ARTSERIES

ACTIVE SPEAKER
ART 312A



RCF ART 312-A is an active, wide dispersion 2 way sound reinforcement speaker. It integrates a high power 350 Watt amplifier, a complete electronic processor section 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" mylar dome in front of a low compression, optimised geometry and 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 frequencies reproduction. A generous 2 step class H design is used to power the low frequencies and the compression driver amplifier is a warm and clear class AB design. The input section presents an XLR input connector that is switchable from microphone to line levels. A master volume control plus a useful XLR loop-through link guarantees the best versatility. The processor section includes active crossover, transducer phase alignment, limiter and protection functions. The system is visually controlled from 4 status LEDs. All components are housed in a strong, lightweight, polypropylene composite enclosure. The woofer and compression driver throat are protected from a strong, powder coated, metal grille. The cabinet shape is perfect for monitoring applications. The cabinet features four M10 threaded fly points, a 35 mm internal pole mount facility, two side handles and a ergonomic top handle design.

Applications

ART 312-A 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-A is also suitable for monitoring applications.

Features

- 350 watt Monolithic bi-amplification, 300 watt low frequency and 50 watt high frequency power
- 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, mylar dome, high frequency driver
- Electronic equalization, phase alignment, limiter and protection
- Mic/Line XLR input, XLR signal output
- 2 side handles and 1 comfort designed top handle for easy transportation and positioning
- Four M10 fly points and built in pole mount adaptor

ACOUSTICAL SPECIFICATIONS

Frequency response:	50 - 20 Khz
Max SPL:	127 dB
Coverage angle:	90° x 60°
Compression driver:	neo 1"
Woofer:	12"

INPUT SECTION

Input signal (Impedance):	bal/unbal
Input connector:	xlr
Output signal connector:	xlr
Input sensitivity:	0 dBu
Mic. input sensitivity:	-40 dBu

PROCESSOR SECTION

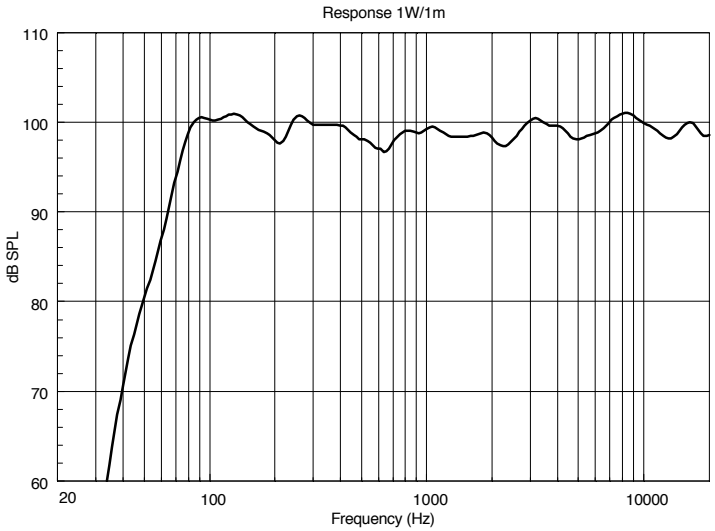
Crossover frequencies:	1800 Hz
Protections:	DC / short cir.
Limiter:	fast limiter
Master volume:	yes
Music / Voice eq:	yes
Remote control option:	yes

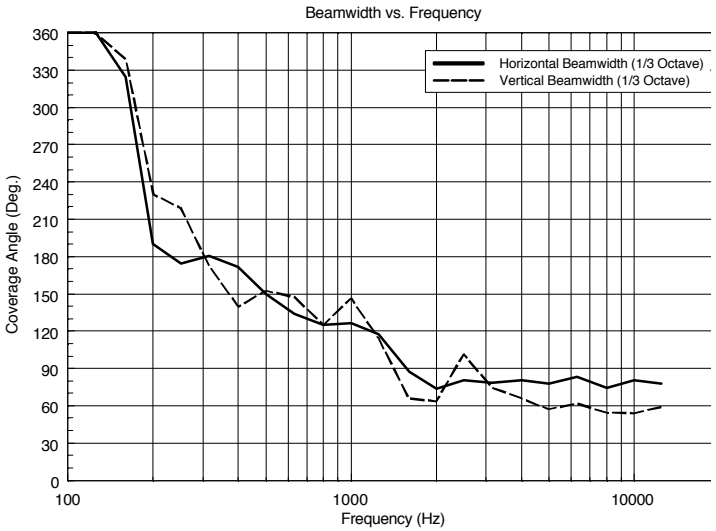
AMPLIFIER

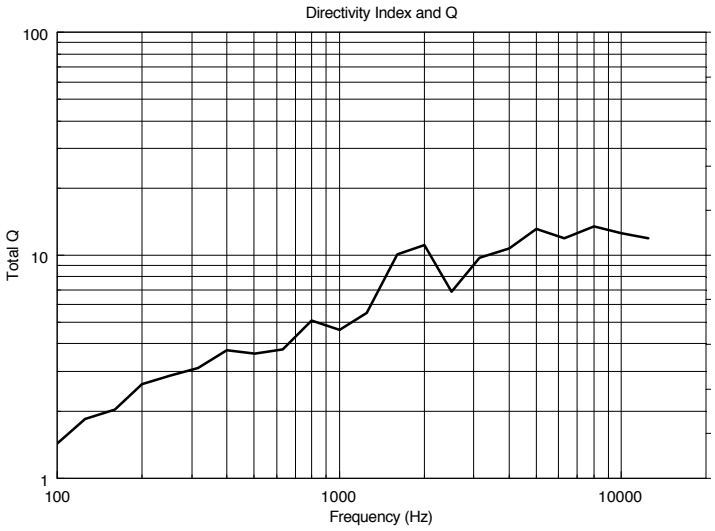
Nominal power:	350 Watt
High frequencies:	ab / 50 Watt
Low frequencies:	H / 300 Watt
Cooling:	Convection

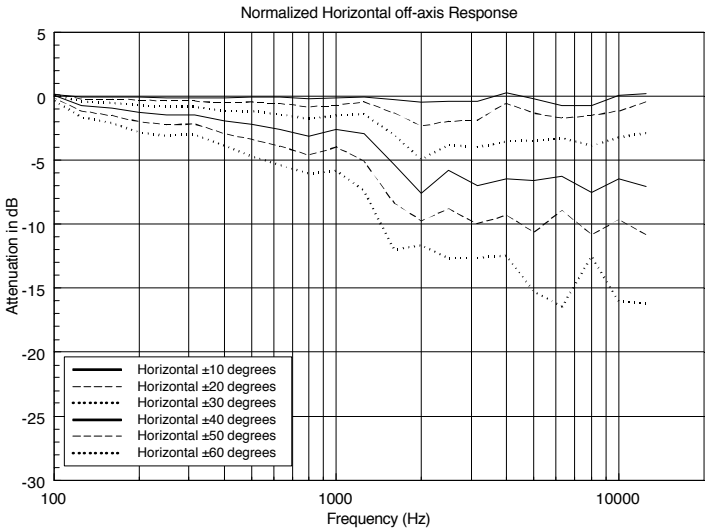
PHYSICAL

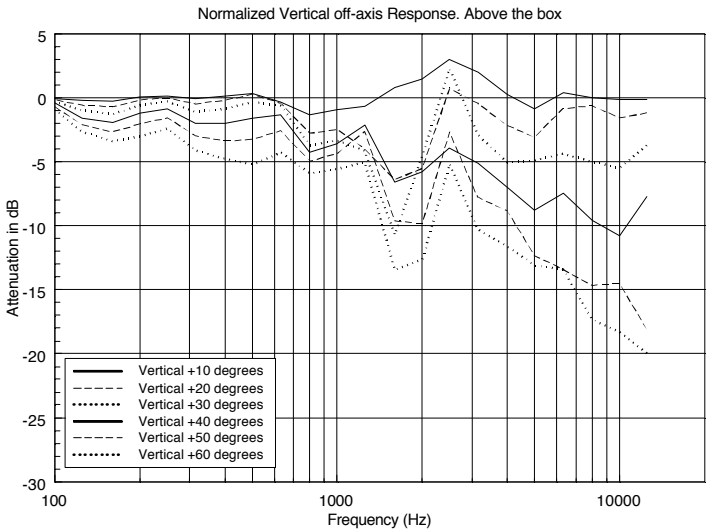
Cabinet:	Composite PP
Dimensions (HxWxD):	26.77" x 15.94" x 13.58" (680x405x345 mm)
Weight:	41.89 lbs. (19 kg)
Hardware:	4 M10 flying points
Handles:	2 side, 1 top
Pole Mount / Cap:	yes
Colour:	Antrhracyte gray

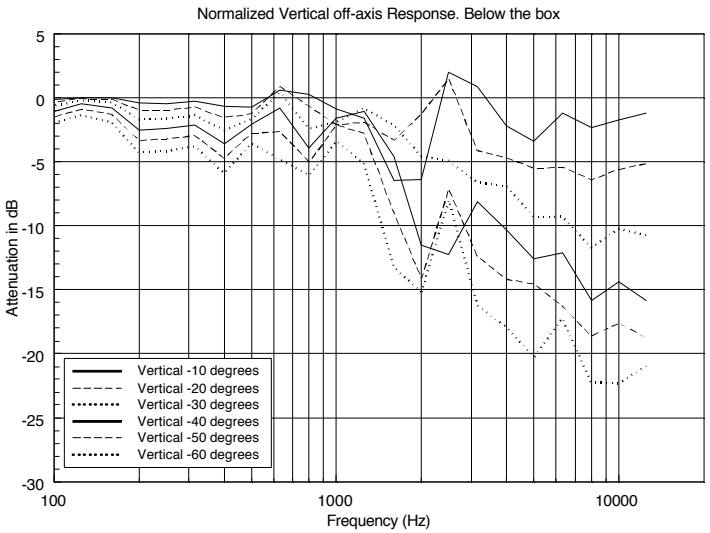

Response 1W/1m
dB SPL
Frequency (Hz)
110
100
90
80
70
60
20
100
1000
10000


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

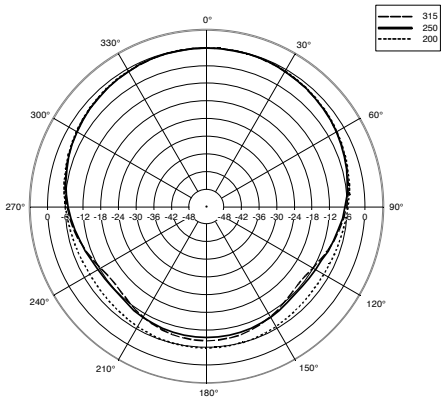

Directivity Index and Q
Total Q
Frequency (Hz)
100
10
1
100
1000
10000

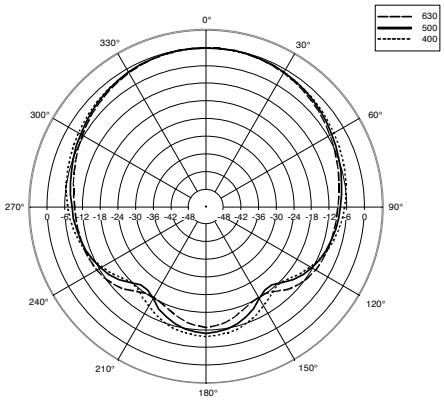

Normalized Horizontal off-axis Response
Attenuation in dB
Frequency (Hz)
Horizontal ±10 degrees
Horizontal ±20 degrees
Horizontal ±30 degrees
Horizontal ±40 degrees
Horizontal ±50 degrees
Horizontal ±60 degrees
5
0
-5
-10
-15
-20
-25
-30
100
1000
10000

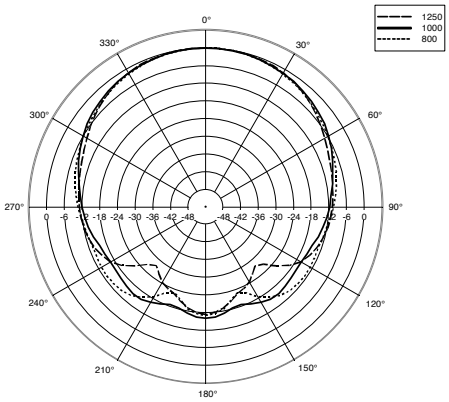

Normalized Vertical off-axis Response. Above the box
Attenuation in dB
Frequency (Hz)
Vertical +10 degrees
Vertical +20 degrees
Vertical +30 degrees
Vertical +40 degrees
Vertical +50 degrees
Vertical +60 degrees
5
0
-5
-10
-15
-20
-25
-30
100
1000
10000

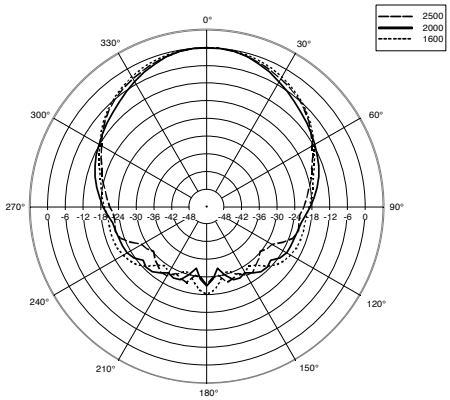

Normalized Vertical off-axis Response. Below the box
Attenuation in dB
Frequency (Hz)
Vertical -10 degrees
Vertical -20 degrees
Vertical -30 degrees
Vertical -40 degrees
Vertical -50 degrees
Vertical -60 degrees
5
0
-5
-10
-15
-20
-25
-30
100
1000
10000

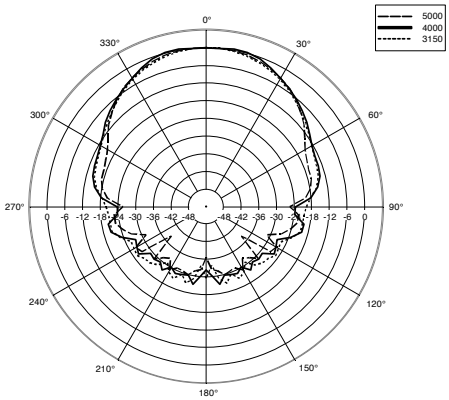
Horizontal 1/3 Polar Plot

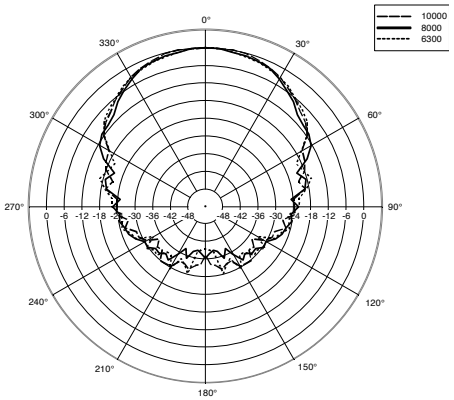




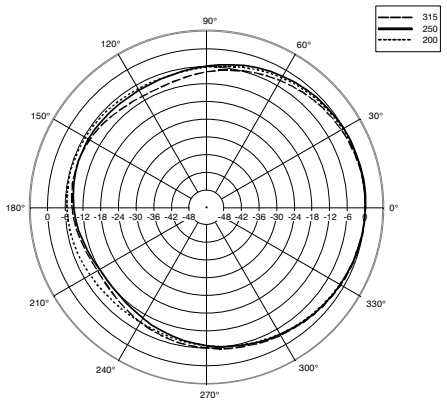


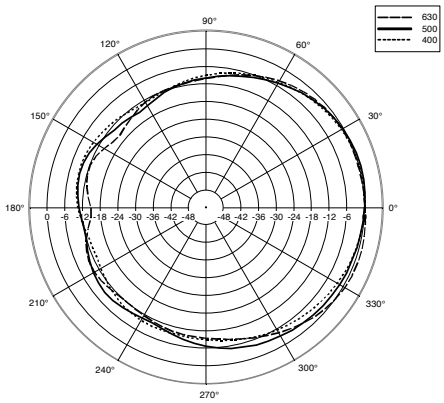


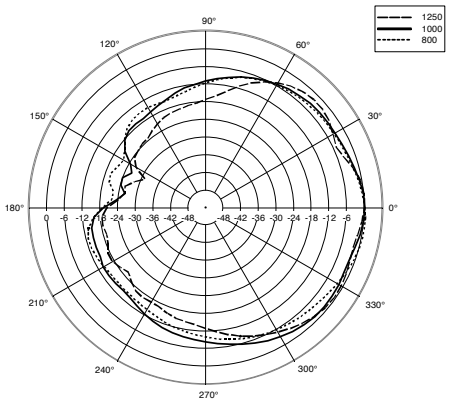


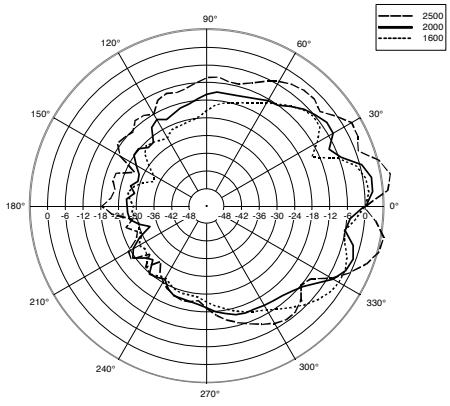


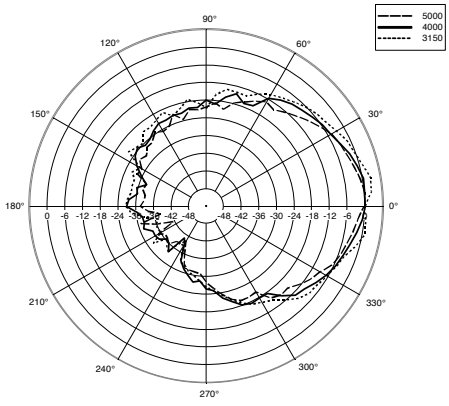
Vertical 1/3 Polar Plot

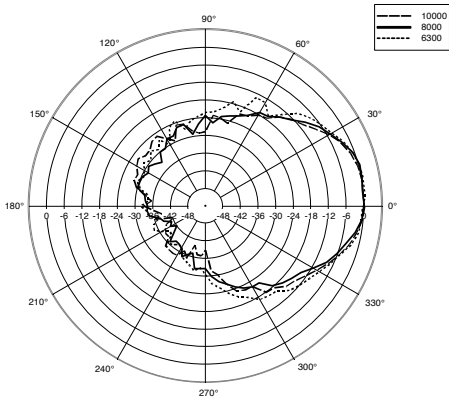












CSI PRODUCT SPECIFICATIONS FOR DESIGNERS, SPECIFIERS, AND CONSULTANTS (ALSO KNOWN AS “A&E SPECIFICATIONS”)
The following are “Part 2 Products” CSI-type specifications. It is assumed that “Part 1 General – Administrative and Procedures” and “Part 3 Execution – Installation and Maintenance” are part of 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 312A

2.02 Design

Configuration	Compact 2 way speaker
LF Sub-section	12” woofer, 64 mm edge wound aluminium coil
HF Sub-section	1” neodymium

2.03 Acoustical Proprieties

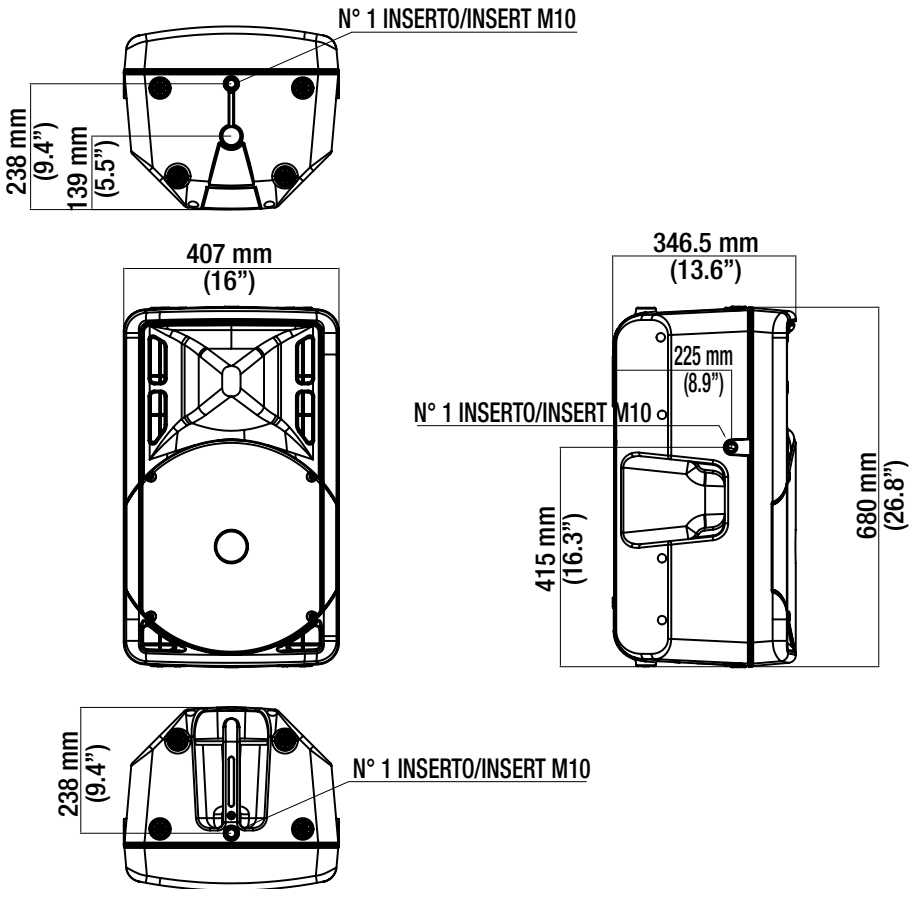
Nominal dispersion angle:	Horizontal: 90° - Vertical: 60°
Axial frequency range:	50Hz-20kHz

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:	xlr
Dimensions (H x W x D):	26.77” x 15.94” x 13.58” (680x405x345 mm)
Weight:	41.89 lbs. (19 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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