

LH1-EC30-IN Horn loudspeaker 30W, Elliptical, ABS



The LH1-EC30-IN is a high-efficiency horn loudspeaker providing excellent speech reproduction and sound distribution for a wide scope of outdoor applications. It is ideal for sports grounds, places of worship, parks, exhibitions, factories and open meeting areas.

System overview

The LH1-EC30-IN is an elliptical horn loudspeaker and its horn and back-cover are made of ABS material. The speaker has a line matching transformer to connect to a 100 V output from an amplifier. The loudspeaker has power tapings at full power, half power and quarter power to connect at different power levels.

Functions

The LH1-EC30-IN model horn speaker is for direct connection to a 100 V line output and is finished in light grey (RAL 7035) color. The horn speaker is water and dust protected. The horn loudspeaker includes a 100 V transformer with taps on the primary winding to allow different power tapings. Nominal full-power, half-power or quarter-power radiation (in 3 dB steps) can easily be selected by connecting the amplifier output to the appropriate tapping. A two meter four-core cable is fitted to the horn for connectivity.

Each core is a different color, and is connected to one of the primary tapings on the transformer. Color code identification is provided on the product label.

- ▶ Easy to install
- ▶ Water- and dust-protected to IP66
- ▶ Excellent speech reproduction
- ▶ Simple power tapping through color code

The horn loudspeaker is supplied complete with sturdy adjustable mounting brackets, allowing the sound beam to be accurately directed.

Regulatory information

All Bosch loudspeakers are designed to withstand operating at their rated power for 100 hours in accordance with IEC 60268-1 and IEC 60268-5 Power Handling Capacity (PHC) standards. Bosch has also developed the Simulated Acoustical Feedback Exposure (SAFE) test to demonstrate that the speakers can withstand two times their rated power for short durations. This ensures extra reliability under extreme conditions, leading to greater customer satisfaction, longer operating life, and much less chance of failure or performance deterioration.

- Lab test for water and dust protection acc. to IEC 60529 IP66
- Lab test for wind force test acc. to NEM6702:2007 + A1:2008 Bft 11 (static condition)
- Lab test for climatic tests acc. to IEC 60068-x-xx

Installation/configuration notes

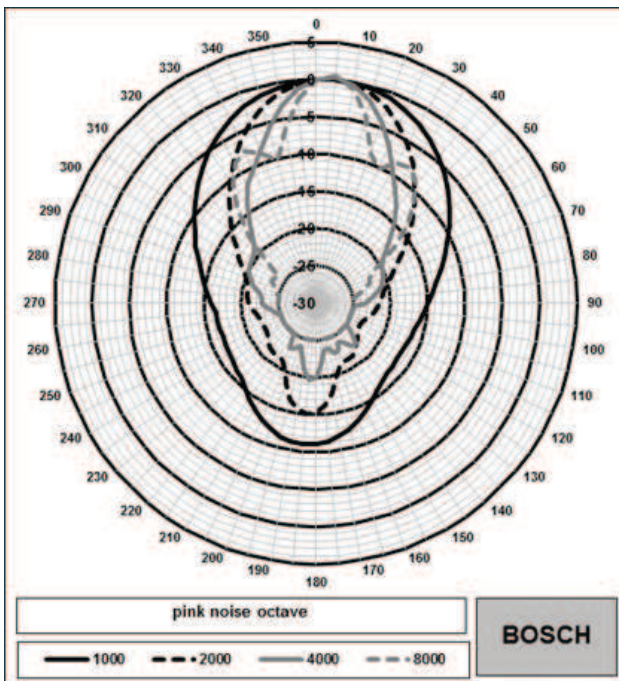


Fig. 1: Normalized horizontal polar plot

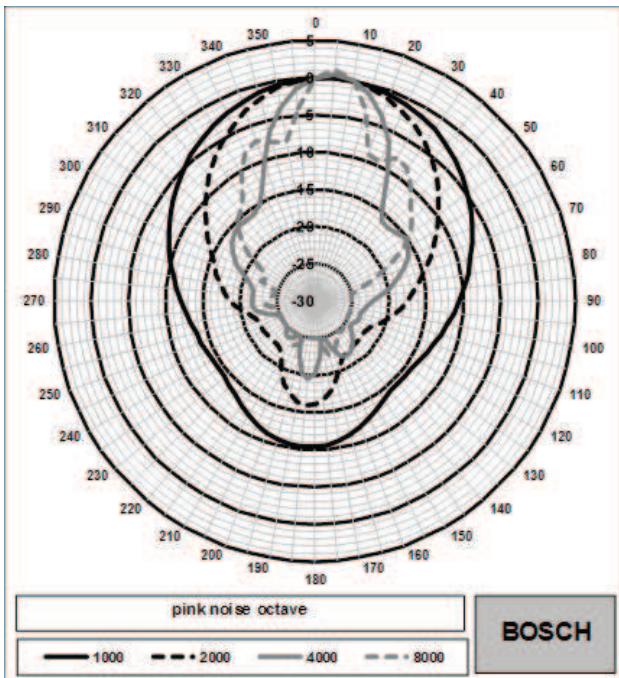


Fig. 2: Normalized vertical polar plot

H. and V. Angle (deg)	360/360	212/196	112/85	75/56	38/39	25/26
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Parts included

Quantity	Component
1	LH1-EC30-IN Horn loudspeaker 30W, Elliptical, ABS
1	Manual

Technical specifications

Electrical

Maximum power	45 W
Rated power	30 W (30 W / 15 W / 7.5 W)
Sound pressure level at 1 W (1 kHz, 1 m)	115 dB/108 dB
Effective frequency range (-10 dB)	490 Hz to 4500 Hz
Opening angle at 1 kHz (-6 dB)	Elliptical: 112 (H) / 85 (V)
Rated voltage	100 V
Rated impedance	333 Ohm

Mechanical

Dimensions (H x W x D)	Elliptical: 285 x 280 x 285 mm
Weight	Elliptical: 1.8 kg

Environmental

Operating temperature	-5 °C to +55 °C
Storage temperature	-40 °C to +70 °C

Ordering information

LH1-EC30-IN Horn loudspeaker 30W, Elliptical, ABS
 Horn loudspeaker 30 W, elliptical, ABS, water and dust protected IP66, light gray RAL 7035.
 Order number **LH1-EC30-IN | F.01U.315.105**

Acoustical performance specified per octave

	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
SPL 1w, 1m in dB	86.1	99.1	108.8	109.1	99.8	86.1

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