



12" Ceramic Subwoofer

|                        |              |
|------------------------|--------------|
| Program Power          | 800 W        |
| Rated impedance        | 2+2 Ohm      |
| Nominal diameter       | 12"- 320 mm  |
| Sensitivity (2,83V/1m) | 95 dB        |
| Voice coil diameter    | 3 in - 75 mm |
| Frequency Range        | 35-2000 Hz   |

SPECIFICATIONS

|                                     |                                  |           |
|-------------------------------------|----------------------------------|-----------|
| Nominal Diameter                    | 12"- 320 mm                      |           |
| Rated Impedance                     | 2+2 Ohm                          |           |
| Nominal Power Handling <sup>1</sup> | 350 W                            |           |
| Program Power <sup>2</sup>          | 800 W                            |           |
| Sensitivity <sup>3</sup>            | 95 dB                            |           |
| Frequency Range <sup>4</sup>        | 35-2000 Hz                       |           |
| Minimum Impedance                   | -                                |           |
| Gasket Material                     | Diecast Aluminum                 |           |
| Magnet Material                     | Ferrite                          |           |
| Cone Material                       | Treated Cellulose                |           |
| Cone Shape                          | Planar                           |           |
| Surround                            | Rubber - Half Roll               |           |
| Suspension                          | Nomex Fabric                     |           |
| Voice Coil Diameter                 | 3 in - 75 mm                     |           |
| Voice Coil Winding Material         | Copper                           |           |
| Voice Coil Length                   | 20 mm - 0,79 in                  |           |
| Voice Coil Former Material          | Glass fiber                      |           |
| Connection type                     | Faston                           |           |
| Ferrofluid                          | No                               |           |
| Magnetic Gap Height                 | 10 mm - 0,39 in                  |           |
| Max. Peak to Peak Excursion Xvar    | -                                |           |
| Efficiency Bandwidth Product EBP    | 77                               |           |
| Recommended Loading                 | Vented Box                       |           |
| Volume / Tuning frequency           | 60 Lt (dm³) - 2,119 cuft / 34 Hz |           |
| Maximum recommended frequency       | -                                |           |
| Version - Part Code                 | 2+2 Ohm                          | HSB320-22 |
|                                     | 4+4 Ohm                          | HSB320-44 |

T/S PARAMETERS

2+2 Ohm

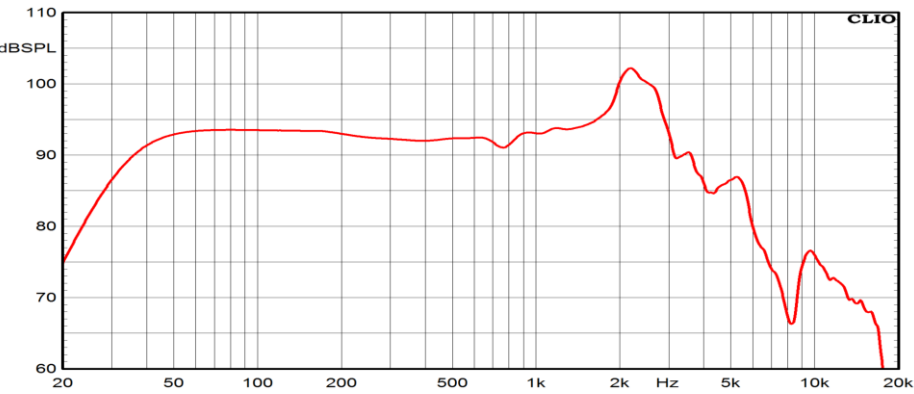
\* Parameters measured with voice coils connected in series

|                                    |      |                       |
|------------------------------------|------|-----------------------|
| Resonance frequency                | Fs   | 34 Hz                 |
| DC Resistance                      | Re   | 3 Ohm                 |
| Mechanical Q Factor                | Qms  | 5,6                   |
| Electrical Q Factor                | Qes  | 0,44                  |
| Total Q Factor                     | Qts  | 0,4                   |
| BI Factor                          | Bl   | 12 Tm                 |
| Effective Moving Mass              | Mms  | 95 g                  |
| Equivalent Cas air loaded          | Vas  | 85 lt (dm³) - 3 cuft  |
| Suspension Compliance              | Cms  | -                     |
| Effective Piston Diameter          | D    | 255 mm - 10,04 in     |
| Effective piston area              | Sd   | 511 cm² - 79,21 sq in |
| Max. Linear Excursion <sup>5</sup> | Xmax | 7,5 mm - 0,3 in       |
| Voice Coil Inductance @ 1kHz       | Le   | 0,7 mH                |
| Half-space Efficiency              | η0   | 0,75 %                |

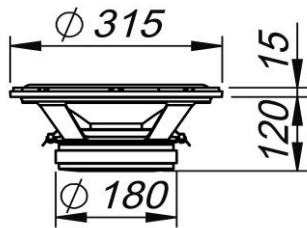
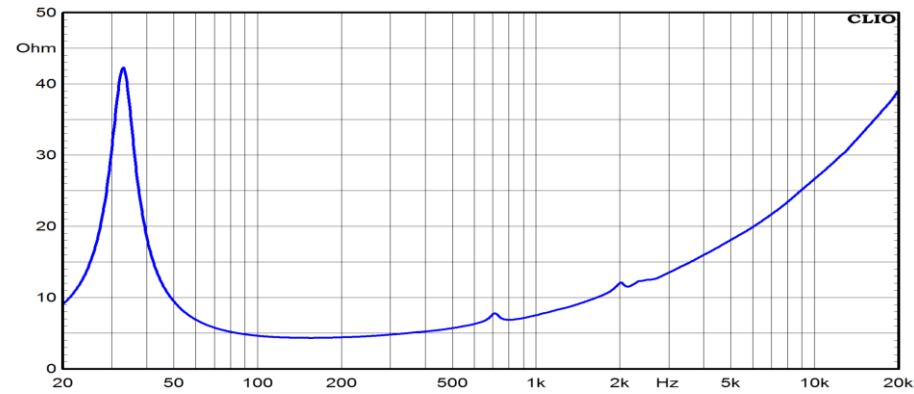
NOTES

<sup>1</sup> Nominal power is determined according to AES2-1984 (r2003) standard.  
<sup>2</sup> Program Power is defined as 3 dB greater than the Nominal rating.  
<sup>3</sup> Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m, when connected to 2,83V sine wave test signal.  
<sup>4</sup> Frequency range is given as the band of frequencies delineated by the lower and upper limits where the output level drops by 10 dB below the rated sensitivity in half space environment.  
<sup>5</sup> Linear Math. Xmax is calculated as (Hvc-Hg)/2 + Hg/4 where Hvc is the coil depth and Hg is the gapdepth.  
<sup>6</sup> Frequency response curve in the range above 150 Hz is measured on infinite baffle conditions and simulated as per recommended loading in the range below 150 Hz.  
<sup>7</sup> Impedance curve is measured in free air conditions at small signals.

FREQUENCY RESPONSE CURVE <sup>6</sup>



FREE AIR IMPEDANCE CURVE <sup>7</sup>



MOUNTING AND SHIPPING INFORMATION

|                                  |                    |
|----------------------------------|--------------------|
| Overall Diameter                 | 315 mm - 12,4 in   |
| Baffle Cutout Diameter           | 282 mm - 11,1 in   |
| Flange and Gasket Thickness      | 14,5 mm - 0,57 in  |
| Total Depth                      | 134,5 mm - 5,3 in  |
| Bolt Circle Diameter             | 295 mm - 11,61 in  |
| Bolt Holes Quantity and Diameter | 8 / 7 mm - 0,28 in |
| Net Weight                       | 7,05 Kg - 15,53 lb |
| Shipping Units                   | 1 Pc               |