



## 2513NdU

|                                |                     |
|--------------------------------|---------------------|
| Nominal Diameter               | <b>8" / 20cm</b>    |
| Rated Impedance                | <b>16 Ω</b>         |
| Half space sensitivity (1W@1m) | <b>94.5 dB SPL</b>  |
| Power Handling Capacity        | <b>250 W AES</b>    |
| SPL max (continuous)           | <b>115 dB SPL</b>   |
| Usable frequency range         | <b>80 - 4000 Hz</b> |
| Speaker net mass               | <b>2.4 kg</b>       |

## 8 inches low-mid driver



### Architecture Highlights

- Neodymium magnet system with symmetric BL(x) and Le(x)
- Natural convection Intercooler System
- High compliance double half-roll Fabric Surround
- Double side Coated diaphragm (Tropical withstanding)

### Motor architecture

|                     |    |           |
|---------------------|----|-----------|
| Magnet material     | -  | <b>Nd</b> |
| Voice coil diameter | mm | <b>51</b> |
| Voice coil length   | mm | <b>13</b> |
| Air gap height      | mm | <b>8</b>  |

### Typical characteristics

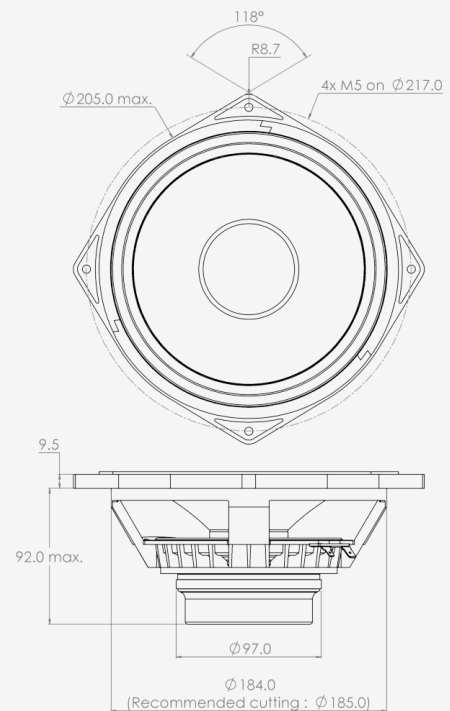
|                                |        |        |                  |
|--------------------------------|--------|--------|------------------|
| Rated impedance                | Z      | Ω      | <b>16</b>        |
| Half space sensitivity (1W@1m) | -      | dB SPL | <b>94.5</b>      |
| Usable freq. range             | -      | HZ     | <b>80 - 4000</b> |
| Power handling capacity (AES)  | -      | W      | <b>250</b>       |
| Max Sound Pressure Level       | SPLmax | dB SPL | <b>115</b>       |
| Min. impedance modulus         | Zmin   | Ω@Hz   | <b>13.9@400</b>  |
| Voice-coil inductance @ 1kHz   | Le1k   | mH     | <b>2.626</b>     |
| Voice-coil inductance @ 10kHz  | Le10k  | mH     | <b>1.402</b>     |
| BL product                     | BL     | N/A    | <b>24.0</b>      |
| Moving mass                    | Mms    | kg     | <b>0.028</b>     |

### Thiele-Small parameters

|                            |                      |                                  |                    |
|----------------------------|----------------------|----------------------------------|--------------------|
| Resonance frequency        | Fs                   | Hz                               | <b>70 (±10)</b>    |
| DC Resistance              | Re                   | Ω                                | <b>11.3 (±1.1)</b> |
| Mechanical quality factor  | Qms                  | 1                                | <b>4.93</b>        |
| Electrical quality factor  | Qes                  | 1                                | <b>0.24</b>        |
| Total quality factor       | Qts                  | 1                                | <b>0.23</b>        |
| Suspension compliance      | Cms                  | 10 <sup>-6</sup> .m/N            | <b>180</b>         |
| Effective piston area      | Sd                   | m <sup>2</sup>                   | <b>0.0219</b>      |
| Equivalent Cas air load    | Vas                  | m <sup>3</sup>                   | <b>0.0124</b>      |
| Max linear excursion       | Xmax                 | mm                               | <b>± 4.0</b>       |
| Linear displacement volume | Vd                   | 10 <sup>-3</sup> .m <sup>3</sup> | <b>0.0876</b>      |
| Reference efficiency       | H                    | %                                | <b>1.7</b>         |
| Unity load volume          | Vas.Qts <sup>2</sup> | 10 <sup>-3</sup> .m <sup>3</sup> | <b>0.7</b>         |

### Absolute maximum ratings

|                               |      |    |                   |
|-------------------------------|------|----|-------------------|
| Short term max. input voltage | Vmax | V  | <b>125</b>        |
| Max.excursion before damage   | Xdam | mm | <b>± 10</b>       |
| Ambient operating temperature | Ta   | °C | <b>-10 to +50</b> |
| Storage temperature           |      | °C | <b>-20 to +70</b> |
| Environmental withstanding    |      |    | <b>tropical</b>   |



### Application information

|  |                                  |                           |
|--|----------------------------------|---------------------------|
| Air volume occupied by the driver        | 10 <sup>-3</sup> .m <sup>3</sup> | <b>0.50</b>               |
| Speaker net mass                         | kg                               | <b>2.4</b>                |
| Baffle cut-out diameter (front mounting) | mm                               | <b>185.0</b>              |
| Bolt number & Metric diameter            | -                                | <b>4x M5</b>              |
| Bolt circle diameter                     | mm                               | <b>217.0</b>              |
| Max overall dimension (on ears)          | mm                               | <b>234.0</b>              |
| Max overall dimension (out of ears)      | mm                               | <b>205.0</b>              |
| Flange height                            | mm                               | <b>9.5</b>                |
| Max magnet diameter                      | mm                               | <b>97.0</b>               |
| Max depth (front mounting)               | mm                               | <b>92.0</b>               |
| Recommended reflex box                   | Lts / Hz                         | <b>10L / 80Hz</b>         |
| Electrical connection                    | -                                | <b>6.35x0.8 + 4.8x0.5</b> |

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