



12" Ceramic Subwoofer

Program Power	800 W
Rated impedance	4+4 Ohm
Nominal diameter	12" - 320 mm
Sensitivity (2,83V/1m)	92,8 dB
Voice coil diameter	3 in - 75 mm
Frequency Range	35-2000 Hz

SPECIFICATIONS

Nominal Diameter	12" - 320 mm
Rated Impedance	4+4 Ohm
Nominal Power Handling ¹	350 W
Program Power ²	800 W
Sensitivity ³	92,8 dB
Frequency Range ⁴	35-2000 Hz
Minimum Impedance	-
Basket 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
Ferofluid	No
Magnetic Gap Height	10 mm - 0,39 in
Max. Peak to Peak Excursion	-
Efficiency Bandwidth Product EBP	90
Recommended Loading	Vented Box
Volume / Tuning frequency	60 Lt (dm ³) / 39 Hz
Maximum recommended frequency	-
Version - Part Code	2+2 Ohm HSB322-22
	4+4 Ohm HSB322-44

T/S PARAMETERS

4+4 Ohm

^{*} Parameters measured with voice coils connected in series

Resonance frequency	Fs	36 Hz
DC Resistance	Re	6,1 Ohm
Mechanical Q Factor	Qms	3,89
Electrical Q Factor	Qes	0,4
Total Q Factor	Qts	0,37
BI Factor	BI	17 Tm
Effective Moving Mass	Mms	90 g
Equivalent Cas air loaded	Vas	83 lt (dm ³) - 2,93 cuft
Suspension Compliance	Cms	-
Effective Piston Diameter	D	255 mm - 10,04 in
Effective piston area	Sd	511 cm ² - 79,21 sq in
Max. Linear Excursion ⁵	Xmax	7,5 mm - 0,3 in
Voice Coil Inductance @ 1kHz	Le	1,4 mH
Half-space Efficiency	η0	0,92 %

NOTES

¹ Nominal power is determined according to AES2-1984 (r2003) standard.

² Program Power is defined as 3 dB greater than the Nominal rating.

³ 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.

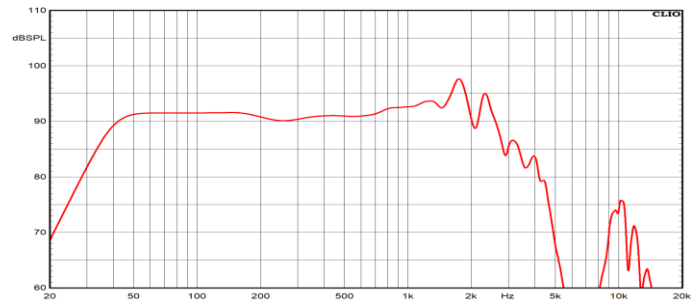
⁴ Frequency range is given as the band of frequencies delineated by the lower and upper limits where the output level drops by 10 dB below the rated sensitivity in half space environment.

⁵ Linear Math. Xmax is calculated as (Hvc-Hg)/2 + Hg/4 where Hvc is the coil depth and Hg is the gapdepth.

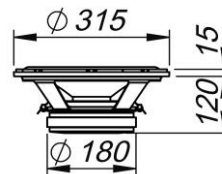
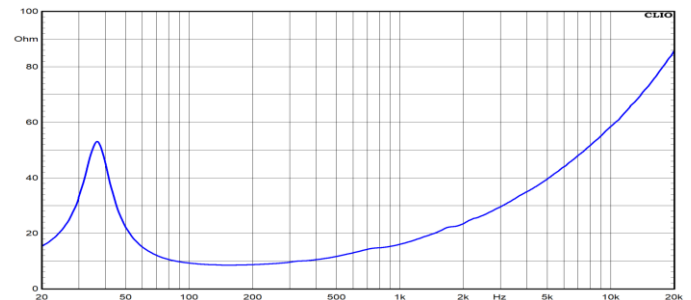
⁶ Frequency response curve in the range above 150 Hz is measured on infinite baffle conditions and simulated as per recommended loading in the range below 150 Hz.

⁷ Impedance curve is measured in free air conditions at small signals.

FREQUENCY RESPONSE CURVE ⁶



FREE AIR IMPEDANCE CURVE ⁷



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