

# **RCFACUSTICA**

# **H SERIES**

# H1312



The RCFACUSTICA H1312 is three-way full range loudspeaker system that incorporate a 12" LF transducer, a 8" cone MF transducer and a 1" exit titanium compression driver. The system is very compact and provides very high output and accurate voice and sound reproduction.

The system is equipped with the latest generation of RCF precision transducers, all of them with powerful neodymium motors. The LF driver, equipped with a 4" voice coil and a state of the art neodymium motor, is mounted in a vented enclosure with optimised front loading. The MF cone driver is a unique RCF sealed basket design and is loaded into a low compression polystyrene midrange horn . The HF titanium compression driver is loaded on a constant directivity horn with a coverage of 90° x 60°. The compression driver Horn is rotatable. The internal passive filter provides crossover and equalization between the midrange and the compression driver. The Crossover network offers Compression Driver Protection thanks to a unique design Active MOSFET Circuit. The system is driven in bi-amped mode, is able of producing a Max SPL of 134 dB and handles 800 Watts AES (LF) + 300 Watt AES (MF/HF). The loudspeaker enclosure shape is multi-trapezoidal and offers a double coupling angle each side. The cabinet is constructed of multi-ply baltic birch plywood and finished in a very resistant, textured, polyurethane black paint. The cabinet includes 2 recessed handles for transportation and positioning and a total of six double M10 fixing point for flown applications and extensive internal metal bracing. The front steel grille is epoxy powder coated

## **SYSTEM**

Freq. Range (-10 dB):	60Hz-20kHz
Freq. Range (-3 dB):	67Hz-20kHz
Horiz. coverage angle (-6 dB):	90°
Vertical coverage angle (-6 dB):	60°
Directivity factor; Q:	10
System sensitivity <sup>1</sup> :	98dB LF, 106 dB MF/HF
Rated maximum SPL:	LF 134 dB - MF/HF 137 dB
System Nominal Impedance:	8 Ω
System Input Power Rating RMS <sup>2</sup> :	LF 800W • MF HF 300W
System Input Power Rating PEAK <sup>2</sup> :	LF 2400W • MF HF 900W
Recommended Amplifier <sup>3</sup> :	LF 1600W • MF HF 600W
HF Protection:	Active Mosfet Compression Driver Protection
Crossover:	Passsive MF/HF 1,8 kHz, active 450Hz

## **TRANSDUCERS**

Low Frequency:	12" (300 mm) woofet with 4" (100 mm) coil
Nominal Impedance:	8 Ω
Input power Rating:	800 W
Sensitivity <sup>1</sup> :	98 dB
Mid Frequency:	8"(200 mm) throat, 3" (75 mm) coil
Nominal Impedance:	8 Ω
Input power Rating:	300 W
Sensitivity <sup>1</sup> :	106 dB
High Frequency:	1" (25mm) throat with 1.75" (44 mm) coil
Nominal Impedance:	8 Ω
Input power Rating:	40 W
Sensitivity <sup>1</sup> :	109 dB

## **PHYSICAL**

Enclosure:	Trapezoidal, 15° - 30° side angles
	19 mm birch plywood construction
Rigging inserts:	6 X double M10 Mounting Points, 2x
	Recessed Handles
Color:	Black, scratch resistant paint
Grille:	Custom perforated steel grille with
	open-cell poly fiber backing
Input Connectors:	2 X Neutrik Speakon NL4
Dimensions (H x W x D):	29,52"x17,51"x19,05" 750x445x484 mm
Weight:	73,85 lb - 33,5Kg

# **Applications**

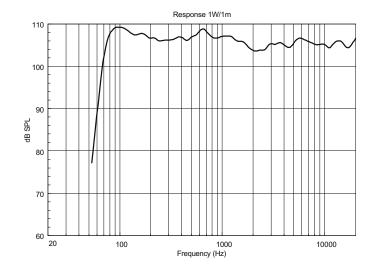
- **Permanent Installations**
- Sound Reinforcement in medium to large spaces
- **AV Presentations**
- Flown Clusters
- **Club Systems**
- Main PA in small to mid-size systems

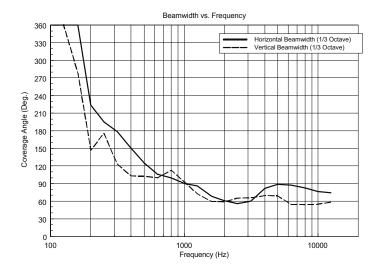
### **Features**

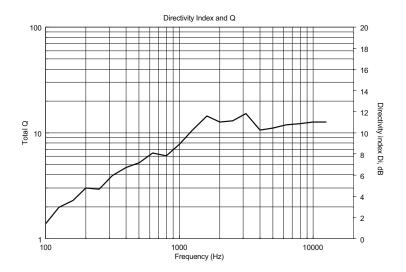
- Compact Arrayable 3-way System
- Fully Horn-loaded LF/MF/HF (90° x 60° directivity)
- Fully equipped with Neodymium Transducers
- 12"LF, 4" voice coil /8"MF, 3" voice coil/1"HF, 1,75" voice coil
- Bi-amp system (passive crossover MF/HF included)
- **Active MOSFET Compression Driver Protection**
- Rotatable HF Horn
- Recessed handles
- Dedicated to permanent installation

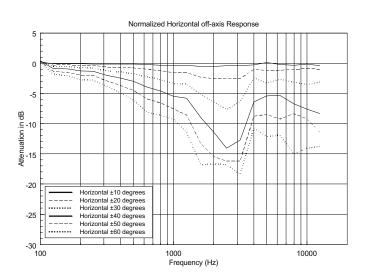
Measured on axis in the far field with 1 watt (2.83V RMS,  $8\Omega$ ) input and referenced to 1 meter distance using the

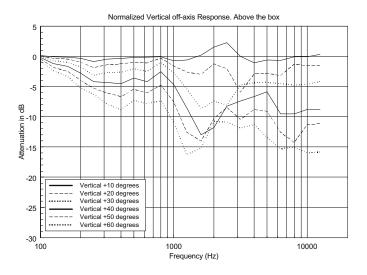
inverse square law. Listed sound pressure represents an average from 300Hz to 3kHz RMS using 20Hz to 20kHz, PN Spectrum, Peak for 2 hours with +6 dB crest factor. Recommended Amplifier is a power capability value thats hould be taken as a guide.

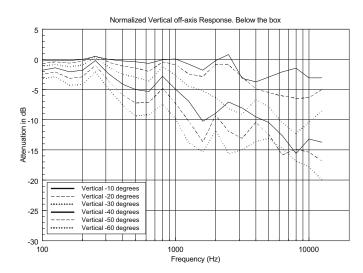




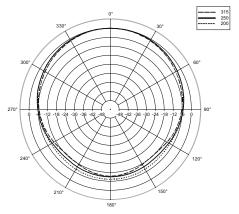


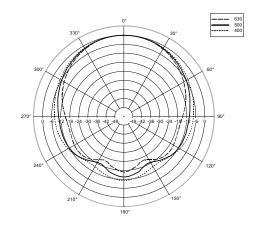


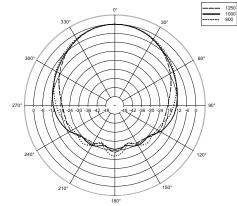


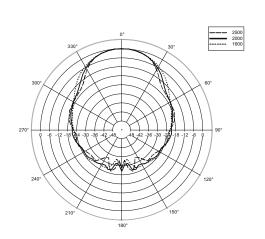


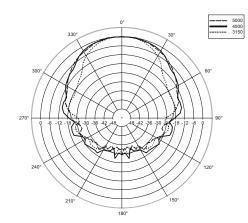
## Horizontal 1/3 Polar Plot

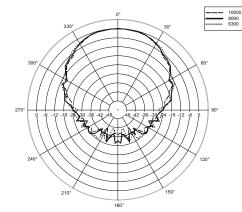




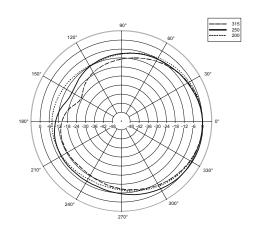


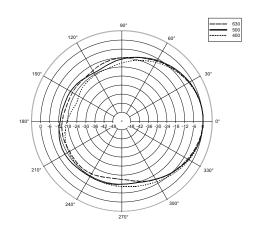


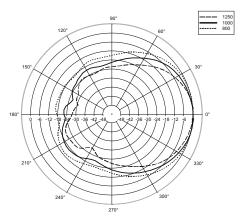


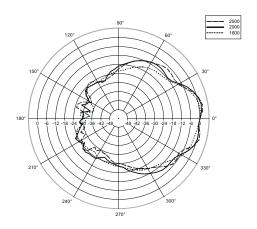


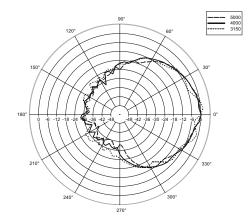
## Vertical 1/3 Polar Plot

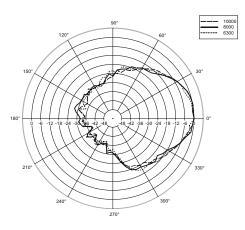












CSI PRODUCT SPECIFICATIONS FOR DESIGNERS, SPECIFIERS, AND CONSULTANTS (ALSO KNOWN AS "A&E SPECIFICATIONS") The following are "Part 2 Products" CSI-type specifications. It is assumed that "Part 1 General – Administrative and Procedures" and "Part 3 Execution – Installation and Maintenance" are part of 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: H1312

#### 2.02 Design

Configuration bi-amp 3 way speaker
LF Sub-section 12" mid-bass, 4" voice coil
MF Sub-section 8" neodymium, 3" sealed basket
HF Sub-section 1" neodymium, 1.75" titanium dome

#### 2.03 Acoustical Proprieties

Nominal dispersion angle: Horizontal: 90° - Vertical: 60°

Axial frequency range: 60Hz-20kHz
Axial sensitivity: 98 dB

Axial sensitivity: 98 dB
Power handling: LF 800 W - MF/HF 300 W

Nominal impedence:  $8 \Omega$ 

#### 2.04 Physical Properties

Enclosure: Trapezoidal 15° - 30° side angles, 19 mm birch plywood construction

Rigging inserts: 6 X double M10 Mounting Points, 2x Recessed Handles

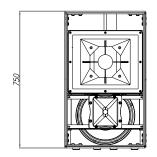
Color: Black, scratch resistant paint

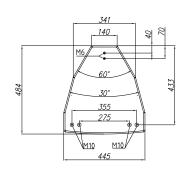
Grille: Custom perforated steel grille with open-cell poly fiber backing

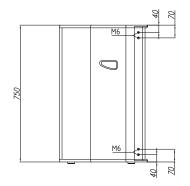
Input Connectors: 2 X Neutrik Speakon NL4

Dimensions (H x W x D): 29,52"x17,51"x19,05" 750x445x484 mm

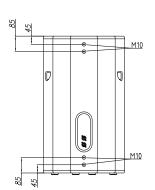
Weight: 73,85 lb - 33,5Kg











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