



Code: DR-5-005-4R-B2-C0001

REDCATT 5FHW 5-inch ferrite professional woofer: 30 W AES, 86.4 dB sensitivity, 4 Ω , Fs 50 Hz, 25.4 mm voice coil. Full T/S parameters, datasheet, 2D drawing and STEP CAD file.

KEY FEATURES

- ✓ Small sub-woofers, hi-fi applications
- ✓ Designed for indoor or outdoor applications

QUICK SPECS

Impedance
4 Ω

Program Power
60 W

Sensitivity
86.39 dB

Fs
50.00 Hz

Magnet
Ferrite

Voice Coil
25.4 mm

 [Datasheet \(PDF\)](#)

 [2D Drawing](#)

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

Design Notes

The 5FHW was designed for woofer applications in either home hi-fi or outdoor speaker systems.

Our engineers have designed polypropylene cone and dustcap for this driver, combined with ferrite magnetic circuit.

Overall, this model provides great level of balance between the performance and cost.

The cone, dust cap and surround material are produced with UV stabilizers.

Furthermore, the state of the art REDCATT adhesives dispensing and selection ensures the driver is waterproof and thus can be used in outdoor applications.

GENERAL SPECS

Nominal Diameter	5"
Rated Impedance	4 Ohm
Magnet	Ferrite
Basket Material	Steel

POWER HANDLING

AES Power	30 W
Continuous Power	60 W
Peak Power	120 W

VOICE COIL

Diameter	25.4 mm
Winding Wire	Copper
Former	Aluminum
Winding Height	12.4 mm

Resonant Frequency (Hz)	88.88 Hz
Re	3.20 Ω
Qes	0.380
Qms	4.94
Qts	0.350
Vas	6.55 liters
Sd	86.60 cm ²
Mms	15.80 grams
Rms	1.00
Cms	0.6400
Bl	6.55 T·m
Le	0.660 mH
Sensitivity	86.39 dB

General Material

Cone/Dome Material	PP
Spider	Nomex
T-Plate	6 mm
Xmax (peak)	3.2 mm
Xmech	9.2 mm
Overall Diameter	131.00 mm
Bolt Circle Diameter	123.00 mm
Baffle Cutout Dia.	112.00 mm
Mounting Holes	4
Depth (flange to rear)	60.00 mm
Net Weight	1.23 kg

ORDERING CODES

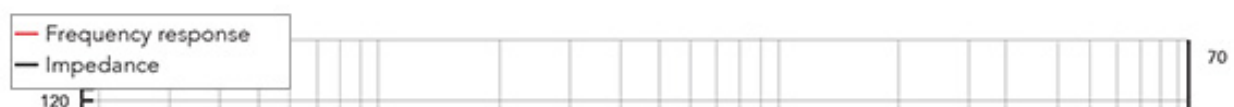
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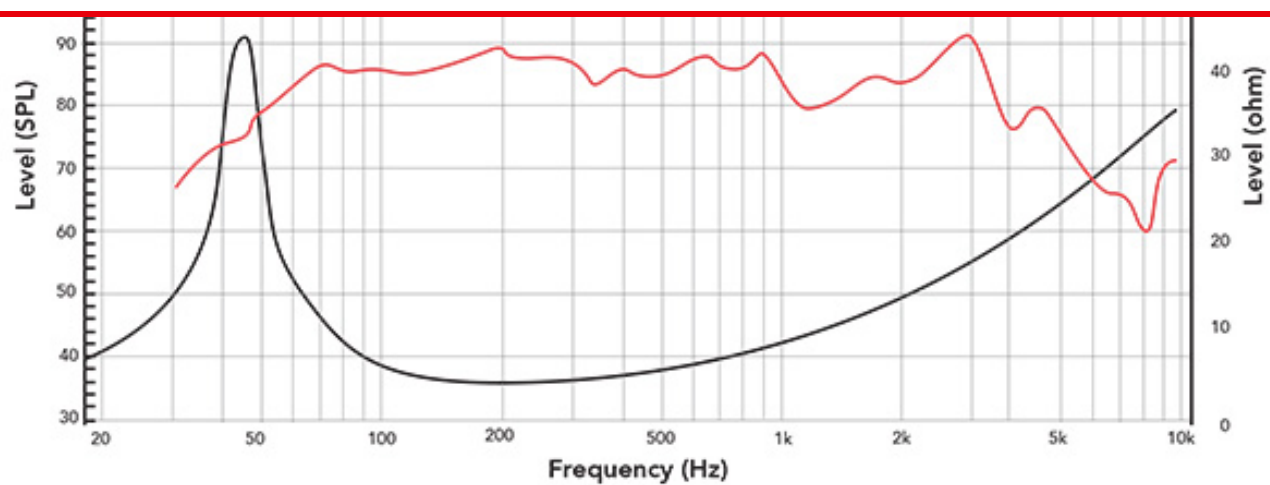
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 Datasheet (PDF)
  2D Drawing (PDF)
  3D Model (STEP)

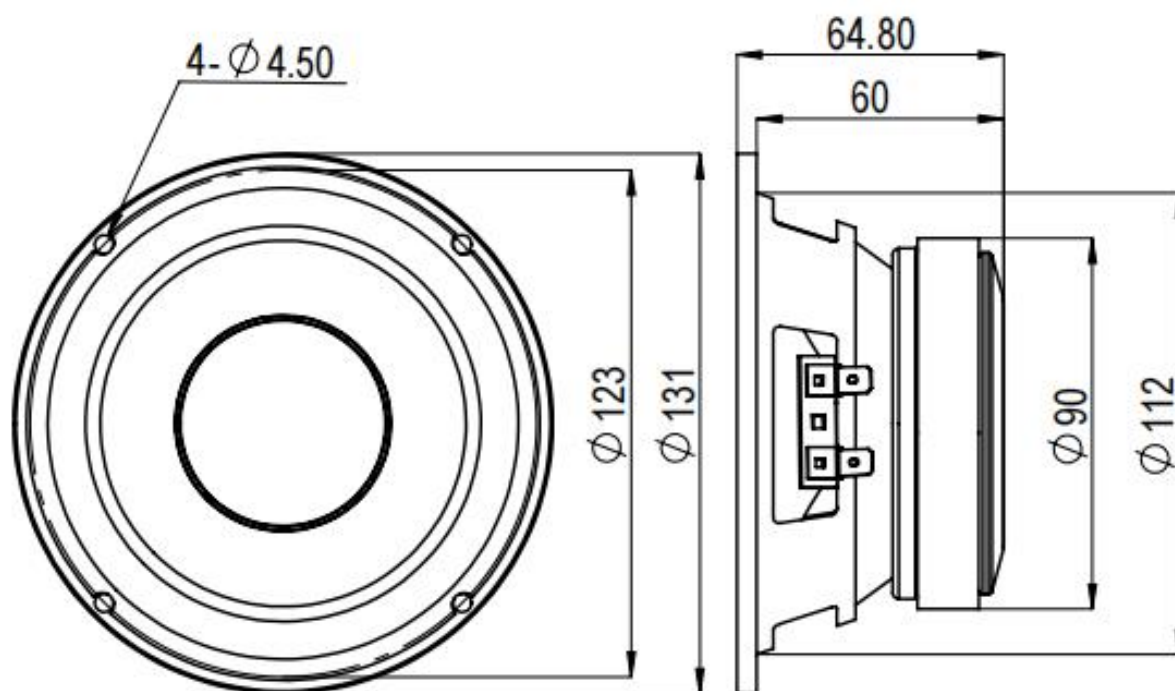
Covered by the REDCATT **3-year Limited Warranty**.

Frequency Response & Impedance





2D Drawing



and broad deployment. Its polypropylene cone and dust cap are moulded with UV stabilisers to resist solar degradation, the NBR surround withstands ozone and moisture exposure without cracking, and all adhesive joints are assembled using REDCATT waterproof dispensing processes - making the driver fully weatherproof and suitable for permanent outdoor installations, marine enclosures, poolside audio, and any application where a conventional paper-cone driver would fail. The ferrite motor paired with a polypropylene cone and Nomex spider provides a robust, thermally stable mechanical system rated at 30 W AES (60 W continuous) into 4 ohms, with an aluminium former ensuring efficient heat transfer under sustained drive. The driver operates on a nominal 4-ohm load, making it straightforward to drive from mainstream consumer amplifiers, class-D modules, and portable battery amplifiers.

For compact or flush-mounted applications where a port is impractical, sealed alignments spanning 0.9 to 2.1 litres are fully viable. The Butterworth sealed alignment at 2.1 L produces $Q_{tc} = 0.707$ - the maximally flat response with no resonant peak - delivering -3 dB at 101 Hz from a sealed cabinet half the volume of the recommended vented box. This sealed configuration is particularly well-suited to active DSP systems, where a Linkwitz Transform applied to the sealed response can extend usable bass down toward 50-60 Hz from a compact 2.1 L enclosure, combining the mechanical simplicity of a sealed box with vented-class bass extension. Smaller sealed alignments at 0.9 and 1.3 L are practical for in-wall, on-wall, rear-fill, and automotive door installations where the smallest possible cabinet depth is the priority.

The 5FWX4-380 is suited for compact outdoor speaker columns, garden and terrace audio, marine topside speakers, portable battery-powered enclosures, in-wall and in-ceiling installations in exposed areas, small hi-fi standmounts, two-way multimedia monitors, and rear- or surround-channel speakers in outdoor cinema and entertainment systems. Its weatherproof materials require no additional protective treatment for the driver itself, and its 4-ohm sensitivity-normalised output of 86.39 dB allows a pair to be driven to useful outdoor levels from amplifiers of 20-50 W per channel.

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.

Recommended enclosure alignments (bass reflex):

- 5 liters tuned to 57 Hz: high output, strong mid-bass, reduced excursion; -3 dB approx. 52 Hz, HP filter 49 Hz
- 6 liters tuned to 50 Hz: balanced response, general-purpose (recommended); -3 dB approx. 46 Hz, HP filter 40 Hz
- 6 liters tuned to 46 Hz: extended low-frequency, requires HP filter protection; -3 dB approx. 39 Hz, HP filter 34 Hz

Frequently Asked Questions

What are the key features of the 5FHW?



What enclosure is recommended for the 5FHW?



What applications is the 5FHW suited for?



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



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