

# 12CRF6430 12" coaxial with planar ribbon HF



- **Designed for high performance applications, where ultimate sound quality, transparency and resolution is required from a highly coherent coaxial system**
- **planar ribbon HF with Kapton diaphragm**
- **very balanced response extended both in LF and HF range up to 30kHz**
- **precise 100° conical coverage with even pattern control down to 800Hz**
- **600 W continuous program power LF**
- **dual aluminum demodulation rings for low LF/MF distortion**
- **completely independent LF and HF magnetic systems eliminate flux modulation and related intermodulation distortion in HF range**
- **optional premium XO**
- **optional configuration with open back ribbon driver**

## SPECIFICATIONS GENERAL/LF

Nominal diameter	12"/305mm
Rated impedance	8 Ω
Power handling <sup>1</sup>	300 W
Continuous program power <sup>2</sup>	600 W
Sensitivity <sup>3</sup>	97 dB
Rated frequency range <sup>4</sup>	40 Hz – 30 kHz
Coverage angle <sup>5</sup>	100° conical
Recommended XO frequency	1.5 kHz
Minimum impedance	6.4 Ω
Cone material	paper/Kevlar composite
Voice coil diameter	64 mm (2.52")
Voice coil winding	2-layer
Voice coil wire	copper clad aluminum
Voice coil former	high temperature polyimide
Displacement limit for VC	14 mm
Voice coil winding height	15 mm
Magnetic gap height	8 mm
Suspension	M-roll, poly-cotton
Magnet	ferrite ring
Frame	octagonal, cast aluminum
Recommended enclosure volume	35 – 70 L (1.25-2.5 ft <sup>3</sup> )

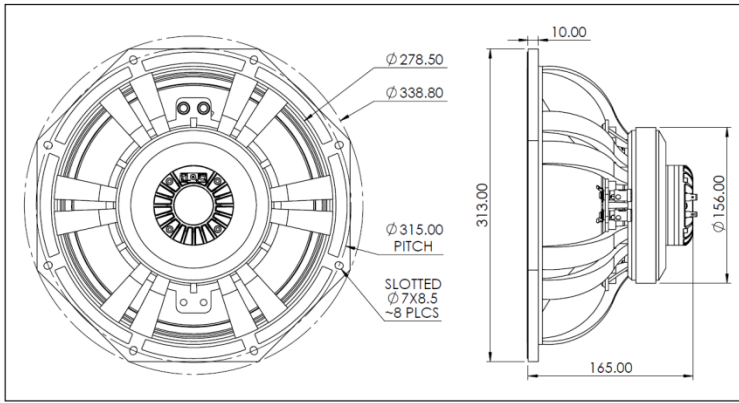
## Thiele-Small parameters

Fs	48 Hz
Sd	510 cm <sup>2</sup>
Re	5.4 Ω
Qms	4.34
Qes	0.52
Qts	0.465
Vas	76 dm <sup>3</sup> (L)
Cms	0.21 mm/N
Mms	52 g
BL	12.8 N/A (T x m)
Le	0.85 mH
Xmax <sup>6</sup>	5.5 mm

## SPECIFICATIONS HF

Nominal exit diameter	1.2"/30 mm
Rated impedance	6 Ω
Power handling <sup>1</sup>	20 W
Continuous program power <sup>2</sup>	40 W
Sensitivity <sup>3</sup>	103.5 dB
Rated frequency range <sup>4</sup>	1.2 kHz – 30 kHz
Min. XO frequency (24dB/Oct.) <sup>7</sup>	1.5 kHz
Diaphragm material	high temperature polyimide
Magnet	Neodymium

PATENT PENDING

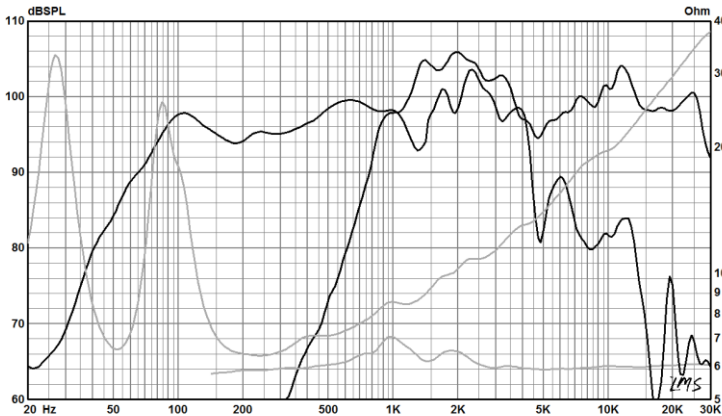


## Mounting and mechanical parameters

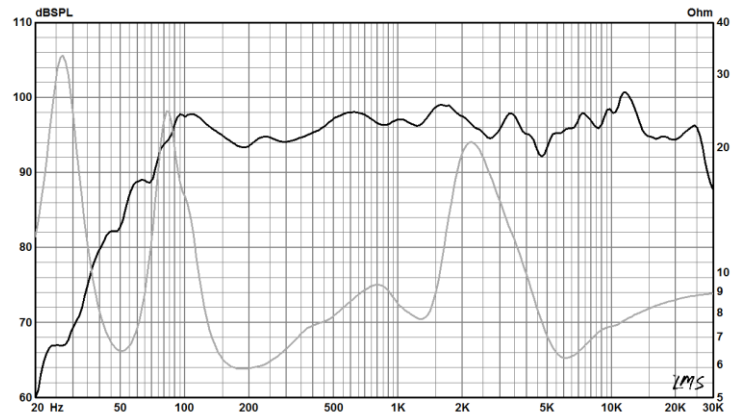
Overall diameter	338.8 mm (13.34 in)
Bolt circle diameter	315.0 mm (12.40 in)
Baffle cut-out diameter	279.0 mm (10.99 in)
Flange and gasket thickness	10.0 mm ( 0.4 in )
Overall depth	165 mm (6.5 in)
Net weight	5.2 kg (11.45 lbs.)

## Optional Accessories

Crossover	CRS1230-XO
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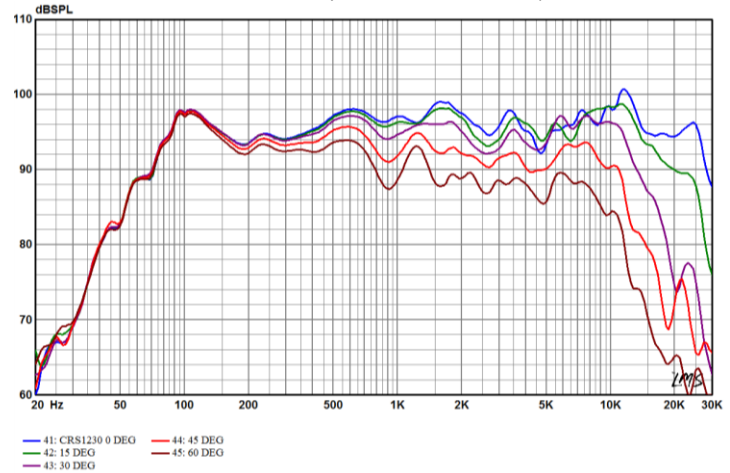
Frequency response and impedance of CRS1230 individual drivers in Vb=40 L/Fb=52 Hz vented box, free field.



Combined frequency response and impedance of CRS1230 with recommended XO in Vb=40 L/Fb=52 Hz vented box, free field.

## Specifications notes

- As per AES2-1984 Rev.2003.
- Continuous program power is defined at 3dB higher than AES power and reflects power handling capacity for typical music and cinema content reproduction.
- Driver mounted in specified test box, measured at 1m, at 2.83V in simulated free field conditions as per AES 2-2012 and IEC 60268-5 (Ed.3.1 2007-09). Sensitivity is calculated based on SPL frequency response averaged in reference octave bands within 80Hz-1.2 KHz band for LF and 1.2 kHz – 4 kHz band for HF as per IEC 60268-5 and scaled, when necessary, to 1W/1m conditions based on driver rated impedance.
- Specified in accordance with IEC 60268-5 (Ed. 3.1 2007-09). Defines recommended operating frequency band. A larger enclosure than the one used for this data sheet measurements may be required for maximum LF extension. Higher LF cut off is possible if higher max SPL of program reproduction is required.
- Coverage angle is specified for coaxial driver with optional XO. Defined at -6dB, averaged on octave band points in 500-10000Hz range.
- Xmax is defined as  $X_{max} = (H_{vc} - H_{gap}) / 2 + H_{gap} / 4$  and based on actual BL linearity data measured for each driver by laser based analyser with 82% BL reduction limit from normalized maximum at voice coil rest position. Hvc – voice coil height, Hgap – active magnetic gap height.
- Refers to XO frequency of dividing network, either passive or active. Actual acoustic XO point between drivers may greatly differ depending on design.



Directivity response curves of CRS1230 with recommended XO in Vb=40 L/Fb=60 Hz vented box, free field.

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