# ART 415-A

## TWO-WAY SYSTEM




## DESCRIPTION

RCF ART 415-A is an active, wide dispersion 2 way sound reinforcement speaker. It integrates a high power 400 watt digital amplifier, a complete electronic processor section and RCF low distortion, high power neodymium transducers. The system is unique in its class for output and vocal intelligibility.
All the transducers used for the ART 4 Series feature light weight neodymium magnets to guarantee better performances and make for easier transportation. A new 15" neodymium woofer design with 2.5" voice coil has been specifically developed for the ART 415-A. Combined with the perfect reflex port design of the speaker, the new woofer delivers an extremely accurate reproduction of the mid-bass frequencies and a punchy bass
The 1" compression driver uses a new 1.4" voice coil dome design and optimised geometry radial phase plug. This innovative design is powered from a high flux neodymium magnet offering a very open and natural midrange sound with extreme precision in high frequency reproduction.
RCF ART 415-A is equipped with a new generation of 400 Watt Digital Amplifier. The result of this is very high output, extremely low distortion and an incredible natural sound. Each amplifier presents both XLR In/Out connectors and a Jack input for the maximum connection versatility. An easy to reach volume knob on the back allows to set the overall volume of the speaker according to its application. A switchable EQ Mode make it easier to select among two different equalisation presets: Extended response switch, which slightly emphasizes the bass response for playback music and low volume applications or Linear response switch, for using the speaker to amplify a live mix. 3 status LEDs – Power / Signal / Status are provided for monitoring the system.
An integrated DSP manages crossover, Eq., soft limiter, compressor and dynamic bass boost.
ART 4 cabinets are moulded on a special polypropylene composite material and are designed to dampen down vibrations even at maximum volume settings. The cabinet shape allows every ART 4 speaker to be used also in stage monitor configuration At the bottom of the speakers a rugged stainless steel pole mount has been provided for deploying the speakers on stands or on subwoofers
The woofer is protected from a strong, powder coated, metal grille. The cabinet features 2 M10 threaded fly points and an ergonomic top handle for easy transportation.

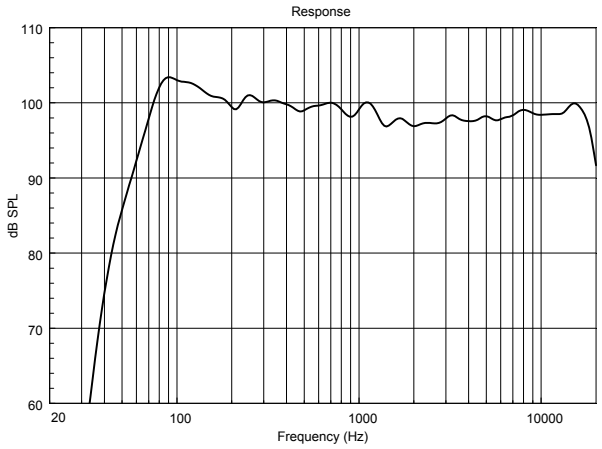
## MAIN APPLICATIONS

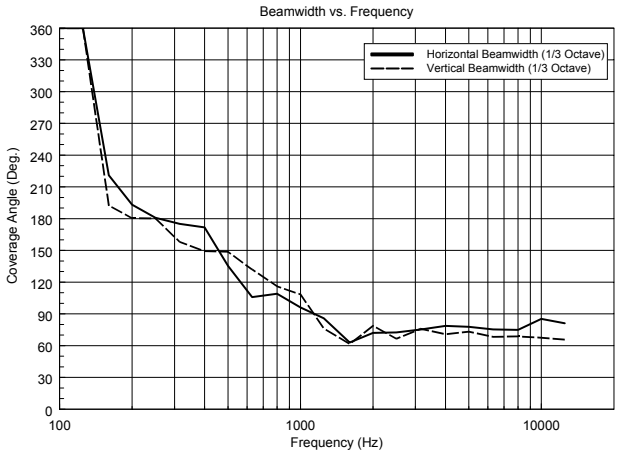
- Nearfield & portable PA
- Foreground/background PA, distributed PA, frontfill and sidefill
- Houses of worship, theatres, corporate AV, retail, theme parks
- Compact live sound reinforcement system
- Stage monitoring

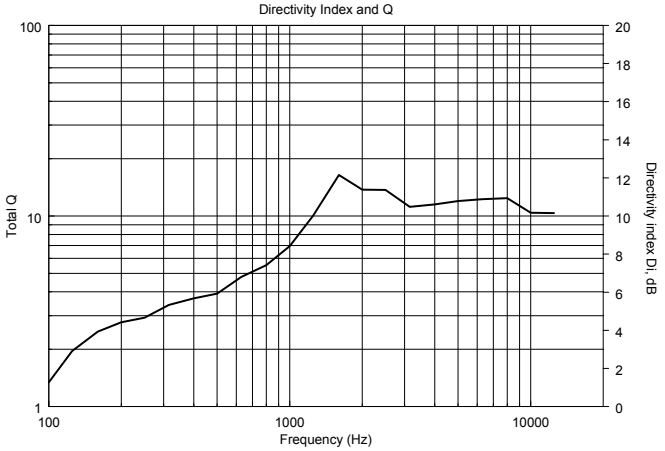
## MAIN FEATURES

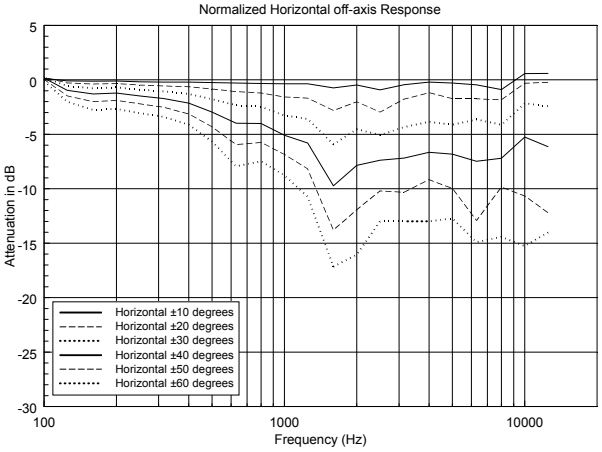
- 400 Watt digital bi-amplification, 300 Watt Low Frequency and 100 Watt High Frequency Power
- 128 dB max spl
- Wide dispersion 90 x 60 constant directivity horn
- 15" High power neodymium woofer, 2,5" voice coil
- 1" neodymium high frequency driver , 1.4" voice coil
- Electronic equalization, soft limiter and protection
- Xlr/jack combo input, xlr signal output
- 2 side handles and 1 ergonomic top handle for easy transportation and positioning

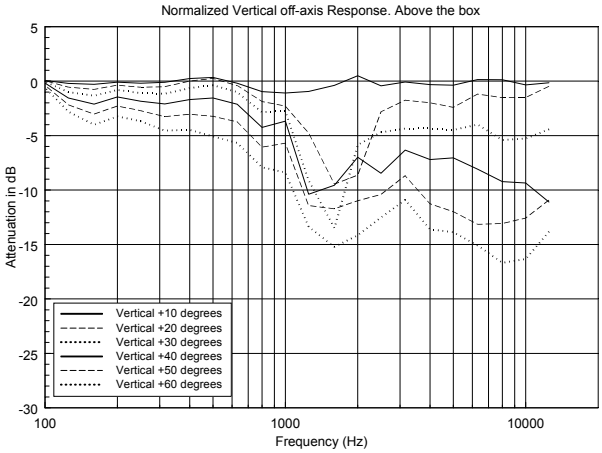
# ART 415-A

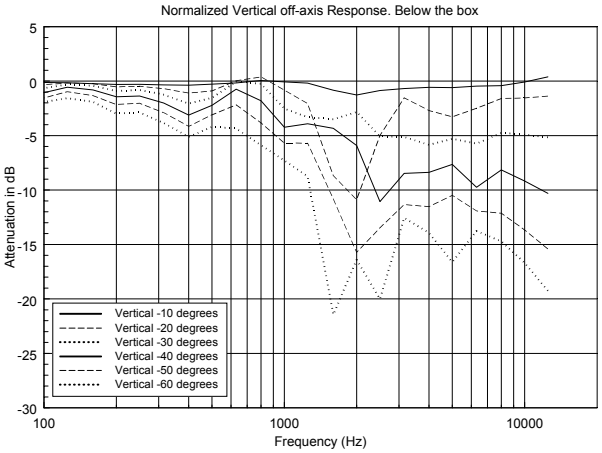

Response
dB SPL
110
100
90
80
70
60
20
100
1000
10000
Frequency (Hz)


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


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

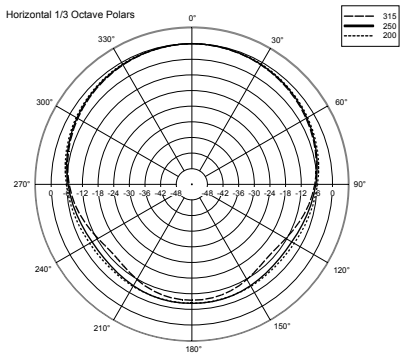

Normalized Horizontal off-axis Response
Attenuation in dB
5
0
-5
-10
-15
-20
-25
-30
Horizontal ±10 degrees
Horizontal ±20 degrees
Horizontal ±30 degrees
Horizontal ±40 degrees
Horizontal ±50 degrees
Horizontal ±60 degrees
100
1000
10000
Frequency (Hz)

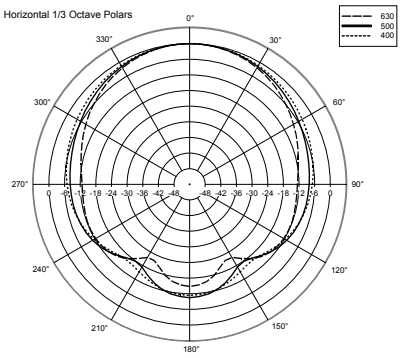

Normalized Vertical off-axis Response. Above the box
Attenuation in dB
5
0
-5
-10
-15
-20
-25
-30
Vertical +10 degrees
Vertical +20 degrees
Vertical +30 degrees
Vertical +40 degrees
Vertical +50 degrees
Vertical +60 degrees
100
1000
10000
Frequency (Hz)

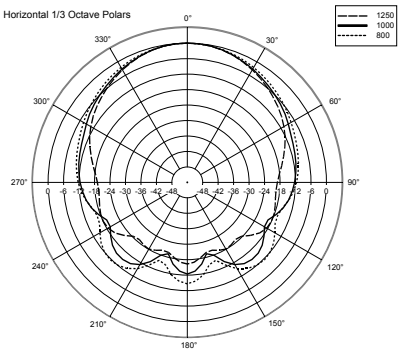

Normalized Vertical off-axis Response. Below the box
Attenuation in dB
5
0
-5
-10
-15
-20
-25
-30
Vertical -10 degrees
Vertical -20 degrees
Vertical -30 degrees
Vertical -40 degrees
Vertical -50 degrees
Vertical -60 degrees
100
1000
10000
Frequency (Hz)

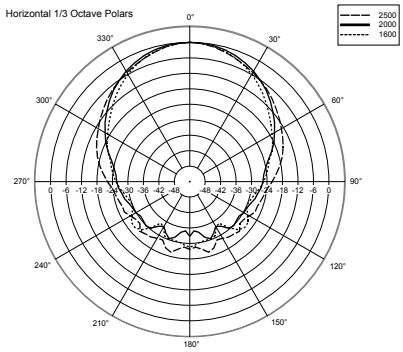
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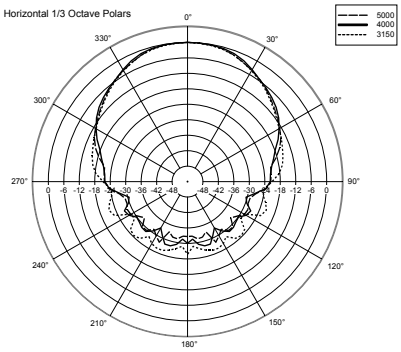
## HORIZONTAL 1/3 POLAR PLOT

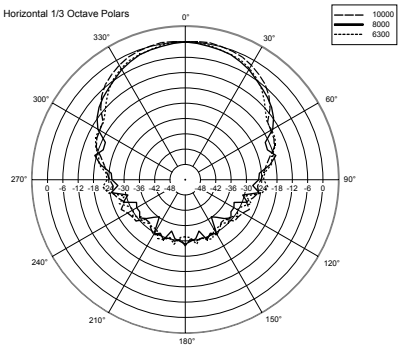


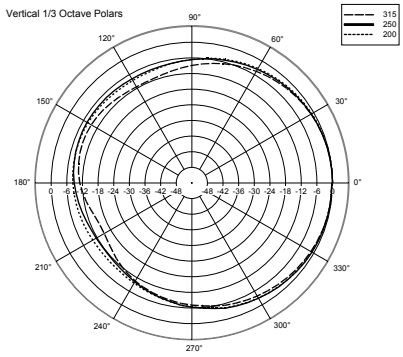



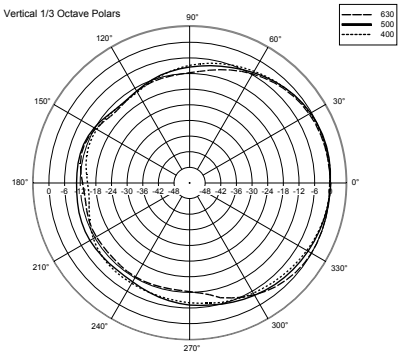



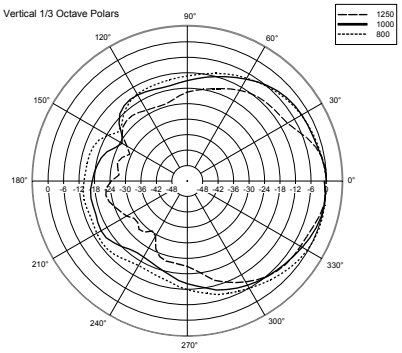



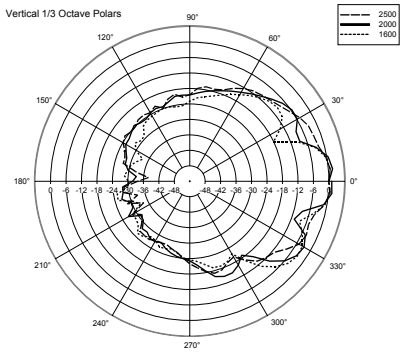



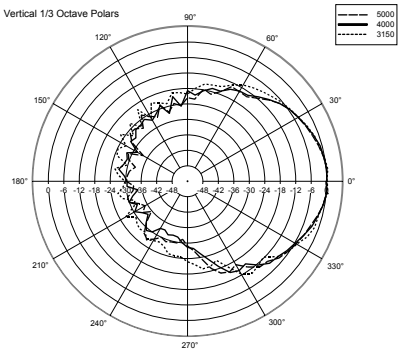

## VERTICAL 1/3 POLAR PLOT

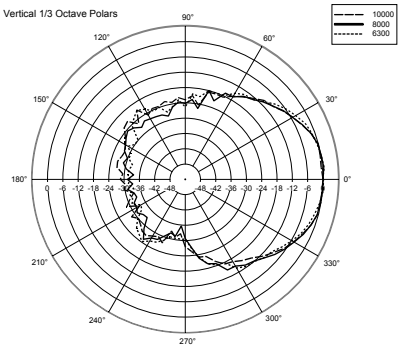


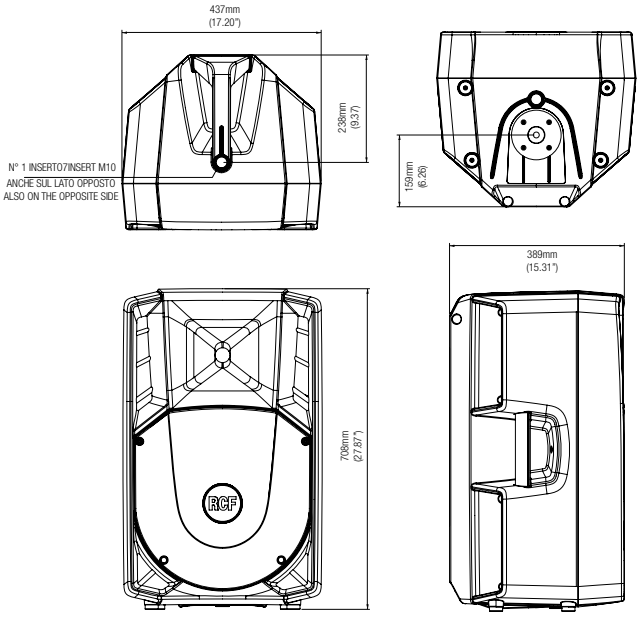
# ART 415-A

## PART NUMBERS

13000213 - 230VOLT

13000214 - 115 VOLT

## DIMENSIONS (All data are in mm)




## ACCESSORIES

| | |
|---|---|
| AC S260 | Steel speaker floor stand with folding base and telescopic rod, tube diameter 35mm. Load capacity up to 60kg, Weight 7.8 Kg, H MIN/MAX 170cm/240cm. Length once folded 123cm |
| AC S140 | Aluminium speaker floor stand with folding base and telescopic rod, tube diameter 35mm. Load capacity up to 40kg, Weight 2.7 Kg, H MIN/MAX 140cm/214cm. Length once folded 107cm |
| AC PRO-FS | Steel speaker floor stand with folding base and telescopic rod, tube diameter 35mm. Load capacity up to 50kg, Weight 4.5 Kg, H MIN/MAX 137cm/210cm. Length once folded 102cm |
| AC PRO-LF | Steel professional adapter sleeve for speaker floor stand, tube diametro 35 mm. Load capacity up to 50Kg, Weight 0.7 Kg, H 27.5 cm |
| AC PRO-PM | Steel pole mount accessory for a satellite speaker on a subwoofer, tube diametro 35 mm. Load capacity up to 35Kg, Weight 2.4 Kg, H MIN/MAX 95cm/137cm |
| AC EB4X | Kit including No. 4 shouldered 10mm eye bolts |
| AC PMA | Speaker pole mount |
| AC ART715 H-BR | Horizontal bracket for ART 415-A, ART 425, ART 715-A and ART 725-A |
| Cover ART 725 | Art cover for ART 415-A, ART 425, ART 715-A and ART 725-A |

1.0-I-F

## ACOUSTICAL SPECIFICATIONS

| | |
|---|---|
| Frequency response: | 50 Hz- 20 Khz |
| Max SPL: | 128 dB |
| Horizontal coverage angle: | 90° |
| Vertical coverage angle: | 60° |
| Compression driver: | 1" neo, 1.4" voice coil |
| Midrange: | - |
| Woofer: | 15" neo, 2.5" voice coil |

## INPUT SECTION

| | |
|---|---|
| Input signal (Impedance): | bal/unbal |
| Input/Output connector: | xlr-jack |
| Input sensitivity: | +4 dBu |

## PROCESSOR SECTION

| | |
|---|---|
| Crossover frequencies: | 1800 Hz |
| Protections: | Themel, HF |
| Sensitivity control: | yes |
| Limiter: | soft limiter |
| High pass: | - |
| Controls: | flat/boost |

## AMPLIFIER

| | |
|---|---|
| Power supply: | switching 400 Watt |
| High frequencies: | D / 100 Watt |
| Mid frequencies: | - |
| Low frequencies: | D / 300 Watt |
| Cooling: | convection |
| Connection: | Xlr/jack input, xlr signal output |

## PHYSICAL

| | |
|---|---|
| Height: | 708 mm (27.87") |
| Width: | 437 mm (17.20") |
| Depth: | 389 mm (15.31") |
| Weight: | 17.8 kg (39.24 lbs) |
| Cabinet: | Composite PP |
| Hardware: | pole mount |
| Handles: | 1 top, 2 side |
| Pole mount cap | yes |
| Colour: | Black |

RCF products are continually improved. All specifications are therefore subject to change without notice.