



**Key features:**

- VERY HIGH CONE EXCURSION, WITH VERY LOW THD
- CAPABLE TO HANDLE VERY LOW FREQUENCIES
- HIGH POWER HANDLING, COPPER CAP, STITCHED TINSEL WIRES

**Design notes:**

The 12XR was designed around our new approach to the magnetic system. Our XR series speaker motors were designed so the voice coil winding doesn't leave the gap for most of the cone excursion. The desired cone excursion is carefully evaluated and incorporated into the design. The 12XR allows the designer to design sub-woofers with very large cone excursions, without the otherwise present harmonic distortion due to the voice coil

leaving the magnetic gap. If you like the sound of a clean, undistorted bass, then the 12XR is the right transducer for your application.

**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 28mm 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 sports a large spider on top of which is hot-pressed tinsel wires. Cone is carbon fiber reinforced, with a lightweight foamed rubber surround. The suspension was designed for large excursions.

**Specifications:**

**General specs**

Nominal Diameter: 12"  
Rated Impedance: 8 ohm

**Power handling**

AES Power: 500 watts  
Program Power: 1000 watts  
Peak Power: 2000 watts

**Voice Coil**

Diameter: 2.5 in.  
Winding wire: Copper  
Former: Glass Fiber  
Winding height: 12.6 mm

**T/S Parameters**

Resonant frequency: 35 Hz  
Re: 5.7 ohm  
Qes: 0.73  
Qms: 10.5  
Qts: 0.68  
Vas: 89.7 liters  
Sd: 531 cm<sup>2</sup>  
Sensitivity: 90.95 dB  
Mms: 88.3 grams  
Bl: 12.3  
Le: 0.24 mH

**Design details**

Surround Material: Rubber  
Cone material: Paper  
Spider: Nomex  
Plate thickness: 31 mm  
Peak to peak linear cone displacement: 14.1 mm  
Overall diameter: 320 mm  
Bolt circle diameter: 299 mm  
Baffle cutout dia.: 281 mm  
Number of mounting holes: 8  
Depth (flange to rear): 172.5 mm  
Net weight: 5.7kg

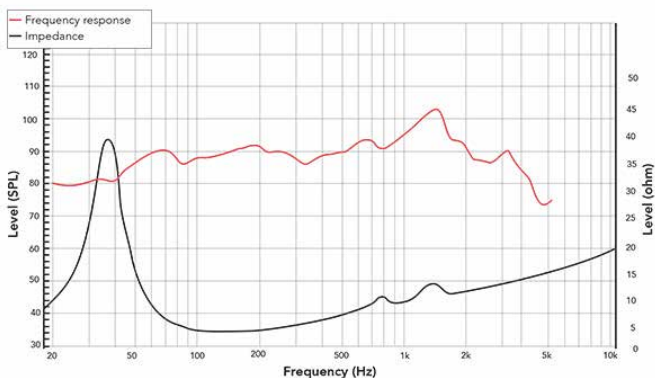
**Ordering codes:**

12XRX8-270

**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**

