



# 4041NdS

## 12 inches bass driver

|                                |                     |
|--------------------------------|---------------------|
| Nominal Diameter               | <b>12" / 30cm</b>   |
| Rated Impedance                | <b>8 Ω</b>          |
| Half space sensitivity (1W@1m) | <b>98 dB SPL</b>    |
| Power Handling Capacity        | <b>400 W AES</b>    |
| SPL max (continuous)           | <b>121 dB SPL</b>   |
| Usable frequency range         | <b>50 - 2500 Hz</b> |
| Speaker net mass               | <b>6.2 kg</b>       |



### Architecture Highlights

- Noiseless Natural Convection Intercooling System
- Front side coated curvilinear cone designed for 2 way systems operation
- Neodymium magnet System with symmetric BL(x) and Le(x)
- High compliance double half-roll Fabric Surround

### Motor architecture

|                     |    |           |
|---------------------|----|-----------|
| Magnet material     | -  | <b>Nd</b> |
| Voice coil diameter | mm | <b>77</b> |
| Voice coil length   | mm | <b>18</b> |
| Air gap height      | mm | <b>10</b> |

### Typical characteristics

|                                |        |        |                  |
|--------------------------------|--------|--------|------------------|
| Rated impedance                | Z      | Ω      | <b>8</b>         |
| Half space sensitivity (1W@1m) | -      | dB SPL | <b>98.0</b>      |
| Usable freq. range             | -      | HZ     | <b>50 - 2500</b> |
| Power handling capacity (AES)  | -      | W      | <b>400</b>       |
| Max Sound Pressure Level       | SPLmax | dB SPL | <b>121</b>       |
| Min. impedance modulus         | Zmin   | Ω@Hz   | <b>6.3@280</b>   |
| Voice-coil inductance @ 1kHz   | Le1k   | mH     | <b>1.031</b>     |
| Voice-coil inductance @ 10kHz  | Le10k  | mH     | <b>0.590</b>     |
| BL product                     | BL     | N/A    | <b>25.0</b>      |
| Moving mass                    | Mms    | kg     | <b>0.068</b>     |

### Thiele-Small parameters

|                            |                      |                                  |                   |
|----------------------------|----------------------|----------------------------------|-------------------|
| Resonance frequency        | Fs                   | Hz                               | <b>47 (±6)</b>    |
| DC Resistance              | Re                   | Ω                                | <b>5.5 (±0.6)</b> |
| Mechanical quality factor  | Qms                  | 1                                | <b>4.02</b>       |
| Electrical quality factor  | Qes                  | 1                                | <b>0.18</b>       |
| Total quality factor       | Qts                  | 1                                | <b>0.17</b>       |
| Suspension compliance      | Cms                  | 10 <sup>-6</sup> .m/N            | <b>170</b>        |
| Effective piston area      | Sd                   | m <sup>2</sup>                   | <b>0.0531</b>     |
| Equivalent Cas air load    | Vas                  | m <sup>3</sup>                   | <b>0.0665</b>     |
| Max linear excursion       | Xmax                 | mm                               | <b>± 6.5</b>      |
| Linear displacement volume | Vd                   | 10 <sup>-3</sup> .m <sup>3</sup> | <b>0.3451</b>     |
| Reference efficiency       | H                    | %                                | <b>3.8</b>        |
| Unity load volume          | Vas.Qts <sup>2</sup> | 10 <sup>-3</sup> .m <sup>3</sup> | <b>1.9</b>        |

### Absolute maximum ratings

|                               |      |                       |                   |
|-------------------------------|------|-----------------------|-------------------|
| Short term max. input voltage | Vmax | V                     | <b>115</b>        |
| Max.excursion before damage   | Xdam | mm                    | <b>± 16</b>       |
| Ambient operating temperature | Ta   | °C                    | <b>-10 to +50</b> |
| Storage temperature           |      | °C                    | <b>-20 to +70</b> |
| Environmental withstanding    |      | <b>Humidity proof</b> |                   |



### Application information

|  |                                  |                           |
|--|----------------------------------|---------------------------|
| Air volume occupied by the driver        | 10 <sup>-3</sup> .m <sup>3</sup> | <b>2.1</b>                |
| Speaker net mass                         | kg                               | <b>6.2</b>                |
| Baffle cut-out diameter (front mounting) | mm                               | <b>282.0</b>              |
| Bolt number & Metric diameter            | -                                | <b>8x M6</b>              |
| Bolt circle diameter                     | mm                               | <b>300 to 308</b>         |
| Max overall dimension (on ears)          | mm                               | <b>326.5</b>              |
| Max overall dimension (out of ears)      | mm                               | <b>307.0</b>              |
| Flange height                            | mm                               | <b>12.8</b>               |
| Max magnet diameter                      | mm                               | <b>140.0</b>              |
| Max depth (front mounting)               | mm                               | <b>142.5</b>              |
| Recommended reflex box                   | Lts / Hz                         | <b>35L / 65Hz</b>         |
| Electrical connection                    | -                                | <b>Ø4 mm Push buttons</b> |