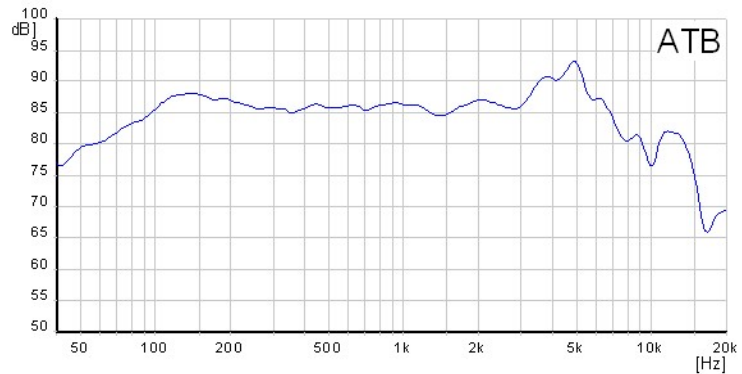


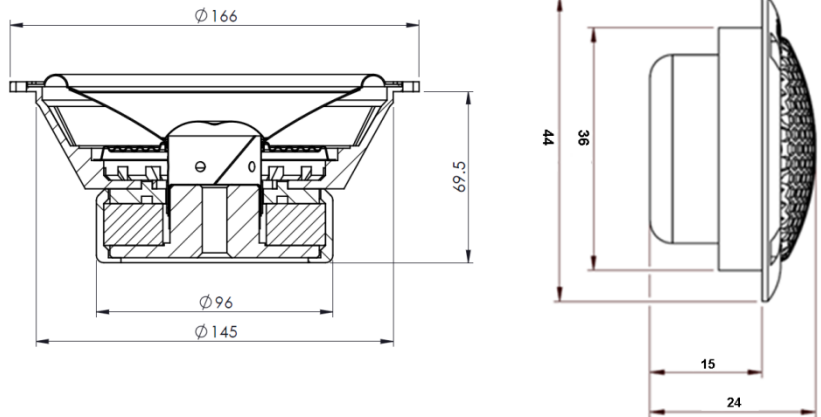
## ZERO PRO 165.3

### Mid-Woofer specifications:

|                       |     |                             |
|-----------------------|-----|-----------------------------|
| Name                  |     | <b>HG-165ZPDC-3</b>         |
| DC resistance         | Rdc | <b>2,7 Ω</b>                |
| Nominal impedance     | ZN  | <b>3 Ω</b>                  |
| Resonance frequency   | fs  | <b>52,59 HZ</b>             |
| Voice coil diameter   |     | <b>37 mm</b>                |
| Mechanical Q factor   | Qms | <b>3,78</b>                 |
| Electrical Q factor   | Qes | <b>0,49</b>                 |
| Total Q factor        | Qts | <b>0,44</b>                 |
| Moving mass Mms       |     | <b>14,81 g</b>              |
| Effective piston area | Sd  | <b>135 cm<sup>2</sup></b>   |
| Mechanical resistance | Rms | <b>1,29 Kg/s</b>            |
| Compliance            | Cms | <b>0,62 mm/N</b>            |
| Force factor          | BL  | <b>5,17 Tm</b>              |
| Equivalent air volume | Vas | <b>15,83 dm<sup>3</sup></b> |
| Efficiency            | η   | <b>0,45 %</b>               |
| SPL 2,83V/1m          |     | <b>93,25 dB</b>             |



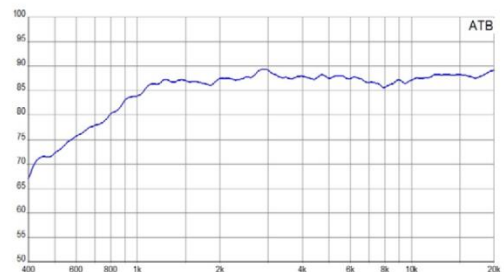
Cone: **Paper**  
 Spider: **Nomex**  
 Surround: **Rubber**  
 Coil former: **Aluminum**  
 Basket: **Aluminum**  
 Dust cap: **Silk**



### Tweeter specifications:

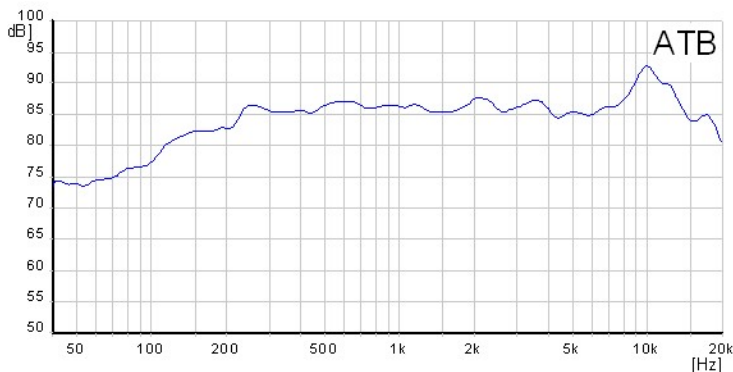
|                                   |     |  |
|-----------------------------------|-----|--|
| Name                              |     | <b>HG-20PV</b>   |
| DC resistance                     | Rdc | <b>3,4 Ω</b>   |
| Nominal impedance                 | ZN  | <b>4 Ω</b>   |
| Resonance frequency               | fs  | <b>1100 HZ</b>   |
| Voice coil diameter               |     | <b>20 mm</b>   |
| Cut-off Frequency / Trennfrequenz |     | <b>&gt; 3500 Hz 12 dB/Oct</b><br><b>&gt; 2500 Hz 18 dB/Oct</b> |

Frequenzgang / frequency response [11111111]



## Midrange specifications:

|                                   |                       |  |
|-----------------------------------|-----------------------|--|
| Name                              |                       | <b>HG-80ZPPP-3</b>   |
| DC resistance                     | <i>R<sub>dc</sub></i> | <b>3,4 Ω</b>   |
| Nominal impedance                 | <i>Z<sub>N</sub></i>  | <b>4 Ω</b>   |
| Resonance frequency               | <i>f<sub>s</sub></i>  | <b>113,2 HZ</b>  |
| Voice coil diameter               |                       | <b>19 mm</b>   |
| Mechanical Q factor               | <i>Q<sub>ms</sub></i> | <b>3,78</b>  |
| Electrical Q factor               | <i>Q<sub>es</sub></i> | <b>0,39</b>  |
| Total Q factor                    | <i>Q<sub>ts</sub></i> | <b>0,35</b>  |
| Moving mass <i>M<sub>ms</sub></i> |                       | <b>2,84 g</b>  |
| Effective piston area             | <i>S<sub>d</sub></i>  | <b>33,2 cm<sup>2</sup></b>                                   |
| Mechanical resistance             | <i>R<sub>ms</sub></i> | <b>0,54 Kg/s</b>   |
| Compliance                        | <i>C<sub>ms</sub></i> | <b>0,70 mm/N</b>   |
| Force factor                      | <i>BL</i>             | <b>4,23 Tm</b>   |
| Equivalent air volume             | <i>V<sub>as</sub></i> | <b>1,08 dm<sup>3</sup></b>                                   |
| Efficiency                        | <i>η</i>              | <b>0,39 %</b>  |
| SPL 2,83V/1m                      |                       | <b>91,64 dB</b>  |
| High-pass / Hochpass              |                       | <b>&gt; 350 Hz 18 dB/Oct</b><br><b>&gt; 400 Hz 12 dB/Oct</b> |



|              |                 |
|--------------|-----------------|
| Cone:        | <b>Paper</b>    |
| Spider:      | <b>Nomex</b>    |
| Surround:    | <b>Rubber</b>   |
| Coil former: | <b>Aluminum</b> |
| Basket:      | <b>Steel</b>    |
| Phase Plug:  | <b>Aluminum</b> |

