

#### Features:

- 90dB sensitivity 1W/1m
- 120W + 60W Power handling
- 1.5" + 1.5" copper voice coil
- Single point source providing coherent wave front
- 90° conical dispertion
- Optimal for compact 2-way systems

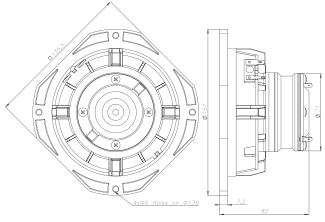
# **SPECIFICATIONS**

Nominal impedance  Power handling AES noise  W 120  Sensitivity (1W/1m) dB 91  Frequency response  Hz 80 - 4000  Voice coil diameter  mm 38 (1.5")  Voice coil winding depth  mm 12  Magnet gap depth  Basket  Cast Aluminium  Voice coil inductance Le  THIELE - SMALL PARAMETERS  Resonance frequency  Fs Hz 138  DC resistance  Re Ohm 12.2  Mechanical Q factor  Qes 0.87  Total Quality factor  Equivalent volume  Was L 1.03  Moving mass  Mechanical compl.  BL factor  BL Tesla m 10.7  Effective piston area  Sd m² 0.0074  Max. linear excursion  SPECIFICATIONS HIGH FREQUENCY  Nominal impedance  Power handling AES  W 60  Peak Power  W 300  Sensitivity (1W/1m)  dB 113  Frequency range  Recommended crossover  Hz 1900  Voice coil diameter  Magnet material  Polyecter  Polyecter  Polyecter  Polyecter  Diaphragm material  Polyecter  Polyecter	APPLICATION	Transd	Transducer		
Sensitivity ( 1W/1m ) dB 91  Frequency response Hz 80 - 4000  Voice coil diameter mm 38 (1.5")  Voice coil material Cu  Voice coil winding depth mm 12  Magnet gap depth mm 5  Basket Cast Aluminium  Voice coil inductance Le mH 0.45 (16 Ohm)  THIELE - SMALL PARAMETERS  Resonance frequency Fs Hz 138  DC resistance Re Ohm 12.2  Mechanical Q factor Qms 3.4  Electrical Q factor Qes 0.87  Total Quality factor Qts 0.69  Equivalent volume Vas L 1.03  Moving mass Mms kg 0.009  Mechanical compl. Cms mm/N 0.14  BL factor BL Tesla m 10.7  Effective piston area Sd m² 0.0074  Max. linear excursion Xmax mm ± 3.5  SPECIFICATIONS HIGH FREQUENCY  Nominal impedance Ohm 16  Power handling AES W 60  Peak Power W 300  Sensitivity ( 1W/1m ) dB 113  Frequency range Hz 1500 - 20000  Recommended crossover Hz 1900  Voice coil diameter mm 38 (1.5")  Magnet material Neodymium  Fluchs density T 2  Voice coil former (ZLayers in and outside of the VC)	Nominal impedance	Ohm	16	16	
Frequency response  Voice coil diameter  Woice coil diameter  Woice coil material  Voice coil winding depth  Magnet gap depth  Basket  Voice coil inductance Le  MH  Uo.45 (16 Ohm)  THIELE - SMALL PARAMETERS  Resonance frequency  Mechanical Q factor  Electrical Q factor  Qus  Equivalent volume  Woing mass  Moving moving  10.7  Effective piston area  Sd m² 0.0074  Moving moving  10.7  Effective piston area  Sd m² 0.0074  Moving moving  10.7  Effective piston area  Sd m² 0.0074  Moving moving  10.7  Effective piston area  Sd m² 0.0074  Moving moving  10.7  Effective piston area  Sd m² 0.0000  Moving moving  10.7  Effective piston area  Sd m² 0.0000  Moving moving  10.7  Effective piston area  Sd m² 0.0000  Moving moving  10.7  Effective piston area  Sd m² 0.0000  Moving moving  10.7  Effective piston area  Electrical Q factor  Electrical Q fac	Power handling AES noise	W	120		
Voice coil diameter       mm       38 (1.5")         Voice coil material       Cu         Voice coil winding depth       mm       12         Magnet gap depth       mm       5         Basket       Cast Aluminium         Voice coil inductance Le       mH       0.45 (16 Ohm)         THIELE - SMALL PARAMETERS         Resonance frequency       Fs       Hz       138         DC resistance       Re       Ohm       12.2         Mechanical Q factor       Qms       3.4         Electrical Q factor       Qes       0.87         Total Quality factor       Qts       0.69         Equivalent volume       Vas       L       1.03         Moving mass       Mms       kg       0.009         Mechanical compl.       Cms       mm/N       0.14         BL factor       BL       Tesla m       10.7         Effective piston area       Sd       m²       0.0074         Max. linear excursion       Xmax       mm       ± 3.5         SPECIFICATIONS HIGH FREQUENCY         Nominal impedance       Ohm       16         Power handling AES       W       60         Peak Power       W	Sensitivity ( 1W/1m )	dB	91		
Voice coil material       Cu         Voice coil winding depth       mm       12         Magnet gap depth       mm       5         Basket       Cast Aluminium         Voice coil inductance Le       mH       0.45 (16 Ohm)         THIELE - SMALL PARAMETERS         Resonance frequency       Fs       Hz       138         DC resistance       Re       Ohm       12.2         Mechanical Q factor       Qms       3.4         Electrical Q factor       Qes       0.87         Total Quality factor       Qts       0.69         Equivalent volume       Vas       L       1.03         Moving mass       Mms       kg       0.009         Mechanical compl.       Cms       mm/N       0.14         BL factor       BL       Tesla m       10.7         Effective piston area       Sd       m²       0.0074         Max. linear excursion       Xmax       mm       ± 3.5         SPECIFICATIONS HIGH FREQUENCY         Nominal impedance       Ohm       16         Power handling AES       W       60         Peak Power       W       300         Sensitivity ( 1W/1m )       dB       <	Frequency response	Hz	80 - 4000		
Voice coil winding depth       mm       12         Magnet gap depth       mm       5         Basket       Cast Aluminium         Voice coil inductance Le       mH       0.45 (16 Ohm)         THIELE - SMALL PARAMETERS         Resonance frequency       Fs       Hz       138         DC resistance       Re       Ohm       12.2         Mechanical Q factor       Qms       3.4         Electrical Q factor       Qes       0.87         Total Quality factor       Qts       0.69         Equivalent volume       Vas       L       1.03         Moving mass       Mms       kg       0.009         Mechanical compl.       Cms       mm/N       0.14         BL factor       BL       Tesla m       10.7         Effective piston area       Sd       m²       0.0074         Max. linear excursion       Xmax       mm       ± 3.5         SPECIFICATIONS HIGH FREQUENCY         Nominal impedance       Ohm       16         Power handling AES       W       60         Peak Power       W       300         Sensitivity ( 1W/1m )       dB       113         Frequency range	Voice coil diameter	mm	38 (1.5")		
Magnet gap depthmm5BasketCast AluminiumVoice coil inductance LemH0.45 (16 Ohm)THIELE - SMALL PARAMETERSResonance frequencyFsHz138DC resistanceReOhm12.2Mechanical Q factorQms3.4Electrical Q factorQes0.87Total Quality factorQts0.69Equivalent volumeVasL1.03Moving massMmskg0.009Mechanical compl.Cmsmm/N0.14BL factorBLTesla m10.7Effective piston areaSdm²0.0074Max. linear excursionXmaxmm± 3.5SPECIFICATIONS HIGH FREQUENCYNominal impedanceOhm16Power handling AESW60Peak PowerW300Sensitivity (1W/1m)dB113Frequency rangeHz1500 - 20000Recommended crossoverHz1900Voice coil diametermm38 (1.5")Magnet materialNeodymiumFluchs densityT2Voice coil materialCopper Clad Aluminium(2Layers in and outside of the VC)Voice coil formerKapton™	Voice coil material		Cu		
Basket  Voice coil inductance Le  THIELE - SMALL PARAMETERS  Resonance frequency  Fs  Hz  138  DC resistance  Re  Ohm  12.2  Mechanical Q factor  Qus  Electrical Q factor  Qus  Equivalent volume  Vas  L  1.03  Moving mass  Mms  Mms  kg  0.009  Mechanical compl.  Cms  mm/N  0.14  BL factor  BL Tesla m  10.7  Effective piston area  Sd  Max. linear excursion  SPECIFICATIONS HIGH FREQUENCY  Nominal impedance  Power handling AES  Peak Power  W  300  Sensitivity (1W/1m)  dB  113  Frequency range  Recommended crossover  Hz  Voice coil diameter  Meaton  (2Layers in and outside of the VC)  Voice coil former  Kapton™  Isa  138  0.45  160  160  0.87  103  104  107  108  109  10.45  109  10.45  109  10.45  109  10.45  109  10.45  109  10.45  109  10.45  109  10.45	Voice coil winding depth	mm	12		
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THIELE - SMALL PARAMETERS  Resonance frequency Fs Hz 138  DC resistance Re Ohm 12.2  Mechanical Q factor Qms 3.4  Electrical Q factor Qes 0.87  Total Quality factor Qts 0.69  Equivalent volume Vas L 1.03  Moving mass Mms kg 0.009  Mechanical compl. Cms mm/N 0.14  BL factor BL Tesla m 10.7  Effective piston area Sd m² 0.0074  Max. linear excursion Xmax mm ± 3.5  SPECIFICATIONS HIGH FREQUENCY  Nominal impedance Ohm 16  Power handling AES W 60  Peak Power W 300  Sensitivity (1W/1m) dB 113  Frequency range Hz 1500 - 20000  Recommended crossover Hz 1900  Voice coil diameter mm 38 (1.5")  Magnet material Neodymium  Fluchs density T 2  Voice coil material Copper Clad Aluminium  (2Layers in and outside of the VC)  Voice coil former	Basket		Cast Aluminium		
Resonance frequency  DC resistance  Re  Ohm  12.2  Mechanical Q factor  Qes  Cossiplified Service Ser	Voice coil inductance Le	mH	0.45 (16 Ohm)		
DC resistance  Mechanical Q factor  Electrical Q factor  Qes  O.87  Total Quality factor  Equivalent volume  Vas  Moving mass  Mechanical compl.  BL  Ges  Mechanical compl.  BL  Ges  Mechanical compl.  BL  Ges  Mechanical compl.  Cms  Mm/N  BL  Ges  O.009  Mechanical compl.  Cms  Mm/N  BL  Tesla m  10.7  Effective piston area  Sd  Max. linear excursion  Specifications High frequency  Nominal impedance  Ohm  16  Power handling AES  W  60  Peak Power  W  300  Sensitivity (1W/1m)  dB  113  Frequency range  Hz  1500 - 20000  Recommended crossover  Hz  1900  Voice coil diameter  mm  38 (1.5")  Magnet material  Neodymium  Fluchs density  T  2  Voice coil material  Copper Clad Aluminium  (2Layers in and outside of the VC)  Voice coil former	THIELE - SMALL PARAMETERS				
Mechanical Q factorQms3.4Electrical Q factorQes0.87Total Quality factorQts0.69Equivalent volumeVasL1.03Moving massMmskg0.009Mechanical compl.Cmsmm/N0.14BL factorBLTesla m10.7Effective piston areaSdm²0.0074Max. linear excursionXmaxmm± 3.5SPECIFICATIONS HIGH FREQUENCYNominal impedanceOhm16Power handling AESW60Peak PowerW300Sensitivity (1W/1m)dB113Frequency rangeHz1500 - 20000Recommended crossoverHz1900Voice coil diametermm38 (1.5")Magnet materialNeodymiumFluchs densityT2Voice coil materialCopper Clad Aluminium(2Layers in and outside of the VC)Voice coil formerKapton™	Resonance frequency	Fs	Hz	138	
Electrical Q factor Qes 0.87  Total Quality factor Qts 0.69  Equivalent volume Vas L 1.03  Moving mass Mms kg 0.009  Mechanical compl. Cms mm/N 0.14  BL factor BL Tesla m 10.7  Effective piston area Sd m² 0.0074  Max. linear excursion Xmax mm ± 3.5  SPECIFICATIONS HIGH FREQUENCY  Nominal impedance Ohm 16  Power handling AES W 60  Peak Power W 300  Sensitivity ( 1W/1m ) dB 113  Frequency range Hz 1500 - 20000  Recommended crossover Hz 1900  Voice coil diameter mm 38 (1.5")  Magnet material Neodymium  Fluchs density T 2  Voice coil material Copper Clad Aluminium  (2Layers in and outside of the VC)  Voice coil former Kapton™	DC resistance	Re	Ohm	12.2	
Total Quality factor  Equivalent volume  Vas  L  1.03  Moving mass  Mms  kg  0.009  Mechanical compl.  Cms  mm/N  0.14  BL factor  BL  Tesla m  10.7  Effective piston area  Sd  m²  0.0074  Max. linear excursion  Xmax  mm  ± 3.5  SPECIFICATIONS HIGH FREQUENCY  Nominal impedance  Ohm  16  Power handling AES  W  60  Peak Power  W  300  Sensitivity (1W/1m)  dB  113  Frequency range  Hz  1500 - 20000  Recommended crossover  Hz  1900  Voice coil diameter  mm  38 (1.5")  Magnet material  Fluchs density  T  2  Copper Clad Aluminium  (2Layers in and outside of the VC)  Voice coil former	Mechanical Q factor	Qms		3.4	
Equivalent volume  Moving mass  Mms  Mg  0.009  Mechanical compl.  BL  Tesla m  10.7  Effective piston area  Sd  Max. linear excursion  SPECIFICATIONS HIGH FREQUENCY  Nominal impedance  Power handling AES  Peak Power  Sensitivity (1W/1m)  MB  Trequency range  Recommended crossover  Hz  1900  Voice coil diameter  Magnet material  Fluchs density  Vas  L  1.03  Mms  kg  0.009  Mm/N  0.14  BL  Tesla m  10.7  Effective piston area  Sd  m²  0.0074  Max. linear excursion  Xmax  mm  ± 3.5  SPECIFICATIONS HIGH FREQUENCY  Nominal impedance  Ohm  16  Power handling AES  W  60  Peak Power  W  300  Sensitivity (1W/1m)  dB  113  Frequency range  Hz  1500 - 20000  Recommended crossover  Hz  1900  Voice coil diameter  mm  38 (1.5")  Magnet material  Fluchs density  T  2  Voice coil material  Copper Clad Aluminium  (2Layers in and outside of the VC)  Voice coil former	Electrical Q factor	Qes		0.87	
Moving massMmskg0.009Mechanical compl.Cmsmm/N0.14BL factorBLTesla m10.7Effective piston areaSdm²0.0074Max. linear excursionXmaxmm± 3.5SPECIFICATIONS HIGH FREQUENCYNominal impedanceOhm16Power handling AESW60Peak PowerW300Sensitivity (1W/1m)dB113Frequency rangeHz1500 - 20000Recommended crossoverHz1900Voice coil diametermm38 (1.5")Magnet materialNeodymiumFluchs densityT2Voice coil materialCopper Clad AluminiumVoice coil formerKapton™	Total Quality factor	Qts		0.69	
Mechanical compl.       Cms       mm/N       0.14         BL factor       BL       Tesla m       10.7         Effective piston area       Sd       m²       0.0074         Max. linear excursion       Xmax       mm       ± 3.5         SPECIFICATIONS HIGH FREQUENCY         Nominal impedance       Ohm       16         Power handling AES       W       60         Peak Power       W       300         Sensitivity ( 1W/1m )       dB       113         Frequency range       Hz       1500 - 20000         Recommended crossover       Hz       1900         Voice coil diameter       mm       38 (1.5")         Magnet material       Neodymium         Fluchs density       T       2         Voice coil material       Copper Clad Aluminium         (2Layers in and outside of the VC)       Voice coil former	Equivalent volume	Vas	L	1.03	
BL factor  Effective piston area  Sd m² 0.0074  Max. linear excursion  SPECIFICATIONS HIGH FREQUENCY  Nominal impedance  Ohm 16  Power handling AES  Peak Power  W 300  Sensitivity (1W/1m)  Frequency range  Hz 1500 - 20000  Recommended crossover  Hz 1900  Voice coil diameter  mm 38 (1.5")  Magnet material  Fluchs density  T 2  Voice coil material  Copper Clad Aluminium  (2Layers in and outside of the VC)  Voice coil former	Moving mass	Mms	kg	0.009	
Effective piston area  Max. linear excursion  Sd m² 0.0074  Max. linear excursion  SPECIFICATIONS HIGH FREQUENCY  Nominal impedance  Ohm 16  Power handling AES  W 60  Peak Power  W 300  Sensitivity (1W/1m)  dB 113  Frequency range  Hz 1500 - 20000  Recommended crossover  Hz 1900  Voice coil diameter  mm 38 (1.5")  Magnet material  Fluchs density  T 2  Voice coil material  Copper Clad Aluminium  (2Layers in and outside of the VC)  Voice coil former  Kapton™	Mechanical compl.	Cms	mm/N	0.14	
Max. linear excursion Xmax mm ± 3.5  SPECIFICATIONS HIGH FREQUENCY  Nominal impedance Ohm 16  Power handling AES W 60  Peak Power W 300  Sensitivity (1W/1m) dB 113  Frequency range Hz 1500 - 20000  Recommended crossover Hz 1900  Voice coil diameter mm 38 (1.5")  Magnet material Neodymium  Fluchs density T 2  Voice coil material Copper Clad Aluminium  (2Layers in and outside of the VC)  Voice coil former Kapton™	BL factor	BL	Tesla m	10.7	
SPECIFICATIONS HIGH FREQUENCY  Nominal impedance  Power handling AES  W  60  Peak Power  W  300  Sensitivity (1W/1m)  dB  113  Frequency range  Hz  1500 - 20000  Recommended crossover  Hz  1900  Voice coil diameter  mm  38 (1.5")  Magnet material  Fluchs density  T  2  Voice coil material  Copper Clad Aluminium  (2Layers in and outside of the VC)  Voice coil former  Kapton™	Effective piston area	Sd	m²	0.0074	
Nominal impedance       Ohm       16         Power handling AES       W       60         Peak Power       W       300         Sensitivity (1W/1m)       dB       113         Frequency range       Hz       1500 - 20000         Recommended crossover       Hz       1900         Voice coil diameter       mm       38 (1.5")         Magnet material       Neodymium         Fluchs density       T       2         Voice coil material       Copper Clad Aluminium         (2Layers in and outside of the VC)         Voice coil former       Kapton™	Max. linear excursion	Xmax	mm	± 3.5	
Power handling AES  W  Beak Power  W  Sensitivity (1W/1m)  W  Hz  Hz  Hz  Hz  Hz  Hz  Hz  Hz  Hz	SPECIFICATIONS HIGH FREQUENCY				
Peak Power  Sensitivity (1W/1m)  Frequency range  Recommended crossover  Hz  1900  Voice coil diameter  Magnet material  Fluchs density  Voice coil material  Copper Clad Aluminium  (2Layers in and outside of the VC)  Voice coil former  W  300  113  120  1500 - 20000  Hz  1900  Neodymium  7  2  Copper Clad Aluminium  (2Layers in and outside of the VC)	Nominal impedance	Ohm	16		
Sensitivity ( 1W/1m )  Frequency range Recommended crossover Hz 1900  Voice coil diameter Magnet material Fluchs density  Voice coil material  Copper Clad Aluminium  (2Layers in and outside of the VC)  Voice coil former	Power handling AES	W	60		
Frequency range Recommended crossover Hz 1900 Voice coil diameter mm 38 (1.5") Magnet material Neodymium Fluchs density T 2 Voice coil material Copper Clad Aluminium (2Layers in and outside of the VC) Voice coil former Kapton™	Peak Power	W	300		
Recommended crossover     Hz     1900       Voice coil diameter     mm     38 (1.5")       Magnet material     Neodymium       Fluchs density     T     2       Voice coil material     Copper Clad Aluminium       (2Layers in and outside of the VC)       Voice coil former     Kapton™	Sensitivity ( 1W/1m )	dB	113		
Voice coil diameter       mm       38 (1.5")         Magnet material       Neodymium         Fluchs density       T       2         Voice coil material       Copper Clad Aluminium         (2Layers in and outside of the VC)         Voice coil former       Kapton™	Frequency range	Hz	1500 - 20000		
Magnet material       Neodymium         Fluchs density       T         Voice coil material       Copper Clad Aluminium         (2Layers in and outside of the VC)         Voice coil former       Kapton™	Recommended crossover	Hz	1900		
Fluchs density  T  Voice coil material  Copper Clad Aluminium  (2Layers in and outside of the VC)  Voice coil former  Kapton™	Voice coil diameter	mm	38 (1.5")		
Voice coil material     Copper Clad Aluminium       (2Layers in and outside of the VC)       Voice coil former     Kapton™	Magnet material		Neodymium		
(2Layers in and outside of the VC)       Voice coil former     Kapton™	Fluchs density	Т	2		
Voice coil former Kapton™	Voice coil material	Copper	Copper Clad Aluminium		
		(2Layer	(2Layers in and outside of the VC)		
Diaphragm material Polyector	Voice coil former		Kapton™		
Diaphilagin material Folyester	Diaphragm material		Polyester		

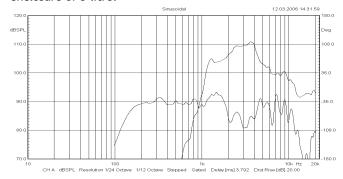
#### Recommended reflex enclosure:

- 1,9L/104Hz, BRD=30mm/77mm long
- 3,8L/90Hz, BRD=40mm/86mm long

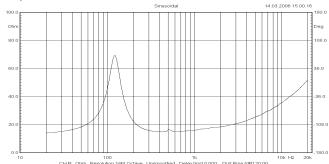
Closed enclosure 1 - 4 Litre



## Frequency response measured 1W (2.38V) at 1m in a closed enclosure of 3 litre.



### Impedance - 16 Ohm driver



MOUNTING INFORMATION		
Overall diameter	mm	135 x 135
Mounting holes diameter	mm	4 x 5.3
Bolt circle diameter	mm	139
Baffle cut-out diameter	mm	117
Overall depth	mm	82
Net weight	kg	0.98