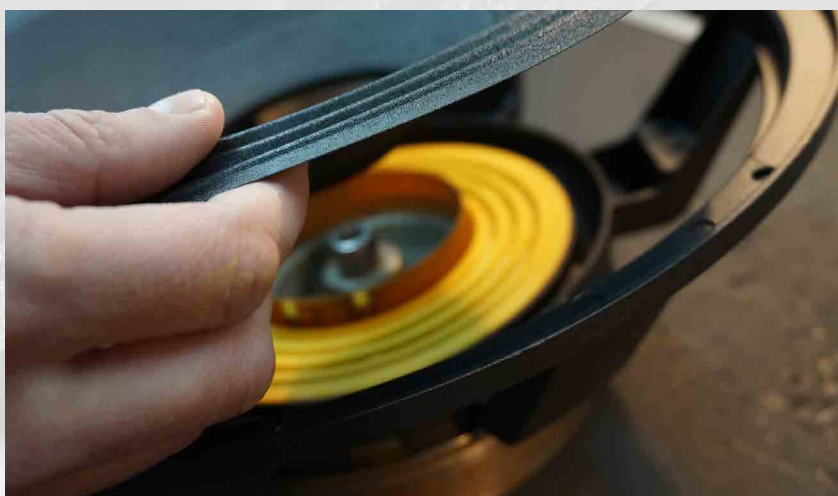


2016



MAG audio was founded in 1991.

During this period, we succeed to create our own unique development approach of our products, assembled professional staff of experts and got a considerable experience in the field of speaker engineering, design and sound philosophy.

Each of our products is manufactured in our factory in the center of Europe, tested by special focus group once before mass production and second before packing.

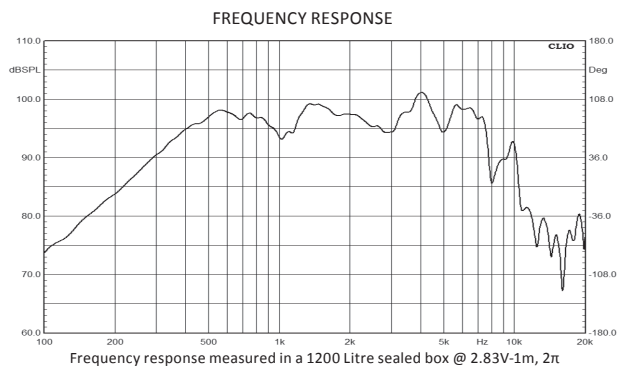
Quality of the sound and reliability are of most important goals in our company.

During the last year MAG audio extended a variety of transducer's models, which could respond for all kind of technical request and application.

We also open for any technical tasks and personal design for our customers and ready to solve it in short time.

Our combination of technological know- how, skills, and creativity allows us to deliver only the highest-grade product.





#### Specifications

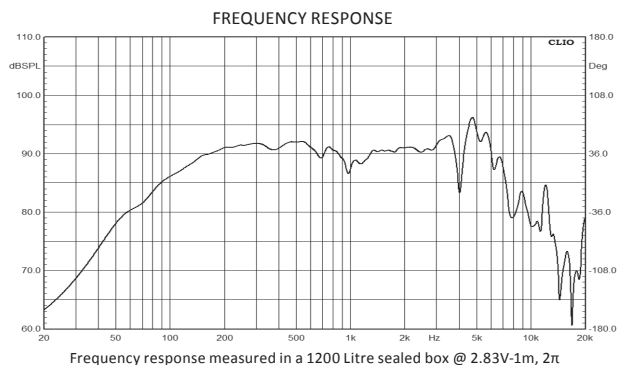
Nominal diameter, inches (mm)	6,5 (165)
Nominal impedance, Ohm	8/16
Rated power (AES), W	100
Frequency range, Hz	400-7000
Sensitivity (1W / 1m), dB	98
Minimum impedance, Ohm	7@750Hz
Bl product, Tm	10,9
Voice coil inductance, mH (1kHz)	0,48
Moving mass Mms, g	9,8
<b>Voice coil</b>	
Diameter, inches (mm)	1,5(38)
Winding material	CCAR
Former material	glass fiber
Winding depth, mm	8,5
<b>Magnetic system</b>	
Magnetic gap depth, mm	6,5
Flux density, T	1,28

#### Thiele-Small parameters

Fs, Hz	290
Vas, l	0,9
Qts	0,59
Qes	0,94
Qms	1,62
Re, Ohm	6,18
Sd cm <sup>2</sup>	143
Xmax, mm	2,6
$\eta$ , %	2,2

#### Mounting information

Overall diameter, mm	164/188
Baffle cutout diameter, mm	148
Bolt hole diameter, mm	5,5
Bolt circle diameter, mm	172
Height, mm	77
Net weight, kg	1,9



#### Specifications

Nominal diameter, inches (mm)	6,5 (165)
Nominal impedance, Ohm	8/16
Rated power (AES), W	130
Frequency range, Hz	70-6000
Sensitivity (1W / 1m), dB	92,5
Minimum impedance, Ohm	6,9@350Hz
Bl product, Tm	11,2
Voice coil inductance, mH (1kHz)	0,9
Moving mass Mms, g	15,2
<b>Voice coil</b>	
Diameter, inches (mm)	1,75 (44)
Winding material	copper
Former material	glass fiber
Winding depth, mm	12,5
<b>Magnetic system</b>	
Magnetic gap depth, mm	7
Flux density, T	1,1

#### Thiele-Small parameters

Fs, Hz	58
Vas, l	11,2
Qts	0,24
Qes	0,26
Qms	4,5
Re, Ohm	5,8
Sd cm <sup>2</sup>	127
Xmax, mm	4,5
$\eta$ , %	0,82

#### Mounting information

Overall diameter, mm	164/188
Baffle cutout diameter, mm	148
Bolt hole diameter, mm	5,5
Bolt circle diameter, mm	172
Height, mm	83
Net weight, kg	2,5

## M0612



#### Product description

Mid frequency transducer for horn and multi-way speakers.

#### Main features:

- aluminum die-cast frame;
- removable self-centering ferrite magnet system;
- edgewound copper clad aluminum voice coil.

#### Product specification

- 6.5" nominal diameter;
- 200 W AES program power;
- 98 dB 1W/1m sensitivity;
- 1.5" CCAR voice coil;
- 1.9 kg weight.

## M0615



#### Product description

Mid bass transducer for compact two-way and multi-way speakers.

#### Main features:

- aluminum die-cast frame with improved voice coil ventilation;
- removable self-centering ferrite magnet system;
- inside-outside copper voice coil.

#### Product specification

- 6.5" nominal diameter;
- 260 W AES program power;
- 92.5 dB 1W/1m sensitivity;
- 1.75" copper voice coil;
- 2.5 kg weight.





# 6N100



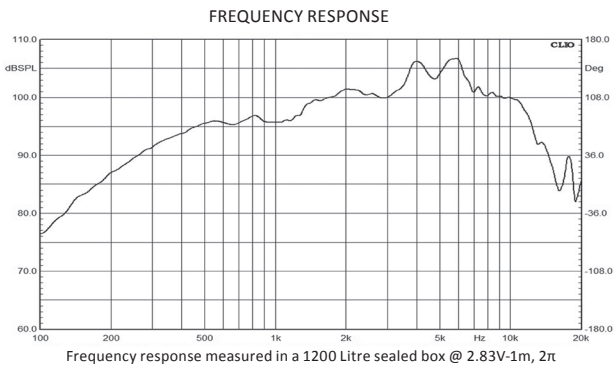
**Product description**  
High output mid frequency transducer for horn and multi-way speakers.

**Main features:**

- aluminum die-cast frame;
- removable self-centering neodymium magnet system;
- edgewound copper clad aluminum voice coil;
- aluminum phase plug for improve dispersion control.

**Product specification**

- 6.5" nominal diameter;
- 200 W AES program power;
- 101 dB 1W/1m sensitivity;
- 1.5" CCAR voice coil;
- 1.5 kg weight.



## Specifications

Nominal diameter, inches (mm)	6,5(165)
Nominal impedance, Ohm	8/16
Rated power (AES), W	100
Frequency range, Hz	400-8000
Sensitivity (1W / 1m), dB	101
Minimum impedance, Ohm	15,1@800Hz
Bl product, Tm	19,3
Voice coil inductance, mH (1kHz)	0,32
Moving mass Mms, g	7,3
<b>Voice coil</b>	
Diameter, inches (mm)	1,5(38)
Winding material	CCAR
Former material	glass fiber
Winding depth, mm	8,5
<b>Magnetic system</b>	
Magnetic gap depth, mm	6,5
Flux density, T	1,7

## Thiele-Small parameters

Fs, Hz	320
Vas, l	1
Qts	0,38
Qes	0,49
Qms	1,75
Re, Ohm	12,7
Sd cm²	143
Xmax, mm	2,6
η, %	6,5

## Mounting information

Overall diameter, mm	164/188
Baffle cutout diameter, mm	148
Bolt hole diameter, mm	5,5
Bolt circle diameter, mm	172
Height, mm	68
Net weight, kg	1,5

# 6N101



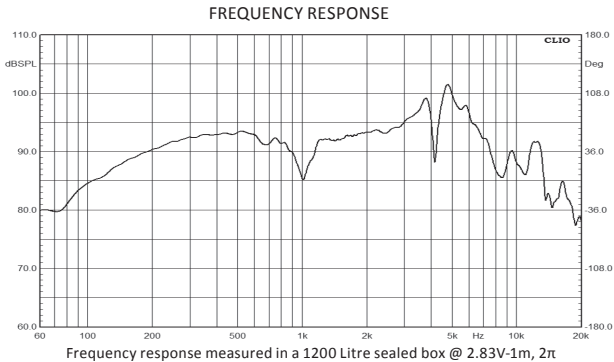
**Product description**  
Mid bass transducer for compact two-way and multi-way speakers.

**Main features:**

- aluminum die-cast frame with improved voice coil ventilation;
- removable self-centering neodymium magnet system;
- inside-outside copper voice coil;
- shorting copper cap.

**Product specification**

- 6.5" nominal diameter;
- 260 W AES program power;
- 93 dB 1W/1m sensitivity;
- 1.75" copper voice coil;
- 1.5 kg weight.



## Specifications

Nominal diameter, inches (mm)	6,5(165)
Nominal impedance, Ohm	8/16
Rated power (AES), W	130
Frequency range, Hz	70-6000
Sensitivity (1W / 1m), dB	93
Minimum impedance, Ohm	13,8@360Hz
Bl product, Tm	15
Voice coil inductance, mH (1kHz)	0,16
Moving mass Mms, g	11,7
<b>Voice coil</b>	
Diameter, inches (mm)	1,75(44)
Winding material	copper
Former material	glass fiber
Winding depth, mm	12,5
<b>Magnetic system</b>	
Magnetic gap depth, mm	6
Flux density, T	1,4

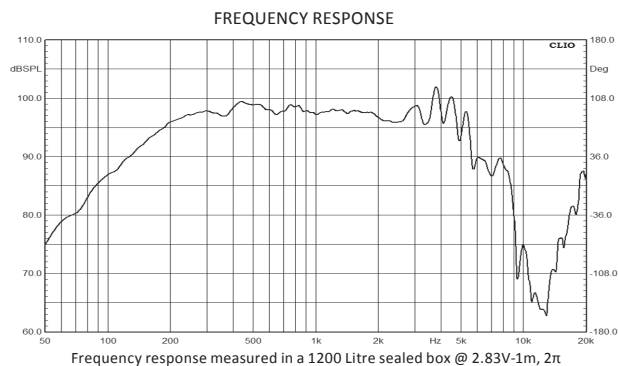
## Thiele-Small parameters

Fs, Hz	66,3
Vas, l	11,3
Qts	0,23
Qes	0,24
Qms	4,58
Re, Ohm	11,3
Sd cm²	127
Xmax, mm	5
η, %	1,32

## Mounting information

Overall diameter, mm	164/188
Baffle cutout diameter, mm	148
Bolt hole diameter, mm	5,5
Bolt circle diameter, mm	172
Height, mm	78
Net weight, kg	1,5





#### Specifications

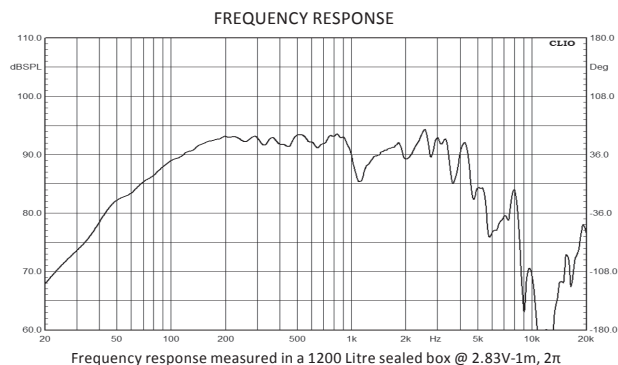
Nominal diameter, inches (mm)	8(200)
Nominal impedance, Ohm	8/16
Rated power (AES), W	150
Frequency range, Hz	200-5000
Sensitivity (1W / 1m), dB	98
Minimum impedance, Ohm	7,8@630Hz
Bl product, Tm	16,2
Voice coil inductance, mH (1kHz)	1,1
Moving mass Mms, g	26,1
<b>Voice coil</b>	
Diameter, inches (mm)	2(51)
Winding material	CCAR
Former material	glass fiber
Winding depth, mm	10
<b>Magnetic system</b>	
Magnetic gap depth, mm	9
Flux density, T	1,3

#### Thiele-Small parameters

Fs, Hz	220
Vas, l	1,6
Qts	0,71
Qes	0,78
Qms	8,3
Re, Ohm	5,7
Sd cm <sup>2</sup>	241
Xmax, mm	2,75
$\eta$ , %	2,2

#### Mounting information

Overall diameter, mm	210
Baffle cutout diameter, mm	185
Bolt hole diameter, mm	5,5
Bolt circle diameter, mm	196
Height, mm	110
Net weight, kg	4,3



#### Specifications

Nominal diameter, inches (mm)	8(200)
Nominal impedance, Ohm	8/16
Rated power (AES), W	200
Frequency range, Hz	65-4000
Sensitivity (1W / 1m), dB	93
Minimum impedance, Ohm	8,3@300Hz
Bl product, Tm	15,5
Voice coil inductance, mH (1kHz)	1,3
Moving mass Mms, g	28,7
<b>Voice coil</b>	
Diameter, inches (mm)	2(51)
Winding material	copper
Former material	glass fiber
Winding depth, mm	15
<b>Magnetic system</b>	
Magnetic gap depth, mm	10
Flux density, T	1,08

#### Thiele-Small parameters

Fs, Hz	59,6
Vas, l	16,7
Qts	0,272
Qes	0,285
Qms	6,4
Re, Ohm	6,4
Sd cm <sup>2</sup>	219
Xmax, mm	5
$\eta$ , %	1,2

#### Mounting information

Overall diameter, mm	209
Baffle cutout diameter, mm	185
Bolt hole diameter, mm	5,5
Bolt circle diameter, mm	196
Height, mm	109
Net weight, kg	3,6

M0811



#### Product description

High output mid frequency transducer for horn and multi-way speakers.

#### Main features:

- aluminum die-cast frame;
- removable self-centering ferrite magnet system;
- inside-outside CCAR voice coil.

#### Product specification

- 8" nominal diameter;
- 300 W AES program power;
- 98 dB 1W/1m sensitivity;
- 2" CCAR voice coil;
- 4.3 kg weight.

M0821



#### Product description

Mid bass transducer for compact two-way and multi-way speakers.

#### Main features:

- aluminum die-cast frame;
- removable self-centering ferrite magnet system;
- inside-outside copper voice coil;
- treated cone for water protection.

#### Product specification

- 8" nominal diameter;
- 400 W AES program power;
- 93 dB 1W/1m sensitivity;
- 2" copper voice coil;
- 3.6 kg weight.



M0830



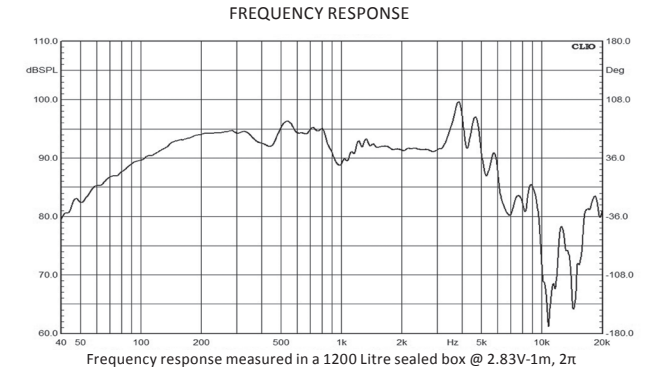
**Product description**  
Mid bass transducer for compact 2-way and multi-way speakers.

**Main features:**

- aluminum die-cast octagonal frame with small installation dimensions;
- removable self-centering ferrite magnet system;
- inside-outside copper clad aluminum voice coil;
- ventilated voice coil gap;

**Product specification**

- 8" nominal diameter;
- 600 W AES program power;
- 94 dB 1W/1m sensitivity;
- 2.5" copper voice coil;
- 3.8 kg weight.



Specifications		Thiele-Small parameters	
Nominal diameter, inches (mm)	8(200)	Fs, Hz	57,5
Nominal impedance, Ohm	8	Vas, l	19,5
Rated power (AES), W	300	Qts	0,3
Frequency range, Hz	60-4000	Qes	0,315
Sensitivity (1W / 1m), dB	94	Qms	6,3
Minimum impedance, Ohm	6,5@310Hz	Re, Ohm	5,7
Bl product, Tm	12,8	Sd cm²	210
Voice coil inductance, mH (1kHz)	0,91	Xmax, mm	6
Moving mass Mms, g	25,2	η, %	1,13
Voice coil		Mounting information	
Diameter, inches (mm)	2,5(64)	Overall diameter, mm	208/255
Winding material	CCAW	Baffle cutout diameter, mm	184
Former material	glass fiber	Bolt hole diameter, mm	8x5
Winding depth, mm	16,3	Bolt circle diameter, mm	207
Magnetic system		Height, mm	109
Magnetic gap depth, mm	9	Net weight, kg	3,8
Flux density, T	1,05		

ND811



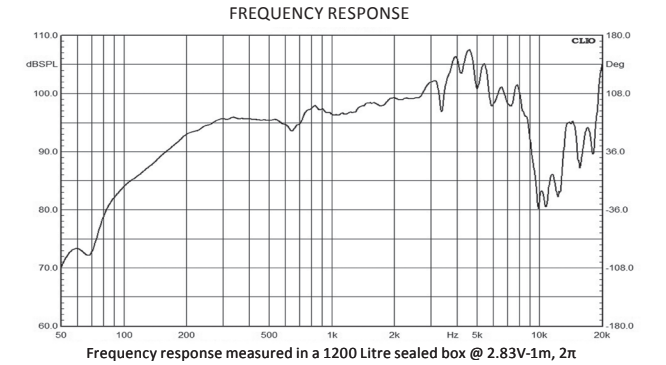
**Product description**  
High output mid frequency transducer for horn and multi-way speakers.

**Main features:**

- aluminum die-cast frame;
- removable self-centering neodymium magnet system;
- edgewound copper clad aluminum voice coil;
- shorting copper cap.

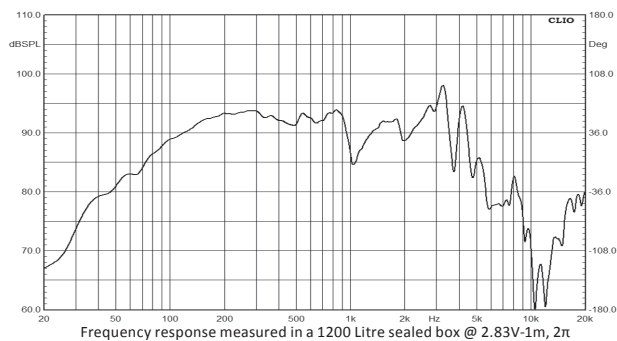
**Product specification**

- 8" nominal diameter;
- 300 W AES program power;
- 99 dB 1W/1m sensitivity;
- 2" CCAR voice coil;
- 2 kg weight.



Specifications		Thiele-Small parameters	
Nominal diameter, inches (mm)	8(200)	Fs, Hz	200
Nominal impedance, Ohm	8/16	Vas, l	2,5
Rated power (AES), W	150	Qts	0,69
Frequency range, Hz	200-5000	Qes	0,76
Sensitivity (1W / 1m), dB	99	Qms	7,5
Minimum impedance, Ohm	8@570Hz	Re, Ohm	6,3
Bl product, Tm	14,8	Sd cm²	241
Voice coil inductance, mH (1kHz)	0,12	Xmax, mm	2,75
Moving mass Mms, g	21,1	η, %	2,5
Voice coil		Mounting information	
Diameter, inches (mm)	2(51)	Overall diameter, mm	210
Winding material	CCAR	Baffle cutout diameter, mm	185
Former material	glass fiber	Bolt hole diameter, mm	5,5
Winding depth, mm	10	Bolt circle diameter, mm	196
Magnetic system		Height, mm	93
Magnetic gap depth, mm	9	Net weight, kg	2
Flux density, T	1,45		

FREQUENCY RESPONSE

**Specifications**

Nominal diameter, inches (mm) 8(200)

Nominal impedance, Ohm 16

Rated power (AES), W 200

Frequency range, Hz 65-4000

Sensitivity (1W / 1m), dB 94

Minimum impedance, Ohm 13,2@310Hz

Bl product, Tm 20,0

Voice coil inductance, mH (1kHz) 1,8

Moving mass Mms, g 30,3

**Voice coil**

Diameter, inches (mm) 2(51)

Winding material copper

Former material glass fiber

Winding depth, mm 19

**Magnetic system**

Magnetic gap depth, mm 8

Flux density, T 1,23

**Thiele-Small parameters**

Fs, Hz 59,7

Vas, l 15,7

Qts 0,3

Qes 0,31

Qms 8,4

Re, Ohm 11,0

Sd cm<sup>2</sup> 219

Xmax, mm 7,5

 $\eta$ , % 1,03**Mounting information**

Overall diameter, mm 206/236

Baffle cutout diameter, mm 185

Bolt hole diameter, mm 5,5

Bolt circle diameter, mm 217

Height, mm 102

Net weight, kg 1,8

**8N200****Product description**

Mid bass transducer for compact two-way and multi-way speakers.

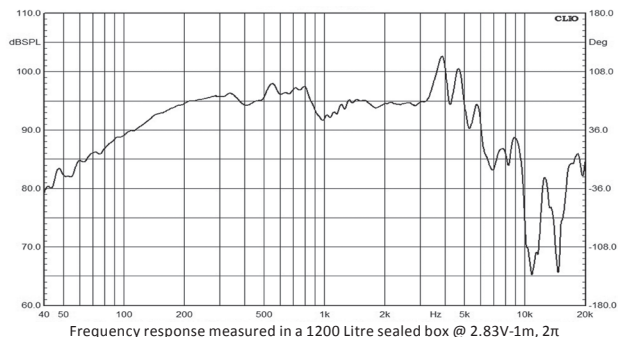
**Main features:**

- aluminum die-cast frame with improved voice coil ventilation;
- removable self-centering neodymium magnet system;
- inside-outside copper voice coil;
- treated cone for water protection.

**Product specification**

- 8" nominal diameter;
- 400 W AES program power;
- 94 dB 1W/1m sensitivity;
- 2" copper voice coil;
- 1.8 kg weight.

FREQUENCY RESPONSE

**Specifications**

Nominal diameter, inches (mm) 8(200)

Nominal impedance, Ohm 8

Rated power (AES), W 300

Frequency range, Hz 60-4000

Sensitivity (1W / 1m), dB 95,5

Minimum impedance, Ohm 7,1@380Hz

Bl product, Tm 14,6

Voice coil inductance, mH (1kHz) 0,7

Moving mass Mms, g 23,6

**Voice coil**

Diameter, inches (mm) 2,5(64)

Winding material CCAW

Former material glass fiber

Winding depth, mm 16,3

**Magnetic system**

Magnetic gap depth, mm 8

Flux density, T 1,3

**Thiele-Small parameters**

Fs, Hz 59,5

Vas, l 18,5

Qts 0,23

Qes 0,24

Qms 5,9

Re, Ohm 5,7

Sd cm<sup>2</sup> 210

Xmax, mm 6

 $\eta$ , % 1,6**Mounting information**

Overall diameter, mm 208/255

Baffle cutout diameter, mm 184

Bolt hole diameter, mm 8x5

Bolt circle diameter, mm 207

Height, mm 108

Net weight, kg 2,3

**8N300****Product description**

Mid bass transducer for line array modules and compact 2-way and multi-way speakers.

**Main features:**

- aluminum die-cast octagonal frame with small installation dimensions;
- removable self-centering neodymium magnet system;
- inside-outside CCAW clad aluminum voice coil;
- ventilated voice coil gap;

**Product specification**

- 8" nominal diameter;
- 600 W AES program power;
- 95.5 dB 1W/1m sensitivity;
- 2.5" CCAW voice coil;
- 2.3 kg weight.





# M1020



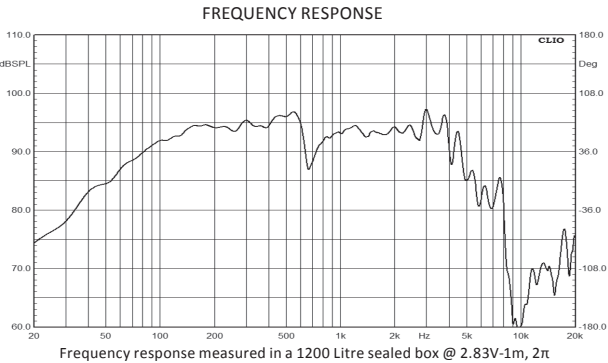
**Product description**  
LF transducer for compact two-way and multi-way speakers.

**Main features:**

- aluminum die-cast frame;
- removable self-centering ferrite magnet system;
- high-temperature inside-outside copper voice coil.

**Product specification**

- 10" nominal diameter;
- 400 W AES program power;
- 95 dB 1W/1m sensitivity;
- 2" copper voice coil;
- 3.3 kg weight.



Specifications		Thiele-Small parameters	
Nominal diameter, inches (mm)	10(250)	Fs, Hz	55,1
Nominal impedance, Ohm	4/8	Vas, l	39
Rated power (AES), W	200	Qts	0,36
Frequency range, Hz	60-3500	Qes	0,38
Sensitivity (1W / 1m), dB	95	Qms	7,44
Minimum impedance, Ohm	7,2@270Hz	Re, Ohm	6,6
Bl product, Tm	15,1	Sd cm <sup>2</sup>	353
Voice coil inductance, mH (1kHz)	1,07	Xmax, mm	5,5
Moving mass Mms, g	38	η, %	1,62
Voice coil		Mounting information	
Diameter, inches (mm)	2(51)	Overall diameter, mm	258
Winding material	copper	Baffle cutout diameter, mm	231
Former material	glass fiber	Bolt hole diameter, mm	5,5
Winding depth, mm	15	Bolt circle diameter, mm	244
Magnetic system		Height, mm	114
Magnetic gap depth, mm	8	Net weight, kg	3,3
Flux density, T	1,07		

# M1031



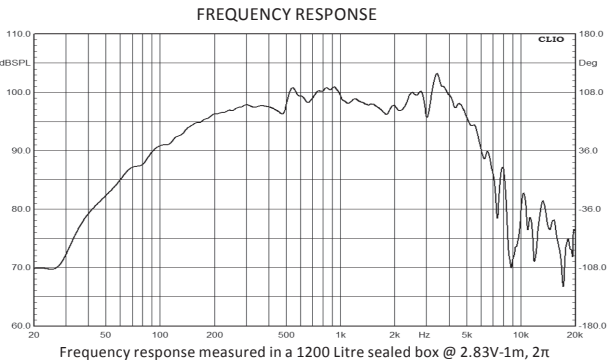
**Product description**  
High output mid bass transducer for horn and multi-way speakers.

**Main features:**

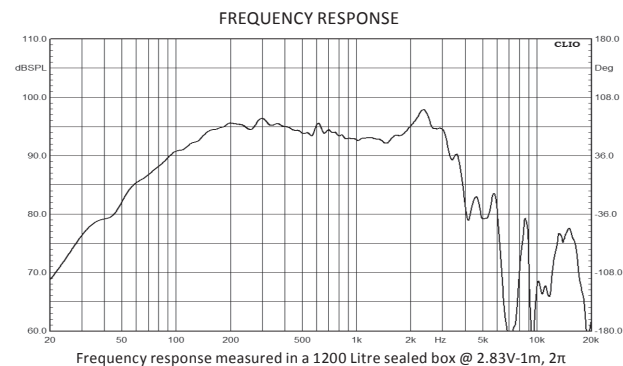
- aluminum die-cast octagonal frame with small installation dimensions;
- removable self-centering ferrite magnet system;
- high-temperature inside-outside aluminum voice coil.

**Product specification**

- 10" nominal diameter;
- 600 W AES program power;
- 99 dB 1W/1m sensitivity;
- 3" voice coil;
- 6.5 kg weight.



Specifications		Thiele-Small parameters	
Nominal diameter, inches (mm)	10(250)	Fs, Hz	67
Nominal impedance, Ohm	8/16	Vas, l	27,5
Rated power (AES), W	300	Qts	0,29
Frequency range, Hz	80-5000	Qes	0,3
Sensitivity (1W / 1m), dB	99	Qms	7,9
Minimum impedance, Ohm	6,7@400Hz	Re, Ohm	5,6
Bl product, Tm	16,6	Sd cm <sup>2</sup>	346
Voice coil inductance, mH (1kHz)	0,5	Xmax, mm	3,5
Moving mass Mms, g	35	η, %	2,6
Voice coil		Mounting information	
Diameter, inches (mm)	3(76)	Overall diameter, mm	264/285
Winding material	aluminum	Baffle cutout diameter, mm	233
Former material	glass fiber	Bolt hole diameter, mm	6x8
Winding depth, mm	11	Bolt circle diameter, mm	263
Magnetic system		Height, mm	127
Magnetic gap depth, mm	8	Net weight, kg	6,5
Flux density, T	1,3		



#### Specifications

Nominal diameter, inches (mm)	10(250)
Nominal impedance, Ohm	8/16
Rated power (AES), W	400
Frequency range, Hz	60-3000
Sensitivity (1W / 1m), dB	95
Minimum impedance, Ohm	7,4@250Hz
Bl product, Tm	18,8
Voice coil inductance, mH (1kHz)	1,41
Moving mass Mms, g	54
<b>Voice coil</b>	
Diameter, inches (mm)	3(76)
Winding material	copper
Former material	glass fiber
Winding depth, mm	17
<b>Magnetic system</b>	
Magnetic gap depth, mm	10
Flux density, T	1,12

#### Thiele-Small parameters

Fs, Hz	58,7
Vas, l	23
Qts	0,31
Qes	0,33
Qms	7
Re, Ohm	5,9
Sd cm <sup>2</sup>	346
Xmax, mm	6
$\eta$ , %	1,36

#### Mounting information

Overall diameter, mm	285/264
Baffle cutout diameter, mm	233
Bolt hole diameter, mm	6x8
Bolt circle diameter, mm	263
Height, mm	130
Net weight, kg	5,8

## M1041



#### Product description

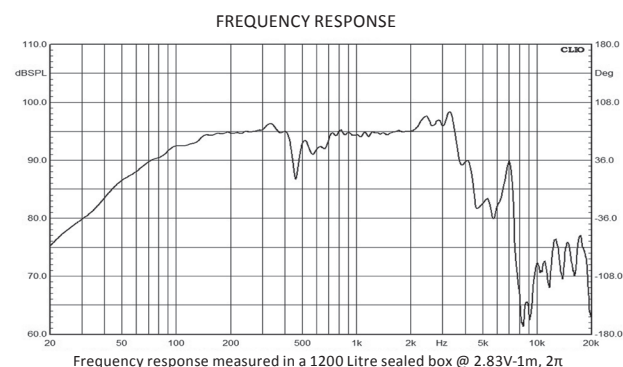
Mid bass transducer for line array modules and compact 2-way speakers.

#### Main features:

- aluminum die-cast octagonal frame with small installation dimensions;
- removable self-centering ferrite magnet system;
- inside-outside copper clad aluminum voice coil;
- ventilated voice coil gap;
- treated cone for water protection.

#### Product specification

- 10" nominal diameter;
- 800 W AES program power;
- 95 dB 1W/1m sensitivity;
- 3" copper voice coil;
- 5.8 kg weight.



#### Specifications

Nominal diameter, inches (mm)	10 (250)
Nominal impedance, Ohm	8
Rated power (AES), W	500
Frequency range, Hz	60-3500
Sensitivity (1W / 1m), dB	95,5
Minimum impedance, Ohm	6,7@280Hz
Bl product, Tm	13,6
Voice coil inductance, mH (1kHz)	0,78
Moving mass Mms, g	37
<b>Voice coil</b>	
Diameter, inches (mm)	3(76)
Winding material	CCAW
Former material	glass fiber
Winding depth, mm	18,7
<b>Magnetic system</b>	
Magnetic gap depth, mm	8
Flux density, T	1,05

#### Thiele-Small parameters

Fs, Hz	41
Vas, l	69
Qts	0,29
Qes	0,3
Qms	7,7
Re, Ohm	5,8
Sd cm <sup>2</sup>	346
Xmax, mm	7,35
$\eta$ , %	1,5

#### Mounting information

Overall diameter, mm	264/285
Baffle cutout diameter, mm	233
Bolt hole diameter, mm	6x8
Bolt circle diameter, mm	263
Height, mm	126
Net weight, kg	4,2

## M1051



#### Product description

High output low distortion mid bass transducer for compact 2-way speakers.

#### Main features:

- aluminum die-cast octagonal frame with small installation dimensions;
- removable self-centering ferrite magnet system;
- inside-outside copper clad aluminum voice coil;
- ventilated voice coil gap;
- aluminum demodulation ring.

#### Product specification

- 10" nominal diameter;
- 1000 W AES program power;
- 95.5 dB 1W/1m sensitivity;
- 3" CCAW voice coil;
- 4.2 kg weight.



# 10N321



**Product description**

High output mid bass transducer for horn and multi-way speakers.

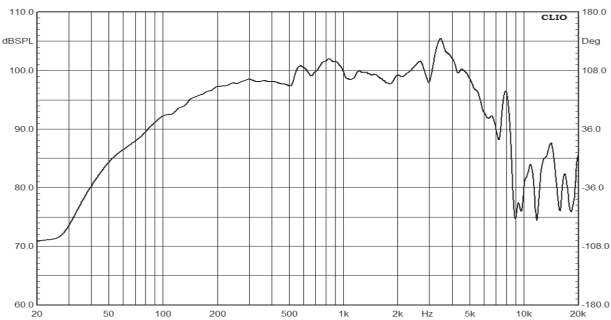
**Main features:**

- aluminum die-cast octagonal frame with small installation dimensions;
- removable self-centering neodymium magnet system;
- high-temperature inside-outside aluminum voice coil.

**Product specification**

- 10" nominal diameter;
- 600 W AES program power;
- 100 dB 1W/1m sensitivity;
- 3" voice coil;
- 3.7 kg weight.

FREQUENCY RESPONSE



Frequency response measured in a 1200 Litre sealed box @ 2.83V-1m, 2π

**Specifications**

Nominal diameter, inches (mm)	10(250)
Nominal impedance, Ohm	8
Rated power (AES), W	300
Frequency range, Hz	80-5000
Sensitivity (1W / 1m), dB	100
Minimum impedance, Ohm	7@410Hz
Bl product, Tm	20,2
Voice coil inductance, mH (1kHz)	0,44
Moving mass Mms, g	34,2
<b>Voice coil</b>	
Diameter, inches (mm)	3(76)
Winding material	aluminum
Former material	glass fiber
Winding depth, mm	11
<b>Magnetic system</b>	
Magnetic gap depth, mm	8
Flux density, T	1,45

**Thiele-Small parameters**

Fs, Hz	75,1
Vas, l	22
Qts	0,21
Qes	0,22
Qms	6,6
Re, Ohm	5,5
Sd cm²	346
Xmax, mm	3,5
η, %	4,1

**Mounting information**

Overall diameter, mm	264/285
Baffle cutout diameter, mm	233
Bolt hole diameter, mm	6x8
Bolt circle diameter, mm	263
Height, mm	122
Net weight, kg	3,7

# 10N500



**Product description**

High output low frequency transducer for line array modules, horn and compact bass-reflex enclosures.

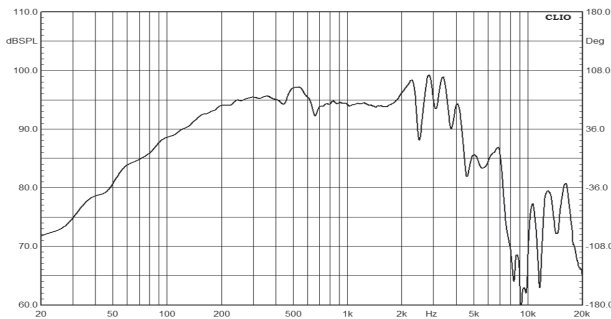
**Main features:**

- aluminum die-cast octagonal frame with small installation dimensions;
- removable self-centering neodymium magnet system;
- inside-outside copper voice coil;
- ventilated voice coil gap;
- aluminum demodulation ring.

**Product specification**

- 10" nominal diameter;
- 1000 W AES program power;
- 96 dB 1W/1m sensitivity;
- 3" copper voice coil;
- 3.9 kg weight.

FREQUENCY RESPONSE



Frequency response measured in a 1200 Litre sealed box @ 2.83V-1m, 2π

**Specifications**

Nominal diameter, inches (mm)	10(250)
Nominal impedance, Ohm	8/16
Rated power (AES), W	500
Frequency range, Hz	60-2200
Sensitivity (1W / 1m), dB	96
Minimum impedance, Ohm	4,3@300Hz
Bl product, Tm	21,6
Voice coil inductance, mH (1kHz)	0,6
Moving mass Mms, g	48,8
<b>Voice coil</b>	
Diameter, inches (mm)	3(76)
Winding material	copper
Former material	glass fiber
Winding depth, mm	19
<b>Magnetic system</b>	
Magnetic gap depth, mm	10
Flux density, T	1,35

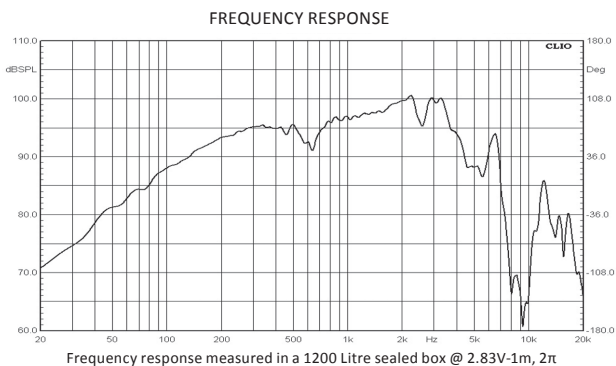
**Thiele-Small parameters**

Fs, Hz	63
Vas, l	21,5
Qts	0,22
Qes	0,23
Qms	5,7
Re, Ohm	3,2
Sd cm²	346
Xmax, mm	7
η, %	2,3

**Mounting information**

Overall diameter, mm	264/285
Baffle cutout diameter, mm	233
Bolt hole diameter, mm	6x8
Bolt circle diameter, mm	263
Height, mm	130
Net weight, kg	3,9





#### Specifications

Nominal diameter, inches (mm)	10(250)
Nominal impedance, Ohm	8 / 16
Rated power (AES), W	500
Frequency range, Hz	60-3500
Sensitivity (1W / 1m), dB	97
Minimum impedance, Ohm	7,5@390Hz
Bl product, Tm	20,2
Voice coil inductance, mH (1kHz)	0,4
Moving mass Mms, g	37
<b>Voice coil</b>	
Diameter, inches (mm)	3(76)
Winding material	CCAW
Former material	glass fiber
Winding depth, mm	18,7
<b>Magnetic system</b>	
Magnetic gap depth, mm	8
Flux density, T	1,47

#### Thiele-Small parameters

Fs, Hz	50,5
Vas, l	45,6
Qts	0,167
Qes	0,17
Qms	8,7
Re, Ohm	5,9
Sd cm <sup>2</sup>	346
Xmax, mm	7,35
η, %	3,3

#### Mounting information

Overall diameter, mm	264/285
Baffle cutout diameter, mm	233
Bolt hole diameter, mm	6x8
Bolt circle diameter, mm	263
Height, mm	130
Net weight, kg	3,8

**10N501**



#### Product description

High output low distortion mid bass transducer for line array modules and compact 2-way speakers.

#### Main features:

- aluminum die-cast octagonal frame with small installation dimensions;
- removable self-centering neodymium magnet system;
- inside-outside copper clad aluminum voice coil;
- ventilated voice coil gap;
- double aluminum demodulation ring.

#### Product specification

- 10" nominal diameter;
- 1000 W AES program power;
- 97 dB 1W/1m sensitivity;
- 3" CCAW voice coil;
- 3.8 kg weight.

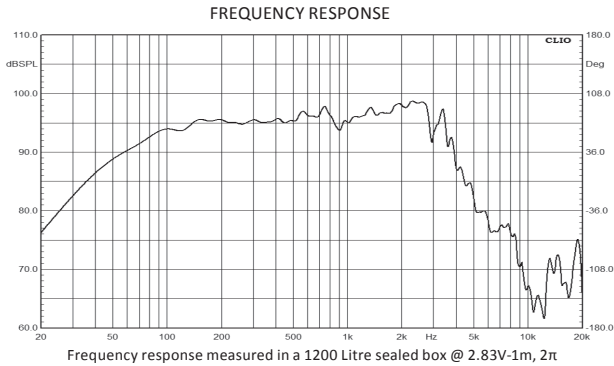
# M1215



**Product description**  
LF transducer for compact two-way and multi-way speakers.

- Main features:**
- aluminum die-cast frame;
  - removable self-centering ferrite magnet system;
  - inside-outside copper voice coil.

- Product specification**
- 12" nominal diameter;
  - 400 W AES program power;
  - 96 dB 1W/1m sensitivity;
  - 2" copper voice coil;
  - 3.5 kg weight.



**Specifications**

Nominal diameter, inches (mm)	12(300)
Nominal impedance, Ohm	4/8
Rated power (AES), W	180
Frequency range, Hz	50-4000
Sensitivity (1W / 1m), dB	96
Minimum impedance, Ohm	7,2@210Hz
Bl product, Tm	13,8
Voice coil inductance, mH (1kHz)	1,26
Moving mass Mms, g	46,4
<b>Voice coil</b>	
Diameter, inches (mm)	2(51)
Winding material	copper
Former material	glass fiber
Winding depth, mm	15
<b>Magnetic system</b>	
Magnetic gap depth, mm	8
Flux density, T	1,09

**Thiele-Small parameters**

Fs, Hz	45,5
Vas, l	97
Qts	0,41
Qes	0,43
Qms	9,8
Re, Ohm	6,2
Sd cm²	510
Xmax, mm	5,5
η, %	2,1

**Mounting information**

Overall diameter, mm	310
Baffle cutout diameter, mm	282
Bolt hole diameter, mm	7
Bolt circle diameter, mm	294
Height, mm	132
Net weight, kg	3,5

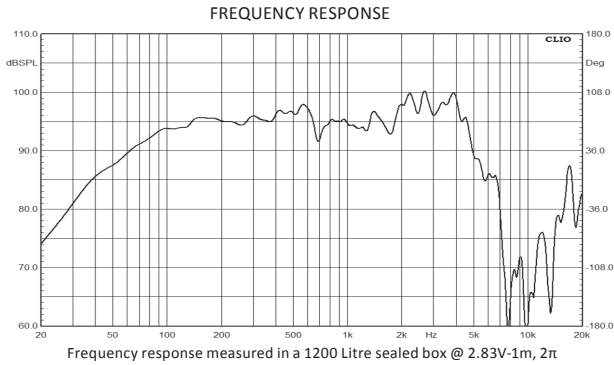
# M1224



**Product description**  
LF transducer for compact two-way and multi-way speakers.

- Main features:**
- aluminum die-cast frame;
  - removable self-centering ferrite magnet system;
  - inside-outside copper clad aluminum voice coil.

- Product specification**
- 12" nominal diameter;
  - 700 W AES program power;
  - 96,5 dB 1W/1m sensitivity;
  - 2.5" CCAW voice coil;
  - 5 kg weight.



**Specifications**

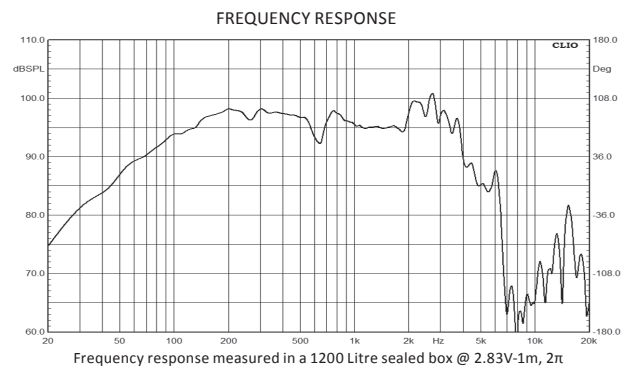
Nominal diameter, inches (mm)	12(300)
Nominal impedance, Ohm	4/8
Rated power (AES), W	350
Frequency range, Hz	50-3500
Sensitivity (1W / 1m), dB	96,5
Minimum impedance, Ohm	6,4@210Hz
Bl product, Tm	15,9
Voice coil inductance, mH (1kHz)	0,85
Moving mass Mms, g	57,7
<b>Voice coil</b>	
Diameter, inches (mm)	2,5(64)
Winding material	CCAW
Former material	glass fiber
Winding depth, mm	16,5
<b>Magnetic system</b>	
Magnetic gap depth, mm	8
Flux density, T	1,28

**Thiele-Small parameters**

Fs, Hz	50,9
Vas, l	69
Qts	0,4
Qes	0,42
Qms	8,9
Re, Ohm	5,7
Sd cm²	539
Xmax, mm	6
η, %	2,1

**Mounting information**

Overall diameter, mm	312
Baffle cutout diameter, mm	284
Bolt hole diameter, mm	7
Bolt circle diameter, mm	294
Height, mm	132
Net weight, kg	5



#### Specifications

Nominal diameter, inches (mm)	12(300)
Nominal impedance, Ohm	4/8
Rated power (AES), W	400
Frequency range, Hz	50-3000
Sensitivity (1W / 1m), dB	97
Minimum impedance, Ohm	6,9@250Hz
Bl product, Tm	20,8
Voice coil inductance, mH (1kHz)	1,0
Moving mass Mms, g	63,7
<b>Voice coil</b>	
Diameter, inches (mm)	3(76)
Winding material	CCAW
Former material	glass fiber
Winding depth, mm	19
<b>Magnetic system</b>	
Magnetic gap depth, mm	10
Flux density, T	1,3

#### Thiele-Small parameters

Fs, Hz	50,5
Vas, l	63,7
Qts	0,27
Qes	0,28
Qms	13,1
Re, Ohm	6,0
Sd cm <sup>2</sup>	539
Xmax, mm	6
$\eta$ , %	2,8

#### Mounting information

Overall diameter, mm	312
Baffle cutout diameter, mm	282
Bolt hole diameter, mm	7
Bolt circle diameter, mm	294
Height, mm	140
Net weight, kg	7

## M1240



#### Product description

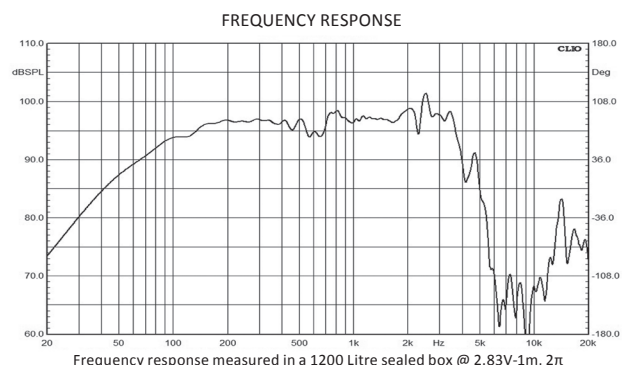
Mid bass transducer for two-way speakers.

#### Main features:

- aluminum die-cast frame;
- removable self-centering ferrite magnet system with ventilated gap;
- inside-outside copper clad aluminum voice coil;
- double silicon spider.

#### Product specification

- 12" nominal diameter;
- 800 W AES program power;
- 97.5 dB 1W/1m sensitivity;
- 3" CCAW voice coil;
- 7 kg weight.



#### Specifications

Nominal diameter, inches (mm)	12
Nominal impedance, Ohm	8/4
Rated power (AES), W	500
Frequency range, Hz	45-3500
Sensitivity (1W / 1m), dB	97.5
Minimum impedance, Ohm	6.8@285Hz
Bl product, Tm	17
Voice coil inductance, mH (1kHz)	0.7
Moving mass Mms, g	48
<b>Voice coil</b>	
Diameter, inches (mm)	3 (76)
Winding material	CCAW
Former material	glass fiber
Winding depth, mm	19.2
<b>Magnetic system</b>	
Magnetic gap depth, mm	8
Flux density, T	1.27

#### Thiele-Small parameters

Fs, Hz	51
Vas, l	75.7
Qts	0.29
Qes	0.31
Qms	5.6
Re, Ohm	5.7
Sd cm <sup>2</sup>	519
Xmax, mm	7.6
$\eta$ , %	3.1

#### Mounting information

Overall diameter, mm	303/338
Baffle cutout diameter, mm	282
Bolt hole diameter, mm	6x8
Bolt circle diameter, mm	315
Height, mm	146
Net weight, kg	5.85

## M1251



#### Product description

High output low distortion mid bass transducer for compact 2-way speakers.

#### Main features:

- aluminum die-cast octagonal frame with small installation dimensions;
- removable self-centering ferrite magnet system;
- inside-outside copper clad aluminum voice coil;
- ventilated voice coil gap;
- double aluminum demodulation ring.

#### Product specification

- 12" nominal diameter;
- 1000 W AES program power;
- 97.5 dB 1W/1m sensitivity;
- 3" CCAW voice coil;
- 5.85 kg weight.





# M1260

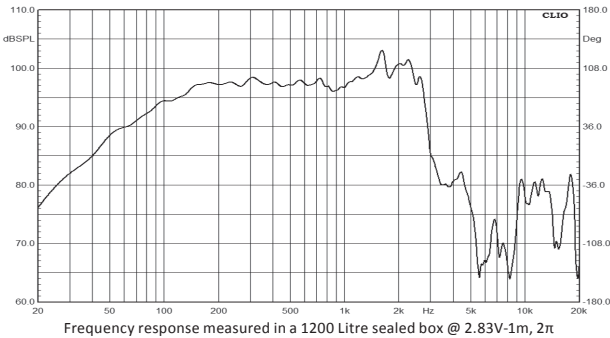


**Product description**  
High output mid bass transducer for horn, two and multi-way speakers.

- Main features:**
- aluminum die-cast frame with improved voice coil ventilation ;
  - removable self-centering ferrite magnet system with ventilated gap;
  - inside-outside copper clad aluminum voice coil;
  - glass fiber reinforced cone;
  - double silicon spider.

- Product specification**
- 12" nominal diameter;
  - 1200 W AES program power;
  - 97,5 dB 1W/1m sensitivity;
  - 4" CCAW voice coil;
  - 8.5 kg weight.

FREQUENCY RESPONSE



**Specifications**

Nominal diameter, inches (mm)	12(300)
Nominal impedance, Ohm	8
Rated power (AES), W	600
Frequency range, Hz	55-3000
Sensitivity (1W / 1m), dB	97,5
Minimum impedance, Ohm	6,6@250Hz
Bl product, Tm	20,1
Voice coil inductance, mH (1kHz)	1,2
Moving mass Mms, g	83
<b>Voice coil</b>	
Diameter, inches (mm)	4(100)
Winding material	CCA W
Former material	glass fiber
Winding depth, mm	19,5
<b>Magnetic system</b>	
Magnetic gap depth, mm	10
Flux density, T	1,22

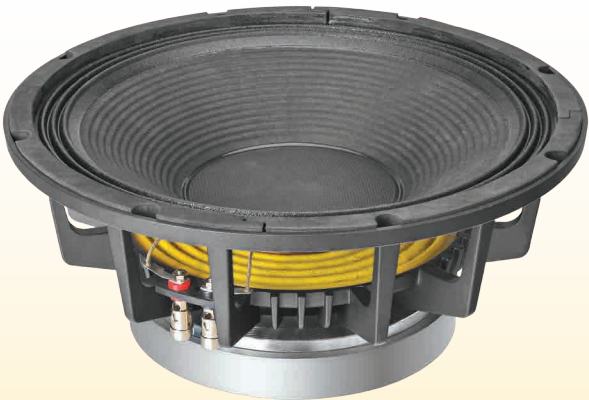
**Thiele-Small parameters**

Fs, Hz	46
Vas, l	62
Qts	0,33
Qes	0,34
Qms	8,2
Re, Ohm	5,7
Sd cm²	560
Xmax, mm	7,25
η, %	1,7

**Mounting information**

Overall diameter, mm	312
Baffle cutout diameter, mm	282
Bolt hole diameter, mm	7
Bolt circle diameter, mm	294
Height, mm	117
Net weight, kg	8,5

# M1261

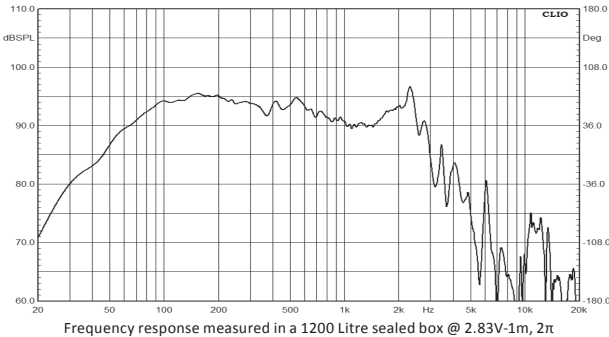


**Product description**  
Low frequency transducer for bass reflex and band pass system.

- Main features:**
- aluminum die-cast frame with improved voice coil ventilation;
  - removable self-centering ferrite magnet system with ventilated gap;
  - inside-outside copper voice coil;
  - double silicon spider.

- Product specification**
- 12" nominal diameter;
  - 1200 W AES program power;
  - 95 dB 1W/1m sensitivity;
  - 4" copper voice coil;
  - 6.7 kg weight.

FREQUENCY RESPONSE



**Specifications**

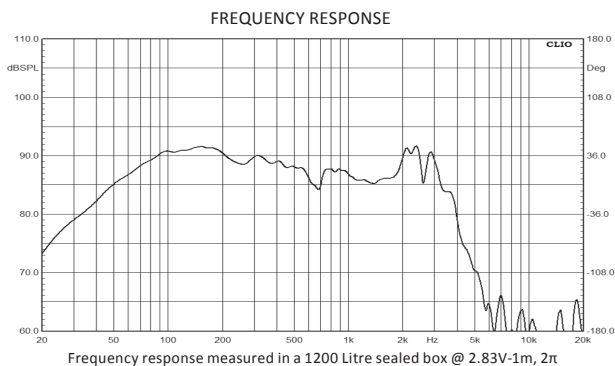
Nominal diameter, inches (mm)	12(300)
Nominal impedance, Ohm	4/8
Rated power (AES), W	600
Frequency range, Hz	40-1500
Sensitivity (1W / 1m), dB	95
Minimum impedance, Ohm	7@180Hz
Bl product, Tm	19,2
Voice coil inductance, mH (1kHz)	1,66
Moving mass Mms, g	102
<b>Voice coil</b>	
Diameter, inches (mm)	4(100)
Winding material	copper
Former material	glass fiber
Winding depth, mm	21
<b>Magnetic system</b>	
Magnetic gap depth, mm	8
Flux density, T	1,05

**Thiele-Small parameters**

Fs, Hz	47
Vas, l	48
Qts	0,43
Qes	0,48
Qms	4,2
Re, Ohm	5,9
Sd cm²	552
Xmax, mm	8,5
η, %	1,0

**Mounting information**

Overall diameter, mm	318
Baffle cutout diameter, mm	286
Bolt hole diameter, mm	7
Bolt circle diameter, mm	302,5
Height, mm	142
Net weight, kg	6,7



#### Specifications

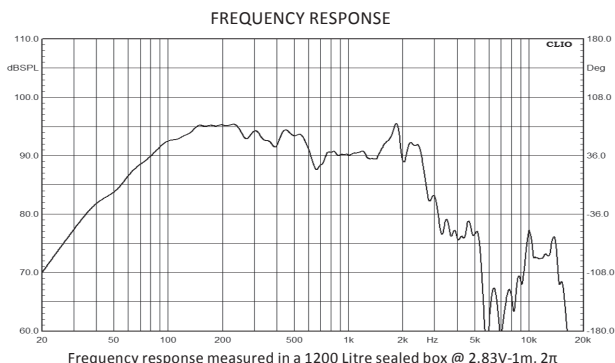
Nominal diameter, inches (mm)	12(300)
Nominal impedance, Ohm	4/8
Rated power (AES), W	500
Frequency range, Hz	35-1000
Sensitivity (1W / 1m), dB	91
Minimum impedance, Ohm	7@160Hz
Bl product, Tm	21,2
Voice coil inductance, mH (1kHz)	2,3
Moving mass Mms, g	125,9
<b>Voice coil</b>	
Diameter, inches (mm)	3(76)
Winding material	copper
Former material	glass fiber
Winding depth, mm	29
<b>Magnetic system</b>	
Magnetic gap depth, mm	12
Flux density, T	1,15

#### Thiele-Small parameters

Fs, Hz	32,6
Vas, l	63
Qts	0,33
Qes	0,35
Qms	4,6
Re, Ohm	6,13
Sd cm <sup>2</sup>	491
Xmax, mm	11,5
$\eta$ , %	0,7

#### Mounting information

Overall diameter, mm	318
Baffle cutout diameter, mm	286
Bolt hole diameter, mm	7
Bolt circle diameter, mm	302,5
Height, mm	164
Net weight, kg	9,6



#### Specifications

Nominal diameter, inches (mm)	12(300)
Nominal impedance, Ohm	4/8
Rated power (AES), W	1000
Frequency range, Hz	45-1500
Sensitivity (1W / 1m), dB	95
Minimum impedance, Ohm	7,7@200Hz
Bl product, Tm	27
Voice coil inductance, mH (1kHz)	2,6
Moving mass Mms, g	113
<b>Voice coil</b>	
Diameter, inches (mm)	4(100)
Winding material	copper
Former material	glass fiber
Winding depth, mm	25
<b>Magnetic system</b>	
Magnetic gap depth, mm	14
Flux density, T	1,05

#### Thiele-Small parameters

Fs, Hz	44,6
Vas, l	49
Qts	0,26
Qes	0,27
Qms	6,4
Re, Ohm	6,2
Sd cm <sup>2</sup>	560
Xmax, mm	9
$\eta$ , %	1,56

#### Mounting information

Overall diameter, mm	312
Baffle cutout diameter, mm	282
Bolt hole diameter, mm	7
Bolt circle diameter, mm	294
Height, mm	130
Net weight, kg	12,4

## M1270R



#### Product description

Extended low frequency transducer for bass reflex and band pass system.

#### Main features:

- aluminum die-cast frame with improved voice coil ventilation;
- removable self-centering ferrite magnet system with ventilated gap;
- inside-outside copper voice coil;
- rubber surround suspension system;
- double silicon spider.

#### Product specification

- 12" nominal diameter;
- 1000 W AES program power;
- 91 dB 1W/1m sensitivity;
- 3" copper voice coil;
- 9.6 kg weight.

## M1201



#### Product description

Low frequency transducer for compact bass reflex and horn loaded system.

#### Main features:

- aluminum die-cast frame with improved voice coil ventilation;
- removable self-centering ferrite magnet system with ventilated gap;
- inside-outside copper voice coil;
- aluminum demodulation ring;
- double silicon spider.

#### Product specification

- 12" nominal diameter;
- 2000 W AES program power;
- 95 dB 1W/1m sensitivity;
- 4" copper voice coil;
- 12.4 kg weight.



# 12N400

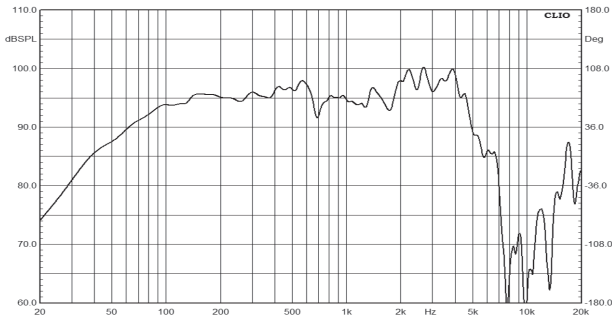


**Product description**  
Mid bass transducer for compact two-way and multi-way speakers.

- Main features:**
- aluminum die-cast frame;
  - removable self-centering neodymium magnet system;
  - inside-outside copper clad aluminum voice coil.

- Product specification**
- 12" nominal diameter;
  - 700 W AES program power;
  - 96 dB 1W/1m sensitivity;
  - 2.5" CCAW voice coil;
  - 2.6 kg weight.

FREQUENCY RESPONSE



Frequency response measured in a 1200 Litre sealed box @ 2.83V-1m, 2π

**Specifications**

Nominal diameter, inches (mm)	12(300)
Nominal impedance, Ohm	8
Rated power (AES), W	350
Frequency range, Hz	50-3500
Sensitivity (1W / 1m), dB	96
Minimum impedance, Ohm	7,2@210Hz
Bl product, Tm	15,9
Voice coil inductance, mH (1kHz)	0,82
Moving mass Mms, g	57,7
<b>Voice coil</b>	
Diameter, inches (mm)	2,5(64)
Winding material	CCAW
Former material	glass fiber
Winding depth, mm	16,5
<b>Magnetic system</b>	
Magnetic gap depth, mm	8
Flux density, T	1,28

**Thiele-Small parameters**

Fs, Hz	50,9
Vas, l	69
Qts	0,4
Qes	0,42
Qms	8,9
Re, Ohm	5,7
Sd cm²	539
Xmax, mm	6
η, %	2,1

**Mounting information**

Overall diameter, mm	312
Baffle cutout diameter, mm	284
Bolt hole diameter, mm	7
Bolt circle diameter, mm	294
Height, mm	133
Net weight, kg	2,6

# 12N501

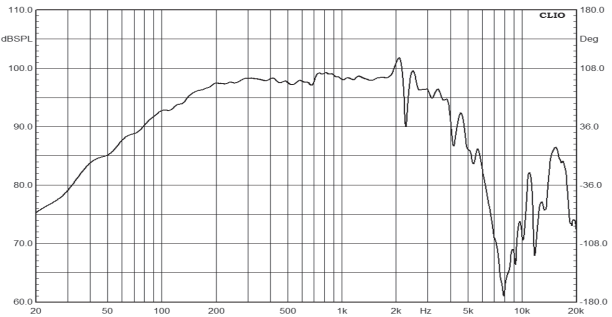


**Product description**  
High output low distortion mid bass transducer for line array modules and compact 2-way speakers.

- Main features:**
- aluminum die-cast octagonal frame with small installation dimensions;
  - removable self-centering neodymium magnet system;
  - inside-outside copper clad aluminum voice coil;
  - ventilated voice coil gap;
  - double aluminum demodulation ring.

- Product specification**
- 12" nominal diameter;
  - 1000 W AES program power;
  - 99 dB 1W/1m sensitivity;
  - 3" CCAW voice coil;
  - 4.1 kg weight.

FREQUENCY RESPONSE



Frequency response measured in a 1200 Litre sealed box @ 2.83V-1m, 2π

**Specifications**

Nominal diameter, inches (mm)	12(300)
Nominal impedance, Ohm	4/8
Rated power (AES), W	500
Frequency range, Hz	45-3500
Sensitivity (1W / 1m), dB	99
Minimum impedance, Ohm	6,6@250Hz
Bl product, Tm	19,3
Voice coil inductance, mH (1kHz)	0,49
Moving mass Mms, g	50,5
<b>Voice coil</b>	
Diameter, inches (mm)	3(76)
Winding material	CCAW
Former material	glass fiber
Winding depth, mm	19,2
<b>Magnetic system</b>	
Magnetic gap depth, mm	8
Flux density, T	1,44

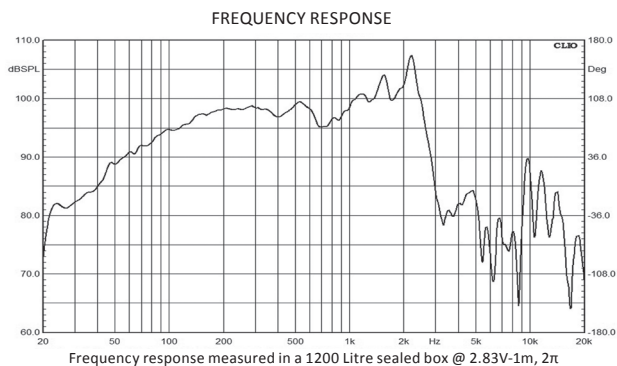
**Thiele-Small parameters**

Fs, Hz	48,5
Vas, l	84
Qts	0,22
Qes	0,23
Qms	5
Re, Ohm	5,7
Sd cm²	527
Xmax, mm	7,6
η, %	4

**Mounting information**

Overall diameter, mm	303/338
Baffle cutout diameter, mm	282
Bolt hole diameter, mm	6x8
Bolt circle diameter, mm	315
Height, mm	145
Net weight, kg	4,1





#### Specifications

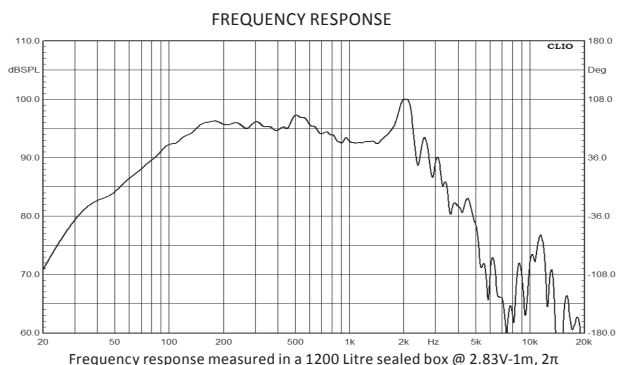
Nominal diameter, inches (mm)	12
Nominal impedance, Ohm	8
Rated power (AES), W	800
Frequency range, Hz	55-2500
Sensitivity (1W / 1m), dB	98
Minimum impedance, Ohm	6,6@290Hz
Bl product, Tm	22,2
Voice coil inductance, mH (1kHz)	0,75
Moving mass Mms, g	84
<b>Voice coil</b>	
Diameter, inches (mm)	4(100)
Winding material	CCAW
Former material	glass fiber
Winding depth, mm	21,5
<b>Magnetic system</b>	
Magnetic gap depth, mm	9
Flux density, T	1,3

#### Thiele-Small parameters

Fs, Hz	40
Vas, l	83
Qts	0,23
Qes	0,24
Qms	6,5
Re, Ohm	5,6
Sd cm <sup>2</sup>	560
Xmax, mm	8,5
η, %	2,2

#### Mounting information

Overall diameter, mm	312
Baffle cutout diameter, mm	282
Bolt hole diameter, mm	7
Bolt circle diameter, mm	294
Height, mm	128
Net weight, kg	5,4



#### Specifications

Nominal diameter, inches (mm)	12(300)
Nominal impedance, Ohm	8/4
Rated power (AES), W	1000
Frequency range, Hz	45-1500
Sensitivity (1W / 1m), dB	96
Minimum impedance, Ohm	7,7@240Hz
Bl product, Tm	27
Voice coil inductance, mH (1kHz)	1,43
Moving mass Mms, g	114
<b>Voice coil</b>	
Diameter, inches (mm)	4(100)
Winding material	copper
Former material	glass fibre
Winding depth, mm	24
<b>Magnetic system</b>	
Magnetic gap depth, mm	12
Flux density, T	1,26

#### Thiele-Small parameters

Fs, Hz	46,5
Vas, l	45
Qts	0,24
Qes	0,25
Qms	4,5
Re, Ohm	5,5
Sd cm <sup>2</sup>	552
Xmax, mm	9
η, %	1,73

#### Mounting information

Overall diameter, mm	318
Baffle cutout diameter, mm	286
Bolt hole diameter, mm	7
Bolt circle diameter, mm	302,5
Height, mm	155
Net weight, kg	6,5

## 12N800



#### Product description

High output mid bass transducer for horn, two and multi-way speakers.

#### Main features:

- aluminum die-cast frame with improved voice coil ventilation ;
- removable self-centering neodymium magnet system with ventilated gap;
- inside-outside copper clad aluminum voice coil;
- double aluminum demodulation ring;
- glass fiber reinforced cone.

#### Product specification

- 12" nominal diameter;
- 1600 W AES program power;
- 98 dB 1W/1m sensitivity;
- 4" CCAW voice coil;
- 5.4 kg weight.

## 12N1000



#### Product description

High output low frequency transducer for compact bass reflex and horn loaded system.

#### Main features:

- aluminum die-cast frame with improved voice coil ventilation;
- removable self-centering neodymium magnet system with ventilated gap;
- inside-outside copper voice coil;
- aluminum demodulation ring;
- glass fiber reinforced weather protected cone;
- double silicon spider.

#### Product specification

- 12" nominal diameter;
- 2000 W AES program power;
- 96 dB 1W/1m sensitivity;
- 4" copper voice coil;
- 6.5 kg weight.

# M1516



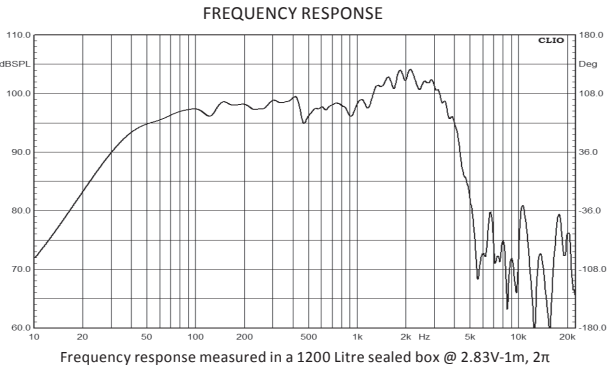
**Product description**  
Mid bass transducer for compact two way speakers.

**Main features:**

- aluminum cast frame;
- removable self-centering ferrite magnet system;
- inside-outside copper voice coil.

**Product specification**

- 15" nominal diameter;
- 400 W AES program power;
- 98,5 dB 1W/1m sensitivity;
- 2" copper voice coil;
- 4,6 kg weight.



Specifications		Thiele-Small parameters	
Nominal diameter, inches (mm)	15(380)	Fs, Hz	41
Nominal impedance, Ohm	8	Vas, l	184
Rated power (AES), W	200	Qts	0,36
Frequency range, Hz	50-3500	Qes	0,38
Sensitivity (1W / 1m), dB	98,5	Qms	5,2
Minimum impedance, Ohm	7,2@220Hz	Re, Ohm	6,1
Bl product, Tm	17,7	Sd cm²	814
Voice coil inductance, mH (1kHz)	0,92	Xmax, mm	5,5
Moving mass Mms, g	76	η, %	3,2
Voice coil		Mounting information	
Diameter, inches (mm)	2(51)	Overall diameter, mm	389
Winding material	copper	Baffle cutout diameter, mm	356
Former material	glass fiber	Bolt hole diameter, mm	7
Winding depth, mm	15	Bolt circle diameter, mm	370,5
Magnetic system		Height, mm	160
Magnetic gap depth, mm	8	Net weight, kg	4,6
Flux density, T	1,21		

# M1524



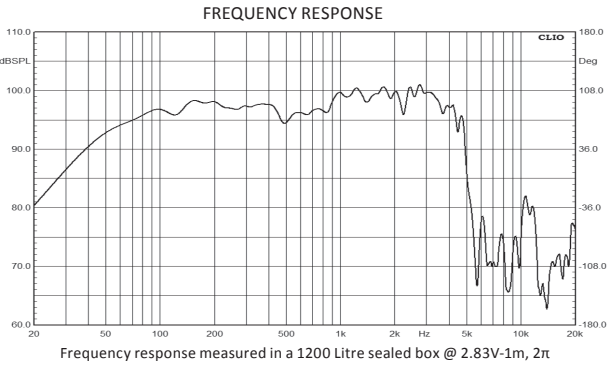
**Product description**  
Mid bass transducer for compact 2-way speakers.

**Main features:**

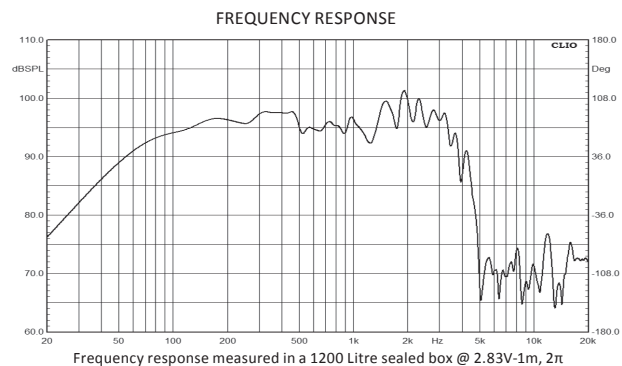
- aluminum die-cast frame;
- removable self-centering ferrite magnet system;
- inside-outside copper clad aluminum voice coil.

**Product specification**

- 15" nominal diameter;
- 700 W AES program power;
- 98 dB 1W/1m sensitivity;
- 2.5" CCAW voice coil;
- 5.5 kg weight.



Specifications		Thiele-Small parameters	
Nominal diameter, inches (mm)	15(380)	Fs, Hz	39,1
Nominal impedance, Ohm	4/8	Vas, l	206
Rated power (AES), W	350	Qts	0,37
Frequency range, Hz	50-3000	Qes	0,39
Sensitivity (1W / 1m), dB	98	Qms	7,24
Minimum impedance, Ohm	6,6@190Hz	Re, Ohm	5,7
Bl product, Tm	17,3	Sd cm²	860
Voice coil inductance, mH (1kHz)	0,88	Xmax, mm	6
Moving mass Mms, g	84	η, %	3
Voice coil		Mounting information	
Diameter, inches (mm)	2,5(64)	Overall diameter, mm	389
Winding material	CCAW	Baffle cutout diameter, mm	356
Former material	glass fiber	Bolt hole diameter, mm	7
Winding depth, mm	16,5	Bolt circle diameter, mm	370,5
Magnetic system		Height, mm	163
Magnetic gap depth, mm	8	Net weight, kg	5,5
Flux density, T	1,1		



#### Specifications

Nominal diameter, inches (mm)	15(380)
Nominal impedance, Ohm	4/8
Rated power (AES), W	400
Frequency range, Hz	40-2500
Sensitivity (1W / 1m), dB	97,5
Minimum impedance, Ohm	7,1@195Hz
Bl product, Tm	23,2
Voice coil inductance, mH (1kHz)	1,34
Moving mass Mms, g	119
<b>Voice coil</b>	
Diameter, inches (mm)	3(76)
Winding material	copper
Former material	glass fiber
Winding depth, mm	17
<b>Magnetic system</b>	
Magnetic gap depth, mm	10
Flux density, T	1,25

#### Thiele-Small parameters

Fs, Hz	45,5
Vas, l	114
Qts	0,36
Qes	0,37
Qms	7,46
Re, Ohm	6
Sd cm <sup>2</sup>	892
Xmax, mm	6
η, %	2,7

#### Mounting information

Overall diameter, mm	389
Baffle cutout diameter, mm	358
Bolt hole diameter, mm	7
Bolt circle diameter, mm	370,5
Height, mm	168
Net weight, kg	7,5

## M1540



#### Product description

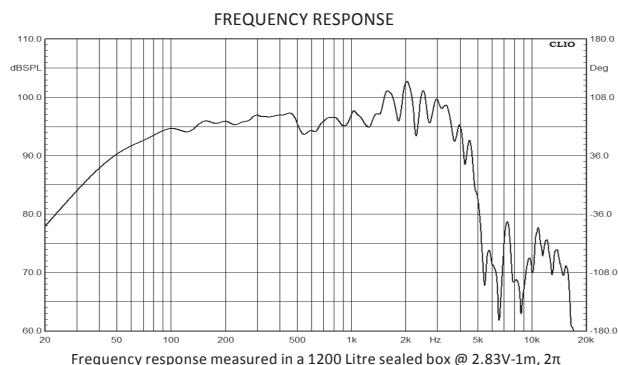
Low frequency transducer for 2-way and bass reflex system.

#### Main features:

- aluminum die-cast frame;
- removable self-centering ferrite magnet system with ventilated gap;
- inside-outside copper voice coil;
- double silicon spider.

#### Product specification

- 15" nominal diameter;
- 800 W AES program power;
- 97.5 dB 1W/1m sensitivity;
- 3" copper voice coil;
- 7.5 kg weight.



#### Specifications

Nominal diameter, inches (mm)	15(380)
Nominal impedance, Ohm	8
Rated power (AES), W	500
Frequency range, Hz	40-2500
Sensitivity (1W / 1m), dB	97
Minimum impedance, Ohm	7,6@180Hz
Bl product, Tm	22,2
Voice coil inductance, mH (1kHz)	0,77
Moving mass Mms, g	124
<b>Voice coil</b>	
Diameter, inches (mm)	3(76)
Winding material	copper
Former material	glass fiber
Winding depth, mm	21
<b>Magnetic system</b>	
Magnetic gap depth, mm	10
Flux density, T	1,22

#### Thiele-Small parameters

Fs, Hz	39,8
Vas, l	137
Qts	0,35
Qes	0,38
Qms	6,1
Re, Ohm	6
Sd cm <sup>2</sup>	871
Xmax, mm	8
η, %	2,2

#### Mounting information

Overall diameter, mm	389
Baffle cutout diameter, mm	356
Bolt hole diameter, mm	7
Bolt circle diameter, mm	370,5
Height, mm	167
Net weight, kg	7,6

## M1541



#### Product description

Low frequency low distortion transducer for bass reflex and band pass system.

#### Main features:

- aluminum die-cast frame;
- removable self-centering ferrite magnet system with ventilated gap;
- inside-outside copper voice coil;
- double demodulation ring;
- double silicon spider.

#### Product specification

- 15" nominal diameter;
- 1000 W AES program power;
- 97.5 dB 1W/1m sensitivity;
- 3" copper voice coil;
- 7.6 kg weight.



# M1551



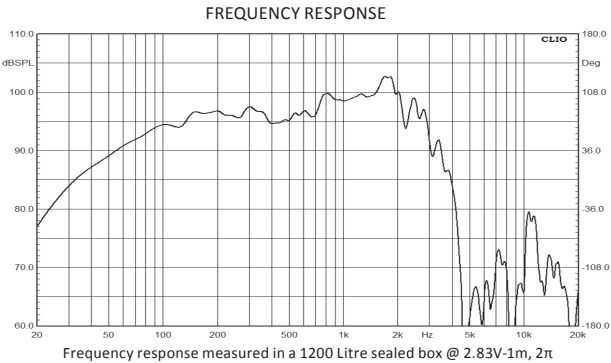
**Product description**  
High output low distortion mid bass transducer for 2-way speakers.

**Main features:**

- aluminum die-cast octagonal frame with small installation dimensions;
- removable self-centering ferrite magnet system;
- inside-outside copper clad aluminum voice coil;
- ventilated voice coil gap;
- aluminum demodulation ring.

**Product specification**

- 15" nominal diameter;
- 1000 W AES program power;
- 98 dB 1W/1m sensitivity;
- 3" CCAW voice coil;
- 6,6 kg weight.



Specifications		Thiele-Small parameters	
Nominal diameter, inches (mm)	15(380)	Fs, Hz	44
Nominal impedance, Ohm	8/4	Vas, l	146
Rated power (AES), W	500	Qts	0,43
Frequency range, Hz	50-2500	Qes	0,455
Sensitivity (1W / 1m), dB	98	Qms	7,5
Minimum impedance, Ohm	7,2@220Hz	Re, Ohm	5,8
Bl product, Tm	18,3	Sd cm <sup>2</sup>	876
Voice coil inductance, mH (1kHz)	1	Xmax, mm	7
Moving mass Mms, g	95	η, %	2,6
Voice coil		Mounting information	
Diameter, inches (mm)	3(76)	Overall diameter, mm	422/390
Winding material	CCA W	Baffle cutout diameter, mm	354
Former material	glass fiber	Bolt hole diameter, mm	6/8
Winding depth, mm	19,2	Bolt circle diameter, mm	398
Magnetic system		Height, mm	164
Magnetic gap depth, mm	10	Net weight, kg	6,6
Flux density, T	1,1		

# M1585



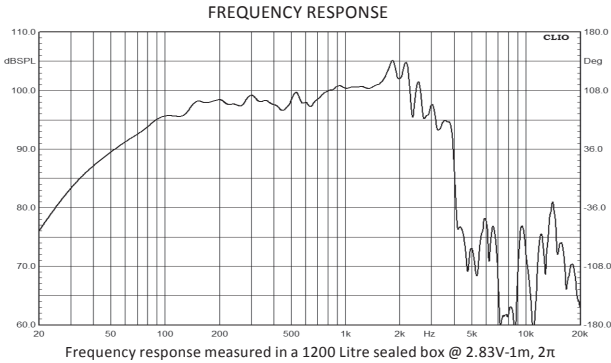
**Product description**  
High output low distortion mid bass transducer for compact 2-way speakers.

**Main features:**

- aluminum die-cast frame;
- removable self-centering ferrite magnet system;
- inside-outside copper clad aluminum voice coil;
- ventilated voice coil gap;
- double aluminum demodulation ring.

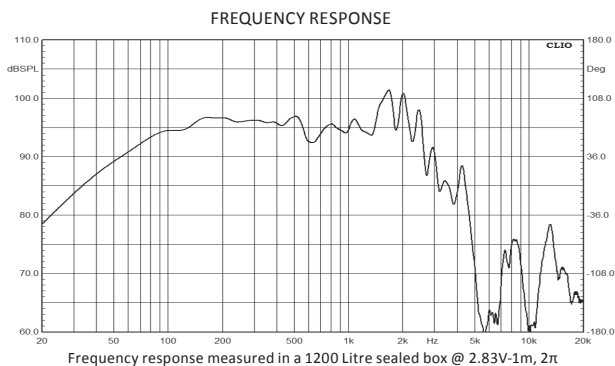
**Product specification**

- 15" nominal diameter;
- 1600 W AES program power;
- 98.5 dB 1W/1m sensitivity;
- 4" CCAW voice coil;
- 9.6 kg weight.



Specifications		Thiele-Small parameters	
Nominal diameter, inches (mm)	15(380)	Fs, Hz	37,5
Nominal impedance, Ohm	8/4	Vas, l	162
Rated power (AES), W	800	Qts	0,28
Frequency range, Hz	45-2500	Qes	0,29
Sensitivity (1W / 1m), dB	98,5	Qms	8,1
Minimum impedance, Ohm	6,7@170Hz	Re, Ohm	5,4
Bl product, Tm	23,5	Sd cm <sup>2</sup>	900
Voice coil inductance, mH (1kHz)	1,2	Xmax, mm	8,75
Moving mass Mms, g	125	η, %	2,9
Voice coil		Mounting information	
Diameter, inches (mm)	4(100)	Overall diameter, mm	389
Winding material	CCA W	Baffle cutout diameter, mm	358
Former material	glass fiber	Bolt hole diameter, mm	7
Winding depth, mm	22	Bolt circle diameter, mm	370,5
Magnetic system		Height, mm	170
Magnetic gap depth, mm	9	Net weight, kg	9,6
Flux density, T	1,25		





#### Specifications

Nominal diameter, inches (mm)	15(380)
Nominal impedance, Ohm	8/4
Rated power (AES), W	700
Frequency range, Hz	40-1500
Sensitivity (1W / 1m), dB	97
Minimum impedance, Ohm	6,6@190Hz
Bl product, Tm	24,7
Voice coil inductance, mH (1kHz)	1,52
Moving mass Mms, g	143
<b>Voice coil</b>	
Diameter, inches (mm)	4(99)
Winding material	copper
Former material	glass fiber
Winding depth, mm	21
<b>Magnetic system</b>	
Magnetic gap depth, mm	9
Flux density, T	1,2

#### Thiele-Small parameters

Fs, Hz	41,8
Vas, l	107
Qts	0,35
Qes	0,37
Qms	8,9
Re, Ohm	5,9
Sd cm <sup>2</sup>	866
Xmax, mm	8,25
η, %	2,1

#### Mounting information

Overall diameter, mm	389
Baffle cutout diameter, mm	358
Bolt hole diameter, mm	7
Bolt circle diameter, mm	370,5
Height, mm	170
Net weight, kg	9,9

M1570



#### Product description

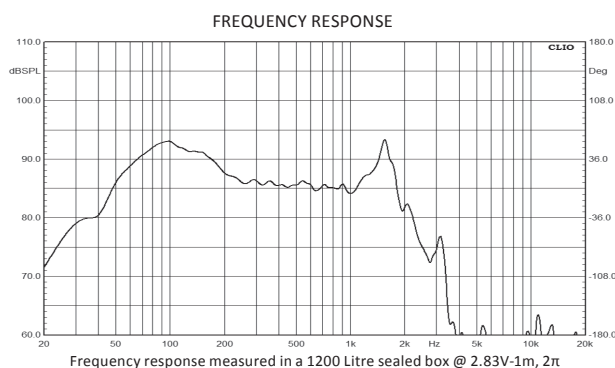
Low frequency transducer for bass reflex system and band pass system.

#### Main features:

- aluminum die-cast frame;
- removable self-centering ferrite magnet system with ventilated gap;
- inside-outside copper voice coil;
- double silicon spider.

#### Product specification

- 15" nominal diameter;
- 1400 W AES program power;
- 97 dB 1W/1m sensitivity;
- 4" copper voice coil;
- 9.9 kg weight.



#### Specifications

Nominal diameter, inches (mm)	15(380)
Nominal impedance, Ohm	8
Rated power (AES), W	1000
Frequency range, Hz	30-500
Sensitivity (1W / 1m), dB	92
Minimum impedance, Ohm	8@110Hz
Bl product, Tm	32,5
Voice coil inductance, mH (1kHz)	6,5
Moving mass Mms, g	296
<b>Voice coil</b>	
Diameter, inches (mm)	3(76)
Winding material	copper
Former material	glass fibre
Winding depth, mm	29
<b>Magnetic system</b>	
Magnetic gap depth, mm	12
Flux density, T	0,9

#### Thiele-Small parameters

Fs, Hz	46
Vas, l	34,5
Qts	0,47
Qes	0,5
Qms	7,3
Re, Ohm	6,3
Sd cm <sup>2</sup>	780
Xmax, mm	11,5
η, %	0,65

#### Mounting information

Overall diameter, mm	395
Baffle cutout diameter, mm	358
Bolt hole diameter, mm	7
Bolt circle diameter, mm	370,5
Height, mm	196
Net weight, kg	11,4

M1502R



#### Product description

Extended low frequency transducer for bass reflex and band pass system.

#### Main features:

- aluminum die-cast frame;
- removable self-centering ferrite magnet system with ventilated gap;
- inside-outside copper voice coil;
- rubber surround suspension system.

#### Product specification

- 15" nominal diameter;
- 2000 W AES program power;
- 92 dB 1W/1m sensitivity;
- 3" copper voice coil;
- 11.4 kg weight.



# M1503



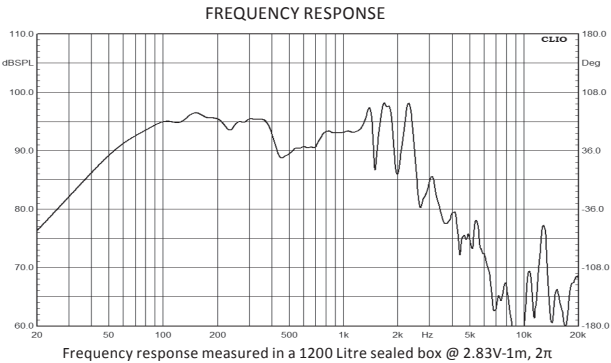
**Product description**  
Extended low frequency transducer for bass reflex and band pass system.

**Main features:**

- aluminum die-cast frame with improved voice coil ventilation ;
- removable self-centering ferrite magnet system with ventilated gap;
- inside-outside copper voice coil;
- double silicon spider.

**Product specification**

- 15" nominal diameter;
- 2000 W AES program power;
- 96 dB 1W/1m sensitivity;
- 4" copper voice coil;
- 12 kg weight.



Specifications		Thiele-Small parameters	
Nominal diameter, inches (mm)	15(380)	Fs, Hz	38,2
Nominal impedance, Ohm	4/8	Vas, l	91
Rated power (AES), W	1000	Qts	0,29
Frequency range, Hz	35-500	Qes	0,31
Sensitivity (1W / 1m), dB	96	Qms	5,6
Minimum impedance, Ohm	6,9@135Hz	Re, Ohm	5,64
Bl product, Tm	25,8	Sd cm <sup>2</sup>	755
Voice coil inductance, mH (1kHz)	2,4	Xmax, mm	9,5
Moving mass Mms, g	151	η, %	1,58
Voice coil		Mounting information	
Diameter, inches (mm)	4(99)	Overall diameter, mm	398
Winding material	copper	Baffle cutout diameter, mm	342
Former material	glass fiber	Bolt hole diameter, mm	7
Winding depth, mm	25	Bolt circle diameter, mm	371
Magnetic system		Height, mm	176
Magnetic gap depth, mm	12	Net weight, kg	12
Flux density, T	1,08		

# M1505



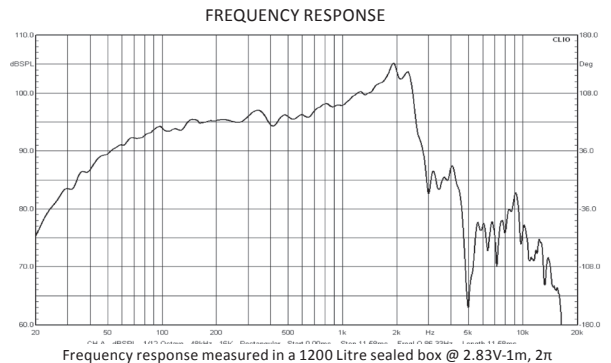
**Product description**  
High power low distortion extended low frequency transducer for bass reflex and band pass system.

**Main features:**

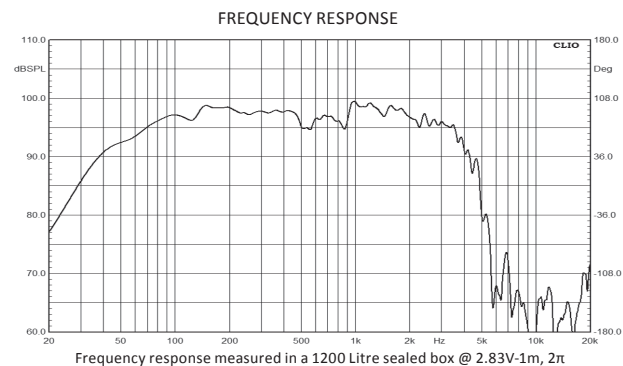
- aluminum die-cast octagonal frame with small installation dimensions;
- removable self-centering ferrite magnet system;
- inside-outside copper voice coil;
- ventilated voice coil gap;
- double aluminum demodulation ring;
- glass fiber reinforced cone.

**Product specification**

- 15" nominal diameter;
- 2400 W AES program power;
- 96 dB 1W/1m sensitivity;
- 4" copper voice coil;
- 11,5 kg weight.



Specifications		Thiele-Small parameters	
Nominal diameter, inches (mm)	15(380)	Fs, Hz	37,5
Nominal impedance, Ohm	8/4	Vas, l	130
Rated power (AES), W	1200	Qts	0,35
Frequency range, Hz	40-1500	Qes	0,36
Sensitivity (1W / 1m), dB	96	Qms	10,5
Minimum impedance, Ohm	7,2@160Hz	Re, Ohm	5,8
Bl product, Tm	24,9	Sd cm <sup>2</sup>	905
Voice coil inductance, mH (1kHz)	1,2	Xmax, mm	12
Moving mass Mms, g	164	η, %	1,8
Voice coil		Mounting information	
Diameter, inches (mm)	4(100)	Overall diameter, mm	405/380
Winding material	copper	Baffle cutout diameter, mm	356
Former material	glass fiber	Bolt hole diameter, mm	6,5/10
Winding depth, mm	30	Bolt circle diameter, mm	388
Magnetic system		Height, mm	188
Magnetic gap depth, mm	12	Net weight, kg	11,5
Flux density, T	1,05		



#### Specifications

Nominal diameter, inches (mm)	15(380)
Nominal impedance, Ohm	4/8
Rated power (AES), W	350
Frequency range, Hz	50-3000
Sensitivity (1W / 1m), dB	98
Minimum impedance, Ohm	6,6@190Hz
Bl product, Tm	17,3
Voice coil inductance, mH (1kHz)	0,84
Moving mass Mms, g	84
<b>Voice coil</b>	
Diameter, inches (mm)	2,5(64)
Winding material	CCAW
Former material	glass fiber
Winding depth, mm	16,5
<b>Magnetic system</b>	
Magnetic gap depth, mm	8
Flux density, T	1,1

#### Thiele-Small parameters

Fs, Hz	39,4
Vas, l	207
Qts	0,37
Qes	0,39
Qms	7,2
Re, Ohm	5,7
Sd cm <sup>2</sup>	860
Xmax, mm	6
η, %	3

#### Mounting information

Overall diameter, mm	389
Baffle cutout diameter, mm	356
Bolt hole diameter, mm	7
Bolt circle diameter, mm	370,5
Height, mm	164
Net weight, kg	3,2

15N400



#### Product description

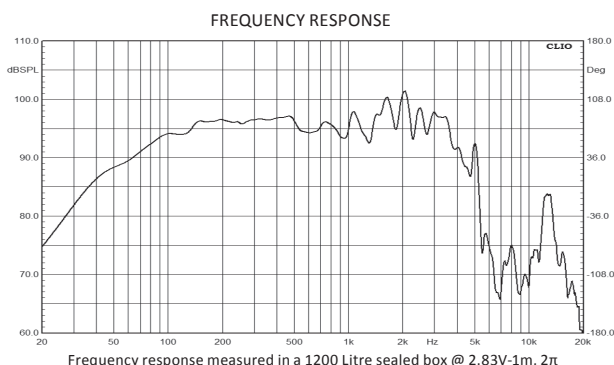
Mid bass transducer for compact 2-way speakers.

#### Main features:

- aluminum die-cast frame;
- removable self-centering neodymium magnet system;
- inside-outside copper clad aluminum voice coil.

#### Product specification

- 15" nominal diameter;
- 700 W AES program power;
- 98 dB 1W/1m sensitivity;
- 2.5" CCAW voice coil;
- 3.2 kg weight.



#### Specifications

Nominal diameter, inches (mm)	15(380)
Nominal impedance, Ohm	4
Rated power (AES), W	500
Frequency range, Hz	40-2000
Sensitivity (1W / 1m), dB	97
Minimum impedance, Ohm	3,1@170Hz
Bl product, Tm	17,9
Voice coil inductance, mH (1kHz)	0,53
Moving mass Mms, g	114
<b>Voice coil</b>	
Diameter, inches (mm)	3(76)
Winding material	CCAW
Former material	glass fiber
Winding depth, mm	20,5
<b>Magnetic system</b>	
Magnetic gap depth, mm	8
Flux density, T	1,4

#### Thiele-Small parameters

Fs, Hz	39,2
Vas, l	152
Qts	0,28
Qes	0,29
Qms	7,1
Re, Ohm	3,3
Sd cm <sup>2</sup>	871
Xmax, mm	8,25
η, %	3

#### Mounting information

Overall diameter, mm	389
Baffle cutout diameter, mm	356
Bolt hole diameter, mm	7
Bolt circle diameter, mm	370,5
Height, mm	168
Net weight, kg	4,5

15N500



#### Product description

Low distortion low frequency transducer for bass reflex and band pass system.

#### Main features:

- aluminum die-cast frame;
- removable self-centering neodymium magnet system;
- inside-outside copper clad aluminum voice coil;
- ventilated voice coil gap;
- aluminum demodulation ring;
- double silicon spider.

#### Product specification

- 15" nominal diameter;
- 1000 W AES program power;
- 97 dB 1W/1m sensitivity;
- 3" CCAW voice coil;
- 4.5 kg weight.





# 15N501



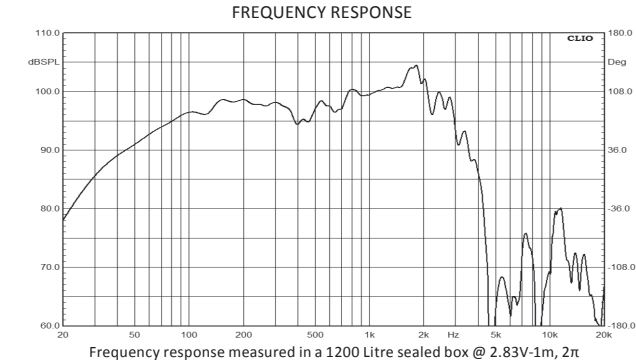
**Product description**  
High output low distortion mid bass transducer for compact 2-way speakers.

**Main features:**

- aluminum die-cast octagonal frame with small installation dimensions;
- removable self-centering neodymium magnet system;
- inside-outside copper clad aluminum voice coil;
- ventilated voice coil gap;
- double aluminum demodulation ring.

**Product specification**

- 15" nominal diameter;
- 1000 W AES program power;
- 98,5 dB 1W/1m sensitivity;
- 3" CCAW voice coil;
- 4.5 kg weight.



Specifications		Thiele-Small parameters	
Nominal diameter, inches (mm)	15(380)	Fs, Hz	44,5
Nominal impedance, Ohm	8/4	Vas, l	144
Rated power (AES), W	500	Qts	0,39
Frequency range, Hz	50-3000	Qes	0,41
Sensitivity (1W / 1m), dB	98,5	Qms	7,6
Minimum impedance, Ohm	6,6@200Hz	Re, Ohm	5,8
Bl product, Tm	19,6	Sd cm²	876
Voice coil inductance, mH (1kHz)	0,6	Xmax, mm	7,5
Moving mass Mms, g	96	η, %	3
<b>Voice coil</b>		<b>Mounting information</b>	
Diameter, inches (mm)	3(76)	Overall diameter, mm	422/390
Winding material	CCAW	Baffle cutout diameter, mm	354
Former material	glass fiber	Bolt hole diameter, mm	6/8
Winding depth, mm	19,2	Bolt circle diameter, mm	398
<b>Magnetic system</b>		Height, mm	164
Magnetic gap depth, mm	8	Net weight, kg	4,5
Flux density, T	1,4		

# 15N800



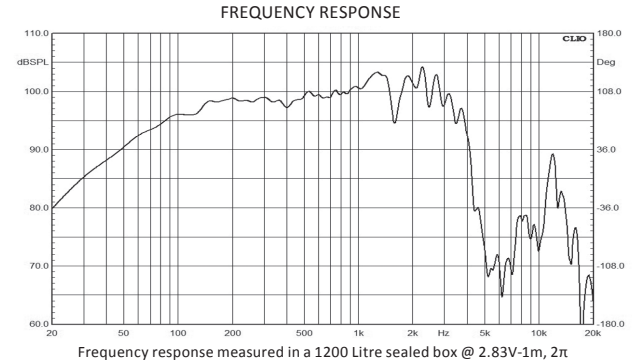
**Product description**  
High output low distortion mid bass transducer for 2-way speakers.

**Main features:**

- aluminum die-cast frame with improved voice coil ventilation ;
- removable self-centering neodymium magnet system;
- inside-outside copper clad aluminum voice coil;
- ventilated voice coil gap;
- double aluminum demodulation ring.

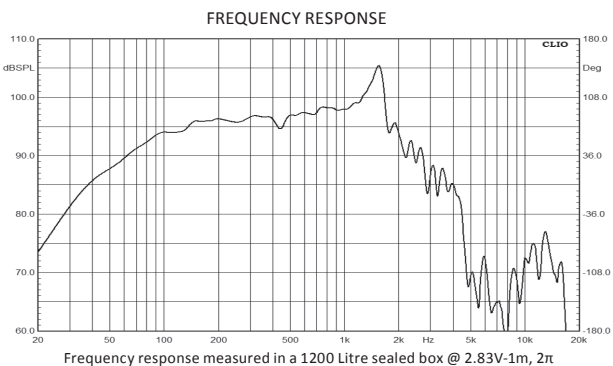
**Product specification**

- 15" nominal diameter;
- 1600 W AES program power;
- 99 dB 1W/1m sensitivity;
- 4" CCAW voice coil;
- 5.5 kg weight.



Specifications		Thiele-Small parameters	
Nominal diameter, inches (mm)	15(380)	Fs, Hz	38,6
Nominal impedance, Ohm	8/4	Vas, l	160
Rated power (AES), W	800	Qts	0,27
Frequency range, Hz	45-2500	Qes	0,28
Sensitivity (1W / 1m), dB	99	Qms	7,9
Minimum impedance, Ohm	6,7@250Hz	Re, Ohm	5,4
Bl product, Tm	24	Sd cm²	900
Voice coil inductance, mH (1kHz)	0,66	Xmax, mm	8,75
Moving mass Mms, g	120	η, %	3,2
<b>Voice coil</b>		<b>Mounting information</b>	
Diameter, inches (mm)	4(100)	Overall diameter, mm	389
Winding material	CCAW	Baffle cutout diameter, mm	356
Former material	glass fiber	Bolt hole diameter, mm	7
Winding depth, mm	22	Bolt circle diameter, mm	370,5
<b>Magnetic system</b>		Height, mm	172
Magnetic gap depth, mm	9	Net weight, kg	5,5
Flux density, T	1,28		





#### Specifications

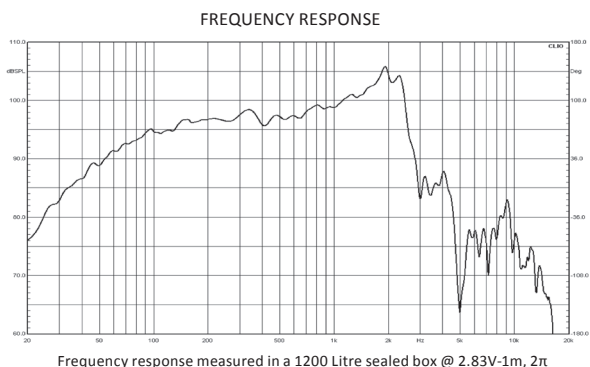
Nominal diameter, inches (mm)	15(380)
Nominal impedance, Ohm	8
Rated power (AES), W	1000
Frequency range, Hz	40-1500
Sensitivity (1W / 1m), dB	97
Minimum impedance, Ohm	7@160Hz
Bl product, Tm	26,4
Voice coil inductance, mH (1kHz)	1,1
Moving mass Mms, g	146
<b>Voice coil</b>	
Diameter, inches (mm)	4(100)
Winding material	copper
Former material	glass fiber
Winding depth, mm	25
<b>Magnetic system</b>	
Magnetic gap depth, mm	10
Flux density, T	1,2

#### Thiele-Small parameters

Fs, Hz	44,6
Vas, l	99,7
Qts	0,32
Qes	0,34
Qms	5,3
Re, Ohm	5,7
Sd cm <sup>2</sup>	900
Xmax, mm	10
η, %	2,5

#### Mounting information

Overall diameter, mm	389
Baffle cutout diameter, mm	356
Bolt hole diameter, mm	7
Bolt circle diameter, mm	370,5
Height, mm	173
Net weight, kg	6,5



#### Specifications

Nominal diameter, inches (mm)	15(380)
Nominal impedance, Ohm	8/4
Rated power (AES), W	1200
Frequency range, Hz	40-1500
Sensitivity (1W / 1m), dB	97
Minimum impedance, Ohm	7,1@150Hz
Bl product, Tm	26,5
Voice coil inductance, mH (1kHz)	1,1
Moving mass Mms, g	164
<b>Voice coil</b>	
Diameter, inches (mm)	4(100)
Winding material	copper
Former material	glass fiber
Winding depth, mm	30
<b>Magnetic system</b>	
Magnetic gap depth, mm	10
Flux density, T	1,4

#### Thiele-Small parameters

Fs, Hz	37,8
Vas, l	126
Qts	0,31
Qes	0,32
Qms	10,5
Re, Ohm	5,8
Sd cm <sup>2</sup>	905
Xmax, mm	12,5
η, %	2,1

#### Mounting information

Overall diameter, mm	405/380
Baffle cutout diameter, mm	356
Bolt hole diameter, mm	6,5/10
Bolt circle diameter, mm	388
Height, mm	188
Net weight, kg	7,5

## 15N1000



#### Product description

High output low distortion low frequency transducer for bass reflex and band pass system.

#### Main features:

- aluminum die-cast frame with improved voice coil ventilation ;
- removable self-centering neodymium magnet system;
- inside-outside copper voice coil;
- ventilated voice coil gap;
- double aluminum demodulation ring;
- double silicon spider.

#### Product specification

- 15" nominal diameter;
- 2000 W AES program power;
- 97 dB 1W/1m sensitivity;
- 4" copper voice coil;
- 6.5 kg weight.

## 15N1200



#### Product description

High output low distortion low frequency transducer for bass reflex and band pass system.

#### Main features:

- aluminum die-cast octagonal frame with small installation dimensions;
- removable self-centering neodymium magnet system;
- inside-outside copper voice coil;
- ventilated voice coil gap;
- double aluminum demodulation ring;
- glass fiber reinforced cone;
- double silicon spider.

#### Product specification

- 15" nominal diameter;
- 2400 W AES program power;
- 97 dB 1W/1m sensitivity;
- 4" copper voice coil;
- 7,5 kg weight.



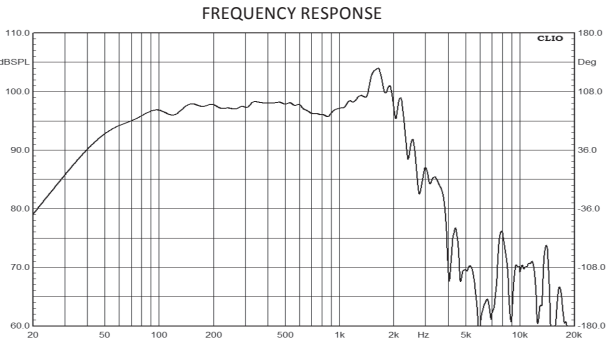
# M1840



**Product description**  
Low frequency transducer for bass reflex and band pass system.

- Main features:**
- aluminum die-cast frame;
  - removable self-centering ferrite magnet system;
  - inside-outside copper voice coil;
  - ventilated voice coil gap;
  - double silicon spider.

- Product specification**
- 18" nominal diameter;
  - 900 W AES program power;
  - 98 dB 1W/1m sensitivity;
  - 3" copper voice coil;
  - 9.3 kg weight.



Frequency response measured in a 1200 Litre sealed box @ 2.83V-1m, 2π

Specifications		Thiele-Small parameters	
Nominal diameter, inches (mm)	18(460)	Fs, Hz	32,8
Nominal impedance, Ohm	4/8	Vas, l	223
Rated power (AES), W	450	Qts	0,38
Frequency range, Hz	40-2000	Qes	0,39
Sensitivity (1W / 1m), dB	97	Qms	13,2
Minimum impedance, Ohm	6,9@150Hz	Re, Ohm	5,7
Bl product, Tm	24,3	Sd cm <sup>2</sup>	1164
Voice coil inductance, mH (1kHz)	2,2	Xmax, mm	6,5
Moving mass Mms, g	198	η, %	2
Voice coil		Mounting information	
Diameter, inches (mm)	3(76)	Overall diameter, mm	456
Winding material	copper	Baffle cutout diameter, mm	420
Former material	glass fibre	Bolt hole diameter, mm	7
Winding depth, mm	18	Bolt circle diameter, mm	440
Magnetic system		Height, mm	205
Magnetic gap depth, mm	10	Net weight, kg	9,3
Flux density, T	1,18		

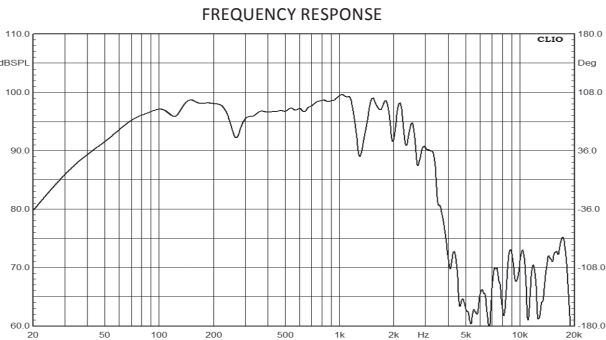
# M1861



**Product description**  
Extended low frequency transducer for bass reflex and band pass system.

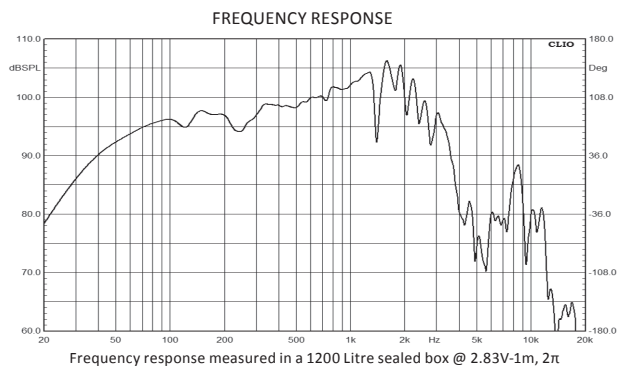
- Main features:**
- aluminum die-cast frame;
  - removable self-centering ferrite magnet system;
  - inside-outside copper voice coil;
  - ventilated voice coil gap;
  - glass fiber reinforced cone;
  - double silicon spider.

- Product specification**
- 18" nominal diameter;
  - 1400 W AES program power;
  - 98 dB 1W/1m sensitivity;
  - 4" copper voice coil;
  - 10.6 kg weight.



Frequency response measured in a 1200 Litre sealed box @ 2.83V-1m, 2π

Specifications		Thiele-Small parameters	
Nominal diameter, inches (mm)	18(460)	Fs, Hz	36,3
Nominal impedance, Ohm	4/8	Vas, l	215
Rated power (AES), W	700	Qts	0,34
Frequency range, Hz	35-1500	Qes	0,35
Sensitivity (1W / 1m), dB	98	Qms	8,63
Minimum impedance, Ohm	7,3@160Hz	Re, Ohm	6,17
Bl product, Tm	27,7	Sd cm <sup>2</sup>	1244
Voice coil inductance, mH (1kHz)	1,59	Xmax, mm	8,25
Moving mass Mms, g	192	η, %	2,8
Voice coil		Mounting information	
Diameter, inches (mm)	4(100)	Overall diameter, mm	458
Winding material	copper	Baffle cutout diameter, mm	425
Former material	glass fiber	Bolt hole diameter, mm	6,5
Winding depth, mm	21	Bolt circle diameter, mm	438
Magnetic system		Height, mm	194
Magnetic gap depth, mm	9	Net weight, kg	10,6
Flux density, T	1,23		



#### Specifications

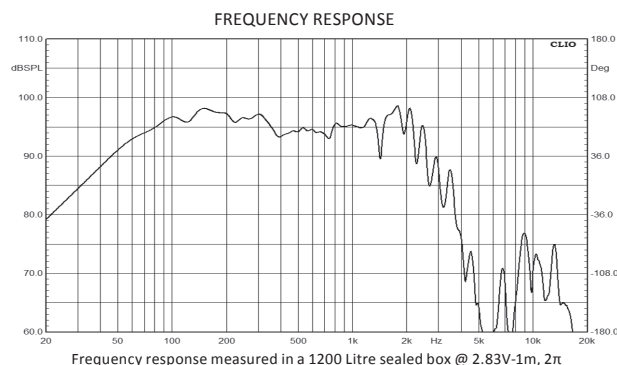
Nominal diameter, inches (mm)	18(460)
Nominal impedance, Ohm	8
Rated power (AES), W	700
Frequency range, Hz	30-2000
Sensitivity (1W / 1m), dB	98
Minimum impedance, Ohm	6,9@155Hz
BL product, Tm	23,7
Voice coil inductance, mH (1kHz)	0,81
Moving mass Mms, g	182
<b>Voice coil</b>	
Diameter, inches (mm)	4(100)
Winding material	CCAW
Former material	glass fiber
Winding depth, mm	27
<b>Magnetic system</b>	
Magnetic gap depth, mm	12
Flux density, T	1,15

#### Thiele-Small parameters

Fs, Hz	30,6
Vas, l	312
Qts	0,34
Qes	0,36
Qms	7,7
Re, Ohm	5,7
Sd cm <sup>2</sup>	1244
Xmax, mm	10,5
η, %	2,4

#### Mounting information

Overall diameter, mm	465
Baffle cutout diameter, mm	414
Bolt hole diameter, mm	6.5
Bolt circle diameter, mm	440
Height, mm	210
Net weight, kg	13



#### Specifications

Nominal diameter, inches (mm)	18(460)
Nominal impedance, Ohm	4/8
Rated power (AES), W	1000
Frequency range, Hz	35-500
Sensitivity (1W / 1m), dB	97
Minimum impedance, Ohm	7@140Hz
BL product, Tm	29,5
Voice coil inductance, mH (1kHz)	2,5
Moving mass Mms, g	222
<b>Voice coil</b>	
Diameter, inches (mm)	4(99)
Winding material	copper
Former material	glass fiber
Winding depth, mm	23
<b>Magnetic system</b>	
Magnetic gap depth, mm	14
Flux density, T	1,05

#### Thiele-Small parameters

Fs, Hz	32,3
Vas, l	222
Qts	0,3
Qes	0,31
Qms	9,8
Re, Ohm	6
Sd cm <sup>2</sup>	1195
Xmax, mm	8
η, %	2,35

#### Mounting information

Overall diameter, mm	471
Baffle cutout diameter, mm	414
Bolt hole diameter, mm	7/9
Bolt circle diameter, mm	440
Height, mm	212
Net weight, kg	14,4

## M1862



#### Product description

Low distortion extended low frequency transducer for bass reflex and band pass system.

#### Main features:

- aluminum die-cast frame with improved voice coil ventilation;
- removable self-centering ferrite magnet system;
- inside-outside copper clad aluminum voice coil;
- ventilated voice coil gap;
- double aluminum demodulation ring;
- glass fiber reinforced weather protected cone;
- double silicon spider.

#### Product specification

- 18" nominal diameter;
- 1400 W AES program power;
- 98 dB 1W/1m sensitivity;
- 4" CCAW voice coil;
- 13 kg weight.

## M1801



#### Product description

High power extended low frequency transducer for bass reflex and horn loaded system.

#### Main features:

- aluminum die-cast frame with improved voice coil ventilation;
- removable self-centering ferrite magnet system;
- inside-outside copper voice coil;
- ventilated voice coil gap;
- glass fiber reinforced cone;
- double silicon spider.

#### Product specification

- 18" nominal diameter;
- 2000 W AES program power;
- 97 dB 1W/1m sensitivity;
- 4" copper voice coil;
- 14.4 kg weight.



# M1804



### Product description

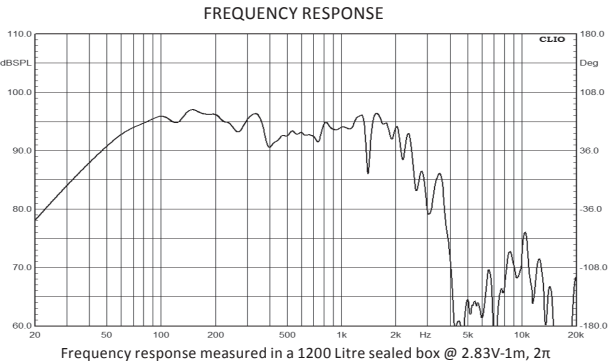
High power extended low frequency transducer for bass reflex and band pass system.

### Main features:

- aluminum die-cast frame with improved voice coil ventilation;
- removable self-centering ferrite magnet system;
- inside-outside copper voice coil;
- ventilated voice coil gap;
- glass fiber reinforced cone;
- double silicon spider.

### Product specification

- 18" nominal diameter;
- 2000 W AES program power;
- 96 dB 1W/1m sensitivity;
- 4" copper voice coil;
- 12.2 kg weight.



### Specifications

Nominal diameter, inches (mm)	18
Nominal impedance, Ohm	4/8
Rated power (AES), W	1000
Frequency range, Hz	30-500
Sensitivity (1W / 1m), dB	96,5
Minimum impedance, Ohm	6,7@140Hz
Bl product, Tm	28.1
Voice coil inductance, mH (1kHz)	2.6
Moving mass Mms, g	237
<b>Voice coil</b>	
Diameter, inches (mm)	4(100)
Winding material	copper
Former material	glass fiber
Winding depth, mm	25
<b>Magnetic system</b>	
Magnetic gap depth, mm	11
Flux density, T	1,14

### Thiele-Small parameters

Fs, Hz	32.8
Vas, l	203
Qts	0.33
Qes	0.35
Qms	7.9
Re, Ohm	5.7
Sd cm <sup>2</sup>	1195
Xmax, mm	9.75
η, %	1.9

### Mounting information

Overall diameter, mm	471
Baffle cutout diameter, mm	414
Bolt hole diameter, mm	7/9
Bolt circle diameter, mm	440
Height, mm	210
Net weight, kg	12.2

# M1805



### Product description

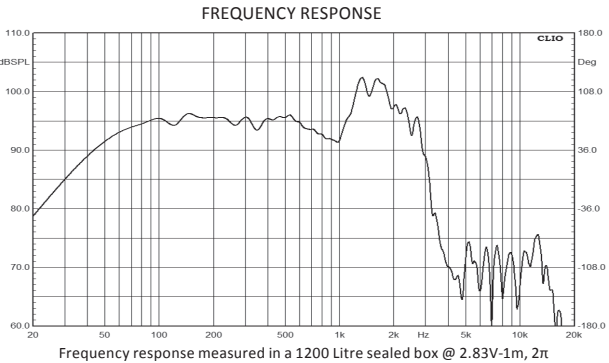
High power low distortion extended low frequency transducer for bass reflex and band pass system.

### Main features:

- aluminum die-cast frame with improved voice coil ventilation;
- removable self-centering ferrite magnet system;
- inside-outside copper voice coil;
- ventilated voice coil gap;
- aluminum demodulation ring;
- glass fiber reinforced cone;
- double silicon spider.

### Product specification

- 18" nominal diameter;
- 2400 W AES program power;
- 96 dB 1W/1m sensitivity;
- 4" copper voice coil;
- 15.2 kg weight



### Specifications

Nominal diameter, inches (mm)	18(460)
Nominal impedance, Ohm	4/8
Rated power (AES), W	1200
Frequency range, Hz	30-500
Sensitivity (1W / 1m), dB	96
Minimum impedance, Ohm	7,2@140Hz
Bl product, Tm	30
Voice coil inductance, mH (1kHz)	2,08
Moving mass Mms, g	271
<b>Voice coil</b>	
Diameter, inches (mm)	4(100)
Winding material	copper
Former material	glass fiber
Winding depth, mm	29
<b>Magnetic system</b>	
Magnetic gap depth, mm	14
Flux density, T	1,12

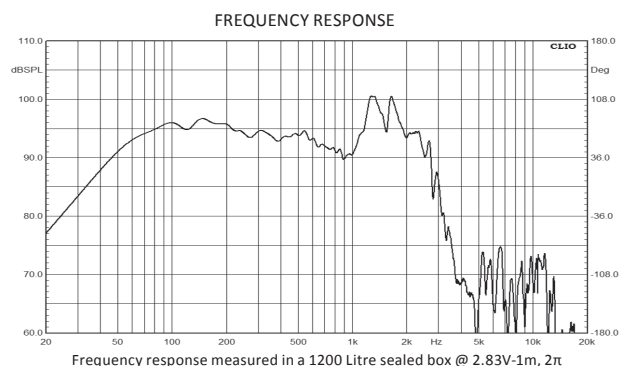
### Thiele-Small parameters

Fs, Hz	35,7
Vas, l	159
Qts	0,4
Qes	0,41
Qms	15,4
Re, Ohm	6,1
Sd cm <sup>2</sup>	1244
Xmax, mm	11
η, %	1,7

### Mounting information

Overall diameter, mm	465
Baffle cutout diameter, mm	414
Bolt hole diameter, mm	6,5
Bolt circle diameter, mm	440
Height, mm	220
Net weight, kg	15,2





#### Specifications

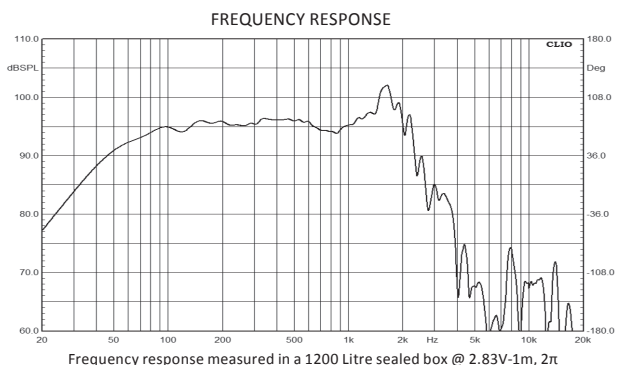
Nominal diameter, inches (mm)	18(460)
Nominal impedance, Ohm	8
Rated power (AES), W	1400
Frequency range, Hz	30-500
Sensitivity (1W / 1m), dB	97
Minimum impedance, Ohm	7,0@130Hz
Bl product, Tm	30,5
Voice coil inductance, mH (1kHz)	1,9
Moving mass Mms, g	285
<b>Voice coil</b>	
Diameter, inches (mm)	4(100)
Winding material	copper
Former material	glass fiber
Winding depth, mm	30
<b>Magnetic system</b>	
Magnetic gap depth, mm	14
Flux density, T	1,15

#### Thiele-Small parameters

Fs, Hz	37,5
Vas, l	138,5
Qts	0,357
Qes	0,367
Qms	13,2
Re, Ohm	5,35
Sd cm <sup>2</sup>	1244
Xmax, mm	11,5
η, %	1,92

#### Mounting information

Overall diameter, mm	465
Baffle cutout diameter, mm	414
Bolt hole diameter, mm	6,5
Bolt circle diameter, mm	440
Height, mm	223
Net weight, kg	16,5



#### Specifications

Nominal diameter, inches (mm)	18(460)
Nominal impedance, Ohm	8
Rated power (AES), W	1600
Frequency range, Hz	35-1000
Sensitivity (1W / 1m), dB	97
Minimum impedance, Ohm	6,7@175Hz
Bl product, Tm	29,8
Voice coil inductance, mH (1kHz)	1,27
Moving mass Mms, g	274
<b>Voice coil</b>	
Diameter, inches (mm)	4,5(115)
Winding material	copper
Former material	glass fiber
Winding depth, mm	30
<b>Magnetic system</b>	
Magnetic gap depth, mm	11
Flux density, T	1,1

#### Thiele-Small parameters

Fs, Hz	34,5
Vas, l	172
Qts	0,34
Qes	0,36
Qms	5,2
Re, Ohm	5,4
Sd cm <sup>2</sup>	1250
Xmax, mm	12,25
η, %	1,9

#### Mounting information

Overall diameter, mm	448/480
Baffle cutout diameter, mm	424
Bolt hole diameter, mm	7,5/9,5
Bolt circle diameter, mm	450
Height, mm	218
Net weight, kg	14,9

## M1807



#### Product description

High power low distortion extended low frequency transducer for bass reflex and band pass system.

#### Main features:

- aluminum die-cast frame with improved voice coil ventilation;
  - removable self-centering ferrite magnet system;
  - inside-outside copper voice coil;
  - ventilated voice coil gap;
  - aluminum demodulation ring;
  - glass fiber reinforced cone;
  - double silicon spider.
- Product specification**
- 18" nominal diameter;
  - 2800 W AES program power;
  - 97 dB 1W/1m sensitivity;
  - 4" copper voice coil;
  - 16.5 kg weight.

## M1808



#### Product description

High power low distortion extended low frequency transducer for bass reflex and band pass system.

#### Main features:

- aluminum die-cast octagonal frame with small installation dimensions;
  - removable self-centering ferrite magnet system;
  - inside-outside copper voice coil;
  - ventilated voice coil gap;
  - double aluminum demodulation ring;
  - glass fiber reinforced weather protected cone;
  - double silicon spider.
- Product specification**
- 18" nominal diameter;
  - 3200 W AES program power;
  - 96 dB 1W/1m sensitivity;
  - 4.5" copper voice coil;
  - 14.9 kg weight.



# 18N1600



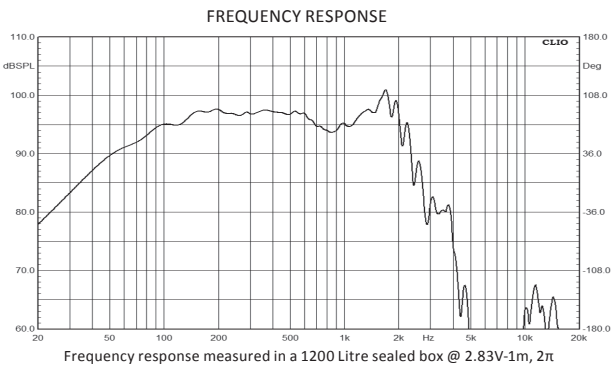
**Product description**  
High power low distortion extended low frequency transducer for bass reflex and horn loaded system.

**Main features:**

- aluminum die-cast octagonal frame with small installation dimensions;
- removable self-centering neodymium magnet system;
- inside-outside copper voice coil;
- ventilated voice coil gap;
- double aluminum demodulation ring;
- glass fiber reinforced weather protected cone;
- double silicon spider.

**Product specification**

- 18" nominal diameter;
- 3200 W AES program power;
- 98 dB 1W/1m sensitivity;
- 4.5" copper voice coil;
- 10.7 kg weight.



Specifications		Thiele-Small parameters	
Nominal diameter, inches (mm)	18(460)	Fs, Hz	35
Nominal impedance, Ohm	8	Vas, l	170
Rated power (AES), W	1600	Qts	0,23
Frequency range, Hz	35-1000	Qes	0,24
Sensitivity (1W / 1m), dB	98	Qms	5,5
Minimum impedance, Ohm	7,3@140Hz	Re, Ohm	5,5
Bl product, Tm	36,5	Sd cm <sup>2</sup>	1250
Voice coil inductance, mH (1kHz)	1,63	Xmax, mm	11,5
Moving mass Mms, g	270	η, %	3
Voice coil		Mounting information	
Diameter, inches (mm)	4,5(115)	Overall diameter, mm	448/480
Winding material	copper	Baffle cutout diameter, mm	424
Former material	glass fiber	Bolt hole diameter, mm	7,5/9,5
Winding depth, mm	30	Bolt circle diameter, mm	450
Magnetic system		Height, mm	218
Magnetic gap depth, mm	14	Net weight, kg	10,7
Flux density, T	1,25		

# 18N1200



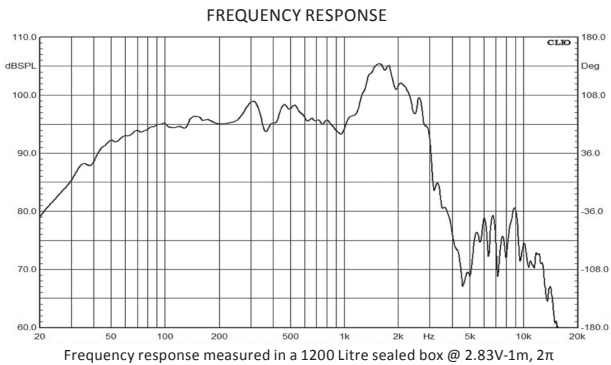
**Product description**  
High power low distortion extended low frequency transducer for bass reflex and band pass system.

**Main features:**

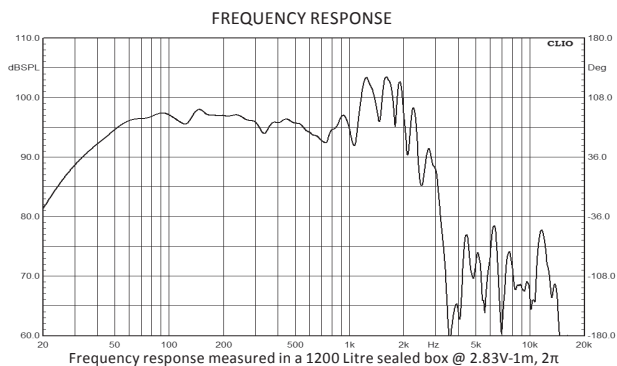
- aluminum die-cast octagonal frame with small installation dimensions;
- removable self-centering neodymium magnet system;
- inside-outside copper voice coil;
- ventilated voice coil gap;
- double aluminum demodulation ring;
- glass fiber reinforced cone;
- double silicon spider.

**Product specification**

- 18" nominal diameter;
- 2400 W AES program power;
- 96 dB 1W/1m sensitivity;
- 4" copper voice coil;
- 9.8 kg weight.



Specifications		Thiele-Small parameters	
Nominal diameter, inches (mm)	18(460)	Fs, Hz	36
Nominal impedance, Ohm	8	Vas, l	148
Rated power (AES), W	1200	Qts	0,37
Frequency range, Hz	35-1000	Qes	0,38
Sensitivity (1W / 1m), dB	96	Qms	13
Minimum impedance, Ohm	7,1@165Hz	Re, Ohm	5,8
Bl product, Tm	31,2	Sd cm <sup>2</sup>	1235
Voice coil inductance, mH (1kHz)	1,2	Xmax, mm	12
Moving mass Mms, g	285	η, %	1,76
Voice coil		Mounting information	
Diameter, inches (mm)	4(100)	Overall diameter, mm	448/480
Winding material	copper	Baffle cutout diameter, mm	424
Former material	glass fiber	Bolt hole diameter, mm	7,5/9,5
Winding depth, mm	30	Bolt circle diameter, mm	450
Magnetic system		Height, mm	218
Magnetic gap depth, mm	12	Net weight, kg	9,8
Flux density, T	1,28		



#### Specifications

Nominal diameter, inches (mm)	21(530)
Nominal impedance, Ohm	8
Rated power (AES), W	1000
Frequency range, Hz	30-500
Sensitivity (1W / 1m), dB	98
Minimum impedance, Ohm	6,6@120Hz
Bl product, Tm	24,5
Voice coil inductance, mH (1kHz)	2,2
Moving mass Mms, g	281
<b>Voice coil</b>	
Diameter, inches (mm)	4(100)
Winding material	copper
Former material	glass fiber
Winding depth, mm	25
<b>Magnetic system</b>	
Magnetic gap depth, mm	12
Flux density, T	1,05

#### Thiele-Small parameters

Fs, Hz	27,7
Vas, l	465
Qts	0,41
Qes	0,44
Qms	5,8
Re, Ohm	5,6
Sd cm <sup>2</sup>	1662
Xmax, mm	9,5
η, %	2,15

#### Mounting information

Overall diameter, mm	540
Baffle cutout diameter, mm	490
Bolt hole diameter, mm	7
Bolt circle diameter, mm	518
Height, mm	245
Net weight, kg	13,9

## M2102



#### Product description

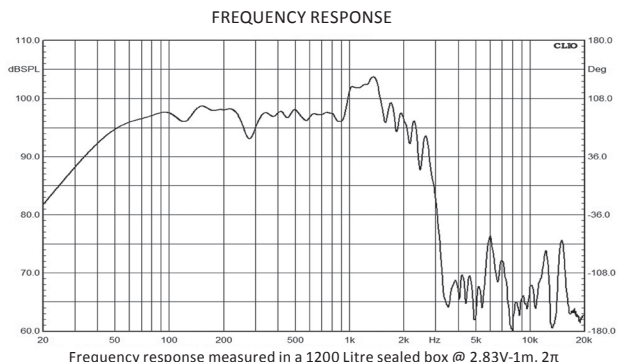
Extended low frequency transducer for bass reflex and band pass system.

#### Main features:

- aluminum die-cast frame;
- removable self-centering ferrite magnet system;
- inside-outside copper voice coil;
- ventilated voice coil gap;
- carbon fiber reinforced cone;
- double silicon spider.

#### Product specification

- 21" nominal diameter;
- 2000 W AES program power;
- 98 dB 1W/1m sensitivity;
- 4" copper voice coil;
- 13.9 kg weight.



#### Specifications

Nominal diameter, inches (mm)	21(530)
Nominal impedance, Ohm	8
Rated power (AES), W	1600
Frequency range, Hz	25-1000
Sensitivity (1W / 1m), dB	97.5
Minimum impedance, Ohm	6.7@130Hz
Bl product, Tm	30.5
Voice coil inductance, mH (1kHz)	1.55
Moving mass Mms, g	348
<b>Voice coil</b>	
Diameter, inches (mm)	4.5 (115)
Winding material	copper
Former material	glass fiber
Winding depth, mm	30
<b>Magnetic system</b>	
Magnetic gap depth, mm	12
Flux density, T	1.05

#### Thiele-Small parameters

Fs, Hz	26.9
Vas, l	388
Qts	0.32
Qes	0.33
Qms	6.8
Re, Ohm	5.4
Sd cm <sup>2</sup>	1662
Xmax, mm	12
η, %	2.2

#### Mounting information

Overall diameter, mm	545
Baffle cutout diameter, mm	494
Bolt hole diameter, mm	8
Bolt circle diameter, mm	520
Height, mm	240
Net weight, kg	16.2

## M2108



#### Product description

High power low distortion extended low frequency transducer.

#### Main features:

- aluminum die-cast frame with improved voice coil ventilation;
- removable self-centering ferrite magnet system;
- inside-outside copper voice coil;
- ventilated voice coil gap;
- double aluminum demodulation ring;
- glass fiber reinforced weather protected cone;
- double silicon spider.

#### Product specification

- 21" nominal diameter;
- 3200 W AES program power;
- 97.5 dB 1W/1m sensitivity;
- 4.5" voice coil;
- 16.2 kg weight.





# 21N1600



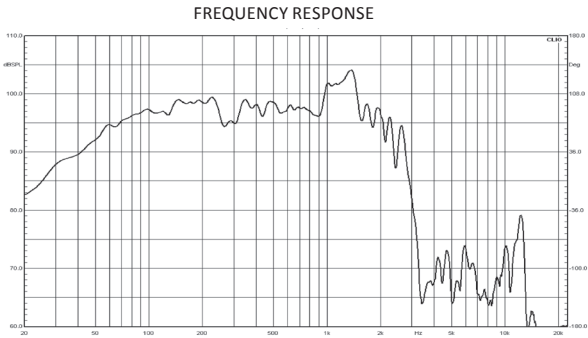
**Product description**  
High power low distortion extended low frequency transducer.

**Main features:**

- aluminum die-cast frame with improved voice coil ventilation;
- removable self-centering neodymium magnet system;
- inside-outside copper voice coil;
- ventilated voice coil gap;
- double aluminum demodulation ring;
- glass fiber reinforced cone;
- double silicon spider.

**Product specification**

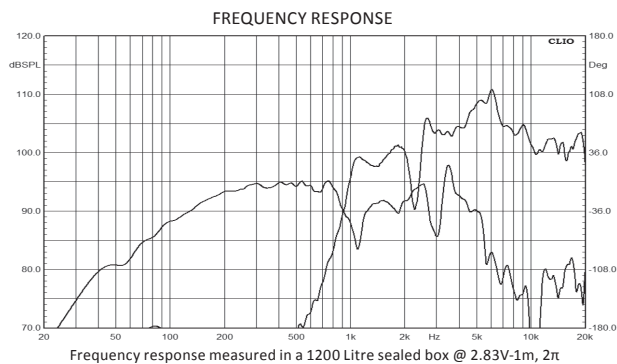
- 21" nominal diameter;
- 3200 W AES program power;
- 98 dB 1W/1m sensitivity;
- 4.5" voice coil;
- 11.6 kg weight.



Frequency response measured in a 1200 Litre sealed box @ 2.83V-1m, 2π

Specifications		Thiele-Small parameters	
Nominal diameter, inches (mm)	21(530)	Fs, Hz	34.8
Nominal impedance, Ohm	8	Vas, l	218
Rated power (AES), W	1600	Qts	0.31
Frequency range, Hz	30-1000	Qes	0.32
Sensitivity (1W / 1m), dB	98	Qms	7.8
Minimum impedance, Ohm	6.8@150Hz	Re, Ohm	5.4
Bl product, Tm	36.9	Sd cm <sup>2</sup>	1662
Voice coil inductance, mH (1kHz)	1.7	Xmax, mm	11.5
Moving mass Mms, g	372	η, %	2.75
Voice coil		Mounting information	
Diameter, inches (mm)	4.5 (115)	Overall diameter, mm	545
Winding material	copper	Baffle cutout diameter, mm	494
Former material	glass fiber	Bolt hole diameter, mm	8
Winding depth, mm	30	Bolt circle diameter, mm	520
Magnetic system		Height, mm	248
Magnetic gap depth, mm	14	Net weight, kg	11.6
Flux density, T	1.22		





#### Specifications

Nominal diameter, inches (mm)	8(200)
Nominal impedance, Ohm	8
Rated power (AES), W	300
Frequency range, Hz	65-18000
Recommended crossover Hz	2500
LF unit	
Sensitivity (1W / 1m), dB	95
Minimum impedance, Ohm	7,1@390Hz
Bl product, Tm	15,1
Voice coil inductance, mH (1kHz)	1,0
Moving mass Mms, g	26

#### Voice coil

Diameter, inches (mm)	2,5(64)
Winding material	CCAW
Former material	glass fiber
Winding depth, mm	16,5

#### Magnetic system

Magnetic gap depth, mm	9
Flux density, T	1,05

#### Voice coil

HF unit	
Nominal impedance, Ohm	8
Rated power (AES), W	30
Sensitivity (1W / 1m), dB	104

#### Voice coil

Diameter, inches (mm)	1(25)
Winding material	aluminum
Diaphragm material	phenolic dome

#### Magnetic system

Flux density, T	1,35
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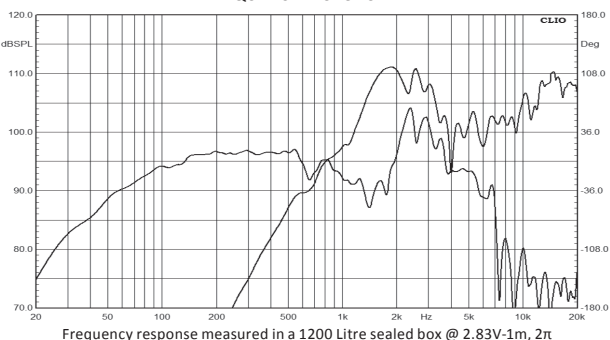
#### Thiele-Small parameters

Fs, Hz	61,8
Vas, l	15
Qts	0,24
Qes	0,25
Qms	6,3
Re, Ohm	5,7
Sd cm <sup>2</sup>	210
Xmax, mm	6
$\eta$ , %	1,4

#### Mounting information

Overall diameter, mm	255/208
Baffle cutout diameter, mm	184
Bolt hole diameter, mm	8x5
Bolt circle diameter, mm	207
Height, mm	120
Net weight, kg	4,1

#### FREQUENCY RESPONSE



#### Specifications

Nominal diameter, inches (mm)	12(300)
Nominal impedance, Ohm	8
Rated power (AES), W	300
Frequency range, Hz	60-18000
Recommended crossover Hz	1800
LF unit	
Sensitivity (1W / 1m), dB	96
Minimum impedance, Ohm	6,8@260Hz
Bl product, Tm	16,6
Voice coil inductance, mH (1kHz)	0,81
Moving mass Mms, g	68

#### Voice coil

Diameter, inches (mm)	3(76)
Winding material	CCAW
Former material	glass fiber
Winding depth, mm	18

#### Magnetic system

Magnetic gap depth, mm	8
Flux density, T	1,08

#### Voice coil

HF unit	
Nominal impedance, Ohm	8
Rated power (AES), W	50
Sensitivity (1W / 1m), dB	104

#### Voice coil

Diameter, inches (mm)	1,75 (44)
Winding material	aluminum
Diaphragm material	titanium

#### Magnetic system

Flux density, T	1,74
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#### Thiele-Small parameters

Fs, Hz	50,5
Vas, l	56
Qts	0,39
Qes	0,41
Qms	9,9
Re, Ohm	5,2
Sd cm <sup>2</sup>	530
Xmax, mm	5,5
$\eta$ , %	1,7

#### Mounting information

Overall diameter, mm	312
Baffle cutout diameter, mm	282
Bolt hole diameter, mm	7
Bolt circle diameter, mm	294
Height, mm	186
Net weight, kg	8,4

CX8-1



#### Product description

Coaxial transducer for compact enclosures and stage monitors.

#### Main features:

- combination of a 8" bass loudspeaker and a 1" diaphragm compression driver;
- aluminum die-cast octagonal shape frame;
- removable self-centering ferrite magnet system;
- inside-outside copper clad aluminum voice coil (LF unit).

#### Product specification

- 8" nominal diameter;
- 600W AES program power (LF unit);
- 60W AES program power (HF unit);
- 95dB 1W/1m sensitivity (LF unit);
- 104dB 1W/1m sensitivity (LF unit);
- 2.5" CCAW (LF unit);
- 1" aluminum voice coil (HF unit);
- 90 degrees conical dispersion;
- 4.1 kg weight.

CX12-1



#### Product description

Coaxial transducer for compact enclosures and stage monitors.

#### Main features:

- combination of a 12" bass loudspeaker and a 1.75" diaphragm compression driver;
- aluminum die-cast frame;
- removable self-centering ferrite magnet system;
- inside-outside copper clad aluminum voice coil (LF unit);
- titanium diaphragm compression driver.

#### Product specification

- 12" nominal diameter;
- 600W AES program power (LF unit);
- 100W AES program power (HF unit);
- 96dB 1W/1m sensitivity (LF unit);
- 104dB 1W/1m sensitivity (LF unit);
- 3" CCAW voice coil (LF unit);
- 1.75" edgewound aluminum ribbon voice coil (HF unit);
- 90 degrees conical dispersion;
- 8,4 kg weight.



# CX12-2



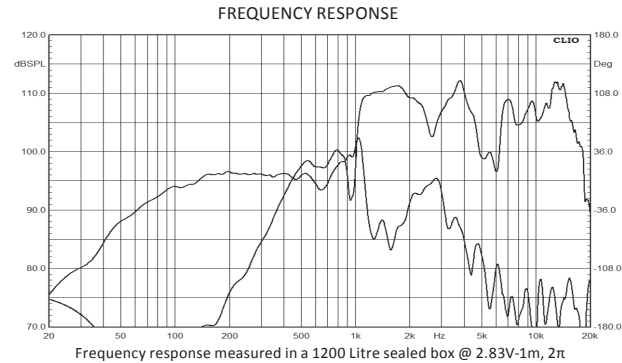
**Product description**  
Coaxial transducer for compact enclosures and stage monitors.

**Main features:**

- combination of a 12" bass loudspeaker and a 2.8" diaphragm compression driver;
- aluminum die-cast frame;
- removable self-centering common ferrite magnet system;
- aluminum demodulation ring;
- titanium diaphragm compression driver.

**Product specification**

- 12" nominal diameter;
- 700W AES program power (LF unit);
- 160W AES program power (HF unit);
- 97dB 1W/1m sensitivity (LF unit);
- 106dB 1W/1m sensitivity (LF unit);
- 3" edgewound copper ribbon voice coil (LF unit);
- 2.8" edgewound aluminum ribbon voice coil (HF unit);
- 60x40 degrees dispersion;
- 6.8 kg weight.



Specifications			
Nominal diameter, inches (mm)	12(300)	<b>Voice coil</b>	
Nominal impedance, Ohm	8	Diameter, inches (mm)	2,8 (72)
Rated power (AES), W	350	Winding material	aluminum
Frequency range, Hz	60-18000	Diaphragm material	titanium
Recommended crossover Hz	1100	<b>Magnetic system</b>	
LF unit		Flux density, T	1,66
Sensitivity (1W / 1m), dB	97	<b>Thiele-Small parameters</b>	
Minimum impedance, Ohm	7@240Hz	Fs, Hz	50
Bl product, Tm	18,4	Vas, l	56
Voice coil inductance, mH (1kHz)	1,24	Qts	0,38
Moving mass Mms, g	71	Qes	0,39
<b>Voice coil</b>		Qms	11,6
Diameter, inches (mm)	3(76)	Re, Ohm	6
Winding material	copper	Sd cm²	531
Former material	glass fiber	Xmax, mm	4,35
Winding depth, mm	12,7	η, %	1,7
<b>Magnetic system</b>		<b>Mounting information</b>	
Magnetic gap depth, mm	8	Overall diameter, mm	312
Flux density, T	0,96	Baffle cutout diameter, mm	282
<b>Voice coil</b>		Bolt hole diameter, mm	7
HF unit		Bolt circle diameter, mm	294
Nominal impedance, Ohm	8	Height, mm	170
Rated power (AES), W	80	Net weight, kg	6,8
Sensitivity (1W / 1m), dB	106		

# CX15-2



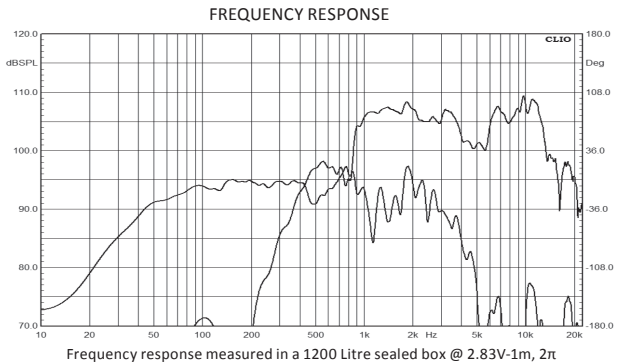
**Product description**  
Coaxial transducer for compact enclosures and stage monitors.

**Main features:**

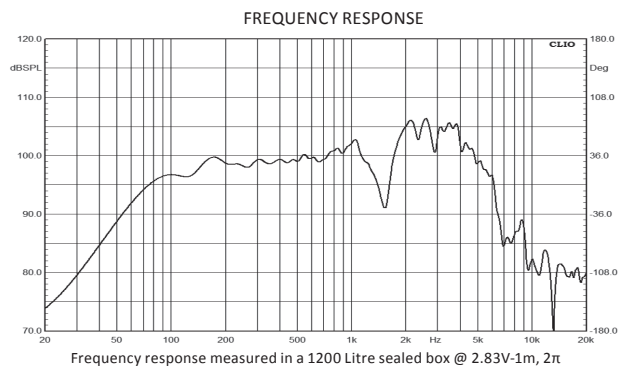
- combination of a 15" bass loudspeaker and a 2.8" diaphragm compression driver;
- aluminum die-cast frame;
- removable self-centering common ferrite magnet system;
- aluminum demodulation ring;
- titanium diaphragm compression driver.

**Product specification**

- 15" nominal diameter;
- 700W AES program power (LF unit);
- 160W AES program power (HF unit);
- 97.5dB 1W/1m sensitivity (LF unit);
- 106dB 1W/1m sensitivity (LF unit);
- 3" edgewound copper ribbon voice coil (LF unit);
- 2.8" edgewound aluminum ribbon voice coil (HF unit);
- 60x40 degrees dispersion;
- 7.5 kg weight.



Specifications			
Nominal diameter, inches (mm)	15(380)	<b>Voice coil</b>	
Nominal impedance, Ohm	4/8	Diameter, inches (mm)	2,8 (72)
Rated power (AES), W	350	Winding material	aluminum
Frequency range, Hz	55-18000	Diaphragm material	titanium
Recommended crossover Hz	1100	<b>Magnetic system</b>	
LF unit		Flux density, T	1,66
Sensitivity (1W / 1m), dB	97,5	<b>Thiele-Small parameters</b>	
Minimum impedance, Ohm	7,1@200Hz	Fs, Hz	38,7
Bl product, Tm	17,9	Vas, l	164,5
Voice coil inductance, mH (1kHz)	1,1	Qts	0,46
Moving mass Mms, g	106	Qes	0,48
<b>Voice coil</b>		Qms	9,7
Diameter, inches (mm)	3(76)	Re, Ohm	5,9
Winding material	copper	Sd cm²	860
Former material	glass fiber	Xmax, mm	4,35
Winding depth, mm	12,7	η, %	1,9
<b>Magnetic system</b>		<b>Mounting information</b>	
Magnetic gap depth, mm	8	Overall diameter, mm	389
Flux density, T	0,96	Baffle cutout diameter, mm	358
<b>Voice coil</b>		Bolt hole diameter, mm	7
HF unit		Bolt circle diameter, mm	370,5
Nominal impedance, Ohm	8	Height, mm	190
Rated power (AES), W	80	Net weight, kg	7,5
Sensitivity (1W / 1m), dB	106		



#### Specifications

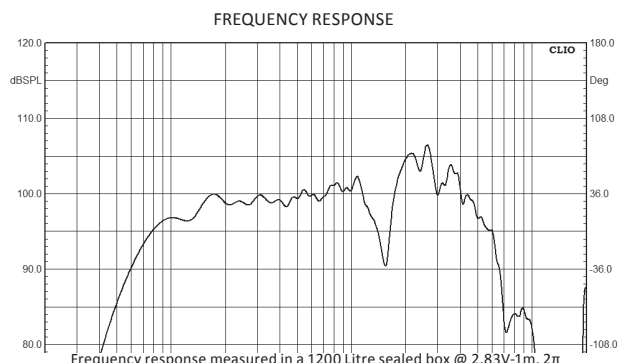
Nominal diameter, inches (mm)	12(300)
Nominal impedance, Ohm	8/16
Rated power (AES), W	70
Frequency range, Hz	80-5000
Sensitivity (1W / 1m), dB	100
Minimum impedance, Ohm	12,1@270Hz
Bl product, Tm	16
Voice coil inductance, mH (1kHz)	1,2
Moving mass Mms, g	37
<b>Voice coil</b>	
Diameter, inches (mm)	1,75(44)
Winding material	copper
Former material	glass fiber
Winding depth, mm	11
<b>Magnetic system</b>	
Magnetic gap depth, mm	8
Flux density, T	1,09

#### Thiele-Small parameters

Fs, Hz	81
Vas, l	35,5
Qts	0,78
Qes	0,83
Qms	12,5
Re, Ohm	11,2
Sd cm <sup>2</sup>	500
Xmax, mm	3,5
η, %	2,2

#### Mounting information

Overall diameter, mm	312
Baffle cutout diameter, mm	282
Bolt hole diameter, mm	7
Bolt circle diameter, mm	294
Height, mm	130
Net weight, kg	3,5



#### Specifications

Nominal diameter, inches (mm)	12(300)
Nominal impedance, Ohm	8/16
Rated power (AES), W	100
Frequency range, Hz	80-5000
Sensitivity (1W / 1m), dB	100
Minimum impedance, Ohm	7,2@290Hz
Bl product, Tm	15
Voice coil inductance, mH (1kHz)	1,1
Moving mass Mms, g	38
<b>Voice coil</b>	
Diameter, inches (mm)	2(51)
Winding material	copper
Former material	glass fiber
Winding depth, mm	11
<b>Magnetic system</b>	
Magnetic gap depth, mm	8
Flux density, T	1,0

#### Thiele-Small parameters

Fs, Hz	82
Vas, l	34
Qts	0,54
Qes	0,57
Qms	13,3
Re, Ohm	6,2
Sd cm <sup>2</sup>	500
Xmax, mm	3,5
η, %	3,2

#### Mounting information

Overall diameter, mm	312
Baffle cutout diameter, mm	282
Bolt hole diameter, mm	7
Bolt circle diameter, mm	294
Height, mm	130
Net weight, kg	3,6

## G1211



#### Product description

Classic guitar speaker for use in electric guitar amplifiers.

#### Main features:

- aluminum die-cast frame;
- removable self-centering ferrite magnet system;
- inside-outside round copper voice coil.

#### Product specification

- 12" nominal diameter;
- 140 W AES program power;
- 100 dB 1W/1m sensitivity;
- 1.75" copper voice coil;
- 3.5 kg weight.

## G1221



#### Product description

Classic guitar speaker for use in electric guitar amplifiers.

#### Main features:

- aluminum die-cast frame;
- removable self-centering ferrite magnet system;
- inside-outside round copper voice coil.

#### Product specification

- 12" nominal diameter;
- 200 W AES program power;
- 100 dB 1W/1m sensitivity;
- 2" copper voice coil;
- 3.6 kg weight.

## M112



### Product description

High frequency compression driver.

### Main features:

- Titanium dome diaphragm;
- Ferrite magnet system;

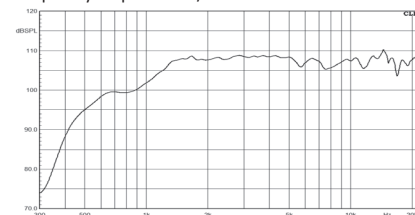
### Product specification

- 1" Throat diameter;
- 100 W AES program power;
- 108 dB 1W/1m sensitivity;
- 1,75" aluminium voice coil;
- 1,65 kg weight.

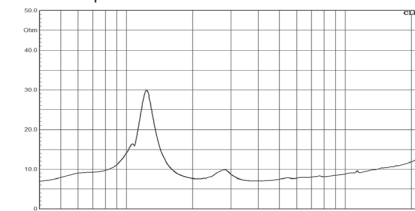
### Specifications

Throat diameter, inches (mm)	1 (25,4)
Nominal impedance, Ohm	8/16
Rated power (AES), W	50
Frequency range, Hz	1500-18000
Recommended crossover Hz	1800
Sensitivity (1W / 1m), dB	108
<b>Voice coil</b>	
Diameter, inches (mm)	1,75 (44)
Winding material	aluminum
Diaphragm material	titanium
<b>Magnetic system</b>	
Magnet material	ferrite
Flux density, T	1,7
<b>Mounting information</b>	
Overall diameter, mm	115
Mounting holes	2 x M6
Bolt circle diameter, mm	76
Height, mm	54
Net weight, kg	1,65

### Frequency response 1W/1m



### Free air impedance



## M115



### Product description

High frequency compression driver.

### Main features:

- Coated titanium dome diaphragm;
- Ferrite magnet system;

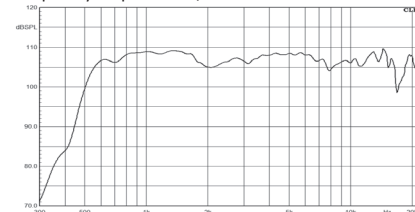
### Product specification

- 1" Throat diameter;
- 100 W AES program power;
- 108 dB 1W/1m sensitivity;
- 1,75" aluminium voice coil;
- 1,7 kg weight.

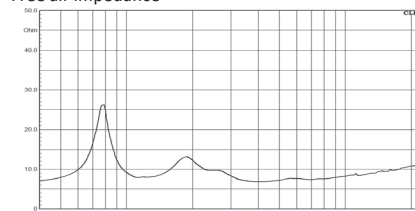
### Specifications

Throat diameter, inches (mm)	1 (25,4)
Nominal impedance, Ohm	8
Rated power (AES), W	50
Frequency range, Hz	900-17000
Recommended crossover Hz	1400
Sensitivity (1W / 1m), dB	108
<b>Voice coil</b>	
Diameter, inches (mm)	1,75 (44)
Winding material	aluminum
Diaphragm material	titanium
<b>Magnetic system</b>	
Magnet material	ferrite
Flux density, T	1,7
<b>Mounting information</b>	
Overall diameter, mm	115
Mounting holes	2 x M6
Bolt circle diameter, mm	76
Height, mm	54
Net weight, kg	1,7

### Frequency response 1W/1m



### Free air impedance



## N4101



### Product description

High frequency low distortion compression driver.

### Main features:

- Polyester dome diaphragm;
- Neodymium magnet system;
- Shorting copper ring.

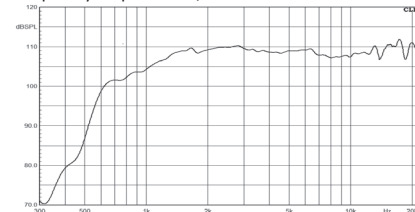
### Product specification

- 1" Throat diameter;
- 100 W AES program power;
- 110 dB 1W/1m sensitivity;
- 1,75" aluminium voice coil;
- 1,4 kg weight.

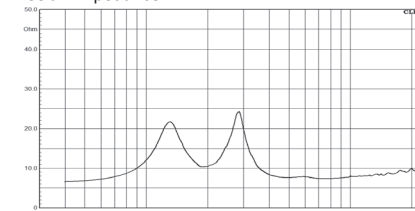
### Specifications

Throat diameter, inches (mm)	1 (25,4)
Nominal impedance, Ohm	8
Rated power (AES), W	50
Frequency range, Hz	1000-19000
Recommended crossover Hz	1500
Sensitivity (1W / 1m), dB	110
<b>Voice coil</b>	
Diameter, inches (mm)	1,75 (44)
Winding material	aluminum
Diaphragm material	polyester
<b>Magnetic system</b>	
Magnet material	neodymium
Flux density, T	2
<b>Mounting information</b>	
Overall diameter, mm	102
Mounting holes	2 x M6
Bolt circle diameter, mm	76
Height, mm	50
Net weight, kg	1,4

### Frequency response 1W/1m



### Free air impedance



## N4102



### Product description

High frequency low distortion compression driver.

### Main features:

- Capton dome diaphragm;
- Neodymium magnet system;
- Shorting copper ring.

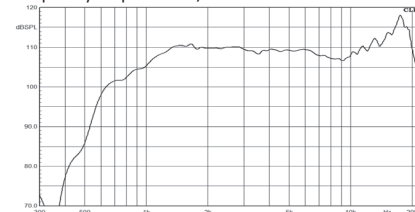
### Product specification

- 1" Throat diameter;
- 100 W AES program power;
- 110 dB 1W/1m sensitivity;
- 1,75" aluminium voice coil;
- 1,4 kg weight.

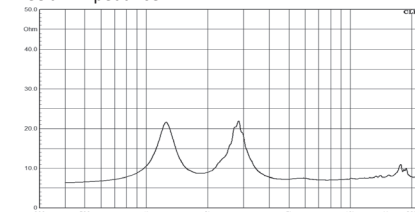
### Specifications

Throat diameter, inches (mm)	1 (25,4)
Nominal impedance, Ohm	8
Rated power (AES), W	50
Frequency range, Hz	1000-20000
Recommended crossover Hz	1500
Sensitivity (1W / 1m), dB	110
<b>Voice coil</b>	
Diameter, inches (mm)	1,75 (44)
Winding material	aluminum
Diaphragm material	capton
<b>Magnetic system</b>	
Magnet material	neodymium
Flux density, T	2
<b>Mounting information</b>	
Overall diameter, mm	102
Mounting holes	2 x M6
Bolt circle diameter, mm	76
Height, mm	50
Net weight, kg	1,4

### Frequency response 1W/1m

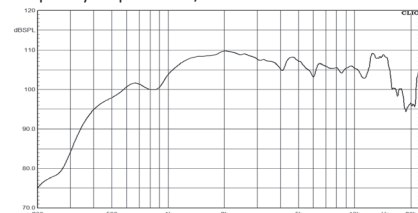


### Free air impedance

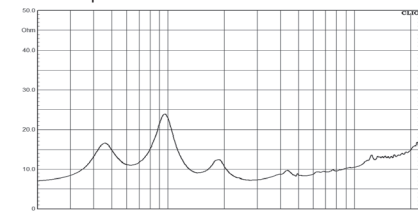




Frequency response 1W/1m



Free air impedance

**Specifications**

Throat diameter, inches (mm)	1,4 (35)
Nominal impedance, Ohm	8/16
Rated power (AES), W	100
Frequency range, Hz	800-16000
Recommended crossover Hz	1100
Sensitivity (1W / 1m), dB	108
<b>Voice coil</b>	
Diameter, inches (mm)	2,8 (72)
Winding material	aluminum
Diaphragm material	titanium
<b>Magnetic system</b>	
Magnet material	ferrite
Flux density, T	1,75
<b>Mounting information</b>	
Overall diameter, mm	169
Mounting holes	4 x M6
Bolt circle diameter, mm	101,6
Height, mm	66
Net weight, kg	4,6

**M140****Product description**

High frequency compression driver.

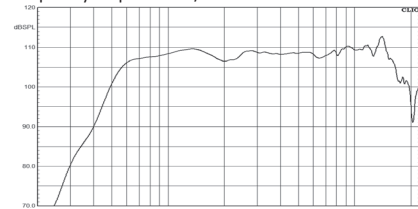
**Main features:**

- Titanium dome diaphragm;
- Ferrite magnet system;

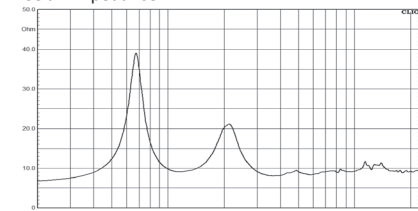
**Product specification**

- 1,4" Throat diameter;
- 200 W AES program power;
- 108 dB 1W/1m sensitivity;
- 2,8" aluminum voice coil;
- 4,6 kg weight.

Frequency response 1W/1m



Free air impedance

**Specifications**

Throat diameter, inches (mm)	1,4 (36)
Nominal impedance, Ohm	8/16
Rated power (AES), W	100
Frequency range, Hz	600-17000
Recommended crossover Hz	800
Sensitivity (1W / 1m), dB	109
<b>Voice coil</b>	
Diameter, inches (mm)	2,8 (72)
Winding material	aluminum
Diaphragm material	titanium
<b>Magnetic system</b>	
Magnet material	neodymium
Flux density, T	2
<b>Mounting information</b>	
Overall diameter, mm	130
Mounting holes	4 x M6
Bolt circle diameter, mm	101,6
Height, mm	68
Net weight, kg	2,8

**N7140****Product description**

High frequency low distortion compression driver.

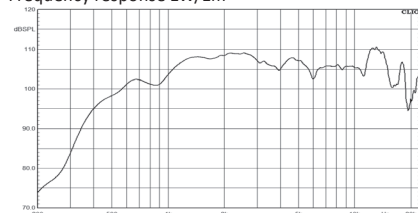
**Main features:**

- Titanium dome diaphragm;
- Neodymium magnet system;
- Shorting copper ring.

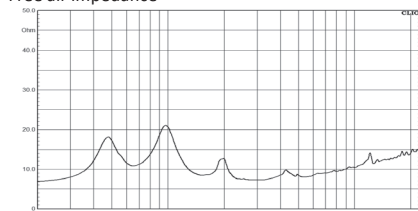
**Product specification**

- 1,4" Throat diameter;
- 200 W AES program power;
- 109 dB 1W/1m sensitivity;
- 2,8" aluminum voice coil;
- 2,8 kg weight.

Frequency response 1W/1m



Free air impedance

**Specifications**

Throat diameter, inches (mm)	1,5 (38)
Nominal impedance, Ohm	8/16
Rated power (AES), W	100
Frequency range, Hz	800-16000
Recommended crossover Hz	1100
Sensitivity (1W / 1m), dB	108
<b>Voice coil</b>	
Diameter, inches (mm)	2,8 (72)
Winding material	aluminum
Diaphragm material	titanium
<b>Magnetic system</b>	
Magnet material	ferrite
Flux density, T	1,75
<b>Mounting information</b>	
Overall diameter, mm	169
Mounting holes	4 x M6
Bolt circle diameter, mm	101,6
Height, mm	66
Net weight, kg	4,6

**M150****Product description**

High frequency compression driver.

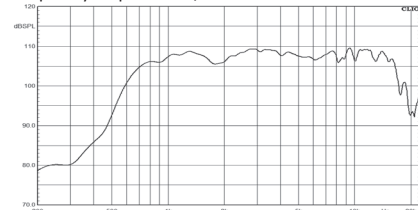
**Main features:**

- Titanium dome diaphragm;
- Ferrite magnet system;

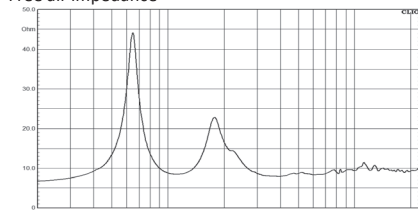
**Product specification**

- 1,5" Throat diameter;
- 200 W AES program power;
- 108 dB 1W/1m sensitivity;
- 2,8" aluminum voice coil;
- 4,6 kg weight.

Frequency response 1W/1m



Free air impedance

**Specifications**

Throat diameter, inches (mm)	1,5 (38)
Nominal impedance, Ohm	8/16
Rated power (AES), W	100
Frequency range, Hz	600-17000
Recommended crossover Hz	800
Sensitivity (1W / 1m), dB	109
<b>Voice coil</b>	
Diameter, inches (mm)	2,8 (72)
Winding material	aluminum
Diaphragm material	titanium
<b>Magnetic system</b>	
Magnet material	neodymium
Flux density, T	2
<b>Mounting information</b>	
Overall diameter, mm	130
Mounting holes	4 x M6
Bolt circle diameter, mm	101,6
Height, mm	68
Net weight, kg	2,8

**N7150****Product description**

High frequency low distortion compression driver.

**Main features:**

- Titanium dome diaphragm;
- Neodymium magnet system;
- Shorting copper ring.

**Product specification**

- 1,5" Throat diameter;
- 200 W AES program power;
- 109 dB 1W/1m sensitivity;
- 2,8" aluminum voice coil;
- 2,8 kg weight.



## M200



### Product description

High frequency compression driver.

### Main features:

- Titanium dome diaphragm;
- Ferrite magnet system;

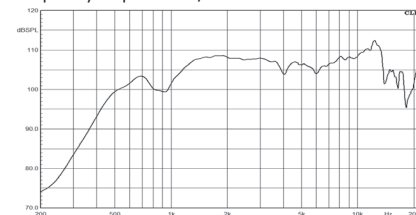
### Product specification

- 2" Throat diameter;
- 200 W AES program power;
- 108 dB 1W/1m sensitivity;
- 2,8" aluminum voice coil;
- 4,6 kg weight.

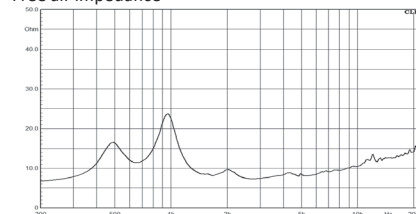
### Specifications

Throat diameter, inches (mm)	2 (51)
Nominal impedance, Ohm	8/16
Rated power (AES), W	100
Frequency range, Hz	800-16000
Recommended crossover Hz	1100
Sensitivity (1W / 1m), dB	108
<b>Voice coil</b>	
Diameter, inches (mm)	2,8 (72)
Winding material	aluminum
Diaphragm material	titanium
<b>Magnetic system</b>	
Magnet material	ferrite
Flux density, T	1,75
<b>Mounting information</b>	
Overall diameter, mm	169
Mounting holes	4 x M6
Bolt circle diameter, mm	101,6
Height, mm	66
Net weight, kg	4,6

### Frequency response 1W/1m



### Free air impedance



## M210



### Product description

High frequency compression driver.

### Main features:

- Titanium dome diaphragm;
- Ferrite magnet system;
- Extended bandwidth.

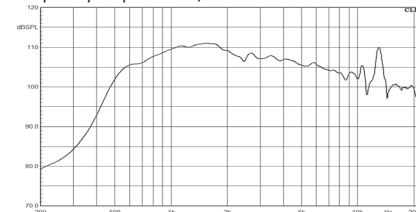
### Product specification

- 2" Throat diameter;
- 250 W AES program power;
- 109 dB 1W/1m sensitivity;
- 4" aluminum voice coil;
- 10 kg weight.

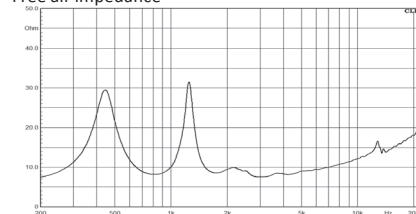
### Specifications

Throat diameter, inches (mm)	2 (51)
Nominal impedance, Ohm	8/16
Rated power (AES), W	125
Frequency range, Hz	600-18000
Recommended crossover Hz	600
Sensitivity (1W / 1m), dB	109
<b>Voice coil</b>	
Diameter, inches (mm)	4 (99)
Winding material	aluminum
Diaphragm material	titanium
<b>Magnetic system</b>	
Magnet material	ferrite
Flux density, T	1,85
<b>Mounting information</b>	
Overall diameter, mm	220
Mounting holes	4 x M6
Bolt circle diameter, mm	101,6
Height, mm	130
Net weight, kg	10

### Frequency response 1W/1m



### Free air impedance



## N7200



### Product description

High frequency low distortion compression driver.

### Main features:

- Titanium dome diaphragm;
- Neodymium magnet system;
- Shorting copper ring.

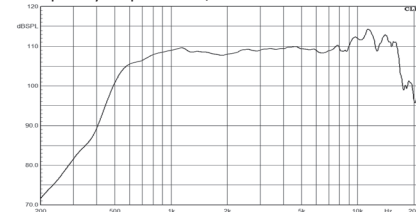
### Product specification

- 2" Throat diameter;
- 200 W AES program power;
- 109 dB 1W/1m sensitivity;
- 2,8" aluminum voice coil;
- 3,2 kg weight.

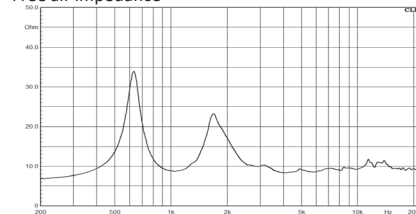
### Specifications

Throat diameter, inches (mm)	2 (51)
Nominal impedance, Ohm	8/16
Rated power (AES), W	100
Frequency range, Hz	600-17000
Recommended crossover Hz	800
Sensitivity (1W / 1m), dB	109
<b>Voice coil</b>	
Diameter, inches (mm)	2,8 (72)
Winding material	aluminum
Diaphragm material	titanium
<b>Magnetic system</b>	
Magnet material	neodymium
Flux density, T	2
<b>Mounting information</b>	
Overall diameter, mm	130
Mounting holes	4 x M6
Bolt circle diameter, mm	101,6
Height, mm	98
Net weight, kg	3,2

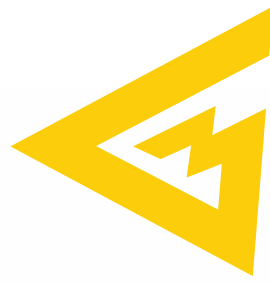
### Frequency response 1W/1m



### Free air impedance







SOUNDS  
AS DESIGNED





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