SICA LOUDSPEAKERS

12"- 700W Professional Woofer

12 K3 - 8 Ω

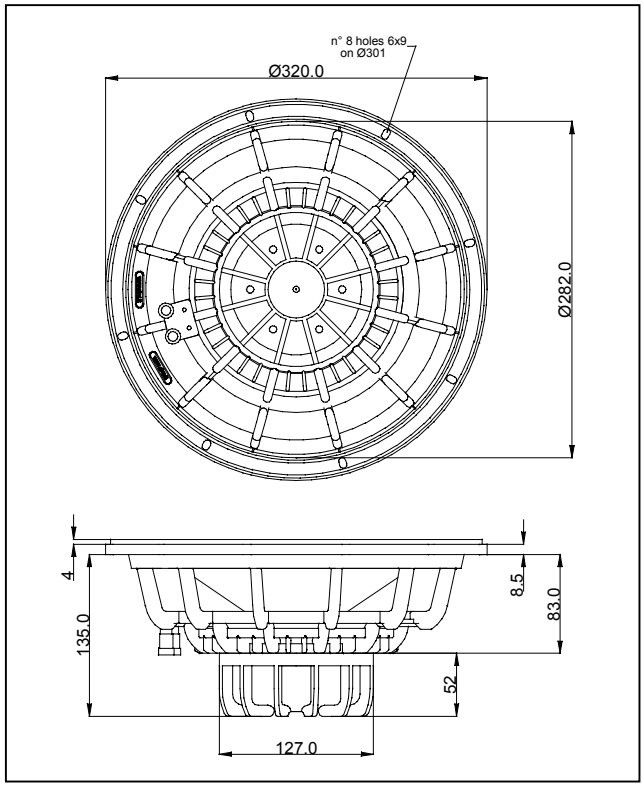
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GENERAL CHARACTERISTICS		
Nominal Overall Diameter	320	mm
Nominal Voice Coil Diameter	75	mm
Magnet Weight	360	g
Flux Density	1.21	T
Weight	3.10	Kg

ELECTRICAL CHARACTERISTICS		
Nominal Impedance	8	Ω
Musical Power	700	W
Rated Power*	350	W
Sensitivity @ 1 W, 1 m	97.4	dB

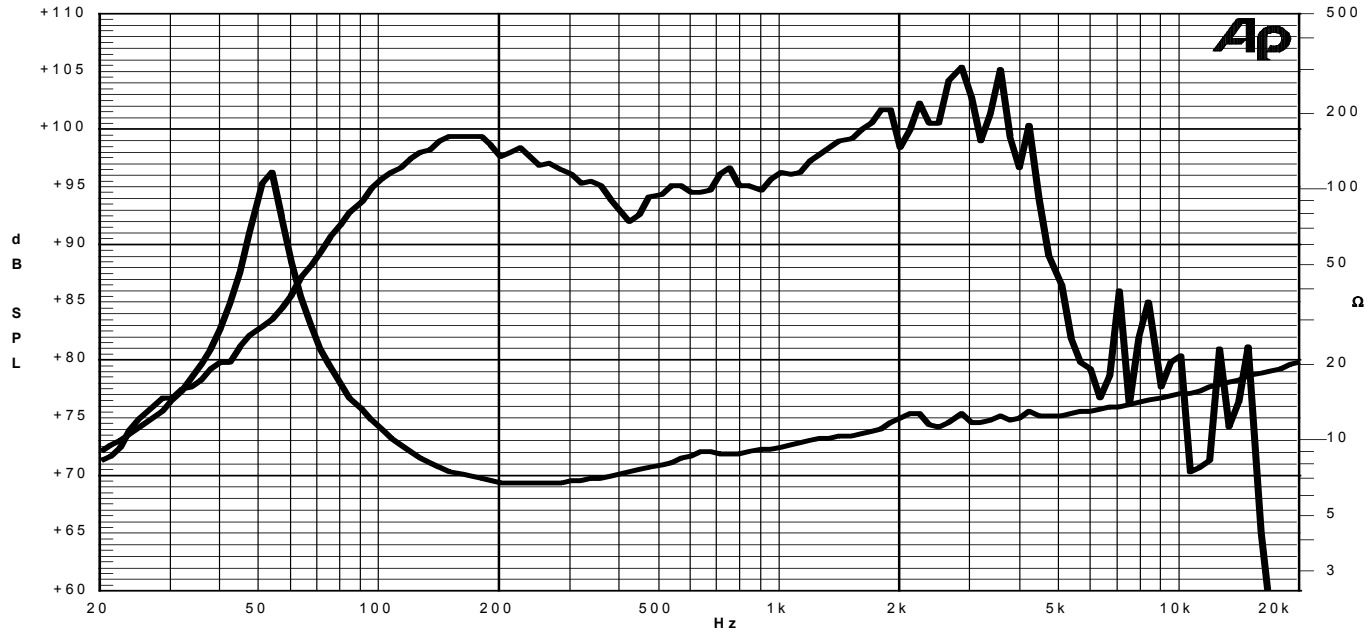
THIELE-SMALL PARAMETERS			
Voice Coil DC Resistance	R_E	5.20	Ω
Resonance Frequency	f_s	50.1	Hz
Mechanical Q Factor	Q_{MS}	7.30	
Electrical Q Factor	Q_{ES}	0.37	
Total Q Factor	Q_{TS}	0.35	
Mechanical Moving Mass	M_{MS}	61.7	g
Mechanical Compliance	C_{MS}	160	μm/N
Force Factor	$B \times l$	16.61	Wb/m
Equivalent Acoustic Volume	V_{AS}	65.1	lt.
Maximum Linear Displacement	X_{MAX}	+/-5.0	mm
Reference Efficiency	η_0	2.15	%
Diaphragm Area	S_D	530.9	cm^2
Losses Electrical Resistance	R_{ES}	103.6	Ω
Voice Coil Inductance @ 1kHz	L_E	0.60	mH

CONSTRUCTIVE CHARACTERISTICS	
Magnet	Neodymium
Voice Coil Winding	Aluminium
Voice Coil Former	Kapton
Cone	Paper
Surround	Treated Cloth
Dust Dome	Solid Paper
Basket	Aluminium Die-Cast



**rated power measured with 2 hours test with pink noise signal, 6 dB crest factor, loudspeaker mounted on enclosure*
Thiele-Small parameters measured with LASER system

Frequency Response on IEC Baffle (DIN 45575) @ 1 W, 1 m - Impedance



Due to continuing product improvement, the features and the design are subject to change without notice. 10/10/06

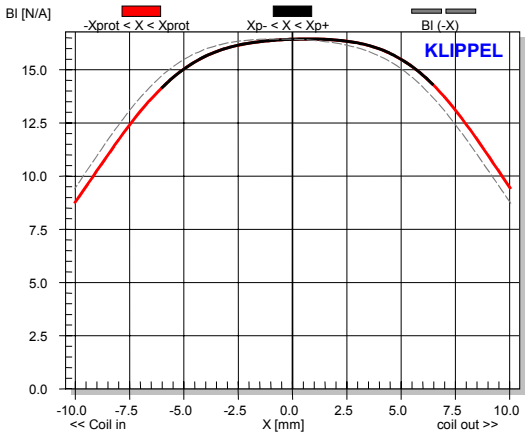
SICA Altoparlanti s.r.l. - ITALY – website: www.sica.it - E-mail: lab@sica.it - Tel. +39-071-7958072 - Fax +39-071-7959006

12K3

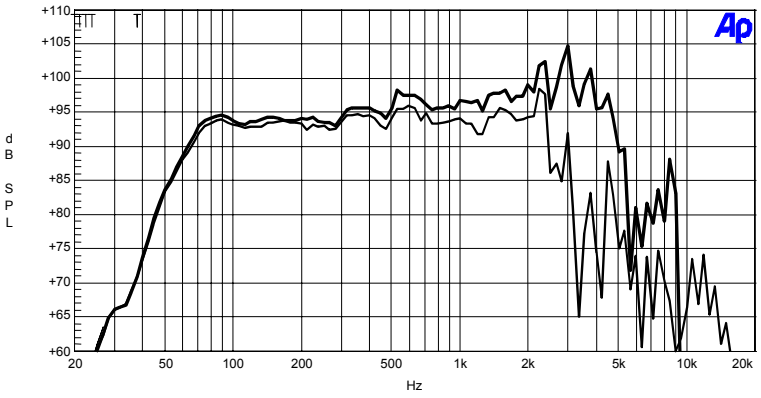
12” speaker – 3”voice coil

GRAPHICS AND MEASUREMENTS

Force factor Bl (X)

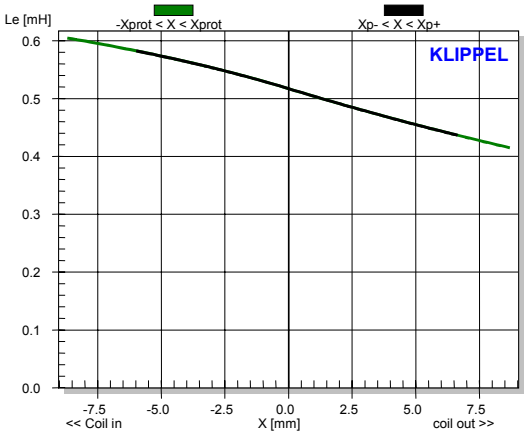


Bl(X): force factor variation with voice coil displacement



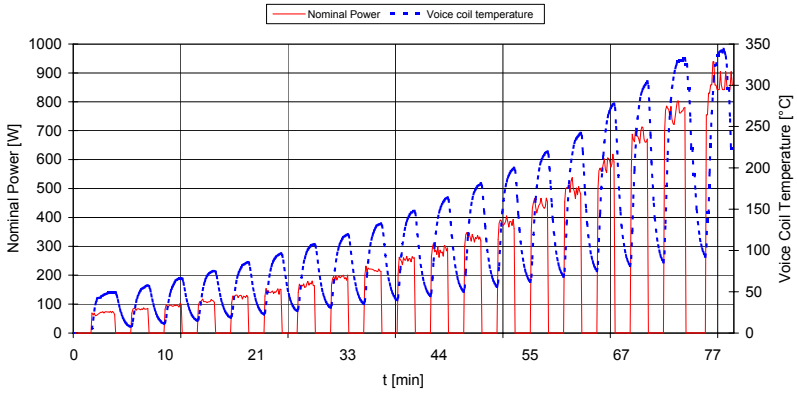
Frequency Response: enclosure volume 45l, port tuning 60Hz (thick curve on axis, thin curve 30° off axis)

Electrical inductance Le



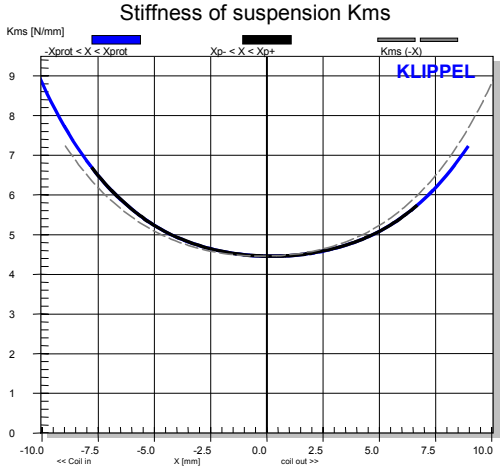
L_e: electrical inductance variation with voice coil displacement

Increase of voice coil temperature Delta Tv(t) and electrical input power(t)



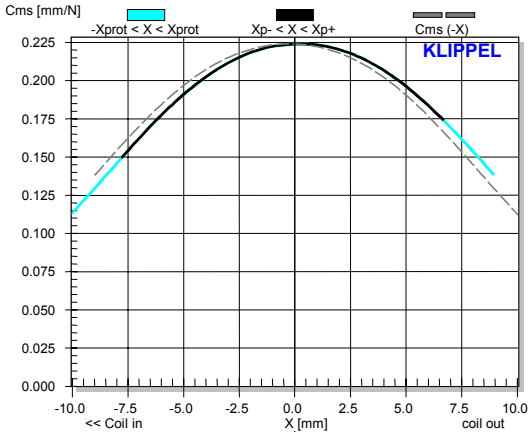
Power test done with intermittent excitation, ON interval 2min, duty cicle 50%, pink noise signal 6dB crest factor with frequency range 50-2000Hz.

Stiffness of suspension Kms



K_{ms}: stiffness of suspension variation with voice coil displacement

Mechanical compliance Cms



C_{ms}: mechanical compliance variation with voice coil displacement