



# 3820NdU

Nominal Diameter	10 " / 25 cm
Rated Impedance	8
Sensitivity	95.5 dB SPL
Power Handling Capacity	400 W AES
SPL max (continuous)	119 dB SPL
Usable frequency range	50 - 2500 Hz
Speaker net mass	5.3 kg

# 10 inches bass driver



## Architecture highlights :

- Natural convection Intercooler System
- High compliance double half-roll Fabric Surround
- Neodymium magnet system

## Motor architecture

Magnet material	-	Nd
Voice coil diameter	mm	77
Voice coil length	mm	17.5
Air gap height	mm	10

## Typical characteristics

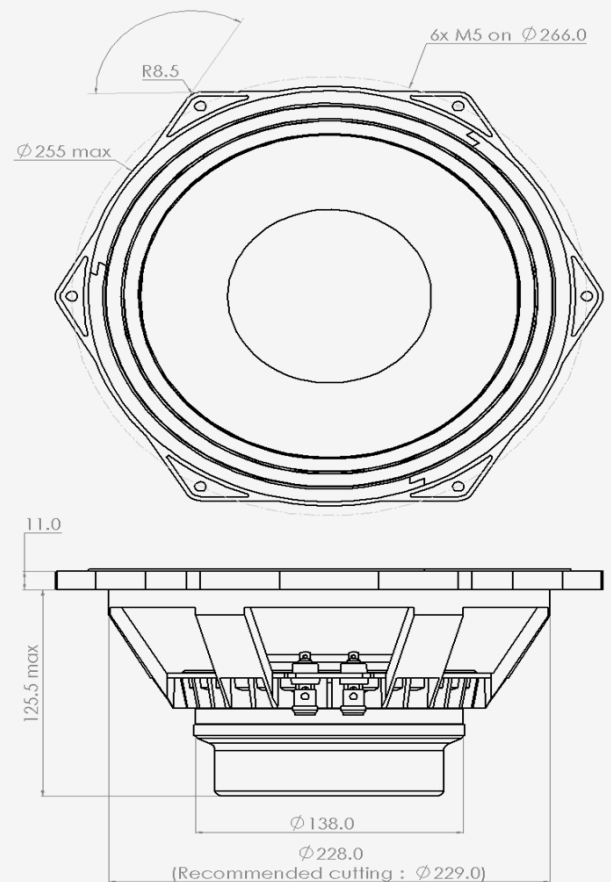
Rated impedance	Z	Ω	8
Half space sensitivity (1W@1m)	-	dB SPL	95.5
Usable freq. range	-	Hz	50 - 2500
Power handling capacity (AES)	-	W	400
Max Sound Pressure Level	SPL <sub>max</sub>	dB SPL	119
Min. impedance modulus	Z <sub>min</sub>	Ω@Hz	6.8@290
Voice-coil inductance @ 1kHz	Le <sub>1k</sub>	mH	1.424
Voice-coil inductance @ 10kHz	Le <sub>10k</sub>	mH	0.700
BL product	BL	N/A	23.9
Moving mass	M <sub>ms</sub>	kg	0.0610

## Thiele-Small parameters

Resonance frequency	F <sub>s</sub>	Hz	55 (±)
DC Resistance	Re	Ω	5.1 (±0.5)
Mechanical quality factor	Q <sub>ms</sub>	1	5.86
Electrical quality factor	Q <sub>es</sub>	1	0.19
Total quality factor	Q <sub>ts</sub>	1	0.18
Suspension compliance	C <sub>ms</sub>	10 <sup>-6</sup> .m/N	140
Effective piston area	S <sub>d</sub>	m <sup>2</sup>	0.0356
Equivalent Cas air load	V <sub>as</sub>	m <sup>3</sup>	0.0247
Max linear excursion	X <sub>max</sub>	mm	± 4.5
Linear displacement volume	V <sub>d</sub>	10 <sup>-3</sup> .m <sup>3</sup>	0.1603
Reference efficiency	η <sub>0</sub>	%	2.1
Unity load volume	V <sub>as</sub> .Q <sub>ts</sub> <sup>2</sup>	10 <sup>-3</sup> .m <sup>3</sup>	0.8

## Absolute maximum ratings

Short term max. input voltage	V <sub>max</sub>	V	90
Max. excursion before damage	X <sub>dam</sub>	mm	± 12.0
Ambient operating temperature	T <sub>a</sub>	°C	-10 to +50
Storage temperature		°C	-20 to +70
Environmental withstanding			Humidity proof



## Mounting information

Air volume occupied by the driver	10 <sup>-3</sup> .m <sup>3</sup>	1.20
Speaker net mass	kg	5.30
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	255.0
Flange height	mm	11.0
Max magnet diameter	mm	138.0
Max depth (front mounting)	mm	125.5
Recommended reflex box	Lts / Hz	-
Electrical connection		Ø4 mm Push buttons

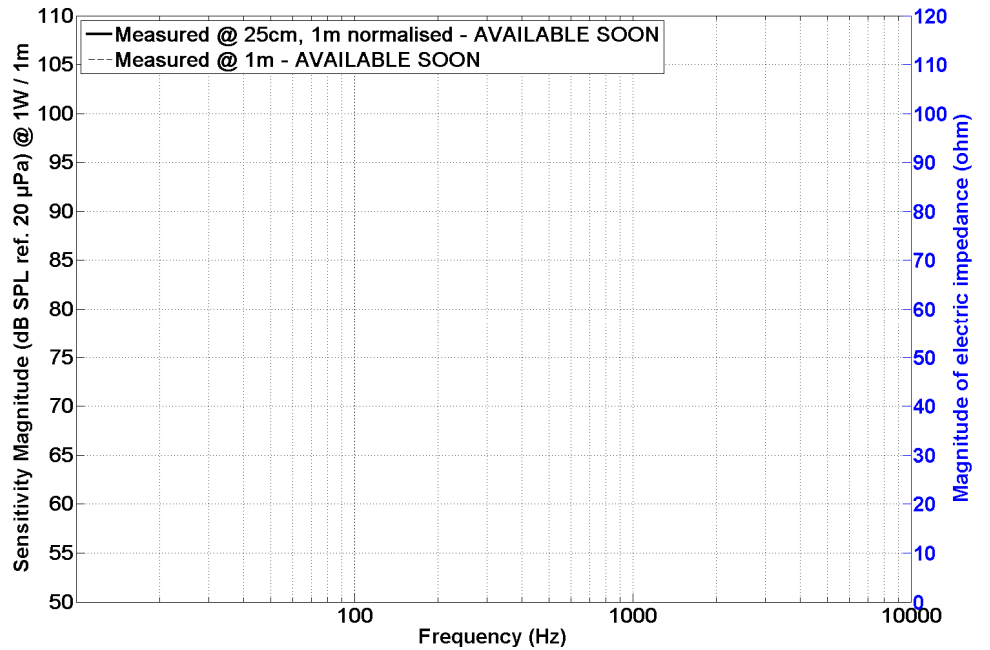


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# 10 inches bass driver

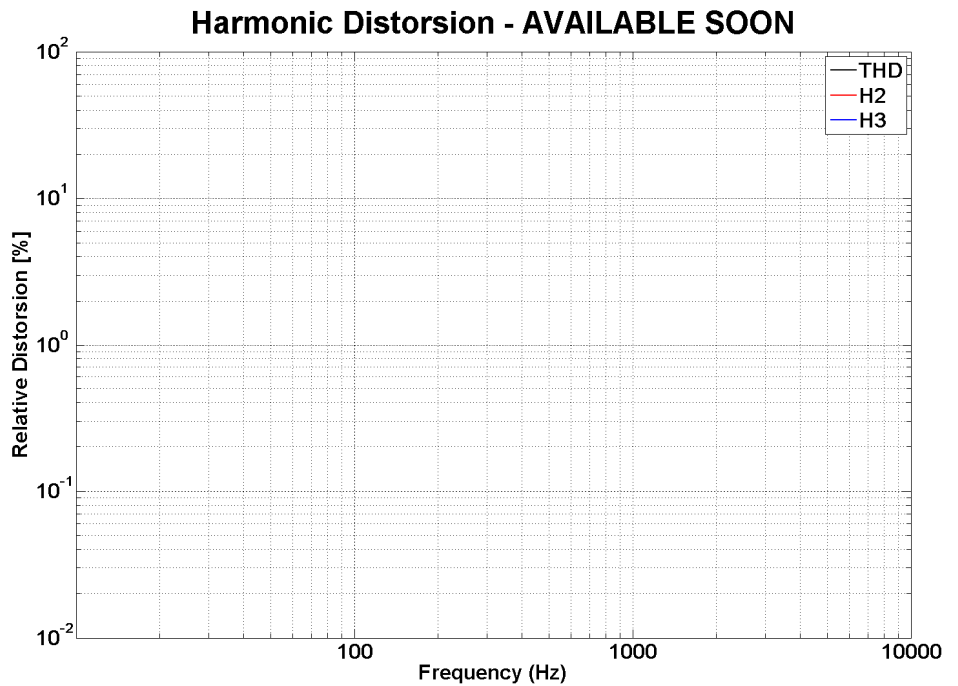
SPL curves measured on CEI standard baffle :

- . 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

