

# CL2596/CL2596-WH

Mid-Size 200-Watt, 2-Way, 8  $\Omega$  Loudspeaker System with 15" Low-Frequency and 1.35" High-Frequency Transducers



## Features

- Professional sound reinforcement loudspeaker system designed for a variety of fixed installation applications
- Exceptional sound quality with wide frequency bandwidth and uniform dispersion
- 250-Watt 15" low-frequency transducer provide deep bass for medium to large sized rooms
- Constant directivity 90° H x 60° V rotatable waveguide with 1.35" high-frequency transducer
- Passive crossover with overload circuitry ensures optimal driver protection
- Dual professional speaker connectors (compatible with Neutrik Speakon connectors) and 4-position terminal strip
- Internally braced and acoustically inert 15° trapezoidal birch plywood enclosure ideal for cluster applications
- Multiple threaded inserts for flexible installation including Omnimount™ bolt pattern
- Powder coated steel grille wrapped with acoustically transparent fabric and foam matching cabinet color
- High-quality components and exceptionally rugged construction ensure long life

# CL2596/CL2596-WH

## Mid-Size 200-Watt, 2-Way, 8 Ω Loudspeaker System with 15" Low-Frequency and 1.35" High-Frequency Transducers

### Product Overview

The EUROCOM CL2596 is a professional high-performance two-way loudspeaker system that is ideal for a wide variety of fixed installation applications. Featuring clean lines and a unique fabric-finished wrap-around grille, the CL2596 is fully at home in even the most elegant settings, including theaters and auditoria, houses of worship, themed entertainment, and sporting venues. Perfect for mains in medium to large venues, the CL2596 also excels for fill and delay systems in large rooms.

Built of high-quality laminated Baltic birch plywood, the CL2596's lightweight cabinet combines natural rigidity and acoustic inertness with the additional strength of internal steel bracing. Threaded mounting-point inserts in the internal brackets provide a rated load factor of at least 10 times overall cabinet weight, making the CL2596 exceptionally safe for flown installation, either singly or in arrays.

The CL2596 achieves fully-professional performance and reliability with newly-designed components whose frequency response, sensitivity, and power handling are all custom-tailored for CL Series loudspeakers. BEHRINGER maintains complete control over quality and sonic character by manufacturing all CL Series components—starting with the pulp used for cone fabrication—in our own factories.

A 15" woofer providing full, rich lows is matched to a 1.35" compression driver via an internal passive crossover at 2 kHz to deliver clear, smooth sound across the entire audible spectrum. A rotatable waveguide allows optimal application of the 90° x 60° coverage pattern regardless of speaker orientation, which may be either vertical or horizontal. Easy bypass of the crossover offers the added flexibility of operating the loudspeaker in a bi-amped configuration.

Every aspect of the CL2596 has been thought through to maximize value and convenience for both the installer and the end user. The result is an attractive, durable, installation-ready loudspeaker system that will deliver top-notch sound day-after-day for years to come.

### Technical Specifications

• Frequency range (-10 dB)	37 Hz - 20 kHz	
• Frequency response (±3 dB)	42 Hz - 18 kHz	
• Nominal dispersion	90° H x 60° V	
• Directivity factor (Q)	8.7	
• Directivity index (DI)	9.4 dB	
• Sensitivity (1 W @ 1 m passive) (half space)	96 dB	
• Crossover modes	Bypassable	
• Crossover frequency	2 kHz	
• Power handling (long term, IEC passive)	200 W RMS @ 40 V	
<b>Transducers:</b>		
• Nominal impedance	8 Ω	
• Low frequency driver	15" @ 250 W	
• High frequency driver	1.35" @ 30 W	
• Horn waveguide	90° H x 60° V HF, rotatable	
• Maximum continuous SPL (passive)	119 dB	
• Maximum peak SPL (passive)	125 dB	
• Overload protection	Full range power limiting to protect drivers and crossovers	
• Enclosure	Trapezoidal 15° side angle, laminated birch plywood	
• Grille	Steel	
• Rigging points	23 x M10 threaded points; 4 x M8 threaded inserts for OmniMount™ 60 series.	
• Termination	Dual NL4 and 4-position terminal strip connection	
• Dimensions (H x W x D)	32.4 x 18.5 x 16.5" / 823 x 470 x 418 mm	
• Weight	67.1 lbs / 30.5 kg	
• Optional accessories		
Wall/Ceiling Bracket (Black):	CL2500 YB	
Wall/Ceiling Bracket (White):	CL2500 YB-WH	
Array/Fly Kit for Suspension of (2) Identical CL Series (Black):		CL FK
Array/Fly Kit for Suspension of (2) Identical CL Series (White):		CL FK-WH

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## Mid-Size 200-Watt, 2-Way, 8 $\Omega$ Loudspeaker System with 15" Low-Frequency and 1.35" High-Frequency Transducers

### Architect's and Engineer's Specifications

**Summary description:** The loudspeaker shall be a professional 2-way fixed-installation loudspeaker system in a steel-braced plywood enclosure using a bypassable internal crossover network with a 15" / 380 mm low-frequency cone transducer and a waveguide-mounted 1.35" / 34 mm high-frequency compression driver.

**Drivers:** The loudspeaker system shall use two transducers:

- Low-frequency driver shall be a 15" / 380 mm direct-radiating cone transducer
- High-frequency driver shall be a 1.35" / 34 mm diaphragm compression driver mounted on a rotatable 90° x 60° waveguide constructed of polypropylene

**Enclosure:** The loudspeaker system shall be housed in an enclosure constructed of laminated birch plywood that is internally braced with steel. The enclosure shall be finished with durable, scuff-free black or white paint. The front of the enclosure shall be protected with a perforated grille of powder-coated structural steel behind fabric-wrapped acoustically transparent foam. The back of the enclosure shall have a recessed steel input plate for connectors.

**Rigging and mounting:** The exterior of the enclosure shall be fitted with 23 M10 threaded rigging points. The rear of the enclosure shall have 4 M8 threaded inserts for OmniMount™ 60 series. The enclosure shall provide attachment points for an optional yoke bracket.

**I/O and connectors:** The loudspeaker system shall have the following connectors:

- Two NL4 connectors, wired in parallel as full-range inputs to the passive crossover
- One 4-position terminal strip with captive wire clamps and removable plastic cover, with IN terminals wired in parallel to OUT terminals and to the NL4 connectors
- Crossover bypass as a detachable connector on the crossover PCB, allowing direct connection to each driver

**Performance criteria:** The loudspeaker system shall meet the following performance criteria:

- Nominal impedance shall be 8  $\Omega$
- Sensitivity (1 W / 1 m passive) shall be 96 dB
- Usable frequency range (-10 dB) shall be 37 Hz - 20 kHz
- Frequency response ( $\pm 3$  dB) shall be 42 Hz - 18 KHz
- Power Handling (IEC268-5, passive) shall be 200 W RMS @ 40 V
- Nominal dispersion shall be 90° x 60° (axis dependent on horn orientation)
- Maximum SPL (1 m, passive) shall be 119 dB continuous and 125 dB peak

**Dimensions and weight:** The loudspeaker system shall have the following physical characteristics:

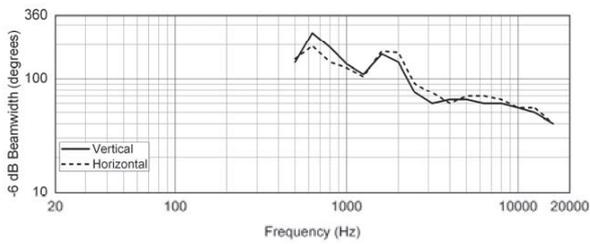
- Height shall be 32.4" / 823 mm
- Width shall be 18.5" / 470 mm
- Depth shall be 16.5" / 418 mm
- Net Weight shall be no more than 67.1 lbs / 30.5 kg

**Model:** The loudspeaker shall be the BEHRINGER EUROCOM CL2596/CL2596-WH.

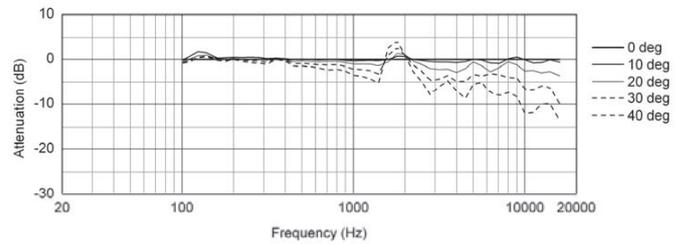
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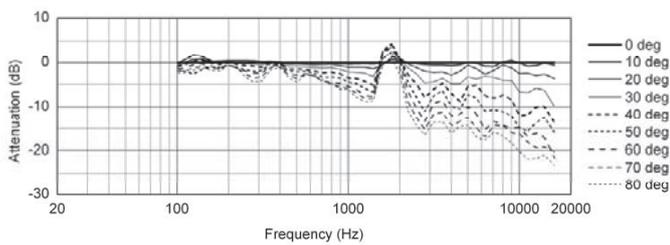
**Beamwidth VS. Frequency**



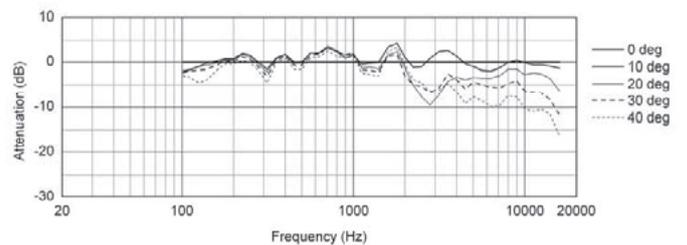
**Vertical Up Off-Axis Frequency Response**



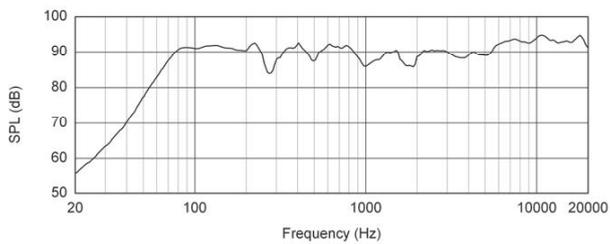
**Horizontal Off-Axis Frequency Response**



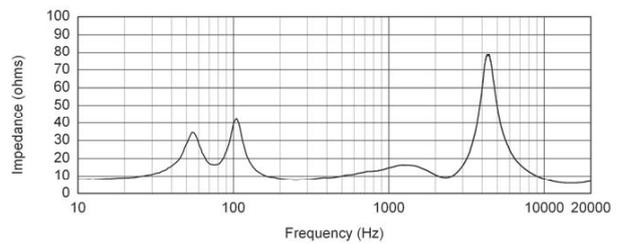
**Vertical Down Off-Axis Frequency Response**



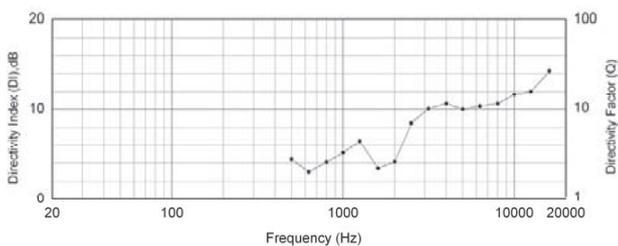
**Frequency Response, 1 W @ 1 M**



**Impedance VS. Frequency**



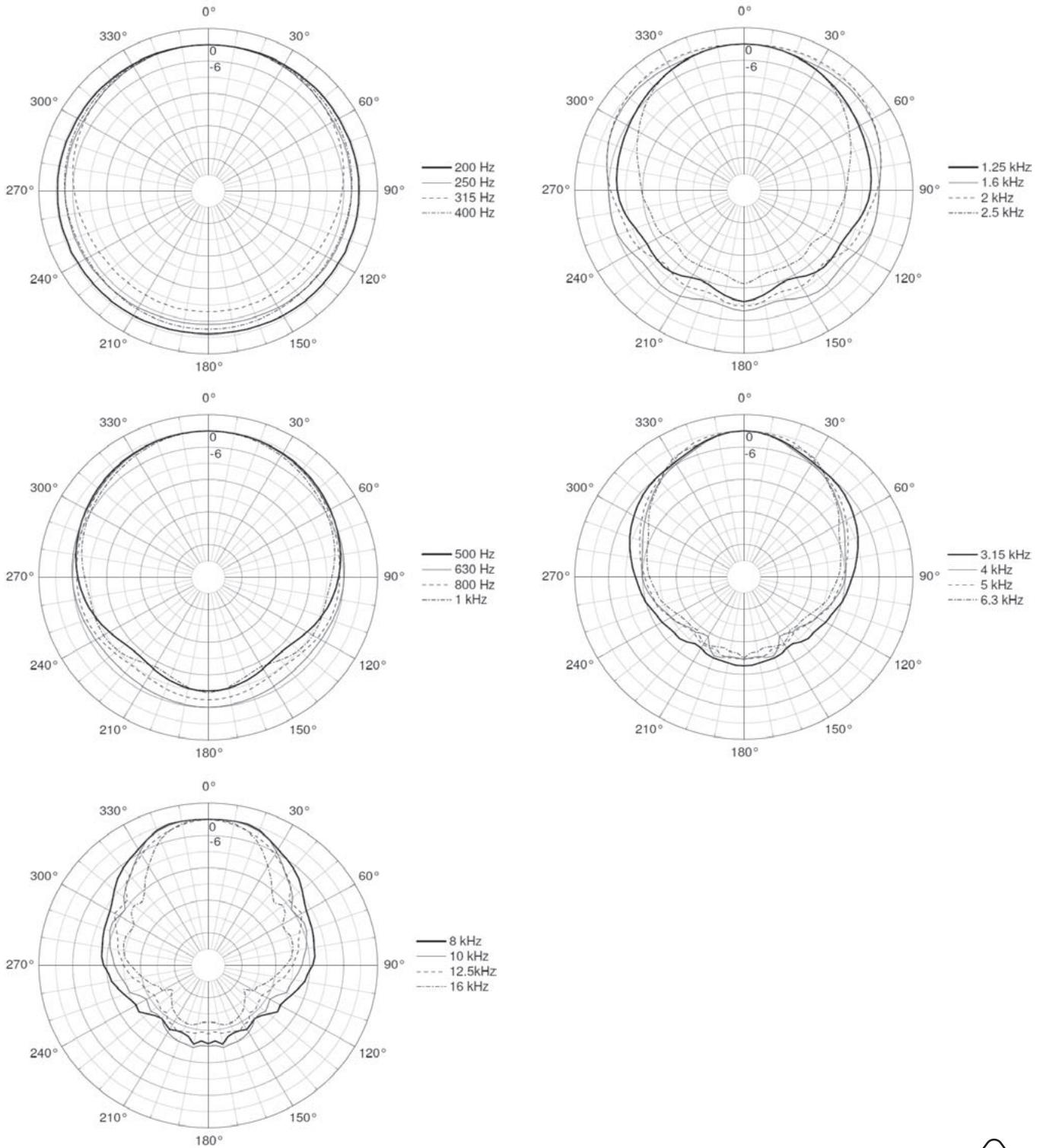
**Directivity Index, Q**



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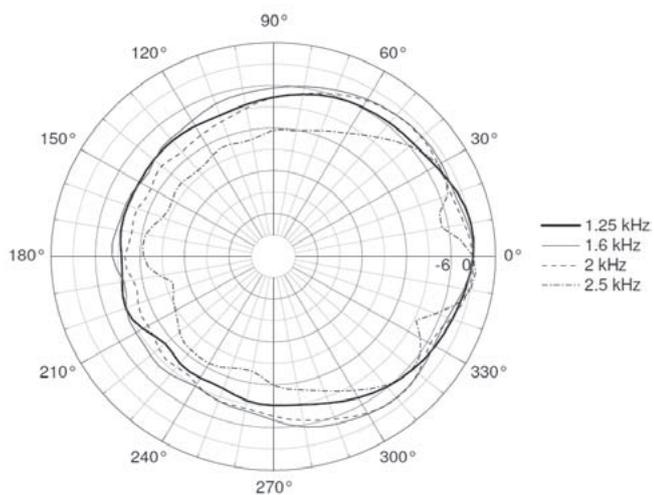
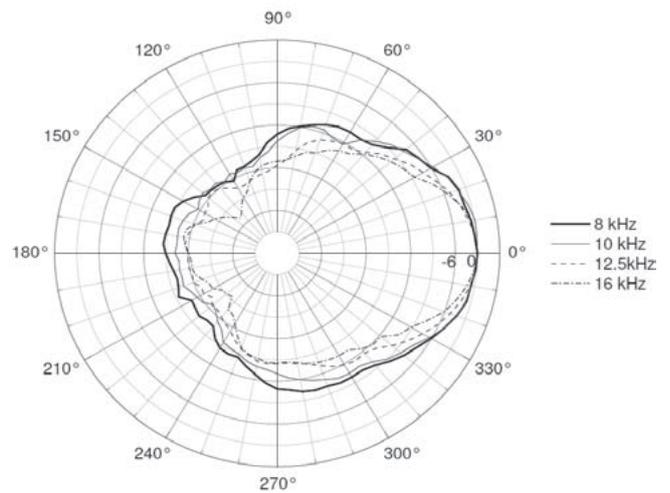
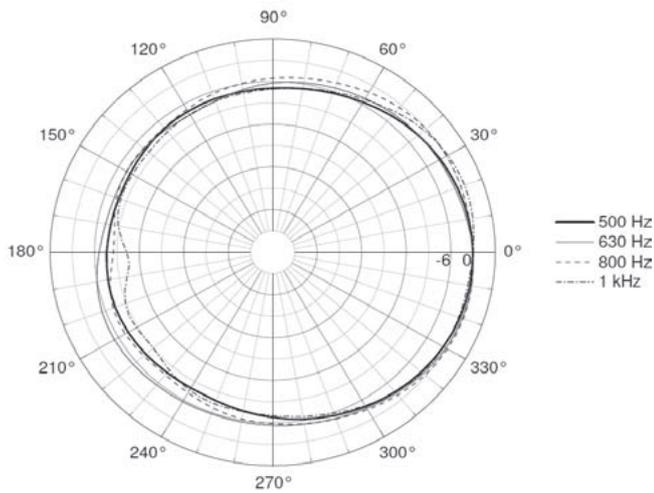
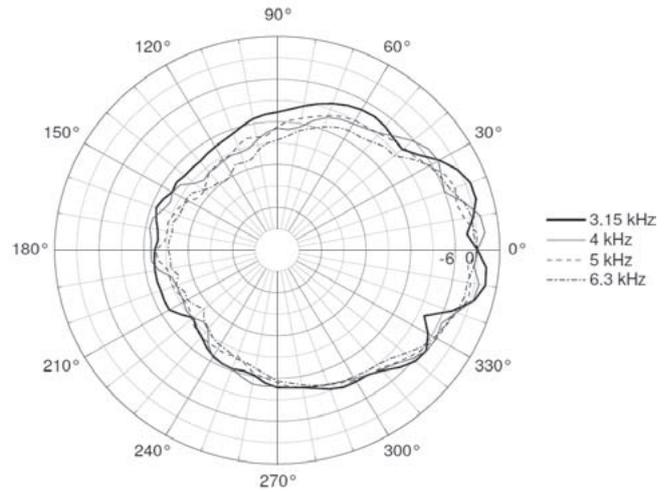
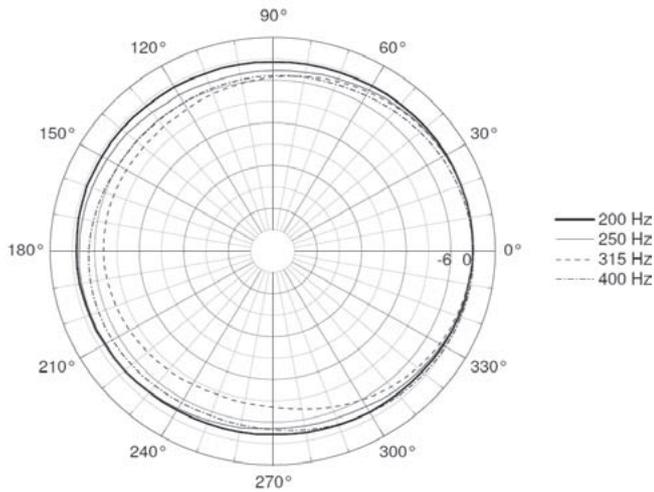
## Horizontal 1/3 Octave Polars



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## Vertical 1/3 Octave Polars



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## Dimensional Drawings

