



# 3411

Nominal Diameter	10 " / 25 cm
Rated Impedance	8
Sensitivity	94 dB SPL
Power Handling Capacity	400 W AES
SPL max (continuous)	116 dB SPL
Usable frequency range	35 - 2000 Hz
Speaker net mass	6.8 kg

## 10 inches bass driver



### Architecture highlights :

- Noiseless natural convection Intercooling System
- Ferrite magnet system with symmetric BL(x) and Le(x)
- Dual side coated diaphragm
- High excursion 24.0 mm winding voice coil
- Linear BL(x) on +/-6mm

### Motor architecture

Magnet material	-	Fe
Voice coil diameter	mm	64
Voice coil length	mm	24
Air gap height	mm	9

### Typical characteristics

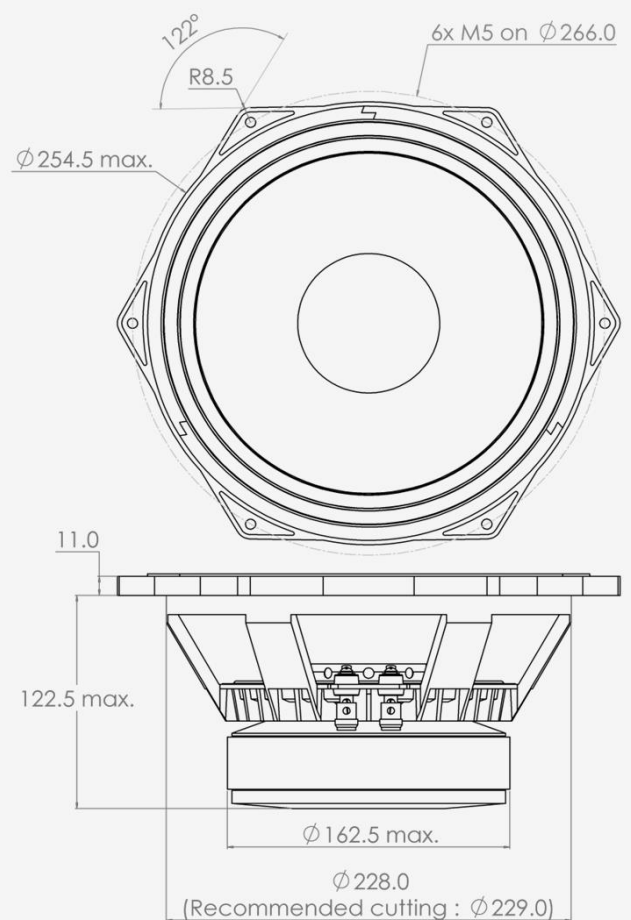
Rated impedance	Z	$\Omega$	8
Half space sensitivity (1W@1m)	-	dB SPL	94.0
Usable freq. range	-	Hz	35 - 2000
Power handling capacity (AES)	-	W	400
Max Sound Pressure Level	SPL <sub>max</sub>	dB SPL	116
Min. impedance modulus	Z <sub>min</sub>	$\Omega$ @Hz	7.0@230
Voice-coil inductance @ 1kHz	Le <sub>1k</sub>	mH	1.507
Voice-coil inductance @ 10kHz	Le <sub>10k</sub>	mH	0.638
BL product	BL	N/A	20.2
Moving mass	Mms	kg	0.0580

### Thiele-Small parameters

Resonance frequency	Fs	Hz	47 ( $\pm 7$ )
DC Resistance	Re	$\Omega$	5.6 ( $\pm 0.6$ )
Mechanical quality factor	Qms	1	5.53
Electrical quality factor	Qes	1	0.24
Total quality factor	Qts	1	0.23
Suspension compliance	Cms	10 <sup>-6</sup> .m/N	200
Effective piston area	Sd	m <sup>2</sup>	0.0356
Equivalent Cas air load	Vas	m <sup>3</sup>	0.0351
Max linear excursion	Xmax	mm	$\pm 8.0$
Linear displacement volume	Vd	10 <sup>-3</sup> .m <sup>3</sup>	0.2851
Reference efficiency	$\eta_0$	%	1.5
Unity load volume	Vas.Qts <sup>2</sup>	10 <sup>-3</sup> .m <sup>3</sup>	1.8

### Absolute maximum ratings

Short term max. input voltage	Vmax	V	115
Max.excursion before damage	Xdam	mm	$\pm 12.0$
Ambient operating temperature	Ta	$^{\circ}\text{C}$	-10 to +50
Storage temperature		$^{\circ}\text{C}$	-20 to +70
Environmental withstanding			Tropical



### Mounting information

Air volume occupied by the driver	10 <sup>-3</sup> .m <sup>3</sup>	1.70
Speaker net mass	kg	6.80
Baffle cut-out diameter (front mounting)	mm	229.0
Bolt number & Metric diameter	-	6x M5
Bolt circle diameter	mm	266.0
Max overall dimension (on ears)	mm	283.5
Max overall dimension (out of ears)	mm	254.5
Flange height	mm	11.0
Max magnet diameter	mm	162.5
Max depth (front mounting)	mm	122.5
Recommended reflex box	Lts / Hz	-
Electrical connection		Ø4 mm Push buttons

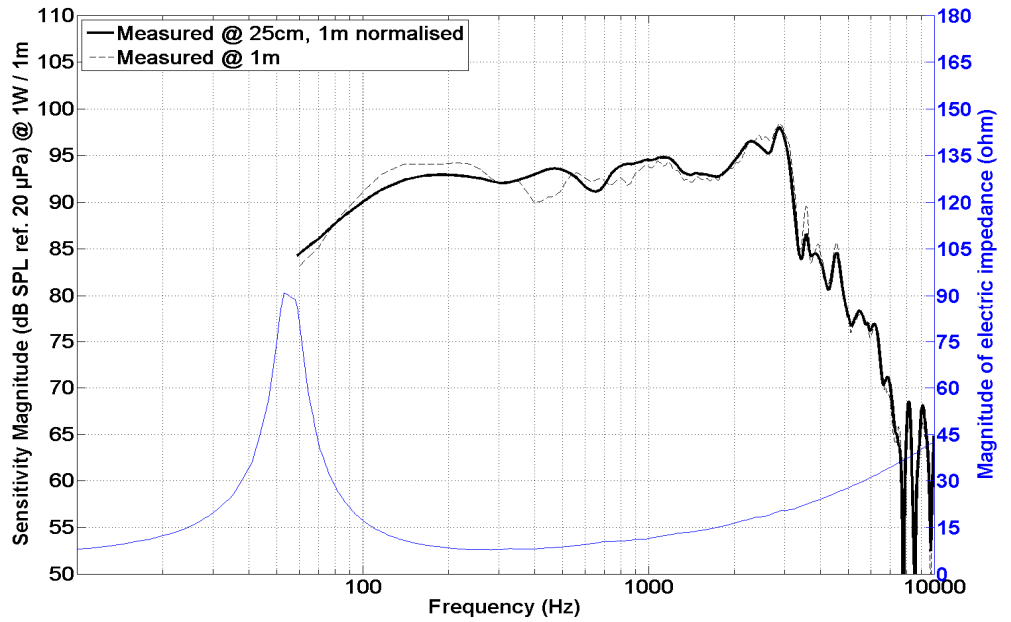


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10 inches bass driver

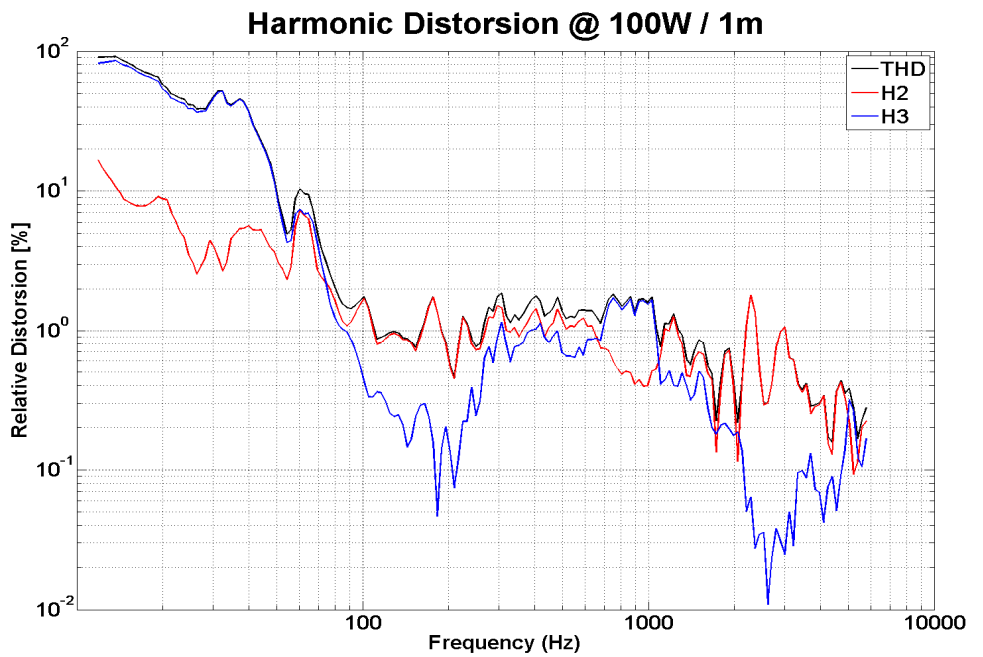
SPL curves measured on CEI standard baffle :

- . at 25 cm, normalised 1 m
- . at 1 m for reference
- . Graph amplitude = 60 dB (PHL Audio standard)



HD curve measured on CEI standard baffle :

- . at 1 meter
- . at power =  $P_{AES} / 4$
- . Graph amplitude 0.01 % to 100 % (PHL Audio standard for  $P_{AES}/4$ )



Non linear curves measured thanks to Klippel software and hardware, in free air

