



Code: DR-18-005-8R-B2-C0001

Variant of DR-18-005

KEY FEATURES

- ✓ Inside / outside wound coil
- ✓ Reinforced half pressed cone
- ✓ Silicone nomex spider

QUICK SPECS

Impedance	Program Power
8 Ω	2000 W
Sensitivity	Fs
97.78 dB	31.00 Hz
Magnet	Voice Coil
Ferrite	101.6 mm

 2D Drawing

 3D Model (STEP)

Design Notes

The 182FIND is a high efficiency, (98 dB 1watt / 1 meter) 18-inch woofer with extended linear frequency response characteristics. The 182FIND uses durable half-pressed paper cone assembly along with a high excursion triple roll constant geometry surround. This combination provides remarkable strength at any given situation, high efficiency and a peak to peak maximum excursion of 27mm.

Power Handling

At the core of the 182FIND is it's voice coil technology featuring a composite Polyimide former material capable of withstanding peak temperatures in excess of 250C, well beyond the thermal requirements of modern professional audio systems. Voice coil winding is wound inside and outside of the former in the 1-3 split.

REDCATT has implemented a silicone spider design to ensure long term shape memory, consistency and diminish anomalies associated with spider deterioration.

GENERAL SPECS

Nominal Diameter	18"
Rated Impedance	8 Ohm
Magnet	Ferrite
Basket Material	Aluminum

VOICE COIL

Diameter	101.6 mm
Winding Wire	Copper
Former	Glass Fiber
Winding Height	25.5 mm

POWER HANDLING

AES Power	1000 W
Continuous Power	2000 W
Peak Power	4000 W

T/S PARAMETERS

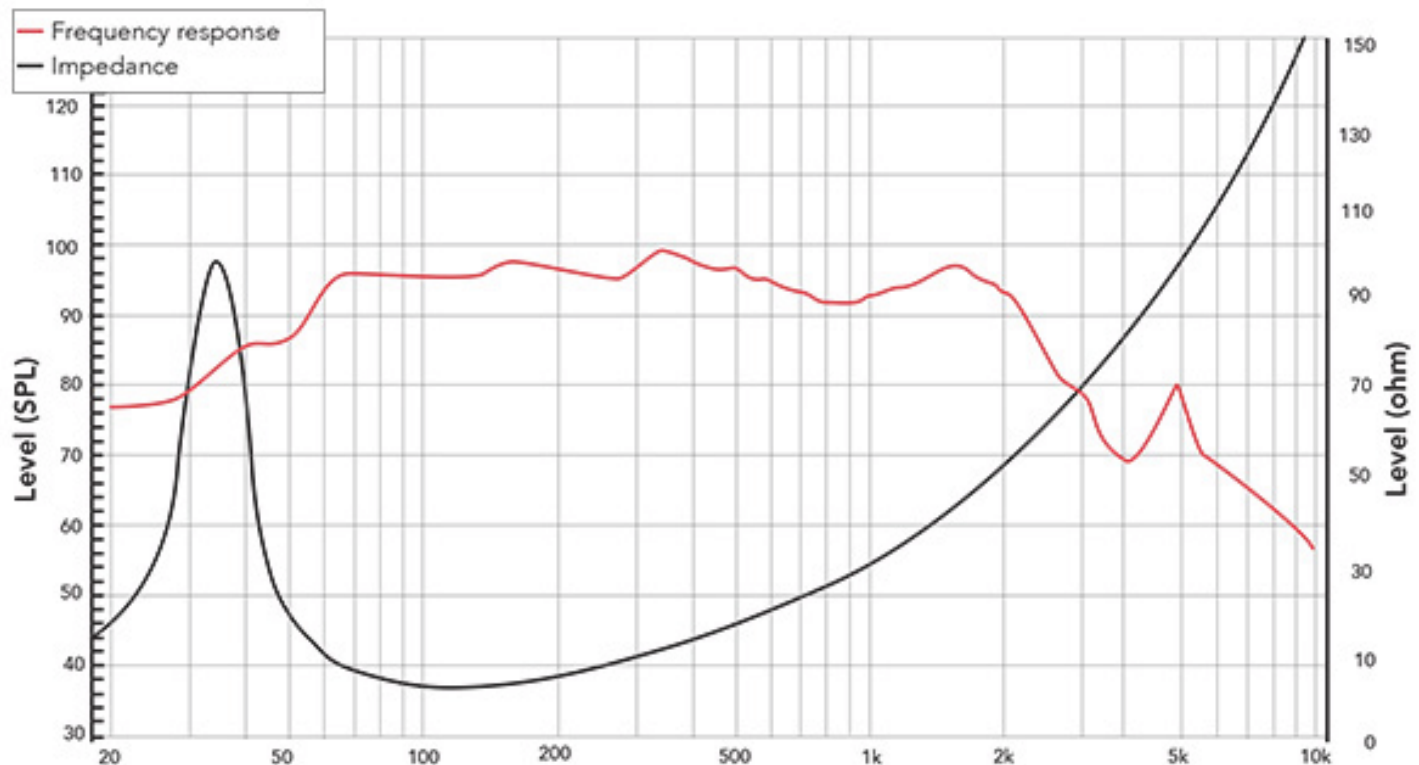
Resonant Frequency (Fs)	31.00 Hz
Re	5.50 \u2126
Qes	0.240
Qms	8.85
Qts	0.230
Vas	208.60 liters
Sd	1257.00 cm\u00B2
Mms	281.00 grams
Rms	6.18
Cms	0.0930
Bl	35.40 T\u00B7m
Le	4.920 mH
Sensitivity	97.78 dB

Cone/Dome Material	Paper GF
Spider	Nomex
T-Plate	14 mm
Xmax (peak)	5.75 mm
Xmech	19.75 mm
Overall Diameter	468.00 mm
Bolt Circle Diameter	442.00 mm
Baffle Cutout Dia.	426.00 mm
Mounting Holes	8
Depth (flange to rear)	189.00 mm
Net Weight	14.00 kg

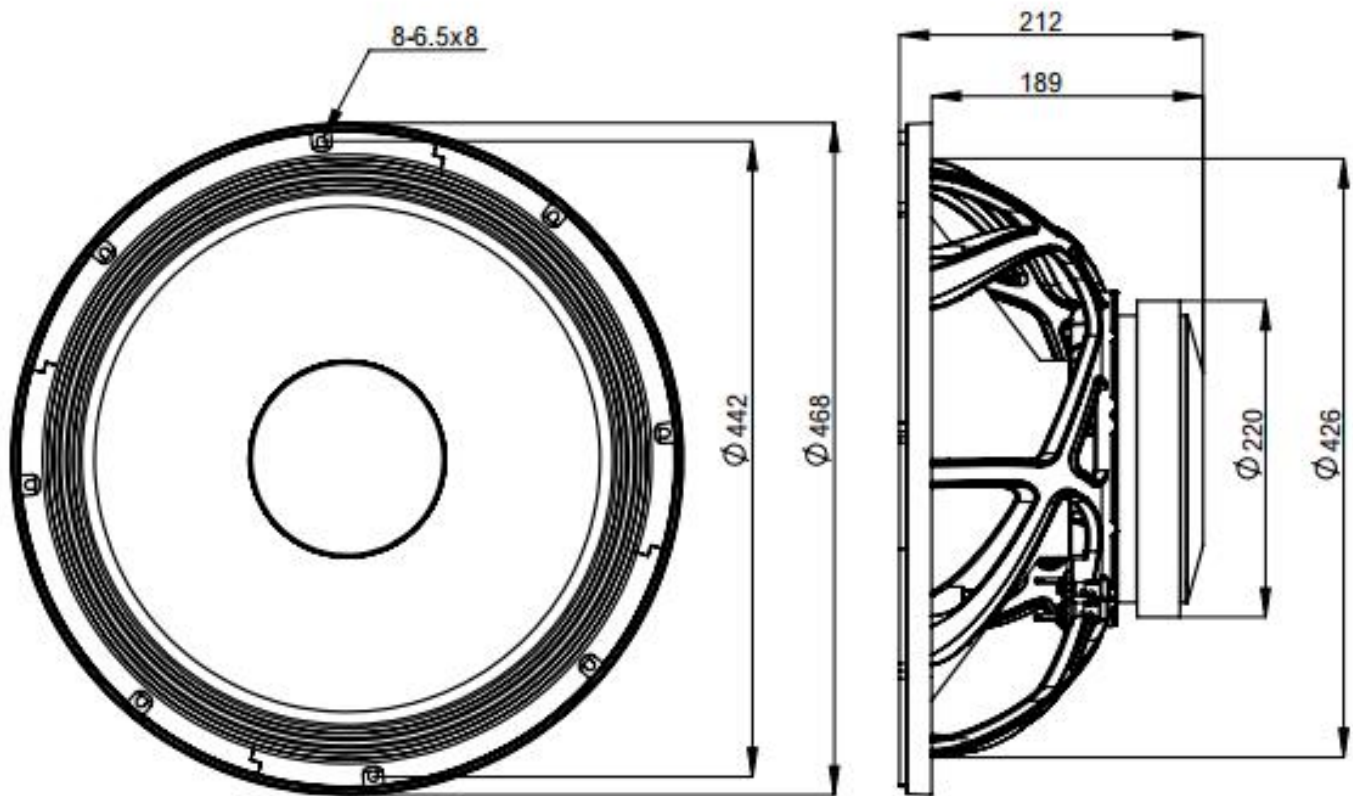
DOWNLOADS

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

Frequency Response & Impedance



2D Drawing



Technical Summary

The 182FINDX8-127 is an 18-inch professional ferrite woofer designed for high-SPL touring PA, installed sound, and cinema LF applications requiring maximum motor force and deep bass extension from an 8-ohm ferrite motor system. The driver's most distinctive design feature is its inside/outside wound voice coil ("1-3 split"), in which copper winding is applied to both the inner and outer surfaces of the 101.6 mm Polyimide former - a construction technique that doubles the effective conductor length in the magnetic gap and produces a Bl of 35.4 T.m, the highest motor force figure in the REDCATT ferrite woofer product range. The former is rated to 250 degC, and the dual-surface winding improves thermal dissipation by radiating heat from both coil faces simultaneously, contributing to the 1000 W AES and 2000 W continuous power handling. The resulting Qts of 0.23 places the 182FIND firmly in the extreme-motor-force professional woofer class. The trade-off of the inside/outside winding geometry is an elevated voice coil inductance of $L_e=4.92$ mH, which produces inductive rolloff onset at approximately 178 Hz; system designers should apply a low-pass crossover below 500 Hz in two-way configurations, or implement a 2.5-

memory to maintain consistent Fs over the installation service life. The ferrite motor assembly accounts for the 14 kg net weight - higher than neodymium equivalents - while delivering motor performance that equals or exceeds the most demanding neodymium pro woofer designs.

The 182FINDX8-127 requires professional high-power amplification of 1000-2000 W into 8 ohms with DSP control mandatory for all alignments. A 24 dB/octave high-pass filter at 38, 30, or 25 Hz depending on alignment is required to protect the driver below tuning, where cone excursion is unconstrained; displacement-limiting DSP protection is strongly recommended at full programme power given the gap between $F_s=31$ Hz and the low HP filter frequency in the extended alignments. For two-way integration, a passive RC Zobel network ($R=5.5$ ohm, Capprox.162 uF) across the voice coil terminals will partially compensate the L_e -induced impedance rise through the crossover region and should be considered in all passive crossover designs. DSP active systems should apply L_e -compensation EQ above 200 Hz if the crossover frequency exceeds 400 Hz.

The 182FINDX8-127 is suited for: compact and standard touring PA bass enclosures requiring top-tier motor force from a ferrite 18-inch driver; installed main LF speakers for theatres, houses of worship, stadia, and outdoor arenas; cinema main LF speaker assemblies requiring programme-consistent deep bass reproduction; 3-way professional PA systems using the 182FIND as the bass section with crossover at 250-400 Hz to a midrange driver; and high-SPL festival and touring club sound systems where the weight premium of ferrite over neodymium is acceptable in exchange for the cost advantage and $Bl=35.4$ T.m motor performance. Its inside/outside wound coil technology, reinforced half-pressed cone, and silicone Nomex spider make it a distinctive ferrite-motor option in the REDCATT 18-inch professional woofer portfolio for applications where maximum motor force per unit cost is the primary specification driver.

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):

- 250 liters tuned to 29 Hz: high output, strong mid-bass, reduced excursion; -3 dB approx. 25 Hz, HP filter 25 Hz
- 275 liters tuned to 26 Hz: balanced response, general-purpose (recommended); -3 dB approx. 22 Hz, HP filter 22 Hz
- 275 liters tuned to 25 Hz: extended low-frequency, requires HP filter protection; -3 dB approx. 21 Hz, HP filter 20 Hz

What are the key features of the 182FIND?



What enclosure is recommended for the 182FIND?



What applications is the 182FIND suited for?



What are the power and sensitivity specs of the 182FIND?



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