



# 3020

Nominal Diameter	10" / 25 cm
Rated Impedance	8
Sensitivity	94.5 dB SPL
Power Handling Capacity	200 W AES
SPL max (continuous)	114 dB SPL
Usable frequency range	50 - 4000 Hz
Speaker net mass	5.02 kg

# 10 inches bass driver



### Architecture highlights :

- Noiseless natural convection Intercooling System
- High compliance double half-roll Fabric Surround for low Fs
- Ultra light CCAR voice coil

### Motor architecture

Magnet material	-	Fe
Voice coil diameter	mm	51
Voice coil length	mm	14
Air gap height	mm	8

### Typical characteristics

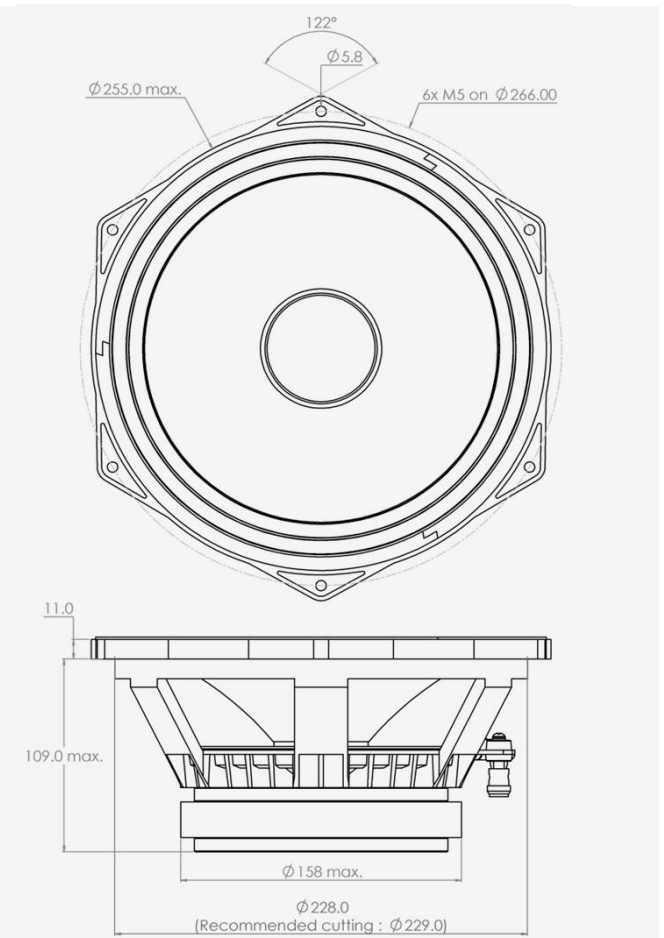
Rated impedance	Z	$\Omega$	8
Half space sensitivity (1W@1m)	-	dB SPL	94.5
Usable freq. range	-	Hz	50 - 4000
Power handling capacity (AES)	-	W	200
Max Sound Pressure Level	SPL <sub>max</sub>	dB SPL	114
Min. impedance modulus	Z <sub>min</sub>	$\Omega$ @Hz	5.5@370
Voice-coil inductance @ 1kHz	Le <sub>1k</sub>	mH	0.822
Voice-coil inductance @ 10kHz	Le <sub>10k</sub>	mH	0.429
BL product	BL	N/A	12.8
Moving mass	Mms	kg	0.0340

### Thiele-Small parameters

Resonance frequency	Fs	Hz	60 ( $\pm 8$ )
DC Resistance	Re	$\Omega$	5.3 ( $\pm 0.5$ )
Mechanical quality factor	Qms	1	4.27
Electrical quality factor	Qes	1	0.41
Total quality factor	Qts	1	0.38
Suspension compliance	Cms	$10^{-6}.m/N$	210
Effective piston area	Sd	$m^2$	0.0356
Equivalent Cas air load	Vas	$m^3$	0.0368
Max linear excursion	Xmax	mm	$\pm 5.0$
Linear displacement volume	Vd	$10^{-3}.m^3$	0.1782
Reference efficiency	$\eta_0$	%	1.8
Unity load volume	Vas.Qts <sup>2</sup>	$10^{-3}.m^3$	5.3

### Absolute maximum ratings

Short term max. input voltage	Vmax	V	80
Max.excursion before damage	Xdam	mm	$\pm 12.0$
Ambient operating temperature	Ta	$^{\circ}C$	-10 to +50
Storage temperature		$^{\circ}C$	-20 to +70
Environmental withstanding			Humidity proof



### Mounting information

Air volume occupied by the driver	$10^{-3}.m^3$	1.10
Speaker net mass	kg	5.02
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	158.0
Max depth (front mounting)	mm	109.0
Recommended reflex box	Lts / Hz	-
Electrical connection		$\varnothing 4$ mm Push buttons

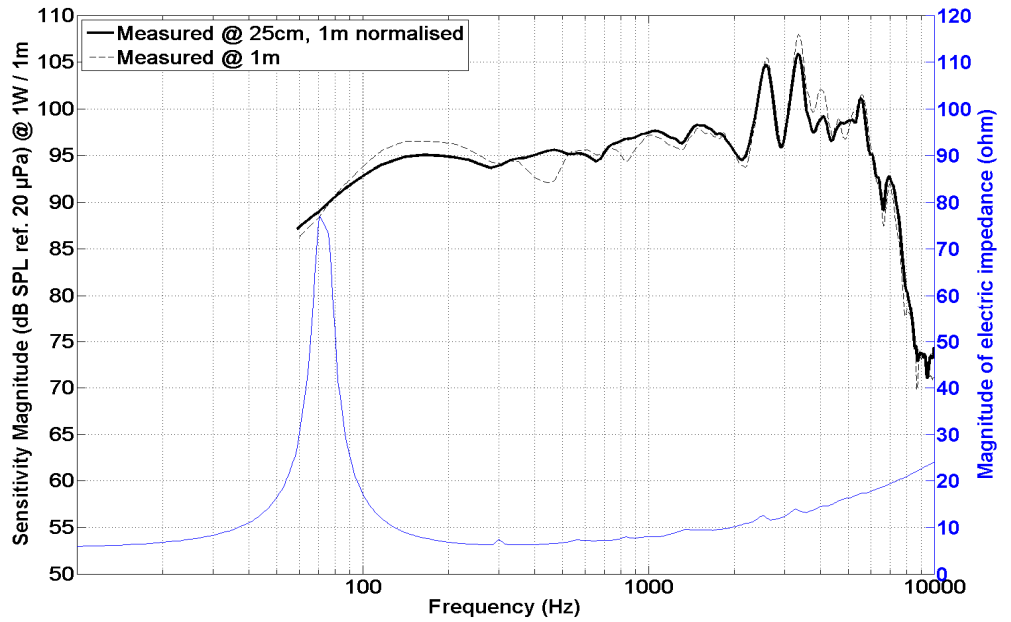


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10 inches bass driver

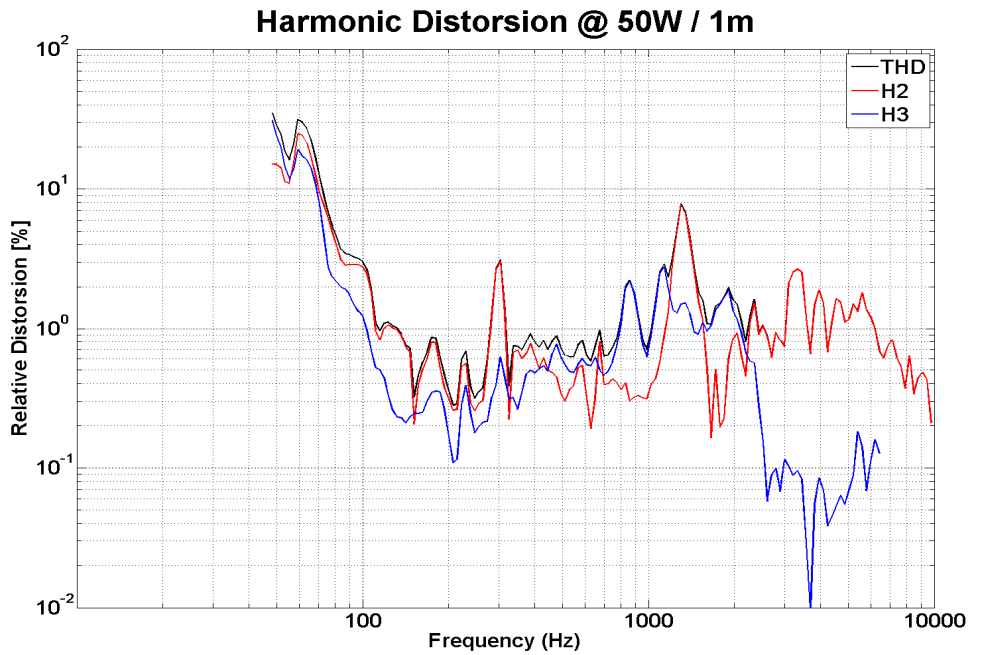
SPL curves measured on CEI standard baffle :

- . 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

