

FRAZIER

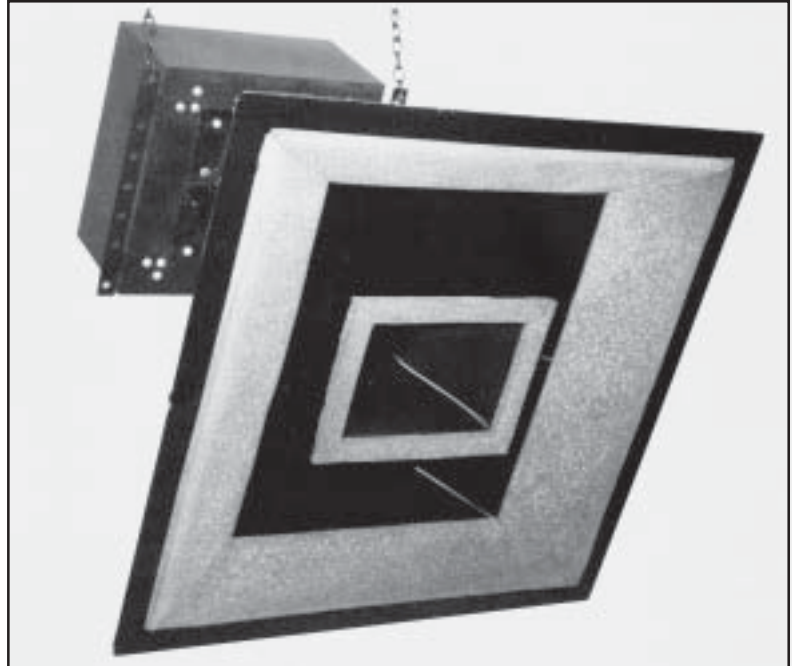
CAT™ 79A

Features

- **Increased Acoustic Output**
- **Broadband Response**
- **Factory Assembled, TEF™ tested**
- **Nominal Directivity to 350 Hz**
- **Patented Signal Alignment Technique**
- **Standard Internal Passive Crossover**
- **Standard Rigging Points**

Factory Options

- **Biamp Version**
- **Outdoor Version**



Unique Large Format Speaker

More than a decade after its introduction, the Frazier CAT 70 loudspeaker family retains its unique position among large-format sound reinforcement loudspeakers. They are the only such systems to come from the manufacturer completely assembled, they are the only systems to achieve alignment of LF and HF sections without externally applied delay, they come with standard passive crossovers (biamp versions are available), and the response and sensitivity of every production unit are verified via **TEF** measurements prior to shipment. With the "A" version, power handling and sensitivity have been increased with no tradeoffs in any other performance parameters.

CAT Technology

The CAT 79A incorporates Frazier's proprietary Coincident Aligned Transducers™ technology. Through the use of a collection of acoustic principles, including a patented waveguide acoustic alignment technique, Frazier creates loudspeakers that behave acoustically as if all frequencies radiate from a single well-behaved source. Anomalies common to alternative devices - crossover dropouts off axis and compromised transient re-

sponse - have been successfully addressed in the CAT 79A.

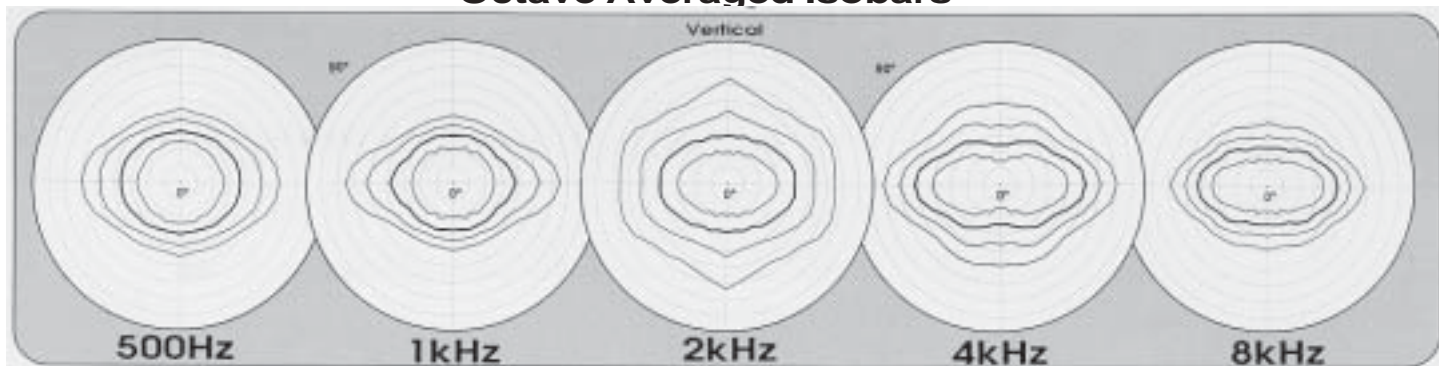
Controlled Directivity

The Frazier CAT 79A was designed for applications requiring premium sound quality, intelligibility and high acoustic output. Because it maintains its nominal directivity down to 350 Hz, the CAT 79A directs its acoustic output only where the device is aimed - into the audience area - and not into the reverberant field. For the same reasons, the CAT 79A is a superior component for use in arrays, since it confines unwanted interactions between adjacent devices to the lowest possible frequencies.

Efficiency by Design

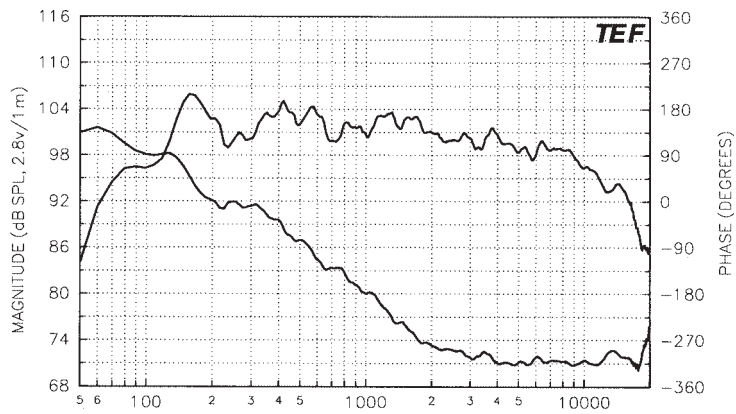
Each transducer is horn loaded over its entire operating bandwidth, resulting in maximum output for minimum total weight and input power. The CAT 79A will reproduce the entire vocal range on its own, and it may be used in conjunction with a supplemental low frequency system for extended bandwidth applications. Versatile suspension bracketry comes standard, making the CAT 79A the most easily-installed large format loudspeaker available.

Octave Averaged Isobars



Note: Isobar in 3dB increments (6dB contour in bold); Concentric Grid 10 degrees per division

Frequency Response (1/6 octave smoothing)

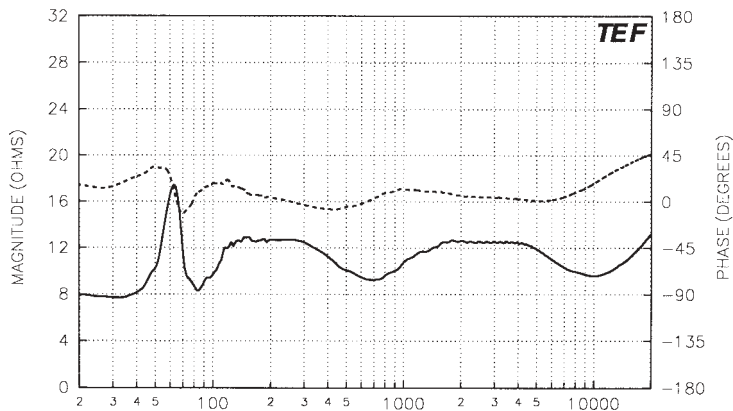


ARCHITECTS and ENGINEERS' SPECIFICATION

The loudspeaker shall be a two way coaxial horn within horn system. The midrange section shall consist of two 8" transducers arranged in a manifold assembly acoustically back loaded by a sealed enclosure and front loaded by a midrange constant directivity horn. The high frequency section shall consist of a compression driver with a 3" voice coil coupled to a constant directivity horn by means of a waveguide assembly. The two sections shall be in temporal alignment without the use of any device external to the loudspeaker. A passive network shall be installed inside the rear housing providing element specific signal treatment and crossover filtering. Octave averaged directivity shall be 90° horizontal (+10° /-50°) and 50° vertical (+10°/-15°) from 350Hz-16kHz. The loudspeaker shall be capable of producing 131dB continuous SPL @ 1 meter with no more than 500 watts electrical input power. Maximum weight shall be 130 lbs. and maximum dimensions shall be 41" x 41" x 45". The loudspeaker shall be the Frazier CAT 79A.

Power Considerations - The power rating used for the CAT 79A is derived by direct experimentation as specified by the Audio Engineering Society (AES2-1984). A pink noise signal is filtered to match the device's bandwidth and processed by means of a clamping network to produce a 2:1 (6 dB) peak/RMS ratio (crest factor). This signal is applied to the loudspeaker for a 2 hour period. Parameters are checked after this exercise to verify that there has been no degradation in 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. The power rating is defined as V^2_{rms}/Z_{nom} . This test is run on several production units to ensure valid representation of the product.

Impedance vs Frequency



Specifications

Bandwidth	125Hz - 17kHz
Power Handling	500 Watts (AES)
Sensitivity (2.8v/1m)	104 dB SPL
Impedance (Nominal/Minimum)	8Ω/ 7.6Ω @ 83 Hz
Transducers	Ferrofluid cooled 3" VC HF driver, 2 - 8" LF drivers
Crossover Frequency	1400Hz
Input Connection	Barrier strip
Weight	130 lb
Dimensions	40" x 40" x 42"
Construction	Fiberglass
Finish	Black gelcoat

Directivity (Octave Averaged)

Frequency	Coverage	Q
250Hz	120°x110°	5.9
500Hz	75°x60°	16.1
1 kHz	80°x60°	18.0
2kHz	80°x60°	13.3
4kHz	100°x50°	13.8
8kHz	85°x50°	18.9

Model Numbers

CAT 79A Indoor	FI790
CAT 79A Outdoor	FI791

Drawings and additional data available on request.