



## 3491-14

|                         |             |
|-------------------------|-------------|
| Nominal Diameter        | 10" / 25 cm |
| Rated Impedance         | 6           |
| Sensitivity             | 94 dB SPL   |
| Power Handling Capacity | 250 W AES   |
| SPL max (continuous)    | 114 dB SPL  |
| Usable frequency range  | 40-3000 Hz  |
| Speaker net mass        | 5.9 kg      |

## 10" bass driver / 1" coaxial



### Architecture highlights :

- Noiseless natural convection Intercooling System
- High compliance double half-roll Fabric Surround for low Fs
- Dual side coated diaphragm
- Coaxial apparatus "-14" with rear flange  
(Max diameter for HF driver = 136.0 mm)

### Motor architecture

|                     |    |    |
|---------------------|----|----|
| Magnet material     | -  | Fe |
| Voice coil diameter | mm | 64 |
| Voice coil length   | mm | 17 |
| Air gap height      | mm | 8  |

### Typical characteristics

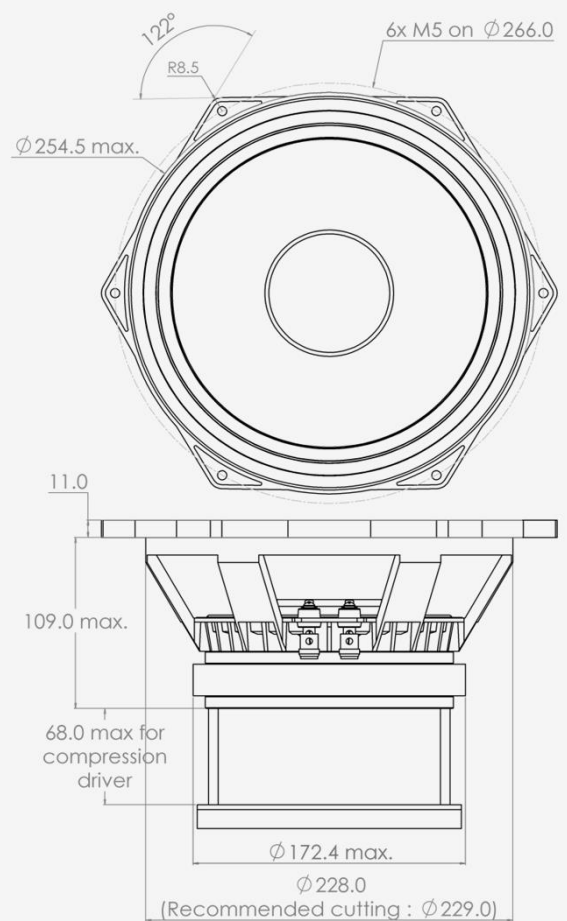
|                                |                    |              |         |
|--------------------------------|--------------------|--------------|---------|
| Rated impedance                | Z                  | $\Omega$     | 6       |
| Half space sensitivity (1W@1m) | -                  | dB SPL       | 94.0    |
| Usable freq. range             | -                  | Hz           | 40-3000 |
| Power handling capacity (AES)  | -                  | W            | 250     |
| Max Sound Pressure Level       | SPL <sub>max</sub> | dB SPL       | 114     |
| Min. impedance modulus         | Z <sub>min</sub>   | $\Omega$ @Hz | 4.4@310 |
| Voice-coil inductance @ 1kHz   | Le <sub>1k</sub>   | mH           | 0.871   |
| Voice-coil inductance @ 10kHz  | Le <sub>10k</sub>  | mH           | 0.487   |
| BL product                     | BL                 | N/A          | 15.5    |
| Moving mass                    | Mms                | kg           | 0.0475  |

### Thiele-Small parameters

|                            |                      |                                  |                   |
|----------------------------|----------------------|----------------------------------|-------------------|
| Resonance frequency        | Fs                   | Hz                               | 53 ( $\pm 7$ )    |
| DC Resistance              | Re                   | $\Omega$                         | 4.2 ( $\pm 0.4$ ) |
| Mechanical quality factor  | Qms                  | 1                                | 6.08              |
| Electrical quality factor  | Qes                  | 1                                | 0.28              |
| Total quality factor       | Qts                  | 1                                | 0.26              |
| Suspension compliance      | Cms                  | 10 <sup>-6</sup> .m/N            | 190               |
| Effective piston area      | Sd                   | m <sup>2</sup>                   | 0.0324            |
| Equivalent Cas air load    | Vas                  | m <sup>3</sup>                   | 0.0279            |
| Max linear excursion       | Xmax                 | mm                               | $\pm 6.0$         |
| Linear displacement volume | Vd                   | 10 <sup>-3</sup> .m <sup>3</sup> | 0.1942            |
| Reference efficiency       | $\eta_0$             | %                                | 1.4               |
| Unity load volume          | Vas.Qts <sup>2</sup> | 10 <sup>-3</sup> .m <sup>3</sup> | 1.9               |

### Absolute maximum ratings

|                               |      |                    |            |
|-------------------------------|------|--------------------|------------|
| Short term max. input voltage | Vmax | V                  | 75         |
| 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> | 1.50              |
| Speaker net mass                         | kg                               | 5.90              |
| 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                               | 172.4             |
| Max depth (front mounting)               | mm                               | 109.0             |
| Recommended reflex box                   | Lts / Hz                         | -                 |
| Electrical connection                    |                                  | Ø4 mm Push button |

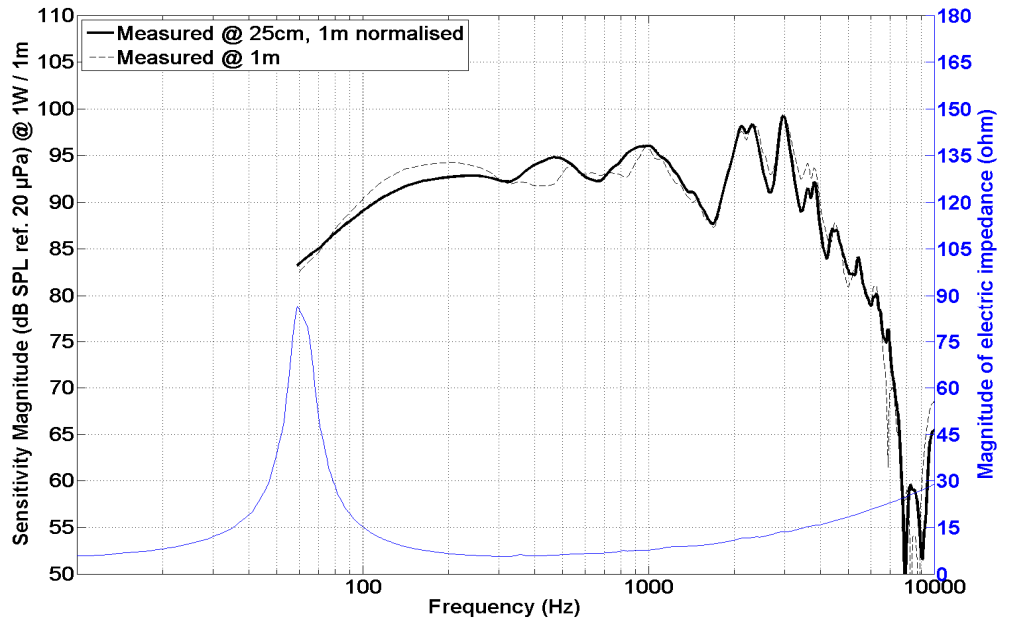


3491-14

10" bass driver / 1" coaxial

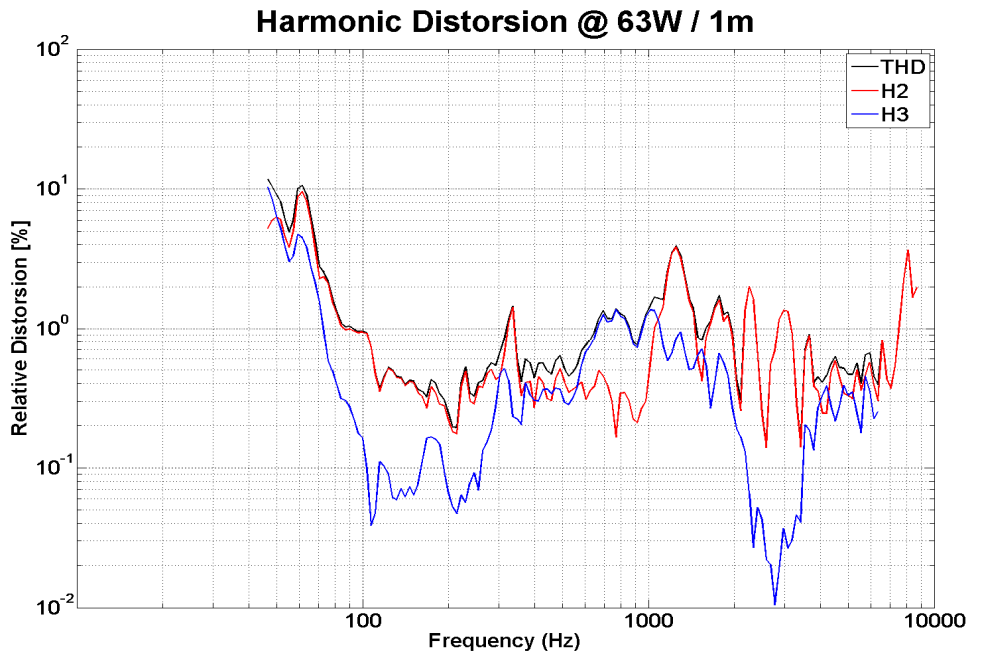
SPL curves measured on CEI standard baffle :

- . 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

