



BOSCH

Horn loudspeaker, Ex-proof, short/long flare

LH3-UC25XS | LH3-UC25XL | LH3-UC25XS-1 | LH3-UC25XL-1



en

Installation note

1 Installation

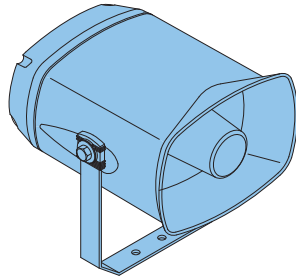


Figure 1.1

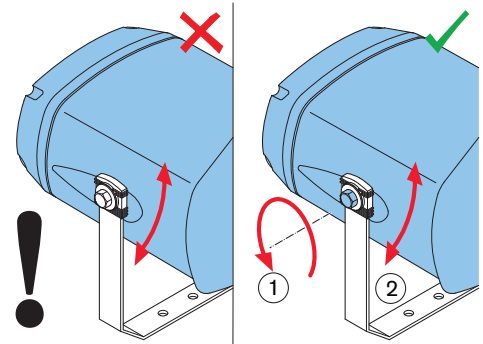


Figure 1.2

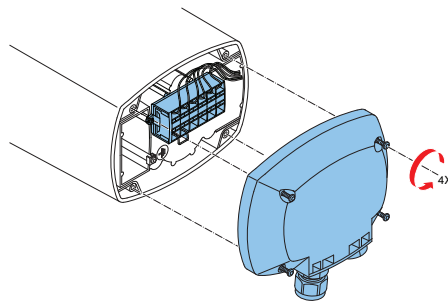


Figure 1.3

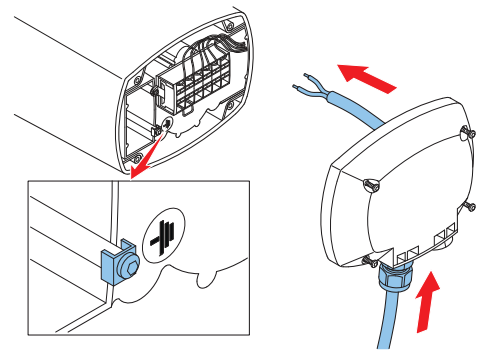


Figure 1.4

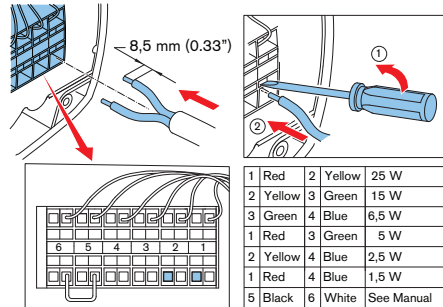


Figure 1.5

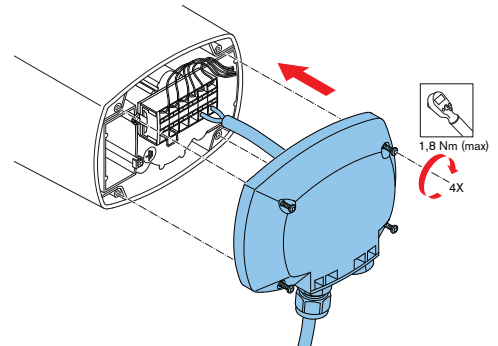


Figure 1.6

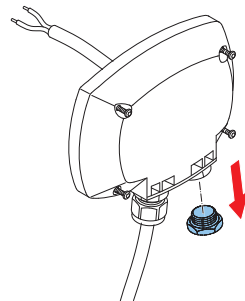


Figure 1.7

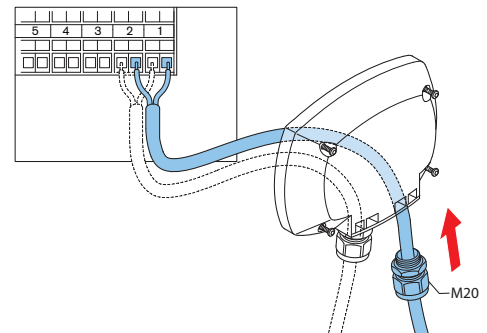


Figure 1.8

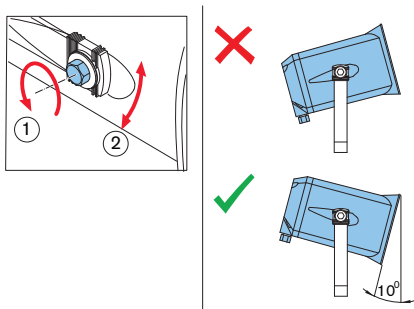


Figure 1.9

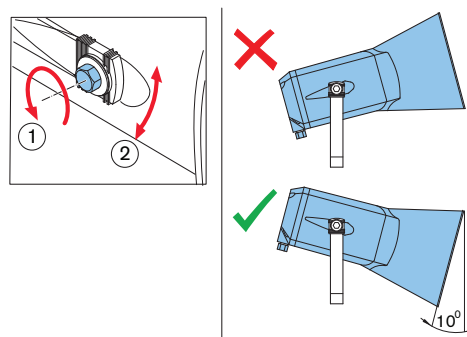


Figure 1.10

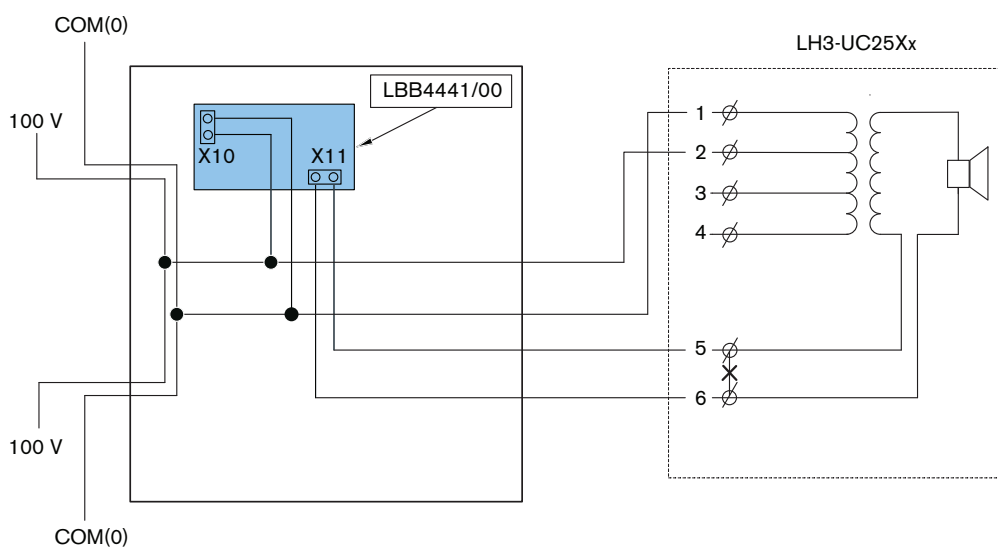


Figure 1.11

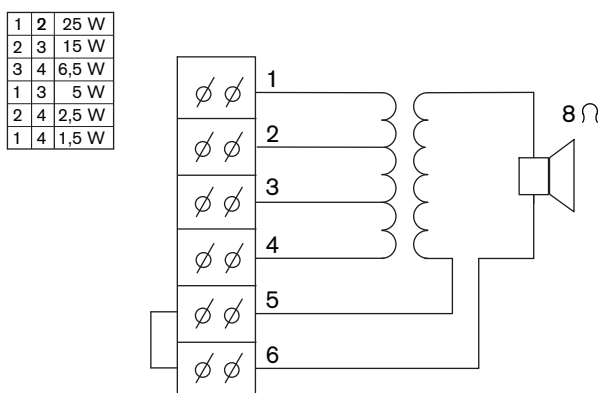


Figure 1.12: Circuit diagram

2 Technical data

LH3-UC25XS | LH3-UC25XS-1: Technical Specifications

Electrical*

	LH3-UC25XS	LH3-UC25XS-1
Maximum power	30 W	
Rated power (PHC)	25 W	
Rated power	25 / 15 / 6.5 / 5 / 2.5 / 1.5 W	
Sound pressure level at rated power / 1 W (1 kHz, 1 m)	118 dB / 106 dB	115 dB / 104 dB
Opening angle at 1 kHz/ 4 kHz (- 6 dB)	120 / 37 degrees	105 / 35 degrees
Effective frequency range (-10 dB)	380 Hz to 8000 Hz	450 Hz to 7000 Hz
Rated voltage	100 V	
Rated impedance	400 ohm	
Electrical connection	2 x 6 pole push terminal	
Acceptable wire gauge	0.5 mm - 2.5 mm ² (AWG 20-12)	

* Technical performance data acc. to IEC 60268-5

Mechanical

Material horn	Polyamide (PA)
Material bracket	Stainless Steel (Grade 316)
Dimensions (H x W x D)	144 x 170 x 207 mm (5.66 x 6.69 x 8.15 in)
Weight	2.37 kg (5.22 lb)
Color	Black (RAL 9005)
Cable gland (standard supplied)	M20 Polyamide (PA)
Cable diameter	8 mm to 13 mm (0.31 in to 0.51 in)

Environmental

Operating temperature	-50 °C to +60 °C (-58 °F to +140 °F)
Storage temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity	<95%

Certification and Approvals

Safety	acc. to EN 60065
Water and dust protected	acc. to EN 60529 IP 66/67

Explosion proof LH3-UC25XS LH3-UC25XS-1	ATEX/IECEX Certified IIB ATEX/IECEX Certified IIC
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LH3-UC25XL | LH3-UC25XL-1: Technical Specifications**Electrical***

	LH3-UC25XL	LH3-UC25XL-1
Maximum power	30 W	
Rated power (PHC)	25 W	
Rated power	25 / 15 / 6.5 / 5 / 2.5 / 1.5 W	
Sound pressure level at rated power / 1 W (1 kHz, 1 m)	122 dB / 109 dB	119 dB / 106 dB
Opening angle at 1 kHz/ 4 kHz (- 6 dB)	100 / 30 degrees	73 / 33 degrees
Effective frequency range (-10 dB)	380 Hz to 7000 Hz	400 Hz to 7000 Hz
Rated voltage	100 V	
Rated impedance	400 ohm	
Electrical connection	2 x 6 pole push terminal	
Acceptable wire gauge	0.5 mm - 2.5 mm ² (AWG 20-12)	

* *Technical performance data acc. to IEC 60268-5*

Mechanical

Material horn	Polyamide (PA)
Material bracket	Stainless Steel (Grade 316)
Dimensions (H x W x D)	200 x 270 x 248 mm (7.87 x 10.62 x 13.70 in)
Weight	2.72 kg (5.99 lb)
Color	Black (RAL 9005)
Cable gland (standard supplied)	M20 Polyamide (PA)
Cable diameter	8 mm to 13 mm (0.31 in to 0.51 in)

Environmental

Operating temperature	-50 °C to +60 °C (-58 °F to +140 °F)
Storage temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity	<95%

Certification and Approvals

Safety	acc. to EN 60065
Water and dust protected	acc. to EN 60529 IP 66/67
Explosion proof LH3-UC25XL LH3-UC25XL-1	ATEX/IECEX Certified IIB ATEX/IECEX Certified IIC

2.1 Certification and approvals

INSTALLATION, OPERATION, MAINTENANCE AND CHECKOUT PROCEDURES FOR BOSCH-ATEX/IECEX CERTIFIED Ex-LOUDSPEAKER

1. If the Ex- loudspeaker is to be earthed use marked earth screws inside of the loudspeaker (see fig. 4).
2. Be sure that the Ex- loudspeaker is connected to the correct voltage, frequency and power stated on labels on the model.
3. The lid screws for the termination chamber should be fastened with a torque of 1.8 Nm to assure the IP-rating (see fig. 6).
4. Use only correct certified cable glands/blind plugs reflecting the same specifications as the rest of the loudspeaker with respect to IP rating and environmental temperature (ATEX/IECEX approved.)
5. The EEx loudspeakers should remain in position so that entering water will be drained from the sound channel (see fig. 9 and 10). Be sure that the environmental temperature is within the certified temperature range.



Caution!

Do not open the Ex loudspeaker when the speaker is energized.
Consequences

6. In general the polyamide PA 12 housing material used in these Ex-loudspeakers, is suitable for all kinds of different climatic conditions, including heavy marine environments. Use suitable cleaning materials. Make sure the loudspeaker does not come into contact with foreign elements, such as chemicals, soaps, acids and dust.
7. The loudspeaker is tested according to Directive 2014/34/EU and EN 60079-0: 2012/ A11:2013, EN 60079-1: 2014, EN 60079-7: 2007, EN 60079-18: 2009 and EN 60079-31: 2009, IEC 60079-0: 2011, IEC 60079-1: 2014-06, IEC 60079-18:2009, IEC 60079-31:2008 and IEC 60079-7: 2006-07.
8. Special conditions for Safe Use: the loudspeaker should only be installed in areas where there is a low risk of impact. When the bracket of the loudspeaker is mounted onto the construction, the bracket must be connected to earth potential through the construction.

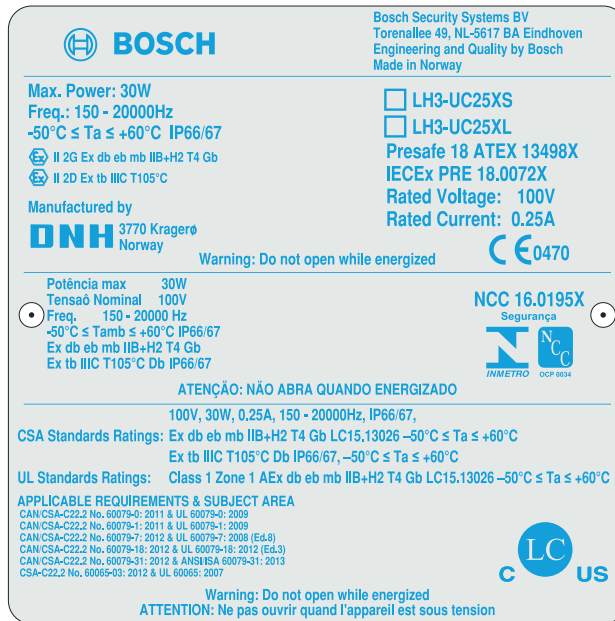


Figure 2.1: LH3-UC25XS and LH3-UC25XL Type plate label

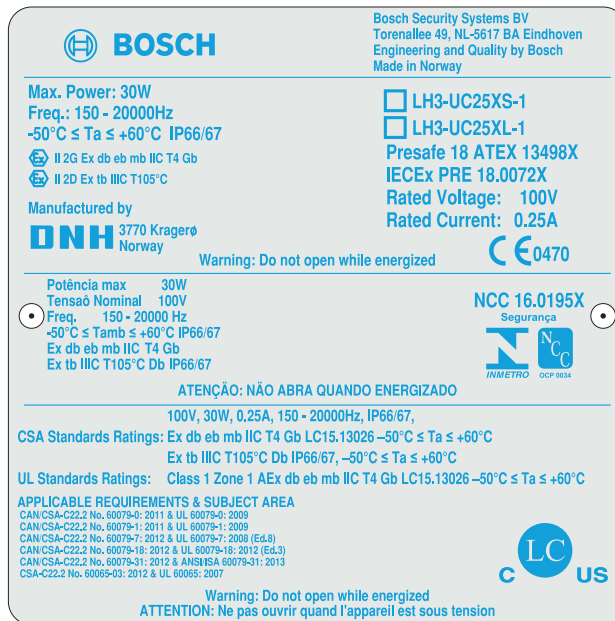


Figure 2.2: LH3-UC25XS-1 and LH3-UC25XL-1 Type plate label

2.2 Additional technical data

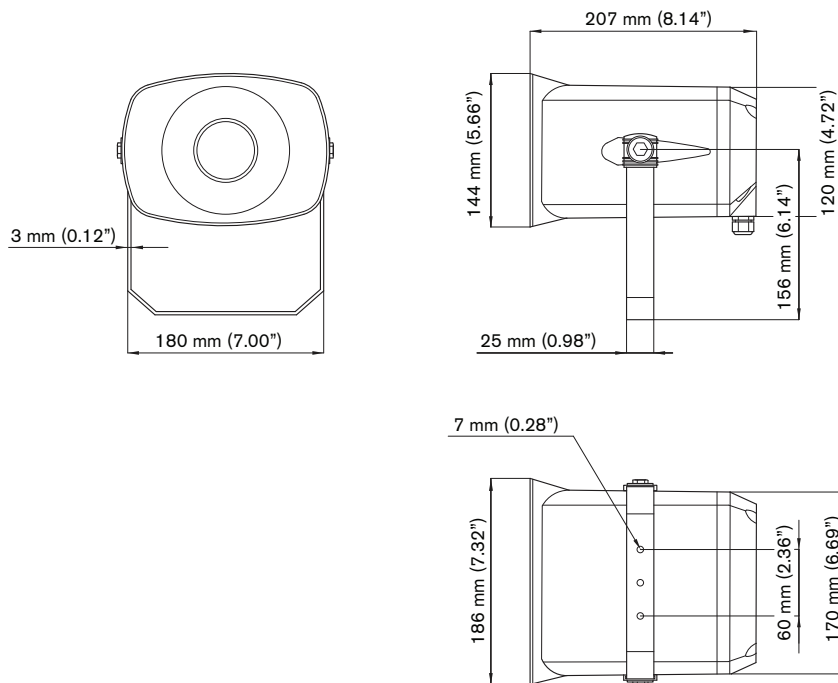


Figure 2.3: LH3-UC25XS | LH3-UC25XS-1

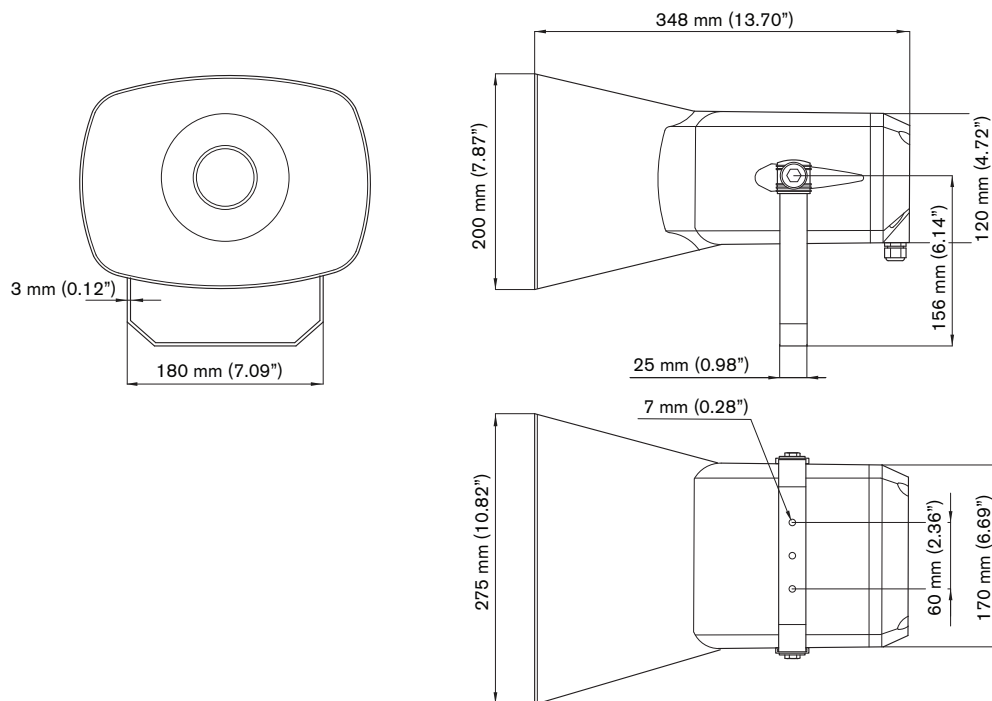
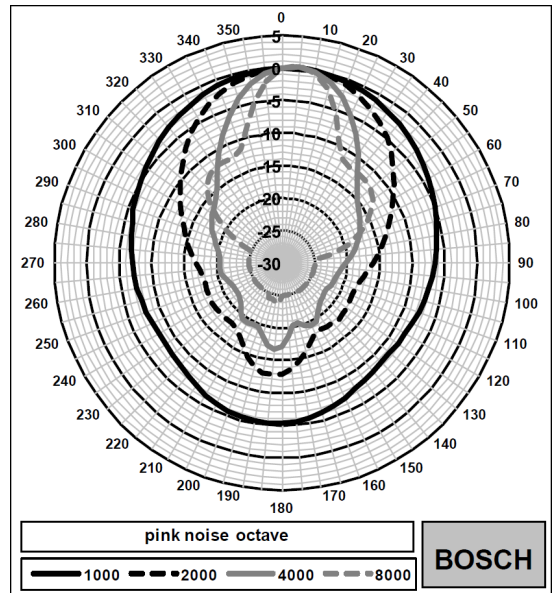
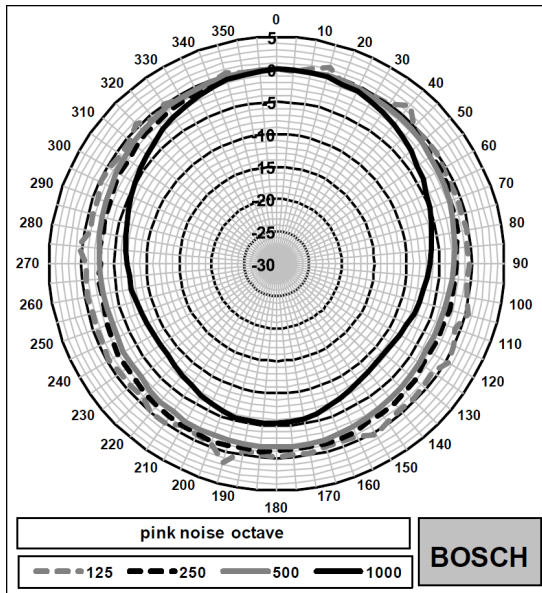
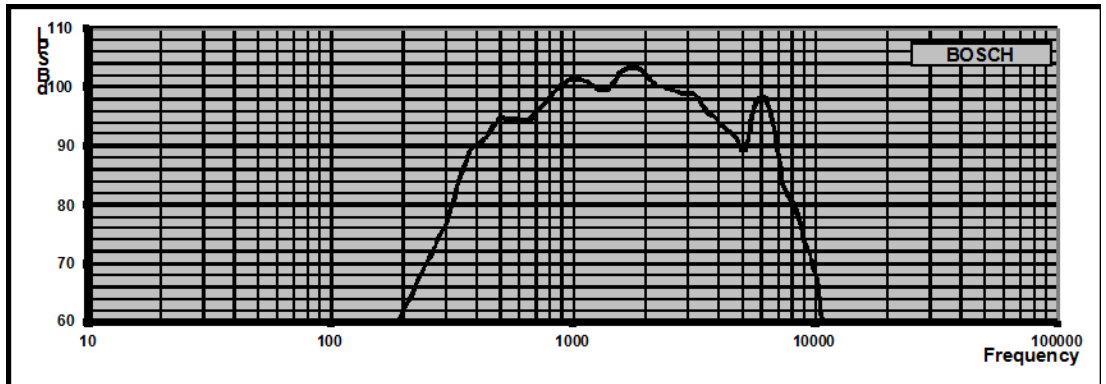


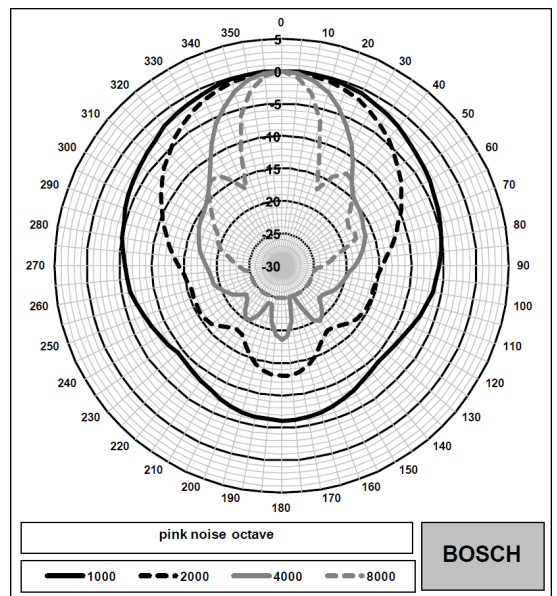
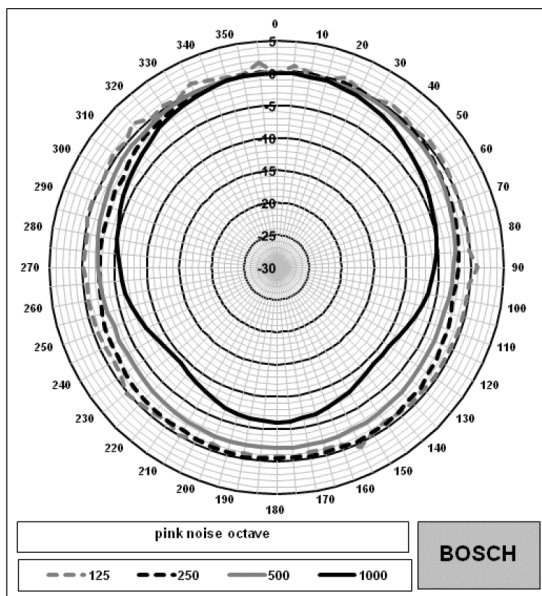
Figure 2.4: LH3-UC25XL | LH3-UC25XL-1

LH3-UC25XS



Horizontal polar diagram (low frequency)

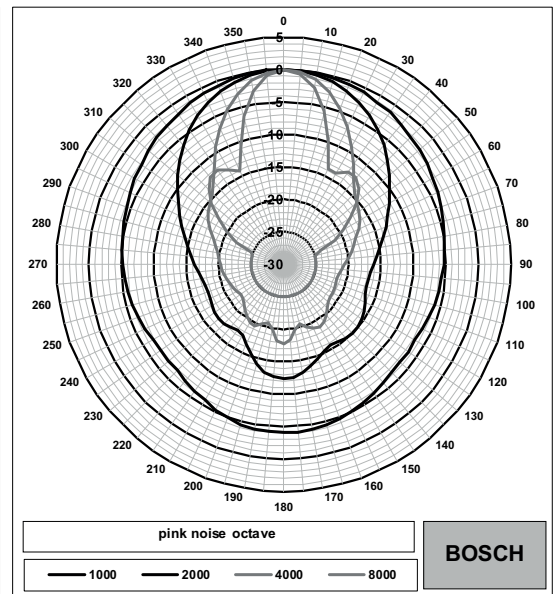
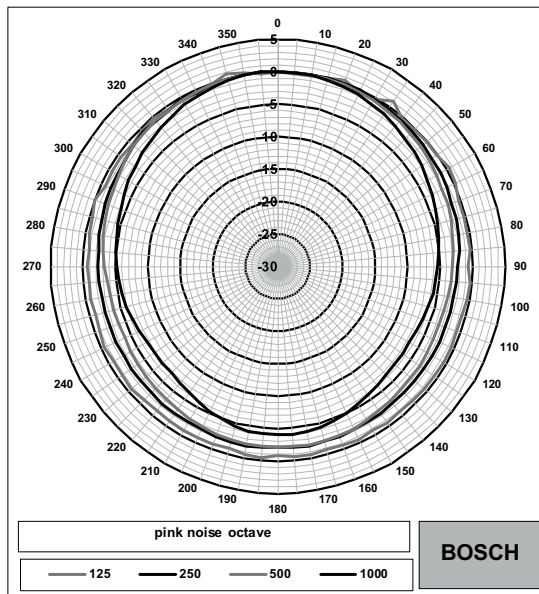
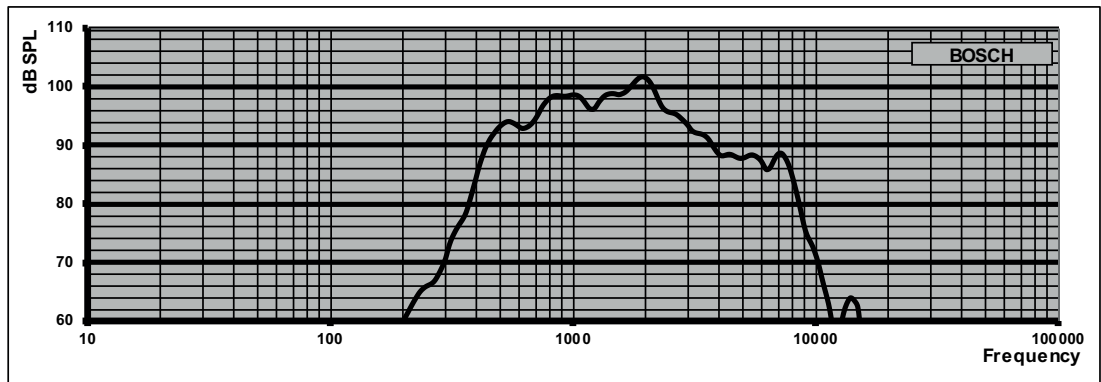
Horizontal polar diagram (high frequency)



Vertical polar diagram (low frequency)

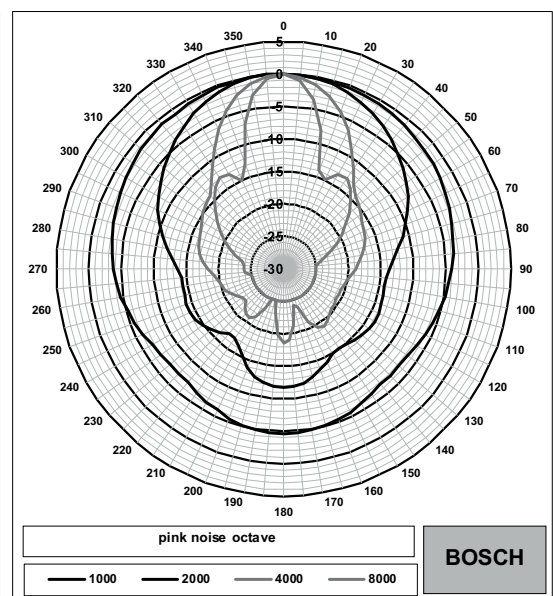
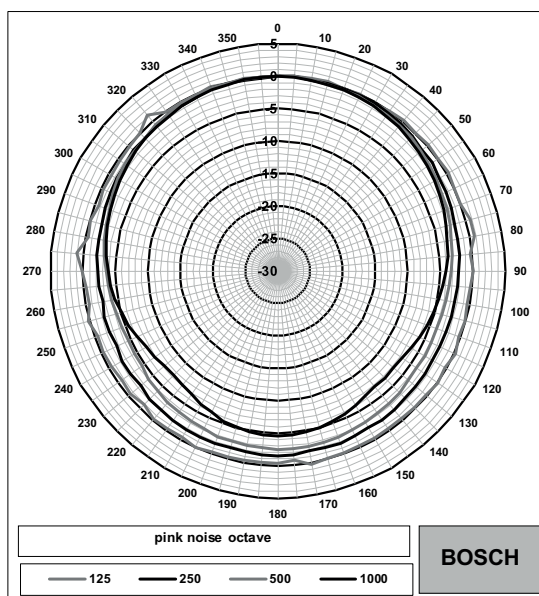
Vertical polar diagram (high frequency)

LH3-UC25XS-1



Horizontal polar diagram (low frequency)

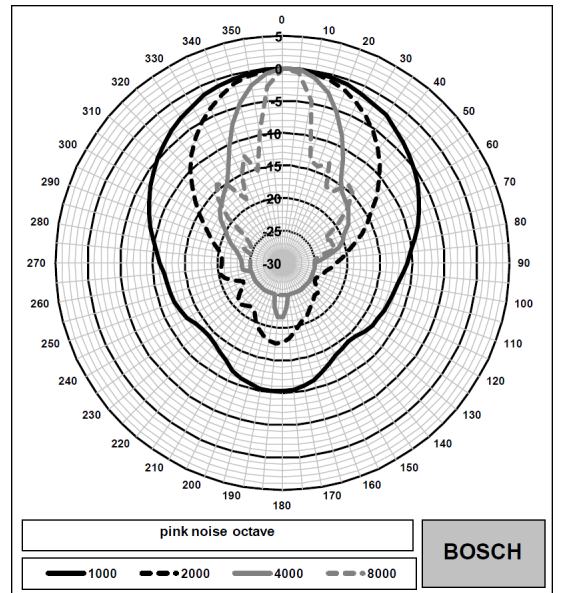
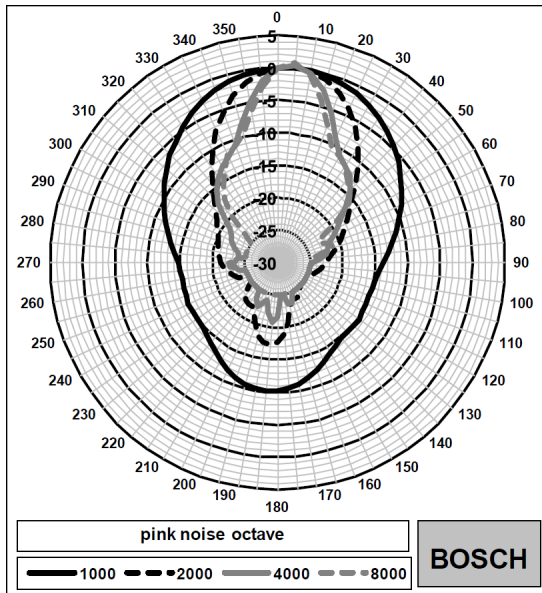
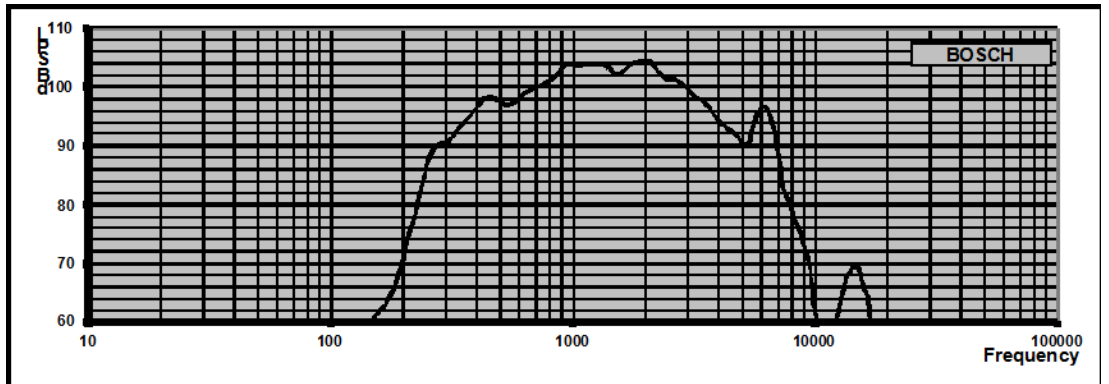
Horizontal polar diagram (high frequency)



Vertical polar diagram (low frequency)

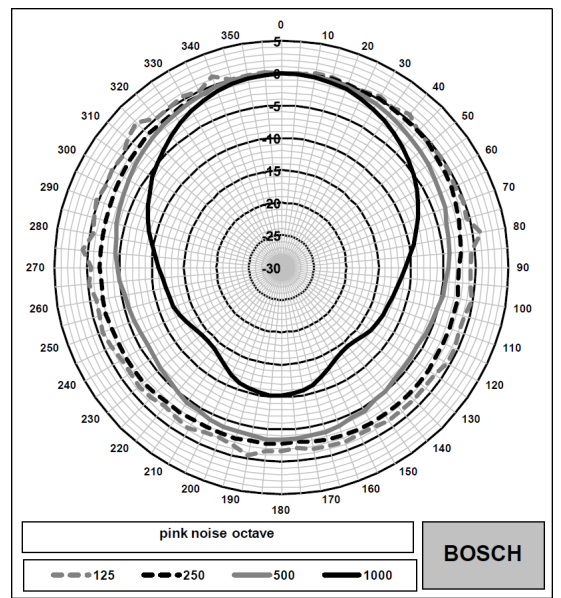
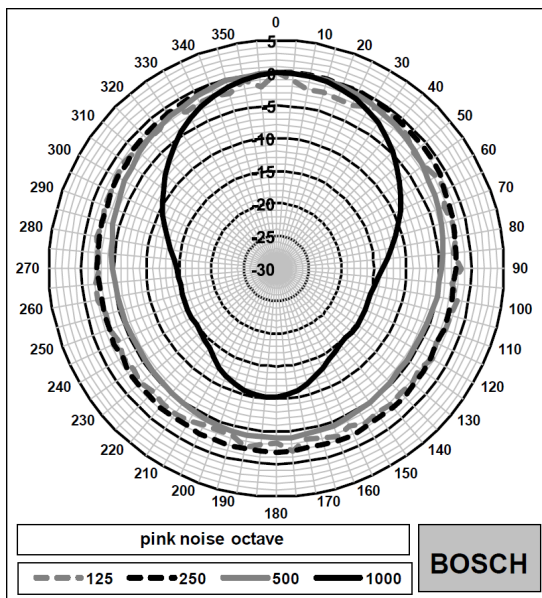
Vertical polar diagram (high frequency)

LH3-UC25XL



Horizontal polar diagram (low frequency)

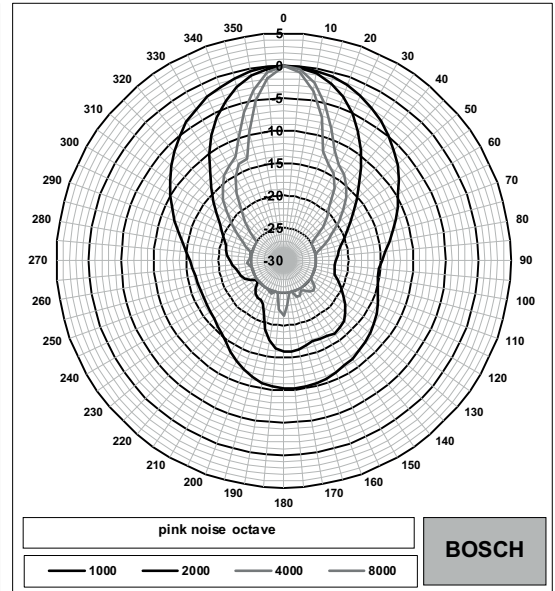
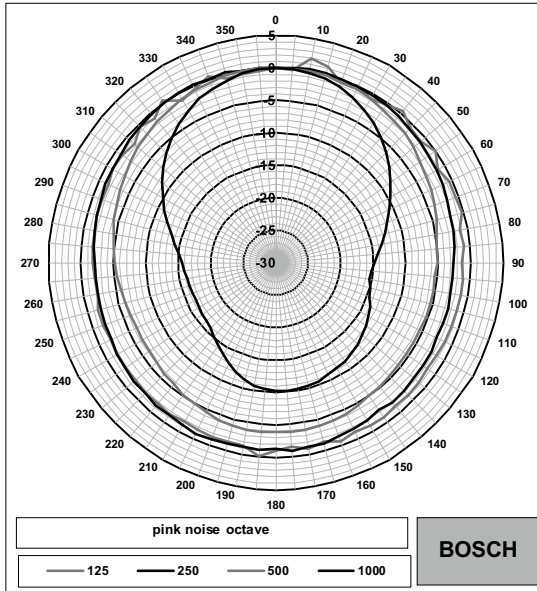
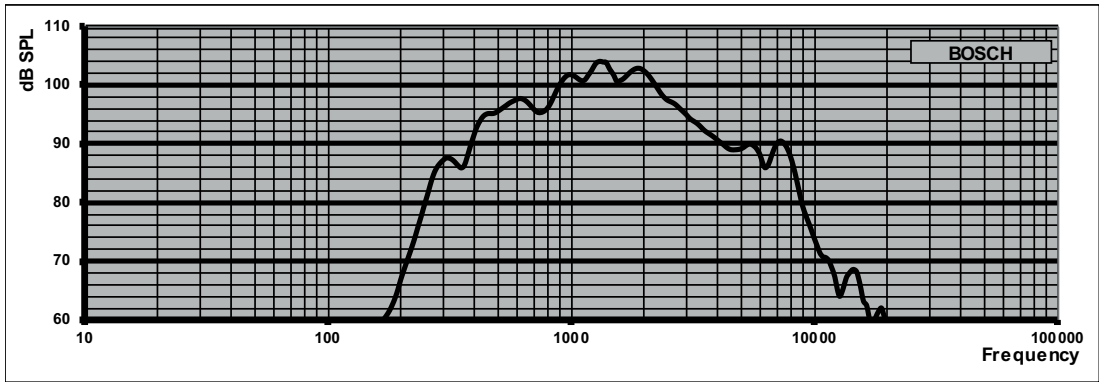
Horizontal polar diagram (high frequency)



Vertical polar diagram (low frequency)

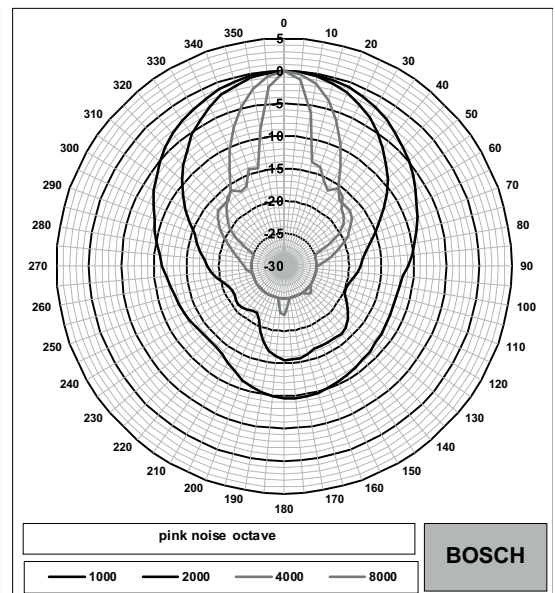
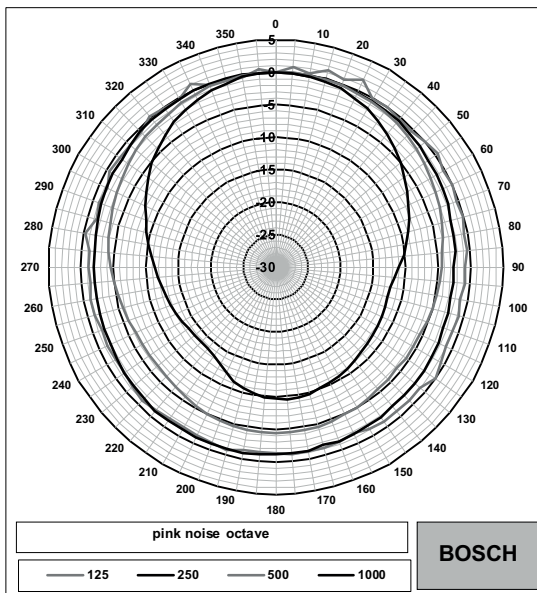
Vertical polar diagram (high frequency)

LH3-UC25XL-1



Horizontal polar diagram (low frequency)

Horizontal polar diagram (high frequency)



Vertical polar diagram (low frequency)

Vertical polar diagram (high frequency)



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