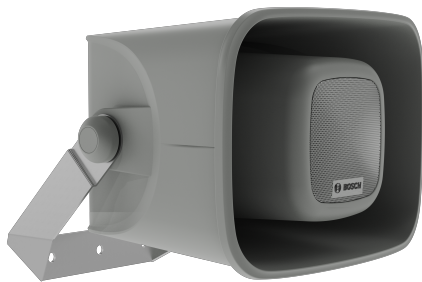


LHP-60CGE Music horn loudspeaker, 60W

Horn Performance Level



- ▶ 2-way system with a powerful 60 W compression driver
- ▶ Attractive modern housing made of glass-reinforced ABS (ABS-GF), IP66 rated
- ▶ Built-in option for PRA-EOL and PRA-EOB
- ▶ Smart bracket for easy and quick installation
- ▶ EN 54-24 certified

The LHP-60CGE features a 2-way driver system, resulting in an extended frequency range and high sensitivity for applications where high quality speech and music reproduction is required at high levels like sport fields and facilities, warehouses, convention centers, exhibition halls and entertainment industry.

Construction

The LHP-60CGE is a modern shaped 60 W loudspeaker, made of glass-reinforced ABS (ABS-GF). Therefore the construction is light-weighted with a high mechanical strength and good resistance to UV. The smart bracket for easy installation is made of powder coated Aluminum. The housing color is light grey (RAL 7035), and is IP66 water and dust protected.

Functions

Voice Alarm

The LHP-60CGE 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 LHP-60CGE has a built-in protection to ensure that fire damage to the loudspeakers does not cause failure of 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.

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.

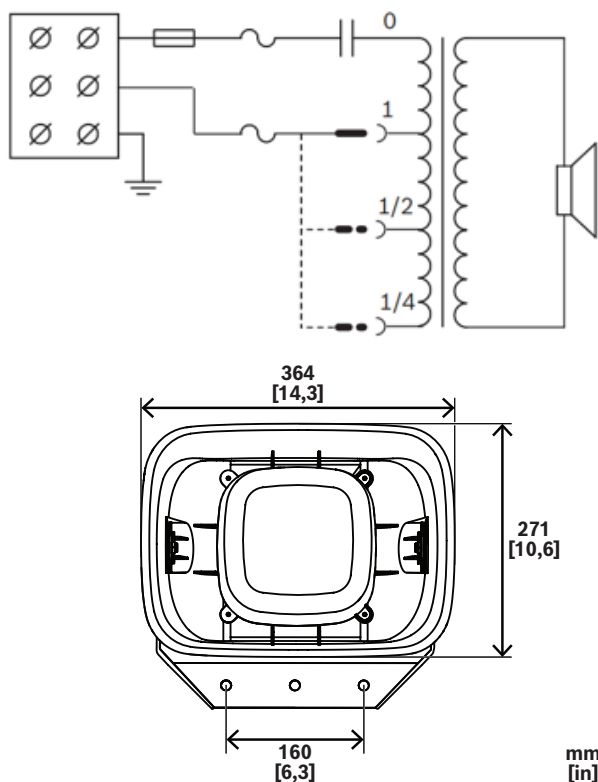


Fig. 1: Front view dimensions

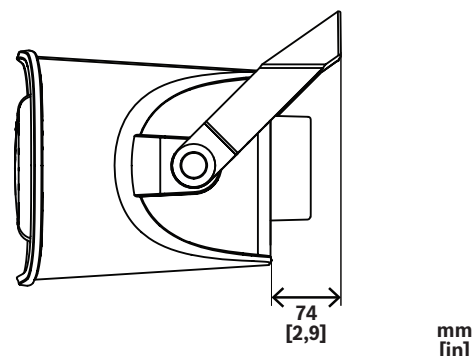


Fig. 2: Side view dimensions

Parts included

Quantity	Component
1	LHP-60CGE Music horn loudspeaker, 60 W
1	Quick installation guide

Technical specifications

Acoustic*

Rated power (W)	60 W
Transformer taps 100 V line (W)	60 W; 30 W; 15 W
Transformer taps 70 V line (W)	60 W; 30 W; 15 W; 7.5 W
Rated input voltage (V)	70 V; 100 V
Connector type	3-pin 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)	97.7 dB
Sensitivity (1 W, 1 m, 100 Hz - 10 kHz) (dB)	98.5 dB
Sensitivity (1 W, 4 m, 100 Hz - 10 kHz) (dB), acc. EN54-24	85 dB
SPL (Rated power, 1 m, 1 kHz Octave) calculated (dB)	115.5 dB
SPL (Rated power, 1 m, 100 Hz - 10 kHz) calculated (dB)	116.3 dB
SPL (Rated power, 4 m, 100 Hz - 10 kHz) (dB), acc. EN54-24	101 dB
Effective Frequency range (1 kHz Octave, -10 dB)	106 Hz - 20 kHz
Effective Frequency range (100 Hz - 10 kHz, -10 dB)(Hz)	121 Hz - 20kHz

Coverage angel HxV (-6 dB, 500 Hz) (°)	120° x 160°
Coverage angle HxV (-6 dB, 1 kHz) (°)	65° x 100°
Coverage angel HxV (-6 dB, 2 kHz) (°)	90° x 110°
Coverage angle HxV (-6 dB, 4 kHz) (°)	80° x 115°
Transducer impedance (Ω)	8 Ω
Rated impedance 70 V line (Ω)	653 Ω @7.5 W
	327 Ω @15 W
	163 Ω @30 W
	82 Ω @60 W
Rated impedance 100 V line (Ω)	667 Ω @15 W
	333 Ω @30 W
	167 Ω @60 W

*Technical performance data acc. to IEC 60268-5

Note:

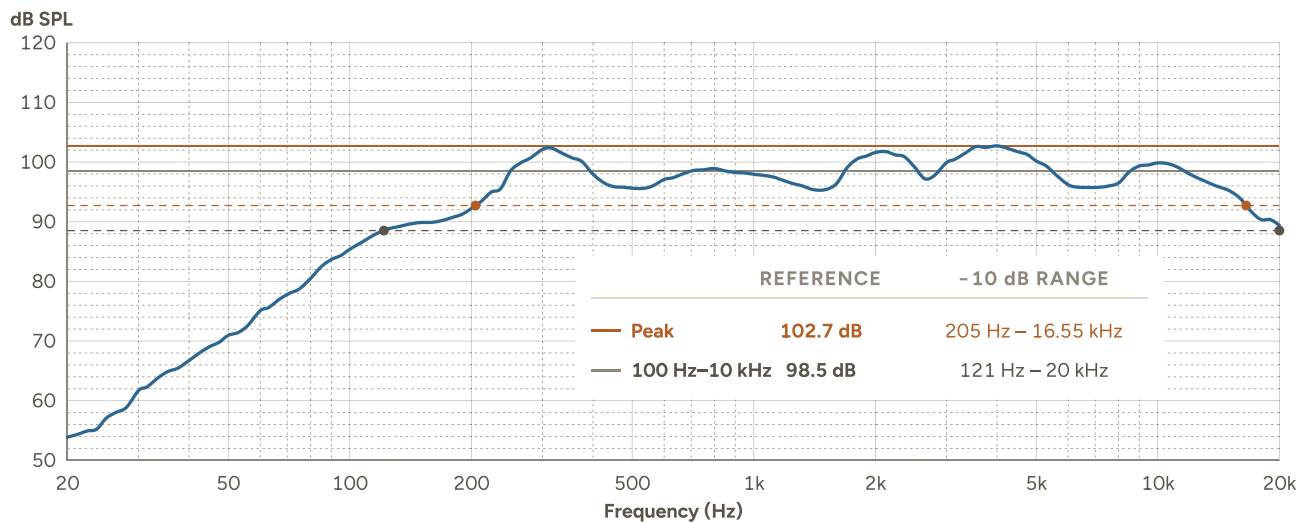
- The specification data was measured in an anechoic chamber, free-field.
- The reference plane is on the front hole surface and perpendicular to the reference axis.
- The reference axis is perpendicular to the center point of the front hole surface.
- The horizontal plane contains the reference axis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

Mechanical

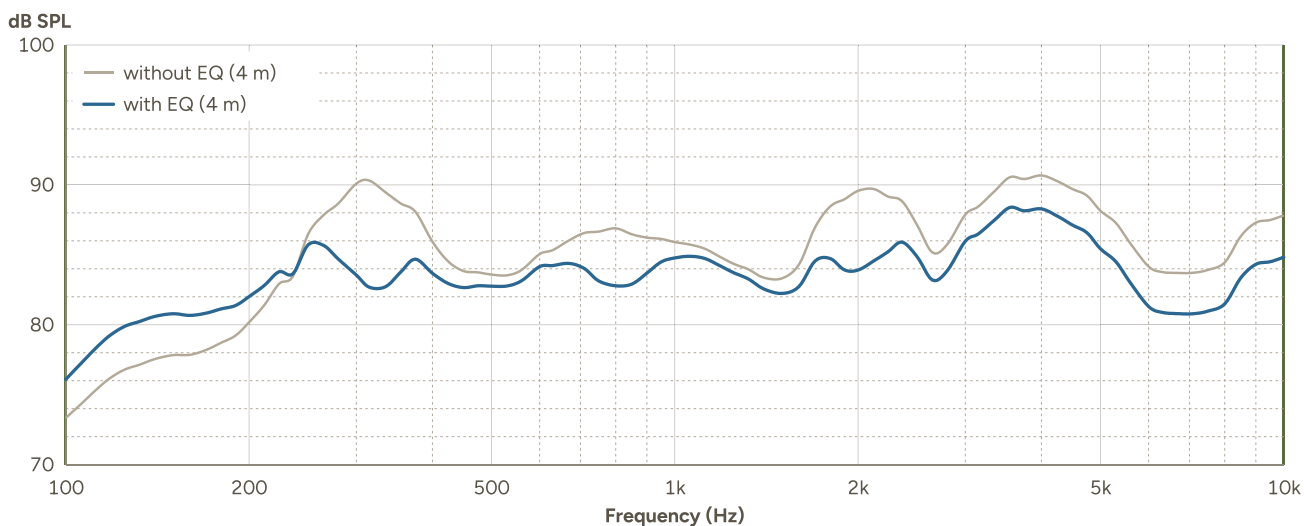
Dimensions (H x W x D) (mm)	271 mm x 364 mm x 328 mm
Dimensions (H x W x D) (in)	10.60 in x 14.30 in x 12.91 in
Weight (kg)	6.3 kg
Weight (lb)	13.88 lb
Material	Glass-reinforcedPlastic (ABS) (ABS-GF) housing with Aluminum bracket powder coated
Color (RAL)	RAL 7035 Light gray

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
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.

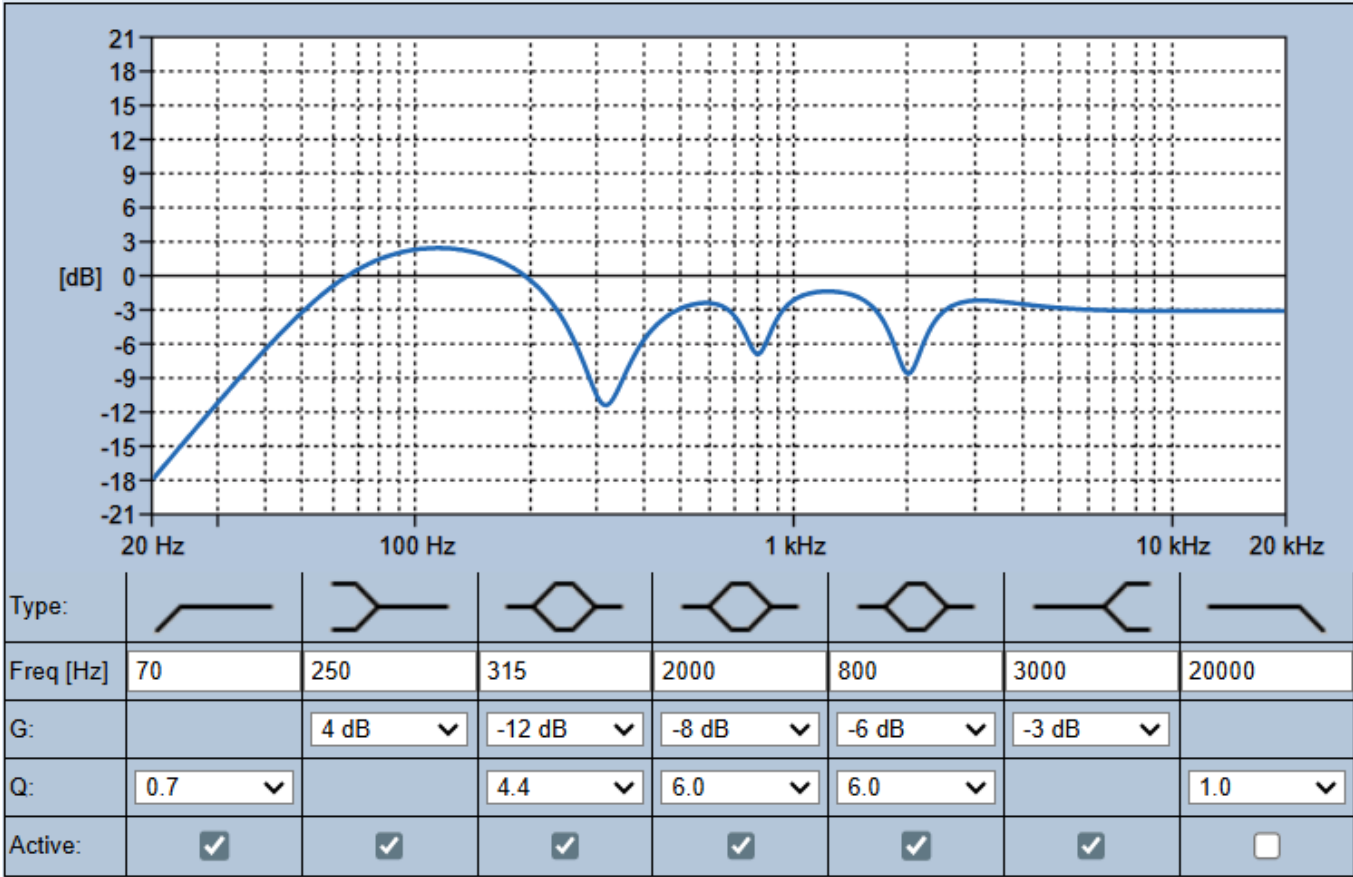


Fig. 3: Specified active equalization, required for EN54-24

Ordering information

LHP-60CGE Music horn loudspeaker, 60W
60 W Loudspeaker, EN 54-24 certified, IP66, ABS-GF housing, 2-way system for speech and music.
Order number **LHP-60CGE | F.01U.430.316**

