



Code: DR-8-014-8R-B2-C0001

REDCATT 82FHM 8-inch ferrite professional mid-woofer: 60 W AES, 88.3 dB sensitivity, 8 Ω , Fs 42 Hz, 38 mm voice coil. Full T/S parameters, datasheet, 2D drawing and STEP CAD file.

KEY FEATURES

- ✓ EXTENDED FREQUENCY RESPONSE
- ✓ Hard anodized aluminum cone with rubber surround
- ✓ Aluminum basket

QUICK SPECS

Impedance	Program Power
8 Ω	120 W
Sensitivity	Fs
88.31 dB	42.00 Hz
Magnet	Voice Coil
Ferrite	38 mm

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

Design Notes

82FHM is mid-woofer driver, designed for hi-fi, studio monitors and outdoor applications. Design sports hard-anodized aluminum cone and dustcap. These two key components extend the working range of the woofer. The parameters were optimized for usage in sealed enclosures.

All metal parts are coated to further increase weatherized protection, surround has UV stabilizers.

Strong aluminum basket was used in this design which further improves the mechanical

have FEM optimized air-venting of this design that minimizes the air-noise and greatly improves voice coil winding venting.

Specifications

GENERAL SPECS

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

POWER HANDLING

AES Power	60 W
Continuous Power	120 W
Peak Power	240 W

VOICE COIL

Diameter	38 mm
Winding Wire	Copper
Former	Aluminum
Winding Height	15.9 mm

Resonant Frequency (Hz)	42.55 Hz
Re	5.70 Ω
Qes	0.760
Qms	3.10
Qts	0.610
Vas	33.60 liters
Sd	213.80 cm ²
Mms	28.30 grams
Rms	2.41
Cms	0.5100
Bl	7.56 T·m
Le	0.470 mH
Sensitivity	88.31 dB

General Material

RED

Cone/Dome Material	Aluminum
Spider	Nomex
T-Plate	5 mm
Xmax (peak)	5.45 mm
Xmech	10.45 mm
Overall Diameter	223.50 mm
Bolt Circle Diameter	210.00 mm
Baffle Cutout Dia.	189.00 mm
Mounting Holes	6
Depth (flange to rear)	87.50 mm
Net Weight	1.80 kg

ORDERING CODES

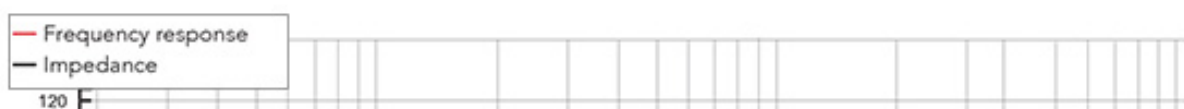
Product Code DR-8-014-8R-B2-C0001

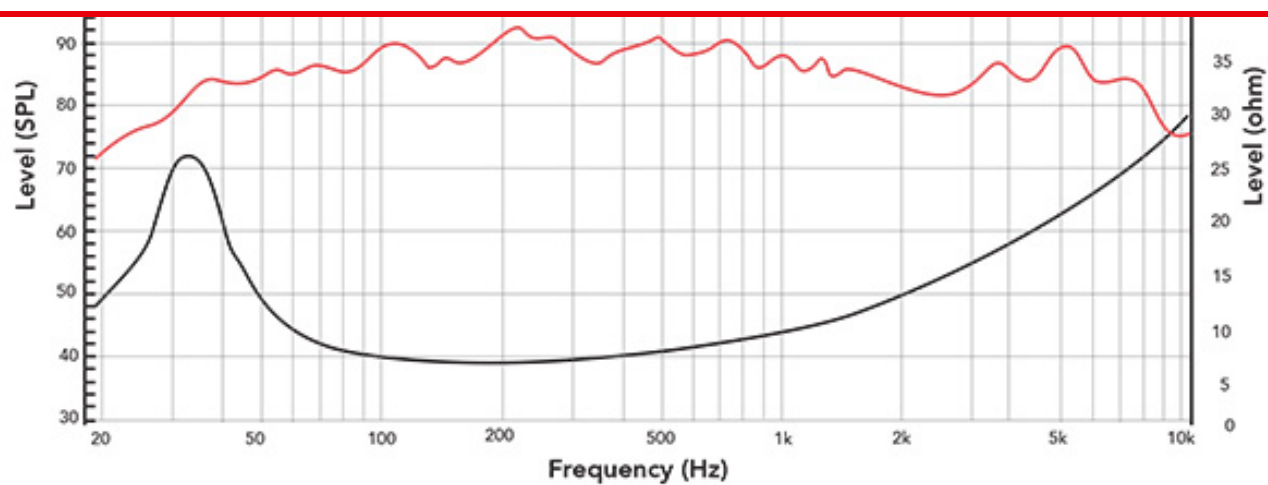
DOWNLOADS

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

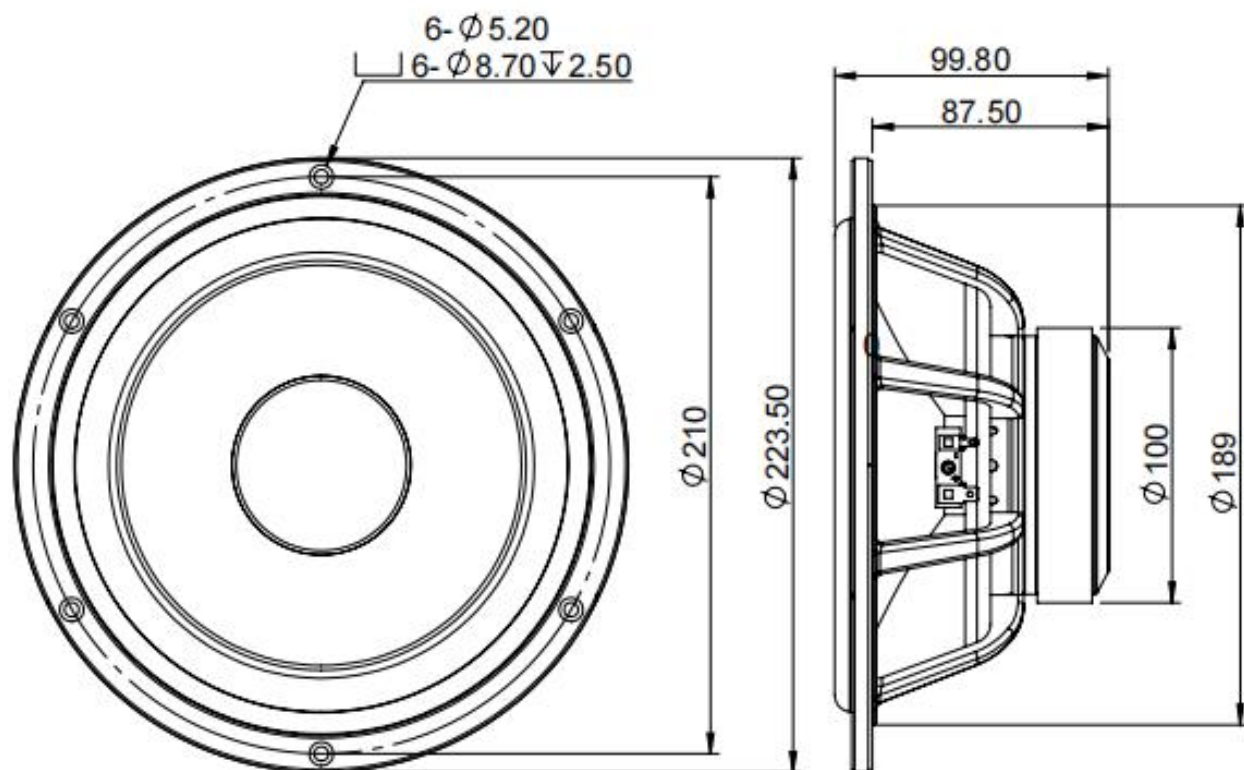
Covered by the REDCATT **3-year Limited Warranty**.

Frequency Response & Impedance





2D Drawing



and hospitality installations, and two-way domestic enclosures. It features a hard-anodized aluminum cone and dustcap, UV-stabilized NBR rubber surround, coated aluminum basket, and Nomex spider, providing weatherized construction rated from -30 degC to +70 degC. With a sensitivity of 88.31 dB (1 W/1 m) and a Qts of 0.61, this driver uses a compliant suspension design suited to moderate-volume enclosures with extended low-frequency response.

For high-output bar and outdoor applications, vented (bass reflex) enclosures of 35-70 litres tuned to 33-48 Hz are a supplementary option, using a 75 mm round port of approximately 164-174 mm length across all three tunings.

The 82FHMx8-445A handles approx. 60 W AES and 120 W continuous power. A high-pass filter in the 40-80 Hz range is recommended depending on alignment and application. The operating bandwidth is approximately 50-1,300 Hz, with cone beaming onset near 1,327 Hz and inductance rolloff near 1,930 Hz; a crossover to a dome tweeter or compression driver at 1.5-3.0 kHz is required in all two-way systems. DSP or passive high-pass filtering is mandatory in compact satellite alignments to prevent over-excursion below the box tuning frequency.

This driver is suited for single-driver two-way sealed enclosures in outdoor hi-fi speakers, patio and garden speakers, bar and restaurant background-music satellite cabinets, bookshelf and stand-mount monitors, subwoofer-satellite home audio systems, and surface-mount or column speakers in humidity- and UV-exposed installed audio environments. The weatherized materials and aluminum cone construction prioritize long-term durability and consistent acoustic performance across varying environmental conditions.

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

Hz, HP filter 40 Hz

- 16 liters tuned to 44 Hz: balanced response, general-purpose (recommended); -3 dB

approx. 40 Hz, HP filter 34 Hz

- 18 liters tuned to 40 Hz: extended low-frequency, requires HP filter protection; -3 dB approx.

34 Hz, HP filter 28 Hz

Frequently Asked Questions

What are the key features of the 82FHM?



What enclosure is recommended for the 82FHM?



What applications is the 82FHM suited for?



What are the power and sensitivity specs of the 82FHM?



Related professional mid-woofers & midranges

[All professional mid-woofers & midranges](#) [All 8-inch woofers & mid-woofers](#)



LF 8"
81FHW



LF 8"
81FIND



LF 8"
81NPM-1



LF 8"
81NPM-2

Professional woofers

Professional subwoofer drivers

Professional mid-woofers & midranges

Professional compression drivers

Professional tweeters

Full-range drivers

Coaxial drivers

Neodymium drivers

Full catalog & filters

COMPANY

About

OEM & ODM Development

Engineering Data & API

Technology

Quality

Warranty

FAQ

Contact

Warranty Claim

CONTACT

✉ info@redcatt.net

☎ (+86) 769 8318 1898

📍 Dongguan, China

