

## CT 112

## TWO-WAY, FULL-RANGE SPEAKER SYSTEM

The CT 112 is a two-way loudspeaker system that can be switched between passive mode and biamp mode. With its dual-function housing, it can serve as an FOH speaker as well as a stage monitor. The highlights of the CT 112 are its speech intelligibility, extraordinary phase linearity, and considerable dynamic range. Its HF horn is BEM-optimized for precise directivity and optimal clustering without phase cancellation. The CT 112 was developed principally for applications requiring excellent vocal reinforcement and richly detailed audio resolution at high SPL for short-to-medium-throw distances. The CT 112 is available in left and right versions (CT 112 L, CT 112 R). For applications demanding enhanced bass response, the HK AUDIO subwoofer CT 118 Sub is recommended.

The CT 112 may be operated in passive or biamp mode with or without a controller. For best audio results, we recommend using the HK AUDIO® DSM 2060 Controller, or the HK AUDIO® Digital Field Controller (DFC) in combination with a DFC network.



## **TECHNICAL SPECIFICATIONS**

Power-handling nominal: Power-handling program: Power-handling peak: Recomm. amplifier power:

Frequency response - 10 dB: Frequency response +/- 3 dB:

Coverage: Sensitivity 1W@1m 1): Max. SPL calculated 1): Max. SPL peak 1): Max. SPL 1): Nominal impedance:

Low/ mid woofer: High frequency driver: Crossover frequency: Crossover modes: Crossover Shapes: 400 W RMS 800 W 1800 W 1200 W RMS / 4 Ohms

65 Hz – 19 kHz 80 Hz – 16 kHz

60° x 40° / 40° x 60° CD Horn, rotatable 107 dB 139 dB 2) 138 dB 134 dB @ 10% THD (200 Hz – 5 kHz) 8 Ohms

12" neodymium 1.4", 3" voice coil 850 Hz, 12 dB/ octave Bi-amp/ passive, externally switchable FOH, Monitor Connectors: Enclosure: Angles up: Finish: Grille: Handles: Rigging hardware: Pole mount:

Weight: Dimensions (w x h x d):

Optional accessories:

15" x 24" x 13-1/6" Mounting yoke, M10 eyebolt, Protective cover, Touring flightcase (2x CT 112)

25 kg / 55 lbs.

2x Speakon® NL 4

Black acrylic lacquer

18 mm (3/4"), 13-ply birch plywood

47° + 18° (monitor application)

Metal grille with acoustic foam

Mounting angle: +5°, -3 °, -10°

37.9 cm x 61.1 cm x 33.5 cm

2x Ergonomic handle on top and bottom

HK AUDIO TripleTilt™, diameter 35 mm

2x Aeroquip fly tracks, 2x M10 threaded bushing

1) Based on half space conditions

2) Based upon peak power capacity

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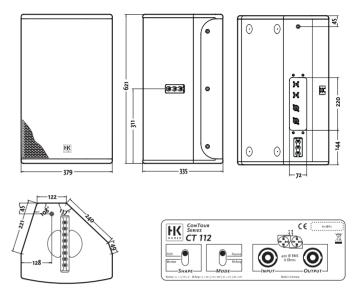


**Enclosure details:** The CT 112 enclosure is constructed of 18-mm, 13-ply birch plywood. Shaped to serve dual functions, the housing is 37.9 cm wide, 62.1 cm tall, 33.5 cm deep and weighs 25 kg. The surface is finished with black water-repellent acrylic lacquer. The front baffle is protected by a steel grille. For rigging, the enclosure incorporates a total of three Aeroquip fly tracks and two threaded M10 bushings for attaching safety cables with ring eyes (optionally available). An optionally available mounting yoke for rigging and flying the cabinet can attach to the Aeroquip track on the top panel. Recessed handles are located on the top and bottom of the housing. An HK AUDIO TripleTilt™ pole mount adapter is located in the bottom panel; it allows the cabinet to be mounted on a tripod at three different tilt angles of +5°, −3° or −10°.

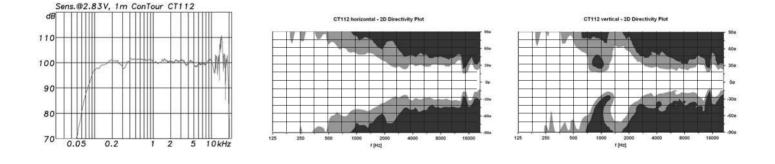
The cabinet features a Shape switch on the rear panel which reconfigures the passive crossover, enabling the cabinet to be used as an FOH speaker or as a monitor. When the switch is set to the "Monitor" position, the 1.4" driver's damping factor is reduced to ensure the speakers cut through on loud stages.

**Electrical and acoustical data:** The CT 112 features a direct-loaded 12" neodymium speaker and a 1.4" B&C high-frequency driver with a 60° x 40° CD horn. The horn is designed to fit a square opening and can be rotated a quarter turn for an alternative coverage pattern of 40° x 60°. The CT 112's frequency response extends from 80 Hz to 16 kHz (+/- 3 dB). Nominal power handling is 400 watts RMS at 8 Ohms. Axial sensitivity is 107 dB, measured under half-space conditions at 1 watt @ 1 metre. Maximum SPL at a distance of one meter is 134 dB (also in half-space).

**Connectors:** The connectors, the Passive/Biamp switch and the Shape switch are located out of harm's way on a countersunk panel on the back of the CT 112. Included on this panel are two Speakon NL 4 jacks, both of which are wired to each other in parallel. Pin assignments in passive mode are pin 1+ = mid/high +, pin 1- = mid/high -, pin 2+ = sub +, pin 2- = sub 2-. In biamp mode, the HF signal is routed via pin 1+ / 1-, and the LF/MF signal is routed via pin 2+ / 2-.



**Directivity, CT 112:** The following charts depict horizontal and vertical directivity at various frequencies using –6 dB and –12 dB sound pressure isobars.



## Architectural Specifications, CT 112

The professional two-way speaker system shall include a BEM-optimized HF horn for precise directivity and optimal clustering without phase cancellation. The loudspeaker cabinet shall be capable of deployment either as a full-range speaker system or as a mid/high unit in combination with the CT 118 Sub or HK AUDIO COHEDRA<sup>TM</sup> subwoofers. It shall be loaded with a 12" neodymium woofer mounted in a precision-tuned bass reflex enclosure, together with a 1.4" high-frequency driver with a 3" voice coil connected to a pivoting  $60^\circ \times 40^\circ / 40^\circ \times 60^\circ$  constantdirectivity horn. The housing shall be finished in black acrylic lacquer and shall be constructed of 18-mm birch plywood in such a way that it can be positioned at angles of either  $47^\circ$  or 18° for monitor applications. The enclosure shall incorporate a 35-mm TripleTilt<sup>TM</sup> 3-way pole-mount adapter offering tilt angles of  $+5^\circ$ ,  $-3^\circ$ and  $-10^\circ$ , two Aeroquip fly tracks, and two threaded M10 bushings for attaching optional single-pick-point rigging equipment or other mounting accessories. An impact-resistant steel grille backed with acoustic foam shall protect the baffle. Recessed handles shall be situated on the top and bottom of the cabinet. An internal passive crossover shall divide the signal at 850 Hz at a slope of 12 dB per octave; an external switch shall configure the system for operation in passive mode or biamp mode. Frequency response shall vary no more than +/-3 dB from 80 Hz to 16 kHz. The system shall be capable of producing a sound pressure level of 107 dB on axis at 1 metre with a power input of 1 watt (under half-space conditions) and a maximum SPL of 134 dB at 10% THD (also in half-space). Power handling capacity shall be 400 watts RMS with a nominal impedance of 8 Ohms.The two-way speaker system shall be the HK AUDIO CT 112.

Connectors: 2x Neutrik NL 4 Speakon® Dimensions (W x H x D): 37,9 x 62,1 x 33,5 cm Weight: 25 kg Accessories: Rigging yoke, cover, M10 eyebolts, touring flightcase (2x CT 112)

Type: HK Audio® CT 112

