



# 1220

Nominal Diameter	6.5 " / 17 cm
Rated Impedance	8
Sensitivity	91.5 dB SPL
Power Handling Capacity	100 W AES
SPL max (continuous)	108 dB SPL
Usable frequency range	50 - 4000 Hz
Speaker net mass	2.15 kg

# 6.5 inches bass driver



### Architecture highlights :

- Studio Monitoring version of PHL Audio 1180
- High excursion S roll rubber surround
- High definition ultra light CCAR Voice coil
- Natural convection Intercooler System
- Both side coated curvilinear cone

### Motor architecture

Magnet material	-	Fe
Voice coil diameter	mm	38
Voice coil length	mm	13
Air gap height	mm	6

### Typical characteristics

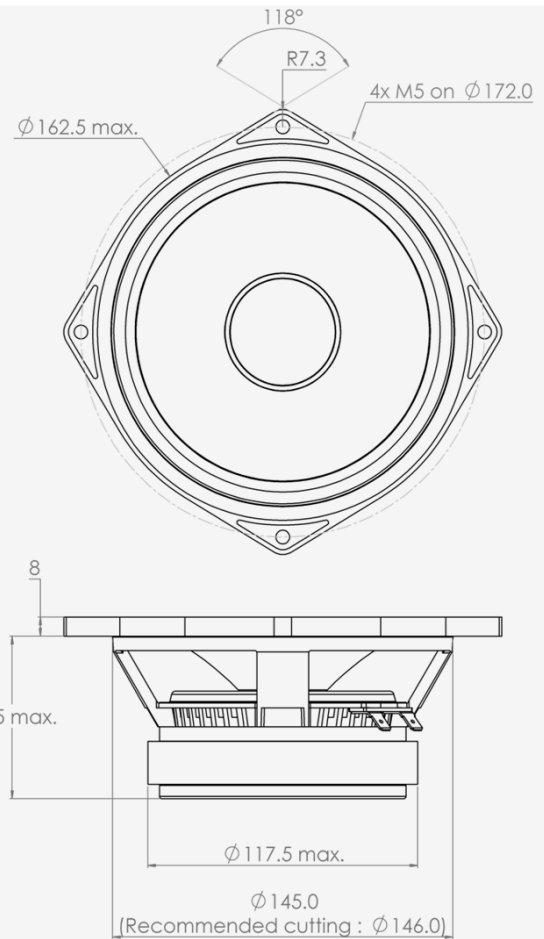
Rated impedance	Z	Ω	8
Half space sensitivity (1W@1m)	-	dB SPL	91.5
Usable freq. range	-	Hz	50 - 4000
Power handling capacity (AES)	-	W	100
Max Sound Pressure Level	SPL <sub>max</sub>	dB SPL	108
Min. impedance modulus	Z <sub>min</sub>	Ω@Hz	6.6@360
Voice-coil inductance @ 1kHz	Le <sub>1k</sub>	mH	0.638
Voice-coil inductance @ 10kHz	Le <sub>10k</sub>	mH	0.229
BL product	BL	N/A	8.3
Moving mass	M <sub>ms</sub>	kg	0.0120

### Thiele-Small parameters

Resonance frequency	Fs	Hz	55 (±7)
DC Resistance	Re	Ω	6.1 (±0.6)
Mechanical quality factor	Q <sub>ms</sub>	1	3.76
Electrical quality factor	Q <sub>es</sub>	1	0.37
Total quality factor	Q <sub>ts</sub>	1	0.33
Suspension compliance	C <sub>ms</sub>	10 <sup>-6</sup> .m/N	700
Effective piston area	S <sub>d</sub>	m <sup>2</sup>	0.0143
Equivalent Cas air load	V <sub>as</sub>	m <sup>3</sup>	0.0203
Max linear excursion	X <sub>max</sub>	mm	± 4.0
Linear displacement volume	V <sub>d</sub>	10 <sup>-3</sup> .m <sup>3</sup>	0.0573
Reference efficiency	η <sub>0</sub>	%	0.9
Unity load volume	V <sub>as</sub> .Q <sub>ts</sub> <sup>2</sup>	10 <sup>-3</sup> .m <sup>3</sup>	2.3

### Absolute maximum ratings

Short term max. input voltage	V <sub>max</sub>	V	55
Max.excursion before damage	X <sub>dam</sub>	mm	± 8.0
Ambient operating temperature	T <sub>a</sub>	°C	-10 to +50
Storage temperature		°C	-20 to +70
Environmental withstanding			tropical



### Mounting information

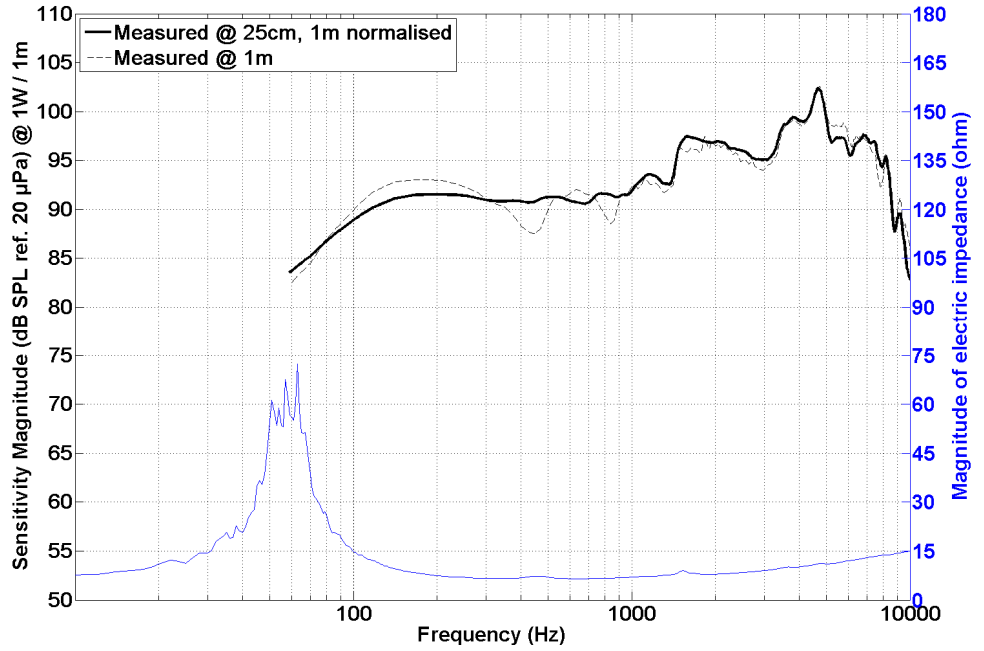
Air volume occupied by the driver	10 <sup>-3</sup> .m <sup>3</sup>	0.50
Speaker net mass	kg	2.15
Baffle cut-out diameter (front mounting)	mm	146.0
Bolt number & Metric diameter	-	4x M5
Bolt circle diameter	mm	172.0
Max overall dimension (on ears)	mm	187.5
Max overall dimension (out of ears)	mm	162.5
Flange height	mm	8.0
Max magnet diameter	mm	117.5
Max depth (front mounting)	mm	68.5
Recommended reflex box	Lts / Hz	-
Electrical connection		6.35x0.8 FASTON



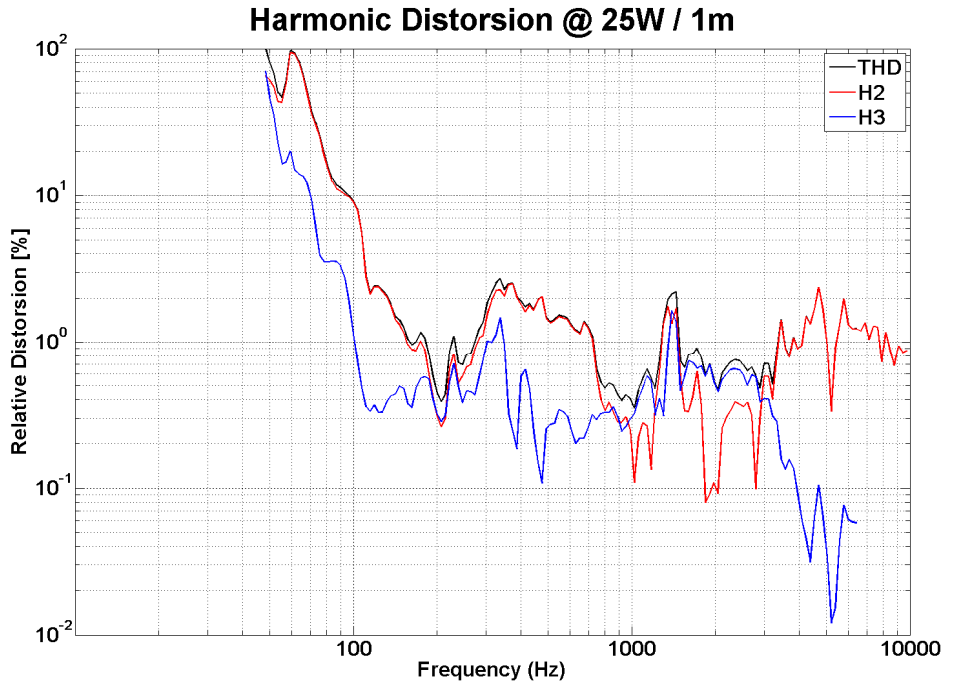
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6.5 inches bass driver

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

