

The CM 461 Flush Mount Ceiling Loudspeaker is designed for low ceiling applications in a public address system. The unit consists of a 100 mm dynamic full range loudspeaker driver, capable of delivering up to 98 dB of Sound Pressure Level (SPL). Coupled with the unit's frequency response of 64 Hz ~ 20 kHz, it gives the unit excellent speech and music reproduction properties.

The unit's built-in line matching transformer makes it suitable for a 70 V and 100 V distributed speaker system. Multiple power tapings on the transformer allows for outputs of 6, 3 and 1.5 W (100 V line system) or 3, 1.5 and 0.8 W (70 V line system).

The loudspeaker driver unit is mounted onto an aesthetically pleasing 135 mm circular metal grille finished with a matted surface in Pure White (RAL 9010). The whole unit is spring mounted on to the ceiling board without any visible screw holes and more importantly without any hassle.

There is also a back enclosure model available (CM 461E). With the metal back enclosure, crosstalk within the ceiling cavity can be prevented while acoustic damping material lining the enclosure reduces echoing.

- 135 mm circular pure white epoxy coated metal grille, utilising a 100 mm dynamic full range speaker driver unit, suitable for general PA applications requiring clarity in speech reproduction.
- Spring mounted installation to eliminate visible mounting screws.
- Ready fitted line matching transformer with multiple impedance tapings, suitable for 70 V and 100 V distributed speaker system.
- Carefully designed with simplicity in installation & finished aesthetically for ease of matching to any ceiling type and interior facade.



**CM 461**



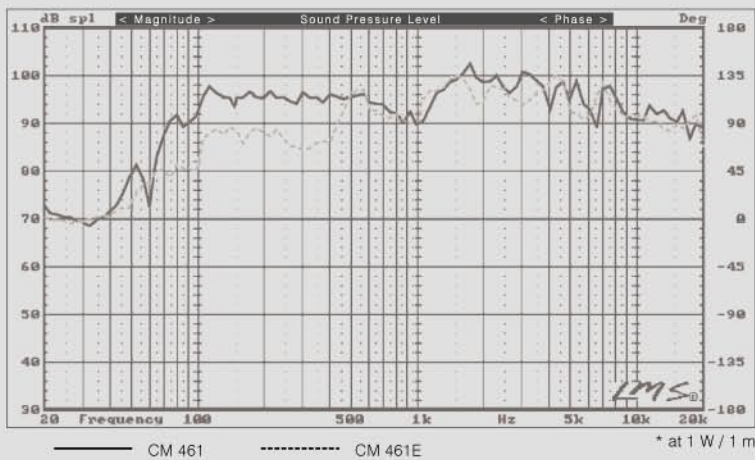
**CM 461E**



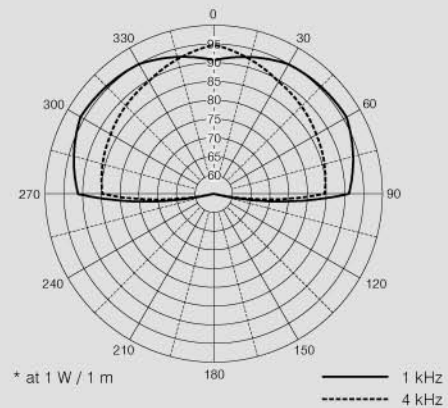
### Technical Specifications

	CM 461	CM 461E
Rated Input	100 V : 6 W (6 - 3 - 1.5 W) 70 V : 3 W (3 - 1.5 - 0.8 W)	100 V : 6 W (6 - 3 - 1.5 W) 70 V : 3 W (3 - 1.5 - 0.8 W)
Maximum Power	9 W	9 W
Rated Impedance	1.7 kΩ (1.7 - 3.3 - 6.3 kΩ)	1.7 kΩ (1.7 - 3.3 - 6.3 kΩ)
Sensitivity (1W / rated at 1m)	90 / 98 dB	90 / 98 dB
Coverage Angle (1 kHz, -6 dB)	180 deg.	180 deg.
Frequency Response	64 Hz ~ 20 kHz	100 Hz ~ 20 kHz
Speaker Component	100 mm Dynamic Full Range Loudspeaker	100 mm Dynamic Full Range Loudspeaker
Safety	Acc. to EN 60065	Acc. to EN 60065
Finish	Grille and Mesh; Pure White (RAL 9010)	Grille and Mesh; Pure White (RAL 9010)
Dimensions	Dia 135 x 80 mm	Dia 135 x 100 mm
Weight	0.52 kg	0.70 kg

### Frequency Response



### SPL Polar Plot



### Engineers' Specifications

The flush mount ceiling loudspeaker unit shall consist of a 100 mm dynamic full range loudspeaker driver, mounted on to a 135 mm circular pure white (RAL 9010) metal grille. The unit shall be spring mounted to the ceiling to avoid visible mounting screw. A line matching transformer shall be provided with multiple power tapings of 6, 3 & 1.5 W (100 V) / 3, 1.5 & 0.8 W (70 V) suitable for distributed speaker systems. The loudspeaker unit shall have a useable frequency range

of 64 Hz ~ 20 kHz (CM 461) / 100 Hz ~ 20kHz (CM 461E) with a minimum SPL of 90 dB at 1 W/m, 1 kHz and a coverage angle of 180 deg.. The weight of the speaker unit shall not exceed 0.52 kg (CM 461) / 0.70 kg (CM 461E) and dimensions shall be not more than 135 mm diameter and depth 80 mm (CM 461) / 100 mm (CM 461E).

