



Code: DR-8-028-8R-B2-C0001

REDCATT 8NPM 8-inch neodymium professional mid-woofer: 200 W AES, 96.1 dB sensitivity, 8 Ω , Fs 79 Hz, 50.8 mm voice coil. Full T/S parameters, datasheet, 2D drawing and STEP CAD file.

KEY FEATURES

- ✓ Hi sensitivity
- ✓ Hi power handling
- ✓ Designed for applications where are sizable amounts of mid-frequencies required

QUICK SPECS

Impedance
8 Ω

Sensitivity
96.06 dB

Magnet
Neodymium

Program Power
400 W

Fs
79.00 Hz

Voice Coil
50.8 mm

[📄 Datasheet \(PDF\)](#)[📎 2D Drawing](#)[📦 3D Model \(STEP\)](#)

Design Notes

The 8NPM is a high efficiency, (96dB 1watt / 1 meter) 8-inch mid-woofer with extended mid frequency response and high power handling capability. The 8NPM uses a lightweight half pressed paper cone along with a double roll fabric surround. Spider is made of Nomex material with optimized shape for well controlled pistonic motion. The used high quality components ensure long lasting performance even in high powered applications. The chosen material combination provides remarkable strength, high efficiency and sustained output under extreme conditions.

temperatures in excess of 280C, well beyond the thermal requirements of modern audio systems. Former strength provides the ideal transfer of power between the voice coil and the cone assembly and assists in reducing distortion artifacts. By combining this material with state of the art adhesives and our winding voice coil technology, the 8NPM delivers incredibly high performance.

Specifications

GENERAL SPECS

Nominal Diameter	8"
Rated Impedance	8 Ohm
Magnet	Neodymium
Basket Material	Aluminum

POWER HANDLING

AES Power	200 W
Continuous Power	400 W
Peak Power	800 W

VOICE COIL

Diameter	50.8 mm
Winding Wire	CCAW
Former	Kapton
Winding Height	15.4 mm

Resonant Frequency (Hz)	78.88 Hz
Re	5.40 Ω
Qes	0.310
Qms	3.85
Qts	0.290
Vas	10.90 liters
Sd	213.80 cm ²
Mms	23.90 grams
Rms	3.10
Cms	0.1700
Bl	14.20 T·m
Le	0.600 mH
Sensitivity	96.06 dB

General Material

Cone/Dome Material	Paper CF
Spider	Nomex
T-Plate	8 mm
Xmax (peak)	3.7 mm
Xmech	11.7 mm
Overall Diameter	209.50 mm
Bolt Circle Diameter	197.50 mm
Baffle Cutout Dia.	185.00 mm
Mounting Holes	8
Depth (flange to rear)	87.30 mm
Net Weight	1.80 kg

ORDERING CODES

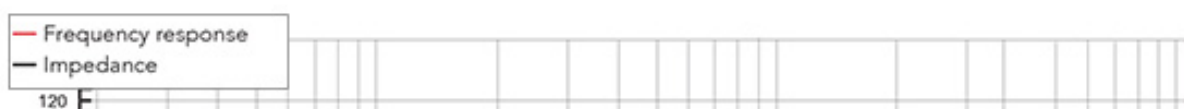
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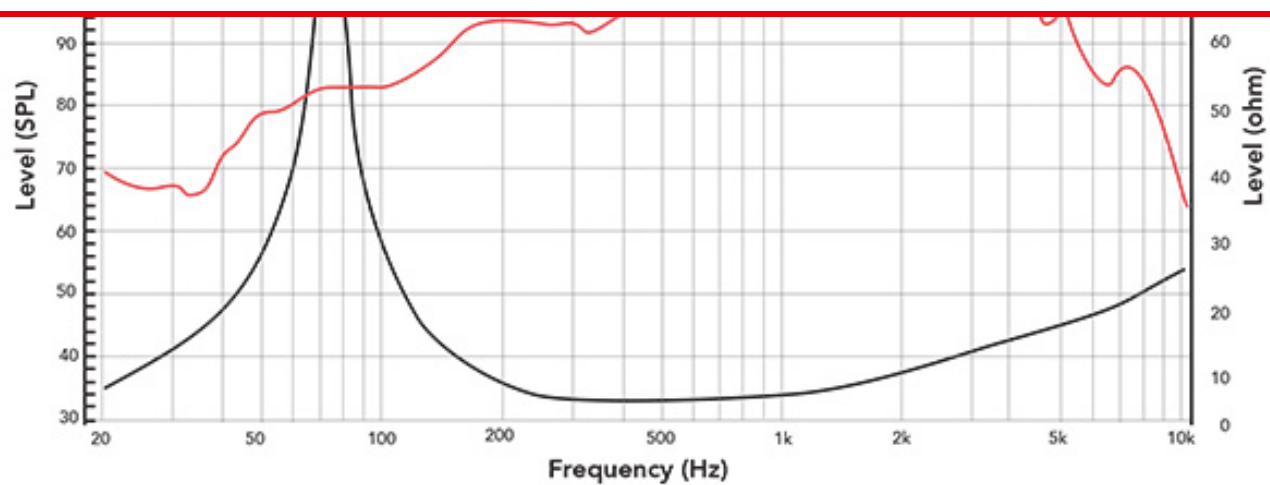
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 Datasheet (PDF)
  2D Drawing (PDF)
  3D Model (STEP)

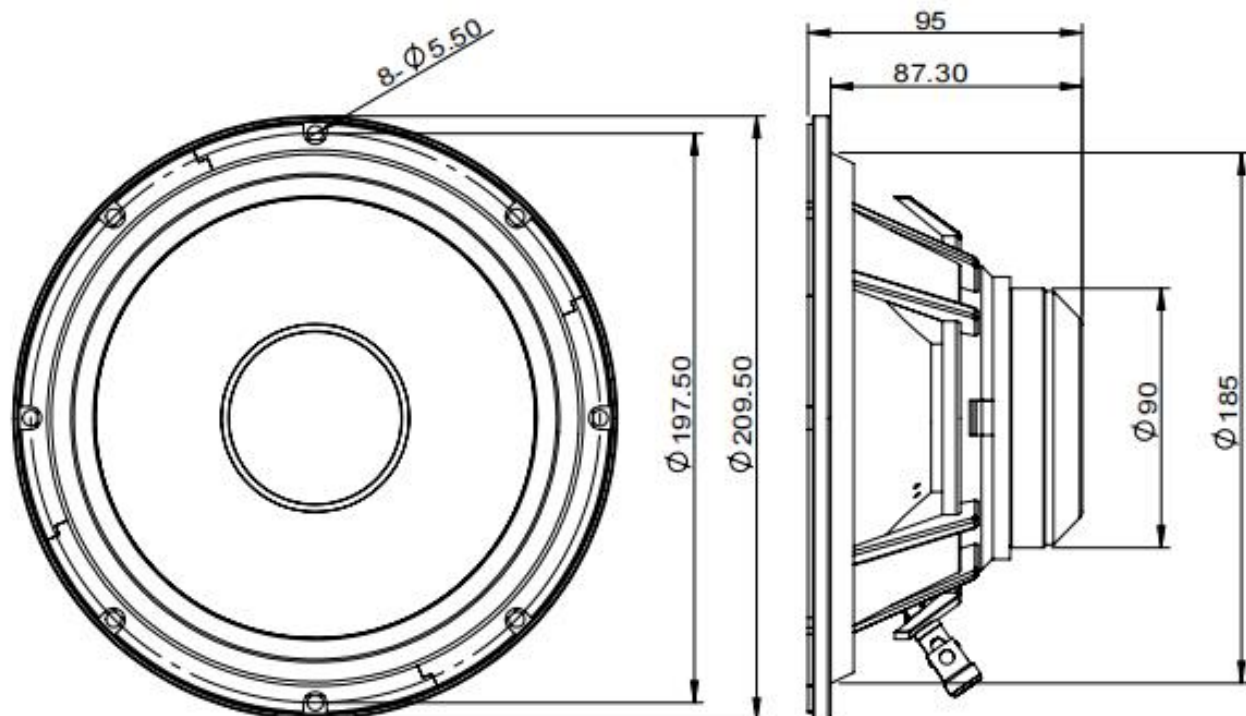
Covered by the REDCATT **3-year Limited Warranty**.

Frequency Response & Impedance





2D Drawing



professional two-way, multi-way, and line array systems requiring high sensitivity (96 dB 1W/1m), extended mid-frequency response, and sustained high-power operation. It features a 2-inch CCAW voice coil on a Kapton former with peak temperature tolerance exceeding 280 degC, a lightweight half-pressed paper cone with a double roll fabric surround, and a Nomex spider with optimized geometry for controlled pistonic motion. With a low Qts of 0.29 and strong neodymium motor (BI 14.2 T.m), the motor and suspension are optimized to maintain consistent performance at high drive levels, with controlled excursion and reduced thermal compression during long-term operation.

The driver requires active DSP crossover management in both configurations. In vented mid-woofer use, a high-pass filter in the range of 53-72 Hz (24 dB/octave Linkwitz-Riley) is recommended depending on enclosure tuning, with a typical crossover to a high-frequency driver at 1.5-3 kHz. In sealed midrange use, a high-pass filter in the range of 180-350 Hz is recommended depending on enclosure volume and system architecture. In both cases, appropriate limiting is required to manage mechanical stress during sustained operation, though the Kapton former provides exceptional thermal headroom.

This driver is particularly effective in professional touring line arrays, compact 2-way portable loudspeakers, multi-way point-source cabinets, stage monitors, and installation systems where versatility across mid-woofer and midrange roles, high sensitivity, high power handling, and extended mid-frequency performance are priorities. The neodymium motor, Kapton former, and aluminum basket provide consistent, durable performance in demanding professional environments.

Recommended enclosure volumes are simulated results. For best enclosure volumes and tuning, we recommend secondary simulation and careful evaluation. Several rounds of samples and fine-tuning may be required for optimal results.

Enclosure Recommendations

Recommended enclosure alignments (bass reflex):

- 10 liters tuned to 82 Hz: high output, strong mid-bass, reduced excursion; -3 dB approx. 75

- 14 liters tuned to 63 Hz: extended low-frequency, requires HP filter protection; -3 dB approx.
54 Hz, HP filter 51 Hz

Frequently Asked Questions

What are the key features of the 8NPM?



What enclosure is recommended for the 8NPM?



What applications is the 8NPM suited for?



What are the power and sensitivity specs of the 8NPM?



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