



Code: DR-18-019-8R-B2-C0001

Woofer/18inch/Neo/Paper/1200W/8ohm

KEY FEATURES

- ✔ Strong glass fiber loaded cone
- ✔ High temperature voice coil, double layer silicone spider
- ✔ High power handling

QUICK SPECS

Impedance 8 Ω	Program Power 2400 W
Sensitivity 99.14 dB	Fs 36.00 Hz
Magnet Neodymium	Voice Coil 101.6 mm

 2D Drawing

 3D Model (STEP)

Design Notes

The 18NPW is a high efficiency, (99 dB 1watt / 1 meter) 18-inch woofer with incredibly linear frequency response characteristics, extreme high power handling capability while generating low harmonic distortion artifacts. The 18NPW uses a lightweight, but strong, glass fiber loaded cone assembly along with a high excursion triple roll constant geometry surround. This combination provides remarkable strength, high efficiency and a peak to peak maximum excursion of 21.5mm.

Power Handling

At the core of the 18NPW is it's voice coil technology featuring a composite Polyimide former material capable of withstanding peak temperatures in excess of 350°C, well beyond the thermal requirements of modern professional audio systems. The 18NPW delivers incredible performance.

REDCATT has implemented a double layer/silicone spider design to ensure long term Fs memory, consistency and diminish anomalies associated with spider deterioration. The sealed spider works as a air pump and pushes the air trough out motor to increase heat transfer and cooling of the parts.

GENERAL SPECS

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

VOICE COIL

Diameter	101.6 mm
Winding Wire	Copper
Former	Glass Fiber
Winding Height	23.7 mm

POWER HANDLING

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

T/S PARAMETERS

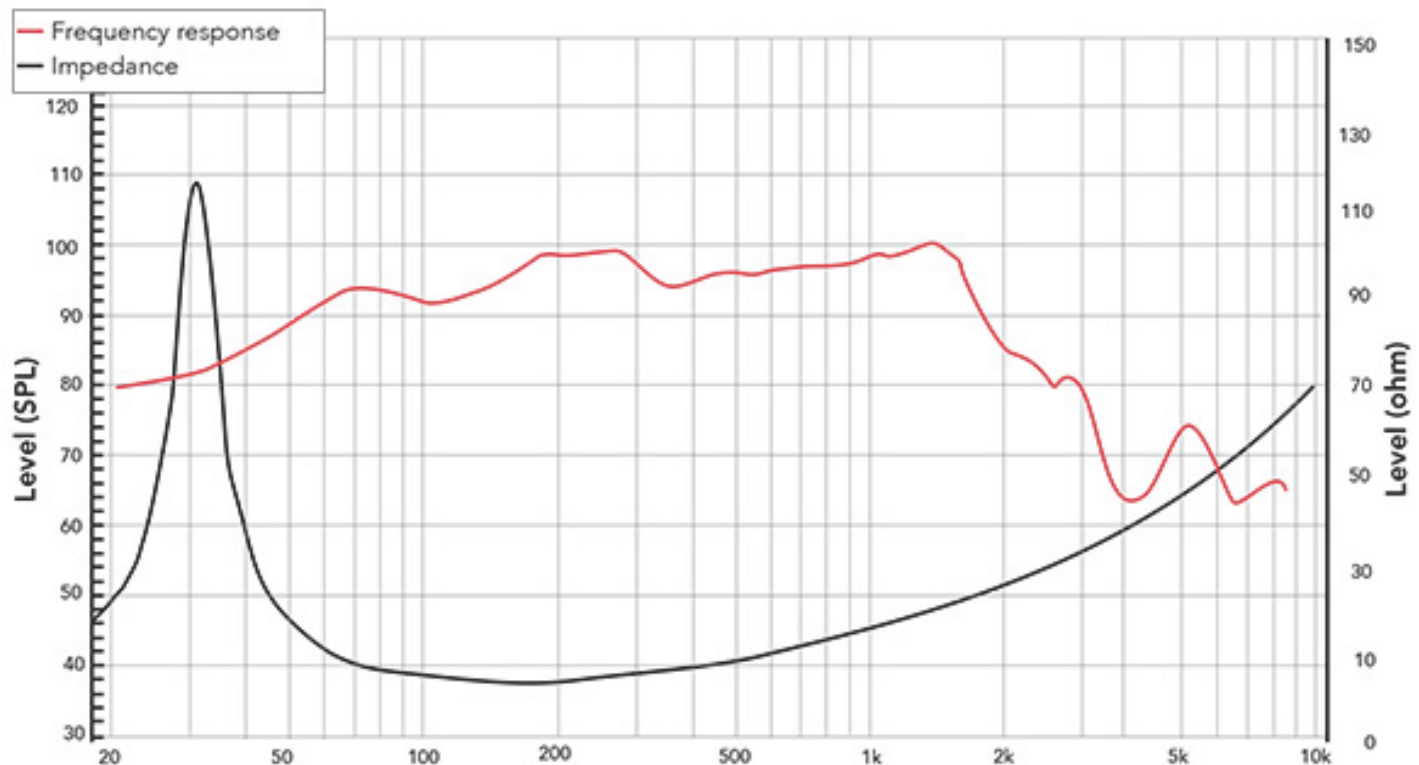
Resonant Frequency (Fs)	36.00 Hz
Re	5.10 \u00a2126
Qes	0.280
Qms	8.39
Qts	0.278
Vas	211.50 liters
Sd	1257.00 cm\u00B2
Mms	199.40 grams
Rms	5.40
Cms	0.1000
Bl	27.30 T\u00B7m
Le	1.510 mH
Sensitivity	99.14 dB

Cone/Dome Material	Paper CF
Spider	Nomex
T-Plate	14 mm
Xmax (peak)	4.85 mm
Xmech	18.85 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	9.40 kg

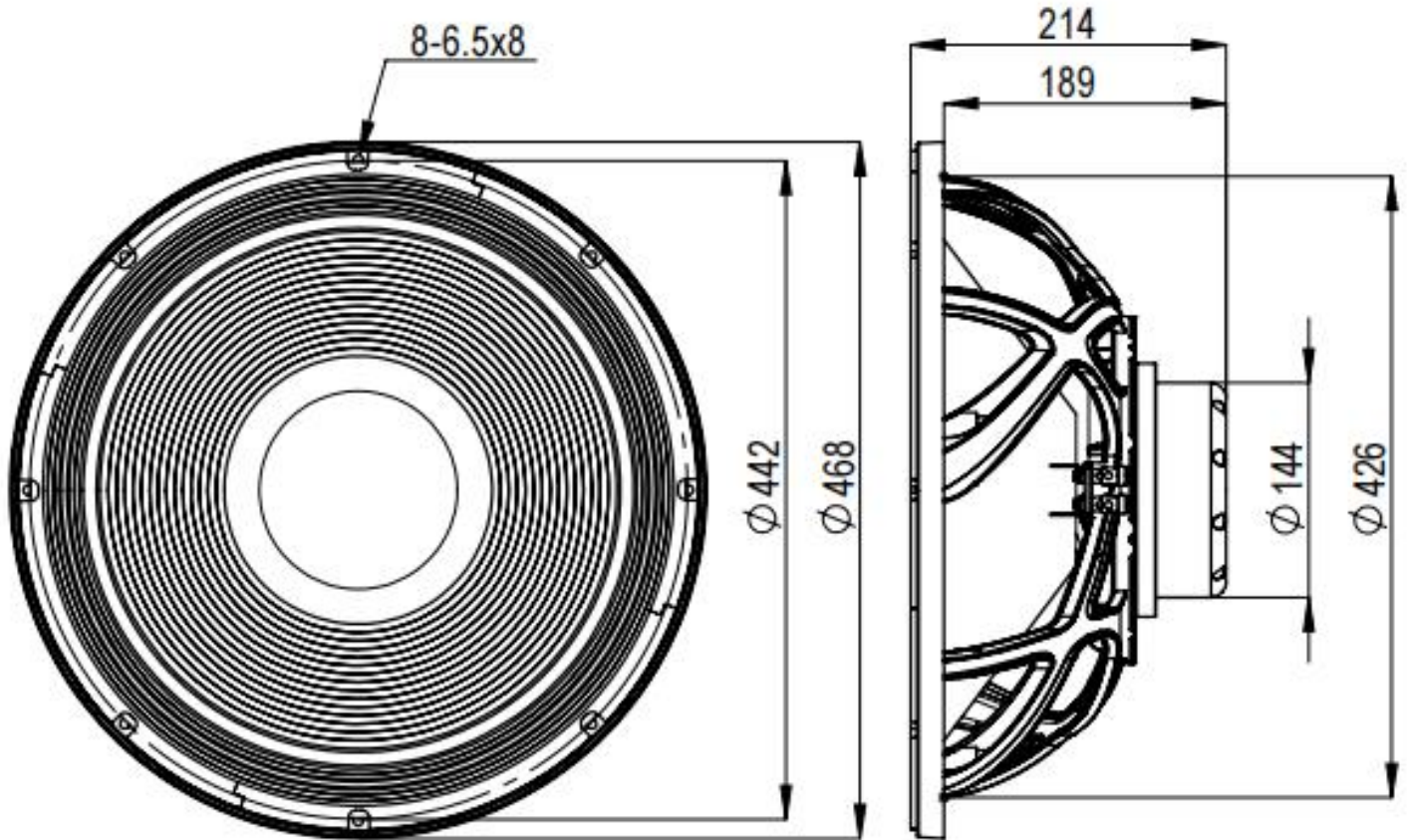
DOWNLOADS

[2D Drawing \(PDF\)](#) [3D Model \(STEP\)](#)

Frequency Response & Impedance



2D Drawing



Technical Summary

The 18NPWX8-017 is a 18-inch high-output woofer driver designed for professional subwoofer systems where high efficiency (99 dB 1W/1m) and maximum acoustic output are required. 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 20-29 Hz is recommended depending on enclosure tuning, along with proper limiting to manage thermal and mechanical stress. Typical operating bandwidth is 25-100 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):

- 210 liters tuned to 37 Hz: high output, strong mid-bass, reduced excursion; -3 dB approx. 34 Hz, HP filter 29 Hz
- 245 liters tuned to 32 Hz: balanced response, general-purpose (recommended); -3 dB approx. 27 Hz, HP filter 22 Hz
- 275 liters tuned to 29 Hz: extended low-frequency, requires HP filter protection; -3 dB approx. 25 Hz, HP filter 20 Hz

Frequently Asked Questions

What are the key features of the 18NPW?



What enclosure is recommended for the 18NPW?



What applications is the 18NPW suited for?



What are the power and sensitivity specs of the 18NPW?



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