ARTSERIES

PASSIVE SPEAKER

ART 312



RCF ART 312 is a wide dispersion, 2 way sound reinforcement speaker. It integrates a high power LICC high level crossover network and RCF low distortion, high power transducers. The result is a compact, high power accurate system, unique in its class for clarity and low distortion.
The new 12" inch woofer is the result of the latest refinement in years of RCF experience in compact 2 way speakers, resulting in a fast and accurate reproduction of the midbass frequency range and controlled deep bass.
The compression driver uses a new 1.5" titanium dome in front of a low compression, optimised geometry, radial phase plug. This innovative design is powered from a high flux neodymium magnet and offers a very open and natural midrange sound and extreme precision in high frequency reproduction. Our LICC low impedance compensated crossover network featuring lower (than conventional) induction value in series with the woofer offer delay reduction, reduced phase shift and superior transient response. The compression driver is protected by a fast dynamic electronic circuit.
The input section presents 2 x NL4 Speakon® connectors offering an easy loop-through link.
All components are housed in a strong, lightweight, polypropylene composite enclosure. Woofer and compression driver throat are protected from a strong, powder coated, metal grille. The cabinet features four M10 threaded fly points, a 35 mm pole mount adaptor two side handles and a ergonomic top handle.

Applications

ART 312 is the optimum choice for live sound situations where an exceptional full range, outstanding bass reproduction and accurate high frequency delivery is required. The ART 312 is also suitable for monitoring applications.

Features

- 300 watt power handling
- 127 dB max SPL
- Wide dispersion, 90 x 60 low distortion, constant directivity horn
- 12" high power woofer, 64mm edge wound aluminium coil
- 1" neodymium, titanium dome, high frequency driver
- LICC low impedance compensated crossover, electronic driver protection
- 2 x NL4 Speakon® connector
- 2 side handles and 1 ergonomic top handle for easy transportation and positioning
- Four M10 fly points and pole mount adaptor

ACOUSTICAL SPECIFICATIONS

Frequency response:	50 - 20 Khz
Max SPL:	127 dB
Sensitivity 1W/1m:	99
Coverage angle:	90° x 60°
Compression driver:	neo 1"
Woofer:	12"
Power handling:	300 w

INPUT SECTION

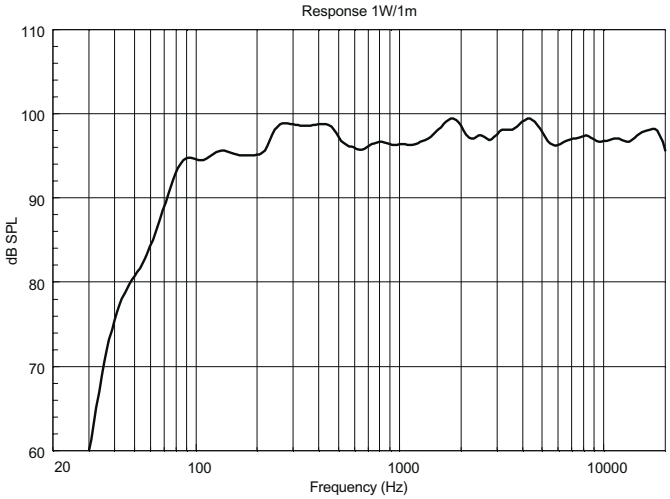
Input signal (Impedance):	8 ohm
Input connector:	speakon
Output signal connector:	speakon

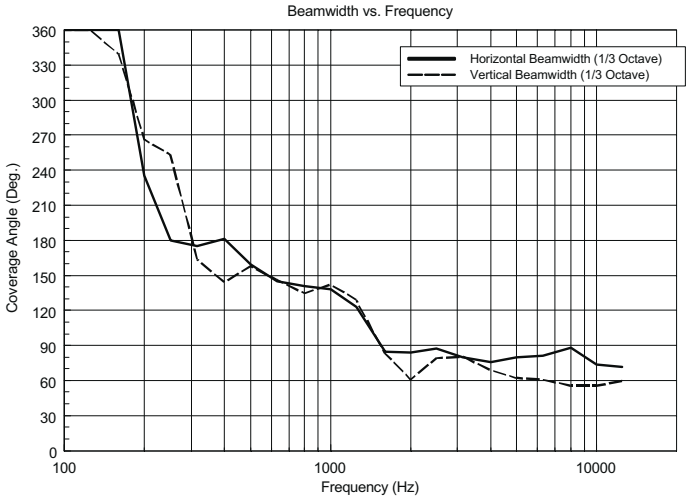
PROCESSOR SECTION

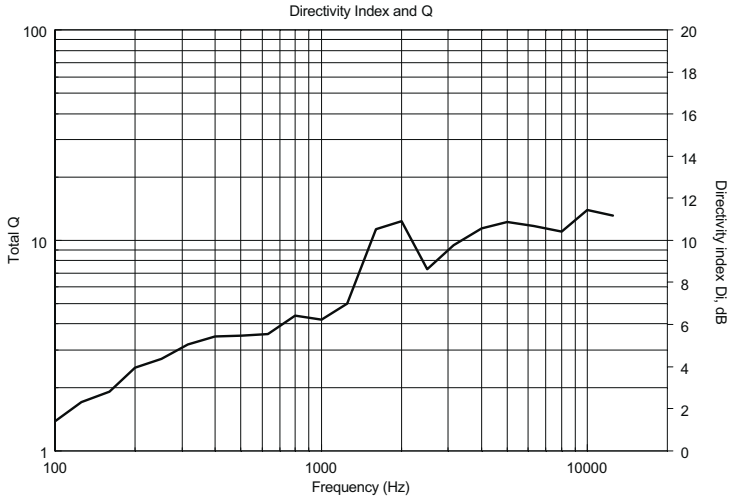
Crossover frequencies:	1800 Hz
Protections:	electronic

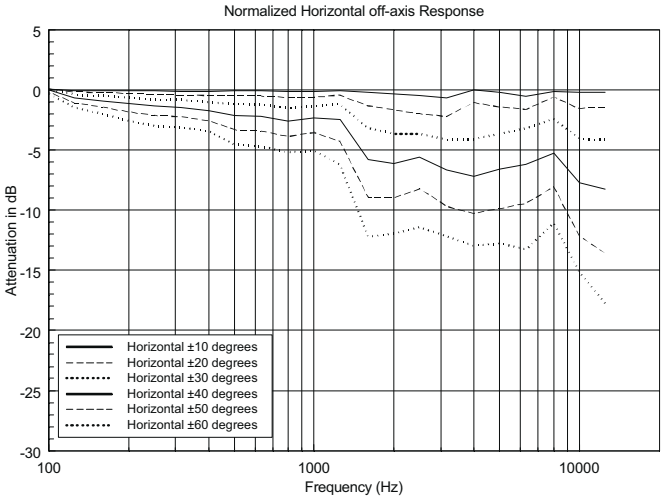
PHYSICAL

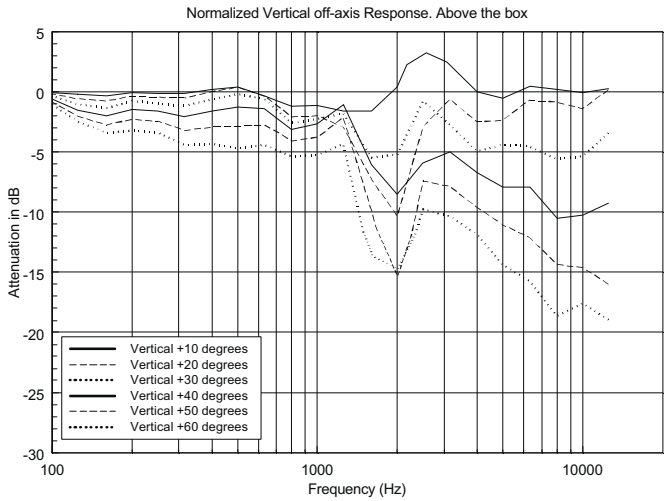
Cabinet:	Composite PP
Dimensions (HxWxD):	26.77" x 15.94" x 13.58" (680x405x345 mm)
Weight:	35.27 lbs. (16 kg)
Hardware:	4 M10 flying points
Handles:	2 side, 1 top
Pole Mount / Cap:	yes
Colour:	Antrhracyte gray

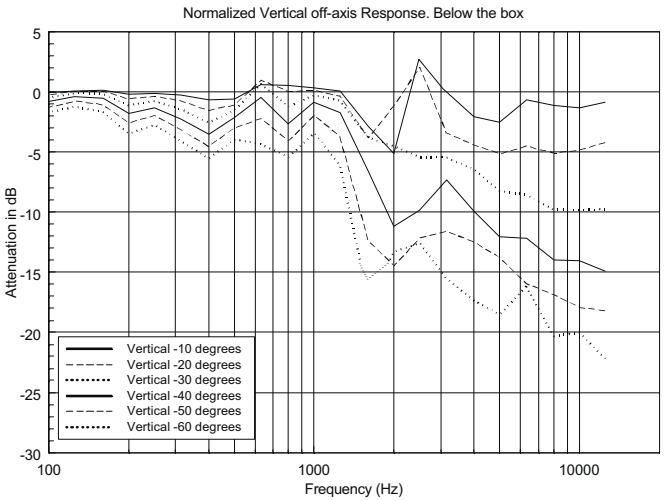

Response 1W/1m
dB SPL
Frequency (Hz)
110
100
90
80
70
60
20
100
1000
10000


Beamwidth vs. Frequency
Horizontal Beamwidth (1/3 Octave)
Vertical Beamwidth (1/3 Octave)
Coverage Angle (Deg.)
Frequency (Hz)
360
330
300
270
240
210
180
150
120
90
60
30
0
100
1000
10000

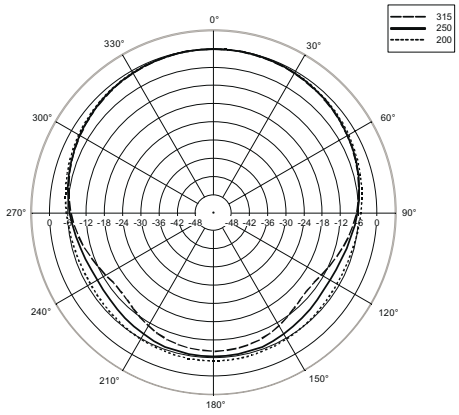

Directivity Index and Q
Total Q
Directivity Index Di, dB
Frequency (Hz)
100
10
1
20
18
16
14
12
10
8
6
4
2
0
100
1000
10000

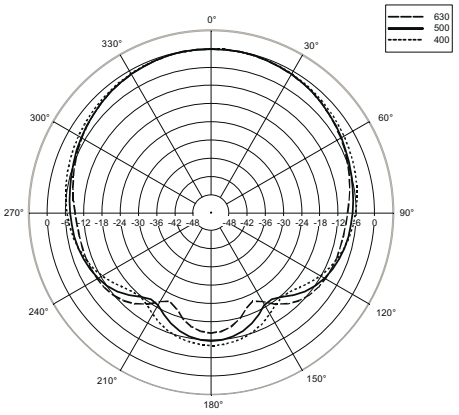

Normalized Horizontal off-axis Response
Attenuation in dB
Frequency (Hz)
Horizontal ±10 degrees
Horizontal ±20 degrees
Horizontal ±30 degrees
Horizontal ±40 degrees
Horizontal ±50 degrees
Horizontal ±60 degrees
5
0
-5
-10
-15
-20
-25
-30
100
1000
10000

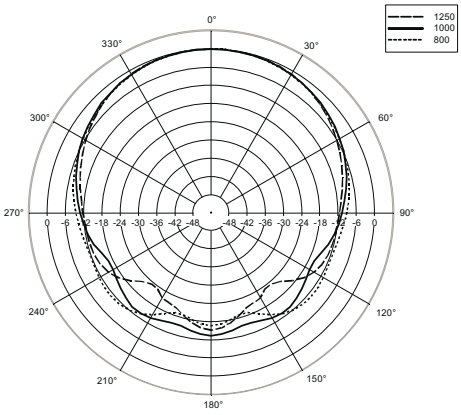

Normalized Vertical off-axis Response. Above the box
Attenuation in dB
Frequency (Hz)
Vertical +10 degrees
Vertical +20 degrees
Vertical +30 degrees
Vertical +40 degrees
Vertical +50 degrees
Vertical +60 degrees
5
0
-5
-10
-15
-20
-25
-30
100
1000
10000

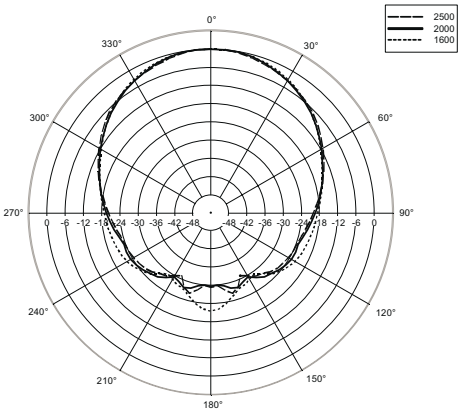

Normalized Vertical off-axis Response. Below the box
Attenuation in dB
Frequency (Hz)
Vertical -10 degrees
Vertical -20 degrees
Vertical -30 degrees
Vertical -40 degrees
Vertical -50 degrees
Vertical -60 degrees
5
0
-5
-10
-15
-20
-25
-30
100
1000
10000

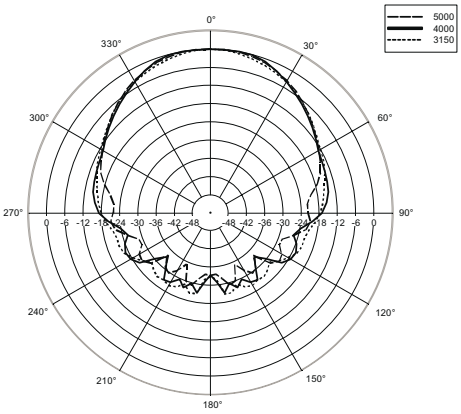
Horizontal 1/3 Polar Plot

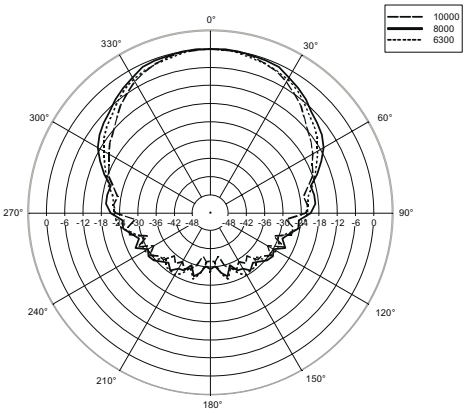




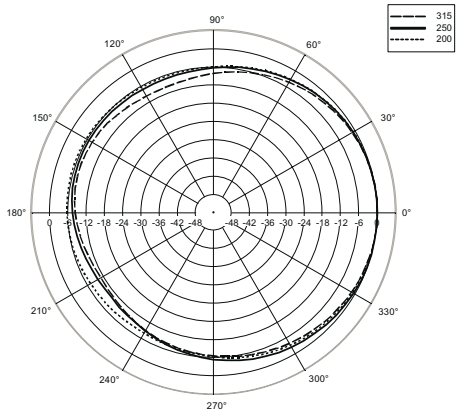


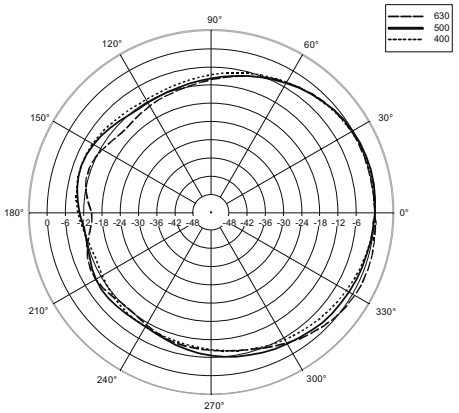


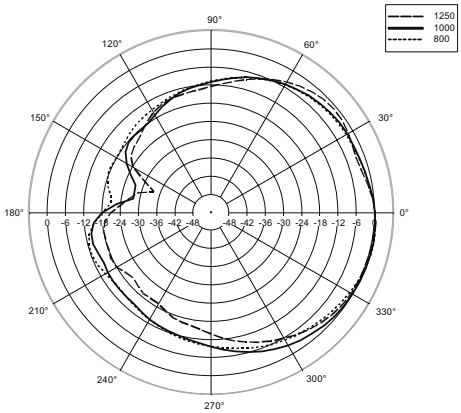


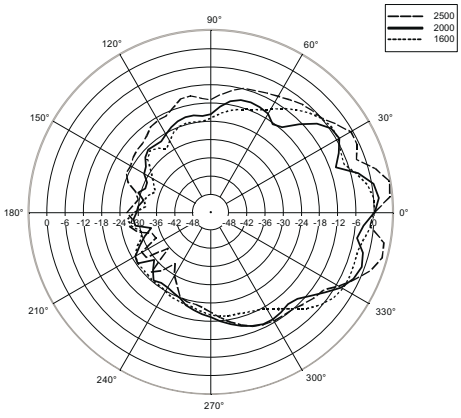


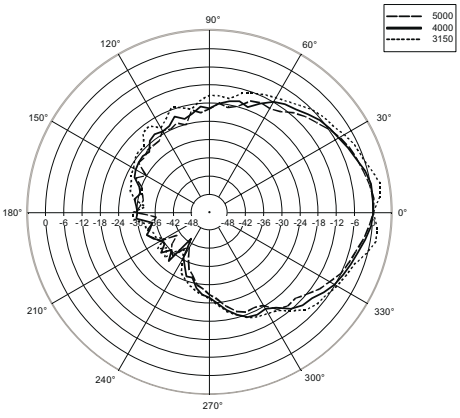
Vertical 1/3 Polar Plot

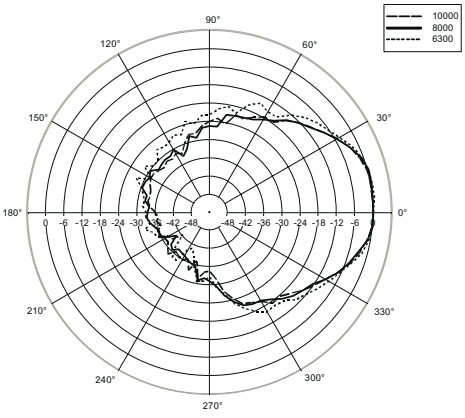












CSI PRODUCT SPECIFICATIONS FOR DESIGNERS, SPECIFIERS, AND CONSULTANTS (ALSO KNOWN AS “A&E SPECIFICATIONS”)
The following are “Part 2 Products” CSI-type specifications. It is assumed that “Part 1 General – Administrative and Procedures” and “Part 3 Execution – Installation and Maintenance” are part of an overall audio system or project specification.
PART 2 PRODUCTS

2.01 Approved Manufacturer/Product
A. RCF, Via Raffaello 13, 42010 Mancasale, Reggio Emilia, Italy.
B. Model number: ART 312

2.02 Design

Configuration	Compact 2 way speaker
LF Sub-section	15” high power woofer, 64mm edge wound aluminium coil
HF Sub-section	1” neodymium

2.03 Acoustical Proprieties

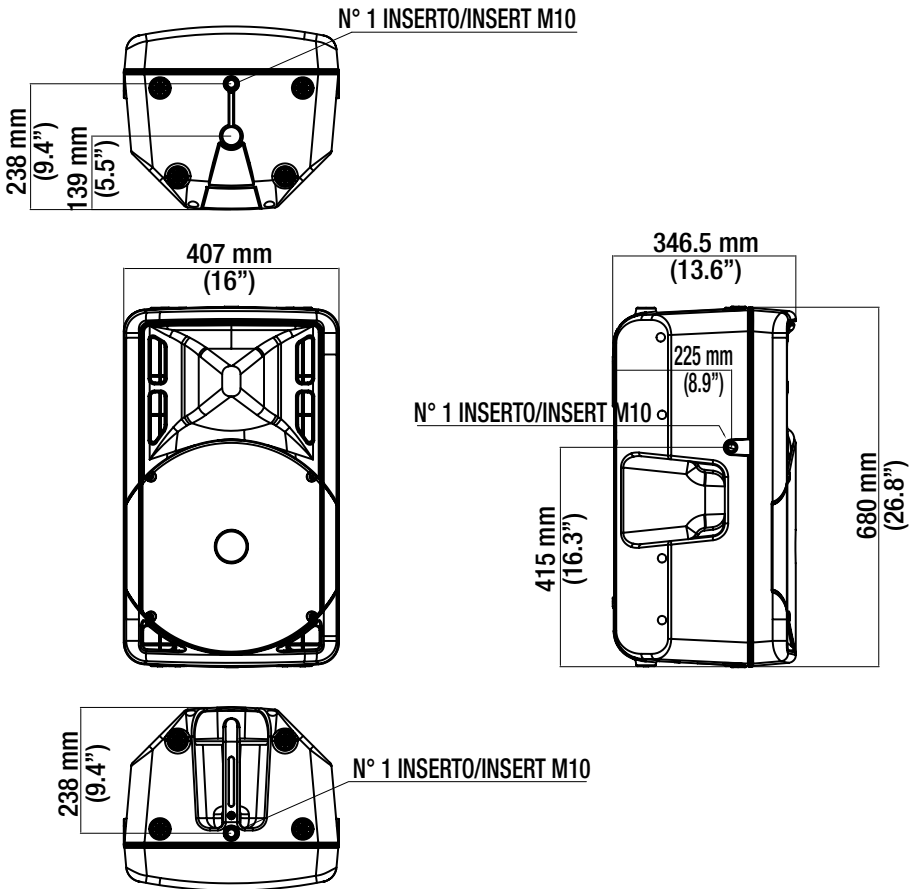
Nominal dispersion angle:	Horizontal: 90° - Vertical: 60°
Axial frequency range:	50Hz-20kHz

2.04 Physical Properties

Cabinet:	Composite PP
Rigging inserts:	4 M10 fly points and built in pole mount adaptor
Color:	Anthracyte gray
Grille:	Custom perforated steel grille with open-cell poly fiber backing
Input Connectors:	Speakon
Dimensions (H x W x D):	26.77” x 15.94” x 13.58” (680x405x345 mm)
Weight:	35.27 lbs. (16 kg)

2.05 Accessories

AC S260	Steel speaker floor stand with folding base end telescopic rod, tube Ø 35 mm
AC S140	Alluminium speaker floor stand with folding base end telescopic rod, tube Ø 35 mm
ART V-BR	Bracket for mounting one ART speaker on the wall - vertical. Adjustable inclination. Colour black.
ART H-BR	Bracket for mounting one ART speaker on the wall - horizontal. Adjustable inclination. Colour black.



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