

12" 12XR

Sub-woofer



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:	63.5 mm
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 ²
Sensitivity:	90.95 dB
Mms:	88.3 grams
Bl:	12.3
Le:	0.24 mH

Design details	
Surround Material:	NBR
Cone material:	Paper CF
Spider:	Nomex
Plate thickness:	31 mm
Overall diameter:	320 mm
Bolt circle diameter:	299 mm
Baffle cutout dia.:	281 mm
Mounting holes:	8
Depth:	172.5 mm
Net weight:	5.7 kg

Ordering codes:

DR-12-043-8R-B2-C0001

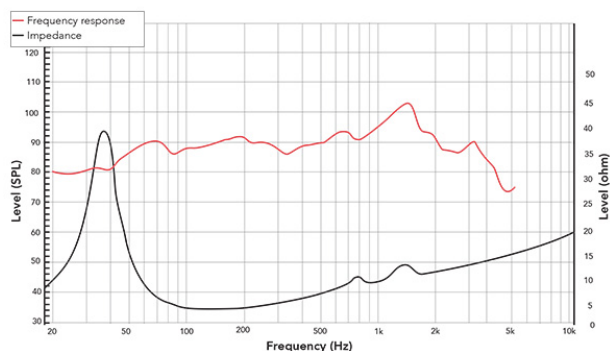
Legacy code: 12XR8-270

Recone kits:

RC12XR8-270

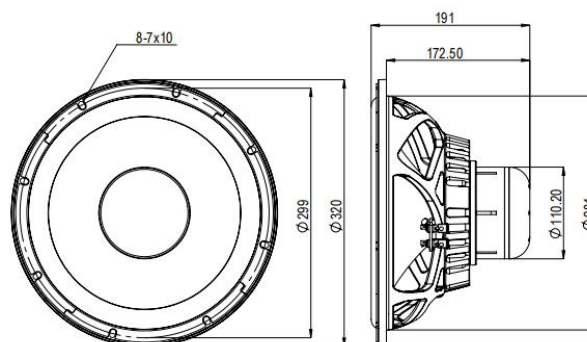
In many cases REDCATT produces 4, 8 and 16 ohm versions — indicate what impedance you need in your request.

Frequency response & Impedance



Frequency response measured on IEC baffle

2D drawing



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