

# CDD-LIVE 12

Compact Coaxial Differential Dispersion System – Powered



## Features

- Compact, self-powered two-way system
- Coaxial Differential Dispersion™ technology
- Onboard Class D amplification and DSP
- Dante™ Digital Audio networking
- Global mains operation with Power Factor Correction
- User-rotatable CDD™ driver
- Vertical and horizontal mounting options
- Tour-grade, multi-angle plywood enclosure
- IP24 rating option with rain cowl
- Comprehensive mounting accessories

## Applications

- Live sound reinforcement
- Theatre sound
- Corporate AV events
- Fixed installations in concert halls, ballrooms and HoW
- Stage monitor and infill
- Bars and clubs



The CDD-LIVE 12 is a high-performance, self-powered system designed for professional applications that require high output levels and exceptional fidelity from a very compact enclosure. With a peak output capability of 128dB at 1 metre, it is the ideal solution for a multitude of premium stand-alone and distributed sound reinforcement requirements — from touring, theatre and portable live sound, to concert hall and HoW installations, AV events and stage monitor use.

Featuring a high-specification 12" (300mm) LF/1" (25mm) exit HF Coaxial Differential Dispersion driver, it delivers more consistent audience coverage than a conventional system with a fixed X° x Y° coverage pattern and has wide 110° horizontal coverage close-up. The innovative CDD technology also achieves 'point source' summation of the LF and HF sections — eliminating off-axis variations in frequency response associated with non-coaxial designs.

A self-powered system, the CDD-LIVE 12 incorporates a two-channel Class D amplifier, DSP and Dante™ digital audio networking — simplifying set-up, enhancing control and eliminating amplifier racks. The onboard amplifier delivers 2000W LF + 500W HF peak output to the drivers, and its switched-mode power supply auto-ranges to global mains voltages from 100 to 240V 50/60Hz.

DSP functions — including parametric EQ, delay, muting, gain and preset selection — can be controlled over Ethernet from a PC or Windows® tablet via intuitive VU-NET™ proprietary software.

For simple set-ups, 'plug-and-play' presets — as well as a user-defined preset — can be selected on the rear panel, instead of using computer control. As an alternative to its analogue inputs, the CDD-LIVE 12 is Dante enabled for digital audio distribution and control over a single CAT5 cable to maintain audio quality however long the cable run.

The CDD-LIVE 12 is incredibly versatile. Its multi-angle enclosure can be used in either horizontal or vertical orientation, with rotation of the driver easily accomplished by removing the screw-free, protective grille. The tour-grade enclosure is constructed from multi-laminate plywood and finished in a hard-wearing polyurea coating. Integral fittings include a top-hat for pole mounting and multiple M8 inserts for attachment to a wall-bracket, yoke or universal bracket with a wide range of up and down tilt angles.

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### Technical Specifications

#### Acoustics

TYPE	Compact, Coaxial Differential Dispersion powered two-way system
FREQUENCY RESPONSE (1)	62Hz – 20kHz $\pm$ 3dB, -10dB @ 50Hz
DRIVER	LF: 12" (300mm)/2.5" (63.5mm) voice coil, long excursion, shared ferrite motor system with HF HF: 1" (25mm) exit/1.7" (44mm) voice coil, polyimide dome compression driver
INPUT SENSITIVITY	-18dBu for 100dB SPL
MAXIMUM SPL (2)	122dB continuous / 128dB peak
DISPERSION	110°-60° horizontal, 60° vertical (user-rotatable)
CROSSOVER	1.8kHz Active LR8 with low latency HF FIR equalisation Balance presets for pole mount/ pole mount with sub/ stage monitor

#### Module

##### Audio input

CONNECTORS	Female XLR input, male XLR link output, Dante Audio Neutrik® Ethercon
ANALOGUE INPUT IMPEDANCE	20 k $\Omega$ balanced to ground
MAXIMUM ANALOGUE INPUT LEVEL	24.6 Vpp (+21dBu), over voltage protected

##### Internal Processing

	Multi-channel DSP, programmable via TCP/IP using VU-Net software
	PEQ/shelving filters
	Up to 48dB/Oct HPF
	Low latency HF FIR filters
	Up to 200ms input delay
	Pre-set selection via rear panel switch

#### Network

CONNECTORS	2xNeutrik® Ethercon
PROTOCOL	TCP/IP and UDP/IP

#### Amplifier Module

TYPE	2 channel switch-mode, class D, Bridged Tied Load + 1 channel switch-mode, class D
PEAK OUTPUT POWER	2500W
CONTINUOUS OUTPUT POWER	1250W
AVERAGE EFFICIENCY	89%
COOLING	External convection cooled, with internal fan
MAXIMUM AMBIENT TEMPERATURE	40°C (104°F) for full output

#### Power Supply

TYPE	Switch mode, fixed frequency with PFC
AC INPUT OPERATING RANGE	85 – 265V ~ AC, 50 - 60Hz
POWER FACTOR	> 0.98
NOMINAL POWER CONSUMPTION	550W
MAINS CONNECTOR	Neutrik® Powercon True1

#### Mechanical

ENCLOSURE	Extensively braced multi-laminate plywood.
FINISH	Textured black PU coating.
PROTECTIVE GRILLE	HEX perforated mild steel with protective zinc plating and black powder coat finish. Backed with black grille cloth
FITTINGS	Top hat for pole mounting 15 x M8 mounting points Two side pocket handles Optional weather protection cowl
IP RATING	IP24 factory option available
DIMENSIONS	(W) 359mm x (H) 580mm x (D) 373mm (W) 14.13in x (H) 22.83in x (D) 14.69in
WEIGHT	28kg (61.6lbs) excluding Transit cover
ACCESSORIES	Transit Cover Optional wall, yoke and universal brackets

#### Notes

- (1) Measured on-axis in free space (4 $\pi$  space) at 2 metres, then referred to 1 metre
- (2) Measured in free space at 1 metre with a tone burst signal
- (3) Measured on-axis on ground plane (2 $\pi$  space) at 2 metres, then referred to 1 metre
- (4) Measured in half-space at 1 metre with a tone burst signal

#### Trade Descriptions Act

Due to Martin Audio's policy of continuing improvement, we reserve the right to alter these specifications without prior notice. Martin Audio is committed to refining state of the art sound reinforcement, combining in-depth product and field applications research with advanced manufacturing techniques. Every Martin Audio product is built to the highest manufacturing standards and rigorously tested to ensure that it meets the performance criteria specified in the design.

### Architectural Specifications

The loudspeaker shall be a self-powered two-way system utilising Coaxial Differential Dispersion technology. Its transducers shall consist of a reflex-loaded 12" low frequency driver and a coaxially-mounted 1" exit high frequency compression driver loaded by a static waveguide that merges with moving waveguides added to the cone of the low frequency driver to define the HF horn geometry.

The coaxial driver shall be user-rotatable to enable vertical or horizontal operation as required by the application. Horizontal dispersion shall vary from 110° to 60° and vertical dispersion shall be 60°. The on-axis frequency response shall be 62Hz-20kHz  $\pm$  3dB and the loudspeaker shall produce a maximum SPL of 128dB peak at 1 metre.

The loudspeaker shall incorporate a two-channel Class D amplifier module which shall deliver a total of 2500W peak output to the transducers and include onboard DSP and networking capabilities for remote control and monitoring. The loudspeaker shall be Dante™ enabled for Audio over IP. Its power supply shall employ Power Factor Correction and operate from 100-240V, 50-60Hz AC.

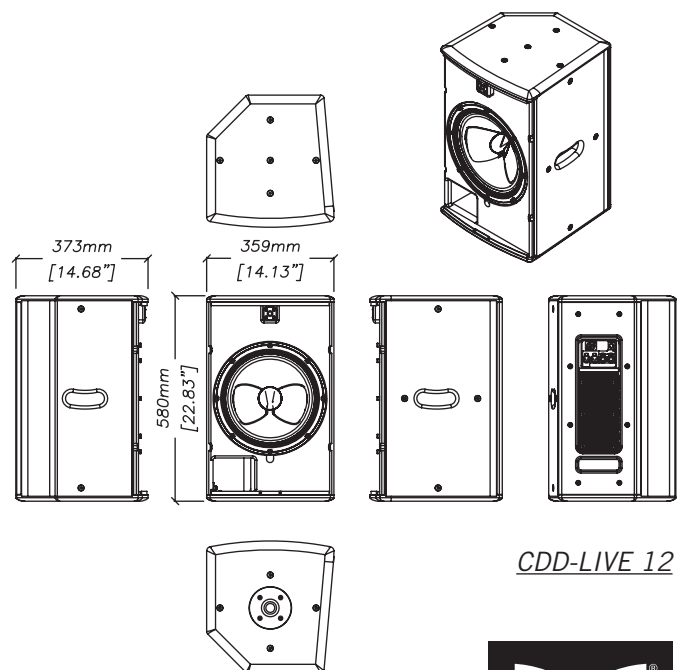
Audio connectors shall be male and female XLR type and the AC power connector shall be a Neutrik® Powercon True1. Network connectors shall be Neutrik® Ethercon RJ45 type.

The loudspeaker enclosure shall be constructed from multi-laminate plywood with a textured polyurea coating. The drivers shall be protected by a perforated steel grille with scrim cloth backing and the enclosure shall be fitted with a pole-mount socket and threaded inserts for mounting accessories.

An IP24 rating version with a rain cowl shall be available as a factory option.

Dimensions (W x H x D) shall be 359mm x 580mm x 373mm (14.1in x 22.8in x 14.7in). Weight shall be 28kg (61.6lbs).

The loudspeaker shall be the Martin Audio CDD-LIVE 12.



Martin Audio Ltd

Century Point, Halifax Road, High Wycombe  
Buckinghamshire HP12 3SL, England

Telephone: +44 (0) 1494 535 312  
Email: info@martin-audio.com

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www.martin-audio.com