EIGHTEEN SOUND

PROFESSIONAL LOUDSPEAKERS

2013

GENERAL CATALOGUE

EIGHTEEN SOUND

The philosophy of pure sound

Eighteen Sound is a leading designer and manufacturer of high quality professional audio loudspeakers.
The Company, with its high tech factory located in the north of Italy, has rapidly become a highly respected partner for the most renowned professional speaker brands.
Our mission is to help our customers with the difficult task of reproducing music and audio signals as they were originally being captured, during a recording or a live gig.
To achieve this difficult target, we are constantly challenging ourselves, using very advanced research, development and manufacturing technologies.
We are constantly developing innovative and reliable components for the major pro audio speaker brands.
Eighteen Sound has a worldwide distribution network in more than 40 countries worldwide.
The R&D and Engineering Team offers an extensive and dedicated experience in professional transducers creation. Eighteen Sound Lab is complete with an anechoic chamber and test instrument set to provide the best measuring and design conditions.
The two in-house custom designed cone transducers manufacturing lines, as well as the HF compression driver one, are equipped with very high precision proprietary designed robots and monitored by three state-of-the-art networked, fully automated Quality Control sets.
The goal of our Sales and Marketing Department is to provide the best service in terms of communication effectiveness, starting from day-by-day customer care up to technological and strategic support, always with a personal touch.
We aim to establish a high level dialogue with our business partners, in order to let any pro audio sound reinforcement system dream come true.
As Eighteen Sound Team, we strongly believe you'll find an answer to your specific pro audio system needs in the following pages. We are proud to make our contribution in raising your product performances to a higher level.

The concept of our neodymium LF and MF transducers range represents the evolution of a technical dream: to house in a high-tech structure a very consistent "performance to weight" ratio, reducing speaker weight significantly when compared to equivalent ferrite models.\nThe external magnet configuration neodymium magnet assembly assures high flux concentration, low power compression and excellent heat exchange, being considerably more efficient than the traditional under-pole magnet topology. These features allow to obtain high values of force factor and power handling.

series	description	model
NCX	Neodymium high performance coaxial transducers	15NCX750
		12NCX750
N9600	5,5" voice coil high performance neodymium extended low frequency transducers	21NLW9601
N9000	5,5" voice coil high output neodymium extended low frequency transducers	21NLW9001
N9600	5,5" voice coil high performance neodymium extended low frequency transducers	18NLW9601
N9400	4" voice coil high performance neodymium extended low frequency transducers	21NLW9400
N9000	5,5" voice coil high output neodymium extended low frequency transducers	18NLW9000
N9400	4" voice coil high performance neodymium extended low frequency transducers	18NLW9400
		15NLW9401
N9500	4'' voice coil high precision neodymium extended low frequency transducers	15NLW9500
N9300	4'' voice coil high performance neodymium extended low frequency transducers	15NLW9300
N900	3'' voice coil high precision neodymium low frequency transducers	15ND930
N800	3'' voice coil high output neodymium low frequency transducers	15ND830
N500	2,5'' voice coil high precision midbass neodymium transducers	15NW530
N9300	4'' voice coil high performance neodymium extended low frequency transducers	12NLW9300
N900	3'' voice coil high precision neodymium low frequency transducers	12ND930
N800	3'' voice coil high output neodymium low frequency transducers	12ND830
N500	2,5'' voice coil high precision midbass neodymium transducers	12NW530
N600	3'' voice coil high output neodymium transducers	12ND610
N500	2,5'' voice coil high precision midbass neodymium transducers	12NDA520
N400	High precision neodymium transducers	12NMB420
N600	3'' voice coil high output neodymium transducers	10NDA610
N500	2,5'' voice coil high precision midbass neodymium transducers	10NMBA520
N400	High precision neodymium transducers	10NMB420
N600	3'' voice coil high output neodymium transducers	10NW650
		8NW650
N400	High precision neodymium transducers	8NMB420
		6ND430
		6NMB420
		6ND410

15NCX750

High Output Coaxial Transducer

KEY FEATURES

98dB LF / 107dB HF SPL 1W/1m average sensitivity
Single Neodymium magnet structure
800W LF - 240W HF maximum program power handling
75 mm (3") LF Interleaved Sandwich Voice coil (ISV)
Aluminum Demodulating Ring (SDR) for minimum LF distortion
60 mm (2.4") HF pure Titanium diaphragm
Edge-wound Aluminum ribbon voice coil (EWAL)
HF Copper sleeve for reduced distortion and higher output
65 degrees nominal conical dispersion
Suitable for very compact enclosures and stage monitors

LF GENERAL SPECIFICATIONS	
Nominal Diameter	380 mm (15 in)
Rated Impedance	8 Ohm
AES Power (1)	400 W
Program Power (2)	800 W
Sensitivity (3)	98 dB
Frequency Range (4)	55 ÷ 4800 Hz
Max Recomm. Frequency	1400 Hz
Recomm. Enclosure Volume	60 ÷ 120 lt. (2.12 ÷ 4.24 cuft)
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	copper
Suspension	Triple roll, Polycotton
Cone	Curvilinear, Water repellent, High damping pulp

HF GENERAL SPECIFICATIONS	
D.C. Resistance	6,1 Ohm
Continuous power (5)	120W above 1,1 kHz
Max. Program power (6)	240W above 1,1 kHz
Sensitivity (7)	107 dB
Frequency Range	0.8 kHz ÷ 20 kHz
Minimum Xover Frequency (8)	1,1 kHz
Voice Coil diameter	60 mm (2.4 in)

LF THIELE SMALL PARAMETERS (9)	
Fs	48 Hz
Re	5,3 Ohm
Sd	0,0881 sq.mt. (136.56 sq.in.)
Qms	7.20
Qes	0,39
Qts	0,37
Vas	158 lt. (5.58 cuft)
Mms	74.5 gr. (0,16 lb)
BL	18 Tm
Mathematical Xmax (10)	±5,5m (±0,22in)
Le (1kHz)	0,65 mH
Half space efficiency	4.5%

NOTES

(1) According to AES2-1984 (r2003) standard

(2) Program power rating is measured in 125 lit. enclosure tuned at 50 Hz using a 50-500Hz band limited pink noise test signal applied for 2 hours and with 50% duty cycle. Power measured on minimum impedance.

(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2.83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for 2 above.

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

(5) Continuous Power is defined as a level that is 3 dB greater than the one measured with the new AES2-2012 standard, using continuous pink noise having 12 dB crest factor for 2 hours.

(6) Program power rating is defined as 3 dB greater than continuous power rating.

(7) Sensitivity represents the average value of acoustic output as measured on the speaker axis at a distance of 1 m, when connected to 2.83 V sine wave swept between 1000-4000 Hz

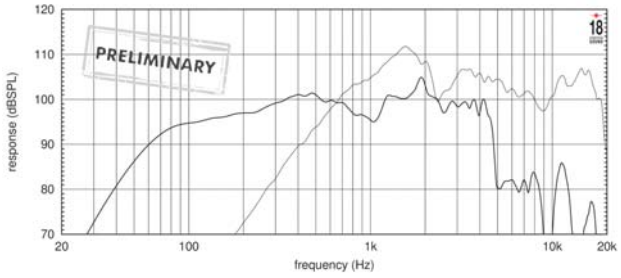
(8) Minimum crossover frequency require at least 18 dB/oct slope high pass filter, preferred 24dB/oct slope high pass filter LR

(9) Thiele - Small parameters are measured after the test specimen has been conditioned by 1 hour 20 Hz sine and represent the expected long term parameters after a short period of use

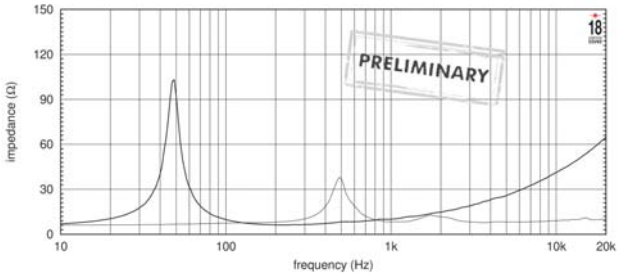
(10) Linear Math. Xmax is calculated as (Hvc-Hg)/2 + Hg/4 where Hvc is the coil depth and Hg is gap depth.

MOUNTING INFORMATIONS	
Overall Ø	393 mm (15,47 in)
N. of mounting holes	8
Mounting holes Ø	7,15 mm (0,28 in)
Bolt circle Ø	371 mm (14,6 in)
Front mount baffle cutout Ø	360 mm (14.17 in)
Total depth	185 mm (7.28 in)
Flange and gasket thickness	14 mm (0,55 in)
Net weight	5,1 kg (11.24 lb)
Shipping weight	6 kg (13.23 lb)
CardBoard Packaging dim.	405 x 405 x 260 mm (15,94 x 15,94 x 10.24 in)

FREQUENCY RESPONSE CURVE MADE ON 125 LT ENCLOSURE TUNED 50HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THIN LINE REPRESENTS HIGH FREQUENCY RESPONSE.



FREE AIR IMPEDANCE MAGNITUDE CURVE



12NCX750

High Output Coaxial Transducer

KEY FEATURES

98dB LF / 106.5dB HF SPL 1W/1m average sensitivity
Single Neodymium magnet structure
800W LF - 240W HF maximum program power handling
75 mm (3") LF Interleaved Sandwich Voice coil (ISV)
Aluminum demodulating ring (SDR) for minimum LF distortion
60 mm (2.4") HF pure Titanium diaphragm
Edge-wound Aluminum ribbon HF voice coil (EWAL)
HF copper sleeve for reduced distortion and higher output
65 degrees nominal conical dispersion
Suitable for very compact enclosures and stage monitors

NOTES

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

(2) Program power rating is measured in 50 lit. enclosure tuned at 60 Hz using a 60-600Hz band limited pink noise test signal applied for 2 hours and with 50% duty cycle. Power measured on minimum impedance.

(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

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

(5) Continuous Power is defined as a level that is 3 dB greater than the one measured with the new AES2-2012 standard, using continous pink noise having 12 dB crest factor for 2 hours.

(6) Program power is defined as 3 dB greater than continuous power rating.

(7) Sensitivity represent the averaged value of acoustic output as measured on speaker axis at a distance 1 m distance, when connected to 2.83 V sine wave swept between 1000-4000 Hz.

(8) Minimum crossover frequency require at least 12 dB/oct slope high pass filter, preferred 24dB/oct slope high pass filter LR

(9) Thiele-Small parameters are measured after the test specimen has been conditioned by 1 hour 20 Hz sine and represent the expected long term parameters after a short period of use

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

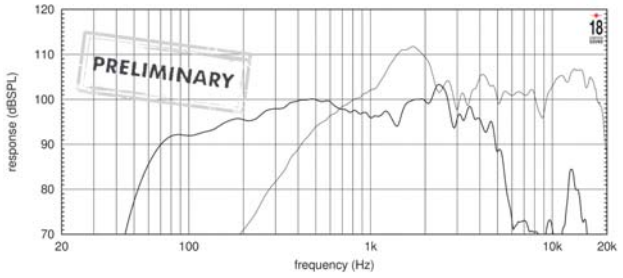
LF GENERAL SPECIFICATIONS	
Nominal Diameter	300 mm (12 in)
Rated Impedance	8 Ohm
AES Power (1)	400 W
Program Power (2)	800 W
Sensitivity (3)	96.5 dB
Frequency Range (4)	60 ÷ 5300 Hz
Max Recomm. Frequency	1800 Hz
Recomm. Enclosure Volume	30 ÷ 60 lt. (1.06 ÷ 2.11 cuft)
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	copper
Suspension	Triple roll, Polycotton
Cone	Curvilinear, Water repellent, High damping pulp

HF GENERAL SPECIFICATIONS	
D.C. Resistance	6,1 Ohm
Continuous power (5)	120W above 1,1 kHz
Max. program power (6)	240W above 1,1 kHz
Sensitivity (7)	106.5 dB
Frequency Range	0.8 kHz ÷ 20 kHz
Minimum Xover Frequency (8)	1,1 kHz
Voice Coil diameter	60 mm (2.4 in)

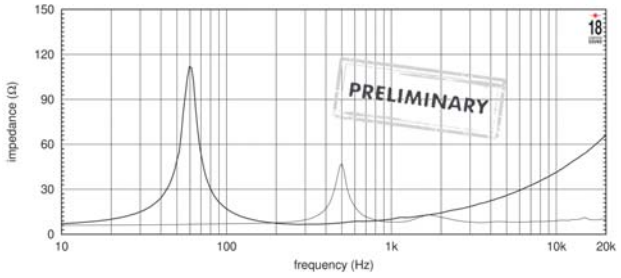
MOUNTING INFORMATIONS	
Overall Ø	310 mm (12.20 in)
N. of mounting holes	8
Mounting holes Ø	5.9 mm (0,23 in)
Bolt circle Ø	295 mm (11.61 in)
Front mount baffle cutout Ø	280 mm (11 in)
Total depth	148 mm (5.85 in)
Flange and gasket thickness	14 mm (0,55 in)
Net weight	4,7 kg (10.36 lb)
Shipping weight	5,2 kg (11.46 lb)
CardBoard Packaging dim.	332 x 332 x 184 mm (13.07 x 13.07 x 7.24 in)

LF THIELE SMALL PARAMETERS (9)	
Fs	60 Hz
Re	5,2 Ohm
Sd	0,0531 sq.mt. (82.31 sq.in.)
Qms	6.30
Qes	0.27
Qts	0.26
Vas	64 lt. (2.26 cuft)
Mms	43 gr. (0,09 lb)
BL	18 Tm
Mathematical Xmax (10)	±5,5m (±0,22in)
Le (1kHz)	0,65 mH
Half space efficiency	4.8 %

FREQUENCY RESPONSE CURVE FOR THE SPEAKER LOADED IN A 50 LT ENCLOSURE TUNED 60 HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THIN LINE REPRESENTS HIGH FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



21NLW9601

Extended LF Neodymium Driver

KEY FEATURES

98 dB SPL 1W / 1m average sensitivity

135 mm (5.3 in) split winding four layers ISV copper coil

3600 W program power handling

Carbon fiber reinforced treated cellulose cone

Triple Silicon Spider (TSS) improves excursion control and linearity even in extreme loading and SPL conditions

Single Demodulating Ring (SDR) for lower distortion

Low noise cooling design for very low power compression

Suitable for bandpass and horn loaded subwoofer designs

PRELIMINARY

GENERAL SPECIFICATIONS

Nominal Diameter	533mm (21 in)
Rated Impedance	8 Ohm
AES Power (1)	1800W
Program Power (2)	3600W
Sensitivity (3)	98 dB
Frequency Range (4)	25 - 2000 Hz
Max Recomm. Frequency	150 Hz
Recomm. Enclosure Volume	120 ÷ 250 lt. (4.24 ÷ 8.83 cuft)
Voice Coil Diameter	135 mm (5,3 in)
Voice Coil Technology	split winding, 4 layers copper
Suspension	Triple Roll, Polycotton
Cone	Straight ribbed carbon fiber loaded cellulose

THIELE SMALL PARAMETERS (5)

Fs	37 Hz
Re	5,9 Ohm
Sd	0,1662 sq.mt. (257,6 sq.in.)
Qms	5,50
Qes	0,31
Qts	0,29
Vas	175 lt. (6.18 cuft)
Mms	408 gr. (0,90 lb)
BL	43 Tm
Linear Mathematical Xmax (6)	±14 mm (±0.55 in)
Le (1kHz)	3,10 mH
Ref. Efficiency 1W@1m (half space)	96,5 dB

MOUNTING INFORMATIONS

Overall diameter	545 mm (21,46 in)
N. of mounting holes	8
Mounting holes diameter	8,5 mm (0,33 in)
Bolt circle diameter	520 mm (20,47 in)
Front mount baffle cutout diameter	492 mm (19,37 in)
Total depth	250 mm (9,8 in)
Flange and gasket thickness	18 mm (0,7 in)
Net weight	14 kg (30,9 lb)
Shipping weight	15,5 kg (34,2 lb)
CardBoard Packaging dimensions	570x570x290 mm (22,4x22,4x11,4 in)

NOTES

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

(2) Program power rating is measured in 250 lit. enclosure tuned at 28 Hz using a 30-300 band limited pink noise test signal applied for 2 hours and with 50% duty cycle

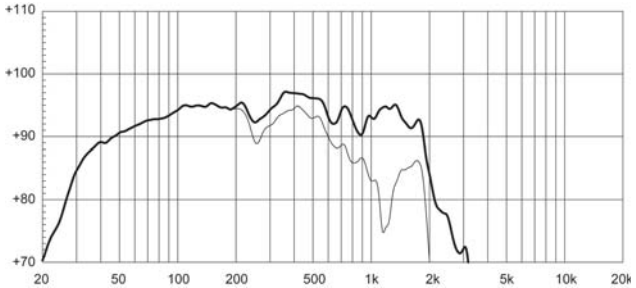
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 3V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for 2 above.

(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

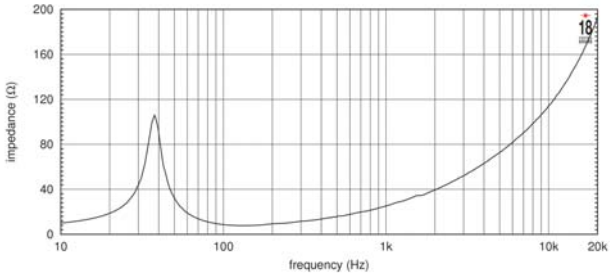
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 1 hour 20 Hz sine and represent the expected long term parameters after a short period of use

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

FREQUENCY RESPONSE CURVE OF 21NLW9601 MADE ON 250 LIT. ENCLOSURE TUNED AT 28HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE.



FREE AIR IMPEDANCE MAGNITUDE CURVE.



21NLW9001

Extended Low Frequency Neo Transducer

PRELIMINARY

KEY FEATURES

98 dB SPL 1W / 1m average sensitivity
135 mm (5.3 in) split winding four layers ISV copper coil
3600 W program power handling
Carbon fiber reinforced cellulose cone
Double Silicon Spider (DSS) for improved excursion control
Aluminum demodulating ring (SDR) for lower distortion
Low noise forced ventilation design for low power compression
Weather protected cone and plates for outdoor usage
Suitable for vented and bandpass subwoofer systems

GENERAL SPECIFICATIONS

Nominal Diameter	533 mm (21 in)
Rated Impedance	8 Ohm
AES Power (1)	1800W
Program Power (2)	3600W
Sensitivity (3)	98 dB
Frequency Range (4)	25 - 1500 Hz
Max Recomm. Frequency	150 Hz
Recomm. Enclosure Volume	120 ÷ 500 lt (4,24 ÷ 17,7 cuft)
Voice Coil Diameter	135 mm (5,3 in)
Voice Coil Technology	split winding, 4 layers copper wire
Suspension	Triple roll, Polycotton
Cone	Straight ribbed carbon fiber loaded cellulose

THIELE SMALL PARAMETERS (5)

Fs	32 Hz
Re	5,9 Ohm
Sd	0,1662 sq.mt. (257,6 sq.in.)
Qms	4,50
Qes	0,34
Qts	0,31
Vas	244 lt. (8,62 cuft)
Mms	390 gr. (0,86 lb)
BL	37 Tm
Linear Mathematical Xmax (6)	±14 mm (±0,55 in)
Le (1kHz)	3,1 mH
Ref. Efficiency 1W@1m (half space)	95,5 dB

MOUNTING INFORMATIONS

Overall diameter	545 mm (21,46 in)
N. of mounting holes	8
Mounting holes diameter	8,5 mm (0,33 in)
Bolt circle diameter	520 mm (20,47 in)
Front mount baffle cutout diameter	492 mm (19,37 in)
Total depth	250 mm (9,8 in)
Flange and gasket thickness	18 mm (0,7 in)
Net weight	14 kg (30,9 lb)
Shipping weight	15,5 kg (34,2 lb)
CardBoard Packaging dimensions	570x570x290 mm (22,4x22,4x11,4 in)

NOTES

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

(2) Program power rating is measured in 250 lit. enclosure tuned at 28 Hz using a 30-300 band limited pink noise test signal applied for 2 hours and with 50% duty cycle

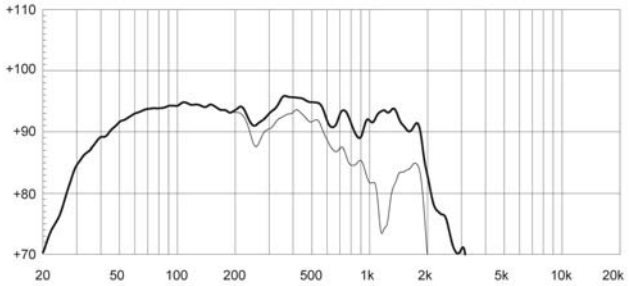
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for 2 above.

(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.

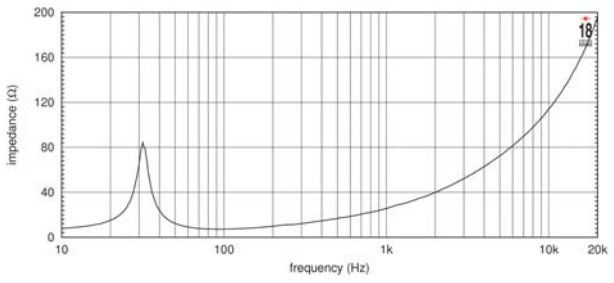
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 1 hour @ 20 Hz sine and represent the expected long term parameters after a short period of use

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

FREQUENCY RESPONSE CURVE OF 21NLW9001 MADE ON 250 LIT. ENCLOSURE TUNED AT 28HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



18NLW9601

Extended LF Neodymium Driver

KEY FEATURES

97 dB SPL 1W / 1m average sensitivity
135 mm (5.3 in) split winding four layers ISV aluminum voice coil
3600 W program power handling
Carbon fiber reinforced cellulose cone
Double Silicon Spider (DSS) for improved excursion control
Aluminum demodulating ring (SDR) for lower distortion
High force neodymium magnet assembly
Weather protected cone and plates for outdoor usage
Suitable for reflex, bandpass or horn loaded high SPL subwoofer systems

PRELIMINARY

GENERAL SPECIFICATIONS

Nominal Diameter	462mm (18 in)
Rated Impedance	8 Ohm
AES Power (1)	1800W
Program Power (2)	3600W
Sensitivity (3)	97 dB
Frequency Range (4)	30 - 2500 Hz
Max Recomm. Frequency	300 Hz
Recomm. Enclosure Volume	110 ÷ 350 lt. (3,88 ÷ 12,36 cuft)
Voice Coil Diameter	135 mm (5,3 in)
Voice Coil Height	32 mm (1.26 in)
Voice Coil Technology	split winding, 4 layers copper clad Al wire
Gap Depth	12 mm (0.47 in)
Suspension	Triple Roll Treated Polycotton
Cone	Straight ribbed carbon fiber loaded cellulose

THIELE SMALL PARAMETERS (5)

Fs	32 Hz
Re	4,7 ohms
Sd	0,113 sq.mt. (175.15 sq.in.)
Qms	5,0
Qes	0,28
Qts	0,27
Vas	164 lt. (5,8 cuft)
Mms	270 gr. (0,6 lb)
BL	30 Tm
Linear Mathematical Xmax (6)	±14 mm (±0,55 in)
Le (1kHz)	2,10 mH
Ref. Efficiency 1W@1m (half space)	94,6 dB

MOUNTING INFORMATIONS

Overall diameter	462 mm (18,18 in)
N. of mounting holes	8
Mounting holes diameter	8,5 mm (0,33 in)
Bolt circle diameter	440mm (17,32 in)
Front mount baffle cutout diameter	416 mm (16,38 in)
Total depth	236 mm (9,29 in)
Flange and gasket thickness	26 mm (1,02 in)
Net weight	12,5 kg (27,6 lb)
Shipping weight	14 kg (30,9 lb)
Packing Size	482 x 482 x 251 mm (19 x 19 x 10 in)

NOTES

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

(2) Program power rating is measured in 180 lit enclosure tuned 35Hz using a 40-400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

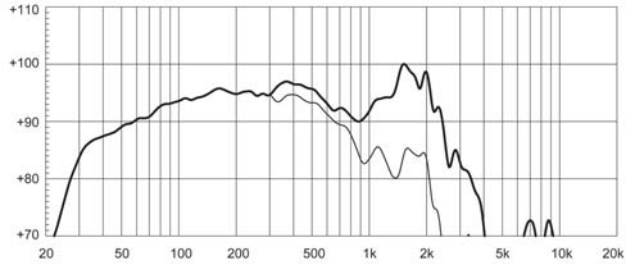
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 3V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for 2 above.

(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.

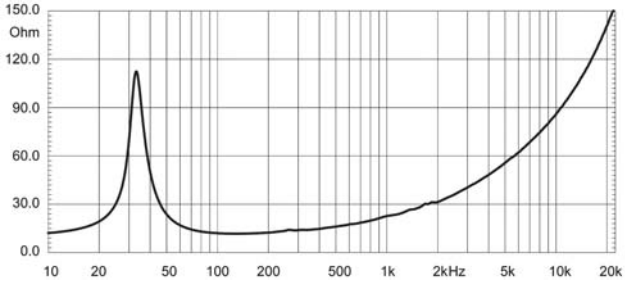
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 1 hour 20 Hz sine and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 18NLW9601 MADE ON 180 LIT. ENCLOSURE TUNED AT 35Hz IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER.
THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



21NLW9400

N9400 series

Extended Low Frequency Neo Transducer

KEY FEATURES

97,5 dB SPL 1W / 1m average sensitivity
100 mm (4 in) Interleaved Sandwich Voice coil (ISV)
2400 Watt program power handling
Double surround controls cone edge excursion
Unlimited life lead wire construction
Weather protected treated membrane and plates for outdoor usage
High grade neodymium magnet assembly
Recommended for subwoofer usage in compact vented enclosures

GENERAL SPECIFICATIONS	
Nominal Diameter	533 mm (21 in)
Rated Impedance	4 ohm
AES Power (1)	1200W
Program Power (2)	2400W
Sensitivity (3)	97.5 dB
Frequency Range (4)	30 - 1500 Hz
Max Recomm. Frequency	250 Hz
Recomm. Enclosure Volume	120 ÷ 500 lt. (4.24 ÷ 17.66 cuft)
Voice Coil Diameter	100 mm (4 in)
Voice Coil Winding Material	Copper round wire
Suspension	Triple roll, Treated Polycotton
Cone	Curved ribbed fiberglass loaded cellulose

THIELE SMALL PARAMETERS (5)	
Fs	33 Hz
Re	3.5 ohm
Sd	0,1662 sq.mt. (257.6 sq.in.)
Qms	8,85
Qes	0,36
Qts	0,35
Vas	340 lt. (12 cuft)
Mms	248 gr. (0.54 lb)
BL	23 Tm
Linear Mathematical Xmax (6)	±9,5 mm (±0.37 in)
Le (1kHz)	1,51 mH
Ref. Efficiency 1W@1m (half space)	97,8 dB

MOUNTING INFORMATIONS	
Overall diameter	545 mm (21,46 in)
N. of mounting holes	8
Mounting holes diameter	8,5 mm (0,33 in)
Bolt circle diameter	520 mm (20.47 in)
Front mount baffle cutout diameter	492 mm (19.37 in)
Total depth	240 mm (9.45 in)
Flange and gasket thickness	19,5 mm (0.77 in)
Net weight	9,45 kg (20.8 lb)
Shipping weight	10,8 kg (23.8 lb)
CardBoard Packaging dimensions	570 x 570 x 290 mm (19 x 19 x 10,1 in)

NOTES

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

(2) Program power rating is measured in 250 lit enclosure tuned 28 Hz using a 40-400Hz band limited pink noise test signal 50% duty cycle applied continuously for 2 hours.

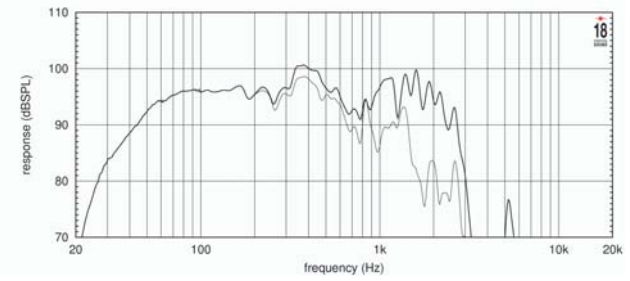
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

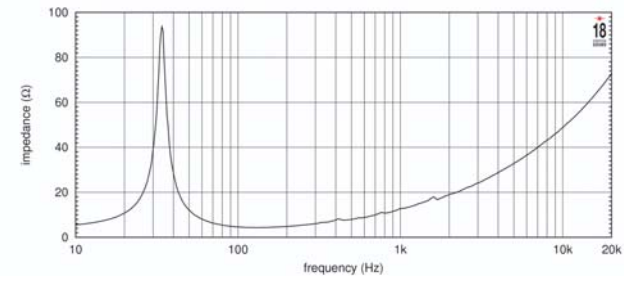
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 21NLW9400 MADE ON 250 LIT. ENCLOSURE TUNED AT 28HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE.



FREE AIR IMPEDANCE MAGNITUDE CURVE



18NLW9000

Extended LF Neodymium Driver

KEY FEATURES

97 dB SPL 1W / 1m average sensitivity
135 mm (5.3 in) ISV aluminum voice coil
3600 W program power handling
Carbon fiber reinforced cone
Double Silicon Spider (DSS) technology
Low noise forced ventilation design reduces power compression
High grade neodymium magnet assembly
Weather protected cone and plates for outdoor usage
Suitable for vented and bandpass high SPL subwoofer systems

GENERAL SPECIFICATIONS

Nominal Diameter	462 mm (18 in)
Rated Impedance	8 ohms
AES Power (1)	1800W
Program Power (2)	3600W
Sensitivity (3)	97 dB
Frequency Range (4)	32 - 2500 Hz
Max Recomm. Frequency	300 Hz
Recomm. Enclosure Volume	120 ÷ 350 lt. (4.2 ÷ 12.4 cuft)
Voice Coil Diameter	135 mm (5,3 in)
Voice Coil Height	32 mm (1.26 in)
Voice Coil Technology	2 layers copper clad aluminum wire
Gap Depth	12 mm (0.47 in)
Suspension	Triple Roll, Polycotton
Cone	Straight ribbed, carbon fiber reinforced cellulose

THIELE SMALL PARAMETERS (5)

Fs	34 Hz
Re	5,5 ohms
Sd	0,1225 sq.mt. (190 sq.in.)
Qms	7
Qes	0,32
Qts	0,31
Vas	206 lt. (7.3 cuft)
Mms	218 gr. (0,48 lb)
BL	27 Tm
Linear Mathematical Xmax (6)	±14 mm (±0,55 in)
Le (1kHz)	1,90 mH
Ref. Efficiency 1W@1m (half space)	96,1 dB

MOUNTING INFORMATIONS

Overall diameter	462 mm (18,18 in)
N. of mounting holes	8
Mounting holes diameter	8,5 mm (0,33 in)
Bolt circle diameter	440mm (17,32 in)
Front mount baffle cutout diameter	416 mm (16,38 in)
Total depth	237,5 mm (9,3 in)
Flange and gasket thickness	26 mm (1,02 in)
Net weight	12,5 kg (27,6 lb)
Shipping weight	14 kg (30,9 lb)
Packaging Size	482 x 482 x 257 mm (19 x 19 x 10,1 in)

NOTES

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

(2) Program power rating is measured in 180 lit enclosure tuned 35Hz using a 40-400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

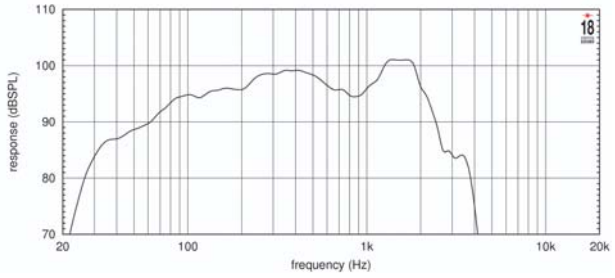
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

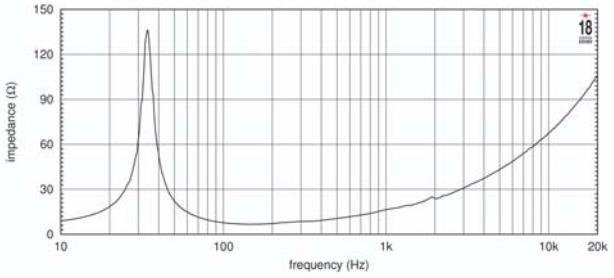
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 18NLW9000 MADE ON 180 LIT. ENCLOSURE TUNED AT 35HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER.



FREE AIR IMPEDANCE MAGNITUDE CURVE



18NLW9400

N9400 series

Extended Low Frequency Neo Transducer

KEY FEATURES

98 dB SPL 1W / 1m average sensitivity

100 mm (4 in) Interleaved Sandwich Voice coil (ISV)

2400 Watt program power handling

Fiberglass reinforced straight ribbed cone

Double Silicon Spider (DSS) for increased excursion control and linearity

High grade neodymium magnet assembly

Recommended for subwoofer usage in compact vented or bandpass enclosures

Weather protected cone and plates for outdoor usage

GENERAL SPECIFICATIONS

Nominal Diameter	460mm (18 in)
Rated Impedance	8 ohm
AES Power (1)	1200W
Program Power (2)	2400W
Sensitivity (3)	98 dB
Frequency Range (4)	30 - 2500 Hz
Max Recomm. Frequency	500 Hz
Recomm. Enclosure Volume	110 ÷ 350 lt. (3.9 ÷ 12.36 cuft)
Voice Coil Diameter	100 mm (4 in)
Voice Coil Height	24 mm (0.94 in)
Voice Coil Winding Material	Copper round wire
Suspension	Triple roll, Treated Polycotton
Cone	Straight ribbed, Fiberglass reinforced cellulose

THIELE SMALL PARAMETERS (5)

Fs	33 Hz
Re	5 ohm
Sd	0,1225 sq.mt. (189,88 sq.in.)
Qms	6,10
Qes	0,28
Qts	0,26
Vas	268 lt. (9.47 cuft)
Mms	180 gr. (0.40 lb)
BL	26 Tm
Linear Mathematical Xmax (6)	±9,5 mm (±0,37 in)
Le (1kHz)	1,90 mH
Ref. Efficiency 1W@1m (half space)	97,4 dB

MOUNTING INFORMATIONS

Overall diameter	462 mm (18,19 in)
Mounting holes diameter	8 x 8,5 mm (0,33 in)
Bolt circle diameter	438-440 mm (17,24-17,32 in)
Front mount baffle cutout diameter	416 mm (16,38 in)
Total depth	223,5 mm (8,8 in)
Flange and gasket thickness	26 mm (1,02 in)
Net weight	8,7 kg (19.2 lb)
Shipping weight	9,9 kg (21.8 lb)
Packaging dimensions	482 x 482 x 257 mm (19 x 19 x 10,1 in)

NOTES

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

(2) Program power rating is measured in 180lit enclosure tuned 35Hz using a 40-400Hz band limited pink noise test signal 50% duty cycle applied continuously for 2 hours.

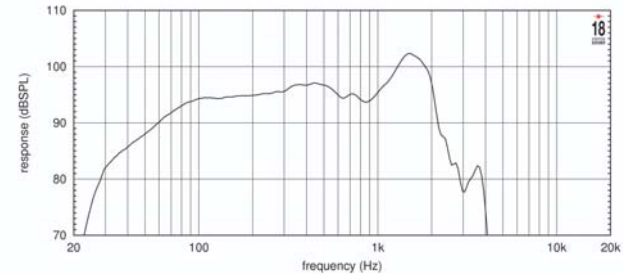
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

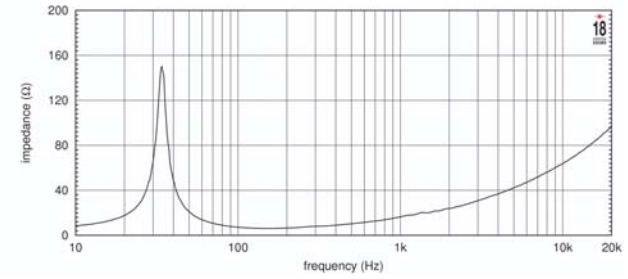
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 18NLW9400 MADE ON 180 LIT. ENCLOSURE TUNED AT 35HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE.



FREE AIR IMPEDANCE MAGNITUDE CURVE



15NLW9401

Extended LF Neodymium Driver

KEY FEATURES

97,5 dB SPL 1W / 1m average sensitivity
100 mm (4 in) Interleaved Sandwich Voice coil (ISV)
1200W AES power handling
Fiberglass reinforced water repellent treated cone
Double Silicon Spider (DSS) for improved excursion control and linearity
High grade neodymium magnet assembly
Improved heat dissipation via multiple back-plate vents
Ideal for 60 to 130 lt subwoofer cabinets

GENERAL SPECIFICATIONS

Nominal Diameter	380mm (15 in)
Rated Impedance	8 ohms
AES Power (1)	1200W
Program Power (2)	2400W
Sensitivity (3)	97,5 dB
Frequency Range (4)	37 - 2300 Hz
Max Recomm. Frequency	500 Hz
Recomm. Enclosure Volume	60 ÷ 130 lt. (2,12 ÷ 4,59 cuft)
Voice Coil Diameter	100 mm (4 in)
Voice Coil Winding Material	copper
Suspension	Triple roll, Polycotton
Cone	Straight ribbed, fiberglass reinforced water repellent treated paper

THIELE SMALL PARAMETERS (5)

Fs	39 Hz
Re	5,2 ohms
Sd	0,09 sq.mt. (139,5 sq.in.)
Qms	4,13
Qes	0,28
Qts	0,26
Vas	134 lt (4,73 cuft)
Mms	140 gr (0,31 lb)
BL	25,4 Tm
Linear Mathematical Xmax (6)	±10 mm (±0,39 in)
Le (1kHz)	1,9 mH
Ref. Efficiency 1W@1m (half space)	96,7 dB

MOUNTING INFORMATIONS

Overall diameter	393 mm (15,47 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	371 mm (14.6 in)
Front mount baffle cutout diameter	354 mm (13.93 in)
Total depth	180 mm (7.13 in)
Flange and gasket thickness	12,5 mm (0.49 in)
Net weight	7,6 kg (16.78 lb)
Shipping weight	8,2 kg (18.96 lb)
CardBoard Packaging dimensions	405x405x214 mm (15,94x15.94x8,43 in)

NOTES

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

(2) Program power rating is measured in 125 lt enclosure tuned at 50Hz using a 40-400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

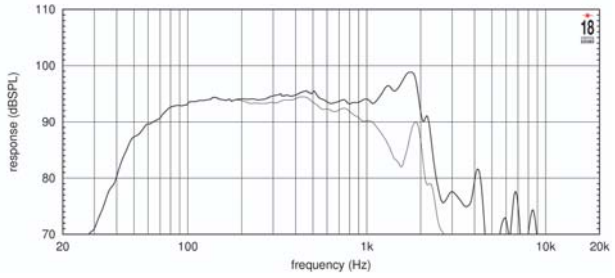
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

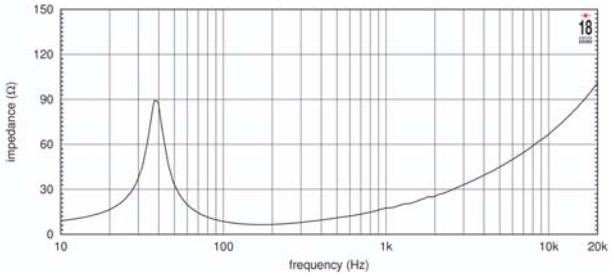
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 15NLW9401 MADE ON 125 LIT. ENCLOSURE TUNED AT 50HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE.



FREE AIR IMPEDANCE MAGNITUDE CURVE



15NLW9500

N9500 series

Extended Low Frequency Neo Transducer

KEY FEATURES

96 dB SPL 1W / 1m average sensitivity

100 mm (4 in) Interleaved Sandwich Voice coil (ISV)

1000 W AES power handling

Carbon fiber reinforced cone

Double Silicon Spider (DSS) for improved excursion control and linearity

Double Demodulating Rings (DDR) for lower distortion

Rubber surround suspension system

External neodymium magnet assembly

Improved dissipation via onboard aluminum heatsink

Ideal for low distortion direct radiation subwoofers

GENERAL SPECIFICATIONS

Nominal Diameter	380mm (15 in)
Rated Impedance	8 ohms
AES Power (1)	1000W
Program Power (2)	1400W
Sensitivity (3)	96 dB
Frequency Range (4)	42 - 2000 Hz
Max Recomm. Frequency	500 Hz
Recomm. Enclosure Volume	70 ÷ 150 lt. (2,47 ÷ 5,3 cuft)
Voice Coil Diameter	100 mm (4 in)
Voice Coil Winding Material	copper
Suspension	Single roll, Rubber
Cone	Straight-sided ribbed carbon fiber loaded pulp

THIELE SMALL PARAMETERS (5)

Fs	35 Hz
Re	4,9 ohms
Sd	0,091 sq.mt. (141,1 sq.in.)
Qms	6,7
Qes	0,34
Qts	0,32
Vas	163 lt. (5,8 cuft)
Mms	146 gr. (0,32 lb)
BL	21,6 Tm
Linear Mathematical Xmax (6)	±9 mm (±0,35 in)
Le (1kHz)	0,8 mH
Ref. Efficiency 1W@1m (half space)	95 dB

MOUNTING INFORMATIONS

Overall diameter	387 mm (15,2 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,3 in)
Bolt circle diameter	370-371 mm (14,55-14,6 in)
Front mount baffle cutout diameter	353 mm (13,9 in)
Total depth	177.4 mm (6.98 in)
Flange and gasket thickness	24 mm (0,95 in)
Net weight	7 kg (15,5 lb)
Shipping weight	7,6 kg (16,8 lb)
CardBoard Packaging dimensions	405x405x214 mm (15,94x15,94x8,43 in)

NOTES

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

(2) Program power rating is measured in 125 lt enclosure tuned at 50Hz using a 40-400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

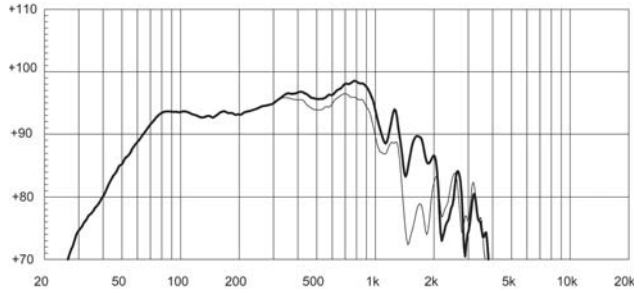
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

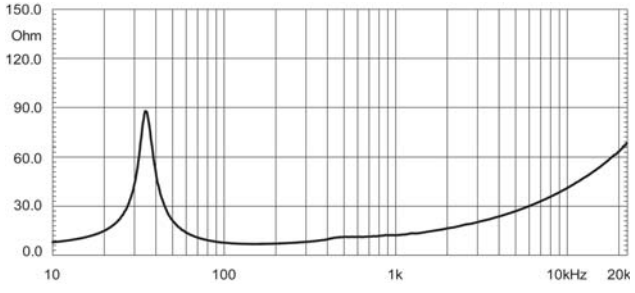
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 1000 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 15NLW9500 MADE ON 180 LIT. ENCLOSURE TUNED AT 35HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE.



FREE AIR IMPEDANCE MAGNITUDE CURVE



N9300 series

15NLW9300

LF Neodymium Driver

KEY FEATURES

97 dB SPL 1W / 1m average sensitivity

100 mm (4 in) Interleaved Sandwich ISV copper clad voice coil

800W AES power handling

Carbon fiber reinforced cone

Double Demodulating Rings (DDR) for lower distortion

Improved dissipation via onboard aluminum heatsink and multi-cell air diffractor

External neodymium magnet assembly

Weather protected cone and plates for outdoor usage

Recommended for multiway systems and studio monitoring applications

GENERAL SPECIFICATIONS	
Nominal Diameter	380mm (15 in)
Rated Impedance	8 ohms
AES Power (1)	800W
Program Power (2)	1200W
Sensitivity (3)	97dB
Frequency Range (4)	50 - 3000 Hz
Max Recomm. Frequency	1200 Hz
Recomm. Enclosure Volume	65 ÷ 150 lt. (2,30 ÷ 5,30 cuft)
Voice Coil Diameter	100 mm (4 in)
Voice Coil Winding Material	copper clad aluminum
Suspension	Triple roll, Polycotton
Cone	Straight ribbed, carbon fiber reinforced cellulose

THIELE SMALL PARAMETERS (5)	
Fs	39 Hz
Re	6 ohms
Sd	0,09 sq.mt. (139,5 sq.in.)
Qms	6,7
Qes	0,274
Qts	0,26
Vas	170 lt. (6 cuft)
Mms	107 gr. (0,24 lb)
BL	24,4 Tm
Linear Mathematical Xmax (6)	±8 mm (±0,31 in)
Le (1kHz)	0,95 mH
Ref. Efficiency 1W@1m (half space)	98 dB

MOUNTING INFORMATIONS	
Overall diameter	387 mm (15,24 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	370-371 mm (14,55-14,6 in)
Front mount baffle cutout diameter	353 mm (13,90 in)
Total depth	174 mm (6,85 in)
Flange and gasket thickness	19,5 mm (0,76 in)
Net weight	6,8 kg (15 lb)
Shipping weight	7,6 kg (16,78 lb)
CardBoard Packaging dimensions	405x405x214 mm (15,94x15.94x8,43 in)

NOTES

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

(2) Program power rating is measured in 125 lt enclosure tuned at 50Hz using a 50-500Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

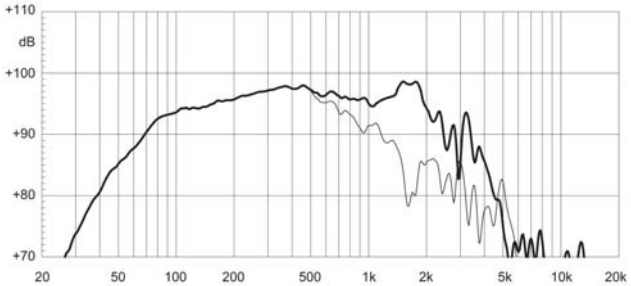
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 1000Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

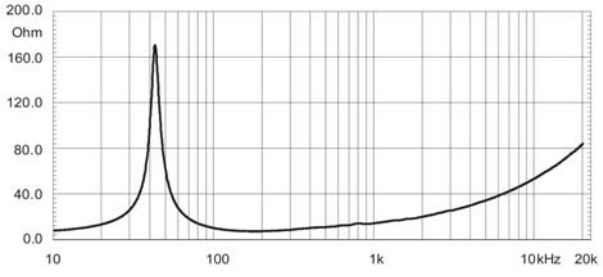
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 800 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 15NLW9300 MADE ON 125 LIT. ENCLOSURE TUNED AT 50HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE.



FREE AIR IMPEDANCE MAGNITUDE CURVE



15ND930

N900 series

Extended Low Frequency Neo Transducer

KEY FEATURES

98 dB SPL 1W / 1m average sensitivity

75 mm (3 in) edgewound voice coil

500W AES power handling

Neodymium magnet assembly

Double Demodulating Rings (DDR) for lower distortion

Humidity resistant cone

Ideal for two way systems and for high loading compact subwoofer applications

GENERAL SPECIFICATIONS

Nominal Diameter	380mm (15 in)
Rated Impedance	8 Ohm
AES Power (1)	500W
Program Power (2)	800W
Sensitivity (3)	98 dB
Frequency Range (4)	40 - 4100 Hz
Max Recomm. Frequency	1700 Hz
Recomm. Enclosure Volume	60 ÷ 140 lt. (2,12 ÷ 4,95 cuft)
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	copper
Suspension	M-roll, Polycotton
Cone	Curvilinear, Treated paper

THIELE SMALL PARAMETERS (5)

Fs	36 Hz
Re	5,5 Ohm
Sd	0,085 sq.mt. (131,75 sq. in.)
Qms	5,3
Qes	0,23
Qts	0,22
Vas	206 lt. (7,28 cuft)
Mms	101 gr. (0,22 lb)
BL	23,8 Tm
Linear Mathematical Xmax (6)	± 7,5 mm (± 0,30 in)
Le (1kHz)	1,61 mH
Ref. Efficiency 1W@1m (half space)	98,2 dB

MOUNTING INFORMATIONS

Overall diameter	387 mm (15,24 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	370-371 mm (14,57-14,61 in)
Front mount baffle cutout ø	353 mm (13,9 in)
Total depth	177 mm (7 in)
Flange and gasket thickness	11,5 mm (0,45 in)
Net weight	4,1 kg (9 lb)
Shipping weight	4,8 kg (10,5 lb)
CardBoard Packaging dimensions	405 x 405 x 214 mm (15,94 x 15,94 x 8,43 in)

NOTES

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

(2) Program power rating is measured in 125 lt enclosure tuned at 50Hz using a 40-400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

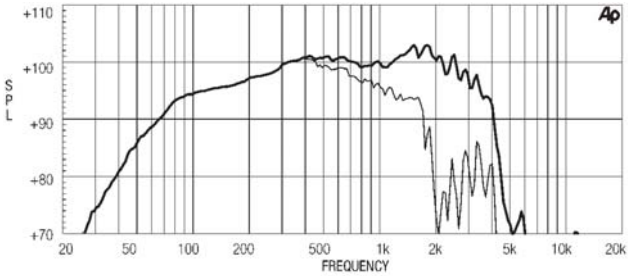
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83 V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

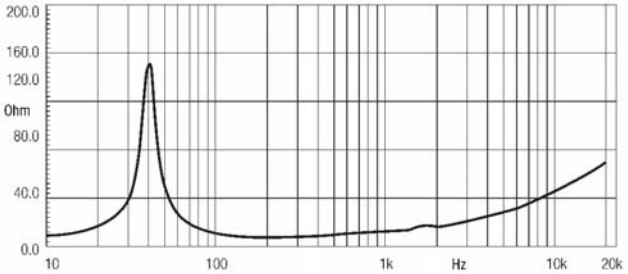
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 500 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 15ND930 MADE ON 125 LIT. ENCLOSURE TUNED 50HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



15ND830

LF Neodymium Driver

KEY FEATURES

98 dB SPL 1W / 1m average sensitivity
75 mm (3 in) edgewound voice coil (ISV)
450 W AES power handling
Neodymium magnet assembly
Weather protected cone for outdoor usage
Ideal for compact reflex subwoofer and reflex multiway systems

GENERAL SPECIFICATIONS

Nominal Diameter	380mm (15 in)
Rated Impedance	8 Ohm
AES Power (1)	450W
Program Power (2)	700W
Sensitivity (3)	98dB
Frequency Range (4)	38 ÷ 5000 Hz
Max Recomm. Frequency	2000 Hz
Recomm. Enclosure Volume	80 ÷ 140 lt. (2,83 ÷ 4,95 cuft)
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	aluminum
Suspension	M-roll, Polycotton
Cone	Curvilinear, Paper

THIELE SMALL PARAMETERS (5)

Fs	39 Hz
Re	5,7 Ohm
Sd	0,085 sq.mt. (131,75 sq. in.)
Qms	3,9
Qes	0,35
Qts	0,32
Vas	213 lt. (7,5 cuft)
Mms	80 gr. (0,18 lb)
BL	18 Tm
Linear Mathematical Xmax (6)	± 6,5 mm (± 0,26 in)
Le (1kHz)	1,54 mH
Ref. Efficiency 1W@1m (half space)	97,5 dB

MOUNTING INFORMATIONS

Overall diameter	387 mm (15,24 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	370-371 mm (14,57-14,61 in)
Front mount baffle cutout ø	353 mm (13,9 in)
Total depth	177 mm (7,01 in)
Flange and gasket thickness	11,5 mm (0,45 in)
Net weight	4,1 kg (8,05 lb)
Shipping weight	4,8 kg (10,6 lb)
CardBoard Packaging dimensions	405 x 405 x 214 mm (15,94 x 15,94 x 8,43 in)

NOTES

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

(2) Program power rating is measured in 125 lt enclosure tuned at 50Hz using a 40-400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

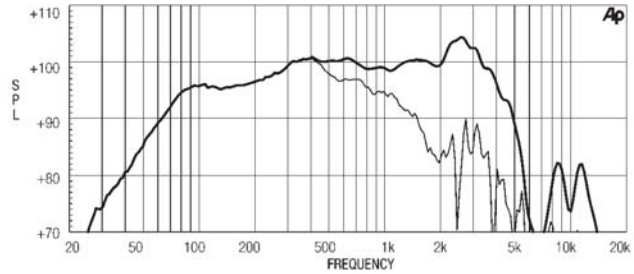
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83 V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

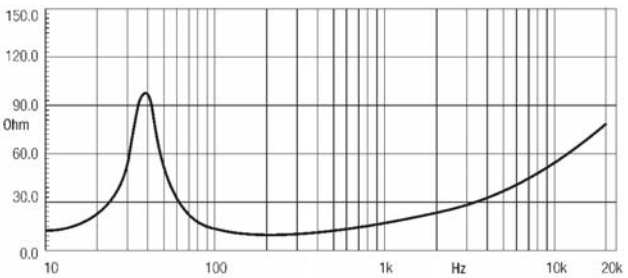
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 450 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 15ND830 MADE ON 125 LIT. ENCLOSURE TUNED 50HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



15NW530

N500 series

Extended Low Frequency Neo Transducer

KEY FEATURES

96 dB SPL 1W / 1m average sensitivity
75 mm (3 in) edgewound copper voice coil
500 W AES power handling
Double Silicon Spider (DSS) for improved excursion control and linearity
Single Demodulating Ring (SDR) for lower distortion
High excursion damped rubber roll surround
Suitable for outdoor applications
Ideal for compact subwoofer use

GENERAL SPECIFICATIONS

Nominal Diameter	380mm (15 in)
Rated Impedance	8 Ohm
AES Power (1)	500W
Program Power (2)	800W
Sensitivity (3)	96dB
Frequency Range (4)	47 ÷ 3500 Hz
Max Recomm. Frequency	1000 Hz
Recomm. Enclosure Volume	70 ÷ 150 lt. (2,47 ÷ 10,6 cuft)
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	copper
Suspension	Single Roll, Rubber
Cone	Curvilinear, Treated paper

THIELE SMALL PARAMETERS (5)

Fs	38 Hz
Re	5,3 Ohm
Sd	0,09 sq.mt. (131,75 sq. in.)
Qms	5,81
Qes	0,35
Qts	0,33
Vas	154 lt. (5,4 cuft)
Mms	135 gr. (0,3 lb)
BL	22 Tm
Linear Mathematical Xmax (6)	± 7,5 mm (± 0,3 in)
Le (1kHz)	1,4 mH
Ref. Efficiency 1W@1m (half space)	95,7 dB

MOUNTING INFORMATIONS

Overall diameter	387 mm (15,24 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	370-371 mm (14,57-14,61 in)
Front mount baffle cutout ø	353 mm (13,9 in)
Total depth	169,5 mm (6,92 in)
Flange and gasket thickness	11,5 mm (0,45 in)
Net weight	4,0 kg (8,8 lb)
Shipping weight	4,8 kg (10,6 lb)
CardBoard Packaging dimensions	405 x 405 x 214 mm (15,94 x 15,94 x 8,43 in)

NOTES

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

(2) Program power rating is measured in 125 lit enclosure tuned @ 50Hz using a 40-400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

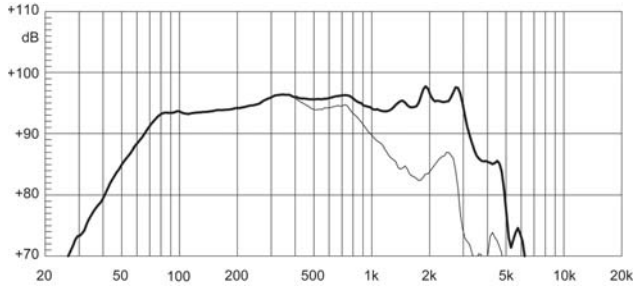
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

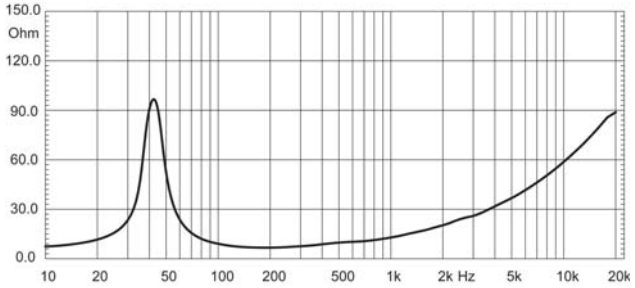
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 500 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 15NW530 MADE ON 125 LIT. ENCLOSURE TUNED 50HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE.



FREE AIR IMPEDANCE MAGNITUDE CURVE



12NLW9300

LF Neodymium Driver

KEY FEATURES

97 dB SPL 1W / 1m average sensitivity

100 mm (4in) Interleaved Sandwich ISV aluminum voice coil

800 W AES power handling

Carbon fiber reinforced cone

Double Demodulating Rings (DDR) for lower distortion

External neodymium magnet assembly

Weather protected cone and plates for outdoor usage

Improved dissipation via onboard aluminum heatsink and multi-cell air diffractor

Recommended for two way and multiway systems

GENERAL SPECIFICATIONS

Nominal Diameter	300mm (12 in)
Rated Impedance	8 ohms
AES Power (1)	800W
Program Power (2)	1200W
Sensitivity (3)	97 dB
Frequency Range (4)	45 - 3200 Hz
Max Recomm. Frequency	1500 Hz
Recomm. Enclosure Volume	30 ÷ 70 lt. (1,06 ÷ 2,47 cuft)
Voice Coil Diameter	100 mm (3,94 in)
Voice Coil Winding Material	aluminum
Suspension	Triple Roll, Polycotton
Cone	Straight ribbed, paper

THIELE SMALL PARAMETERS (5)

Fs	40 Hz
Re	4,7 ohms
Sd	0,053 sq.mt. (82,15 sq.in.)
Qms	4,67
Qes	0,25
Qts	0,24
Vas	87 lt. (3,07 cuft)
Mms	72 gr. (0,16 lb)
BL	18 Tm
Linear Mathematical Xmax (6)	±8mm (±0,31 in)
Le (1kHz)	0,49 mH
Ref. Efficiency 1W@1m (half space)	95,4 dB

MOUNTING INFORMATIONS

Overall diameter	315 mm (12,40 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	296-300 mm (11,65-11,8 in)
Front mount baffle cutout diameter	282 mm (11,10 in)
Total depth	153 mm (6,02 in)
Flange and gasket thickness	17 mm (0,67 in)
Net weight	6,2 kg (13,69 lb)
Shipping weight	7 kg (15,45 lb)
CardBoard Packaging dimensions	332x332x184 mm (13,07x13,07x7,24 in)

NOTES

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

(2) Program power rating is measured in 50 lit enclosure tuned at 60Hz using a 60-600Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

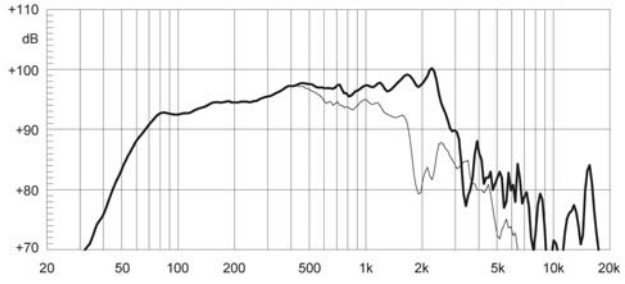
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 1000Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

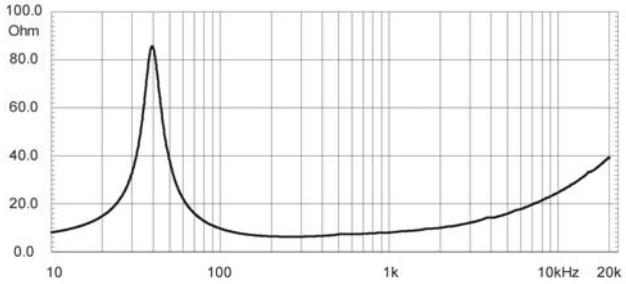
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 800W AES power and represent the expected long term parameters after a short period of use.

(6) Linear Mat. Xmax is calculated as (Hvc-Hg)/2 + Hg/4 where Hvc is the coil depth and Hgis the gap depth.

FREQUENCY RESPONSE CURVE OF 12NLW9300 MADE ON 50 LIT. ENCLOSURE TUNED AT 60HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



12ND930

N900 series

Low Frequency Neo Transducer

KEY FEATURES

98 dB SPL 1W / 1m average sensitivity
75 mm (3 in) Interleaved Sandwich Voice coil (ISV)
500 W AES power handling
External neodymium magnet assembly
Double Demodulating Rings (DDR) for lower distortion
Humidity resistant cone
Ideal for 2 way systems and compact high loading subwoofer applications

GENERAL SPECIFICATIONS

Nominal Diameter	300mm (12 in)
Rated Impedance	8 Ohm
AES Power (1)	500W
Program Power (2)	800W
Sensitivity (3)	98dB
Frequency Range (4)	46 ÷ 4500 Hz
Max Recomm. Frequency	2000 Hz
Recomm. Enclosure Volume	30 ÷ 100 lt. (1,06 ÷ 3,53 cuft)
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	copper
Suspension	M-roll, Polycotton
Cone	Curvilinear, Treated Paper

THIELE SMALL PARAMETERS (5)

Fs	50 Hz
Re	5,5 Ohm
Sd	0,0531 sq.mt. (82,31 sq.in.)
Qms	5,64
Qes	0,218
Qts	0,21
Vas	70 lt. (2,47cuft)
Mms	57 gr. (0,13 lb)
BL	21,2 Tm
Linear Mathematical Xmax (6)	± 6,5 mm (± 0,26 in)
Le (1kHz)	1,65 mH
Ref. Efficiency 1W@1m (half space)	98 dB

MOUNTING INFORMATIONS

Overall diameter	315 mm (12,4 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	296-300 mm (11,65-11,8 in)
Front mount baffle cutout ø	282 mm (11,1 in)
Total depth	140 mm (5,52 in)
Flange and gasket thickness	11,5 mm (0,45 in)
Net weight	4 kg (8,83 lb)
Shipping weight	4,8 kg (10,6 lb)
CardBoard Packaging dimensions	332 x 332 x 184 mm(13,07 x 13,07 x 7,24 in)

NOTES

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

(2) Program power rating is measured in 50 lit enclosure tuned at 60Hz using a 40-400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

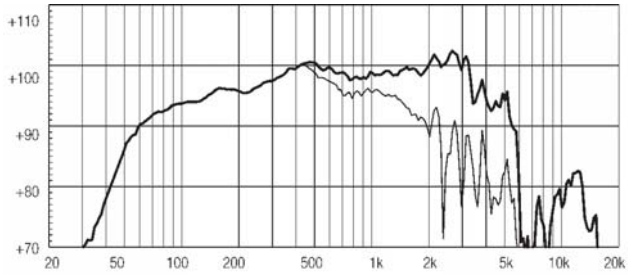
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

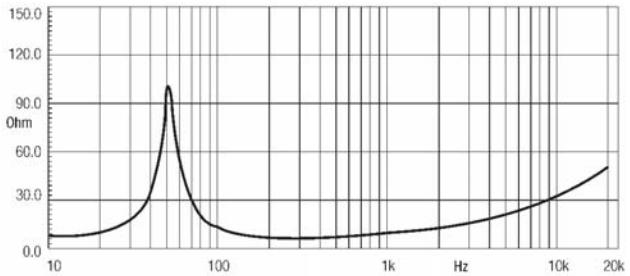
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 500 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 12ND930 MADE ON 50 LIT. ENCLOSURE TUNED 60HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE.



FREE AIR IMPEDANCE MAGNITUDE CURVE.



12ND830

High Output MB Neodymium Driver

KEY FEATURES

99 dB SPL 1W / 1m average sensitivity
75 mm (3 in) Interleaved Sandwich Voice coil (ISV)
450 W AES power handling
Neodymium magnet assembly
Ideal for compact reflex enclosures and two-way systems

GENERAL SPECIFICATIONS	
Nominal Diameter	300mm (12 in)
Rated Impedance	8 Ohm
AES Power (1)	450W
Program Power (2)	700W
Sensitivity (3)	99dB
Frequency Range (4)	53 ÷ 5000 Hz
Max Recomm. Frequency	2000 Hz
Recomm. Enclosure Volume	40 ÷ 100 lt. (1,41 ÷ 3,53 cuft)
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	aluminum
Suspension	M-Roll, Polycotton
Cone	Curvilinear, Paper

THIELE SMALL PARAMETERS (5)	
Fs	55 Hz
Re	5,7 Ohm
Sd	0,0531 sq.mt. (82,31 sq.in.)
Qms	5,15
Qes	0,296
Qts	0,28
Vas	72 lt. (2,54cuft)
Mms	46 gr. (0,10 lb)
BL	17,6 Tm
Linear Mathematical Xmax (6)	± 6,5 mm (± 0,26 in)
Le (1kHz)	1,5 mH
Ref. Efficiency 1W@1m (half space)	98,3 dB

MOUNTING INFORMATIONS	
Overall diameter	315 mm (12,4 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	296-300 mm (11,65-11,8 in)
Front mount baffle cutout ø	282 mm (11,1 in)
Total depth	140 mm (5,52 in)
Flange and gasket thickness	11,5 mm (0,45 in)
Net weight	4 kg (8,83 lb)
Shipping weight	4,8 kg (10,6 lb)
CardBoard Packaging dimensions	332 x 332 x 184 mm(13,07 x 13,07 x 7,24 in)

NOTES

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

(2) Program power rating is measured in 50 lit enclosure tuned at 60Hz using a 40-400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

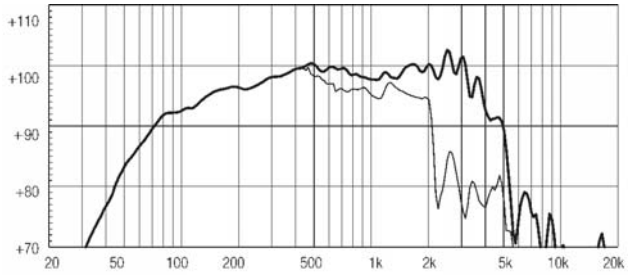
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in thesame enclosure as given for (1) above.

(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.

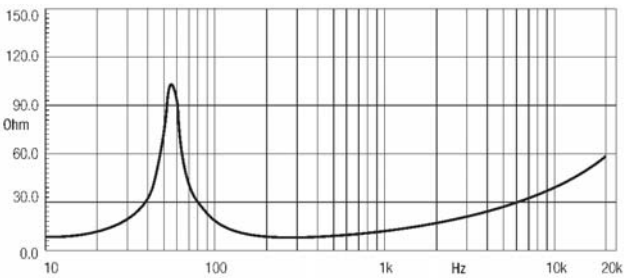
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 450 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 12ND830 MADE ON 50 LIT. ENCLOSURE TUNED 60HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE.



FREE AIR IMPEDANCE MAGNITUDE CURVE.



12NW530

N500 series

Extended Low Frequency Neo Transducer

KEY FEATURES

96 dB SPL 1W / 1m average sensitivity
75 mm (3 in) ISV voice coil
500 W AES power handling
External neodymium magnet assembly
Double Silicon Spider (DSS) for improved excursion control and linearity
Single Demodulating Ring (SDR) for lower distortion
High excursion damped rubber roll surround
Specific for compact subwoofer usage

GENERAL SPECIFICATIONS	
Nominal Diameter	300mm (12 in)
Rated Impedance	8 Ohm
AES Power (1)	500W
Program Power (2)	800W
Sensitivity (3)	96dB
Frequency Range (4)	48 ÷ 3200 Hz
Max Recomm. Frequency	1300 Hz
Recomm. Enclosure Volume	30 ÷ 80 lt. (1,06 ÷ 2,83 cuft)
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	copper
Suspension	Single Roll, Rubber
Cone	Curvilinear, Treated paper

THIELE SMALL PARAMETERS (5)	
Fs	55 Hz
Re	4,9 Ohm
Sd	0,053 sq.mt. (82,31 sq. in.)
Qms	9,7
Qes	0,384
Qts	0,37
Vas	36 lt. (1,27 cuft)
Mms	93 gr. (0,2 lb)
BL	19,7 Tm
Linear Mathematical Xmax (6)	± 8 mm (± 0,31 in)
Le (1kHz)	0,9 mH
Ref. Efficiency 1W@1m (half space)	93,8 dB

MOUNTING INFORMATIONS	
Overall diameter	315 mm (12,4 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	296-300 mm (11,65-11,8 in)
Front mount baffle cutout ø	282 mm (11,1 in)
Total depth	136 mm (5,35 in)
Flange and gasket thickness	11,5 mm (0,45 in)
Net weight	4,0 kg (8,8 lb)
Shipping weight	4,8 kg (10,6 lb)
CardBoard Packaging dimensions	332 x 332 x 184 mm (13,1 x 13,1 x 7,25 in)

NOTES

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

(2) Program power rating is measured in 50 lit enclosure tuned @ 60Hz using a 40 - 400Hz band limited pink noise test signal with 50% duty cycle, applied continuously for 2 hours.

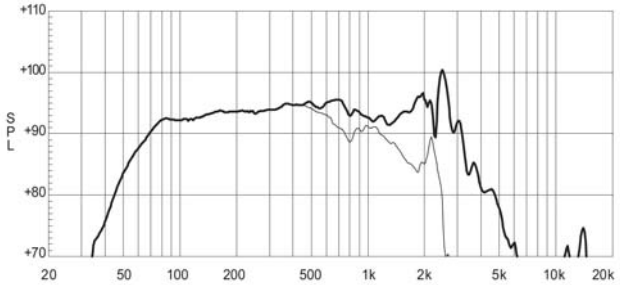
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at a distance of 1mt from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

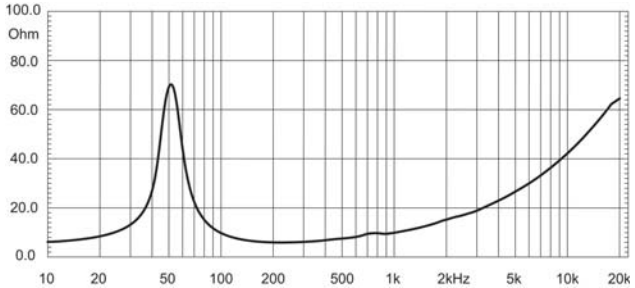
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 500 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 12NW530 MADE ON 50 LIT. ENCLOSURE TUNED @ 60Hz IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS THE 45 DEG. OFF AXIS FREQUENCY RESPONSE.



FREE AIR IMPEDANCE MAGNITUDE CURVE.



12ND610

Very High Output MB Neodymium Driver

KEY FEATURES

102 dB SPL 1W / 1m average sensitivity
75 mm (3 in) Interleaved Sandwich Voice coil (ISV)
450 W AES power handling
Neodymium magnet assembly
Very shallow profile, 124 mm (4,9 in)
Water resistant cone
Suitable for midrange and mid-bass loaded applications

GENERAL SPECIFICATIONS	
Nominal Diameter	300mm (12 in)
Rated Impedance	8 Ohm
AES Power (1)	450W
Program Power (2)	700W
Sensitivity (3)	102dB
Frequency Range (4)	80 - 5500 Hz
Max Recomm. Frequency	2000 Hz
Recomm. Enclosure Volume	8 ÷ 40 lt. (0,28 ÷ 1,41 cuft)
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	aluminum
Suspension	Triple roll, polycotton
Cone	Curvilinear, Paper

THIELE SMALL PARAMETERS (5)	
Fs	46 Hz
Re	5,9 Ohm
Sd	0,0531 sq.mt. (82,31 sq.in.)
Qms	4,3
Qes	0,15
Qts	0,14
Vas	94,4 lt. (3,32 cuft)
Mms	49 gr. (0,11 lb)
BL	24 Tm
Linear Mathematical Xmax (6)	± 3,5 mm (± 0,14 in)
Le (1kHz)	1,17 mH
Ref. Efficiency 1W@1m (half space)	100 dB

MOUNTING INFORMATIONS	
Overall diameter	315 mm (12,4 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	296-300 mm (11,65-11,8 in)
Front mount baffle cutout ø	282 mm (11,1 in)
Total depth	124 mm (4,88 in)
Flange and gasket thickness	11,5 mm (0,45 in)
Net weight	3,4 kg (7,51 lb)
Shipping weight	4,2 kg (9,27 lb)
CardBoard Packaging dimensions	332 x 332 x 184 mm(13,07 x 13,07 x 7,24 in)

NOTES

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

(2) Program power rating is measured in 50 lit enclosure tuned @ 60Hz, using 60 -2000Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

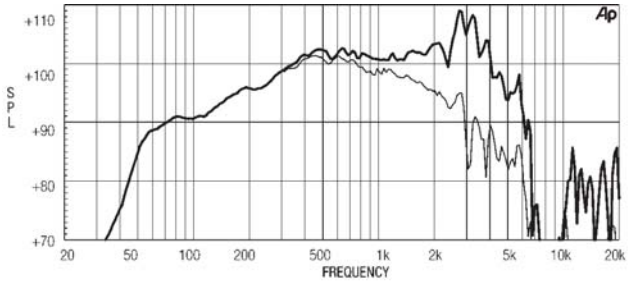
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 500Hz and 2500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

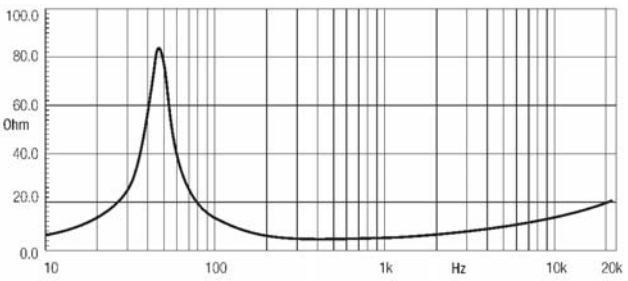
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 450 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 12ND610 MADE ON 50 LIT. ENCLOSURE TUNED 60HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



12NDA520

N500 series

High Output Midbass Neo Transducer

KEY FEATURES

100,5 dB SPL 1W / 1m average sensitivity

65 mm (2,52 in) Interleaved Sandwich Voice coil (ISV)

300W AES power handling

Neodymium magnet assembly

AIC (Active Impedance Control) secondary voice coil for superior intelligibility, very low distortion and inductance linearization

Suitable for two way high quality applications

GENERAL SPECIFICATIONS

Nominal Diameter	300mm (12 in)
Rated Impedance	8 Ohm
AES Power (1)	300W
Program Power (2)	450W
Sensitivity (3)	100,5dB
Frequency Range (4)	55 - 6000 Hz
Max Recomm. Frequency	2000 Hz
Recomm. Enclosure Volume	35 ÷ 80 lt. (12 ÷ 28 cuft)
Voice Coil Diameter	65 mm (2,5 in)
Voice Coil Winding Material	aluminum
Suspension	Triple roll, polycotton
Cone	curvilinear, paper

THIELE SMALL PARAMETERS (5)

Fs	50 Hz
Re	5,2 Ohm
Sd	0,0531 sq.mt. (82,31 sq.in.)
Qms	5,5
Qes	0,284
Qts	0,27
Vas	111 lt. (3,9 cuft)
Mms	36 gr. (0,08 lb)
BL	14,4 Tm
Linear Mathematical Xmax (6)	± 4 mm (±0,16 in)
Le (1kHz)	0,03 mH (AIC on) - 0,57mH (AIC off)
Ref. Efficiency 1W@1m (half space)	98,9 dB

MOUNTING INFORMATIONS

Overall diameter	315 mm (12,4 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	296-300 mm (11,65-11,8 in)
Front mount baffle cutout ø	282 mm (11,1 in)
Total depth	125 mm (4,92 in)
Flange and gasket thickness	11,5 mm (0,45 in)
Net weight	2,2 kg (4,86 lb)
Shipping weight	3 kg (6,62 lb)
CardBoard Packaging dimensions	332 x 332 x 184mm (13,07 x 13,07 x 7,24 in)

NOTES

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

(2) Program power rating is measured in a 50 lit enclosure tuned at 60Hz, using a 60 -2000 Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

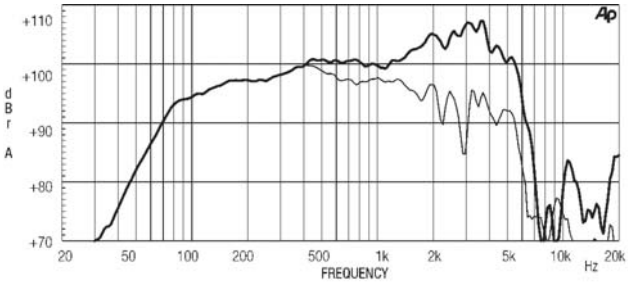
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

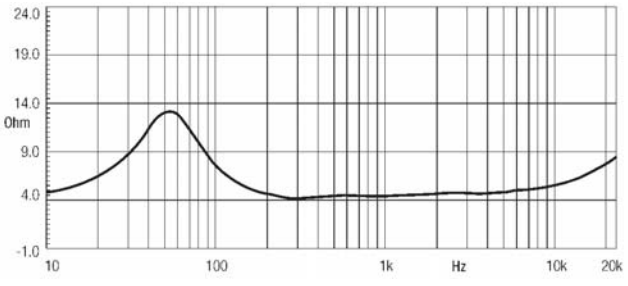
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 300W AES power and represent the expected long-term behaviour after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 12NDA520 MADE ON 50 LIT. ENCLOSURE TUNED 60HZ INFREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE - AIC ON



12NMB420

High Output MB Neodymium Driver

KEY FEATURES

100,5 dB SPL 1W / 1m average sensitivity
65 mm (2,5 in) Interleaved Sandwich Voice coil (ISV)
300 W AES power handling
Single Demodulating Ring (SDR) for lower distortion
Copper ring for lower intermodulation distortion
External neodymium magnet assembly
Weather protected cone and plates for outdoor usage
Specially designed for compact two way systems

GENERAL SPECIFICATIONS

Nominal Diameter	300mm (12 in)
Rated Impedance	8 Ohm
AES Power (1)	300 W
Program Power (2)	450 W
Sensitivity (3)	100,5 dB
Frequency Range (4)	55 ÷ 6000 Hz
Max Recomm. Frequency	2000 Hz
Recomm. Enclosure Volume	50 ÷ 100 lt. (1,77÷ 3,53 cuft)
Voice Coil Diameter	65 mm (2,5 in)
Voice Coil Winding Material	aluminum
Suspension	Triple roll, Polycotton
Cone	Curvilinear, Paper

THIELE SMALL PARAMETERS (5)

Fs	53 Hz
Re	5,2 Ohm
Sd	0,053 sq.mt. (82,15 sq.in.)
Qms	3,6
Qes	0,3
Qts	0,28
Vas	105 lt. (3,71cuft)
Mms	33,5 gr. (73,95 lb)
BL	13,9 Tm
Linear Mathematical Xmax (6)	± 4 mm (±0,16 in)
Le (1kHz)	0,2 mH
Ref. Efficiency 1W@1m (half space)	99 dB

MOUNTING INFORMATIONS

Overall diameter	315 mm (12,40 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	296-300 mm (11,65-11,8 in)
Front mount baffle cutout ø	282 mm (11,10 in)
Total depth	127 mm (5,00 in)
Flange and gasket thickness	11,5 mm (0,45 in)
Net weight	2.8 kg (6.2 lb)
Shipping weight	3.5 kg (7.7 lb)
CardBoard Packaging dimensions	332 x 332 x 184 mm (13,07 x 13,07 x 7,24 in)

NOTES

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

(2) Program power rating is measured in 50 lit enclosure tuned at 60 Hz using a 70 - 3000Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

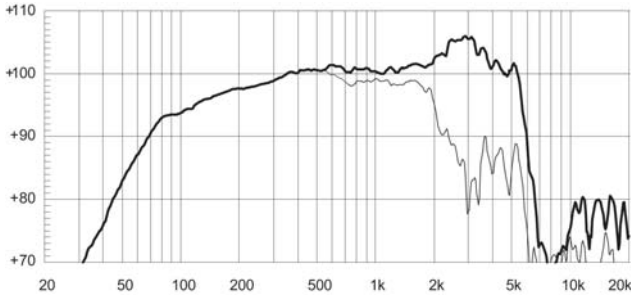
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 500Hz and 2500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

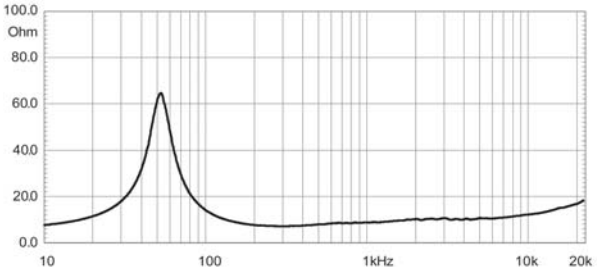
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 300W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 12NMB420 MADE ON 18 LIT. ENCLOSURE TUNED 60HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



10NDA610

N600 series

Very High Output Midrange Neo Transducer

KEY FEATURES

103 dB SPL 1W / 1m average sensitivity (AIC on)
75 mm (3 in) Interleaved Sandwich Voice coil (ISV)
400 W AES power handling
Neodymium motor assembly
A.I.C. (Active Impedance Control) technology
Very shallow profile, 90 mm (3,5 in) total depth
Humidity resistant cone and plates
Suitable for high quality, very high SPL midrange frequency reproduction

GENERAL SPECIFICATIONS	
Nominal Diameter	260mm (10 in)
Rated Impedance	8 Ohm
AES Power (1)	400W
Program Power (2)	600W
Sensitivity (3)	103dB
Frequency Range (4)	100 - 6100 Hz
Max Recomm. Frequency	4000 Hz
Recomm. Enclosure Volume	4 ÷ 15 lt. (0,14 ÷ 0,53 cuft)
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	aluminum
Suspension	Double roll, polycotton
Cone	Curvilinear, Paper

THIELE SMALL PARAMETERS (5)	
Fs	89 Hz
Re	5,5 Ohm
Sd	0,035 sq.mt. (54,25 sq.in.)
Qms	7,1
Qes	0,24
Qts	0,23
Vas	18 lt. (0,64 cuft)
Mms	30 gr. (0,07 lb)
BL	20,3 Tm
Linear Mathematical Xmax (6)	±2,5 mm (± 0,10 in)
Le (1kHz)	0,06 mH
Ref. Efficiency 1W@1m (half space)	98 dB

MOUNTING INFORMATIONS	
Overall diameter	260 mm (10,24 in)
N. of mounting holes and bolt	4 on diam. 275 mm (4 on 10,83 in) 8 on diam. 244,5 mm (4 on 9,63 in)
Mounting holes diameter	7,15 mm (0,28 in)
Front mount baffle cutout ø	232 mm (9,13 in)
Total depth	96 mm (3,78 in)
Flange and gasket thickness	14,5 mm (0,57 in)
Net weight	3,5 kg (7,7 lb)
Shipping weight	3,9 kg (8,58 lb)
CardBoard Packaging dimensions	275 x 275 x 164 mm(10,83 x 10,83 x 6,46 in)

NOTES

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

(2) Program power rating is measured in a 30 lit closed enclosure, using 100-3000Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

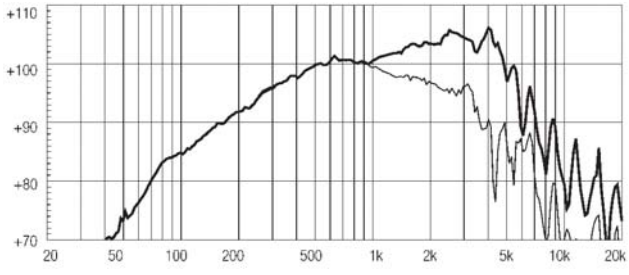
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 500Hz and 2500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

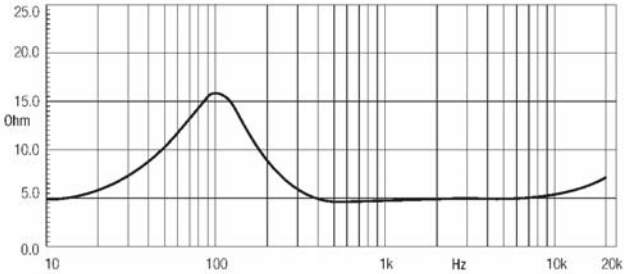
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 400 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 10NDA610 (AIC ON) MADE ON 30 LIT. CLOSED ENCLOSURE IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE.



FREE AIR IMPEDANCE MAGNITUDE CURVE - AIC ON



10NMBA520

High Output MB Neodymium Driver

KEY FEATURES

100,5 dB SPL 1W / 1m average sensitivity (AIC on)

65 mm (2,5 in) Interleaved Sandwich Voice coil (ISV)

300 Watt AES power handling

Neodymium motor assembly

AIC (Active Impedance Control) secondary voice coil for superior intelligibility, very low distortion and inductance linearization

Suitable for high quality two way compact systems

GENERAL SPECIFICATIONS

Nominal Diameter	260mm (10 in)
Rated Impedance	8 Ohm
AES Power (1)	300W
Program Power (2)	600W
Sensitivity (3)	100,5 dB
Frequency Range (4)	60 - 7000 Hz
Max Recomm. Frequency	2000 Hz
Recomm. Enclosure Volume	10 ÷ 40 lt. (0,90 ÷ 1,41 cuft)
Voice Coil Diameter	65 mm (2,5 in)
Voice Coil Winding Material	aluminum
Suspension	Double roll, polycotton
Cone	Curvilinear, paper

THIELE SMALL PARAMETERS (5)

Fs	60 Hz
Re	5 Ohm
Sd	0,035 sq.mt. (54,25 sq.in.)
Qms	4,2
Qes	0,24
Qts	0,23
Vas	42 lt. (1,48 cu ft)
Mms	28 gr. (0,06 lb)
BL	14,6 Tm
Linear Mathematical Xmax (6)	±4 mm (±0,16 in)
Le (1kHz)	0,01 mH (AIC on) - 0,38 mH (AIC off)
Ref. Efficiency 1W@1m (half space)	97,8 dB

MOUNTING INFORMATIONS

Overall diameter	260 mm (10,24 in)
N. of mounting holes and bolt	4 on diam. 275 mm (4 on 10,83 in) 8 on diam. 244,5 mm (4 on 9,63 in)
Mounting holes diameter	7,15 mm (0,28 in)
Front mount baffle cutout ø	232 mm (9,13 in)
Total depth	104 mm (4,09 in)
Flange and gasket thickness	14,5 mm (0,57 in)
Net weight	3 kg (6,67 lb)
Shipping weight	3,57 kg (7,88 lb)
CardBoard Packaging dimensions	275 x 275 x 164mm (10,83 x 10,83 x 6,46 in)

NOTES

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

(2) Program power rating is measured in 30 lit enclosure tuned at 55 Hz using a 100-3000Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

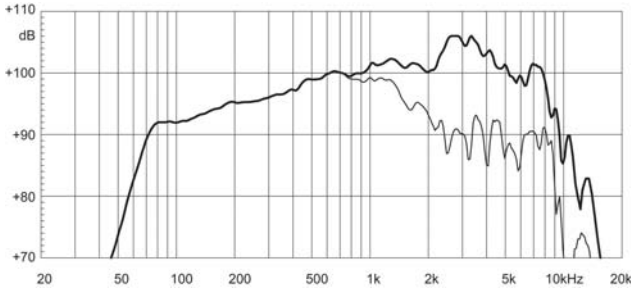
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 500Hz and 2500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

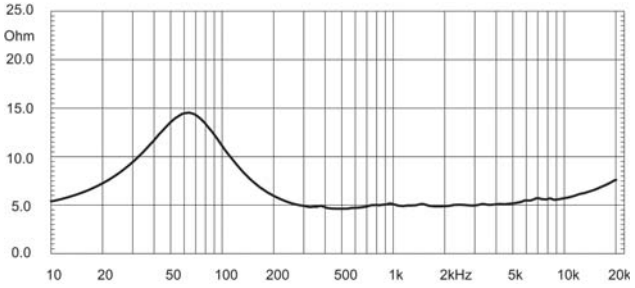
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 300 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 10NMBA520 (AIC ON) MADE ON 30 LIT. ENCLOSURE TUNED AT 55 HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE.



FREE AIR IMPEDANCE MAGNITUDE CURVE - AIC ON



10NMB420

N400 series

High Output Midbass Neo Transducer

KEY FEATURES

99 dB SPL 1W / 1m average sensitivity
65 mm (2.5 in) Interleaved Sandwich Voice coil (ISV)
350 W AES power handling
External neodymium magnet assembly
Single Demodulating Ring (SDR) for lower distortion
Weather protected cone and plates for outdoor usage
Suitable for line arrays and compact two way systems

GENERAL SPECIFICATIONS

Nominal Diameter	260mm (10 in)
Rated Impedance	16 Ohm
AES Power (1)	350 W
Program Power (2)	500 W
Sensitivity (3)	99 dB
Frequency Range (4)	65 ÷ 5000 Hz
Max Recomm. Frequency	2000 Hz
Recomm. Enclosure Volume	10 ÷ 40 lt. (0,35 ÷ 1,41 cuft)
Voice Coil Diameter	65 mm (2,5 in)
Voice Coil Winding Material	aluminum
Suspension	M-roll, Polycotton
Cone	Curvilinear, Treated paper

THIELE SMALL PARAMETERS (5)

Fs	65 Hz
Re	10,5 Ohm
Sd	0,0346 sq.mt. (53,6 sq.in.)
Qms	4,6
Qes	0,36
Qts	0,33
Vas	30 lt. (1,06 cu.ft.)
Mms	31,5 gr. (0,07 lb)
BL	19,5 Tm
Linear Mathematical Xmax (6)	± 4 mm (±0,16 in)
Le (1kHz)	0,4 mH
Ref. Efficiency 1W@1m (half space)	96 dB

MOUNTING INFORMATIONS

Overall diameter	260 mm (10,24 in)
N. of mounting holes	8
Mounting holes diameter	7 mm (0,27 in)
Bolt circle diameter	244 mm (9,6 in)
Front mount baffle cutout ø	232 mm (9,1 in)
Total depth	122 mm (4,8 in)
Flange and gasket thickness	11 mm (0,43 in)
Net weight	3 kg (6,6 lb)
Shipping weight	3,5 kg (7,7 lb)
CardBoard Packaging dimensions	275 x 275 x 164 mm (9,25 x 9,25 x 5,91 in)

NOTES

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

(2) Program power rating is measured in 30 lit enclosure tuned at 55 Hz using a 70-2000Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

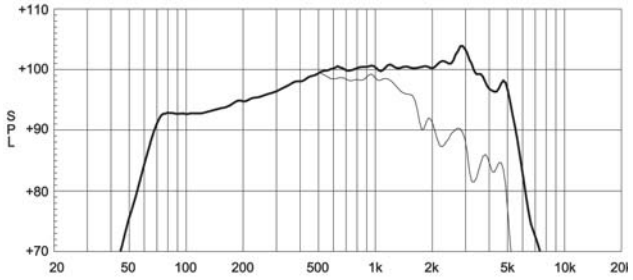
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 4V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

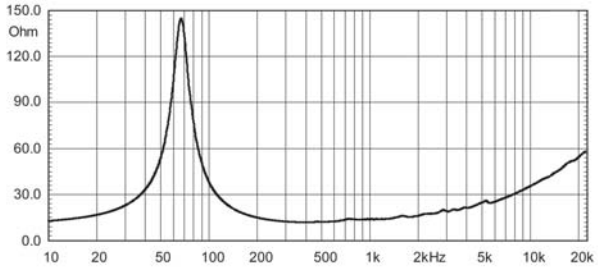
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 350 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 10NMB420 MADE ON 30LIT. ENCLOSURE TUNED @ 55HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE.



FREE AIR IMPEDANCE MAGNITUDE CURVE



10NW650

LF Neodymium Driver

KEY FEATURES

96 dB SPL 1W / 1m average sensitivity
65 mm (2.5 in) aluminum edgewound voice coil
600 W program power handling
High excursion design for low frequency clarity and punch
Weather protected cone and coated plates for outdoor usage
Ultra lightweight design
Suitable for line array applications and multiway systems

GENERAL SPECIFICATIONS

Nominal Diameter	260 mm (10 in)
Rated Impedance	8 Ohm
AES Power (1)	300 W
Program Power (2)	600 W
Sensitivity (3)	96 dB
Frequency Range (4)	60 ÷ 6000 Hz
Max Recomm. Frequency	1800 Hz
Recomm. Enclosure Volume	10 ÷ 40 lt. (0,35 ÷ 1,41 cuft)
Voice Coil Diameter	65 mm (2,5 in)
Voice Coil Winding Material	Edgewound Aluminum
Suspension	Double-roll, Polycotton
Cone	Curvilinear profile, water resistant, high damping pulp

THIELE SMALL PARAMETERS (5)

Fs	51 Hz
Re	5,0 Ohm
Sd	0,0346 sq.mt. (53,6 sq.in.)
Qms	8,00
Qes	0,29
Qts	0,28
Vas	48 lt (1.70 cu.ft.)
Mms	34 g (0.07 lb)
BL	14 Tm
Linear Mathematical Xmax (6)	± 7 mm (±0.28 in)
Le (1kHz)	0,70 mH
Ref. Efficiency 1W@1m (half space)	95,2 dB

MOUNTING INFORMATIONS

Overall diameter	260 mm (10.24 in)
N. of mounting holes	8
Mounting holes diameter	6,1 mm (0.24 in)
Bolt circle diameter	243,5 mm (9.59 in)
Front mount baffle cutout ø	230 mm (9.06 in)
Total depth	131,8 mm (5.19 in)
Flange and gasket thickness	9,8 mm (0.39 in)
Net weight	2,7 kg (5.95 lb)
Shipping weight	3,15 kg (6,95 lb)
CardBoard Packaging dimensions	275 x 275 x 170 mm (9.25 x 9.25 x 6.69 in)

NOTES

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

(2) Program power rating is measured in 25 lit enclosure tuned at 55 Hz using a 70-2000Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

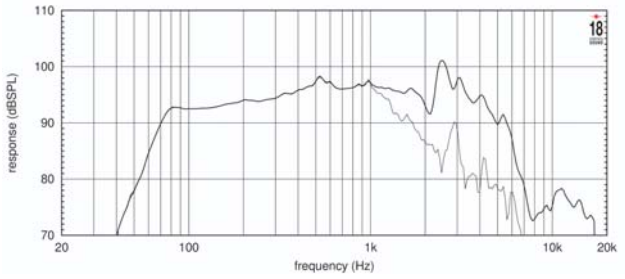
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 1000Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

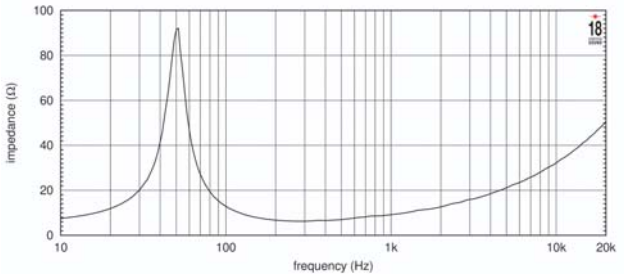
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 1 hour 20 Hz sine and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 10NW650 MADE ON 25 LIT. ENCLOSURE TUNED @ 65HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE.



FREE AIR IMPEDANCE MAGNITUDE CURVE



8NW650

N600 series

Low Frequency Neo Transducer

KEY FEATURES

96 dB SPL 1W / 1m average sensitivity
65 mm (2.5 in) aluminum edgewound voice coil
600 W program power handling
High excursion design for low frequency clarity and punch
Weather protected cone and coated plates for outdoor usage
Ultra lightweight design
Suitable for line array applications and multiway systems

GENERAL SPECIFICATIONS

Nominal Diameter	200mm (8 in)
Rated Impedance	8 Ohm
AES Power (1)	300 W
Program Power (2)	600 W
Sensitivity (3)	96 dB
Frequency Range (4)	55 ÷ 6300 Hz
Max Recomm. Frequency	2500 Hz
Recomm. Enclosure Volume	10 ÷ 40 lt. (0.36 ÷ 1.41 cuft)
Voice Coil Diameter	65 mm (2.5 in)
Voice Coil Winding Material	Edgewound aluminum
Suspension	Triple roll, Polycotton
Cone	Curvilinear weather resistant treated paper

THIELE SMALL PARAMETERS (5)

Fs	63 Hz
Re	6,1 Ohm
Sd	0,0227 sq.mt. (35,19 sq.in.)
Qms	3,70
Qes	0,27
Qts	0,25
Vas	17,8 lt. (0.63 cuft)
Mms	26 gr. (0.06 lb)
BL	15,2 Tm
Linear Mathematical Xmax (6)	± 5.5 mm (±0,22 in)
Le (1kHz)	0,71 mH
Ref. Efficiency 1W@1m (half space)	94,0 dB

MOUNTING INFORMATIONS

Overall diameter	210 mm (8,3 in)
N. of mounting holes	6
Mounting holes diameter	6 mm (0,24 in)
Bolt circle diameter	195-198 mm (7,68-7,8 in)
Front mount baffle cutout ø	185 mm (7,28 in)
Total depth	111,3 mm (4.38 in)
Flange and gasket thickness	8,8 mm (0,35 in)
Net weight	2,2 kg (4,85 lb)
Shipping weight	2,5 kg (5,51 lb)
CardBoard Packaging dimensions	235 x 235 x 150 mm (9,25 x 9,25 x 5,91 in)

NOTES

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

(2) Program power rating is measured in 25 lit enclosure tuned 65Hz using a 70 - 700 Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

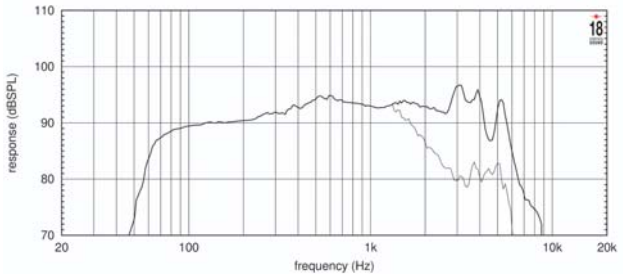
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 500Hz and 2500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

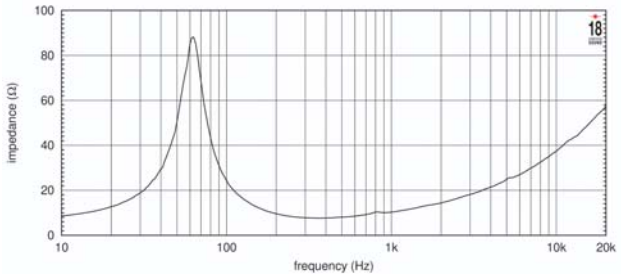
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 8NW650 MADE ON 25LIT. ENCLOSURE TUNED 65HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



8NMB420

High Output MB Neodymium Driver

KEY FEATURES

95 dB SPL 1W / 1m average sensitivity
51mm (2 in) Interleaved Sandwich Voice coil (ISV)
280 W AES power handling
External neodymium magnet assembly
Single Demodulating Ring (SDR) for lower distortion
Weather protected cone and plates for outdoor usage
Suitable for line arrays and compact two way systems

GENERAL SPECIFICATIONS	
Nominal Diameter	200mm (8 in)
Rated Impedance	8 Ohm
AES Power (1)	280 W
Program Power (2)	400 W
Sensitivity (3)	95 dB
Frequency Range (4)	60 ÷ 5500 Hz
Max Recomm. Frequency	2500 Hz
Recomm. Enclosure Volume	10 ÷ 40 lt. (0,35 ÷ 1,41 cuft)
Voice Coil Diameter	51 mm (2 in)
Voice Coil Winding Material	aluminum
Suspension	M-roll, Polycotton
Cone	Curvilinear, Treated paper

THIELE SMALL PARAMETERS (5)	
Fs	61 Hz
Re	5 Ohm
Sd	0,022 sq.mt. (34,1 sq.in.)
Qms	4
Qes	0,31
Qts	0,28
Vas	33 lt. (1,2cuft)
Mms	14,9 gr. (0.033 lb)
BL	10 Tm
Linear Mathematical Xmax (6)	± 5,75 mm (±0,23 in)
Le (1kHz)	0,35 mH
Ref. Efficiency 1W@1m (half space)	95,6dB

MOUNTING INFORMATIONS	
Overall diameter	210 mm (8,3 in)
N. of mounting holes	6
Mounting holes diameter	6 mm (0,23 in)
Bolt circle diameter	195-198 mm (7,68-7,8 in)
Front mount baffle cutout ø	186 mm (7,3 in)
Total depth	99 mm (3.9 in)
Flange and gasket thickness	14,5 mm (0,6 in)
Net weight	1,7 kg (3,7 lb)
Shipping weight	2,0 kg (4,4 lb)
CardBoard Packaging dimensions	235 x 235 x 150 mm (9,25 x 9,25 x 5,91 in)

NOTES

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

(2) Program power rating is measured in 25 lit enclosure tuned 65Hz using a 60 - 2000 Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

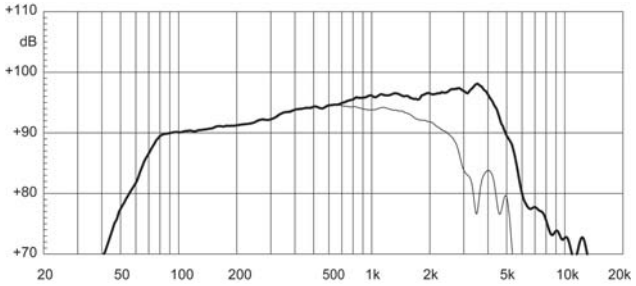
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 500Hz and 2500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

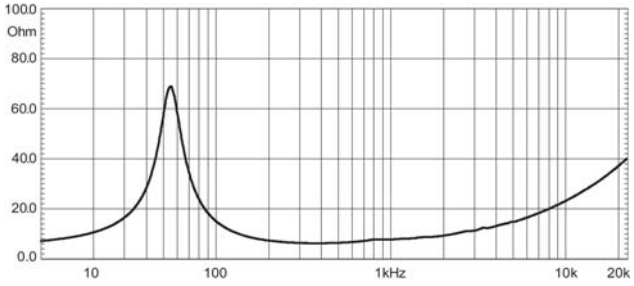
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 280 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 8NMB420 MADE ON 25LIT. ENCLOSURE TUNED 65HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



6ND430

N400 series

Low Frequency Neo Transducer

KEY FEATURES

92,5 dB SPL 1W / 1m average sensitivity
45 mm (1,77 in) aluminum voice coil
200 W AES power handling
Neodymium motor assembly
Weather protected cone
Improved heat dissipation via unique basket design
Ideal for compact two way and multiway systems

GENERAL SPECIFICATIONS

Nominal Diameter	152mm (6 in)
Rated Impedance	8 Ohm
AES Power (1)	200 W
Program Power (2)	260 W
Sensitivity (3)	92,5 dB
Frequency Range (4)	63 ÷ 5500 Hz
Max Recomm. Frequency	3000 Hz
Recomm. Enclosure Volume	10 ÷ 40 lt. (0,35 ÷ 1,41 cuft)
Voice Coil Diameter	44 mm (1,75 in)
Voice Coil Winding Material	aluminum
Suspension	Single roll, Rubber
Cone	Curvilinear, Paper

THIELE SMALL PARAMETERS (5)

Fs	61 Hz
Re	5.5 Ohm
Sd	0,0133 sq.mt. (20,6 sq.in.)
Qms	6.5
Qes	0.28
Qts	0.27
Vas	12.6 lt. (0,4 cuft)
Mms	13,3 gr. (0,03 lb)
BL	10.0 Tm
Linear Mathematical Xmax (6)	± 5 mm (±0,20 in)
Le (1kHz)	0.28 mH
Ref. Efficiency 1W@1m (half space)	92 dB

MOUNTING INFORMATIONS

Overall diameter	162 mm (6,38 in)
N. of mounting holes	4
Mounting holes diameter	5,5 mm (0,22 in)
Bolt circle diameter	170 mm (6,69 in)
Front mount baffle cutout ø	148 mm (5,38 in)
Total depth	73 mm (2,87 in)
Flange and gasket thickness	9,5 mm (0,37 in)
Net weight	1,25 kg (2,76 lb)
Shipping weight	1,8 kg (3,97 lb)
CardBoard Packaging dimensions	170 x 170 x 80 mm (6,69 x 6,69 x 3,15 in)

NOTES

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

(2) Program power rating is measured in 18 lit enclosure tuned at 60 Hz using a 70 - 3000Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

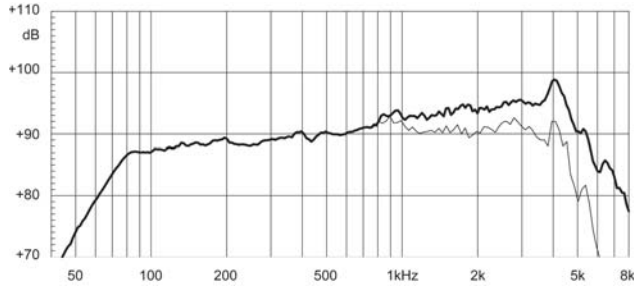
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 500Hz and 2500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

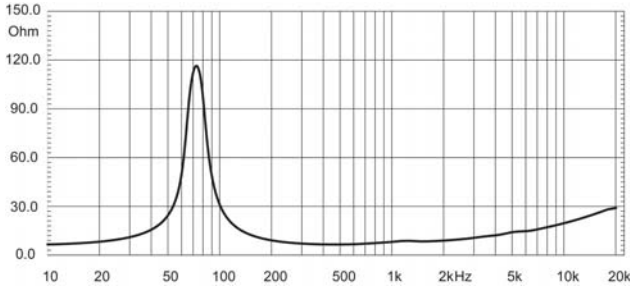
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 200 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 6ND430 MADE ON 18 LIT. ENCLOSURE TUNED AT 60HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



6NMB420

High Output MB Neodymium Driver

KEY FEATURES

100 dB SPL 1W / 1m average sensitivity
44 mm (1 3/4 in) voice coil
200 W AES power handling
External neodymium magnet assembly
Single Demodulating Ring (SDR) for lower distortion
Weather protected cone and plates for outdoor usage
Improved heat dissipation via Active Cooling System
Specially designed for line arrays and compact two way systems

GENERAL SPECIFICATIONS	
Nominal Diameter	152mm (6 in)
Rated Impedance	8 Ohm
AES Power (1)	200 W
Program Power (2)	260 W
Sensitivity (3)	100 dB
Frequency Range (4)	200 ÷ 7000 Hz
Max Recomm. Frequency	3500 Hz
Recomm. Enclosure Volume	2 ÷ 6 lt. (0,07 ÷ 0,21 cuft)
Voice Coil Diameter	44 mm (1,75 in)
Voice Coil Winding Material	aluminum
Suspension	Triple roll, Polycotton
Cone	Curvilinear, Paper

THIELE SMALL PARAMETERS (5)	
Fs	110 Hz
Re	5,3 Ohm
Sd	0,013 sq.mt. (20,15 sq.in.)
Qms	2,7
Qes	0,38
Qts	0,33
Vas	6,1 lt. (0,22 cuft)
Mms	8,5 gr. (18,76 lb)
BL	9 Tm
Linear Mathematical Xmax (6)	± 3 mm (±0,12 in)
Le (1kHz)	0,1 mH
Ref. Efficiency 1W@1m (half space)	95,1 dB

MOUNTING INFORMATIONS	
Overall diameter	162 mm (6,38 in)
N. of mounting holes	4
Mounting holes diameter	5,5 mm (0,22 in)
Bolt circle diameter	170 mm (6,69 in)
Front mount baffle cutout ø	148 mm (5,38 in)
Total depth	73 mm (2,83 in)
Flange and gasket thickness	11,5 mm (0,45 in)
Net weight	1,25 kg (2,76 lb)
Shipping weight	1,8 kg (3,97 lb)
CardBoard Packaging dimensions	170 x 170 x 80 mm (6,69 x 6,69 x 3,15 in)

NOTES

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

(2) Program power rating is measured in 2 lit closed enclosure using a 150-3000Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

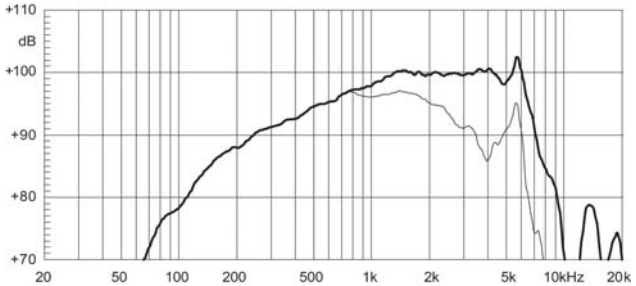
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 500Hz and 2500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

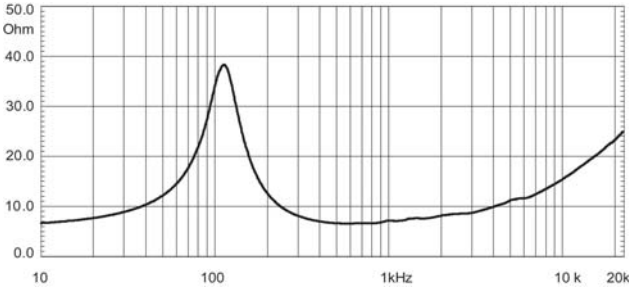
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 200 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 6NMB420 MADE ON 2 LIT. CLOSED ENCLOSURE IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE.



FREE AIR IMPEDANCE MAGNITUDE CURVE.



6ND410

N400 series

Very High Output Midrange Neo Transducer

KEY FEATURES

102 dB SPL 1W / 1m average sensitivity
45 mm (1,77 in) edgewound aluminum voice coil
180 W AES power handling
Neodymium motor assembly
Extremely high sound quality
Very shallow profile, 58 mm (2,3 in)
Suitable for horn and direct radiation midrange applications

GENERAL SPECIFICATIONS	
Nominal Diameter	152mm (6 in)
Rated Impedance	8 Ohm
AES Power (1)	180 W
Program Power (2)	240 W
Sensitivity (3)	102 dB
Frequency Range (4)	200 ÷ 8000 Hz
Max Recomm. Frequency	5000 Hz
Recomm. Enclosure Volume	1 ÷ 5 lt. (0,04 ÷ 0,18 cuft)
Voice Coil Diameter	44 mm (1,75 in)
Voice Coil Winding Material	aluminum
Suspension	Progressive double roll, Polycotton
Cone	Curvilinear, Paper

THIELE SMALL PARAMETERS (5)	
Fs	120 Hz
Re	5,9 Ohm
Sd	0,0143 sq.mt. (20,6 sq.in.)
Qms	2,2
Qes	0,27
Qts	0,24
Vas	6,2 lt. (0,22 cuft)
Mms	8,2 gr. (0,02 lb)
BL	11,6 Tm
Linear Mathematical Xmax (6)	± 2 mm (±0,08 in)
Le (1kHz)	0,67 mH
Ref. Efficiency 1W@1m (half space)	97,9 dB

MOUNTING INFORMATIONS	
Overall diameter	162 mm (6,38 in)
N. of mounting holes	4
Mounting holes diameter	5,5 mm (0,22 in)
Bolt circle diameter	170 mm (6,69 in)
Front mount baffle cutout ø	148 mm (5,83 in)
Total depth	60 mm (2,3 in)
Flange and gasket thickness	9,5 mm (0,37 in)
Net weight	1,25 kg (2,76 lb)
Shipping weight	1,8 kg (3,97 lb)
CardBoard Packaging dimensions	170 x 170 x 80 mm (6,69 x 6,69 x 3,15 in)

NOTES

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

(2) Program power rating is measured in 2 lit closed enclosure using a 300 -3000Hz band limited pink noise test signalwith 50% duty cycle, applied for 2 hours.

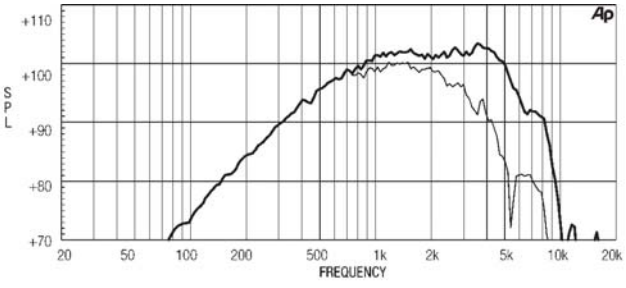
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 500Hz and 2500Hz with the test specimen mounted inthe same enclosure as given for (1) above.

(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.

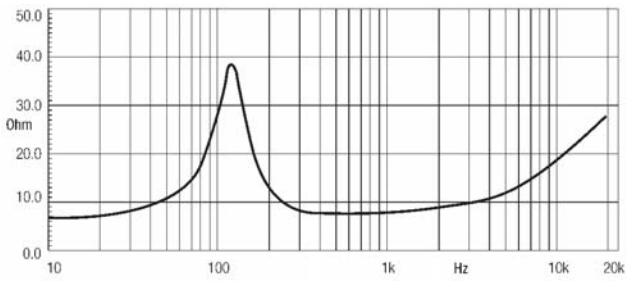
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 180 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 6ND410 MADE ON 2 LIT. CLOSED ENCLOSURE IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



The design of our ferrite LF and MF cone transducers range is the fulfillment of an extensive R&D program. Our products provide clean, undistorted low frequency reproduction at very high sound pressure and are able to withstand high power levels without damage. Proprietary design of all single components makes every Eighteen Sound transducer an unique mechanical masterpiece.

series	description	model
3000	Tetracoil Ceramic Transducers	18TLW3000
1400	4'' voice coil high performance extended low frequency transducers	21LW1400
2400	4" voice coil high performance ferrite extended low frequency transducers	18LW2400
1400	4'' voice coil high performance extended low frequency transducers	18LW1400
1000	4'' voice coil high output transducers	18LW1250
2000	4" voice coil high output ferrite extended low frequency transducers	18W2000
CX	High Output Coaxial Transducers	15CX1000
2400	4" voice coil high performance ferrite extended low frequency transducers	15LW2400
1400	4'' voice coil high performance extended low frequency transducers	15LW1401
1000	4'' voice coil high output transducers	15MB1000
800	3'' voice coil extended low frequency transducers	15W930
700	3'' voice coil high output transducers	15W750
		15W700
		15MB700
600	3'' voice coil transducers	15MB606
500	2,5'' voice coil transducers	15W500
CX	High Output Coaxial Transducers	12CX800
1400	4'' voice coil high performance extended low frequency transducers	12LW1400
1000	4'' voice coil high output transducers	12MB1000
700	3'' voice coil high output transducers	12W750
		12W700
		12MB700
600	3'' voice coil transducers	12MB600
		12MB650
500	2,5'' voice coil transducers	12W500
600	3'' voice coil transducers	10MB600
		10M600
500	2,5'' voice coil transducers	10W500
CX	High Output Coaxial Transducers	8CX400F
500	2,5'' voice coil transducers	8MB500
400	2'' voice coil high output transducers	8M400
		5W430

18TLW3000

Extended LF Ferrite Driver

KEY FEATURES

3600 W program power handling

100 mm (4 in) Tetracoil dual voice coil, equivalent to a single coil diameter larger than 152 mm (> 6 in)

Ultra linear suspension behavior for excellent sound clarity

Symmetric flux density and inductance behaviour

Low noise forced air cooling design

Water repellent cone and epoxy coated plates for outdoor use

Suitable for vented, horn loaded and bandpass subwoofer design

GENERAL SPECIFICATIONS

Nominal Diameter	460 mm (18 in)
Rated Impedance	8 Ohm
AES Power (1)	1800 W
Program Power (2)	3600 W
Sensitivity (3)	95 dB
Frequency Range (4)	30 - 2000 Hz
Max Recomm. Frequency	300 Hz
Recomm. Enclosure Volume	100 ÷ 350 lt. (3,53 ÷ 12,36 cuft)
Voice Coil Diameter	100 mm (4 in)
Voice Coil Equiv. Diameter	> 152 mm (> 6 in)
Voice Coil Winding Material	copper
Suspension	Triple roll, Polycotton
Cone	Curvilinear fiberglass loaded cellulose

THIELE SMALL PARAMETERS (5)

Fs	33 Hz
Re	4,6 Ohm
Sd	0,1225 sq. mt. (189,88 sq. in.)
Qms	13,00
Qes	0,42
Qts	0,41
Vas	185 lt. (6.53 cuft)
Mms	266 gr. (0,59 lb)
BL	24,5 Tm
Linear Mathematical Xmax (6)	± 12 mm (± 0,47 in)
Le (1kHz)	1,80 mH
Ref. Efficiency 1W@1m (half space)	94,0 dB

MOUNTING INFORMATIONS

Overall diameter	462 mm (18,18 in)
N. of mounting holes	8
Mounting holes diameter	8,5 mm (0,33 in)
Bolt circle diameter	438-440 mm (17,24-17,32 in)
Front mount baffle cutout ø	425 mm (16.73 in)
Total depth	275 mm (10,83 in)
Flange and gasket thickness	24 mm (0.94 in)
Net weight	13,2 kg (29.10 lb)
Shipping weight	14 kg (30.86 lb)
CardBoard Packaging dimensions	482 x 482 x 310 mm (19 x 19 x 12.2 in)

NOTES

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

(2) Program power rating is measured in 180 lit enclosure tuned 35Hz using a 40 - 400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

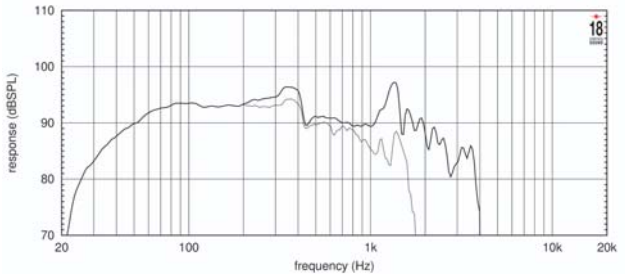
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

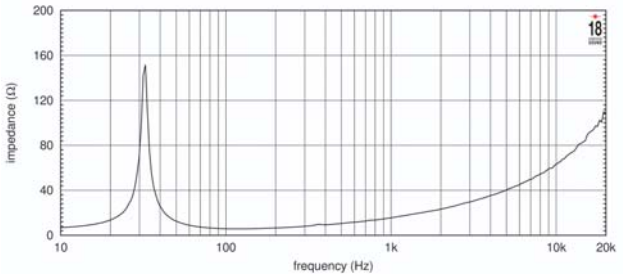
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 1 hour 20 Hz sine and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE MADE IN 180 LT. ENCLOSURE TUNED AT 35 HZ IN FREE FIELD (4p) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER, THE THIN LINE REPRESENTS 45° OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



21LW1400

Extended Low Frequency Transducer

KEY FEATURES

99 dB SPL 1W / 1m average sensitivity
100 mm (4 in) Interleaved Sandwich Voice coil (ISV)
1400W AES power handling
Carbon fiber reinforced straight-ribbed cone
Double Silicon Spider (DSS) for improved excursion control and linearity
Double Demodulating Rings (DDR) for lower distortion
Improved heat dissipation via unique basket design
Weather protected cone and plates for outdoor usage
Suitable for ultra low frequency systems

GENERAL SPECIFICATIONS

Nominal Diameter	533 mm (21 in)
Rated Impedance	8 Ohm
AES Power (1)	1400 W
Program Power (2)	1600 W
Sensitivity (3)	99 dB
Frequency Range (4)	24 - 2000 Hz
Max Recomm. Frequency	250 Hz
Recomm. Enclosure Volume	120 ÷ 500 lt. (4,24 ÷ 17,7 cuft)
Voice Coil Diameter	100 mm (4 in)
Voice Coil Winding Material	copper
Suspension	Triple roll, Polycotton
Cone	Straight ribbed, Carbon fiber reinforced Paper

THIELE SMALL PARAMETERS (5)

Fs	28 Hz
Re	5 Ohm
Sd	0,1662 sq.mt. (257,6 sq.in.)
Qms	9,32
Qes	0,242
Qts	0.235
Vas	385 lt. (13,6 cuft)
Mms	296 gr. (0,65 lb)
BL	33,5 Tm
Linear Mathematical Xmax (6)	± 9,5 mm (± 0,37 in)
Le (1kHz)	2,85 mH
Ref. Efficiency 1W@1m (half space)	98,0 dB

MOUNTING INFORMATIONS

Overall diameter	545 mm (21,46 in)
N. of mounting holes	8
Mounting holes diameter	10 mm (0,39 in)
Bolt circle diameter	520 mm (20,47 in
Front mount baffle cutout ø	492 mm (19,37 in)
Total depth	256,3 mm (10,1 in)
Flange and gasket thickness	14 mm (0,55 in)
Net weight	19,2 kg (42,38 lb)
Shipping weight	20,6 kg (45,47 lb)
CardBoard Packaging dimensions	550 x 550 x 300 mm (21,65 x 21,65 x 11,8 in)

NOTES

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

(2) Program power rating is measured in 250 lit enclosure tuned 28Hz using a 40 - 400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

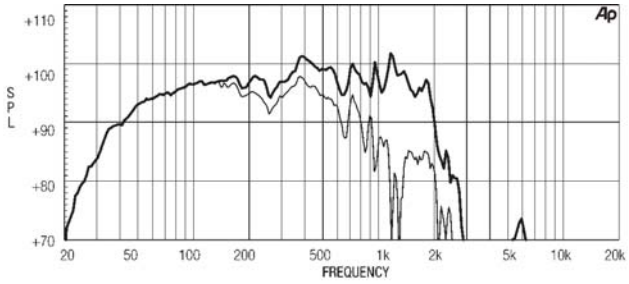
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

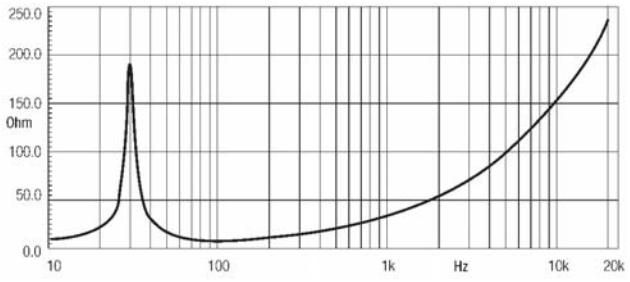
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 1500 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 21LW1400 MADE ON 250 LIT. ENCLOSURE TUNED 28HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



18LW2400

Extended LF Ferrite Driver

KEY FEATURES

98 dB SPL 1W / 1m average sensitivity

100 mm (4 in) Interleaved Sandwich Voice coil (ISV)

2400 W program power handling

Fiberglass reinforced cone

Double Silicon Spider (DSS) for superior excursion control and linearity

Double Demodulating Rings (DDR) for lower distortion

Improved heat dissipation via multi-cell air diffractor and multiple backplate vents

Weather protected cone and plates for outdoor usage

Ideal for high SPL subwoofer designs

GENERAL SPECIFICATIONS	
Nominal Diameter	460 mm (18 in)
Rated Impedance	8 Ohm
AES Power (1)	1200 W
Program Power (2)	2400 W
Sensitivity (3)	98 dB
Frequency Range (4)	31 - 2500 Hz
Max Recomm. Frequency	500 Hz
Recomm. Enclosure Volume	130 ÷ 350 lt. (4,59 ÷ 12,36 cuft)
Voice Coil Diameter	100 mm (4 in)
Voice Coil Winding Material	copper
Suspension	Triple roll, Polycotton
Cone	Straight ribbed, fiberglass reinforced cellulose

THIELE SMALL PARAMETERS (5)	
Fs	35 Hz
Re	5 Ohm
Sd	0,1225 sq. mt. (189,88 sq. in.)
Qms	7,2
Qes	0,32
Qts	0,31
Vas	230 lt. (8.12 cuft)
Mms	192 gr. (0,42 lb)
BL	25,6 Tm
Linear Mathematical Xmax (6)	± 9,5 mm (± 0,38 in)
Le (1kHz)	1,35 mH
Ref. Efficiency 1W@1m (half space)	96,7 dB

MOUNTING INFORMATIONS	
Overall diameter	462 mm (18,18 in)
N. of mounting holes	8
Mounting holes diameter	8,5 mm (0,33 in)
Bolt circle diameter	438-440 mm (17,24-17,32 in)
Front mount baffle cutout ø	416 mm (16,38 in)
Total depth	214,4 mm (8,44 in)
Flange and gasket thickness	24.5 mm (0.96 in)
Net weight	11,9 kg (26,18 lb)
Shipping weight	13,5 kg (29,7 lb)
CardBoard Packaging dimensions	482 x 482 x 257 mm (19 x 19 x 10,1 in)

NOTES

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

(2) Program power rating is measured in 180 lit enclosure tuned 35Hz using a 40 - 400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

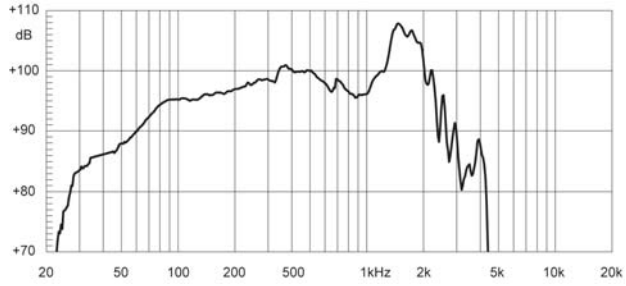
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

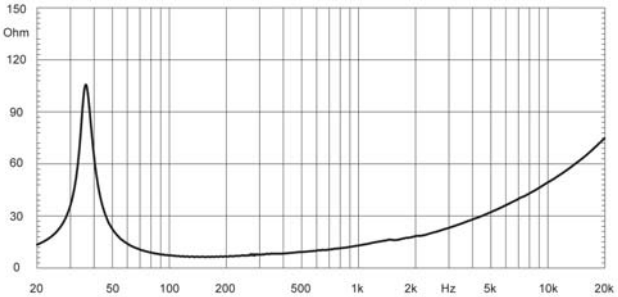
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 1200 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 18LW2400 MADE ON 180 LIT. ENCLOSURE TUNED 35HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE.



FREE AIR IMPEDANCE MAGNITUDE CURVE



18LW1400

Extended Low Frequency Transducer

KEY FEATURES

98 dB SPL 1W / 1m average sensitivity

100 mm (4 in) Interleaved Sandwich Voice coil (ISV)

1000W AES power handling

Carbon fiber reinforced straight ribbed cone

Double Silicon Spider (DSS) for improved excursion control and linearity

Double Demodulating Rings (DDR) for lower distortion

Improved heat dissipation via unique basket design and multiple backplate vents

Weather protected cone and plates for outdoor usage

Ideal for high SPL subwoofer designs

GENERAL SPECIFICATIONS

Nominal Diameter	460 mm (18 in)
Rated Impedance	8 Ohm
AES Power (1)	1000 W
Program Power (2)	1400 W
Sensitivity (3)	98 dB
Frequency Range (4)	28 - 2500 Hz
Max Recomm. Frequency	500 Hz
Recomm. Enclosure Volume	130 ÷ 350 lt. (4,59 ÷ 12,36 cuft)
Voice Coil Diameter	100 mm (4 in)
Voice Coil Winding Material	copper
Suspension	Triple roll, Polycotton
Cone	Straight Ribbed, carbon fiber reinforced paper

THIELE SMALL PARAMETERS (5)

Fs	31 Hz
Re	5 Ohm
Sd	0,1225 sq. mt. (189,88 sq. in.)
Qms	7,2
Qes	0,31
Qts	0,29
Vas	297 lt. (10,49 cuft)
Mms	190 gr. (0,42 lb)
BL	24,7 Tm
Linear Mathematical Xmax (6)	± 9 mm (± 0,35 in)
Le (1kHz)	2,3 mH
Ref. Efficiency 1W@1m (half space)	96,5 dB

MOUNTING INFORMATIONS

Overall diameter	462 mm (18,18 in)
N. of mounting holes	8
Mounting holes diameter	8,5 mm (0,33 in)
Bolt circle diameter	438-440 mm (17,24-17,32 in)
Front mount baffle cutout ø	416 mm (16,38 in)
Total depth	215,4 mm (8,48 in)
Flange and gasket thickness	26 mm (1,02 in)
Net weight	13,3 kg (29,36 lb)
Shipping weight	14,9 kg (32,9 lb)
CardBoard Packaging dimensions	482 x 482 x 257 mm (19 x 19 x 10,1 in)

NOTES

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

(2) Program power rating is measured in 180 lit enclosure tuned 35Hz using a 40 - 400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

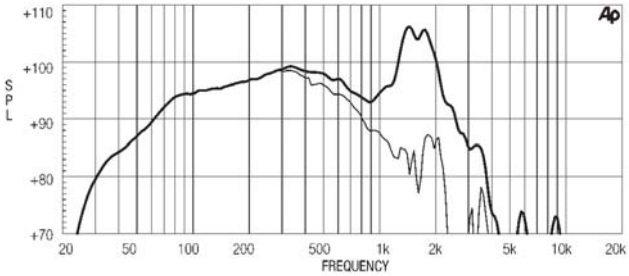
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

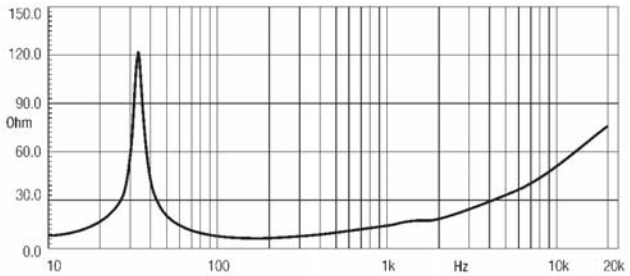
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 1000 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 18LW1400 MADE ON 180 LIT. ENCLOSURE TUNED 35HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE.



FREE AIR IMPEDANCE MAGNITUDE CURVE



18LW1250

Extended LF Ferrite Driver

KEY FEATURES

98 dB SPL 1W / 1m average sensitivity
100 mm (4 in) Interleaved Sandwich Voice coil (ISV)
1000 W AES power handling
Double Silicon Spider (DSS) for improved excursion control and linearity
Weather protected cone and plates for outdoor usage
Improved heat dissipation via unique basket design and backplate vents
Suitable for high SPL subwoofer design

GENERAL SPECIFICATIONS	
Nominal Diameter	460 mm (18 in)
Rated Impedance	8 Ohm
AES Power (1)	1000 W
Program Power (2)	1400 W
Sensitivity (3)	98 dB
Frequency Range (4)	35 - 3500 Hz
Max Recomm. Frequency	500 Hz
Recomm. Enclosure Volume	120 ÷ 350 lt. (4,24 ÷ 12,36 cuft)
Voice Coil Diameter	100 mm (4 in)
Voice Coil Winding Material	copper
Suspension	M-roll. Polycotton
Cone	Curvilinear, Paper

THIELE SMALL PARAMETERS (5)	
Fs	35 Hz
Re	5 Ohm
Sd	0,1134 sq.mt. (175,7 sq.in.)
Qms	8
Qes	0,28
Qts	0,27
Vas	268 lt. (9,47 cuft)
Mms	142 gr. (0,31 lb)
BL	23,6 Tm
Linear Mathematical Xmax (6)	± 9 mm (±0,35 in)
Le (1kHz)	2,73 mH
Ref. Efficiency 1W@1m (half space)	98 dB

MOUNTING INFORMATIONS	
Overall diameter	462 mm (18,18 in)
N. of mounting holes	8
Mounting holes diameter	8,5 mm (0,33 in)
Bolt circle diameter	438-440 mm (17,24-17,32 in)
Front mount baffle cutout ø	416 mm (16,38 in)
Total depth	207,9 mm (8,18 in)
Flange and gasket thickness	19 mm (0,75 in)
Net weight	13 kg (28,7 lb)
Shipping weight	14,7 kg (32,45 lb)
CardBoard Packaging dimensions	482 x 482 x 257 mm (19 x 19 x 10,1 in)

NOTES

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

(2) Program power rating is measured in 180 lit enclosure tuned 35Hz using a 40 - 400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

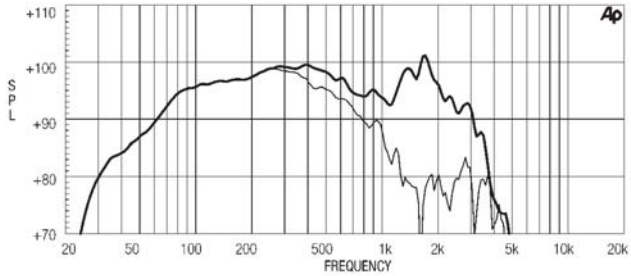
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

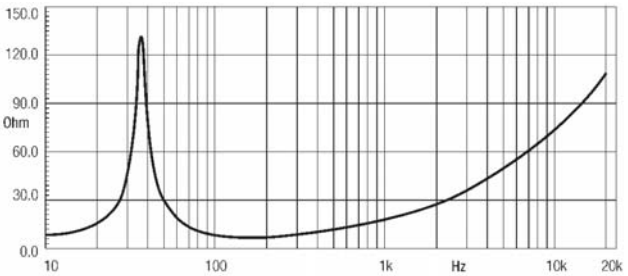
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 1000 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 18LW1250 MADE ON 180 LIT. ENCLOSURE TUNED 35HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



18W2000

High Output Low Frequency Transducer

KEY FEATURES

99 dB SPL 1W / 1m average sensitivity

100 mm (4 in) Interleaved Sandwich ISV copper voice coil

1200 W AES power handling

Double Silicon Spider (DSS) for improved excursion control and linearity

Improved heat dissipation via unique basket design and multi-cell air diffractor

Weather protected cone and plates for outdoor usage

Suitable for high SPL subwoofer designs

GENERAL SPECIFICATIONS	
Nominal Diameter	460 mm (18 in)
Rated Impedance	8 Ohm
AES Power (1)	1200 W
Program Power (2)	2400 W
Sensitivity (3)	99 dB
Frequency Range (4)	37 - 3000 Hz
Max Recomm. Frequency	500 Hz
Recomm. Enclosure Volume	120 ÷ 300 lt. (4,24 ÷ 10,60 cuft)
Voice Coil Diameter	100 mm (4 in)
Voice Coil Winding Material	copper
Suspension	M-roll, Polycotton
Cone	Curvilinear, Paper

THIELE SMALL PARAMETERS (5)	
Fs	37 Hz
Re	5,8 Ohm
Sd	0,1134 sq.mt. (175,7 sq.in.)
Qms	7,29
Qes	0,26
Qts	0,25
Vas	230 lt. (8,12 cuft)
Mms	143 gr. (0,32 lb)
BL	27,1 Tm
Linear Mathematical Xmax (6)	± 7 mm (±0,28 in)
Le (1kHz)	1,90 mH
Ref. Efficiency 1W@1m (half space)	98,6 dB

MOUNTING INFORMATIONS	
Overall diameter	462 mm (18,18 in)
N. of mounting holes	8
Mounting holes diameter	8,5 mm (0,33 in)
Bolt circle diameter	438-440 mm (17,24-17,32 in)
Front mount baffle cutout ø	416 mm (16,38 in)
Total depth	205,9 mm (8,1 in)
Flange and gasket thickness	19 mm (0,75 in)
Net weight	11,5 kg (26,35 lb)
Shipping weight	13 kg (28,66 lb)
CardBoard Packaging dimensions	482 x 482 x 257 mm (19 x 19 x 10,1 in)

NOTES

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

(2) Program power rating is measured in 180 lit enclosure tuned 35Hz using a 40 - 400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

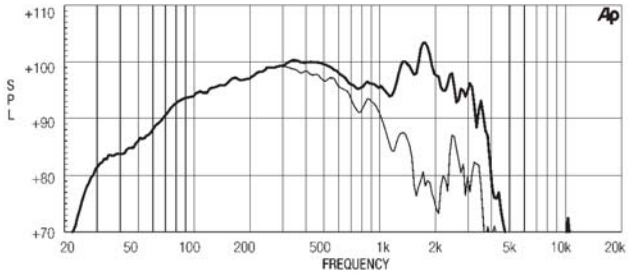
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

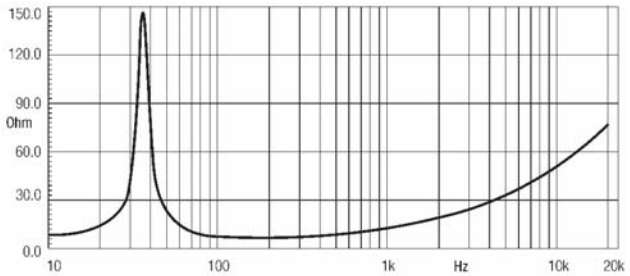
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 18W2000 MADE ON 180 LIT. ENCLOSURE TUNED 35HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



15CX1000

High Output Coaxial Transducer

KEY FEATURES

98dB LF / 107,5dB HF SPL 1W/1m average sensitivity
100 mm (4") Interleaved Sandwich Voice LF coil (ISV)
850W LF - 100W HF AES power handling
Copper shorting ring for constant power transfer
1,4" exit HF neodymium compression driver
75 mm (3") HF edgewound voice coil with high temperature ferrofluid
FEA optimized coupling horn profile
70 degrees nominal conical dispersion
Suitable for very compact enclosures and stage monitors
Weather protected cone and plates for outdoor usage

LF GENERAL SPECIFICATIONS

Nominal Diameter	380 mm (15 in)
Rated Impedance	8 Ohm
AES Power (1)	850 W
Program Power (2)	1000 W
Sensitivity (3)	98 dB
Frequency Range (4)	45 ÷ 5100 Hz
Max Recomm. Frequency	1000 Hz
Recomm. Enclosure Volume	70 ÷ 150 lt. (2,47 ÷ 5,3 cuft)
Voice Coil Diameter	100 mm (4 in)
Voice Coil Winding Material	aluminum
Suspension	Triple roll, Polycotton
Cone	Curvilinear, carbon fiber reinforced cellulose

HF GENERAL SPECIFICATIONS

D.C. Resistance	6,2 Ohm
AES power (5)	100W above 1,2 kHz
Program power (6)	200W above 1,2 kHz
Sensitivity (7)	107,5 dB
Frequency Range	0,5 kHz ÷ 20 kHz
Recommended Xover Frequency	1 kHz 12dB/oct
Voice Coil diameter	74,6 mm (3 in)

LF THIELE SMALL PARAMETERS (8)

Fs	48 Hz
Re	5,5 Ohm
Sd	0,0855 sq.mt. (132,5 sq.in.)
Qms	6
Qes	0,32
Qts	0,31
Vas	132,5 lt. (4,66 cuft)
Mms	85 gr. (0,19 lb)
BL	21 Tm
Mathematical Xmax (9)	±6 mm (±0,24 in)
Le (1kHz)	1,5 mH
Ref. Efficiency 1W@1m (half space)	98,4 dB

NOTES

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

(2) Program power rating is measured in 125 lit enclosure tuned 50Hz using a 40 - 400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

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

(5) AES power rating is measured with a pink noise input having a 6 dB crest factor for two hours duration, per AES standard. Power calculated on minimum impedance.

(6) Program power is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(7) Sensitivity is measured on 1W input on rated impedance at 1m on axis from the mouth ofthe woofer and averaged in 3kHz band.

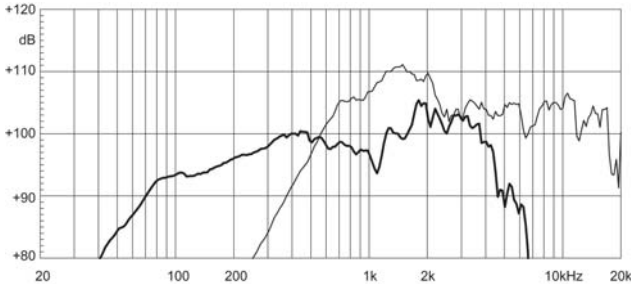
(8) Thiele - Small parameters are measured after the test specimen has been conditioned by 500 W AES power and represent the expected long term parameters after a short period of use.

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

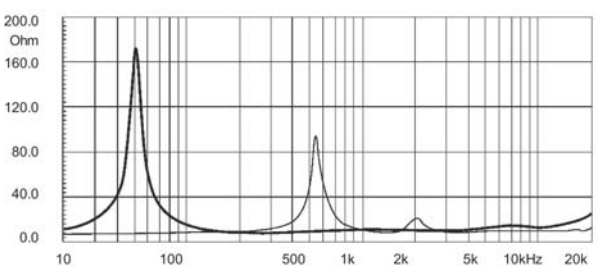
MOUNTING INFORMATIONS

Overall Ø	387 mm (15,23 in)
N. of mounting holes	8
Mounting holes Ø	7,15 mm (0,28 in)
Bolt circle Ø	370-371 mm (14,55-14,6 in)
Front mount baffle cutout Ø	353 mm (13,9 in)
Total depth	218,4 mm (8,6 in)
Flange and gasket thickness	19,5 mm (0,76 in)
Net weight	14,4 kg (31,68 lb)
Shipping weight	15 kg (34,1 lb)
CardBoard Packaging dim.	405 x 405 x 230 mm (15,94 x 15,94 x 9,05 in)

FREQUENCY RESPONSE CURVE OF 15CX1000 MADE ON 125 LT ENCLOSURE TUNED 50HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THIN LINE REPRESENTS HIGH FREQUENCY RESPONSE.



FREE AIR IMPEDANCE MAGNITUDE CURVE



15LW2400

Extended Low Frequency Transducer

KEY FEATURES

97 dB SPL 1W / 1m average sensitivity

100 mm (4 in) Interleaved Sandwich Voice coil (ISV)

2400 W program power handling

Weather protected fiberglass reinforced cellulose cone

Double Silicon Spider (DSS) for improved excursion control and linearity

Double Demodulating Rings (DDR) for lower distortion

Unlimited life lead wire construction

Improved heat dissipation via multi-cell air diffractor and multiple backplate vents

Suitable for 60 to 130 liters low bass or subwoofer applications

GENERAL SPECIFICATIONS

Nominal Diameter	380 mm (15 in)
Rated Impedance	8 Ohm
AES Power (1)	1200 W
Program Power (2)	2400 W
Sensitivity (3)	97 dB
Frequency Range (4)	40 ÷ 2200 Hz
Max Recomm. Frequency	500 Hz
Recomm. Enclosure Volume	60 ÷ 130 lt. (2.12 ÷ 4.59 cuft)
Voice Coil Diameter	100 mm (4 in)
Voice Coil Winding Material	copper
Suspension	Triple roll, Polycotton
Cone	Straight ribbed, Fiberglass reinforced treated cellulose

THIELE SMALL PARAMETERS (5)

Fs	40 Hz
Re	5,3 Ohm
Sd	0,090 sq.mt. (139,5 sq.in.)
Qms	4,75
Qes	0,32
Qts	0,30
Vas	131 lt. (4.63 cuft)
Mms	138 gr. (0,30 lb)
BL	24 Tm
Linear Mathematical Xmax (6)	± 10 mm (±0,39 in)
Le (1kHz)	1,25 mH
Ref. Efficiency 1W@1m (half space)	96,4 dB

MOUNTING INFORMATIONS

Overall diameter	393 mm (15.47 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	371 mm (14.6 in)
Front mount baffle cutout ø	354mm (13.93 in)
Total depth	181 mm (7.13 in)
Flange and gasket thickness	12,5 mm (0,49 in)
Net weight	11,2 kg (24.7 lb)
Shipping weight	12,2 kg (26.9 lb)
CardBoard Packaging dimensions	405 x 405 x 214 mm (15,94 x 15,94 x 8,43 in)

NOTES

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

(2) Program power rating is measured in 125 lit enclosure tuned 50Hz using a 40 - 400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

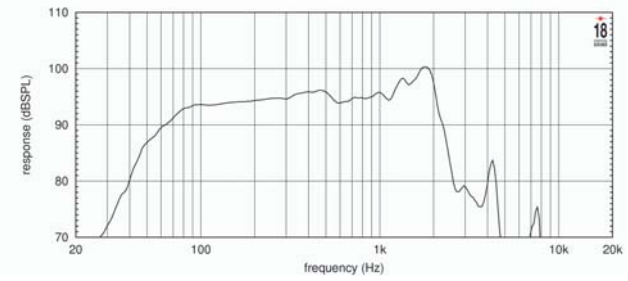
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

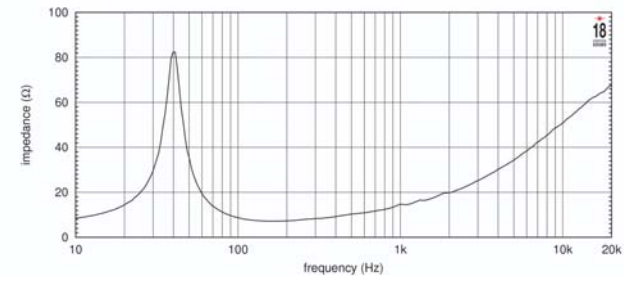
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 15LW2400 MADE ON 125 LIT. ENCLOSURE TUNED 50HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



15LW1401

Extended LF Ferrite Driver

KEY FEATURES

98 dB SPL 1W / 1m average sensitivity
100 mm (4 in) Interleaved Sandwich Voice coil (ISV)
1000 W AES power handling
Carbon fiber reinforced cellulose cone
Double Silicon Spider (DSS) for improved excursion control and linearity
Double Demodulating Rings (DDR) for lower distortion
Improved heat dissipation via unique basket design
Weather protected cone and plates for outdoor usage
Suitable for low bass or subwoofer applications

GENERAL SPECIFICATIONS

Nominal Diameter	380 mm (15 in)
Rated Impedance	8 Ohm
AES Power (1)	1000 W
Program Power (2)	1400 W
Sensitivity (3)	98 dB
Frequency Range (4)	40 ÷ 2400 Hz
Max Recomm. Frequency	800 Hz
Recomm. Enclosure Volume	70 ÷ 150 lt. (2,47 ÷ 5,30 cuft)
Voice Coil Diameter	100 mm (4 in)
Voice Coil Winding Material	copper
Suspension	Triple roll, Polycotton
Cone	Straight ribbed, Paper

THIELE SMALL PARAMETERS (5)

Fs	42 Hz
Re	5 Ohm
Sd	0,090 sq.mt. (139,5 sq.in.)
Qms	5,36
Qes	0,28
Qts	0,27
Vas	131 lt. (4,63 cuft)
Mms	125 gr. (0,28 lb)
BL	24,2 Tm
Linear Mathematical Xmax (6)	± 9 mm (±0,35 in)
Le (1kHz)	2,15 mH
Ref. Efficiency 1W@1m (half space)	97,4 dB

MOUNTING INFORMATIONS

Overall diameter	387 mm (15,23 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	370 - 371 mm (14,55 - 14,6 in)
Front mount baffle cutout ø	353 mm (13,90 in)
Total depth	163,4 mm (6,43 in)
Flange and gasket thickness	19,5 mm (0,76 in)
Net weight	12,4 kg (27,37 lb)
Shipping weight	13,4 kg (29,58 lb)
CardBoard Packaging dimensions	405 x 405 x 214 mm (15,94 x 15,94 x 8,43 in)

NOTES

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

(2) Program power rating is measured in 125 lit enclosure tuned 50Hz using a 40 - 400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

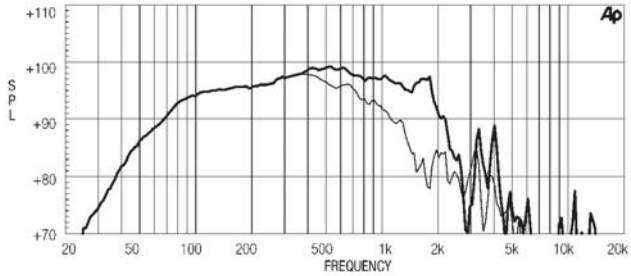
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

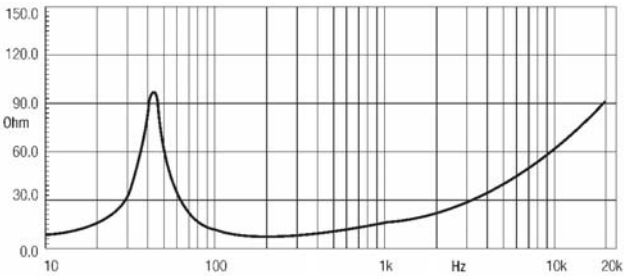
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 1000 W AES power and represent the expected long term parameters after a short period of use.

(6) Linear Mat. Xmax is calculated as; (Hvc-Hg)/2 Hg/4 where Hvc is the coil depth and Hgis the gap depth.

FREQUENCY RESPONSE CURVE OF 15LW1401 MADE ON 125 LIT. ENCLOSURE TUNED 50HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



15MB1000

High Output Midbass Transducer

KEY FEATURES

98 dB SPL 1W / 1m average sensitivity

100 mm (4 in) Interleaved Sandwich Voice coil (ISV)

850 W AES power handling

Carbon fiber reinforced cellulose cone

Copper shorting ring for linear impedance and reduced distortion figure

Improved heat dissipation via unique basket design

Weather protected cone and plates for outdoor usage

Ideal for compact reflex enclosures, two-way systems and stage monitoring applications

GENERAL SPECIFICATIONS

Nominal Diameter	380 mm (15 in)
Rated Impedance	8 Ohm
AES Power (1)	850 W
Program Power (2)	1200 W
Sensitivity (3)	98 dB
Frequency Range (4)	45 ÷ 5100 Hz
Max Recomm. Frequency	1200 Hz
Recomm. Enclosure Volume	70 ÷ 150 lt. (2,47 ÷ 5,3 cuft)
Voice Coil Diameter	100 mm (4 in)
Voice Coil Winding Material	aluminum
Suspension	Triple roll, Polycotton
Cone	Curvilinear, carbon fiber reinforced cellulose

THIELE SMALL PARAMETERS (5)

Fs	48 Hz
Re	5,5 Ohm
Sd	0,0855 sq.mt. (132,5 sq.in.)
Qms	6
Qes	0,32
Qts	0,31
Vas	132,5 lt. (4,66 cuft)
Mms	85 gr. (0,19 lb)
BL	21 Tm
Linear Mathematical Xmax (6)	± 6 mm (±0,24 in)
Le (1kHz)	1,5 mH
Ref. Efficiency 1W@1m (half space)	98,4 dB

MOUNTING INFORMATIONS

Overall diameter	387 mm (15,23 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	370 - 371 mm (14,55 - 14,6 in)
Front mount baffle cutout ø	353 mm (13,90 in)
Total depth	156,4 mm (6,16 in)
Flange and gasket thickness	19,5 mm (0,76 in)
Net weight	12,4 kg (27,37 lb)
Shipping weight	13,4 kg (29,58 lb)
CardBoard Packaging dimensions	405 x 405 x 214 mm (15,94 x 15,94 x 8,43 in)

NOTES

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

(2) Program power rating is measured in 125 lit enclosure tuned 50Hz using a 40 - 400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

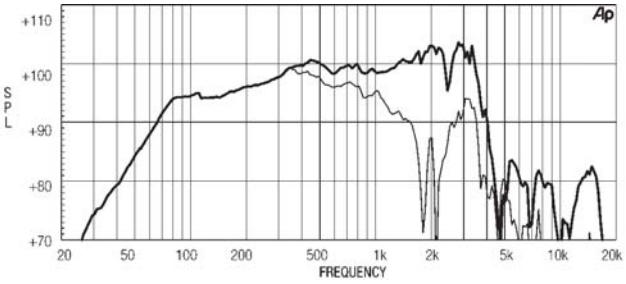
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

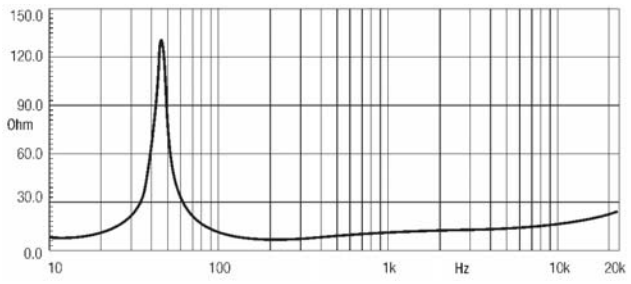
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 850 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 15MB1000 MADE ON 125 LIT. ENCLOSURE TUNED 50HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



15W930

Extended LF Ferrite Driver

KEY FEATURES

98 dB SPL 1W / 1m average sensitivity
75 mm (3 in) edgewound copper voice coil
800 W program power handling
Aluminum demodulating ring (SDR)
Long excursion, linear travel suspension design
Humidity resistant cone and treated plates for outdoor usage
Ideal for high loading compact subwoofer applications and two way systems

GENERAL SPECIFICATIONS	
Nominal Diameter	380 mm (15 in)
Rated Impedance	8 Ohm
AES Power (1)	500 W
Program Power (2)	800 W
Sensitivity (3)	98 dB
Frequency Range (4)	50 ÷ 3600 Hz
Max Recomm. Frequency	1700 Hz
Recomm. Enclosure Volume	60 ÷ 140 lt. (2,12 ÷ 4,95 cuft)
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	Edgewound Copper
Suspension	M-roll, Polycotton
Cone	Curvilinear, humidity repellent

THIELE SMALL PARAMETERS (5)	
Fs	33 Hz
Re	5,5 Ohm
Sd	0,086 sq.mt. (132.53 sq.in.)
Qms	8,78
Qes	0,23
Qts	0,22
Vas	240 lt. (8,46 cuft)
Mms	97 gr. (0,21 lb)
BL	22,1 Tm
Linear Mathematical Xmax (6)	± 7,5 mm (± 0,30 in)
Le (1kHz)	1,47 mH
Ref. Efficiency 1W@1m (half space)	97,9 dB

MOUNTING INFORMATIONS	
Overall diameter	393 mm (15,47 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	371 mm (14,6 in)
Front mount baffle cutout ø	360 mm (14,17 in)
Total depth	185 mm (7,28 in)
Flange and gasket thickness	14 mm (0,55 in)
Net weight	7,6 kg (16,7 lb)
Shipping weight	8,5 kg (18,7 lb)
CardBoard Packaging dimensions	405 x 405 x 252 mm (15,94 x 15,94 x 9.92 in)

NOTES

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

(2) Program power rating is measured in 125 lit enclosure tuned 50Hz using a 40 - 400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

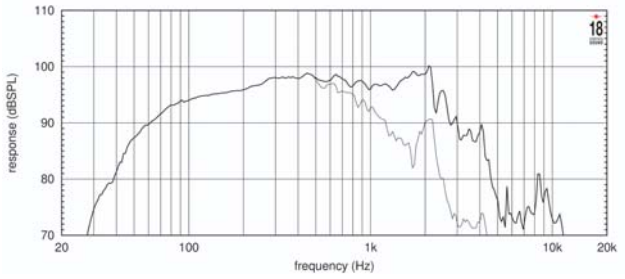
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

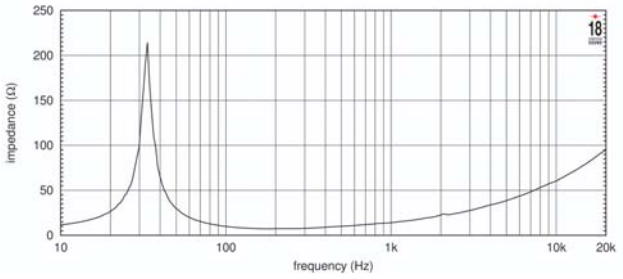
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 1 hour 20 Hz sine and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE MADE ON 125 LIT. ENCLOSURE TUNED 50HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



15W750

700 series

Low Frequency Transducer

KEY FEATURES

97 dB SPL 1W / 1m average sensitivity

75 mm (3 in) Interleaved Sandwich Voice coil (ISV)

1200 W program power handling

Long excursion, linear travel suspension design

Weather protected cone and plates for outdoor usage

Generous low frequency output make it suitable for 2-way systems and subwoofer applications

GENERAL SPECIFICATIONS

Nominal Diameter	380 mm (15 in)
Rated Impedance	8 Ohm
AES Power (1)	600 W
Program Power (2)	1200 W
Sensitivity (3)	97 dB
Frequency Range (4)	50 ÷ 4300 Hz
Max Recomm. Frequency	1800 Hz
Recomm. Enclosure Volume	80 ÷ 140 lt. (2,82 ÷ 4,95 cuft)
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	Aluminum
Suspension	Triple-roll, Polycotton
Cone	Curvilinear, high damping pulp

THIELE SMALL PARAMETERS (5)

Fs	39 Hz
Re	5,1 Ohm
Sd	0,091 sq.mt. (141,05 sq.in.)
Qms	9,34
Qes	0,39
Qts	0,37
Vas	218 lt. (7,70 cuft)
Mms	88 gr. (0,19 lb)
BL	17,6 Tm
Linear Mathematical Xmax (6)	± 8 mm (± 0,31 in)
Le (1kHz)	1,10 mH
Ref. Efficiency 1W@1m (half space)	97,2 dB

MOUNTING INFORMATIONS

Overall diameter	393 mm (15,47 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	371 mm (14,6 in)
Front mount baffle cutout ø	354 mm (13,94 in)
Total depth	184,5 mm (7,26 in)
Flange and gasket thickness	13,5 mm (0,53 in)
Net weight	7,6 kg (16,7 lb)
Shipping weight	8,5 kg (18,7 lb)
CardBoard Packaging dimensions	405 x 405 x 252 mm (15,94 x 15,94 x 9.92 in)

NOTES

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

(2) Program power rating is measured in 125 lit enclosure tuned 50Hz using a 40 - 400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

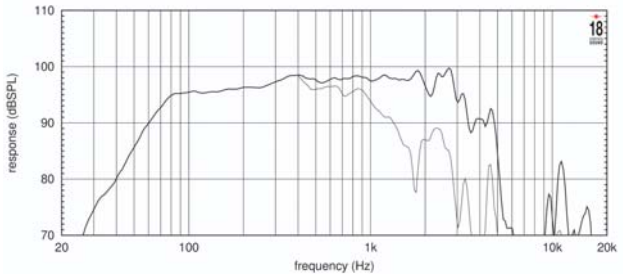
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

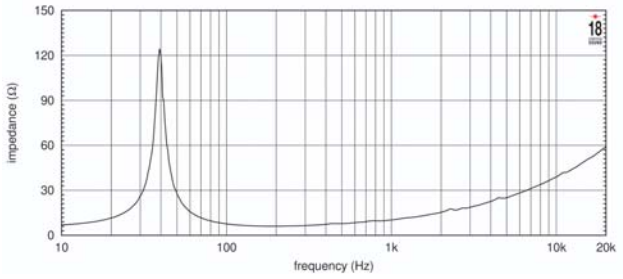
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 15W750 MADE ON 125 LIT. ENCLOSURE TUNED 50HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



15W700

LF Ferrite Driver

KEY FEATURES

99 dB SPL 1W / 1m average sensitivity
75 mm (3 in) Interleaved Sandwich Voice coil (ISV)
450 W AES power handling
Weather protected cone and plates for outdoor usage
Excellent transient response
Improved heat dissipation via unique basket design
Ideal for compact reflex subwoofers and multiway systems

GENERAL SPECIFICATIONS	
Nominal Diameter	380 mm (15 in)
Rated Impedance	8 Ohm
AES Power (1)	450 W
Program Power (2)	700 W
Sensitivity (3)	99 dB
Frequency Range (4)	38 ÷ 5000 Hz
Max Recomm. Frequency	2000 Hz
Recomm. Enclosure Volume	80 ÷ 140 lt. (2,82 ÷ 4,95 cuft)
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	aluminum
Suspension	M-roll, Polycotton
Cone	Curvilinear, Paper

THIELE SMALL PARAMETERS (5)	
Fs	38 Hz
Re	5,7 Ohm
Sd	0,085 sq.mt. (131,75 sq.in.)
Qms	3,8
Qes	0,33
Qts	0,3
Vas	217 lt. (7,67 cuft)
Mms	80 gr. (0,18 lb)
BL	18,4 Tm
Linear Mathematical Xmax (6)	± 6,5 mm (± 0,26 in)
Le (1kHz)	1,57 mH
Ref. Efficiency 1W@1m (half space)	97,8 dB

MOUNTING INFORMATIONS	
Overall diameter	387 mm (15,23 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	370 - 371 mm (14,55 - 14,6 in)
Front mount baffle cutout ø	353 mm (13,90 in)
Total depth	168,5 mm (6,63 in)
Flange and gasket thickness	19,5 mm (0,76 in)
Net weight	8,6 kg (18,98 lb)
Shipping weight	9,7 kg (21,41 lb)
CardBoard Packaging dimensions	405 x 405 x 214 mm (15,94 x 15,94 x 8,43 in)

NOTES

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

(2) Program power rating is measured in 125 lit enclosure tuned 50Hz using a 40 - 400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

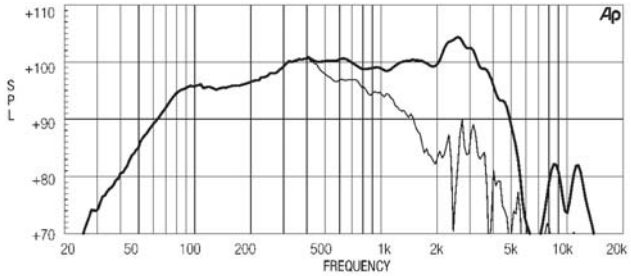
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

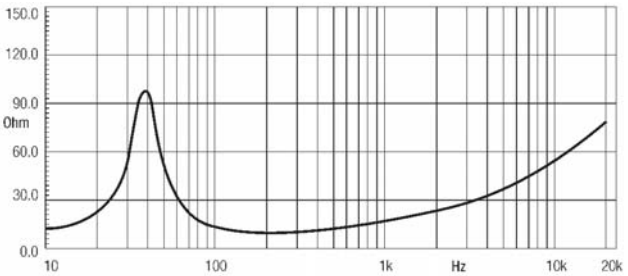
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 450 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 15W700 MADE ON 125 LIT. ENCLOSURE TUNED 50HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



15MB700

700 series

Very High Output Midbass Transducer

KEY FEATURES

103 dB SPL 1W / 1m average sensitivity
75 mm (3 in) Interleaved Sandwich Voice coil (ISV)
400 W AES power handling
Excellent transient response
Additional cone damping treatment
Improved heat dissipation via unique basket design
Suitable for compact two way, multiway and horn loaded midbass applications

GENERAL SPECIFICATIONS

Nominal Diameter	380 mm (15 in)
Rated Impedance	8 Ohm
AES Power (1)	400 W
Program Power (2)	600 W
Sensitivity (3)	103 dB
Frequency Range (4)	45 ÷ 4300 Hz
Max Recomm. Frequency	3000 Hz
Recomm. Enclosure Volume	75 ÷ 130 lt. (2,65 ÷ 4,6 cuft)
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	aluminum
Suspension	Multiroll, Polycotton
Cone	Curvilinear ribbed, Treated paper

THIELE SMALL PARAMETERS (5)

Fs	42 Hz
Re	5 Ohm
Sd	0,085 sq.mt. (131,75 sq.in.)
Qms	4,6
Qes	0,31
Qts	0,29
Vas	202 lt. (7,14 cuft)
Mms	73 gr. (0,16 lb)
BL	17,6 Tm
Linear Mathematical Xmax (6)	± 5,5 mm (± 0,22 in)
Le (1kHz)	1,2 mH
Ref. Efficiency 1W@1m (half space)	98,9 dB

MOUNTING INFORMATIONS

Overall diameter	387 mm (15,23 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	370 - 371 mm (14,55 - 14,6 in)
Front mount baffle cutout ø	353 mm (13,90 in)
Total depth	167,5 mm (6,59 in)
Flange and gasket thickness	19,5 mm (0,76 in)
Net weight	8,3 kg (18,3 lb)
Shipping weight	9,4 kg (20,75 lb)
CardBoard Packaging dimensions	405 x 405 x 214 mm (15,94 x 15,94 x 8,43 in)

NOTES

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

(2) Program power rating is measured in 125 lit enclosure tuned 50Hz using a 40 - 400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

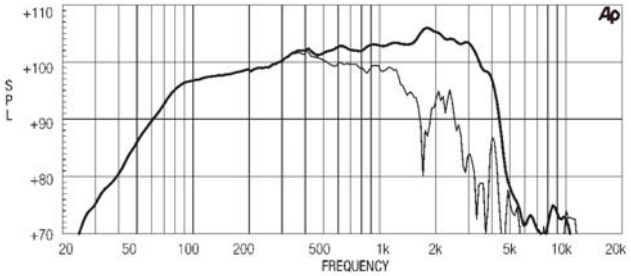
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

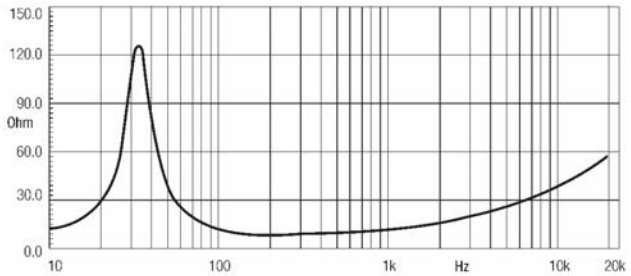
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 400 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 15MB700 MADE ON 125 LIT. ENCLOSURE TUNED 50HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



15MB606

Very High Output MB Ferrite Driver

KEY FEATURES

101 dB SPL 1W / 1m average sensitivity
75 mm (3 in) Interleaved Sandwich Voice coil (ISV)
400 W AES power handling
Excellent transient response and cone damping
Improved heat dissipation via unique basket design
Ideal for compact two way and multiway systems

GENERAL SPECIFICATIONS	
Nominal Diameter	380 mm (15 in)
Rated Impedance	8 Ohm
AES Power (1)	400 W
Program Power (2)	600 W
Sensitivity (3)	101 dB
Frequency Range (4)	45 ÷ 4800 Hz
Max Recomm. Frequency	2000 Hz
Recomm. Enclosure Volume	80 ÷ 140 lt. (2,85 ÷ 5 cuft)
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	aluminum
Suspension	Multiroll, Polycotton
Cone	Curvilinear Ribbed, Paper

THIELE SMALL PARAMETERS (5)	
Fs	43 Hz
Re	5 Ohm
Sd	0,085 sq.mt. (131,75 sq.in.)
Qms	6,2
Qes	0,37
Qts	0,35
Vas	223 lt. (7,88 cuft)
Mms	63 gr. (0,14 lb)
BL	15,1 Tm
Linear Mathematical Xmax (6)	± 4,5 mm (± 0,18 in)
Le (1kHz)	1,3 mH
Ref. Efficiency 1W@1m (half space)	98,8 dB

MOUNTING INFORMATIONS	
Overall diameter	387 mm (15,23 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	370 - 371 mm (14,55 - 14,6 in)
Front mount baffle cutout ø	353 mm (13,90 in)
Total depth	171,5 mm (6,75 in)
Flange and gasket thickness	19,5 mm (0,76 in)
Net weight	6,9 kg (15,23 lb)
Shipping weight	8 kg (17,66 lb)
CardBoard Packaging dimensions	405 x 405 x 214 mm (15,94 x 15,94 x 8,43 in)

NOTES

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

(2) Program power rating is measured in 125 lit enclosure tuned 50Hz using a 50 -2000Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

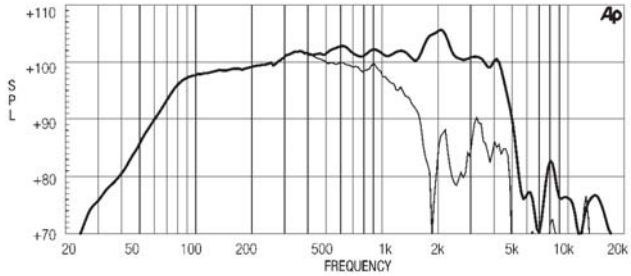
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

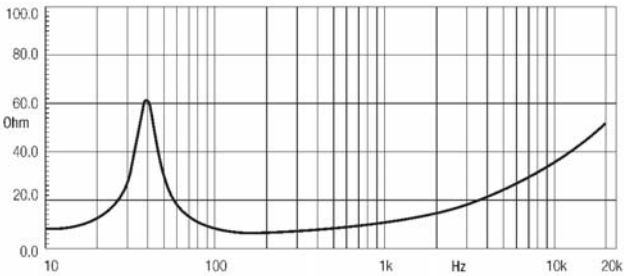
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 400 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 15MB606 MADE ON 125 LIT. ENCLOSURE TUNED 50HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



15W500

500 series

Low Frequency Transducer

KEY FEATURES

100,5dB SPL 1W / 1m average sensitivity
65 mm (2,5 in) Interleaved Sandwich Voice coil (ISV)
350 W AES power handling
Excellent transient response and cone damping
Improved heat dissipation via unique basket design
Ideal for compact two way and multiway systems

GENERAL SPECIFICATIONS

Nominal Diameter	380 mm (15 in)
Rated Impedance	8 Ohm
AES Power (1)	350 W
Program Power (2)	500 W
Sensitivity (3)	100,5 dB
Frequency Range (4)	50 ÷ 4500 Hz
Max Recomm. Frequency	3000 Hz
Recomm. Enclosure Volume	80 ÷ 200 lt. (2,47 ÷ 5,3 cuft)
Voice Coil Diameter	64 mm (2,5 in)
Voice Coil Winding Material	aluminum
Suspension	Multiroll, Polycotton
Cone	Curvilinear ribbed, Paper

THIELE SMALL PARAMETERS (5)

Fs	50 Hz
Re	5,2 Ohm
Sd	0,085 sq.mt. (131,75 sq.in.)
Qms	9,64
Qes	0,55
Qts	0,52
Vas	189 lt. (6,68 cuft)
Mms	55 gr. (0,12 lb)
BL	12,6 Tm
Linear Mathematical Xmax (6)	± 4 mm (±0,16 in)
Le (1kHz)	1,04 mH
Ref# Efficiency 1W@1m (half space)	98,2 dB

MOUNTING INFORMATIONS

Overall diameter	387 mm (15,23 in)
N# of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	370 - 371 mm (14,55 - 14,6 in)
Front mount baffle cutout ø	353 mm (13,90 in)
Total depth	161 mm (6,33 in)
Flange and gasket thickness	11,5 mm (0,45 in)
Net weight	4,3 kg (9,4 lb)
Shipping weight	5,1 kg (11,2 lb)
CardBoard Packaging dimensions	405 x 405 x 214 mm (15,94 x 15,94 x 8,43 in)

NOTES

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

(2) Program power rating is measured in 125 lit enclosure tuned 50Hz using a 40 - 400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

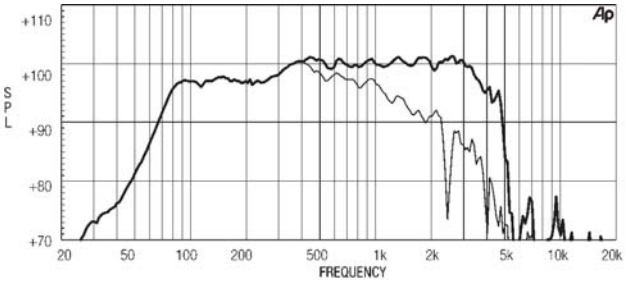
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83 V sinewave test signal swept between 100Hz and 500Hz with the test specimen mounted in thesame enclosure as given for (1) above.

(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.

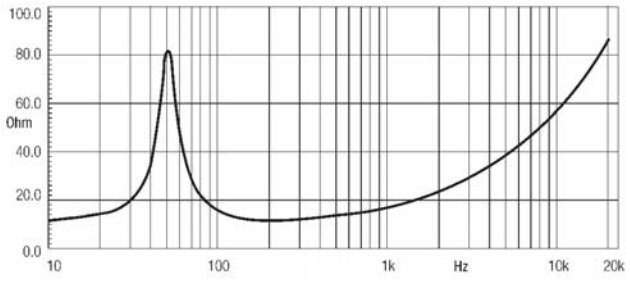
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 350W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 15W500 MADE ON 125 LIT. ENCLOSURE TUNED 50HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



12CX800

High Output Coaxial Ferrite Transducer

KEY FEATURES

97.5dB / 108dB SPL 1W/1m average sensitivity
75 mm (3") LF Interleaved Sandwich Voice coil (ISV)
400 W LF - 100 W HF AES power handling
1.4" exit HF neodymium driver with high temperature ferrofluid
75 mm (3") HF edgewound voice coil
FEA optimized coupling horn profile
70 degrees coverage angle
Weather protected cone and plate for outdoor usage
Ideal for compact reflex enclosures

LF GENERAL SPECIFICATIONS

Nominal Diameter	300 mm (8 in)
Rated Impedance	8 Ohm
AES Power (1)	400 W
Program Power (2)	600 W
Sensitivity (3)	97,5 dB
Frequency Range (4)	60 ÷ 5500 Hz
Max Recomm. Frequency	1200 Hz
Recomm. Enclosure Volume	30 ÷ 60 lt. (1,1 ÷ 2,2 cuft)
Voice Coil Diameter	75 mm (3,00 in)
Voice Coil Winding Material	aluminum
Suspension	Triple roll, Polycotton
Cone	Curvilinear, Paper

HF GENERAL SPECIFICATIONS

D.C. Resistance	6,2 Ohm
AES power (5)	100W above 1,2 kHz
Program Power (6)	200W above 1,2 kHz
Sensitivity (7)	108 dB
Frequency Range	0,5 KHz ÷ 20 kHz
Recomm. Xover Frequency	1,2 kHz 12 dB/oct
Voice Coil Diameter	74,6 mm (3,0 in)

LF THIELE SMALL PARAMETERS (8)

Fs	53 Hz
Re	5,8 Ohm
Sd	0,053 sq.mt. (82,2 sq.in.)
Qms	4
Qes	0,27
Qts	0,25
Vas	73 lt. (2,6 cuft)
Mms	48 gr. (106,0 lb)
BL	18,5 Tm
Mathematical Xmax (9)	± 6,25 mm (± 0,25 in)
Le (1kHz)	1,3 mH
Ref. Effic. 1W@1m (1/2space)	4% (99 dB)

NOTES

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

(2) Program power rating is measured in 50 lit enclosure tuned 60Hz using a 40 - 400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83 V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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 1/2 space environment.

(5) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration. Power calculated on minimum impedance.

(6) Program power is defined as 3 dB greater than AES power rating, and is a conservative expression of the transducer ability to handle music program material.

(7) Sensitivity is measured on 1W input on rated impedance at 1m on axis from the mouth of the woofer and averaged in 3kHz band.

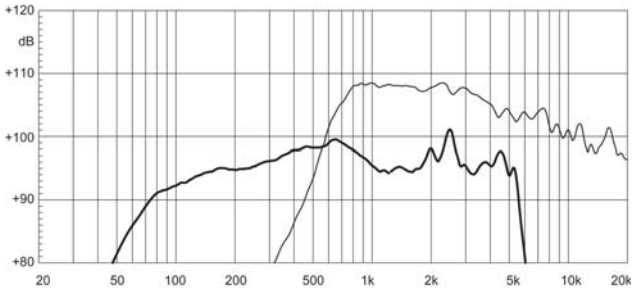
(8) Thiele - Small parameters are measured after test specimen has been conditioned by AES power and represent the expected long term parameters after a short period of use.

(9) Math. Xmax is calculated as (Hvc-Hg)/2 + Hg/4. Hvc is the coil depth and Hg is the gap depth.

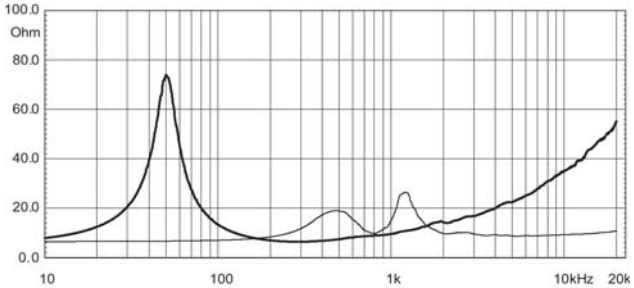
MOUNTING INFORMATIONS

Overall diameter	315 mm (12,4 in)
N. of mounting holes	8
Mounting holes Ø	7,15 mm (0,3 in)
Bolt circle Ø	296 - 300 mm (11,65 - 11,8 in)
Front mount baffle cutout Ø	282 mm (11,1 in)
Total depth	209 mm (8,2 in)
Flange and gasket thickness	17 mm (0,7 in)
Net weight	11,4 kg (25,2 lb)
Shipping weight	12 kg (26,5 lb)
CardBoard Packaging Dim.	313x313x225 mm (12,3x12,3x8.9 in)

FREQUENCY RESPONSE CURVE OF 12CX800 MADE ON 50 LT ENCLOSURE TUNED AT 60HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS HIGH FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



12LW1400

1400 series

Extended Low Frequency Transducer

KEY FEATURES

96 dB SPL 1W / 1m average sensitivity
100 mm (4 in) Interleaved Sandwich Voice coil (ISV)
900 W AES power handling
Double Silicon Spider (DSS) for improved excursion control and linearity
Double Demodulating Ring (DDR) for lower distortion
Improved heat dissipation via unique basket design
Weather protected cone and plates for outdoor usage
Specially designed for high loading compact subwoofers

GENERAL SPECIFICATIONS	
Nominal Diameter	300 mm (12 in)
Rated Impedance	8 Ohm
AES Power (1)	900W
Program Power (2)	1400 W
Sensitivity (3)	96 dB
Frequency Range (4)	51 ÷ 4000 Hz
Max Recomm. Frequency	1000 Hz
Recomm. Enclosure Volume	30 ÷ 60 lt. (1,06 ÷ 2,12 cuft)
Voice Coil Diameter	100 mm (4 in)
Voice Coil Winding Material	aluminum
Suspension	Triple roll, Polycotton
Cone	Straight, Paper

THIELE SMALL PARAMETERS (5)	
Fs	45 Hz
Re	5,2 Ohm
Sd	0,053 sq.mt. (82,15 sq.in.)
Qms	5
Qes	0,32
Qts	0,3
Vas	55 lt. (1,94 cuft)
Mms	88 gr. (0,19 lb)
BL	20 Tm
Linear Mathematical Xmax (6)	± 8,25 mm (± 0,32 in)
Le (1kHz)	1,5 mH
Ref. Efficiency 1W@1m (half space)	1,5% (94 dB)

MOUNTING INFORMATIONS	
Overall diameter	315 mm (12,4 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	296 - 300 mm (11,65 - 11,8 in)
Front mount baffle cutout ø	282 mm (11,1 in)
Total depth	141 mm (5,55 in)
Flange and gasket thickness	17,5 mm (0,69 in)
Net weight	10,9 kg (26,5 lb)
Shipping weight	11,5 kg (27,8 lb)
CardBoard Packaging dimensions	332 x 332 x 184 mm (13,07 x 13,07 x 7,24 in)

NOTES

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

(2) Program power rating is measured in 50 lit enclosure tuned 60Hz using a 40 - 400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

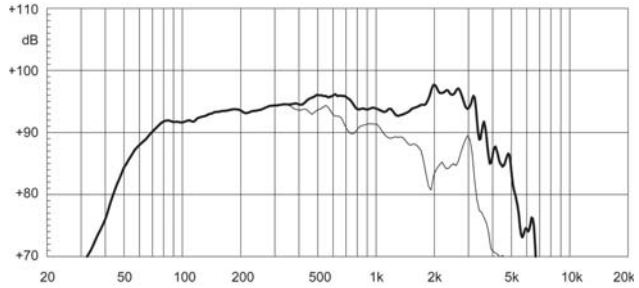
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83 V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(4) Frequency range is given as the band of frequencies delineated by the lower and upperlimits where the output level drops by 10 dB below the rated sensitivity in half spaceenvironment.

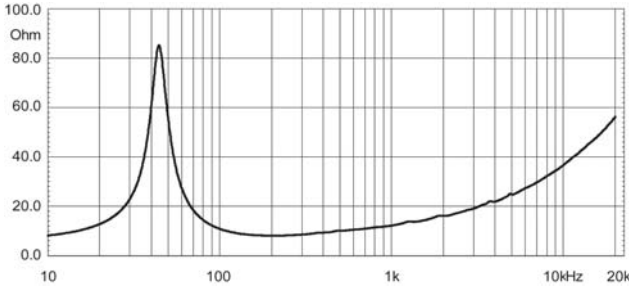
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 900 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 12LW1400 MADE ON 50 LIT. ENCLOSURE TUNED 60 HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



12MB1000

High Output MB Ferrite Driver

KEY FEATURES

102 dB SPL 1W / 1m average sensitivity
100 mm (4 in) Interleaved Sandwich ISV copper voice coil
600 W AES power handling
Excellent transient response
Very low power compression
Improved heat dissipation via unique basket design
Ideal for direct radiating or horn loaded midbass systems

GENERAL SPECIFICATIONS	
Nominal Diameter	300 mm (12 in)
Rated Impedance	8 Ohm
AES Power (1)	600 W
Program Power (2)	800 W
Sensitivity (3)	102 dB
Frequency Range (4)	80 ÷ 3500 Hz
Max Recomm. Frequency	2500 Hz
Recomm. Enclosure Volume	8 ÷ 60 lt. (0,28 ÷ 2,12 cuft)
Voice Coil Diameter	100 mm (4 in)
Voice Coil Winding Material	copper
Suspension	M-roll, Polycotton
Cone	Curvilinear, Treated paper

THIELE SMALL PARAMETERS (5)	
Fs	54 Hz
Re	5,8 Ohm
Sd	0,0531 sq.mt. (82,31 sq.in.)
Qms	6
Qes	0,2
Qts	0,18
Vas	60 lt. (2,12 cuft)
Mms	55,5 gr. (0,12 lb)
BL	23,5 Tm
Linear Mathematical Xmax (6)	± 2,5mm (±0,10 in)
Le (1kHz)	1,46 mH
Ref. Efficiency 1W@1m (half space)	99 dB

MOUNTING INFORMATIONS	
Overall diameter	315 mm (12,4 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	296 - 300 mm (11,65 - 11,8 in)
Front mount baffle cutout ø	282 mm (11,1 in)
Total depth	118,4 mm (4,66 in)
Flange and gasket thickness	16,5 mm (0,65 in)
Net weight	9,6 kg (21,19 lb)
Shipping weight	10,3 kg (22,74 lb)
CardBoard Packaging dimensions	332 x 332 x 184 mm (13,07 x 13,07 x 7,24 in)

NOTES

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

(2) Continuous power rating is measured in 50 lit closed box using a 60 - 2000Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

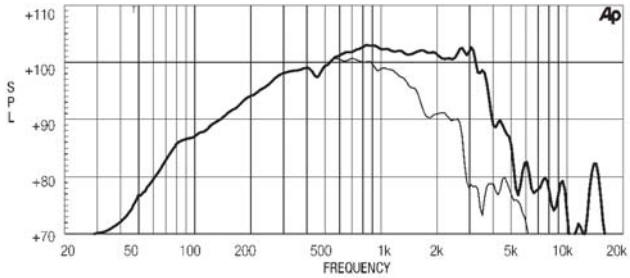
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 500Hz and 2500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

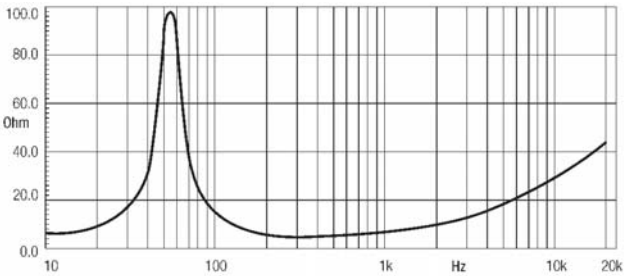
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 600 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 12MB1000 MADE ON 50 LIT. CLOSED BOX ENCLOSURE IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



12W750

700 series

Low Frequency Transducer

KEY FEATURES

97 dB SPL 1W / 1m average sensitivity

75 mm (3 in) Interleaved Sandwich Voice coil (ISV)

1200 W program power handling

Long excursion, linear travel suspension design

Weather protected cone and plates for outdoor use

Generous low frequency output make it suitable for 2-way systems and subwoofer applications

GENERAL SPECIFICATIONS

Nominal Diameter	300 mm (12 in)
Rated Impedance	8 Ohm
AES Power (1)	600 W
Program Power (2)	1200 W
Sensitivity (3)	97 dB
Frequency Range (4)	50 ÷ 4600 Hz
Max Recomm. Frequency	1800 Hz
Recomm. Enclosure Volume	40 ÷ 90 lt. (1,41 ÷ 3,18 cuft)
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	aluminum
Suspension	Triple Roll, Polycotton
Cone	Curvilinear, water repellent high damping pulp

THIELE SMALL PARAMETERS (5)

Fs	49 Hz
Re	5,2 Ohm
Sd	0,0531 sq.mt. (82,31 sq.in.)
Qms	7,00
Qes	0,30
Qts	0,28
Vas	73 lt. (2,58 cuft)
Mms	57 gr. (0,13 lb)
BL	18 Tm
Linear Mathematical Xmax (6)	± 8 mm (± 0,31 in)
Le (1kHz)	0,95 mH
Ref. Efficiency 1W@1m (half space)	96,6 dB

MOUNTING INFORMATIONS

Overall diameter	310 mm (12,2 in)
N. of mounting holes	8
Mounting holes diameter	5,90 mm (0,23 in)
Bolt circle diameter	295 mm (11,61 in)
Front mount baffle cutout ø	280 mm (11,02 in)
Total depth	148 mm (5,83 in)
Flange and gasket thickness	13,5 mm (0,53 in)
Net weight	7,5 kg (16,5 lb)
Shipping weight	8,3 kg (18,26 lb)
CardBoard Packaging dimensions	332 x 332 x 184 mm (13,07 x 13,07 x 7,24 in)

NOTES

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

(2) Program power rating is measured in 50 lit enclosure tuned 60Hz using a 40 - 400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

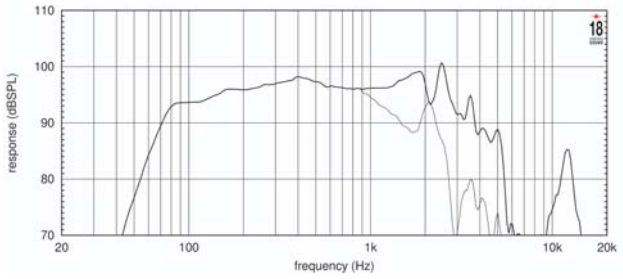
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

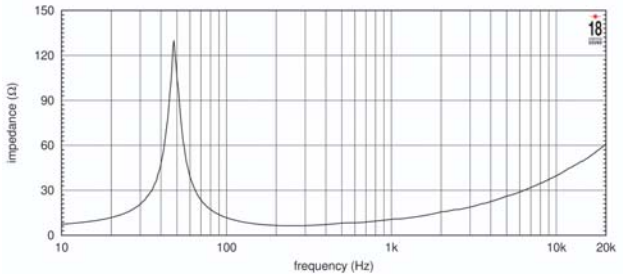
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 12W750 MADE ON 50 LIT. ENCLOSURE TUNED 60HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



12W700

LF Ferrite Driver

KEY FEATURES

98 dB SPL 1W / 1m average sensitivity
75 mm (3 in) Interleaved Sandwich Voice coil (ISV)
450 W AES power handling
Excellent transient response
Weather protected cone and plates for outdoor usage
Improved heat dissipation via unique basket design
Ideal for compact two way, multiway systems and subwoofer applications

GENERAL SPECIFICATIONS

Nominal Diameter	300 mm (12 in)
Rated Impedance	8 Ohm
AES Power (1)	450 W
Program Power (2)	700 W
Sensitivity (3)	98 dB
Frequency Range (4)	55 ÷ 4200 Hz
Max Recomm. Frequency	1700 Hz
Recomm. Enclosure Volume	40 ÷ 90 lt. (1,41 ÷ 3,18 cuft)
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	aluminum
Suspension	Triple Roll, Polycotton
Cone	Ribbed Curvilinear, Paper

THIELE SMALL PARAMETERS (5)

Fs	58 Hz
Re	5,7 Ohm
Sd	0,0531 sq.mt. (82,31 sq.in.)
Qms	3,93
Qes	0,37
Qts	0,36
Vas	55 lt. (1,94 cuft)
Mms	51 gr. (0,11 lb)
BL	17,7 Tm
Linear Mathematical Xmax (6)	± 6,5 mm (± 0,26 in)
Le (1kHz)	1,48 mH
Ref. Efficiency 1W@1m (half space)	97,2 dB

MOUNTING INFORMATIONS

Overall diameter	315 mm (12,4 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	296 - 300 mm (11,65 - 11,8 in)
Front mount baffle cutout ø	282 mm (11,1 in)
Total depth	147,5 mm (5,80 in)
Flange and gasket thickness	16,5 mm (0,65 in)
Net weight	8,2 kg (18,1 lb)
Shipping weight	9 kg (19,87 lb)
CardBoard Packaging dimensions	332 x 332 x 184 mm (13,07 x 13,07 x 7,24 in)

NOTES

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

(2) Continuous power rating is measured in 50 lit enclosure tuned 60Hz using a 40 - 400Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

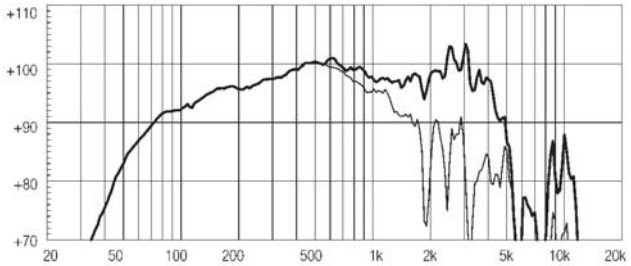
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

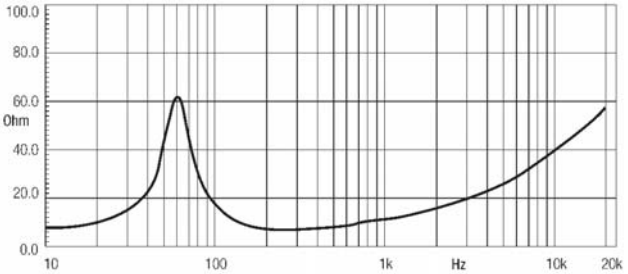
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 450 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 12W700 MADE ON 50 LIT. ENCLOSURE TUNED 60HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



12MB700

700 series

Very High Output Midbass Transducer

KEY FEATURES

101,5 dB SPL 1W / 1m sensitivity
75 mm (3 in) Interleaved Sandwich Voice coil (ISV)
450 W AES power handling
Double Demodulating Rings (DDR) for lower distortion
Improved heat dissipation via unique basket design
Weather protected cone and plates for outdoor usage
Ideal for compact two way and multiway systems

GENERAL SPECIFICATIONS	
Nominal Diameter	300 mm (12 in)
Rated Impedance	8 Ohm
AES Power (1)	450 W
Program Power (2)	600 W
Sensitivity (3)	101,5 dB
Frequency Range (4)	60 ÷ 5000 Hz
Max Recomm. Frequency	4000 Hz
Recomm. Enclosure Volume	10 ÷ 80 lt. (0,3 ÷ 2,83 cuft)
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	aluminum
Suspension	M-roll, Polycotton
Cone	Curvilinear, Paper

THIELE SMALL PARAMETERS (5)	
Fs	49 Hz
Re	5 Ohm
Sd	0,0531 sq.mt. (82,31 sq.in.)
Qms	4,7
Qes	0,2
Qts	0,19
Vas	101 lt. (3,57 cuft)
Mms	41 gr. (0,09 lb)101 lt. (3,57 cuft)
BL	17,8 Tm
Linear Mathematical Xmax (6)	± 4,5 mm (± 0,18 in)
Le (1kHz)	0,9 mH
Ref. Efficiency 1W@1m (half space)	99,6 dB

MOUNTING INFORMATIONS	
Overall diameter	315 mm (12,4 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	296 - 300 mm (11,65 - 11,8 in)
Front mount baffle cutout ø	282 mm (11,1 in)
Total depth	147,5 mm (5,82 in)
Flange and gasket thickness	16,5 mm (0,65 in)
Net weight	8,0 kg (17,66 lb)
Shipping weight	8,8 kg (19,43 lb)
CardBoard Packaging dimensions	332 x 332 x 184 mm (13,07 x 13,07 x 7,24 in)

NOTES

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

(2) Continuous power rating is measured in 50 lit enclosure tuned 60Hz using a 60 - 2000Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

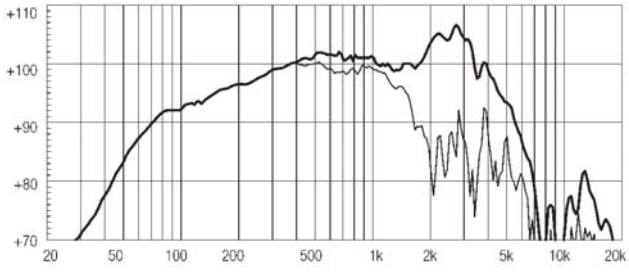
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 500Hz and 2500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

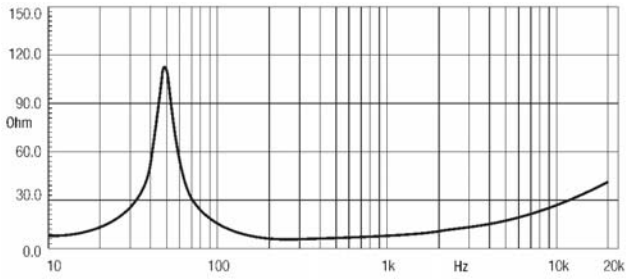
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 450 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 12MB700 MADE ON 50 LIT. ENCLOSURE TUNED 60HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



12MB600

High Output MB Ferrite Driver

KEY FEATURES

101 dB SPL 1W / 1m average sensitivity
75 mm (3 in) Interleaved Sandwich Voice coil (ISV)
450 W AES power handling
Weather protected cone and plates for outdoor usage
Excellent transient response
Improved heat dissipation via unique basket design
Ideal for compact two way and multiway systems

GENERAL SPECIFICATIONS

Nominal Diameter	300 mm (12 in)
Rated Impedance	8 Ohm
AES Power (1)	450 W
Program Power (2)	600 W
Sensitivity (3)	101 dB
Frequency Range (4)	58 ÷ 5000 Hz
Max Recomm. Frequency	2200 Hz
Recomm. Enclosure Volume	30 ÷ 80 lt. (1,06 ÷ 2,83 cuft)
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	aluminum
Suspension	M-roll, Polycotton
Cone	Curvilinear, Paper

THIELE SMALL PARAMETERS (5)

Fs	44 Hz
Re	5 Ohm
Sd	0,0531 sq.mt. (82,31 sq.in.)
Qms	3,9
Qes	0,19
Qts	0,18
Vas	115 lt. (4,06 cuft)
Mms	43 gr. (0,09 lb)
BL	18 Tm
Linear Mathematical Xmax (6)	± 4,5 mm (± 0,18 in)
Le (1kHz)	1,32 mH
Ref. Efficiency 1W@1m (half space)	99,2 dB

MOUNTING INFORMATIONS

Overall diameter	315 mm (12,4 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	296 - 300 mm (11,65 - 11,8 in)
Front mount baffle cutout ø	282 mm (11,1 in)
Total depth	147,5 mm (5,82 in)
Flange and gasket thickness	16,5 mm (0,65 in)
Net weight	8,0 kg (17,66 lb)
Shipping weight	8,8 kg (19,43 lb)
CardBoard Packaging dimensions	332 x 332 x 184 mm (13,07 x 13,07 x 7,24 in)

NOTES

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

(2) Program power rating is measured in 50 lit enclosure tuned 60Hz using a 60 - 2000Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

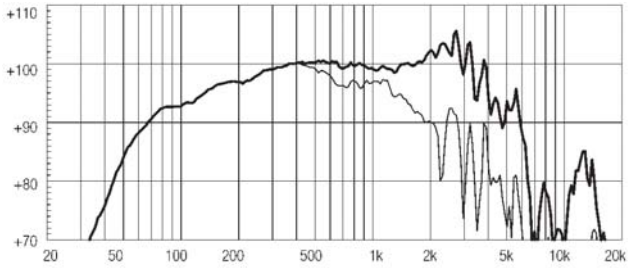
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 500Hz and 2500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

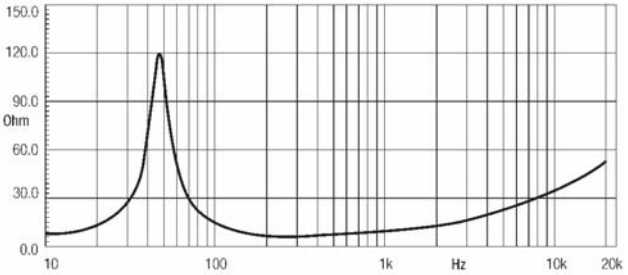
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 450 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 12MB600 MADE ON 50 LIT. ENCLOSURE TUNED 60HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



12MB650

600 series

High Output Midbass Transducer

KEY FEATURES

98 dB SPL 1W / 1m sensitivity
65 mm (2.5 in) Edgewound Aluminum Voice coil (EWAL)
800W program power handling
Improved heat dissipation via proprietary basket design
Weather protected cone and plates for outdoor usage
Ideal for high quality two way and stage monitor applications

GENERAL SPECIFICATIONS

Nominal Diameter	300 mm (12 in)
Rated Impedance	8 Ohm
AES Power (1)	400 W
Program Power (2)	800 W
Sensitivity (3)	98 dB
Frequency Range (4)	45 ÷ 5000 Hz
Max Recomm. Frequency	2000 Hz
Recomm. Enclosure Volume	70 ÷ 150 lt. (2.47 ÷ 5.30 cuft)
Voice Coil Diameter	65 mm (2.5 in)
Voice Coil Winding Material	aluminum
Suspension	Triple-roll, Polycotton
Cone	Curvilinear, Treated paper

THIELE SMALL PARAMETERS (5)

Fs	48 Hz
Re	6,0 Ohm
Sd	0,053 sq.mt. (82,15 sq.in.)
Qms	3,2
Qes	0,24
Qts	0,23
Vas	90 lt. (3.18 cuft)
Mms	48 gr. (0.11 lb)
BL	19 Tm
Linear Mathematical Xmax (6)	± 5,5 mm (± 0.22 in)
Le (1kHz)	0,83 mH
Ref. Efficiency 1W@1m (half space)	98,1 dB

MOUNTING INFORMATIONS

Overall diameter	310 mm (12,2 in)
N. of mounting holes	8
Mounting holes diameter	5,9 mm (0,23 in)
Bolt circle diameter	295 mm (11.61 - 11,8 in)
Front mount baffle cutout ø	280 mm (11,02 in)
Total depth	143 mm (5.63 in)
Flange and gasket thickness	14 mm (0.55 in)
Net weight	6,8 kg (14.95 lb)
Shipping weight	7,5 kg (16.53 lb)
CardBoard Packaging dimensions	332 x 332 x 184 mm (13,07 x 13,07 x 7,24 in)

NOTES

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

(2) Program power rating is measured in 250 lit. enclosure tuned at 28 Hz using a 30-300 band limited pink noise test signal applied for 2 hours and with 50% duty cycle

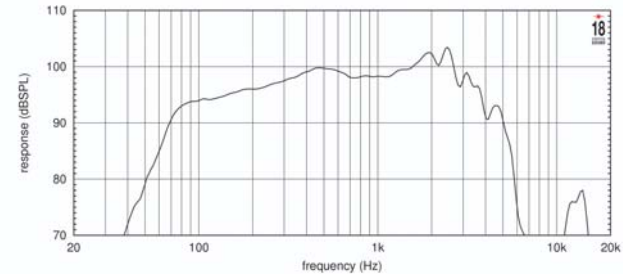
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 500Hz and 2500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

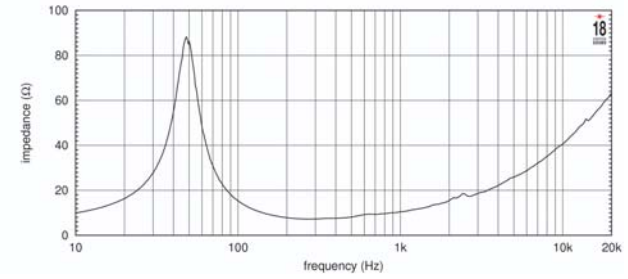
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 450 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE MADE ON 50 LIT. ENCLOSURE TUNED 60HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



12W500

LF Ferrite Driver

KEY FEATURES

99,5 dB SPL 1W / 1m average sensitivity
65 mm (2,5 in) Interleaved Sandwich Voice coil (ISV)
350 W AES power handling
Excellent transient response
Improved heat dissipation via unique basket design
Ideal for compact two way systems

GENERAL SPECIFICATIONS

Nominal Diameter	300 mm (12 in)
Rated Impedance	8 Ohm
AES Power (1)	350 W
Program Power (2)	500 W
Sensitivity (3)	99,5 dB
Frequency Range (4)	50 ÷ 6000 Hz
Max Recomm. Frequency	2500 Hz
Recomm. Enclosure Volume	50 ÷ 100 lt. (1,77 ÷ 3,53 cuft)
Voice Coil Diameter	64 mm (2,5 in)
Voice Coil Winding Material	aluminum
Suspension	M-roll, Polycotton
Cone	Curvilinear, Paper

THIELE SMALL PARAMETERS (5)

Fs	46 Hz
Re	5,2 Ohm
Sd	0,0531 sq.mt. (82,31 sq.in.)
Qms	6,02
Qes	0,38
Qts	0,36
Vas	123 lt. (4,34 cuft)
Mms	36,5 gr. (0,08 lb)
BL	12,1 Tm
Linear Mathematical Xmax (6)	± 4 mm (±0,16 in)
Le (1kHz)	1,12 mH
Ref. Efficiency 1W@1m (half space)	97,2 dB

MOUNTING INFORMATIONS

Overall diameter	315 mm (12,4 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	296 - 300 mm (11,65 - 11,8 in)
Front mount baffle cutout ø	282 mm (11,1 in)
Total depth	141 mm (5,55 in)
Flange and gasket thickness	16,5 mm (0,65 in)
Net weight	4,5 kg (9,93 lb)
Shipping weight	5,3 kg (11,7 lb)
CardBoard Packaging dimensions	332 x 332 x 184 mm (13,07 x 13,07 x 7,24 in)

NOTES

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

(2) Program power rating is measured in 50 lit enclosure tuned 60Hz using a 55 - 2500Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

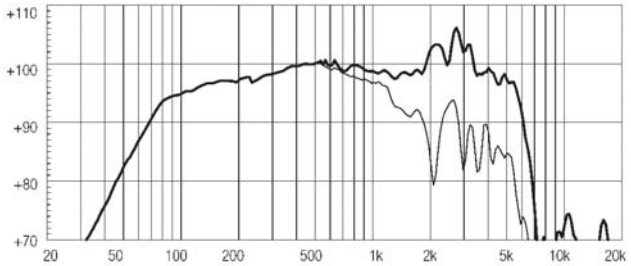
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

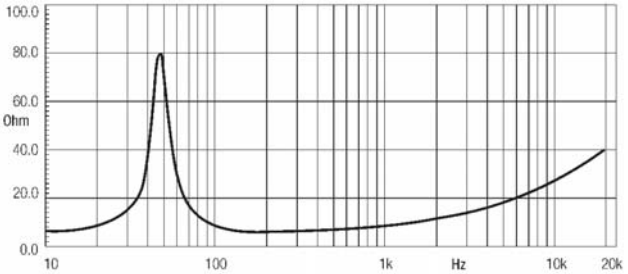
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 350 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 12W500 MADE ON 50 LIT. ENCLOSURE TUNED 60HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



10MB600

600 series

High Output Midbass Transducer

KEY FEATURES

98 dB SPL 1W / 1m average sensitivity
75 mm (3 in) Interleaved Sandwich Voice coil (ISV)
450 W AES power handling
Weather protected cone and plates for outdoor usage
Excellent transient response
Improved heat dissipation via unique basket design
Ideal for compact two way and multiway systems

GENERAL SPECIFICATIONS	
Nominal Diameter	260 mm (10 in)
Rated Impedance	8 Ohm
AES Power (1)	450 W
Program Power (2)	700 W
Sensitivity (3)	98 dB
Frequency Range (4)	55 ÷ 4500 Hz
Max Recomm. Frequency	2500 Hz
Recomm. Enclosure Volume	10 ÷ 40 lt. (0,9 ÷ 1,41 cuft)
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	aluminum
Suspension	M-roll, polycotton
Cone	Curvilinear, paper

THIELE SMALL PARAMETERS (5)	
Fs	58 Hz
Re	5,7 Ohm
Sd	0,035 sq.mt. (54,25 sq.in.)
Qms	5,5
Qes	0,23
Qts	0,22
Vas	33,4 lt. (1,18 cuft)
Mms	38 gr. (0,08 lb)
BL	18,6 Tm
Linear Mathematical Xmax (6)	± 6,5 mm (± 0,26 in)
Le (1kHz)	1,6 mH
Ref. Efficiency 1W@1m (half space)	96,5 dB

MOUNTING INFORMATIONS	
Overall diameter	260 mm (10,24 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	244,5 mm (9,63 in)
Front mount baffle cutout ø	232 mm (9,13 in)
Total depth	127 mm (5 in)
Flange and gasket thickness	14,5 mm (0,57 in)
Net weight	7,35 kg (16,23 lb)
Shipping weight	7,9 kg (17,44 lb)
CardBoard Packaging dimensions	275 x 275 x 164 mm (10,83 x 10,83 x 6,46 in)

NOTES

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

(2) Program power rating is measured in 30 lit enclosure tuned 55Hz using a 70 - 2000Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

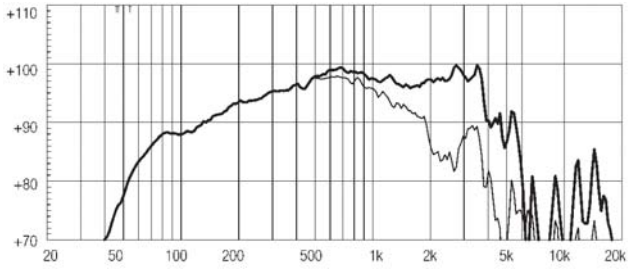
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 500Hz and 2500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

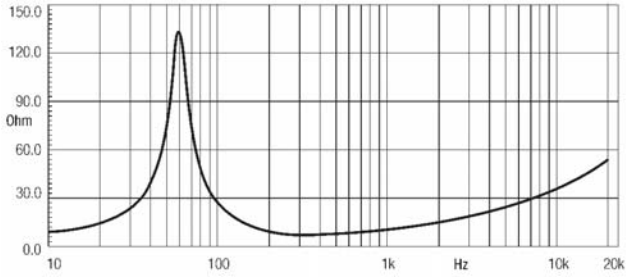
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 450 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 10MB600 MADE ON 30 LIT. ENCLOSURE TUNED AT 55HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



10M600

Very High Output MF Ferrite Driver

KEY FEATURES

102 dB SPL 1W / 1m average sensitivity
75 mm (3 in) Interleaved Sandwich Voice coil (ISV)
400 W AES power handling
Excellent transient response
Improved heat dissipation via unique basket design
Ideal for direct radiating or horn loaded midrange systems

GENERAL SPECIFICATIONS

Nominal Diameter	260 mm (10 in)
Rated Impedance	8 Ohm
AES Power (1)	400 W
Program Power (2)	500 W
Sensitivity (3)	102 dB
Frequency Range (4)	80 ÷ 5200 Hz
Max Recomm. Frequency	3000 Hz
Recomm. Enclosure Volume	5 ÷ 30 lt. (0,18 ÷ 1,09 cuft)
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	aluminum
Suspension	M roll, polycotton
Cone	Curvilinear, Paper

THIELE SMALL PARAMETERS (5)

Fs	70 Hz
Re	5,2 Ohm
Sd	0,035 sq.mt. (54,25 sq.in.)
Qms	4,5
Qes	0,25
Qts	0,23
Vas	25,6 lt. (0,9 cuft)
Mms	32 gr. (0,07 lb)
BL	17,6 Tm
Linear Mathematical Xmax (6)	± 4 mm (±0,16 in)
Le (1kHz)	1,28 mH
Ref. Efficiency 1W@1m (half space)	97,7 dB

MOUNTING INFORMATIONS

Overall diameter	260 mm (10,24 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	244,5 mm (9,63 in)
Front mount baffle cutout ø	232 mm (9,13 in)
Total depth	126 mm (4,95 in)
Flange and gasket thickness	14,5 mm (0,57 in)
Net weight	7,35 kg (16,23 lb)
Shipping weight	7,8 kg (17,22 lb)
CardBoard Packaging dimensions	275 x 275 x 164 mm (10,83 x 10,83 x 6,46 in)

NOTES

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

(2) Program power rating is measured in 30 lit closed enclosure using a 70 - 2000Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

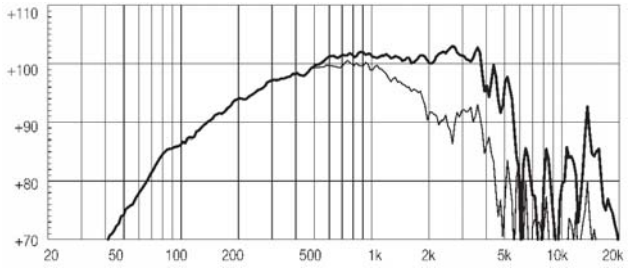
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 500Hz and 2500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

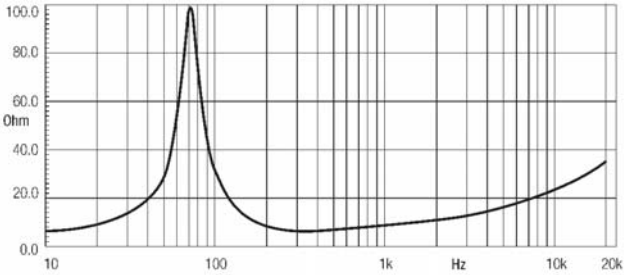
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 400 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 10M600 MADE ON 30 LIT. CLOSED ENCLOSURE IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



10W500

500 series

Low Frequency Transducer

KEY FEATURES

98 dB SPL 1W / 1m average sensitivity

51 mm (2 in) Interleaved Sandwich copper Voice coil (ISV)

280 W AES power handling

Improved heat dissipation via unique basket design

Ideal for compact two way and multiway systems

GENERAL SPECIFICATIONS

Nominal Diameter	260 mm (10 in)
Rated Impedance	8 Ohm
AES Power (1)	280 W
Program Power (2)	400 W
Sensitivity (3)	98 dB
Frequency Range (4)	55 ÷ 4500 Hz
Max Recomm. Frequency	2000 Hz
Recomm. Enclosure Volume	20 ÷ 50 lt. (0,71 ÷ 1,77 cuft)
Voice Coil Diameter	51 mm (2 in)
Voice Coil Winding Material	copper
Suspension	Triple roll polycotton
Cone	Curvilinear ribbed, treated paper

THIELE SMALL PARAMETERS (5)

Fs	53 Hz
Re	6,0 Ohm
Sd	0,035 sq.mt. (54,25 sq.in.)
Qms	4,22
Qes	0,31
Qts	0,29
Vas	45,2 lt. (1,60 cuft)
Mms	33 gr. (0,07 lb)
BL	14,6 Tm
Linear Mathematical Xmax (6)	± 5,5 mm (± 0,22 in)
Le (1kHz)	0,72 mH
Ref. Efficiency 1W@1m (half space)	96 dB

MOUNTING INFORMATIONS

Overall diameter	260 mm (10,24 in)
N. of mounting holes	8
Mounting holes diameter	7,15 mm (0,28 in)
Bolt circle diameter	244,5 mm (9,63 in)
Front mount baffle cutout ø	232 mm (9,13 in)
Total depth	121,5 mm (4,78 in)
Flange and gasket thickness	14,5 mm (0,57 in)
Net weight	4,7 kg (10,38 lb)
Shipping weight	5,10 kg (11,26 lb)
CardBoard Packaging dimensions	275 x 275 x 164 mm (10,83 x 10,83 x 6,46 in)

NOTES

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

(2) Program power rating is measured in 30 lit enclosure tuned 55Hz using a 70 - 2000Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

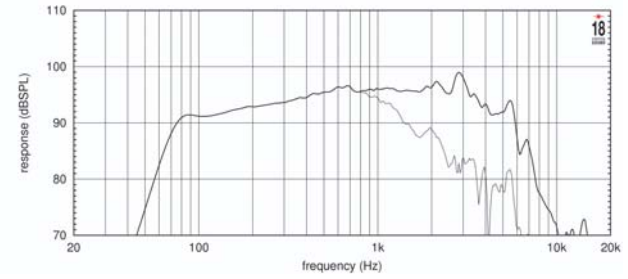
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 500Hz and 2500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

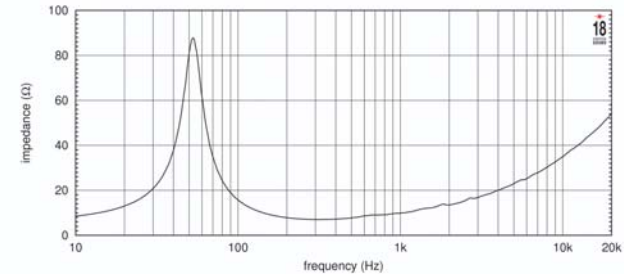
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 280 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 10W500 MADE ON 30 LIT. ENCLOSURE TUNED 55HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



8CX400F

High Output Coaxial Ferrite Transducer

KEY FEATURES

95dB SPL 1W / 1m average sensitivity
280W LF - 50W HF power handling
51mm (2 inches) LF Interleaved Sandwich Voice coil (ISV)
25,4mm (1 inch) HF driver edgewound voice coil
90 degrees coverage pattern
Ideal for compact reflex applications

LF GENERAL SPECIFICATIONS

Nominal Diameter	200 mm (8 in)
Rated Impedance	8 Ohm
AES Power (1)	280 W
Program Power (2)	400 W
Sensitivity (3)	95 dB
Frequency Range (4)	65 ÷ 6100 Hz
Max Recomm. Frequency	2800 Hz
Recomm. Enclosure Volume	10 ÷ 40 lt. (0,35 ÷ 1,41 cuft)
Voice Coil Diameter	51 mm (2 in)
Voice Coil Winding Material	aluminum
Suspension	M-roll, Polycotton
Cone	Curvilinear, Paper

HF GENERAL SPECIFICATIONS

D.C. Resistance	8,3 Ohm
AES power (5)	25 W above 2,5 kHz
Program power (6)	50 W above 2,5 kHz
Sensitivity (7)	106 dB
Frequency Range	2,5 kHz ÷ 20 kHz
Recomm. Xover Frequency	3 kHz 12 dB/oct
Voice Coil Diameter	25,4 mm (1,0 in)

THIELE SMALL PARAMETERS (8)

Fs	64 Hz
Re	5 Ohm
Sd	0,0227 sq.mt. (35,2 sq.in.)
Qms	3,23
Qes	0,43
Qts	0,38
Vas	23,9 lt. (0,85 cuft)
Mms	18 gr. (0,04 lb)
BL	9,3 Tm
Mathematical Xmax (9)	± 5,8 mm (± 0,23 in)
Le (1kHz)	0,96 mH
Ref. Effic. 1W@1m (1/2space)	93,7 dB

NOTES

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

(2) Program power rating is measured in 25lit enclosure tuned 65Hz using a 60 - 2000Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83 V sine wave test signal swept between 500Hz and 2500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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 1/2 space environment.

(5) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration. Power calculated on minimum impedance.

(6) Program power is defined as 3 dB greater than AES power rating, and is a conservative expression of the transducer ability to handle music program material.

(7) Sensitivity is measured on 1W input on rated impedance at 1m on axis from the mouth of the transducer and averaged in 3kHz band.

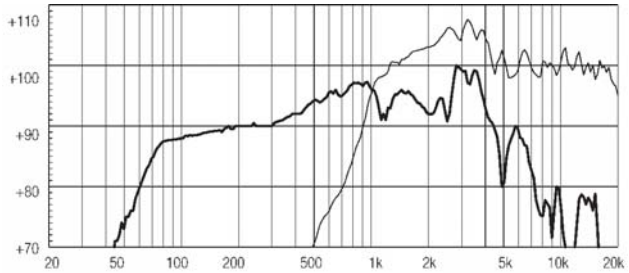
(8) Thiele - Small parameters are measured after the test specimen has been conditioned by 280 W AES power and represent the expected long term parameters after a short period of use.

(9) Linear Mat. Xmax is calculated as (Hvc-Hg)/2 + Hg/4. Hvc is the coil depth and Hg is gap depth.

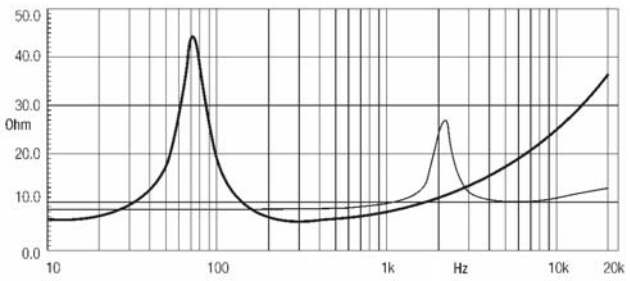
MOUNTING INFORMATIONS

Overall diameter	210 mm (8,27 in)
N. of mounting holes	6
Mounting holes Ø	6,25 mm (0,25 in)
Bolt circle Ø	195 - 198 mm (7,68 - 7,80 in)
Front mount baffle cutout Ø	186 mm (7,32 in)
Total depth	150,5 mm (5,93 in)
Flange and gasket thickness	14,5 mm (0,57 in)
Net weight	4,4 kg (9,76 lb)
Shipping weight	5,0 kg (11,1 lb)
CardBoard Packaging Dim.	235x235x165 mm (9,25x9,25x6,46 in)

FREQUENCY RESPONSE CURVE OF 8CX400 MADE ON 25LT ENCLOSURE TUNED AT 65HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS HIGH FREQUENCY RESPONSE.



FREE AIR IMPEDANCE MAGNITUDE CURVE



8MB500

500 series

High Output Midbass Transducer

KEY FEATURES

95 dB SPL 1W / 1m average sensitivity
51 mm (2 in) Interleaved Sandwich Voice coil (ISV)
400 Watt program power handling
Triple roll suspension for increased motion control
Weather protected tretaed cellulose cone
Lightweight diecast aluminum basket design
Suitable for compact two way and multiway systems

GENERAL SPECIFICATIONS

Nominal Diameter	200 mm (8 in)
Rated Impedance	8 Ohm
AES Power (1)	280 W
Program Power (2)	400 W
Sensitivity (3)	95 dB
Frequency Range (4)	60 ÷ 4500 Hz
Max Recomm. Frequency	3000 Hz
Recomm. Enclosure Volume	10 ÷ 40 lt. (0,35 ÷ 1,41 cuft)
Voice Coil Diameter	51 mm (2 in)
Voice Coil Winding Material	aluminum
Suspension	Triple-roll, Polycotton
Cone	Curvilinear, Treated cellulose

THIELE SMALL PARAMETERS (5)

Fs	74 Hz
Re	5,1 Ohm
Sd	0,023 sq.mt. (35,65 sq.in.)
Qms	2,66
Qes	0,51
Qts	0,43
Vas	21,5 lt. (0,76 cuft)
Mms	17 gr. (0,04 lb)
BL	9,0 Tm
Linear Mathematical Xmax (6)	± 6 mm (± 0,24 in)
Le (1kHz)	0,60 mH
Ref. Efficiency 1W@1m (half space)	94,4 dB

MOUNTING INFORMATIONS

Overall diameter	210 mm (8,27 in)
N. of mounting holes	6
Mounting holes diameter	6 mm (0,23 in)
Bolt circle diameter	195 - 198 mm (7,68 - 7,80 in)
Front mount baffle cutout ø	186 mm (7,32 in)
Total depth	99,5 mm (3,92 in)
Flange and gasket thickness	14,5 mm (0,57 in)
Net weight	3,4 kg (7,5 lb)
Shipping weight	3,72 kg (8,22 lb)
CardBoard Packaging dimensions	235 x 235 x 150 mm (9,25 x 9,25 x 5,91 in)

NOTES

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

(2) Program power rating is measured in 25 lit enclosure tuned 65Hz using a 60 - 2000Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

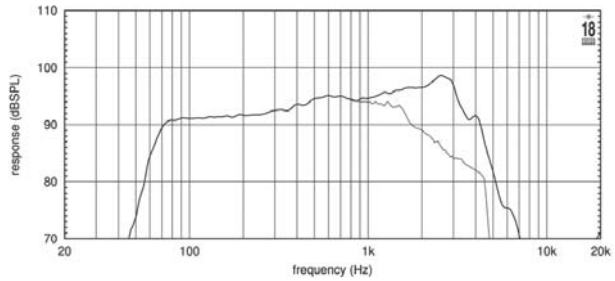
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 500Hz and 2500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

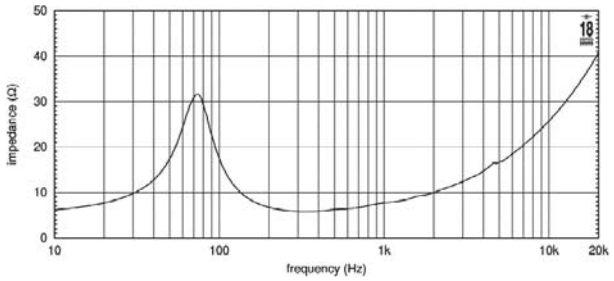
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 8MB500 MADE ON 25 LIT. ENCLOSURE TUNED 65HZ IN FREE FIELD (4PI) ENVIRONMENT. ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



8M400

High Output MF Ferrite Driver

KEY FEATURES

100,5 dB SPL 1W / 1m average sensitivity
51 mm (2 in) Interleaved Sandwich Voice coil (ISV)
250 Watt AES power handling
Improved heat dissipation via unique basket design
Copper ring to linearize impedance curve
Suitable for high quality midrange applications

GENERAL SPECIFICATIONS

Nominal Diameter	200 mm (8 in)
Rated Impedance	8 Ohm
AES Power (1)	250 W
Program Power (2)	320 W
Sensitivity (3)	100,5 dB
Frequency Range (4)	120 ÷ 6100 Hz
Max Recomm. Frequency	4000 Hz
Recomm. Enclosure Volume	2 ÷ 10 lt. (0,07 ÷ 0,35 cuft)
Voice Coil Diameter	51 mm (2 in)
Voice Coil Winding Material	aluminum
Suspension	M-roll, Polycotton
Cone	Curvilinear, Paper

THIELE SMALL PARAMETERS (5)

Fs	90 Hz
Re	5,2 Ohm
Sd	0,0227 sq.mt. (35,19 sq.in.)
Qms	6,2
Qes	0,28
Qts	0,27
Vas	16,2 lt. (0,57 cuft)
Mms	14 gr. (0,03 lb)
BL	12,2 Tm
Linear Mathematical Xmax (6)	± 3 mm (±0,12 in)
Le (1kHz)	0,95 mH
Ref. Efficiency 1W@1m (half space)	98,1 dB

MOUNTING INFORMATIONS

Overall diameter	210 mm (8,27 in)
N. of mounting holes	6
Mounting holes diameter	6 mm (0,23 in)
Bolt circle diameter	195 - 198 mm (7,68 - 7,80 in)
Front mount baffle cutout ø	186 mm (7,32 in)
Total depth	105,5 mm (4,15 in)
Flange and gasket thickness	14,5 mm (0,57 in)
Net weight	4,5 kg (9,93 lb)
Shipping weight	4,8 kg (10,6 lb)
CardBoard Packaging dimensions	235 x 235 x 150 mm (9,25 x 9,25 x 5,91 in)

NOTES

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

(2) Program power rating is measured in 3 lit closed enclosure using a 100 - 2500Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

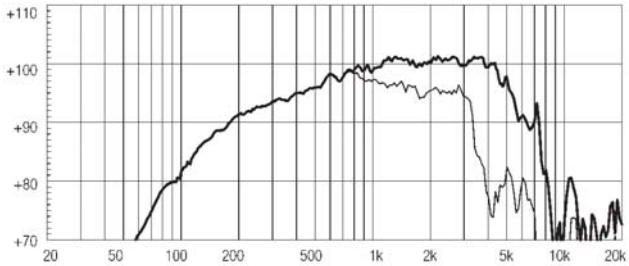
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 500Hz and 2500Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

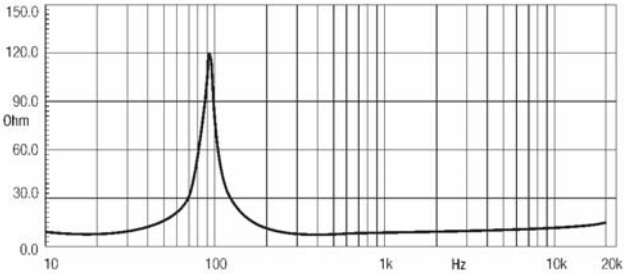
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by 250 W AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 8M400 MADE ON 3 LIT. CLOSED ENCLOSURE IN FREE FIELD (4PI). ENCLOSURE CLOSES THE REAR OF THE DRIVER. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



5W430

Low Frequency Transducer

KEY FEATURES

89 dB SPL 1W / 1m average sensitivity

25,4 mm (1 in) copper voice coil

120W program power handling

Weather protected cone

Ideal for compact two way and multiway systems

GENERAL SPECIFICATIONS	
Nominal Diameter	125mm (5 in)
Rated Impedance	8 Ohm
AES Power (1)	80 W
Program Power (2)	120 W
Sensitivity (3)	89 dB
Frequency Range (4)	60 ÷ 8000 Hz
Max Recomm. Frequency	4000 Hz
Recomm. Enclosure Volume	8 ÷ 20 lt. (0.28 ÷ 0.71 cuft)
Voice Coil Diameter	25 mm (1 in)
Voice Coil Winding Material	copper
Suspension	Half roll Rubber
Cone	Polypropilene

THIELE SMALL PARAMETERS (5)	
Fs	52 Hz
Re	5.4 Ohm
Sd	0,009 sq.mt. (13.95 sq.in.)
Qms	2.77
Qes	0.36
Qts	0.32
Vas	15 lt
Mms	8,2 gr
BL	6.3 Tm
Linear Mathematical Xmax (6)	± 6 mm (±0,24 in)
Le (1kHz)	0.49 mH
Ref. Efficiency 1W@1m (half space)	89.6 dB

MOUNTING INFORMATIONS	
Overall diameter	134 mm (5.28 in)
N. of mounting holes	4
Mounting holes diameter	4,5 mm (0,18 in)
Bolt circle diameter	140 mm (5.51 in)
Front mount baffle cutout ø	124 mm (4.88 in)
Total depth	72 mm (2,83 in)
Flange and gasket thickness	4,5 mm (0,18 in)
Net weight	1,24 kg (2,73 lb)
Shipping weight	1,8 kg (3,97 lb)
CardBoard Packaging dimensions	12 pieces pack

NOTES

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

(2) Program power rating is measured in 10 lit enclosure tuned at 75 Hz using a 100 - 1000Hz band limited pink noise test signal with 50% duty cycle, applied for 2 hours.

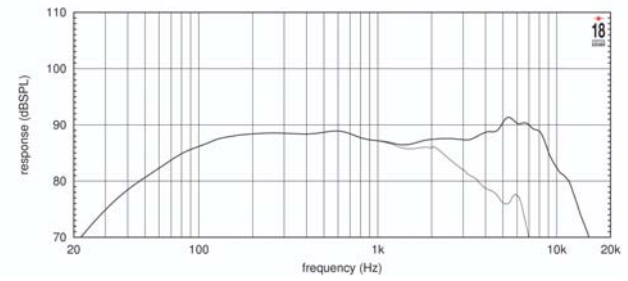
(3) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83V sine wave test signal swept between 100Hz and 1000Hz with the test specimen mounted in the same enclosure as given for (1) above.

(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.

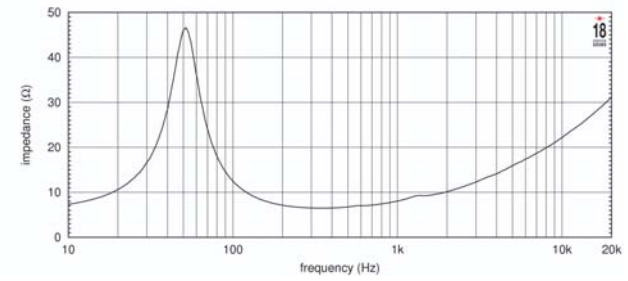
(5) Thiele - Small parameters are measured after the test specimen has been conditioned by AES power and represent the expected long term parameters after a short period of use.

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

FREQUENCY RESPONSE CURVE OF 5W430 MADE ON IEC BAFFLE IN FREE FIELD (4PI) ENVIRONMENT. THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



FREE AIR IMPEDANCE MAGNITUDE CURVE



Low weight and reduced size represent a clear advantage in today's professional sound reinforcement systems.\nOur neodymium compression drivers magnet assemblies have been designed to obtain maximum flux in the gap for providing better control over the moving mass and high-quality, smooth response. All diaphgrams have been developed to assure unmatched transient response.\nYou will find a perfect match for our compression driver range using Eighteen Sound unique elliptical shaped constant coverage horns family.

series	description	model
N4000	Neo High Frequency Driver	ND4015BE
		NSD4015N
		ND4015T
N2000	2'' exit 3'' voice coil neodymium high frequency compression drivers	ND2080
		ND2060
		ND2060A
N1400	1,4'' exit 3'' voice coil neodymium high frequency compression drivers	NSD1480N
		ND1480
N2000	2'' exit 3'' voice coil neodymium high frequency compression drivers	ND1480A
N1400	1,4'' exit 3'' voice coil neodymium high frequency compression drivers	ND1460
		ND1460A
		NSD1424BTN
		ND1424BT
N1000	1'' exit neodymium high frequency compression drivers	NSD1095N
		ND1090
		ND1085
		ND1050
		ND1070
		ND1018BT
		ND1030

ND4015BE

HF Neodymium Driver

KEY FEATURES

113 dB 1W / 1m average sensitivity

1,5 inch exit throat

4 inch edgewound aluminium voice coil

280W max. program power handling

4 inch pure Beryllium dome - polymer surround diaphragm

Copper plated pole piece reduces inductance modulation distortion and increases HF output

Ultra high precision diaphgram centering system for improved performances and lifespan

BEM optimized 4 slot phaseplug design

Extreme sound clarity even at very high SPL

GENERAL SPECIFICATIONS

Throat Diameter	39 mm (1,5 in)
Rated Impedance	8 ohm
DC Resistance	4,2 ohm
Le (at 1kHz)	N/A
Continuous Power (1)	140 W
Max. Program Power (2)	280 W
Sensitivity (1W@1m) (3)	113 dB
Frequency Range	900 Hz ÷ 20 kHz
Minimum Xover Frequency	900 Hz with 24dB/oct LR
Diaphragm Material	Pure beryllium dome on polymer surround
Voice Coil Diameter	100 mm (4 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Neodymium
Flux Density	2 T
BL Factor	13,4 Tm

MOUNTING INFORMATIONS

Overall diameter	150 mm (6 in)
Mounting holes diameter	4 M6 holes 90° at Ø102 mm (4 in)
Bolt circle diameter	102 - 114,7 mm(4 - 4.52 in)
Total depth	57 mm (2,2 in)
Net weight	3.2 Kg (7 lb)
Shipping weight	3.7 Kg (8.14 lb)
CardBoard Packaging dimensions	170 x 170 x 80 mm (6,69 x 6,69 x 3,15 in)

NOTES

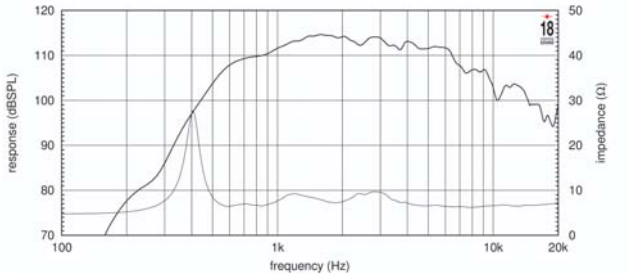
(1) Continuous Power is defined as 3 dB greater than the one measured with the new AES2-2012 standard, using continous pink noise having 12 dB crest factor for 2 hours, mounted on XR1564 horn, from 1.2kHz to 12kHz.

(2) Max. program power rating is defined as 3 dB greater than continuous power rating and is a conservative expression of the transducer ability to handle music program material.

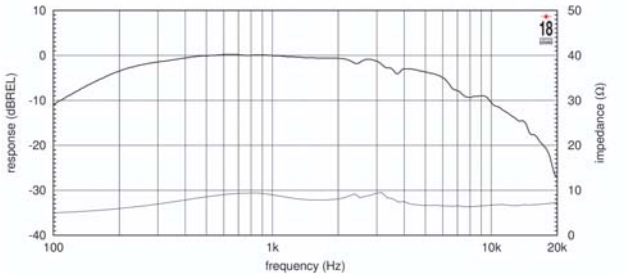
(3) Sensitivity represent the averaged value of acoustic ouput as measured at 1 mt distance on axis from the mouth of XR1564 horn, when connected to 2,83V sine wave swept betwwen 1000 and 4000 Hz.

PRELIMINARY

FREQUENCY RESPONSE MEASURED WITH 2.83V AT 1MT DISTANCE ON CENTRAL FORWARD AXIS FROM THE MOUTH OF XR1564 HORN. THIN LINE REPRESENTS IMPEDANCE MEASURED IN SAME CONDITIONS.



FREQUENCY RESPONSE MEASURED WITH 1W INPUT ON RATED IMPEDANCE ON CENTRAL FORWARD AXIS IN A PLANE WAVE TUBE. THIN LINE REPRESENTS IMPEDANCE MEASURED IN SAME CONDITIONS.



NSD4015N

N4000 series

Neo High Frequency Driver

KEY FEATURES

111 dB 1W / 1m average sensitivity

1,5 inch exit throat

4 inch edgewound aluminium voice coil

320W max. program power rating

True Piston Motion TiN coated titanium diaphragm

Copper plated pole piece to reduces inductance modulation distortion and increases high frequency output

Ultra high precision diaphragm centering system for improved performances and lifespan

BEM optimized 4 slot phase-plug design

Available also in 1.4" and 2" exit versions

GENERAL SPECIFICATIONS

Throat Diameter	39 mm (1,5 in)
Rated Impedance	8 Ohm
DC Resistance	6,0 Ohm
Le (at 1kHz)	N/A
Continuous power (1)	160 W
Max. Program power (2)	320 W
Sensitivity (1W@1m) (3)	111 dB
Frequency Range	800 Hz ÷ 20 kHz
Minimum Xover Freq. (4)	800Hz with 24dB/oct LR
Diaphragm Material	Nitride Coated Titanium
Voice Coil Diameter	100 mm (4 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Neodymium
Flux Density	2 T
BL Factor	17 Tm

MOUNTING INFORMATIONS

Overall diameter	150 mm (6 in)
Mounting holes diameter	4 M6 holes 90° at Ø102 mm (4 in)
Bolt circle diameter	102 - 114,7 mm(4 - 4.52 in)
Total depth	57 mm (2,2 in)
Net weight	3.2 Kg (7 lb)
Shipping weight	3.6 Kg (8.1 lb)
CardBoard Packaging dimensions	170 x 170 x 80 mm (6,69 x 6,69 x 3,15 in)

NOTES

(1) Continuous Power is defined as 3 dB greater than the one measured with the new AES2-2012 standard, using continous pink noise having 12 dB crest factor for 2 hours, mounted on XR1564 horn, from 1kHz to 10kHz.

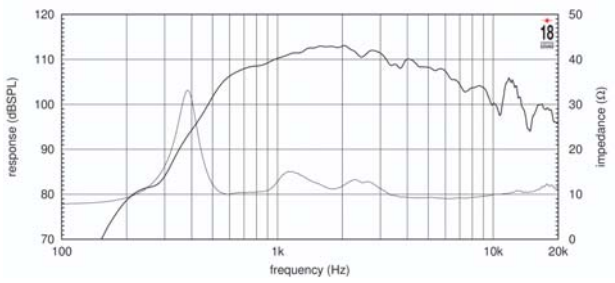
(2) Program power rating is defined as 3 dB greater than continuous power rating and is a expression of the transducer ability to handle music program material.

(3) Sensitivity represent the averaged value of acoustic output as measured on the central forward axis of a XR1564 horn, at a distance 1 m from horn mouth, when connected to 2,83 V sine wave swept between 1000-4000 Hz

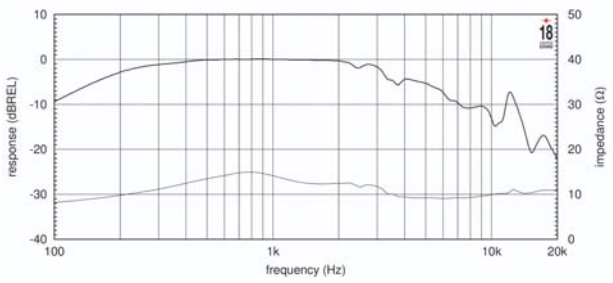
(4) Minimum Crossover frequency requires at least 12 dB oct slope high pass filter

PRELIMINARY

FREQUENCY RESPONSE MEASURED WITH 2.83 V INPUT AT 1 METER DISTANCE ON CENTRAL FORWARD AXIS FROM THE MOUTH OF XR1564 HORN. THIN LINE REPRESENTS IMPEDANCE MEASURED IN SAME CONDITIONS.



FREQUENCY RESPONSE MEASURED WITH 77,5 mV INPUT ON CENTRAL FORWARD AXIS IN A PLANE WAVE TUBE. THIN LINE REPRESENTS IMPEDANCE MEASURED IN SAME CONDITIONS.



ND4015T

HF Neodymium Driver

KEY FEATURES

111 dB 1W / 1m average sensitivity

1,5 inch exit throat

4 inch edgewound aluminium voice coil

320W max. program power handling

Pure titanium diaphragm

Copper plated pole piece reduces inductance modulation distortion increasing high frequency output

High precision diaphgram centering system for improved performances and lifespan

BEM optimized 4 slot phase plug design

Available also in 1.4" and 2" exit versions

GENERAL SPECIFICATIONS

Throat Diameter	38 mm (1,5 in)
Rated Impedance	8 ohm
DC Resistance	6 ohm
Le (at 1kHz)	N/A
Continuous power (1)	160 W
Max. Program power (2)	320 W
Sensitivity (1W@1m) (3)	111 dB
Frequency Range	800 Hz ÷ 20 kHz
Minimum Xover Frequency	800 Hz with 24 dB/oct LR
Diaphragm Material	Pure Titanium
Voice Coil Diameter	100 mm (4 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Neodymium
Flux Density	2 T
BL Factor	14,1 N/A

MOUNTING INFORMATIONS

Overall diameter	150 mm (6 in)
Mounting holes diameter	4 M6 holes 90° at Ø102 mm (4 in)
Bolt circle diameter	102 - 114,7 mm(4 - 4.52 in)
Total depth	57 mm (2,2 in)
Net weight	3.2 Kg (7 lb)
Shipping weight	3.7 Kg (8.14 lb)
CardBoard Packaging dimensions	170 x 170 x 80 mm (6,69 x 6,69 x 3,15 in)

NOTES

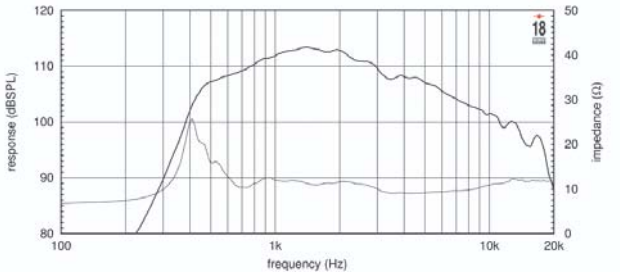
(1) Continous Power is defined as a level that is 3 dB greater than the one measured with the new AES2-2012 standard, using continous pink noise having 12 dB crest factor for 2 hours, mounted on XR1564 horn, from 1kHz up to 10kHz.

(2) Program power rating is defined as 3 dB greater than continuous power rating and is a conservative expression of the transducer ability to handle music program material

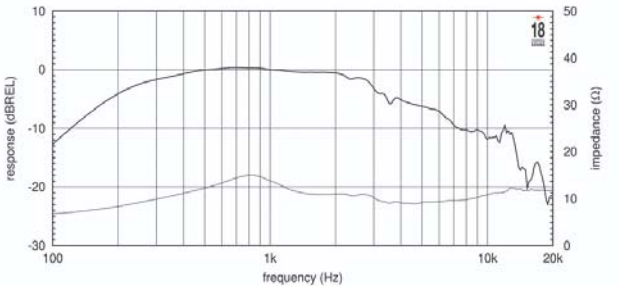
(3) Sensitivity represent the averaged value of acoustic output as measured on the central forward axis of a XR1564 horn, at a distance 1 m from horn mouth, when connected to 2,83 V sine wave swept between 1000-4000 Hz.

PRELIMINARY

FREQUENCY RESPONSE MEASURED WITH 2.83V INPUT AT 1M DISTANCE ON CENTRAL FORWARD AXIS FROM THE MOUTH OF XR1564 HORN. THIN LINE REPRESENTS IMPEDANCE MEASURED IN SAME CONDITIONS.



FREQUENCY RESPONSE MEASURED WITH 7.75 mV INPUT ON CENTRAL FORWARD AXIS IN A PLANE WAVE TUBE. THIN LINE REPRESENTS IMPEDANCE MEASURED IN SAME CONDITIONS.



ND2080

N2000 series

Neo High Frequency Driver

KEY FEATURES

110 dB SPL 1W / 1m average sensitivity
2 inch exit throat
3 inch edgewound aluminum voice coil
200 W program power handling
Pure Titanium diaphragm assembly
Neodymium ring magnetic structure
Excellent thermal exchange

GENERAL SPECIFICATIONS

Throat Diameter	50 mm (2 in)
Rated Impedance	8 ohm
DC Resistance	6,2 ohm
Le (at 1kHz)	124 µH
AES power (1)	100 W above 1,2 kHz
Program power (2)	200 W above 1,2 kHz
Sensitivity (@ 1W/1m) (3)	110 dB
Frequency Range	500 Hz ÷ 20 kHz
Recomm. Xover Frequency	800Hz 12 dB/octave
Diaphragm Material	Titanium
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Neodymium
Flux Density	2,2 T
BL Factor	15,5 N/A

MOUNTING INFORMATIONS

Overall diameter	131 mm (5,1 in)
Mounting holes diameter	4 M6 holes 90° at Ø102 mm (4 in)
Bolt circle diameter	102mm (4 in)
Total depth	99 mm (3,9 in)
Net weight	3,6 kg (7,9 lb)
Shipping weight	4 kg (8,8 lb)
CardBoard Packaging dimensions	132x132x103 mm(5,2x5,2x4,1 in)

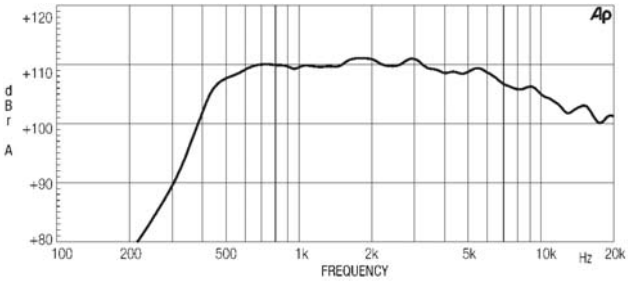
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

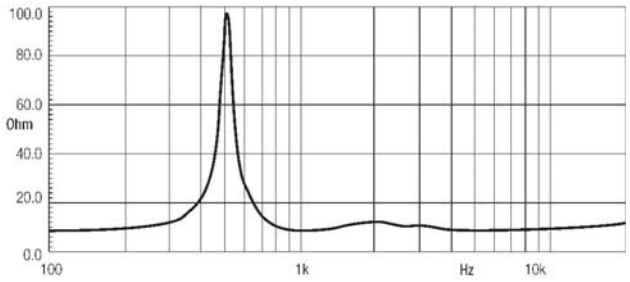
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured at 1W input on rated impedance at 1m on axis from the mouth of XR2064 horn averaged between 1kHz and 4 kHz.

ND 2080 MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1M DISTANCE FROM THE MOUTH OF XR2064 HORN



FREE AIR IMPEDANCE MAGNITUDE CURVE



ND2060

HF Neodymium Driver

KEY FEATURES

109 dB SPL 1W / 1m average sensitivity
2 inch exit throat
3 inch aluminum edgewound voice coil
200 W program power handling
Neodymium magnetic structure
Pure Titanium diaphragm assembly
Excellent thermal exchange

GENERAL SPECIFICATIONS

Throat Diameter	50 mm (2 in)
Rated Impedance	8 ohm
DC Resistance	6,2 ohm
Le (at 1kHz)	124 µH
AES power (1)	100 W above 1,2 kHz
Program power (2)	200 W above 1,2 kHz
Sensitivity(1W@1m) (3)	109 dB
Frequency Range	500 Hz ÷ 20 kHz
Recomm. Xover Frequency	800Hz (12 dB/oct slope)
Diaphragm Material	Titanium
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Neodymium
Flux Density	1,9 T
BL Factor	13,5 N/A

MOUNTING INFORMATIONS

Overall diameter	132,5 mm (5,22 in)
Mounting holes diameter	4 M6 holes 90° at Ø102 mm (4 in)
Bolt circle diameter	102mm (4 in)
Total depth	99 mm (3,9 in)
Net weight	3,6 kg (7,9 lb)
Shipping weight	4 kg (8,8 lb)
CardBoard Packaging dimensions	132x132x103 mm(5,2x5,2x4,1 in)

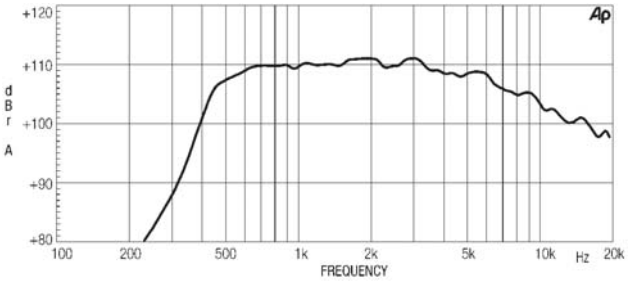
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

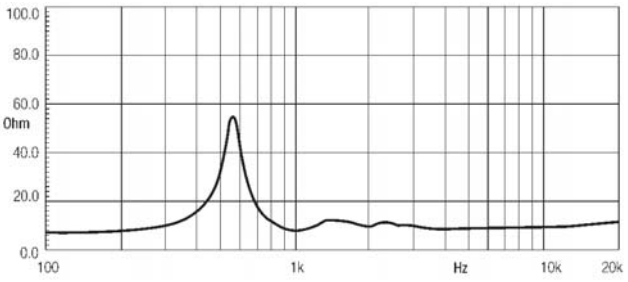
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured on 1 W input on rated inpedance at 1 m on axis from the mouth of XR2064 horn, averaged between 1 kHz and 4 kHz.

ND2060 MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1 M DISTANCE FROM THE MOUTH OF XR2064 HORN



FREE AIR IMPEDANCE MAGNITUDE CURVE



ND2060A

N2000 series

Neo High Frequency Driver

KEY FEATURES

110 dB 1W/1m average sensitivity
2 inch exit throat
3 inch edgewound aluminum voice coil
160 W program power handling
Aluminum PEN diaphragm
Neodymium magnetic structure
Excellent thermal exchange

GENERAL SPECIFICATIONS

Throat Diameter	50 mm (2 in)
Rated Impedance	8 ohm
DC Resistance	6,2 ohm
Le (at 1kHz)	124 µH
AES power (1)	80 W above 1,2 kHz
Program power (2)	160 W above 1,2 kHz
Sensitivity (1W@1m) (3)	110 dB
Frequency Range	500 Hz ÷ 20 kHz
Recomm. Xover Frequency	Above 800Hz (12 dB/oct slope)
Diaphragm Material	Aluminum - Polyethylene
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Neodymium
Flux Density	1,9 T
BL Factor	13,5 N/A

MOUNTING INFORMATIONS

Overall diameter	132,5 mm (5,22 in)
Mounting holes diameter	4 M6 holes 90° at Ø102 mm (4 in)
Bolt circle diameter	102mm (4 in)
Total depth	99 mm (3,9 in)
Net weight	3,6 kg (7,9 lb)
Shipping weight	4 kg (8,8 lb)
CardBoard Packaging dimensions	132x132x103 mm(5,2x5,2x4,1 in)

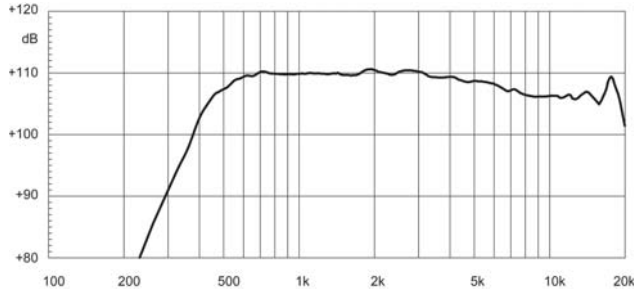
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

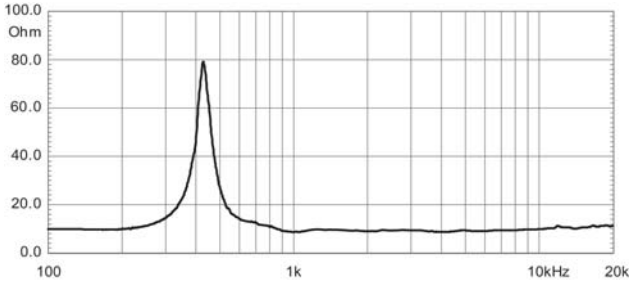
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured on 1 W input on rated inpedance at 1 m on axis from the mouth of XR2064 horn, averaged between 1 kHz and 4 kHz.

ND2060A MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1 M DISTANCE FROM THE MOUTH OF XR2064 HORN



FREE AIR IMPEDANCE MAGNITUDE CURVE



NSD1480N

HF Neodymium Driver

KEY FEATURES

111 dB 1W / 1m average sensitivity
1,4 inch exit throat
3 inch voice coil diameter
200W program power handling
Titanium Nitride Coated Dome
True Piston Motion TiN coated titanium diaphragm
High grade neodymium magnetic structure
Excellent thermal exchange

GENERAL SPECIFICATIONS

Throat Diameter	35,5 mm (1,4 in)
Rated Impedance	8 ohm
DC Resistance	6,2 ohm
Le (at 1kHz)	124 µH
AES power (1)	100 W above 1,2 kHz
Program power (2)	200 W above 1,2 kHz
Sensitivity (1W@1m) (3)	111 dB
Frequency Range	500 Hz ÷ 20 kHz
Recomm. Xover Frequency	above 800 Hz (12 dB/octave)
Diaphragm Material	TiN coated Titanium
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Neodymium
Flux Density	2,2 T
BL Factor	15,5 N/A

MOUNTING INFORMATIONS

Overall diameter	131 mm (5,1 in)
Mounting holes diameter	4 M6 holes 90° at Ø102 mm (4 in)
Bolt circle diameter	102mm (4 in)
Total depth	62 mm (2,5 in)
Net weight	3,1 Kg (6,98 lb)
Shipping weight	3,3 Kg (7,25 lb)
CardBoard Packaging dimensions	132x132x68 mm (5,2x5,2x2,7 in)

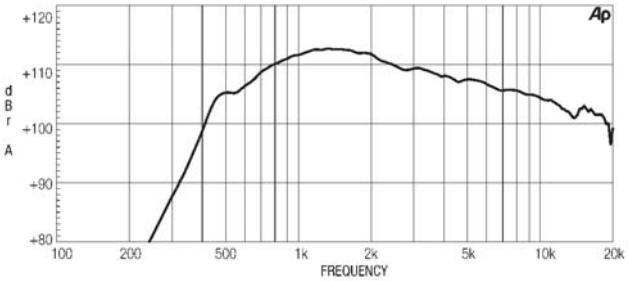
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

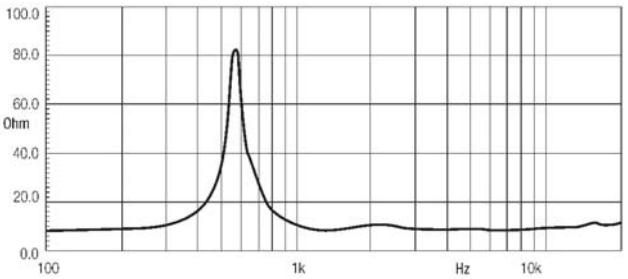
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured on 1 W input on rated impedance at 1 m on axis from the mouth of XT1464 horn averaged between 1 kHz and 4 kHz.

NSD1480N MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1 M DISTANCE ON AXIS FROM THE MOUTH OF XT1464 HORN



FREE AIR IMPEDANCE MAGNITUDE CURVE



ND1480

N1400 series

Neo High Frequency Driver

KEY FEATURES

110 dB 1W / 1m average sensitivity
1,4 inch exit throat
3 inch edgewound aluminum voice coil
200 W program power handling
Pure Titanium diaphragm assembly
Excellent thermal exchange
Neodymium ring magnetic structure

GENERAL SPECIFICATIONS

Throat Diameter	35,5 mm (1,4 in)
Rated Impedance	8 ohm
DC Resistance	6,2 ohm
Le (at 1kHz)	124 µH
AES power (1)	100 W above 1,2 kHz
Program power (2)	200 W above 1,2 kHz
Sensitivity (1W@1m) (3)	110 dB
Frequency Range	500 Hz ÷ 20 kHz
Recomm. Xover Frequency	above 800 Hz (12 dB/octave)
Diaphragm Material	Titanium
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Neodymium
Flux Density	2,2 T
BL Factor	15,5 N/A

MOUNTING INFORMATIONS

Overall diameter	131 mm (5,1 in)
Mounting holes diameter	4 M6 holes 90° at Ø102 mm (4 in)
Bolt circle diameter	102mm (4 in)
Total depth	62 mm (2,5 in)
Net weight	3,1 Kg (6,98 lb)
Shipping weight	3,3 Kg (7,25 lb)
CardBoard Packaging dimensions	132x132x68 mm (5,2x5,2x2,7 in)

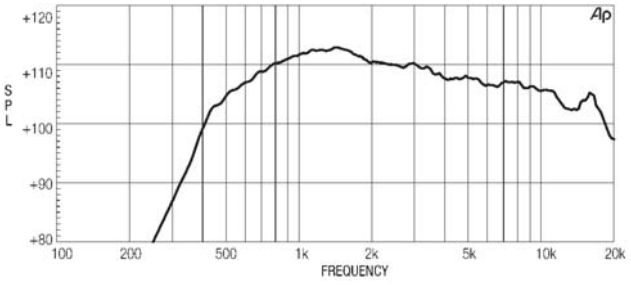
NOTES

(1) AES power rating is measured with a pink noise input having a 6 dB crest factor for two hours duration, per AES standard. Power calculated on minimum impedance.

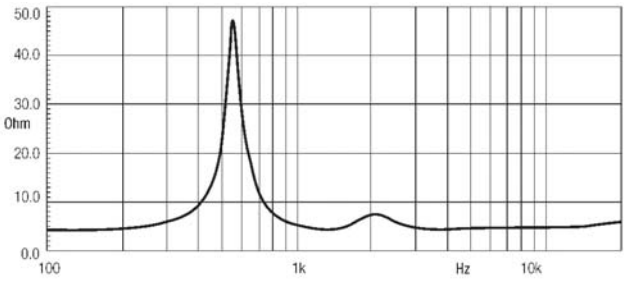
(2) Program power is defined as 3 dB greater than AES power rating and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured on 1 W input on rated impedance at 1 m on axis from the mouth of XT1464 horn, averaged between 1 kHz and 4 kHz.

ND1480 MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1 M DISTANCE ON AXIS FROM THE MOUTH OF XT1464 HORN



FREE AIR IMPEDANCE MAGNITUDE CURVE



ND1480A

HF Neodymium Driver

KEY FEATURES

111 dB 1W/1m average sensitivity
1,4 inch exit throat
3 inch edgewound aluminum voice coil
160 W program power handling
Aluminum PEN sandwich diaphragm
Neodymium magnetic structure
Ideal for line array applications

GENERAL SPECIFICATIONS

Throat Diameter	35,5 mm (1,4 in)
Rated Impedance	8 ohm
DC Resistance	6,2 ohm
Le (at 1kHz)	124 µH
AES power (1)	80 W above 1,2 kHz
Program power (2)	160 W above 1,2 kHz
Sensitivity(1W@1m) (3)	111 dB
Frequency Range	500 Hz ÷ 20 kHz
Recomm. Xover Frequency	above 800 Hz (12 dB/octave)
Diaphragm Material	Polyethylene-Aluminum
Voice Coil Diameter	74,4 mm (2,93 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Neodymium
Flux Density	2,2 T
BL Factor	15,5 N/A

MOUNTING INFORMATIONS

Overall diameter	131 mm (5,1 in)
Mounting holes diameter	4 M6 holes 90° at Ø102 mm (4 in)
Bolt circle diameter	102mm (4 in)
Total depth	62 mm (2,5 in)
Net weight	3,1 Kg (7 lb)
Shipping weight	3,3 Kg (7,3 lb)
CardBoard Packaging dimensions	132x132x68 mm (5,2x5,2x2,7 in)

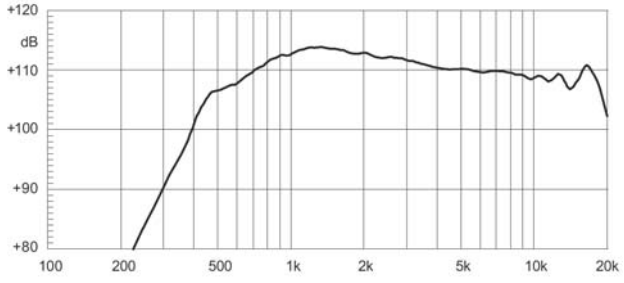
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

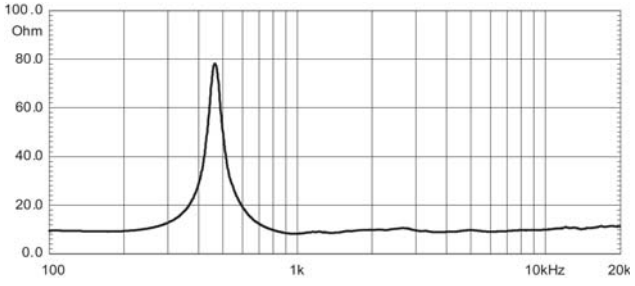
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured at 1W input on rated impedance at 1 mt distance on axis from the mouth of the horn, averaged between 1kHz and 4 kHz.

ND1480A MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1 M DISTANCE ON AXIS FROM THE MOUTH OF XT1464 HORN



FREE AIR IMPEDANCE MAGNITUDE CURVE



ND1460

N1400 series

Neo High Frequency Driver

KEY FEATURES

109 dB 1W / 1m average sensitivity
1,4 inch exit throat
3 inch edgewound aluminum voice coil
200 W continuous program power handling
Pure Titanium diaphragm assembly
Neodymium magnetic structure
Excellent thermal exchange

GENERAL SPECIFICATIONS

Throat Diameter	35,5 mm (1,4 in)
Rated Impedance	8 ohm
DC Resistance	6,2 ohm
Le (at 1kHz)	124 µH
AES power (1)	100 W above 1,2 kHz
Program power (2)	200 W above 1,2 kHz
Sensitivity (1W@1m) (3)	109 dB
Frequency Range	500 Hz ÷ 20 kHz
Recomm. Xover Frequency	above 800 Hz (12 dB/octave)
Diaphragm Material	Titanium
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Neodymium
Flux Density	1,9 T
BL Factor	13,5 N/A

MOUNTING INFORMATIONS

Overall diameter	132,5 mm (5,22 in)
Mounting holes diameter	4 M6 holes 90° at Ø102 mm (4 in)
Bolt circle diameter	102mm (4 in)
Total depth	62 mm (2,5 in)
Net weight	3,2 Kg (7,1 lb)
Shipping weight	3,4 Kg (7,5 lb)
CardBoard Packaging dimensions	132x132x68 mm (5,2x5,2x2,7 in)

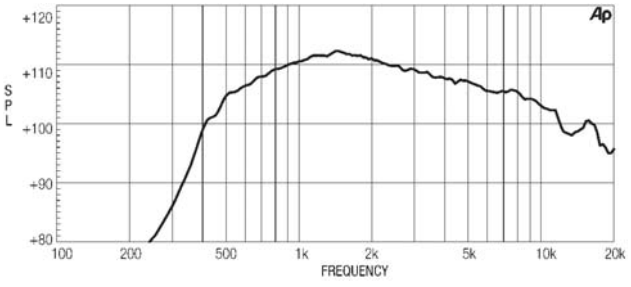
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

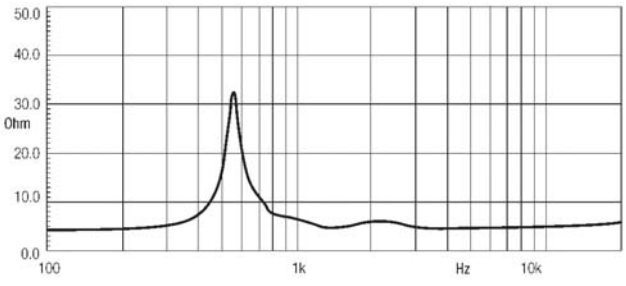
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured at 1W input on rated impedance at 1m on axis from the mouth of XT1464 horn, averaged between 1kHz and 4 kHz.

ND1460 MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1 M DISTANCE ON AXIS FROM THE MOUTH OF XT1464 HORN



FREE AIR IMPEDANCE MAGNITUDE CURVE



ND1460A

HF Neodymium Driver

KEY FEATURES

110 dB 1W/1m average sensitivity
1,4 inch exit throat
3 inch edgewound aluminum voice coil
160W program power handling
Aluminum PEN diaphragm
High grade neodymium magnetic structure
Excellent thermal exchange

GENERAL SPECIFICATIONS

Throat Diameter	35,5 mm (1,4 in)
Rated Impedance	8 ohm
DC Resistance	6,2 ohm
Le (at 1kHz)	124 µH
AES power (1)	80 W above 1,2 kHz
Program power (2)	160 W above 1,2 kHz
Sensitivity(1W@1m) (3)	110 dB
Frequency Range	500 Hz ÷ 20 kHz
Recomm. Xover Frequency	above 800 Hz (12 dB/octave)
Diaphragm Material	Aluminum - Polyethylene
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Neodymium
Flux Density	1,9 T
BL Factor	13,5 N/A

MOUNTING INFORMATIONS

Overall diameter	132,5 mm (5,22 in)
Mounting holes diameter	4 M6 holes 90° at Ø102 mm (4 in)
Bolt circle diameter	102mm (4 in)
Total depth	62 mm (2,5 in)
Net weight	3,2 Kg (7,1 lb)
Shipping weight	3,4 Kg (7,5 lb)
CardBoard Packaging dimensions	132x132x68 mm (5,2x5,2x2,7 in)

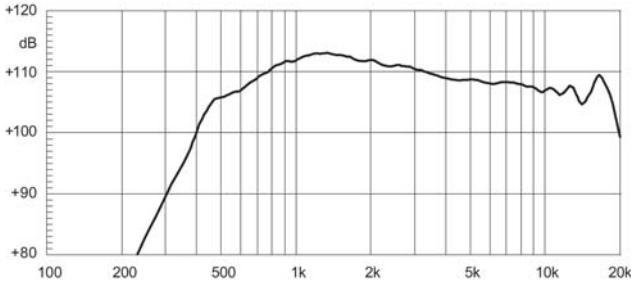
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

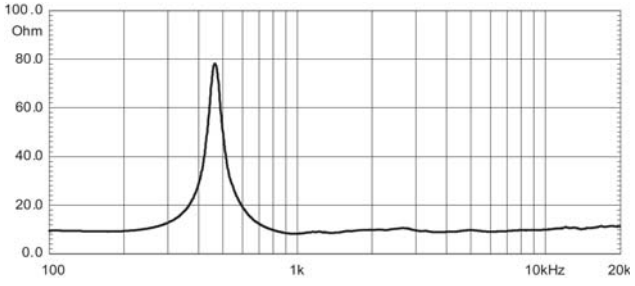
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured at 1W input on rated impedance at 1m on axis from the mouth of XT1464 horn, averaged between 1kHz and 4 kHz.

ND1460A MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1 M DISTANCE ON AXIS FROM THE MOUTH OF XT1464 HORN



FREE AIR IMPEDANCE MAGNITUDE CURVE



NSD1424BTN

N1400 series

Neo High Frequency Driver

KEY FEATURES

110 dB 1W / 1m average sensitivity
140 W program power handling
1,4 inches exit throat
64mm (2,4 in) edgewound aluminum voice coil
True Piston Motion TiN coated titanium diaphragm
Proprietary phase plug design
High grade neodymium magnetic structure
Excellent thermal exchange

GENERAL SPECIFICATIONS

Throat Diameter	35,5 mm (1,4 in)
Rated Impedance	8 ohm
DC Resistance	6 ohm
AES power (1)	70 W above 1,2 kHz
Program power (2)	140 W above 1,2 kHz
Sensitivity (1W@1m) (3)	110 dB
Frequency Range	800 Hz ÷ 20 kHz
Recomm. Xover Frequency	above 1200 Hz (12 dB/octave)
Diaphragm Material	TiN coated Titanium
Voice Coil Diameter	60 mm (2,4 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Neodymium
Flux Density	1,9 T
BL Factor	10,5 N/A

MOUNTING INFORMATIONS

Overall diameter	116,6 mm (4,59 in)
Mounting holes diameter	4 M6 holes 90° at Ø102 mm (4 in)
Bolt circle diameter	102mm (4 in)
Total depth	54,5 mm (2,15 in)
Net weight	1,7 Kg (3,70 lb)
Shipping weight	1,9 Kg (4,20 lb)
CardBoard Packaging dimensions	132x132x68 mm (5,2x5,2x2,7 in)

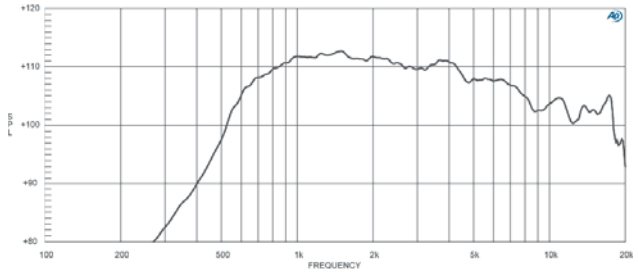
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

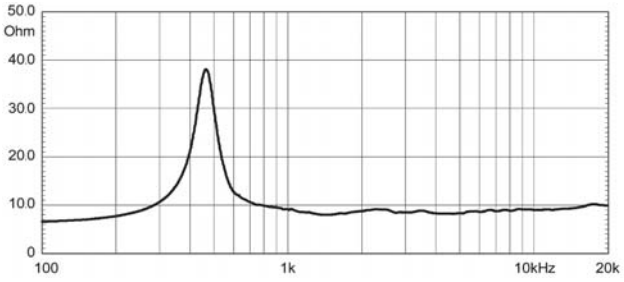
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured at 1W input on rated impedance at 1m on axis from the mouth of XT1464 horn, averaged between 1kHz and 4 kHz.

NSD1424BTN MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1 M DISTANCE ON AXIS FROM THE MOUTH OF XT1464 HORN



FREE AIR IMPEDANCE MAGNITUDE CURVE



ND1424BT

HF Neodymium Driver

KEY FEATURES

109 dB 1W / 1m average sensitivity
1,4 inch exit throat
2,4 inch edgewound aluminum voice coil
140 W program power handling
Pure Titanium diaphragm assembly
Proprietary phase plug design
Excellent thermal exchange
Neodymium magnetic structure

GENERAL SPECIFICATIONS

Throat Diameter	35,5 mm (1,4 in)
Rated Impedance	8 ohm
DC Resistance	6 ohm
AES power (1)	70 W above 1,2 kHz
Program power (2)	140 W above 1,2 kHz
Sensitivity (1W@1m) (3)	109 dB
Frequency Range	800 Hz ÷ 20 kHz
Recomm. Xover Frequency	above 1200 Hz (12 dB/octave)
Diaphragm Material	Titanium
Voice Coil Diameter	60 mm (2,4 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Neodymium
Flux Density	1,9 T
BL Factor	10,5 N/A

MOUNTING INFORMATIONS

Overall diameter	116,6 mm (4,59 in)
Mounting holes diameter	4 M6 holes 90° at Ø102 mm (4 in)
Bolt circle diameter	102mm (4 in)
Total depth	54,5 mm (2,15 in)
Net weight	1,7 Kg (3,70 lb)
Shipping weight	1,9 Kg (4,20 lb)
CardBoard Packaging dimensions	132x132x68 mm (5,2x5,2x2,7 in)

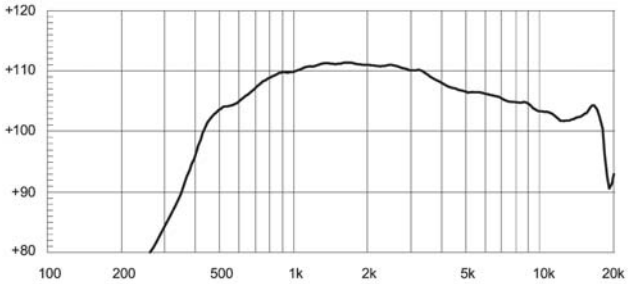
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

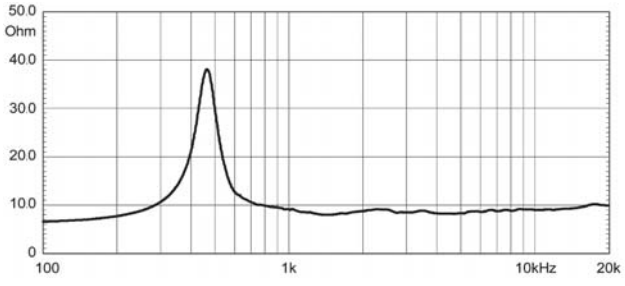
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured at 1W input on rated impedance at 1m on axis from the mouth of XT1464 horn, averaged between 1kHz and 4 kHz.

ND1424BT MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1 M DISTANCE ON AXIS FROM THE MOUTH OF XT1464 HORN



FREE AIR IMPEDANCE MAGNITUDE CURVE



NSD1095N

N1000 series

Neo High Frequency Driver

KEY FEATURES

110 dB SPL 1W / 1m average sensitivity
1 inch exit throat
1,75 inch voice coil diameter
100W program power handling
True Piston Motion TiN coated titanium diaphragm
Neodymium ring magnetic structure
Proprietary phase plug design
Excellent thermal exchange

GENERAL SPECIFICATIONS

Throat Diameter	25,4 mm (1 in)
Rated Impedance	8 ohm
DC Resistance	5,3 Ohm
Le (at 1kHz)	67 µH
AES power (1)	50 W above 1,6 kHz
Program power (2)	100 W above 1,6 kHz
Sensitivity (1W@1m) (3)	110 dB
Frequency Range	1600Hz ÷ 20kHz
Recomm. Xover Frequency	1600Hz (12dB/oct slope)
Diaphragm Material	TiN coated Titanium
Voice Coil Diameter	44,4 mm (1 3/4 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Neodymium
Flux Density	2 T
BL Factor	9,1 N/A

MOUNTING INFORMATIONS

Overall diameter	93 mm (3,7 in)
Mounting holes diameter	4 M6 holes 90° at Ø 76 mm (3 in)
Bolt circle diameter	76 mm (3 in)
Total depth	53 mm (2,1 in)
Net weight	1,2 Kg (2,6 lb)
Shipping weight	1,3 Kg (2,9 lb)
CardBoard Packaging dimensions	97x97x58 mm (3,8x3,8x2,3 in)

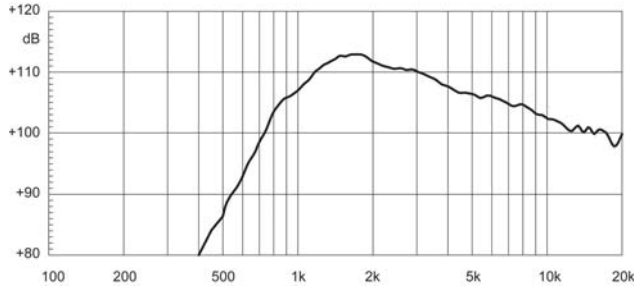
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

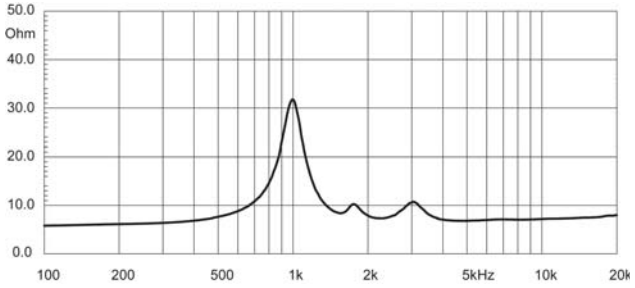
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured at 1W input on rated impedance at 1m on axis from the mouth of XT1086 horn averaged between 1 kHz and 4 kHz.

NSD1095N MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1M DISTANCE ON XT1086 HORN MOUTH AXIS



FREE AIR IMPEDANCE MAGNITUDE CURVE



ND1090

HF Neodymium Driver

KEY FEATURES

110 dB 1W / 1m average sensitivity
1 inch exit throat
44 mm (1 3/4 in) edgewound aluminum voice coil
100 Watt program power handling
Titanium dome over PEN suspension
Proprietary phase plug design
Neodymium ring magnetic structure
Excellent thermal exchange

GENERAL SPECIFICATIONS

Throat Diameter	25,4 mm (1 in)
Rated Impedance	8 ohm
DC Resistance	5,3 Ohm
Le (at 1kHz)	120 µH
AES power (1)	50 W above 1,6 kHz
Program power (2)	100 W above 1,6 kHz
Sensitivity (1W@1m) (3)	110 dB
Frequency Range	1600Hz ÷ 20kHz
Recomm. Xover Frequency	1600Hz (12dB/oct slope)
Diaphragm Material	Titanium - PEN
Voice Coil Diameter	44,4 mm (1 3/4 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Neodymium
Flux Density	2 T
BL Factor	9,1 N/A

MOUNTING INFORMATIONS

Overall diameter	93 mm (3,7 in)
Mounting holes diameter	4 M6 holes 90° at Ø 76 mm (3 in)
Bolt circle diameter	76 mm (3 in)
Total depth	53 mm (2,1 in)
Net weight	1,2 Kg (2,6 lb)
Shipping weight	1,3 Kg (2,9 lb)
CardBoard Packaging dimensions	97x97x58 mm (3,8x3,8x2,3 in)

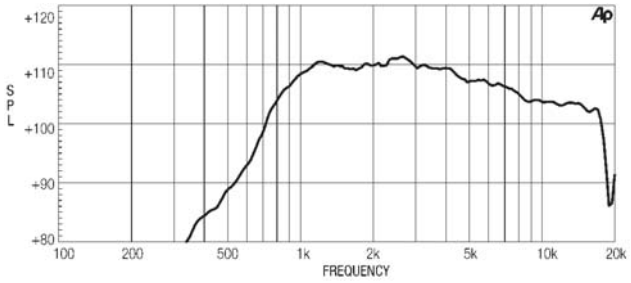
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

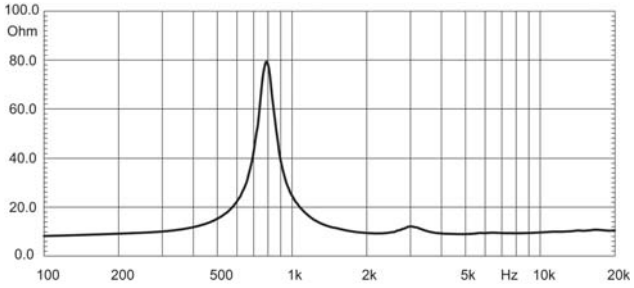
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured at 1W input on rated impedance at 1m on axis from the mouth of XT1086 horn, averaged between 1 kHz and 4 kHz.

ND1090 MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1M DISTANCE ON XT1086 HORN MOUTH AXIS



FREE AIR IMPEDANCE MAGNITUDE CURVE



ND1085

N1000 series

Neo High Frequency Driver

KEY FEATURES

1 inch exit throat
109 dB 1W / 1m average sensitivity
80 Watt program power handling
44 mm (1 3/4 in) edgewound aluminum voice coil
PEN diaphragm for extended frequency response
Proprietary phase plug design
Neodymium ring magnet for excellent transient response
Excellent thermal exchange

GENERAL SPECIFICATIONS

Throat Diameter	25,4 mm (1 in)
Rated Impedance	8 ohm
DC Resistance	5,2 Ohm
Le (at 1kHz)	66 µH
AES power (1)	40 W above 1,6 kHz
Program power (2)	80 W above 1,6 kHz
Sensitivity (1W@1m) (3)	109 dB
Frequency Range	1600Hz ÷ 20kHz
Recomm. Xover Frequency	1600Hz (12dB/oct slope)
Diaphragm Material	Titanium - PEN
Voice Coil Diameter	44,4 mm (1 3/4 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Neodymium
Flux Density	2 T
BL Factor	9,1 N/A

MOUNTING INFORMATIONS

Overall diameter	92 mm (3,6 in)
Mounting holes diameter	4 M6 holes 90° at Ø 76 mm (3 in)
Bolt circle diameter	76 mm (3 in)
Total depth	53 mm (2,1 in)
Net weight	1,1 Kg (2,4 lb)
Shipping weight	1,3 Kg (2,9 lb)
CardBoard Packaging dimensions	140x121x64 mm (5.5 x 4.8 x 2.5 in)

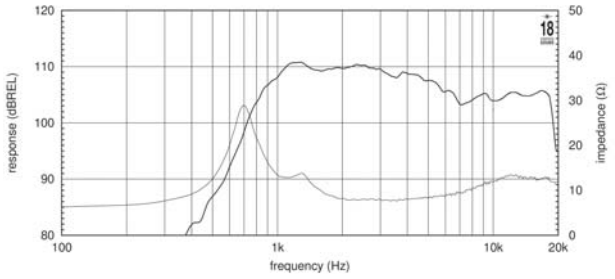
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

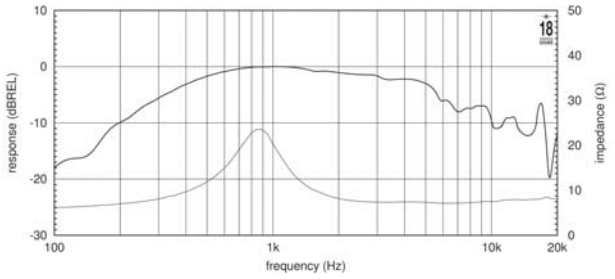
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured at 1W input on rated impedance at 1m on axis from the mouth of XT1086 horn, averaged between 1 kHz and 4 kHz.

ND1085 FREQUENCY RESPONSE MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1M DISTANCE ON CENTRAL FORWARD AXIS FROM THE MOUTH OF REFERENCE HORN. THIN LINE REPRESENTS IMPEDANCE MEASURED IN SAME CONDITIONS.



ND1085 FREQUENCY RESPONSE MEASURED WITH 1W INPUT ON RATED IMPEDANCE ON CENTRAL FORWARD AXIS IN A REFLECTION FREE ENVIRONMENT. THIN LINE REPRESENTS IMPEDANCE MEASURED IN SAME CONDITIONS.



ND1050

HF Neodymium Transducer

KEY FEATURES

110 dB SPL 1W / 1m average sensitivity
1 inch exit throat
44mm (1 3/4 inch) voice coil diameter
100 Watt program power handling
Neodymium magnet structure
Titanium dome over PEN suspension
Ultra compact size - 75mm external diameter
Proprietary phase plug design
Ideal for multiple HF line arrays

GENERAL SPECIFICATIONS

Throat Diameter	25,4 mm (1 in)
Rated Impedance	8 ohm
DC Resistance	5,3 Ohm
Le (at 1kHz)	67 µH
AES power (1)	50 W above 1,6 kHz
Program power (2)	100 W above 1,6 kHz
Sensitivity (1W@1m) (3)	110 dB
Frequency Range	1600Hz ÷ 20kHz
Recomm. Xover Frequency	1600Hz (12dB/oct slope)
Diaphragm Material	Titanium - PEN
Voice Coil Diameter	44,4 mm (1 3/4 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Neodymium
Flux Density	1,9 T
BL Factor	8,5 N/A

MOUNTING INFORMATIONS

Overall diameter	75 mm (3 in)
Mounting holes diameter	3 M5 holes 120°
Bolt circle diameter	57 mm (2.2 in)
Total depth	41 mm (1.6 in)
Net weight	0,65 kg (1.45 lb)
Shipping weight	0,8 Kg (1,75 lb)
CardBoard Packaging dimensions	97x97x58 mm (3,8x3,8x2,3 in)

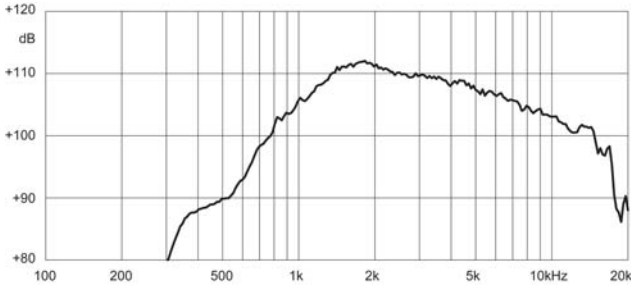
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

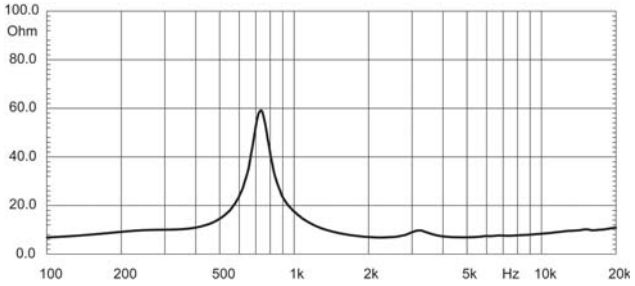
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured at 1W input on rated impedance at 1m on axis from the mouth of XT1086 horn averaged between 1kHz and 4kHz.

ND1050 MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1M DISTANCE ON XT1086 HORN MOUTH AXIS.



FREE AIR IMPEDANCE MAGNITUDE CURVE.



ND1070

N1000 series

Neo High Frequency Driver

KEY FEATURES

109 dB SPL 1W / 1m average sensitivity
1 inch exit throat
44 mm (1 3/4 inch) edgewound aluminum voice coil
100 Watt program power handling
Titanium dome over polyester suspension
Proprietary phase plug design
Neodymium magnetic structure
Excellent thermal exchange

GENERAL SPECIFICATIONS

Throat Diameter	25,4 mm (1 in)
Rated Impedance	8 ohm
DC Resistance	5,3 Ohm
Le (at 1kHz)	67 µH
AES power (1)	50 W above 1,6 kHz
Program power (2)	100 W above 1,6 kHz
Sensitivity(1W@1m) (3)	109 dB
Frequency Range	1600Hz ÷ 20kHz
Recomm. Xover Frequency	1600Hz (12dB/oct slope)
Diaphragm Material	Titanium - Polyethilene
Voice Coil Diameter	44,4 mm (1 3/4 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Neodymium
Flux Density	1,8 T
BL Factor	8,2 N/A

MOUNTING INFORMATIONS

Overall diameter	98 mm (3,9 in)
Mounting holes diameter	4 M6 holes 90° at Ø 76 mm (3 in)
Bolt circle diameter	76 mm (3 in)
Total depth	53 mm (2,1 in)
Net weight	1,1 Kg (2,4 lb)
Shipping weight	1,2 Kg (2,6 lb)
CardBoard Packaging dimensions	97x97x58 mm (3,8x3,8x2,3 in)

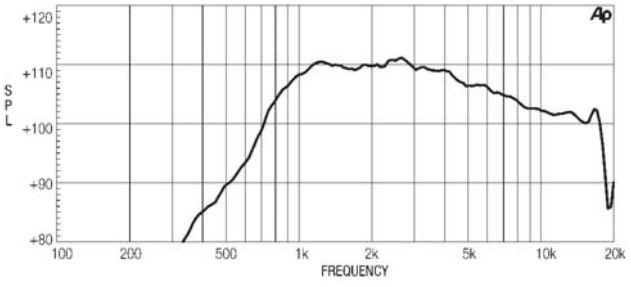
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

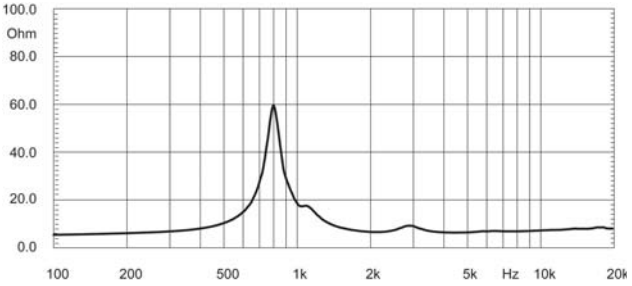
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured at 1W input on rated impedance at 1m on axis from the mouth of XT1086 horn, averaged between 1kHz and 4 kHz.

ND1070 MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1M DISTANCE ON XT1086 HORN MOUTH AXIS



FREE AIR IMPEDANCE MAGNITUDE CURVE



ND1018BT

HF Neodymium Transducer

KEY FEATURES

1 inch exit throat
108 dB SPL 1W / 1m average sensitivity
44 mm (1 3/4 inch) voice coil
100 Watt program power handling
Titanium diaphragm
Neodymium magnet structure
Proprietary Phase Plug design

GENERAL SPECIFICATIONS

Throat Diameter	25,4 mm (1 in)
Rated Impedance	8 ohm
DC Resistance	5,3 Ohm
Le (at 1kHz)	67 µH
AES power (1)	50 W above 1,6 kHz
Program power (2)	100 W above 1,6 kHz
Sensitivity (1W@1m) (3)	108 dB
Frequency Range	1600Hz ÷ 20kHz
Recomm. Xover Frequency	1600Hz (12dB/oct slope)
Diaphragm Material	Titanium
Voice Coil Diameter	44,4 mm (1 3/4 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Neodymium
Flux Density	1,8 T
BL Factor	8,2 N/A

MOUNTING INFORMATIONS

Overall diameter	98 mm (3,9 in)
Mounting holes diameter	4 M6 holes 90° at Ø 76 mm (3 in)
Bolt circle diameter	76 mm (3 in)
Total depth	50 mm (2 in)
Net weight	1 Kg (2,2 lb)
Shipping weight	1,2 Kg (2,6 lb)
CardBoard Packaging dimensions	97x97x58 mm (3,8x3,8x2,3 in)

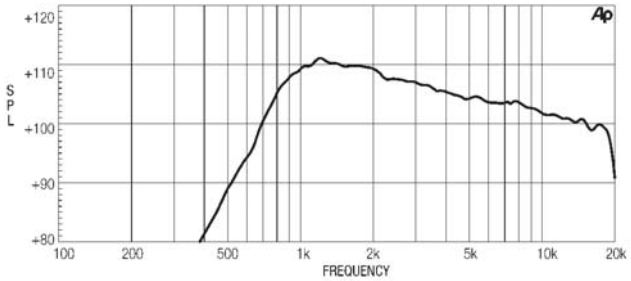
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

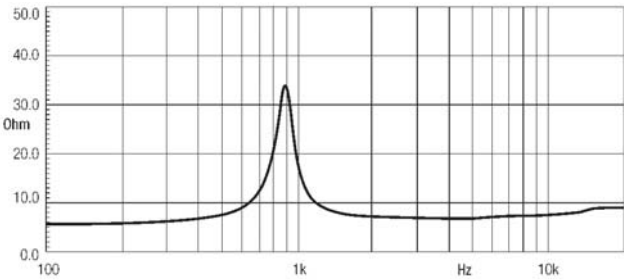
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured at 1W input on rated impedance at 1m on axis from the mouth of XT1086 horn averaged between 1kHz and 4kHz.

ND1018BT MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1M DISTANCE ON XT1086 HORN MOUTH AXIS



FREE AIR IMPEDANCE MAGNITUDE CURVE



ND1030

N1000 series

Neo High Frequency Driver

KEY FEATURES

107 dB SPL 1W / 1m average sensitivity
1 inch exit throat
34,4 mm (1 1/3 inch) voice coil diameter
60 Watt program power handling
Pure Titanium diaphragm
Proprietary phase plug design
Neodymium magnetic structure

GENERAL SPECIFICATIONS

Throat Diameter	25,4 mm (1 in)
Rated Impedance	8 ohm
DC Resistance	5,8 Ohm
Le (at 1kHz)	54 µH
AES power (1)	30 W above 2 kHz
Program power (2)	60 W above 2 kHz
Sensitivity(1W@1m) (3)	107 dB
Frequency Range	1800Hz ÷ 20kHz
Recomm. Xover Frequency	1800Hz 12dB/oct slope
Diaphragm Material	Titanium
Voice Coil Diameter	34,4 mm (1 1/3 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Neodymium
Flux Density	1,8 T
BL Factor	6 N/A

MOUNTING INFORMATIONS

Overall diameter	85 mm (3,3 in)
Mounting holes diameter	2 M5 holes on Ø 76 mm (3 in)
Bolt circle diameter	58 mm (2,3 in
Total depth	40,5 mm (1,6 in)
Net weight	0,8 kg (1,75 lb)
Shipping weight	0,9 Kg (1,97 lb)
CardBoard Packaging dimensions	97x97x58 mm (3,8x3,8x2,3 in)

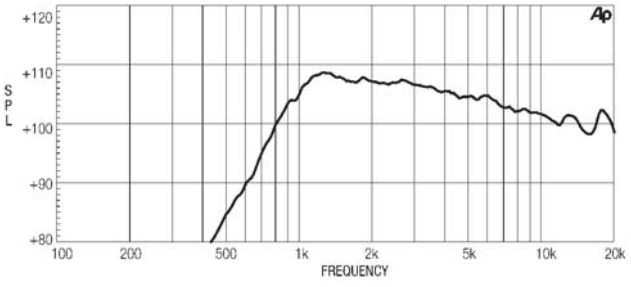
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

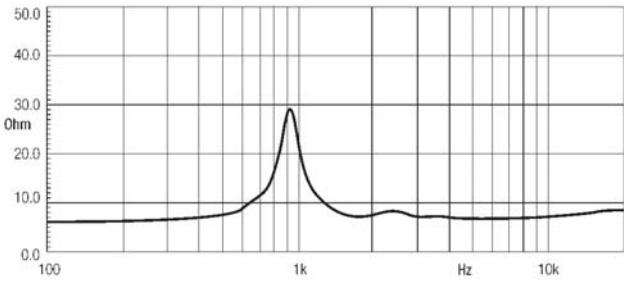
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured at 1W input on rated impedance at 1m on axis from the mouth of XT1086 horn, averaged between 1kHz and 4 kHz.

ND1030 MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1M DISTANCE ON XT1086 HORN MOUTH AXIS.



FREE AIR IMPEDANCE MAGNITUDE CURVE.



Our ferrite motor high frequency compression drivers have been developed paying particular attention to the magnet structure design, which combines compact size with very high flux achievements. You will find a perfect match for our compression driver range using Eighteen Sound unique elliptical shaped constant coverage horns family.

series	description	model
H2000	2" exit 3" voice coil high frequency ferrite compression drivers	HD2080T
H1400	1,4" exit 3" voice coil high frequency ferrite compression drivers	HD1480T
H1000	1'' exit 1 3/4'' voice coil ferrite high frequency compression drivers	HD1050
		HD1040
		HD1030
H100	1'' exit ferrite compression drivers	HD125
		XD125

HD2080T

HF Compression Driver

KEY FEATURES

109 dB SPL 1W / 1m average sensitivity
2 inch exit throat
3 inch edgewound aluminum voice coil
200W program power handling
Polyethilene - Titanium diaphragm assembly
Copper shorting ring on pole pieces

GENERAL SPECIFICATIONS

Throat Diameter	50 mm (2 in)
Rated Impedance	8 ohm
DC Resistance	6,2 Ohm
AES power (1)	100W above 1,2 kHz
Program power (2)	200W above 1,2 kHz
Sensitivity(1W@1m) (3)	109 dB
Frequency Range	500Hz ÷ 20kHz
Recomm. Xover Frequency	above 800Hz (12dB/oct slope)
Diaphragm Material	Titanium - Polyethilene
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Ferrite
Flux Density	1,8 T
BL Factor	12,8 N/A

MOUNTING INFORMATIONS

Overall diameter	169 mm (6,65 in)
Mounting holes diameter	4 M6 holes 90° at Ø 102 mm (4 in)
Bolt circle diameter	102 mm (4 in)
Total depth	75,4 mm (3 in)
Net weight	5,3 Kg (11,60 lb)
Shipping weight	5,5 Kg (12,10 lb)
CardBoard Packaging dimensions	170x170x80 mm (6,7x6,7x3,2 in)

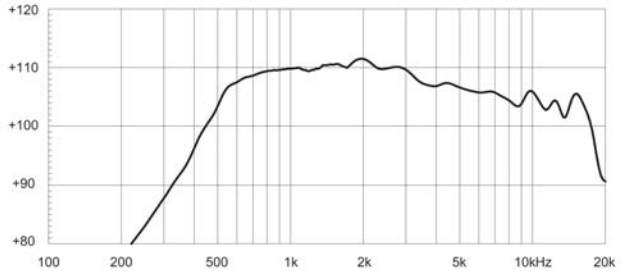
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

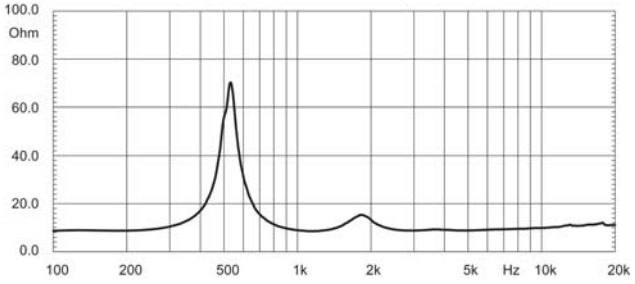
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured at 1W input on rated impedance at 1m on axis from the mouth of XR2064 horn, averaged between 1kHz and 4 kHz.

HD2080T MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1M DISTANCE ON XR2064 HORN MOUTH AXIS



FREE AIR IMPEDANCE MAGNITUDE CURVE



HD1480T

H1400 series

High Frequency Driver

KEY FEATURES

109 dB SPL 1W / 1m average sensitivity
1.4 inch exit throat
3 inch edgewound aluminum voice coil
200W program power handling
Polyethilene - Titanium diaphragm assembly
Copper shorting ring on pole pieces

GENERAL SPECIFICATIONS

Throat Diameter	35.5 mm (1.4 in)
Rated Impedance	8 ohm
DC Resistance	6,2 Ohm
AES power (1)	100W above 1,2 kHz
Program power (2)	200W above 1,2 kHz
Sensitivity(1W@1m) (3)	109 dB
Frequency Range	500Hz ÷ 20kHz
Recomm. Xover Frequency	above 800Hz (12 dB/oct slope)
Diaphragm Material	Titanium - Polyethilene
Voice Coil Diameter	75 mm (3 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Ferrite
Flux Density	1,8 T
BL Factor	12,8 N/A

MOUNTING INFORMATIONS

Overall diameter	169 mm (6,65 in)
Mounting holes diameter	4 M6 holes 90° at Ø 102 mm (4 in)
Bolt circle diameter	102 mm (4 in)
Total depth	75,4 mm (3 in)
Net weight	5,3 Kg (11,60 lb)
Shipping weight	5,5 Kg (12,10 lb)
CardBoard Packaging dimensions	170x170x80 mm (6,7x6,7x3,2 in)

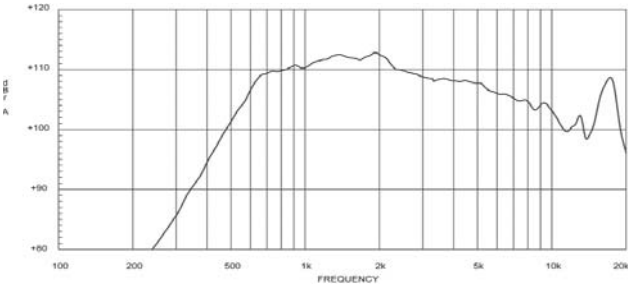
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

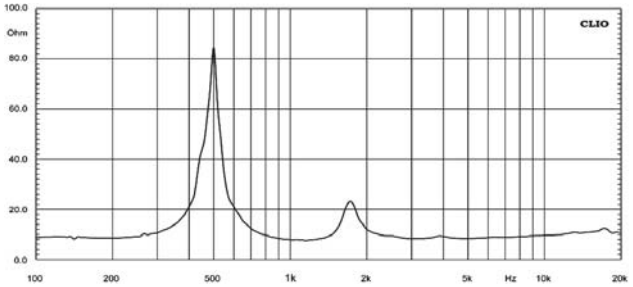
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured at 1W input on rated impedance at 1m on axis from the mouth of the horn, averaged between 1kHz and 4 kHz.

HD1480T MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1M DISTANCE ON XR1464 HORN MOUTH AXIS



FREE AIR IMPEDANCE MAGNITUDE CURVE



HD1050

HF Compression Driver

KEY FEATURES

107 dB SPL 1W / 1m average sensitivity
1 inch exit throat
44 mm (1 3/4 inch) voice coil diameter
100 Watt program power handling
Titanium dome over PEN suspension
Proprietary phase plug design

GENERAL SPECIFICATIONS

Throat Diameter	25,4 mm (1 in)
Rated Impedance	8 ohm
DC Resistance	5,3 Ohm
AES power (1)	50 W above 1,6 kHz
Program power (2)	100 W above 1,6 kHz
Sensitivity(1W@1m) (3)	107 dB
Frequency Range	1600Hz ÷ 20kHz
Recomm. Xover Frequency	1600Hz (12dB/oct slope)
Diaphragm Material	Titanium - PEN
Voice Coil Diameter	44,4 mm (1 3/4 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Ferrite
Flux Density	1,6 T
BL Factor	7,4 N/A

MOUNTING INFORMATIONS

Overall diameter	110 mm (4,3 in)
Mounting holes diameter	4 M6 holes 90° at Ø 76 mm (3 in)
Bolt circle diameter	76 mm (3 in)
Total depth	60,5 mm (2,38 in)
Net weight	1,8 Kg (4 lb)
Shipping weight	1,9 Kg (4,22 lb)
CardBoard Packaging dimensions	110x110x63 mm (4,3x4,3x2,5 in)

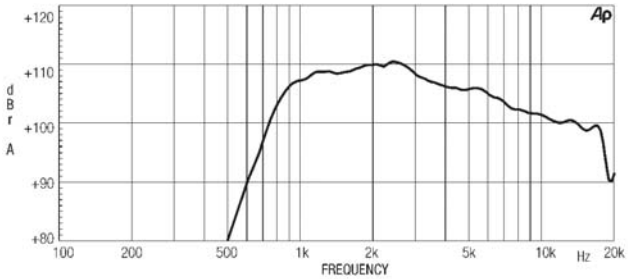
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

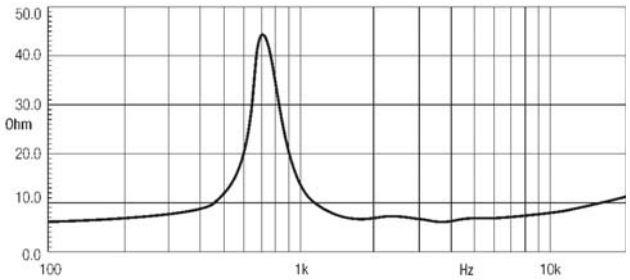
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured at 1W input on rated impedance at 1m on axis from the mouth of XT1086 horn, averaged between 1kHz and 4 kHz.

HD1050 MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1M DISTANCE ON XT1086 HORN MOUTH AXIS



FREE AIR IMPEDANCE MAGNITUDE CURVE



HD1040

High Frequency Driver

KEY FEATURES

1 inch exit throat
107 dB SPL 1W / 1m average sensitivity
44mm (1 3/4 inch) voice coil diameter
80 Watt program power handling
Treated polyethylene diaphragm
Proprietary phase plug design

GENERAL SPECIFICATIONS

Throat Diameter	25,4 mm (1 in)
Rated Impedance	8 ohm
DC Resistance	5,3 Ohm
AES power (1)	40 W above 1,6 kHz
Program power (2)	80 W above 1,6 kHz
Sensitivity(1W@1m) (3)	107 dB
Frequency Range	1600Hz ÷ 20kHz
Recomm. Xover Frequency	1600Hz (12dB/oct slope)
Diaphragm Material	Treated polyethylene
Voice Coil Diameter	44,4 mm (1 3/4 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Ferrite
Flux Density	1,6 T
BL Factor	7,4 N/A

MOUNTING INFORMATIONS

Overall diameter	110 mm (4,3 in)
Mounting holes diameter	4 M6 holes 90° at Ø 76 mm (3 in)
Bolt circle diameter	76 mm (3 in)
Total depth	60,5 mm (2,38 in)
Net weight	1,8 Kg (4 lb)
Shipping weight	1,9 Kg (4,22 lb)
CardBoard Packaging dimensions	110x110x63 mm (4,3x4,3x2,5 in)

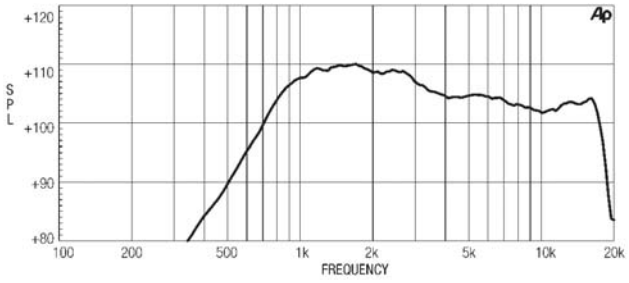
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

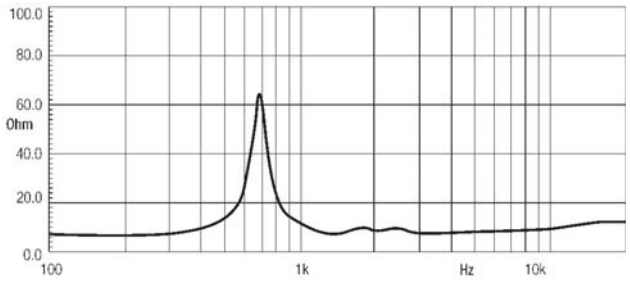
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured at 1W input on rated impedance at 1m on axis from the mouth of XT1086 horn, averaged between 1kHz and 4 kHz.

HD1040 MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1M DISTANCE ON XT1086 HORN MOUTH AXIS



FREE AIR IMPEDANCE MAGNITUDE CURVE



HD1030

HF Compression Driver

KEY FEATURES

1 inch exit throat
106 dB SPL 1W / 1m average sensitivity
34,4 mm (1 1/3 inch) voice coil diameter
60 Watt program power handling
Titanium diaphragm
Proprietary phase plug design
Usable in two way or multiway systems

GENERAL SPECIFICATIONS

Throat Diameter	25,4 mm (1 in)
Rated Impedance	8 ohm
DC Resistance	5,8 Ohm
Le (at 1kHz)	54 µH
AES power (1)	30 W above 2 kHz
Program power (2)	60 W above 2 kHz
Sensitivity(1W@1m) (3)	106 dB
Frequency Range	1800Hz ÷ 20kHz
Recomm. Xover Frequency	1800Hz 12dB/oct slope
Diaphragm Material	Titanium
Voice Coil Diameter	34,4 mm (1 1/3 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Ferrite
Flux Density	1,5 T
BL Factor	5 N/A

MOUNTING INFORMATIONS

Overall diameter	91 mm (3.6 in)
Mounting holes diameter	4 M5 holes on Ø 76 mm (3 in)
Bolt circle diameter	76 mm (3 in)
Total depth	51 mm (2 in)
Net weight	1 kg (2.18 lb)
Shipping weight	1.2 Kg (2.61 lb)
CardBoard Packaging dimensions	97x97x58 mm (3,8x3,8x2,3 in)

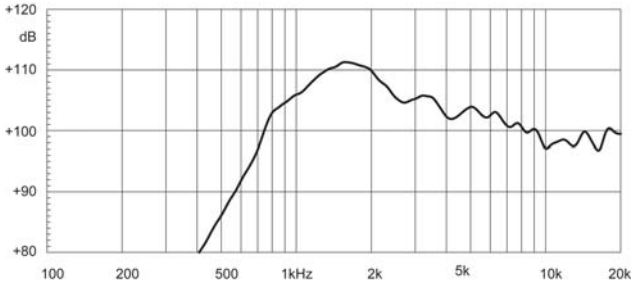
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

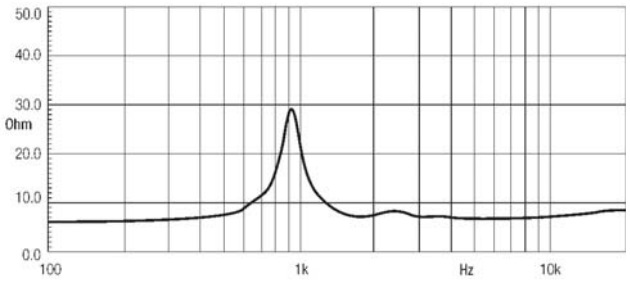
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured at 1W input on rated impedance at 1m on axis from the mouth of XT1086 horn, averaged between 1kHz and 4 kHz.

HD1030 MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1M DISTANCE ON XT1086 HORN MOUTH AXIS



FREE AIR IMPEDANCE MAGNITUDE CURVE



HD125

H100 series

High Frequency Driver

KEY FEATURES

1 inch exit throat
109 dB SPL 1W / 1m average sensitivity
25,4 mm (1 in) edgewound aluminum voice coil
50 Watt program power handling
Low weight, easy mounting and handling structure
Usable in two way or multiway systems

GENERAL SPECIFICATIONS

Throat Diameter	25,4 mm (1 in)
Rated Impedance	8 ohm
DC Resistance	5,7 Ohm
AES power (1)	25 W above 2,5 kHz
Program power (2)	50 W above 2,5 kHz
Sensitivity(1W@1m) (3)	109 dB
Frequency Range	2 kHz ÷ 18 kHz
Recomm. Xover Frequency	2500 Hz (12dB/oct slope)
Diaphragm Material	Polyester
Voice Coil Diameter	25,4 mm (1 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Ferrite
Flux Density	1,65 T
BL Factor	3,5 N/A

MOUNTING INFORMATIONS

Overall diameter	87 mm (3,4 in)
Mounting holes diameter	2 M5 at 180 degrees
Bolt circle diameter	76 mm (3 in)
Total depth	46 mm (1,8 in)
Net weight	0,8 Kg (1,77 lb)
Shipping weight	0,9 Kg (1,99 lb)
CardBoard Packaging dimensions	90x90x70 mm(3,5x3,5x2,8 in)

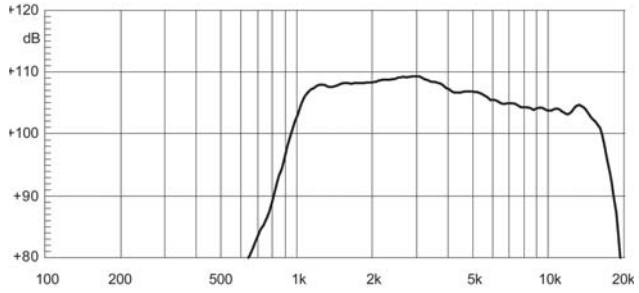
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

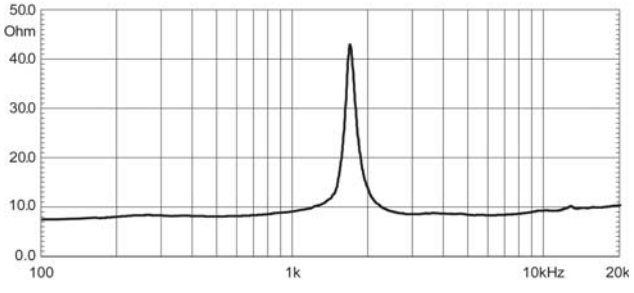
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured on 1 W input on rated impedance at 1 m on axis from the mouth of XT 120 horn, averaged in the 3 kHz octave band

HD125 MEASURED WITH 1W INPUT ON RATED IMPEDANCE AT 1MT DISTANCE ON AXIS FROM THE MOUTH OF HORN XT120



FREE AIR IMPEDANCE MAGNITUDE CURVE



XD125

HF Compression Driver

KEY FEATURES

1 inch exit throat
108 dB SPL 1W/1m average sensitivity
25,4 mm (1 in) edgewound aluminum voice coil
50 Watt program power handling
Low weight, easy mounting and handling structure
Usable in two way or multiway systems
90° x 60° coverage Constant directivity pattern
Unique Eighteen Sound elliptical shape

GENERAL SPECIFICATIONS

Throat Diameter	25,4 mm (1 in)
Rated Impedance	8 ohm
DC Resistance	5,7 Ohm
AES power (1)	25 W above 2,5 kHz
Program power (2)	50 W above 2,5 kHz
Sensitivity (1W@1m) (3)	109 dB
Frequency Range	2 kHz ÷ 18 kHz
Recomm. Xover Frequency	2500 Hz (12dB/oct slope)
Diaphragm Material	Polyester
Voice Coil Diameter	25,4 mm (1 in)
Voice Coil Winding Material	Edge-wound aluminum
Magnet Material	Ferrite
Flux Density	1,65 T
BL Factor	3,5 N/A

MOUNTING INFORMATIONS

Overall diameter	87 mm (3,4 in)
Mounting holes diameter	2 M5 at 180 degrees
Bolt circle diameter	76 mm (3 in)
Total depth	46 mm (1,8 in)
Net weight	0,8 Kg (1,77 lb)
Shipping weight	0,9 Kg (1,99 lb)
CardBoard Packaging dimensions	90x90x70 mm(3,5x3,5x2,8 in)

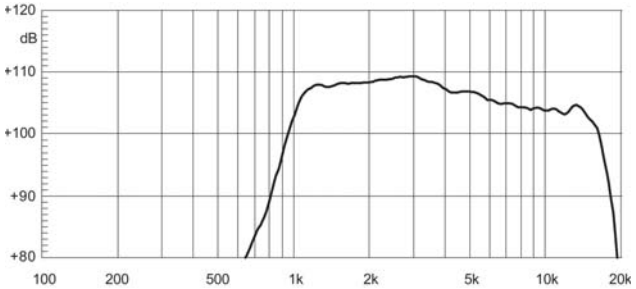
NOTES

(1) AES power rating is tested with a pink noise input having a 6 dB crest factor for two hours duration within the specified range. Power calculated on minimum impedance.

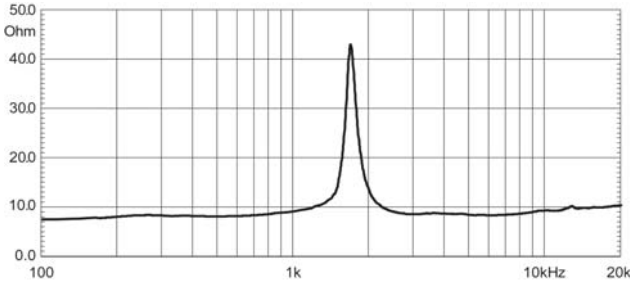
(2) Program power rating is defined as 3 dB greater than AES rating, and is a conservative expression of the transducer ability to handle music program material.

(3) Sensitivity is measured on 1 W input on rated impedance at 1 m on axis from the mouth of the horn averaged in the 3 kHz octave band

XD125 MEASURED ON AXIS WITH 1W INPUT ON RATED IMPEDANCE AT 1M DISTANCE



FREE AIR IMPEDANCE MAGNITUDE CURVE



Our Constant Directivity High Frequency Horns family has been designed to mantain precise control over dispersion as shown on the polar directivity maps. This coverage angle is ideal for short and medium throw speaker systems, providing excellent pattern control and extended frequency response also in off-axis conditions.\nOur prior design criteria are directionality (precise control of dispersion over a wide range of frequencies) and optimum driver loading (obtained through the perfect match between driver and horn acoustic impedance).

series	description	model
XR	Constant directivity horns	XR2064
N9600	5,5" voice coil high performance neodymium extended low frequency transducers	XR1564
XR	Constant directivity horns	XR1496
		XR1464
		XR1064
XT	Elliptical constant directivity horns	XT1464
		XT1086
		XT120

XR2064

Constant Coverage HF Horn

KEY FEATURES

2 inch throat entry
Aluminum construction for excellent heat transfer
Uniform on-axis and off-axis frequency response
60° x 40° horizontal and vertical constant coverage
Very low distortion at high sound pressure
Improved compression driver cooling
Rotatable structure

GENERAL SPECIFICATIONS

Throat Diameter	50 mm (2 in)
Horizontal Coverage (-6dB)	60° (10 ÷ -6) average range (1,6kHz - 12,5kHz)
Vertical Coverage (-6 dB)	40° (30 ÷ 0) average range (1,6kHz - 12,5kHz)
Directivity Index	11 dB (1.8 ÷ - 2.6) average range (1,6kHz - 12,5kHz)
Usable Frequency Range	Above 800 Hz
Recomm. Cross.Frequency	800 Hz or more
Sensitivity (on axis) (1)	110 dB
Frequency Range	800 Hz - 18kHz
Horn Material	Low pressure injected aluminum

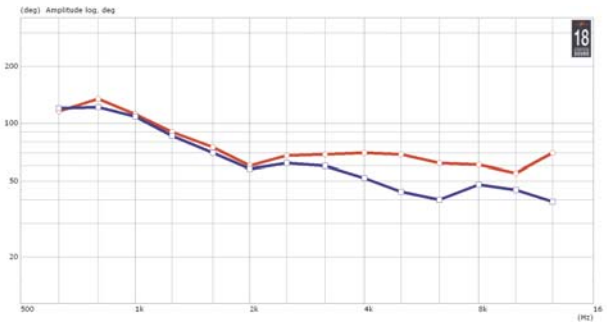
MOUNTING INFORMATIONS

Mouth Height	270 mm (10,6 in)
Mouth Width	270 mm (10,6in)
Depth	200 mm (7,9 in)
Mouth Mounting Dimensions	8 ø 6 holes
Net weight	2 Kg (4,4 lb)

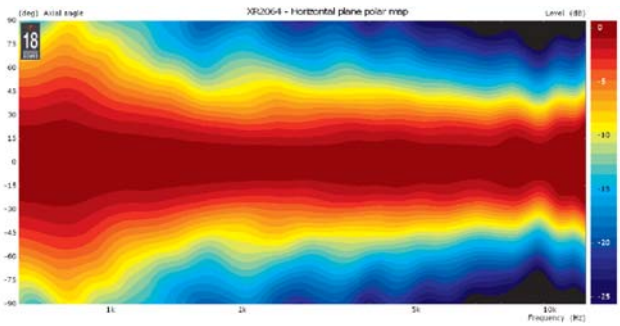
NOTES

(1) Sensitivity is measured at 1W input on ND2080 rated impedance at 1m on axis from the mouth of the horn, averaged between 1kHz and 4 kHz.

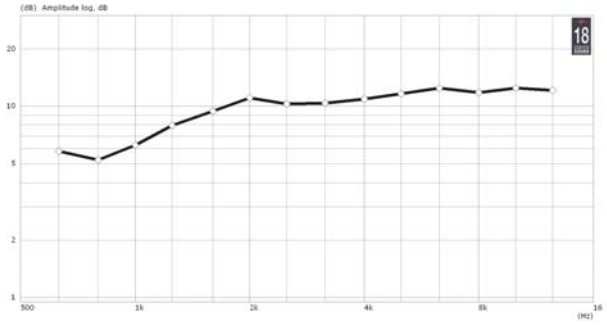
HORIZONTAL BEAMWIDTH, RED PLOT - VERTICAL BEAMWIDTH, BLUE PLOT - A



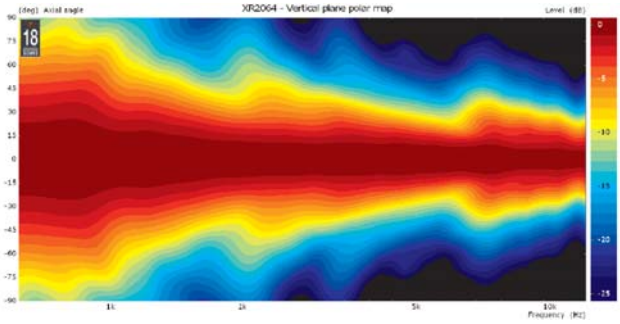
HORIZONTAL POLAR DIRECTIVITY MAP - C



DIRECTIVITY INDEX - B



VERTICAL POLAR DIRECTIVITY MAP - D



XR1564

N9600 series

Constant Coverage Horn

KEY FEATURES

1.5 inch throat entry
Aluminium construction for excellent heat transfer
Uniform on-axis and off-axis frequency response
60° x 40° horizontal and vertical constant coverage
Very low distortion at high sound pressure
Improved compression driver cooling
Rotatable structure

GENERAL SPECIFICATIONS

Throat Diameter	39,7 mm (1,56 in)
Horizontal Coverage (-6dB)	60° (10 ÷ -2) average range (1,25kHz - 12,5kHz)
Vertical Coverage (-6 dB)	40° (25 ÷ 0) average range (1,25kHz - 12,5kHz)
Directivity Index	11 dB (2 ÷ -1) average range (1,25kHz - 12,5kHz)
Usable Frequency Range	Above 800 Hz
Recomm. Cross.Frequency	800 Hz or more
Sensitivity (on axis) (1)	112 dB
Frequency Range	800 Hz ÷ 18KHz
Material	Low gravity injected aluminum

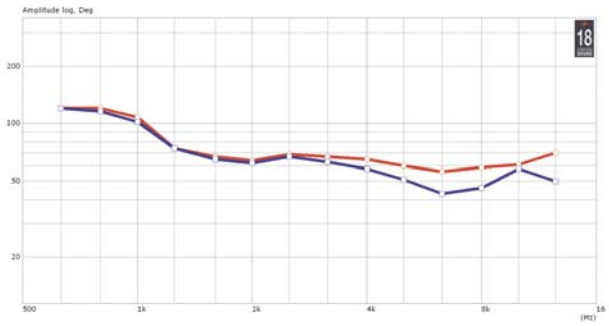
MOUNTING INFORMATIONS

Mouth Height	270 mm (10,6 in)
Mouth Width	270 mm (10,6in)
Depth	180 mm (7,1 in)
Mouth Mounting Dimensions	8 ø 6 holes
Net weight	1,9 Kg (4 lb)

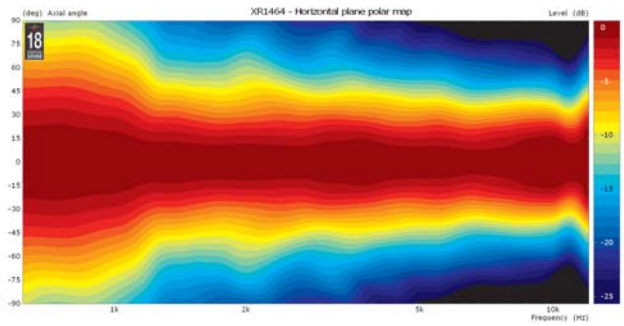
NOTES

(1) Sensitivity is measured at 1W input on ND4015BE rated impedance at 1m on axis from the mouth of the horn, averaged between 1kHz and 4 kHz.

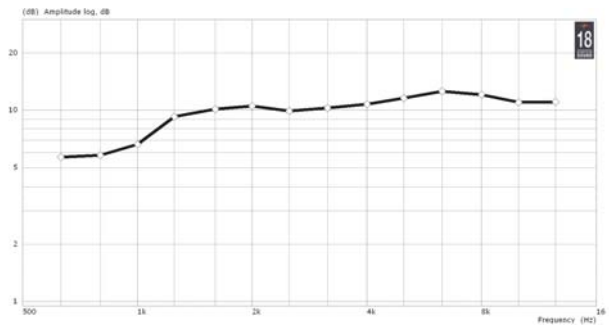
HORIZONTAL BEAMWIDTH - RED PLOT - VERTICAL BEAMWIDTH - BLUE PLOT - A



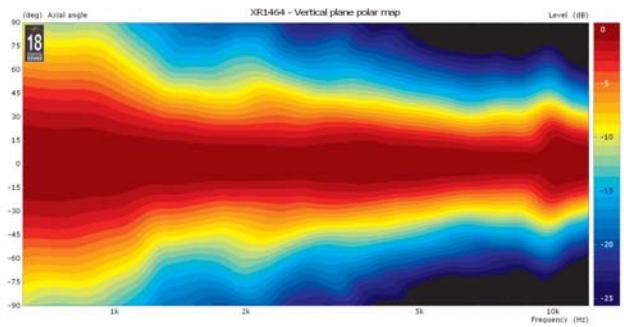
HORIZONTAL POLAR DIRECTIVITY MAP - C



DIRECTIVITY INDEX - B



VERTICAL POLAR DIRECTIVITY MAP - D



XR1496

Constant Coverage HF Horn

KEY FEATURES

1.4 throat inch entry
Aluminum construction for excellent heat transfer
Uniform on-axis and off-axis frequency response
90° x 60° horizontal and vertical constant coverage
Very low distortion at high sound pressure
Improved compression driver cooling
Rotatable structure

GENERAL SPECIFICATIONS

Throat Diameter	35,5 mm (1,4 in)
Horizontal Coverage (-6dB)	90° (15 ÷ -10) average range (1,25kHz - 12,5kHz)
Vertical Coverage (-6 dB)	60° (18 ÷ -12) average range (1,25kHz - 12,5kHz)
Directivity Index	9dB (1.8 ÷ -1,2) average range (1,25kHz - 12,5kHz)
Usable Frequency Range	Above 800 Hz
Recomm. Cross.Frequency	800 Hz or more
Sensitivity (on axis) (1)	110 dB
Frequency Range	800 Hz - 18kHz
Material	Low pressure injected aluminum

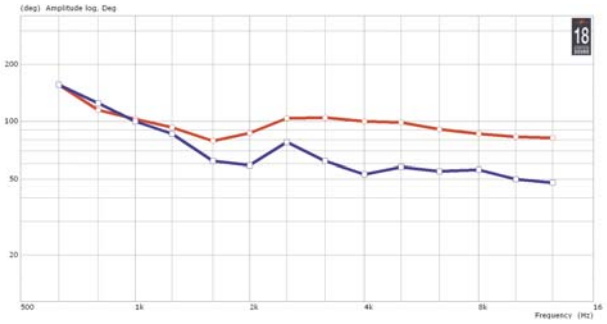
MOUNTING INFORMATIONS

Mouth Height	270 mm (10,6 in)
Mouth Width	270 mm (10,6in)
Depth	180 mm (7,1 in)
Mouth Mounting Dimensions	8 ø 6 holes
Net weight	1,9 Kg (4 lb)

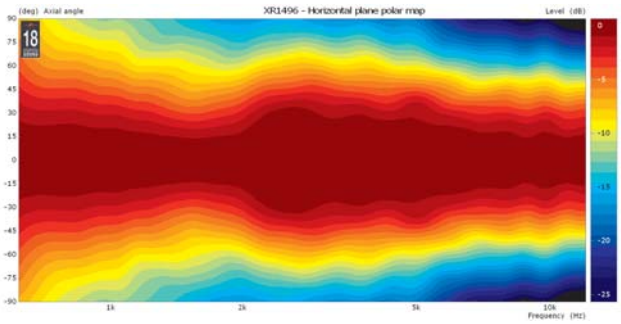
NOTES

(1) Sensitivity is measured at 1W input on ND1480 rated impedance at 1m on axis from the mouth of the horn, averaged between 1kHz and 4 kHz.

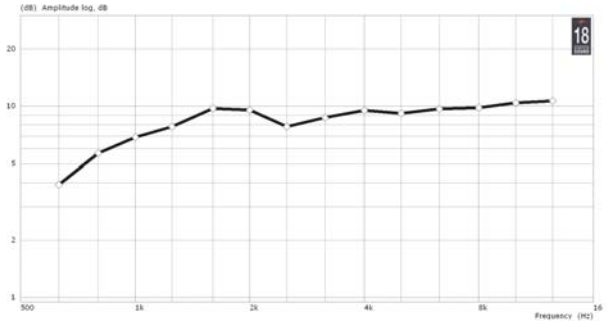
HORIZONTAL BEAMWIDTH - RED PLOT - VERTICAL BEAMWIDTH - BLUE PLOT - A



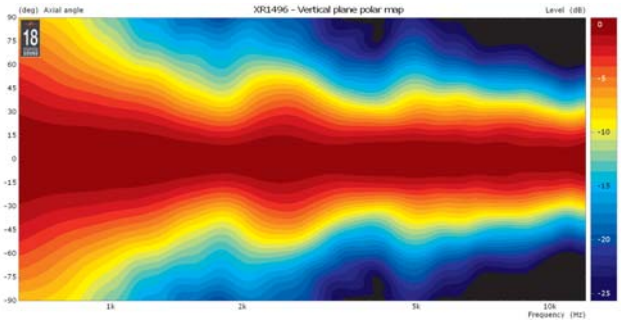
HORIZONTAL POLAR DIRECTIVITY MAP - C



DIRECTIVITY INDEX - B



VERTICAL POLAR DIRECTIVITY MAP - D



XR1464

Constant Coverage Horn

KEY FEATURES

1.4 inch throat entry
Aluminium construction for excellent heat transfer
Uniform on-axis and off-axis frequency response
60° x 40° horizontal and vertical constant coverage
Very low distortion at high sound pressure
Improved compression driver cooling
Rotatable structure

GENERAL SPECIFICATIONS

Throat Diameter	35,5 mm (1,4 in)
Horizontal Coverage (-6dB)	60° (10 ÷ -2) average range (1,25kHz - 12,5kHz)
Vertical Coverage (-6 dB)	40° (25 ÷ 0) average range (1,25kHz - 12,5kHz)
Directivity Index	11 dB (2 ÷ -1) average range (1,25kHz - 12,5kHz)
Usable Frequency Range	Above 800 Hz
Recomm. Cross.Frequency	800 Hz or more
Sensitivity (on axis) (1)	110 dB
Frequency Range	800 Hz ÷ 18KHz
Material	Low gravity injected aluminum

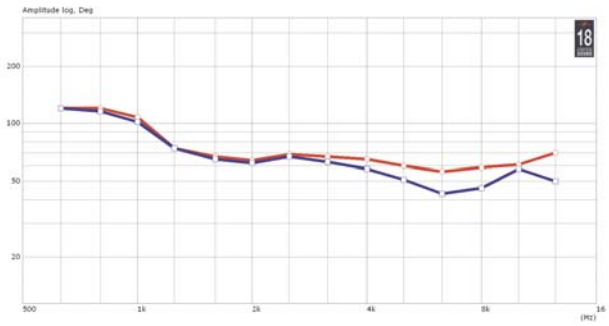
MOUNTING INFORMATIONS

Mouth Height	270 mm (10,6 in)
Mouth Width	270 mm (10,6in)
Depth	180 mm (7,1 in)
Mouth Mounting Dimensions	8 ø 6 holes
Net weight	1,9 Kg (4 lb)

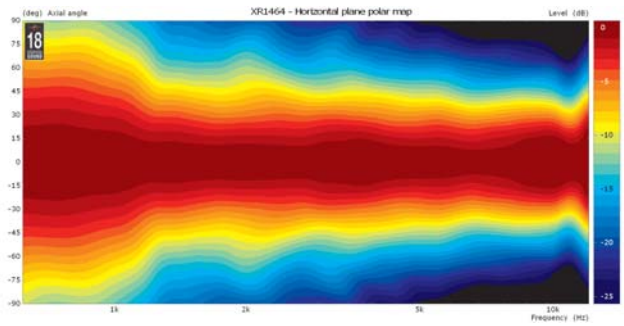
NOTES

(1) Sensitivity is measured at 1W input on ND1480 rated impedance at 1m on axis from the mouth of the horn, averaged between 1kHz and 4 kHz.

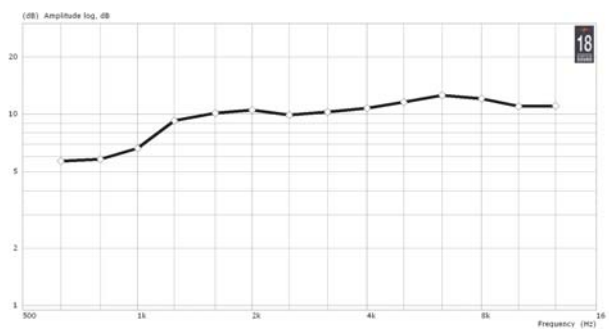
HORIZONTAL BEAMWIDTH - RED PLOT - VERTICAL BEAMWIDTH - BLUE PLOT - A



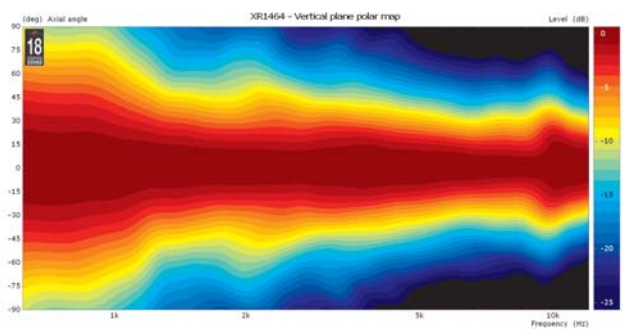
HORIZONTAL POLAR DIRECTIVITY MAP - C



DIRECTIVITY INDEX - B



VERTICAL POLAR DIRECTIVITY MAP - D



XR1064

Constant Coverage HF Horn

KEY FEATURES

1 inch throat entry
Aluminum construction for excellent heat transfer
Uniform on-axis and off-axis frequency response
60° x 40° horizontal and vertical constant coverage
Very low distortion at high sound pressure
Rotatable structure

GENERAL SPECIFICATIONS

Throat Diameter	25,4 mm (1 in)
Horizontal Coverage (-6dB)	60° (20 ÷ -10) average range (1,6kHz - 12,5kHz)
Vertical Coverage (-6 dB)	40° (40 ÷ 0) average range (1,6kHz - 12,5kHz)
Directivity Index	11dB (1.8 ÷ -2,6) average range (1,6kHz - 12,5kHz)
Usable Frequency Range	Above 800 Hz
Recomm. Cross.Frequency	1200 Hz or more
Sensitivity (on axis) (1)	110 dB
Frequency Range	800 Hz - 18KHz
Material	Low pressure injected aluminum

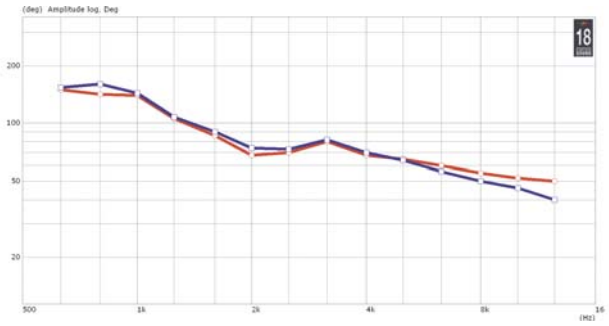
MOUNTING INFORMATIONS

Mouth Height	210 mm (8,3 in)
Mouth Width	210 mm (8,3in)
Depth	110 mm (4,3 in)
Mouth Mounting Dimensions	8 ø 6 holes
Driver mounting specs	3 M5 holes on ø 57mm (2.24in) - 4 M6 holes on ø 76mm (3in)
Net weight	1,5 Kg (3,3 lb)

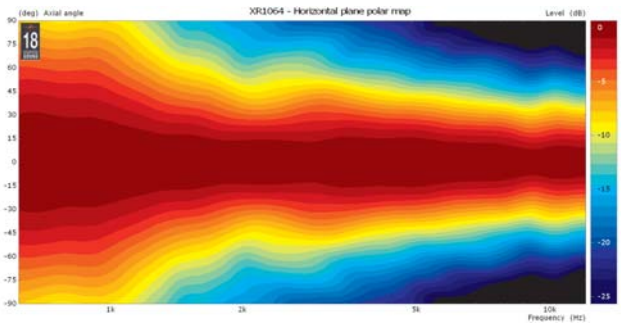
NOTES

(1) Sensitivity is measured at 1W input on ND1090 rated impedance at 1m on axis from the mouth of the horn, averaged between 1kHz and 4 kHz.

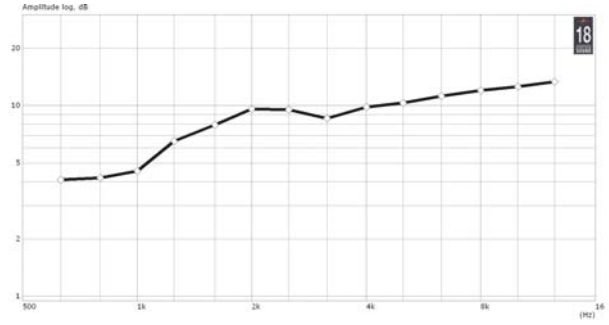
HORIZONTAL BEAMWIDTH - RED PLOT - VERTICAL BEAMWIDTH - BLUE PLOT - A



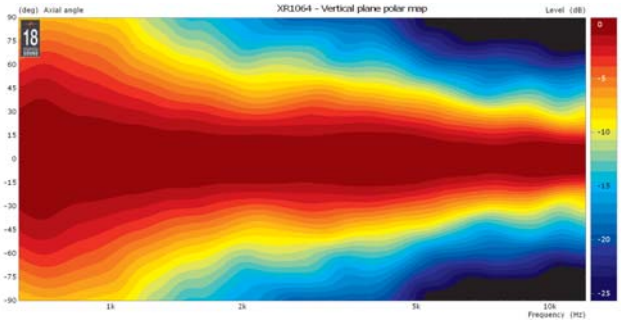
HORIZONTAL POLAR DIRECTIVITY MAP - C



DIRECTIVITY INDEX - B



VERTICAL POLAR DIRECTIVITY MAP - D



XT1464

Constant Coverage Horn

KEY FEATURES

1.4 inch throat entry
Unique Eighteen Sound elliptical shape (ESS)
Injection moulded polyurethane construction
Uniform on-axis and off-axis frequency response
60° x 50° horizontal and vertical constant coverage
Very low distortion at high sound pressure levels

GENERAL SPECIFICATIONS

Throat Diameter	35,5 mm (1,4 in)
Horizontal Coverage (-6dB)	60° (8 ÷ -12) average range (1,25KHz - 12,5KHz)
Vertical Coverage (-6 dB)	50° (15 ÷ -10) average range (1,25KHz - 12,5KHz)
Directivity Index	18 dB (1,8 ÷ 2,6) average range (1,25KHz - 12,5KHz)
Usable Frequency Range	Above 500 Hz
Recomm. Cross.Frequency	800 Hz or more
Sensitivity (on axis) (1)	110 dB
Frequency Range	800 Hz - 18KHz
Material	Injection moulded polyurethane

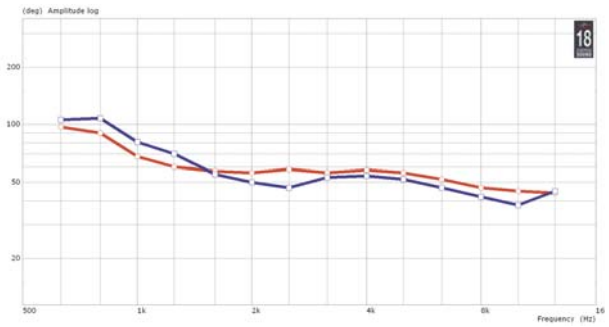
MOUNTING INFORMATIONS

Mouth Height	304 mm (12 in)
Mouth Width	380 mm (15in)
Depth	257 mm (10,1 in)
Mouth Mounting Dimensions	8 ø6 holes
Net weight	1,3 Kg (2,87 lb)

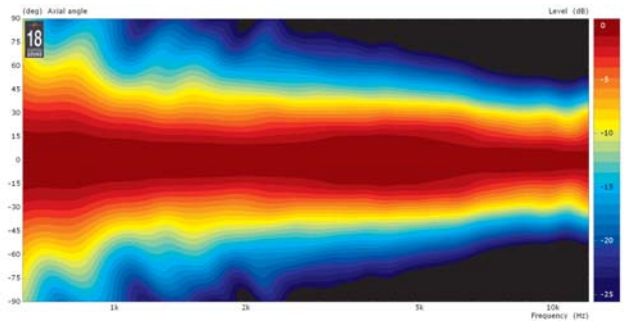
NOTES

(1) Sensitivity is measured at 1W input on ND1480 rated impedance at 1m on axis from the mouth of the horn, averaged between 1kHz and 4 kHz.

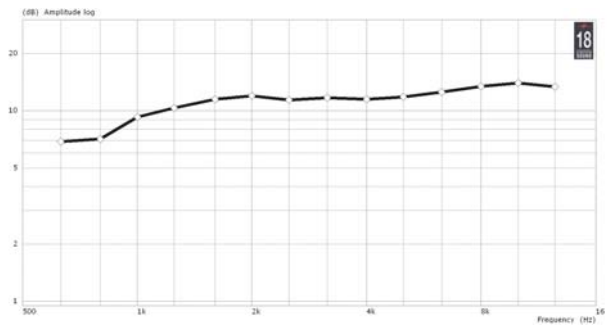
HORIZONTAL BEAMWIDTH - RED PLOT - VERTICAL BEAMWIDTH - BLUE PLOT - A



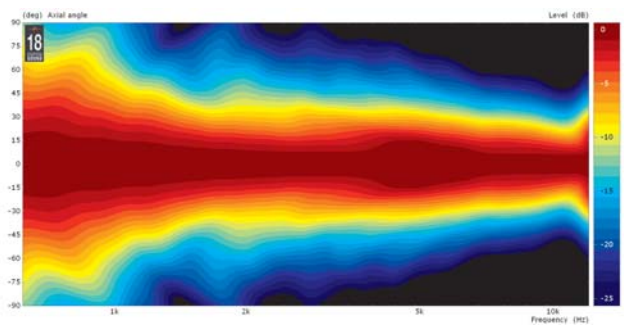
HORIZONTAL POLAR DIRECTIVITY MAP - C



DIRECTIVITY INDEX - B



VERTICAL POLAR DIRECTIVITY MAP - D



XT1086

Constant Coverage HF Horn

KEY FEATURES

1 inch throat entry
Unique Eighteen Sound elliptical shape (ESS)
Flat front and compact size
Die-cast aluminum construction for best heat transfer
Uniform on-axis and off-axis frequency response
80° x 60° horizontal and vertical constant coverage
Improved structure strength by exclusive computer aided vibrational analysis

GENERAL SPECIFICATIONS

Throat Diameter	25,4 mm (1 in)
Horizontal Coverage (-6 dB)	80° (1 ÷ -8) average range(1,6kHz - 12,5kHz)
Vertical Coverage (-6 dB)	60° (18 ÷ -7) average range(1,6kHz - 12,5kHz)
Directivity Index	10 dB (1.3 ÷ -0,4) average range (1.6kHz - 12.5kHz)
Usable Frequency Range	Above 800 Hz
Recomm. Cross. Frequency	1200 Hz or more
Sensitivity (on axis) (1)	110 dB
Frequency Range	1200 Hz ÷ 20kHz
Material	Die-cast aluminum

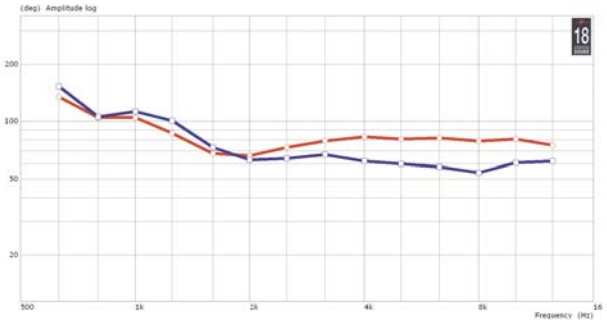
MOUNTING INFORMATIONS

Mouth Height	215 mm (8,5 in)
Mouth Width	260 mm (10,2in)
Depth	126 mm (5 in)
Mouth Mounting Specs	4 M6 holes on the edge of rectangle with 214 mm x 169 mm (8,43 x 6,65 in) sides
Driver Mounting Specs	3 M5 holes on ø 57mm (2.24in) - 4 M6 holes on ø 76mm (3in)
Net weight	1 Kg (2,20 lb)

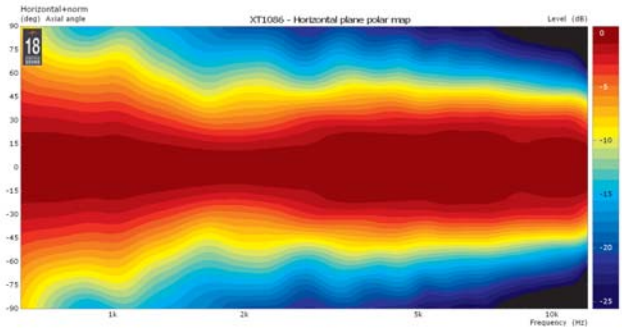
NOTES

(1) Sensitivity is measured at 1W input on ND1090 compression driver rated impedance at 1m on axis from the mouth of the horn, averaged between 1kHz and 4 kHz.

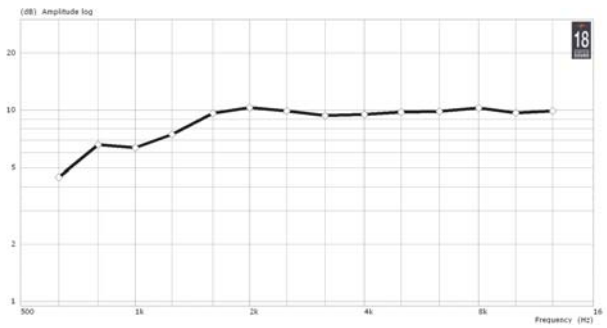
HORIZONTAL BEAMWIDTH - RED PLOT - VERTICAL BEAMWIDTH - BLUE PLOT - A



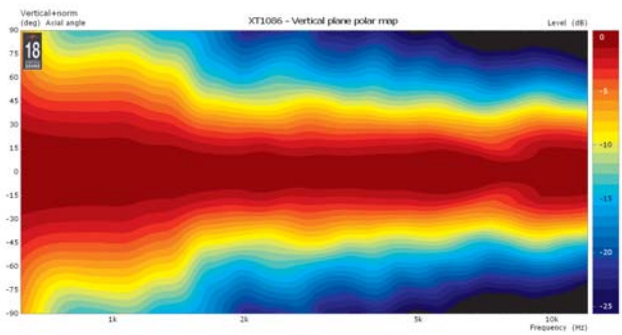
HORIZONTAL POLAR DIRECTIVITY MAP - C



DIRECTIVITY INDEX - B



VERTICAL POLAR DIRECTIVITY MAP - D



XT120

Constant Coverage Horn

KEY FEATURES

1 inch entry
Unique Eighteen Sound elliptical shape (ESS)
Flat front and compact size
Injection moulded polyurethane construction
Uniform on-axis and off-axis frequency response
90° x 60° horizontal and vertical constant coverage

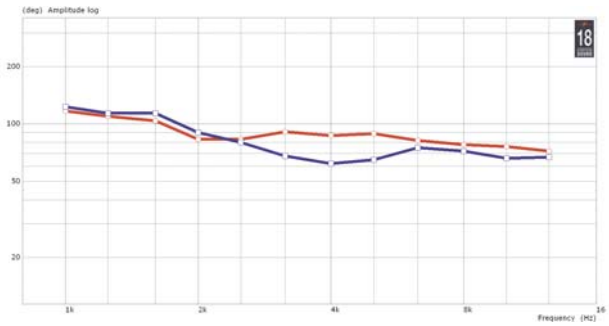
GENERAL SPECIFICATIONS	
Throat Diameter	25,4 mm (1 in)
Horizontal Coverage (-6dB)	90° (1 ÷ -10) average range (2kHz ÷ 12,5kHz)
Vertical Coverage (-6 dB)	60° (15 ÷ -10) average range (2kHz ÷ 12,5kHz)
Directivity Index	15 dB (2,5 ÷ 1,5)
Usable Frequency Range	Above 1.5 kHz
Recomm. Cross. Frequency	2 kHz or more
Sensitivity (on axis) (1)	108 dB
Frequency Range	2kHz ÷ 18kHz
Material	Injection moulded Polyurethane

MOUNTING INFORMATIONS	
Mounth Height	150 mm (5,9 in)
Mouth Width	200 mm (7,8 in)
Depth	103 mm (4,1 in)
Mouth Mounting Dimensions	4 6 mm ø holes on the edge of rectangle with165 mm x 115 mm (6,5 x 4,53 in) sides
Driver Mounting Specs	3 5.25 mm ø holes on ø 57 mm (2.24 in) - 4 6.25mm ø holes on ø 76mm (3in)
Net weight	350 g (0,75 lb)

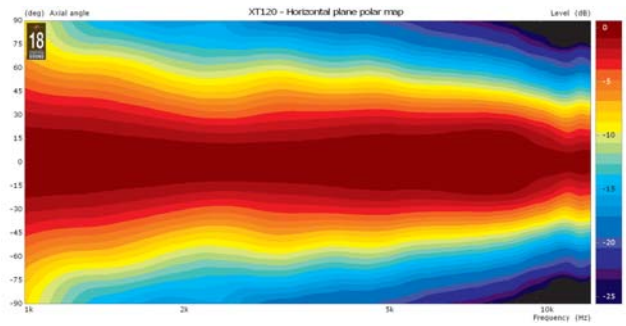
NOTES

(1) Sensitivity is measured at 1W input on HD125 rated impedance at 1m on axis from the mouth of the horn, averaged between 1KHz and 4 KHz.

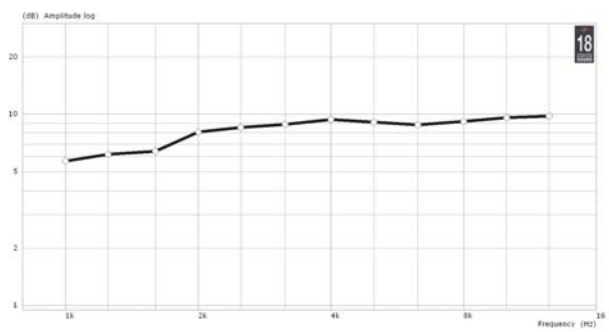
HORIZONTAL BEAMWIDTH - RED PLOT - A



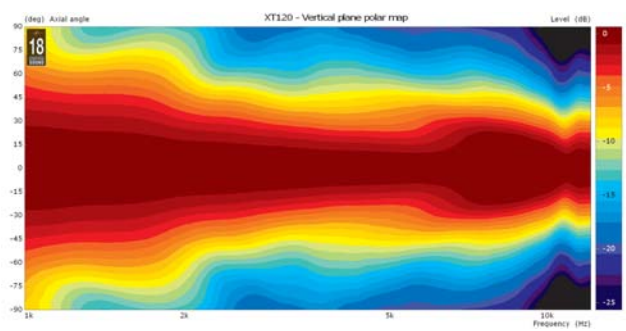
HORIZONTAL POLAR DIRECTIVITY MAP - C



DIRECTIVITY INDEX - B



VERTICAL POLAR DIRECTIVITY MAP - D



Our Line Array waveguides reflects the need of high quality devices for multiple point source sound reinforcement systems. The exclusive transmission line like acoustical design minimizes internal reflections and acoustical losses. One key element of all our waveguides is the compact size that permits a high arrayability.

series	description	model
XG	Line array waveguides	XG14
		XG10

XG14

Line Array Source

KEY FEATURES

1.4" entry line-array source

10° vertical coverage angle

Transmission line acoustical design minimizes internal reflections and acoustical losses

Throat shape optimized for lowering air distortion

Compact size for high arrayability

Die-cast aluminum construction

Offered in combination with ND1480A or NSD1424BTN compression drivers

GENERAL SPECIFICATIONS

Throat Diameter	35,5 mm (1,4 in)
Horizontal Coverage (-6dB)	100° nominal
Vertical Coverage (-6 dB)	10° nominal
Usable Frequency Range	Above 800 Hz
Sensitivity (on axis) (1)	111 dB
Frequency Range	500 Hz ÷ 18KHz
Material	Die-cast aluminum

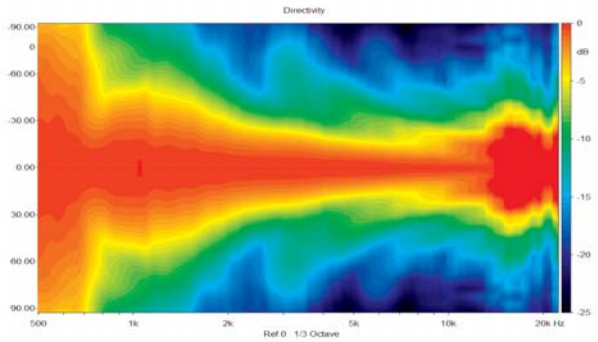
MOUNTING INFORMATIONS

Flange Height	126 mm (5 in)
Mouth Width	133 mm (5.25 in)
Depth	215 mm (8.45 in)
Flange Mounting	4 screws ø 6
Net weight	1 kg (2.10 lb)
Gross weight	1,3 Kg (2.73 lb)

NOTES

(1) Sensitivity is measured at 1W input on ND1480A rated impedance at 1m on axis from the mouth of the line array source, averaged between 1kHz and 4 kHz.

HORIZONTAL POLAR DIRECTIVITY MAP



XG10

PRELIMINARY

KEY FEATURES

1.0" entry line-array source

10° vertical coverage angle

Transmission line acoustical design minimizes internal reflections and acoustical losses

Throat shape optimized for lowering air distortion

Compact size for high arrayability

Die-cast aluminum construction

GENERAL SPECIFICATIONS

Throat Diameter	25,4 mm (1,0 in)
Horizontal Coverage (-6dB)	100° nominal
Vertical Coverage (-6 dB)	10° nominal
Usable Frequency Range	Above 1200 Hz
Sensitivity (on axis) (1)	111 dB
Frequency Range	1000 Hz ÷ 18KHz
Material	Die-cast aluminum

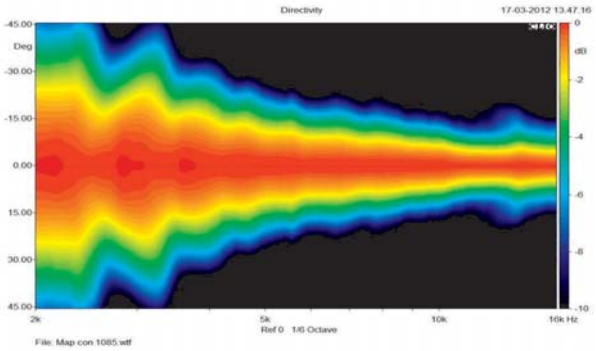
MOUNTING INFORMATIONS

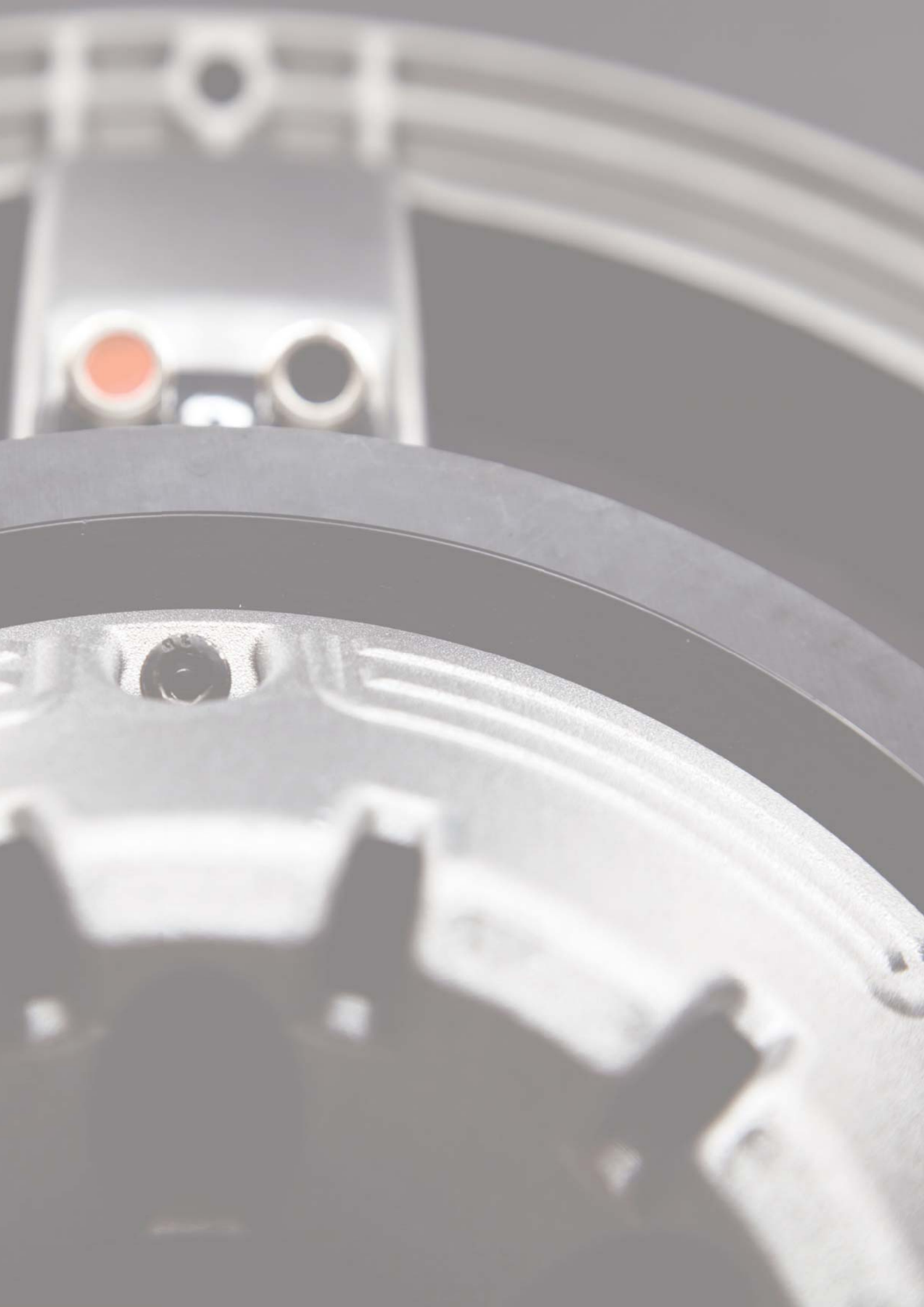
Flange Height	101 mm (3.97 in)
Mouth Width	87 mm (3.42 in)
Depth	130 mm (5.11 in)
Flange Mounting	4 screws ø M5
Net weight	0,4 kg (0.88 lb)
Gross weight	1,0 Kg (2.21 lb)

NOTES

(1) Sensitivity is measured at 1W input on ND1085 rated impedance at 1mt on axis from the mouth of the line array source, averaged between 1kHz and 4 kHz.

VERTICAL POLAR DIRECTIVITY MAP





Cover picture © Marcello Montanari photographer

Eighteen Sound engages in research and product improvement. New materials and design refinements can be introduced into existing products without notice.
977501000_REV.0313

AUTHORIZED DEALER

EIGHTEEN SOUND
via dell'Industria 20 | 42025 - Cavriago (RE) | Italy
ph. +39 0522 494402 | fax. +39 0522 494410
info@eighteensound.com | www.eighteensound.com