

LHE-10CGE ABS horn loudspeaker, 10W

Horn Entry Level



The LHE-10CGE is a high-efficient, cost-effective horn loudspeaker, providing excellent speech reproduction and sound distribution for a wide scope of indoor and outdoor applications.

Construction

The LHE-10CGE is a rectangular shaped 10 W horn loudspeaker, made from glass-reinforced ABS with a 5VB fire rating. Therefore the construction is light-weighted with a high mechanical strength and good resistance to UV. The housing color is light grey (RAL 7035), and is IP66 water and dust protected.

Functions

Voice Alarm

The LHE-10CWE is designed for voice alarm and public address systems. It is certified to EN 54-24 and complies with BS 5839-8 and EN 50849.

Protection

The LHE-10CWE has a built-in 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. It has a provision to build in the loudspeaker line monitoring boards PRA-EOL or PRA-EOB.

Connection

The loudspeakers have a ceramic screw-terminal connection block, thermal fuse and heat-resistant, high-temperature wiring.

- ▶ Excellent speech and alarm tone reproduction with a 10 W compression driver
- ▶ Compact housing made of glass-reinforced ABS, IP66 rated
- ▶ Smart bracket for easy and quick installation
- ▶ Built-in option for PRA-EOL or PRA-EOB
- ▶ EN 54-24 certified

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	EN 54-24
Corrosion resistance	IEC 60068-2-11
Water and dust protection	EN 60529 IP66

Region	Regulatory compliance/quality marks
Europe	DoP
	CE
UAE	UAE CoC

Installation/configuration notes

Mounting

The smart bracket makes it possible to use electronic tools for mounting without removing the bracket. The mounting holes are easily accessed. The horn is designed for surface mounting. The bracket can tilt or rotate to fit in any

application, wall- or ceiling-mount. The back box has a pre-fixed gland and a knock-out hole for an optional second gland for loop-through connections.

Terminal block

The horn has a three-way ceramic terminal block with screw connection and thermal fuse. Three primary taps are provided on the matching transformer to allow selection of nominal full-power, half-power, or quarter-power radiation, in 3 dB steps.

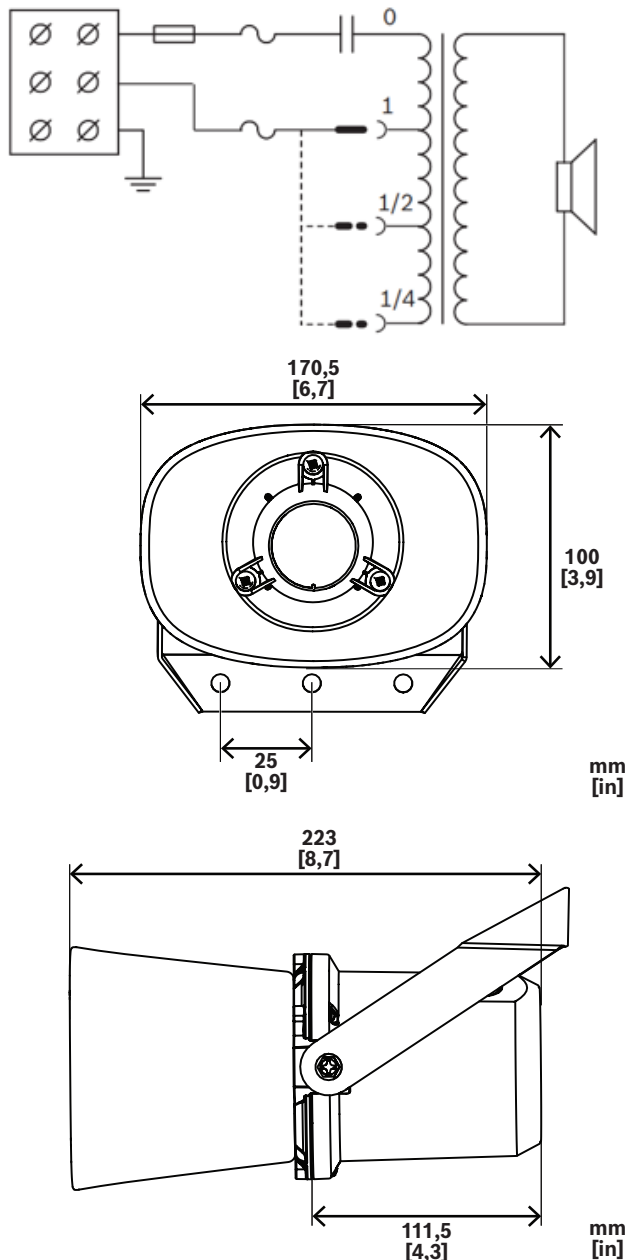


Fig. 1: Dimensions

Parts included

Quantity	Component
4	LHE-10CGE ABS horn loudspeaker, 10 W

Quantity	Component
1	Quick installation guide

Technical specifications

Acoustic*

Rated power (W)	10 W
Transformer taps 100 V line (W)	10 W; 5 W
Transformer taps 70 V line (W)	10 W; 5 W; 2.5 W
Rated input voltage (V)	70 V; 100 V
Connector type	3-pole ceramic connector
Wire gauge	0.85 mm ² - 2.5 mm ² AWG 18 - AWG 14
Sensitivity (1 W, 1 m, 1 kHz Octave) (dB)	104.9 dB
Sensitivity (1 W, 1 m, 100 Hz - 10 kHz) (dB)	100.7 dB
Sensitivity (1 W, 4 m, 100 Hz - 10 kHz) (dB), acc. EN 54-24	86 dB
SPL (Rated power, 1 m, 1 kHz Octave) calculated (dB)	114.9 dB
SPL (Rated power, 1 m, 100 Hz - 10 kHz) calculated (dB)	110.7 dB
SPL (Rated power, 4 m, 100 Hz - 10 kHz) (dB), acc. EN 54-24	95 dB
Effective frequency range (1 kHz Octave, -10 dB)	542 Hz - 8.5 kHz
Effective frequency range (100 Hz - 10 kHz, -10 dB)	398 Hz - 8.59 kHz
Coverage angle HxV (-6 dB, 500 Hz) (°)	360° x 360°
Coverage angle HxV (-6 dB, 1 kHz) (°)	162° x 191°
Coverage angle HxV (-6 dB, 2 kHz) (°)	80° x 105°
Coverage angle HxV (-6 dB, 4 kHz) (°)	43° x 56°
Transducer impedance (Ω)	8 Ω
Rated impedance 70 V line (Ω)	1960 Ω @2.5 W
	980 Ω @5 W
	490 Ω @10 W
Rated impedance 100 V line (Ω)	2000 Ω @5 W
	1000 Ω @10 W

*Technical performance data acc. to IEC 60268-5

Note:

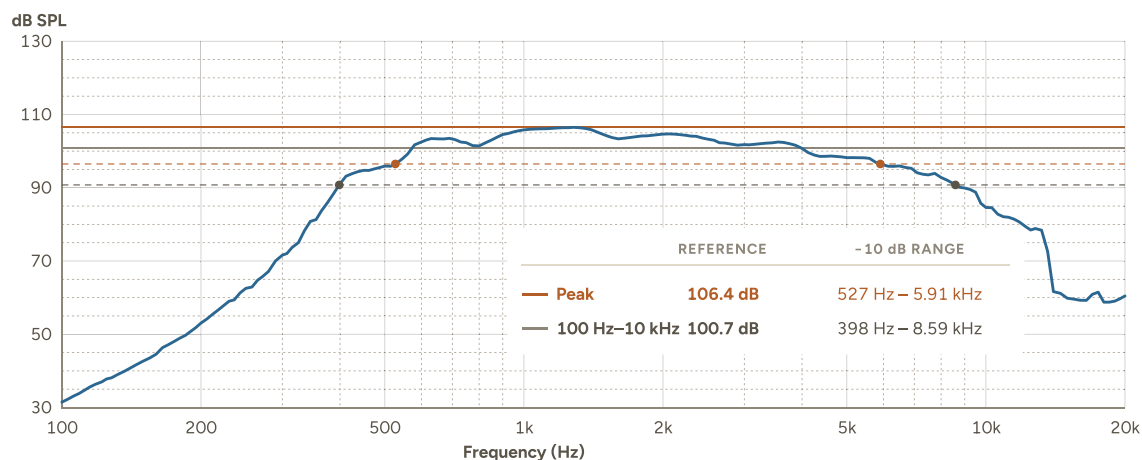
- The specification data was measured in an anechoic chamber, free-field.
- The reference plane is on the front hole surface and perpendicular to the reference axis.
- The reference axis is perpendicular to the center point of the front hole surface.
- The horizontal plane contains the reference axis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

Mechanical

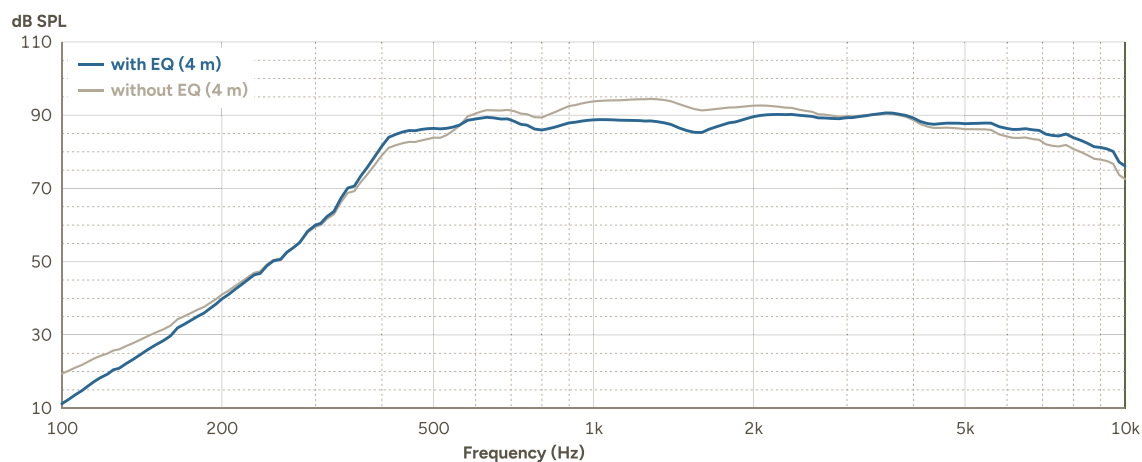
Dimensions (Ø x H) (mm)	[170,5 mm x 100 mm] x 223 mm
Dimensions (Ø x H) (in)	[6.71 in x 3.93 in] x 8.77 in
Weight (kg)	1.3 kg
Weight (lb)	2.8 lb
Mounting	Smart bracket
Material	Housing: ABS + Fiberglass Frame support ring: PC Smart bracket: Steel
Color (RAL)	RAL 7035 Light gray

Environmental

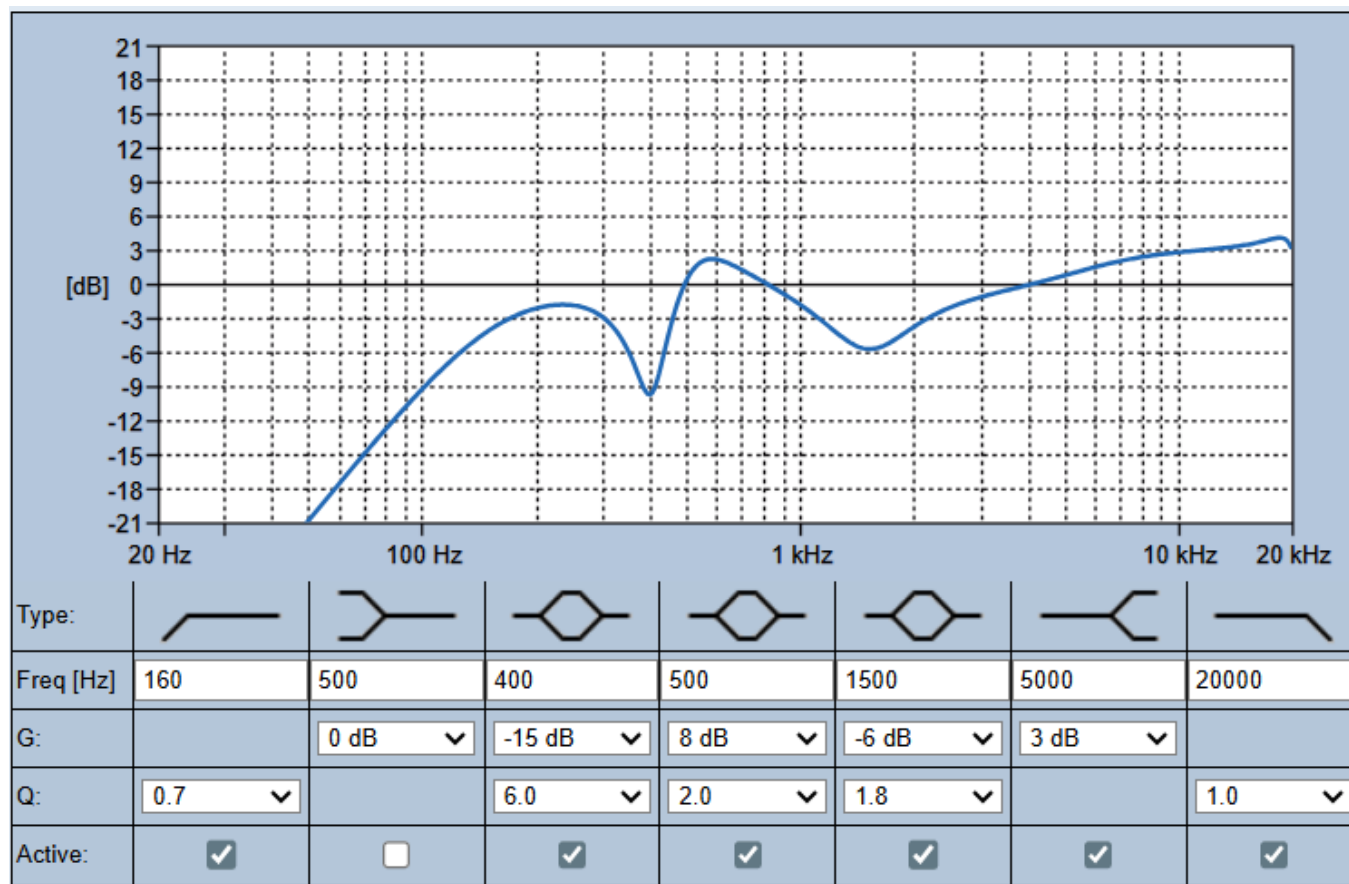
Operating temperature (°C)	-25 °C – 70 °C
Operating temperature (°F)	-13 °F – 158 °F
Storage temperature (°C)	-40 °C – 70 °C
Storage temperature (°F)	-40 °F – 158 °F
IP rating	IP66
Operating relative humidity, non-condensing (%)	0% - 95%



Frequency response — SPL @ 1 W, 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 @ 1 W, 4 m (calculated, EN 54-24), running 1/3-octave smoothing (each point averaged over $\pm 1/6$ octave), with the design EQ applied. Light grey trace shows the same 4 m calculation without EQ. EN 54-24 bandwidth limits marked at 100 Hz and 10 kHz.



Specified active equalization, required for EN54-24

Ordering information

LHE-10CGE ABS horn loudspeaker, 10W

10 W Horn Loudspeaker, EN 54-24 certified, IP66, ABS-GF housing, wide dispersion.

Order number **LHE-10CGE | F.01U.430.295**



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