12" | 123NPM

Neodymium Mid-Woofer

REDCAT

Key features:

- HIGH SENSITIVITY, EXTENDED FREQUENCY RESPONSE
- 3 DEMODULATION RINGS, POWERFUL MOTOR STRUCTURE, DUAL AIR-GAP
- HIGH POWER HANDLING

Design notes:

The 123NPM is a truly unique full range woofer. We have designed cutting edge product, using the best avail-able materials and highly optimized design for the best performance in its class. It delivers very high efficiency, (96 dB 1watt / 1 meter), incredibly linear frequency response characteristics with extended HF frequency response, extreme high power handling capability, while generating ultra low harmonic distortion artifacts. The 123NPM uses a lightweight carbon 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 linear excursion of 22mm (0.9in).

Magnetic Circuit
The magnetic circuit features two aluminum shorting rings, double air-gap front plate. The cooling system and the air flow has been designed using the modern FEM techniques and further optimized to provide the highest levels of cooling efficiency. The magnetic circuit design is optimized to generate the minimum amount of flux modulation, providing exceptional stability.

Specifications:

General specs	
Nominal Diameter:	12"
Rated Impedance:	8 ohm

Power handling	
AES Power:	800 watts
Program Power:	1600 watts
Peak Power:	3200 watts

Voice Coil	
Diameter:	4 in.
Winding wire:	Aluminum Sq.
Former:	Glass Fiber
Winding height:	23 mm

T/S Parameters	
Resonant frequency:	58 Hz
Re:	4.7 ohm
Qes:	0.45
Qms:	12.6
Qts:	0.43
Vas:	31.6 liters
Sd:	551 cm2
Sensitivity:	95.82 dB
Mms:	100 grams
Bl:	19.6
Le:	0.71 mH

Design details	
Surround Material:	Fabric
Cone material:	Paper
Spider:	Nomex
Plate thickness:	13 mm
Peak to peak linear cone displacement	10.6 mm
Overall diameter:	320.35 mm
Bolt circle diameter:	299 mm
Baffle cutout dia.:	281.9 mm
Number of mounting holes:	8
Depth (flange to rear):	140.5 mm
Net weight:	6.2kg

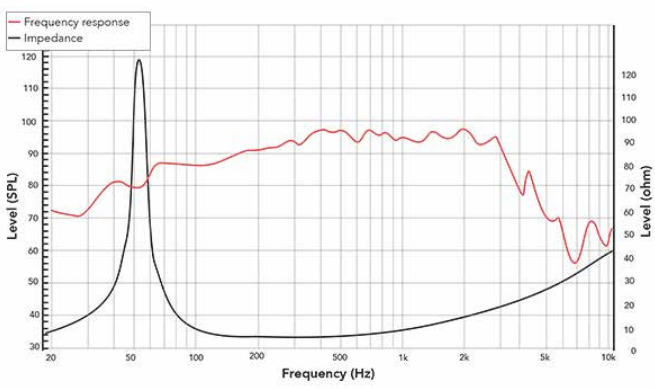
Ordering codes:

123NPMX8-185

Recone kits:

In many cases REDCATT produces 4 ohms, 8 ohms and 16 ohms versions. Indicate what impedance do you need in your request.

Frequency response & Impedance



Frequency response measured on IAC baffle

2D drawing