

PC 1869EN

Ceiling Speaker 6W EN/ISO



DESCRIPTION

The PC-1869EN is a new thin-panel speaker design that blends in unobtrusively with an application's architecture and interior décor. This ceiling-mount 12 cm (5") cone-type all-metallic speaker is ideal for BGM and announcement applications. It is also designed for use in a voice alarm system, when the speaker system is integrated with a panel. The PC-1869EN is EN 54-24* and ISO 7240-24 certified and is therefore authorized for use in conjunction with fire detection systems. Mounting the speaker into the ceiling is quick and easy, thanks to a spring clamp installation method.

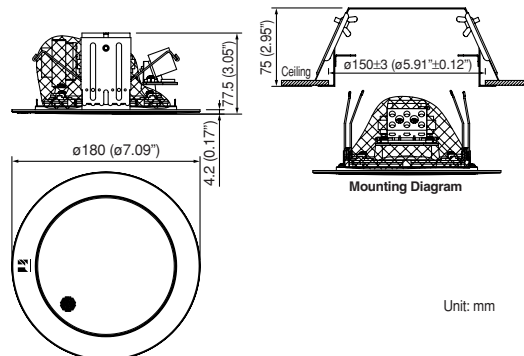
A screw connector steatite input terminal allows secure cable connections and bridge wiring. Input impedance can easily be adjusted by changing the tap position of the transformer.

*EN 54-24: Loudspeaker for voice alarm systems for fire detection and fire alarm systems.

FEATURES

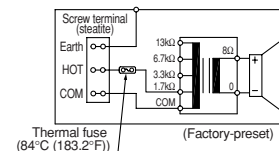
- Thin panel does not clash with interior design
- Easy installation with spring clamp
- 12 cm (5") high sound quality cone speaker
- High sensitivity: 94 dB (1 W, 1 m)
- Steatite screw terminal block and thermal fuse
- Certified to EN 54-24 and ISO 7240-24 (Certificate No.: 0359-CPD-0100)
- Ideally suited for voice alarm system applications

APPEARANCE AND DIMENSIONAL DIAGRAM



Unit: mm

Wiring Diagram



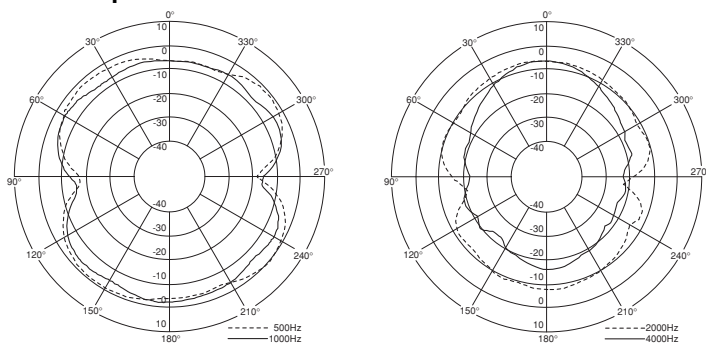
(Note) Use transformer terminals when changing input impedance.

SPECIFICATIONS

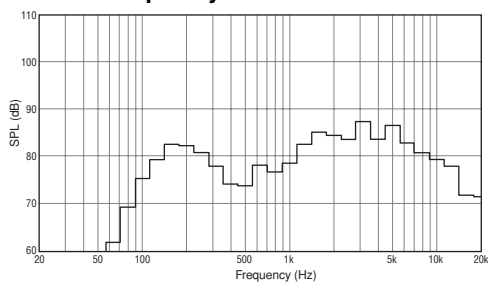
Rated Noise Power:	6 W (100 V Line), 3 W (70 V Line)
Rated Impedance:	100 V line: 1.7k Ω (6 W), 3.3k Ω (3 W), 6.7k Ω (1.5 W), 13k Ω (0.8 W) 70 V line: 1.7k Ω (3 W), 3.3k Ω (1.5 W), 6.7k Ω (0.8 W), 13k Ω (0.4 W)
Sensitivity:	94 dB (1 W, 1 m) (500 – 5,000 Hz, pink noise) 90 dB (1 W, 1 m) (100 – 10,000 Hz, pink noise) 78 dB (1 W, 4 m) (100 – 10,000 Hz, pink noise)
Maximum Sound Pressure Level:	98 dB (6 W, 1 m) (100 – 10,000 Hz, pink noise) 86 dB (6 W, 4 m) (100 – 10,000 Hz, pink noise)
Frequency Response:	100 – 18,000 Hz
Coverage Angle:	Horizontal and Vertical: 165° (500 Hz), 175° (1,000 Hz), 165° (2,000 Hz), 70° (4,000 Hz)
Environmental Type:	A (indoor applications)
Speaker Component:	12 cm (5") cone-type
Operating Temperature:	-10° C to +50° C (14° F to 122° F)
Dimensions for Fixing Hole:	Mounting hole: ø 150±3 mm (ø 5.91±0.12") Ceiling thickness: Max. 25 mm (0.98")
Speaker Mounting Method:	Spring clamp
Applicable Cable:	Conductor: Solid wire or 7-core wire No bridge connection: 0.8 – 10 mm ² (AWG 18 – AWG 7) for solid wire 0.8 – 8 mm ² (AWG 18 – AWG 8) for 7-core wire Bridge connection: 0.8 – 2.5 mm ² (AWG 18 – AWG 13) for solid wire 0.8 – 1.5 mm ² (AWG 18 – AWG 15) for 7-core wire
Connection:	Screw connector (steatite terminal) can be bridge connection
Finish:	Baffle: Steel plate, off-white (RAL 9010 or equivalent color), paint Grille: Surface-treated steel plate net, off-white (RAL 9010 or equivalent color), paint
Dimensions:	ø 180 × 77.5 (D) mm (ø 7.09" × 3.05")
Weight:	820 g (1.81 lb)

CHARACTERISTIC DIAGRAMS based on EN 54-24 measurement conditions (Pink noise, 1 W, 4 m)

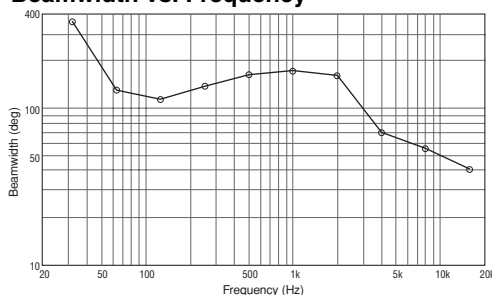
Polar Response



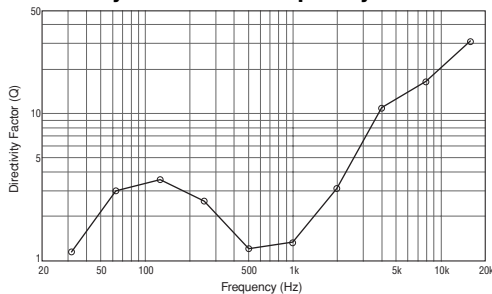
SPL vs. Frequency



Beamwidth vs. Frequency



Directivity Factor vs. Frequency



ARCHITECTURAL AND ENGINEERING SPECIFICATIONS

The PC-1869EN is a new thin-panel speaker design that blends in unobtrusively with any application's architecture and interior décor. This ceiling-mount 12 cm (5") cone-type all-metallic speaker is ideal for BGM and announcement applications. It is also designed for use in voice alarm systems. The PC-1869EN is EN 54-24 certified with CPD number 0359-CPD-0100 and ISO 7240-24 certified and is therefore authorized for use in conjunction with fire detection systems. Mounting the speaker into the ceiling is quick and easy, thanks to a spring clamp installation method, Off-white colour (RAL 9010).

Fire-resistant terminal block made of steatite for in- and out-wiring, thermal fuse with a blowing temperature of 84° C. Input impedance can easily be adjusted by changing the tap position (6 W, 3 W, 1.5 W, 0.8 W) of the transformer.

The output sound pressure level at a distance of 1m with a 1W input level applied shall be 90 dB SPL. (100 Hz to 10,000 Hz). The speaker shall have a frequency response of 100 – 18,000 Hz. Ingress Protection, IP21C. The unit shall have dimensions of Ø 180 × 80 (D) mm