



Code: DR-5-002-8R-B2-C0001

REDCATT 5FR 5-inch ferrite full-range loudspeaker driver: 60 W AES, 89.6 dB sensitivity, 8 Ω , Fs 92 Hz, 25.4 mm voice coil. Full T/S parameters, datasheet, 2D drawing and STEP CAD file.

KEY FEATURES

- ✓ Wide range FREQUENCY RESPONSE
- ✓ Rubber surround, custom paper pulp cone
- ✓ Designed for hi-fi, studio desk-top, columns or other multi-way systems

QUICK SPECS

Impedance
8 Ω

Program Power
120 W

Sensitivity
89.55 dB

Fs
92.00 Hz

Magnet
Ferrite

Voice Coil
25.4 mm

 [Datasheet \(PDF\)](#)

 [2D Drawing](#)

 [3D Model \(STEP\)](#)

Design Notes

5FR delivers a good balance of low-mid frequencies. Extended frequency response opens opportunity to design compact audio systems with sizable amounts of low frequencies, yet with great clarity in mid to high frequency region. The optimized behavior of this driver in the mid-frequency region allows the audio engineers design simplified passive crossovers or DSP without the needs for large equalizations.

The magnetic structure was designed around large high-grade ferrite magnet. All steel parts are extensively coated to cope with the most demanding environments.

The newly designed steel basket with front and rear gaskets allow this mid-woofer to be mounted from the front and rear.

Specifications

GENERAL SPECS

Nominal Diameter	5"
Rated Impedance	8 Ohm
Magnet	Ferrite
Basket Material	Steel

POWER HANDLING

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

VOICE COIL

Diameter	25.4 mm
Winding Wire	Copper
Former	kapton
Winding Height	9 mm

Resonant Frequency (Hz)	32.00 Hz
Re	5.60 Ω
Qes	0.730
Qms	11.40
Qts	0.690
Vas	3.80 liters
Sd	90.00 cm ²
Mms	8.80 grams
Rms	0.45
Cms	0.3400
Bl	6.30 T·m
Le	0.280 mH
Sensitivity	89.55 dB

General Material

Cone/Dome Material	Paper CF
Spider	Nomex
T-Plate	5 mm
Xmax (peak)	2 mm
Xmech	7 mm
Overall Diameter	130.50 mm
Bolt Circle Diameter	139.00 mm
Baffle Cutout Dia.	113.50 mm
Mounting Holes	4
Depth (flange to rear)	61.00 mm
Net Weight	0.99 kg

ORDERING CODES

Product Code	DR-5-002-8R-B2-C0001
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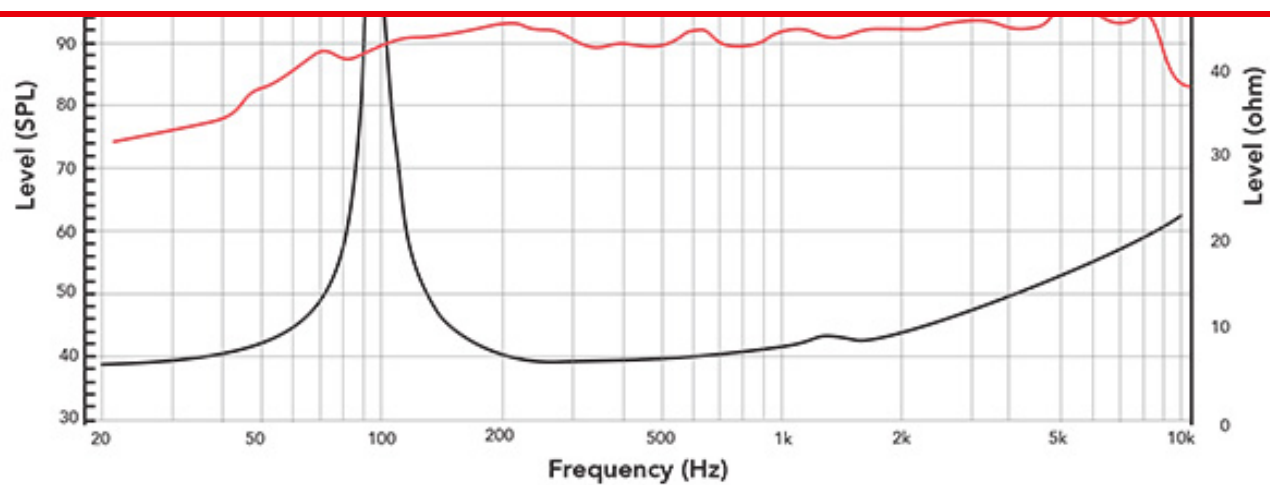
DOWNLOADS

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

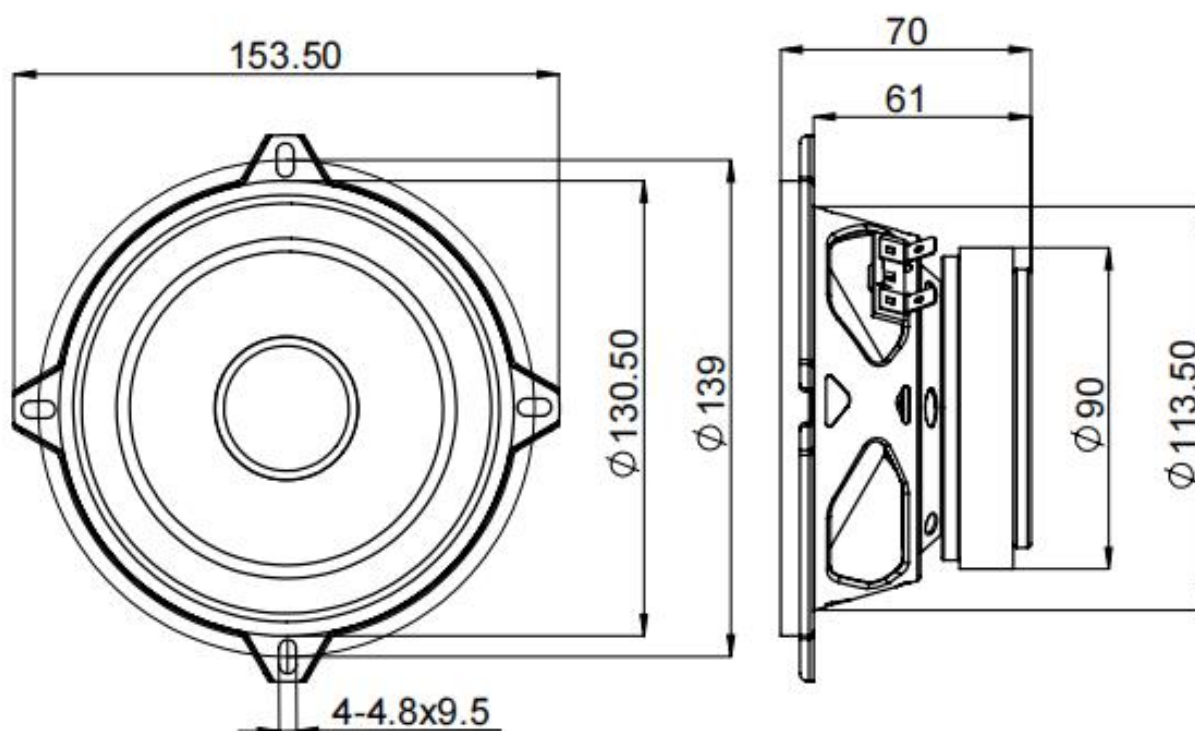
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Frequency Response & Impedance





2D Drawing



continuous) into a nominal 8-ohm load. Sensitivity is 89.55 dB (2.83V/1m; 88.16 dB at 1W/1m), the highest maximum SPL in the 5-inch full-range class at 105.9 dB. The Qts of 0.69 places this driver at the boundary between the sealed-preferred and free-air operating domains, making free-air and open-baffle use the primary recommendation for broadest low-frequency extension. The carbon fiber reinforced paper cone with NBR rubber surround and Nomex spider - all developed in-house by REDCATT engineers - is optimized to manage cone breakup modes and maintain clean, low-coloration response into the midrange. All steel parts are extensively coated for environmental durability, and dual front/rear gaskets allow front or rear baffle mounting.

The driver is rated for approximately 60 W AES (120 W continuous) and is intended for use with amplification typical of column speaker systems and multi-way PA designs. A high-pass filter at the enclosure tuning frequency (55-75 Hz for vented; ~100 Hz for sealed) is recommended, with a typical crossover to a high-frequency driver at 1,000-1,500 Hz. The 1.32 kHz column array coherence limit (130.5 mm OD) requires a co-located tweeter at or below 1.3 kHz in vertical column array deployments. DSP-controlled crossover and excursion limiting are recommended at high drive levels.

The 5FRX8-465A is suited for hi-fi and studio desktop loudspeakers, bookshelf monitors, column speaker systems, and multi-way installed sound designs where high sensitivity, 60 W AES power handling, dual-gasket front/rear mounting, and extensively coated construction are required. Good to use with dome tweeters such as 25TNX4-386B, 251TNX4-384, or 33TNX8-410B, or with 1-inch compression drivers such as 101NCDX8-160 in compact 2-way column and satellite PA designs.

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

In free-air or open-back baffle installations, the driver provides a natural -3 dB point at approximately 94 Hz with no impedance-related resonance peak, which is the primary

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- 7.3 liters (Qtc 0.85): compact sealed, warm character; system resonance approx. 113 Hz; suitable for vented column bays or small 2-way cabinets
 - 11 liters (Qtc approx. 0.71): near-Butterworth sealed, smoothest rolloff; system resonance approx. 102 Hz; recommended for sealed 2-way PA tops
- Vented alignments of 5-10 liters tuned to 55-75 Hz are available as a tertiary option for maximum bass output in compact PA applications, with port velocities within hi-fi limits.

Frequently Asked Questions

What are the key features of the 5FR?



What enclosure is recommended for the 5FR?



What applications is the 5FR suited for?



What are the power and sensitivity specs of the 5FR?



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