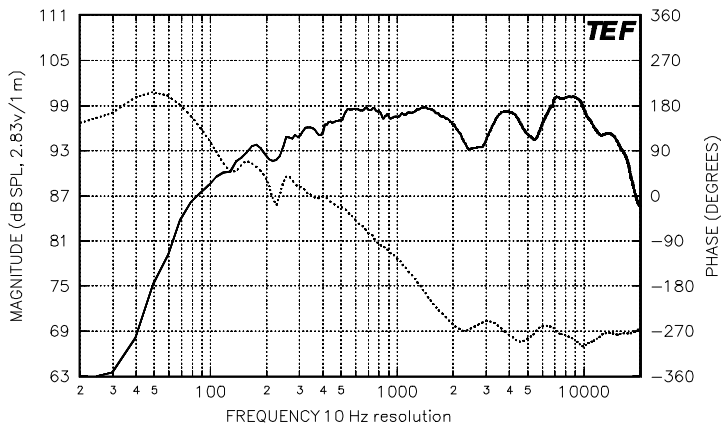
Note: Isobars are in 3dB increments (6dB contours in bold); concentric grid is 10 degrees per division.

ARCHITECTS' and ENGINEERS' SPECIFICATION

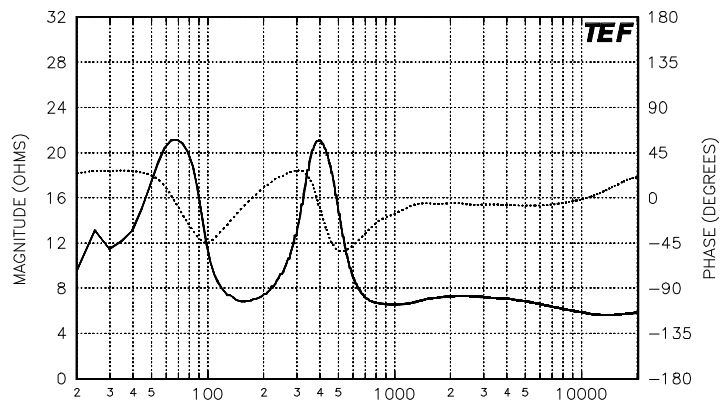
The loudspeaker shall be a two way coaxial system. The low frequency section shall consist of one 8" (203 mm) woofer driving a conic directivity horn. The high frequency section shall consist of a conic directivity horn driven by a 1" (25mm) throat, ferrofluid cooled, compression driver. Low and high frequency signal arrivals shall be in temporal alignment throughout the coverage pattern without the use of any device external to the loudspeaker. An included passive network shall provide element-specific signal treatment and crossover filtering. The system amplitude response shall be within plus or minus 3 dB of flat from 90 Hz to 15 kHz on axis. Octave averaged coverage angles (-6 dB relative to on axis levels) shall be 110° conic (+10°/-10°) from 500 Hz-16kHz. The loudspeaker shall be capable of producing 119dB continuous SPL at a distance of 1 meter with no more than 150 watts electrical input power. Maximum weight shall be 35 lbs. (15.9kg) and maximum dimensions shall be 17 5/8" x 17 5/8" x 8 3/4" (448mm x 448mm x 222mm). The loudspeaker shall be the Frazier CAT 499.

Power Considerations - The power rating used for the CAT 499 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 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^2_{rms}/Z_{nom} . 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	90Hz-15kHz +/- 3 dB
Power Handling	150 Watts (See Above)
Sensitivity (2.83vrms/1m)	97 dB SPL
Impedance (Nom./Min.)	8Ω/5.6Ω
Transducers	1 ea. 8"(254mm) LF, 1 ea. 1"(25mm) HF driver, ferrofluid cooled
Crossover Frequency	1500 Hz
Input Connection	Recessed Barrier Strip
Weight	38lb (18 kg)
Dimensions	17 5/8" x 17 5/8" x 8 3/4" (448mm x 448mm x 222mm)
Construction	MDF panels with lock mitered edges

Frequency	Directivity (Octave Averaged)		Q
	Coverage (H x V)		
250Hz	200° Conic		1.7
500Hz	115° Conic		4.5
1kHz	100° Conic		6.9
2kHz	135° Conic		5.1
4kHz	110° Conic		8.7
8kHz	130° Conic		4.7

Ordering Information

Model Numbers	
Black	F14990
White	F14992
Oak	F14993
Walnut	F14994
Antiscuff	F14995

Drawings and additional data available on request.

Specifications are subject to change without notice.

CT499

Form CT499R301

FRAZIER

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