

LCM-12MWE Ceiling loudspeaker with firedome, 12W

Ceiling Mid Level



The LCM-12MWE is a 12 W 2-way ceiling loudspeaker, providing excellent speech and (background) music reproduction. The dimensions, look and feel are the same as the 3 W and 6 W models of the LCM series. A line up of 3 W, 6 W and 12 W loudspeakers ensures an uniform solution throughout a building. The 12 W loudspeaker is a perfect fit for higher ceilings like high corridors, auditoriums, Lobbies, college halls, etc. The 2-way solution makes it also a great sounding music loudspeaker.

Construction

The LCM-12MWE has an ABS frame with an extreme high fire rating (5VB), a metal grille and metal fire dome. The rim designs looks very elegant. The color of the loudspeaker is white, RAL 9003. The design and fresh white color makes this loudspeaker a very good fit in virtually all interiors.

Mounting is done with two screw driven clamps. The metal fire dome is provided with a hook for an optional safety cord which can also be used to hang the loudspeaker while installing.

Functions

Voice Alarm

The LCM-12MWE is designed for voice alarm and public address applications and is EN54-24 certified and compliant to BS 5839-8. This full-range loudspeaker is suitable for speech and music reproduction in mid-height ceilings in shops, stores, schools, offices, sport halls, hotels and restaurants.

- ▶ 2-way loudspeaker for excellent speech and music reproduction
- ▶ Simple power tapping selection
- ▶ Elegant design and low profile
- ▶ Super easy and quick installation
- ▶ EN54-24 certified

Protection

The LCM-12MWE has a built-in thermal protection to ensure that fire damage to the loudspeakers does not cause failure to the connected circuit. In this way system integrity is maintained, ensuring loudspeakers in other areas can still be used to inform people of the situation. The LCM series have a provision to mount the loudspeaker line monitoring boards PRA-EOL and PRA-EOB on the outside of the fire dome.

Connection

The loudspeaker has a 5-pole ceramic connector with 2 "+" contacts and 2 "-" contacts for easy loop-through connections. One additional connector is provided for GND. The connector can be easily accessed by removing a small lid.

Regulatory information

Regulatory information

All Bosch loudspeakers are designed to withstand operating at their rated power for 100 continuous hours in accordance with IEC 60268-5 Power Handling Capacity (PHC) standards. This ensures improved reliability under extreme conditions, leading to higher customer satisfaction and longer operating life and lessen the chance of failure or performance deterioration.

Safety	EN 62368-1:2014+A11 IEC 62368-1:2018 Ed.3
Emergency	EN54-24
Water and dust protection	EN 60529, IP21C
Region	Regulatory compliance/quality marks
Europe	DoP
	CE

Installation/configuration notes

Mounting

The loudspeaker is equipped with two screw driven clamps for easy and tight mounting. A circular template for the cut-out hole is included with the loudspeaker. The grille can be secured after the loudspeaker is mounted in the ceiling.

Terminal block

The loudspeaker has a 5-pole ceramic terminal block with screw connections and thermal fuse. Tapping can be selected via a pot meter on the backside of the fire dome. It provides separate connectors for the in- and outgoing cabling.

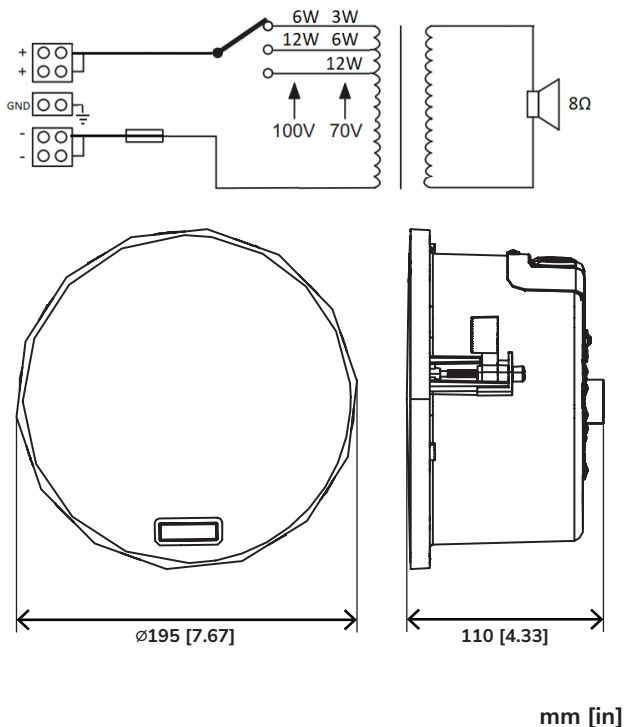


Fig. 1: Dimension

Parts included

Quantity	Component
2	LCM-12MWE Ceiling loudspeaker with fire dome, 12 W
2	Loudspeaker connection cover (installed)
2	Grille
1	Cutout template
1	Metal hook
1	Quick installation guide

Technical specifications

Acoustic*

Rated power (W)	12 W
Transformer taps 100 V line (W)	12 W; 6 W
Transformer taps 70 V line (W)	12 W; 6 W; 3 W
Rated input voltage (V)	100 V; 70 V
Connector type	5-pin ceramic connector
Wire gauge	0.8 mm ² - 2.5 mm ² AWG 18 - AWG 14
Sensitivity (1 W, 1 m, 1 kHz Octave) (dB)	88.6 dB
Sensitivity (1 W, 1 m, 100 Hz - 10 kHz) (dB)	93.9 dB
Sensitivity (1 W, 4 m, 100 Hz - 10 kHz) (dB), acc. EN54-24	79 dB
SPL (Rated power, 1 m, 1 kHz Octave)(dB)	100.1 dB
SPL (Rated power, 1 m, 100 Hz - 10 kHz)(dB)	104.7 dB
SPL (Rated power, 4 m, 100 Hz - 10 kHz) (dB), acc. EN54-24	88 dB
Effective Frequency range (100 Hz - 10 kHz, -10 dB)	175 Hz - 20 kHz
Coverage angle HxV (-6 dB, 500 Hz) (°)	180° x 180°
Coverage angle HxV (-6 dB, 1 kHz) (°)	173° x 173°
Coverage angle HxV (-6 dB, 2 kHz) (°)	124° x 124°
Coverage angle HxV (-6 dB, 4 kHz) (°)	46° x 46°
Rated impedance 70 V line (Ω)	1633 Ω @3 W
	817 Ω @6 W
	408 Ω @12 W
Rated impedance 100 V line (Ω)	1667 Ω @6 W

	833 Ω @12 W
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*Technical performance data acc. to IEC 60268-5

Note:

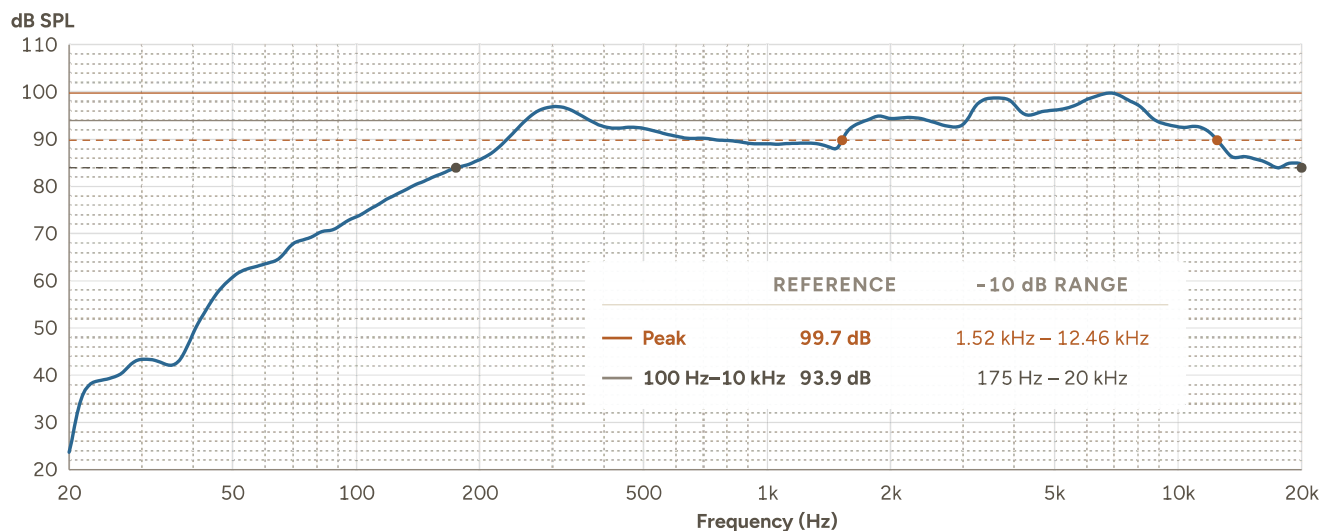
- The specification data was measured in an anechoic chamber, mounted in an IEC-baffle.
- The reference plane is on the grille surface and perpendicular to the reference axis.
- The reference axis is perpendicular to the center point of the front grille surface.
- The horizontal plane contains the reference axis and is perpendicular to the reference plane.

Mechanical

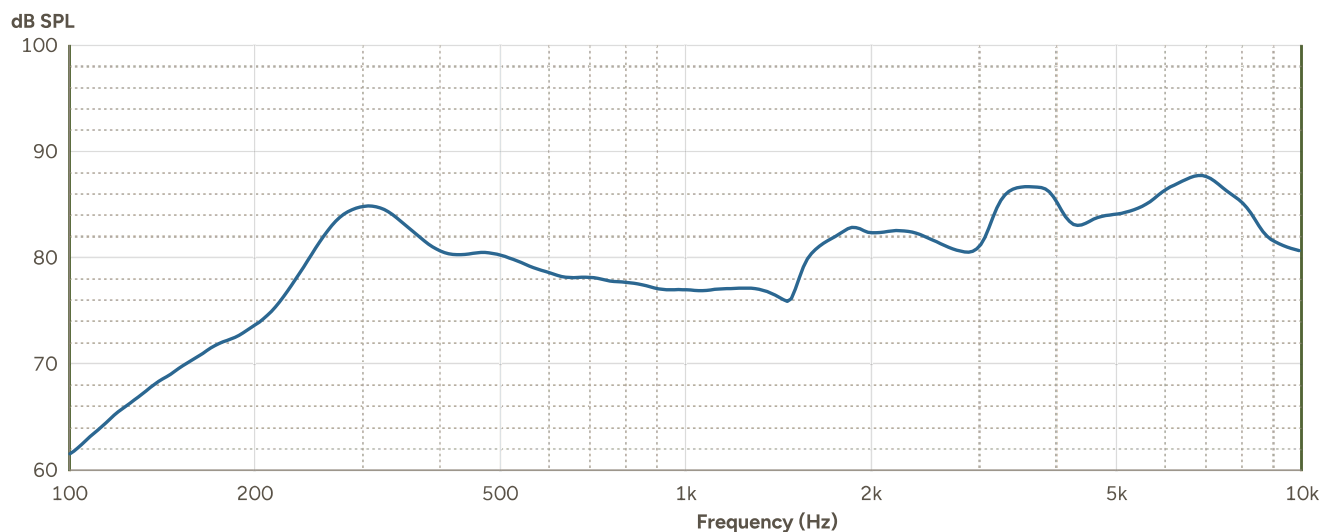
Dimensions (Ø x D) (mm)	195 mm x 110 mm
Dimensions (Ø x D) (in)	7.67 in x 4.33 in
Mounting cutout (mm)	183 mm
Mounting cutout (in)	7.20 in
Mounting method	2 screw driven clamps
Material	Frame: ABS (5VB) Grille: Metal Fire dome: Metal
Color (RAL)	Grille and frame: RAL 9003 Signal white Fire dome: RAL 3001 Signal red
Weight (kg)	1.44 kg
Weight (lb)	3.17 lb

Environmental

Operating temperature (°C)	-10 °C – 55 °C
Operating temperature (°F)	14 °F – 131 °F
Storage temperature (°C)	-40 °C – 70 °C
Storage temperature (°F)	-40 °F – 158 °F
IP rating	IP21C
Operating relative humidity, non-condensing (%)	0% - 95%



Frequency response — SPL @ 2.83 V, 1 m, running 1/3-octave smoothing (each point averaged over $\pm 1/6$ octave). Effective range from the peak and the energy-averaged (RMS pressure) reference over 100 Hz–10 kHz. NOTE: dips $< 1/9$ octave disregarded per IEC 60268-5.



Frequency response — SPL @ 2.83 V, 4 m (calculated, EN 54-24), running 1/3-octave smoothing (each point averaged over $\pm 1/6$ octave). EN 54-24 bandwidth limits marked at 100 Hz and 10 kHz.

Ordering information

LCM-12MWE Ceiling loudspeaker with firedome, 12W
 12 W ceiling loudspeaker, EN54-24, Signal white (RAL 9003), metal dome, ceramic block.
 Order number **LCM-12MWE | F.01U.432.143**



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