

Code: DR-18-007-4R-B2-C0001

XR Woofer/18inch/Neo/Paper/1200W/4ohm

KEY FEATURES

- ✓ Cone excursion 56mm !! Patented design.
- ✓ 1 demodulation copper ring, powerful and innovative motor structure, innovative venting system
- ✓ Double spider with spacer, woven-in tinsel wires, reinforced cone edge.

QUICK SPECS

Impedance 4 Ω	Program Power 2400 W
Sensitivity 96.54 dB	Fs 30.00 Hz
Magnet Neodymium	Voice Coil 101.6 mm

 2D Drawing

 3D Model (STEP)

Design Notes

Designed based upon the 18XR, the 181XR was designed for professional audio segment. The basic characters and design concept remains the same for the 181XR. We have used newly designed 4 roll waterproof fabric surround that fully supports the high cone excursions of this incredible loudspeaker. The target was to push the envelope of possibilities. We are giving you a product that will not limit you to achieve even your wildest sub-woofer dreams.

Motor Design

The magnetic design incorporates large neodymium magnets placed along the voice coil winding. This has allowed us to push the cone excursion to 44mm peak to peak. Unique gap venting ensures good air circulation and greatly improves the reliability of this driver. We have also developed a new technique for manufacturing deep copper caps.

The design further utilizes dual, uncommonly large, spiders, spaced with spacer, hot-pressed tinsel wires onto the top spider, reinforced cone edge, reinforced surround to cone joint, reinforced spider to basket joints, etc.

GENERAL SPECS

Nominal Diameter	18"
Rated Impedance	4 Ohm
Magnet	Neodymium
Basket Material	Aluminum

VOICE COIL

Diameter	101.6 mm
Winding Wire	Copper
Former	Glass Fiber
Winding Height	22 mm

POWER HANDLING

AES Power	1200 W
Continuous Power	2400 W
Peak Power	4800 W

T/S PARAMETERS

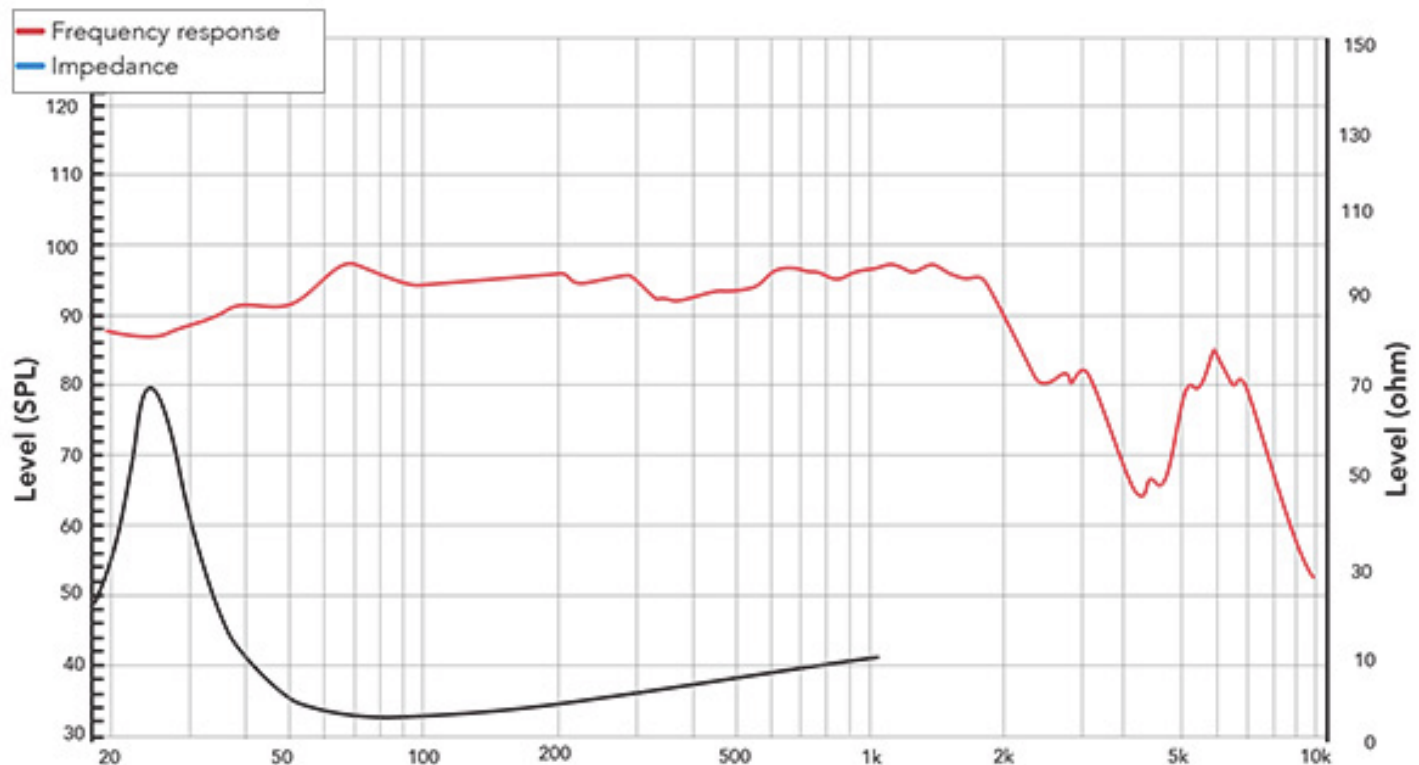
Resonant Frequency (Fs)	30.00 Hz
Re	3.30 \u00a2126
Qes	0.240
Qms	13.20
Qts	0.230
Vas	195.00 liters
Sd	1256.60 cm\u00B2
Mms	306.00 grams
Rms	4.37
Cms	0.0900
Bl	28.30 T\u00B7m
Le	1.300 mH
Sensitivity	96.54 dB

Cone/Dome Material	Paper GF
Spider	Nomex
T-Plate	56 mm
Xmax (peak)	17 mm
Xmech	36 mm
Overall Diameter	467.60 mm
Bolt Circle Diameter	442.00 mm
Baffle Cutout Dia.	422.00 mm
Mounting Holes	8
Depth (flange to rear)	257.20 mm
Net Weight	14.50 kg

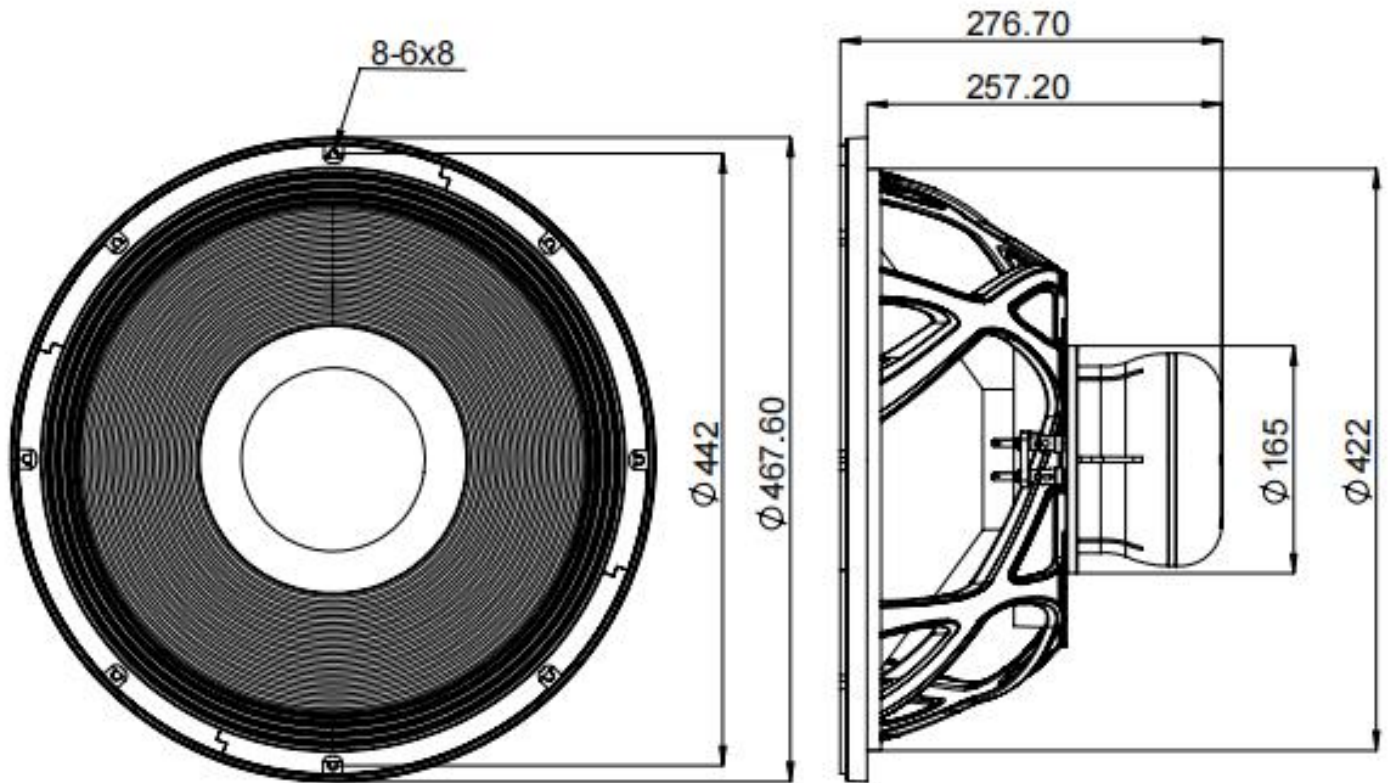
DOWNLOADS

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

Frequency Response & Impedance



2D Drawing



Technical Summary

The 181RX4-350 is a 18-inch high-output sub-woofer driver designed for professional subwoofer systems requiring high sensitivity (97 dB 1W/1m) and controlled low-frequency behavior. 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 is intended for use with high-power amplification (approx. 1200 W AES / 2400 W continuous) and DSP control. A high-pass filter in the range of 20-25 Hz is recommended depending on enclosure tuning, along with proper limiting to manage thermal and mechanical stress. Typical operating bandwidth is 20-100 Hz, making it suitable for integration with mid-bass or full-range systems.

This design is particularly effective in single or multi-driver bass reflex systems used in touring, installation, and high-SPL applications, where consistent performance, durability, and output

Enclosure Recommendations

Recommended enclosure alignments (bass reflex):

- 230 liters tuned to 28 Hz: high output, strong mid-bass, reduced excursion; -3 dB approx. 24 Hz, HP filter 25 Hz
- 275 liters tuned to 25 Hz: balanced response, general-purpose (recommended); -3 dB approx. 21 Hz, HP filter 22 Hz
- 275 liters tuned to 23 Hz: extended low-frequency, requires HP filter protection; -3 dB approx. 20 Hz, HP filter 20 Hz

Frequently Asked Questions

What are the key features of the 181XR?



What enclosure is recommended for the 181XR?



What applications is the 181XR suited for?



What are the power and sensitivity specs of the 181XR?



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