

## EN54 HORN SPEAKER

- 15W 100V LOUDSPEAKER
- HIGH SOUND PRESSURE LEVEL
- LOW DISTORTION SOUND
- U-BRACKET MOUNTING
- ROBUST ABS PLASTIC HOUSING
- WEATHERPROOF TO IP66
- UL94 V-0 COMPLIANT
- FULLY CERTIFIED TO EN 54-24



### OVERVIEW

The SPHO-15W-EN54 is a 15W 100V horn loudspeaker which gives a high sound pressure level for internal and external applications, and which is certified to EN 54-24.

The speaker is fitted with a 100V transformer which has four power adjustment tapings of 15W, 7.5W, 3.75W, and 1.9W, plus a low-impedance setting (20 Ohms). The power adjustment is easily accessed at the rear of the speaker behind its cover.

The SPHO-15W-EN54 has a robust impact resistant ABS housing, sealed to the IP66 environmental standard. Thus the speaker is protected against dust ingress and is also sealed against high pressure water jets, for sustained weather resistance in industrial applications.

The speaker body meets the UL94 V-0 flammability standard and is coloured to match RAL7035 'Light Grey'.

The 100V loudspeaker line connection is provided at the rear of the speaker via PG11 cable glands to ceramic block terminals, and in order to provide increased fire protection, the speaker is also fitted with a thermal fuse, so the speaker is compliant to BS 5839-8 requirements.

To operate the speaker in accordance with EN 54-24 an equaliser has to be used, as detailed in the Install Guide.

The speaker is provided with a stainless-steel 'U' bracket, which provides a number of flexible mounting options.

There is also a strap-on mast bracket available as an accessory, part number SPAC-MB-80. This mast bracket is suitable for use with masts of up to 200mm diameter.

This loudspeaker is optionally available with a DC blocking capacitor fitted, in order to provide compatibility with DC loudspeaker line monitoring systems. The part number for this DC monitoring compatible version is SPHO-15W-EN54-DC.

EASE data is available for this speaker on request.

**TECHNICAL DATA**

Power Tappings or Low Impedance Setting	15W / 7.5W / 3.75W / 1.9 W or 20 Ohms
Impedance (100V)	667 / 1333 / 2667 / 5263 Ohms
Loudspeaker Impedance	20 Ohms
Frequency Range	677— 5,400 Hz
Frequency Response	300 — 13,800 Hz
SPL IEC 60268-5 1W / 1m, peak	95.0 dB
SPL EN 54-24 rated noise power / 4m	93.0 dB
Sensitivity EN 54-24 1W / 4m	83.0 dB
Sensitivity IEC 60268-5 1W / 1m	95.3 dB
Dispersion (-6dB, 500Hz) Horizontal / Vertical Plane*	360° / 360°
Dispersion (-6dB, 1KHz) Horizontal / Vertical Plane*	110° / 110°
Dispersion (-6dB, 2KHz) Horizontal / Vertical Plane*	70° / 70°
Dispersion (-6dB, 4KHz) Horizontal / Vertical Plane*	40° / 40°
Temperature range	-25 / +70 °C
Relative Humidity Range	0 - 93%
Dimensions	209 x 321 mm
Weight (net)	2.08 kg
Colour	RAL7035 'Light Grey'
Connector	Ceramic block
Mounting	'U' Universal mounting bracket
Verified IP Rating / EN 54 Speaker Type & Minimum Rating	IP66 / Type B (Outdoors), minimum rating IP33C
Maximum cable cross section	8mm <sup>2</sup>
Maximum cable cross section loop	2x2mm <sup>2</sup>
Packing Unit	8

**\* EN 54-24 Definitions for Speaker Reference Axis, Point, Plane + Horizontal & Vertical Planes:**

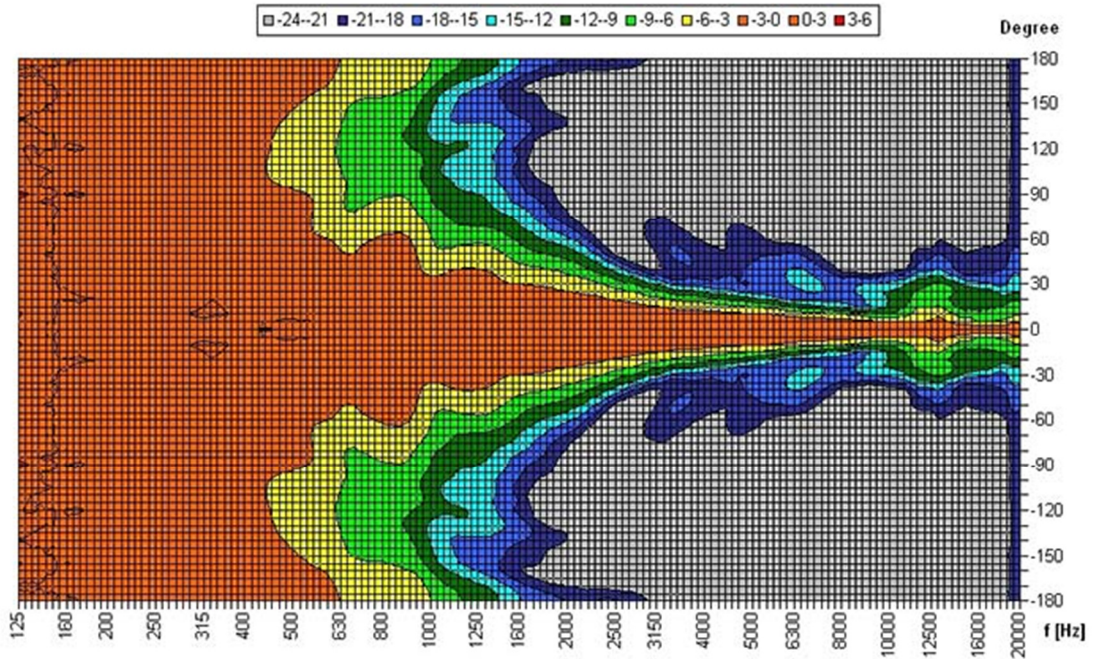
- Reference Axis: Axis is through the centre of the speaker grille surface and is perpendicular to the grille surface.
- Reference Plane: Plane is across the front of the speaker grille surface and is perpendicular to the reference axis.
- Horizontal Plane: Plane contains the reference axis and is perpendicular to the reference plane.
- Vertical Plane: Plane contains the reference axis and is perpendicular to the reference plane.
- Reference Point: Point is at the centre of the front of the speaker grille surface where all the above intersect.

All measurements in the table above relate to the Reference Axis unless otherwise stated

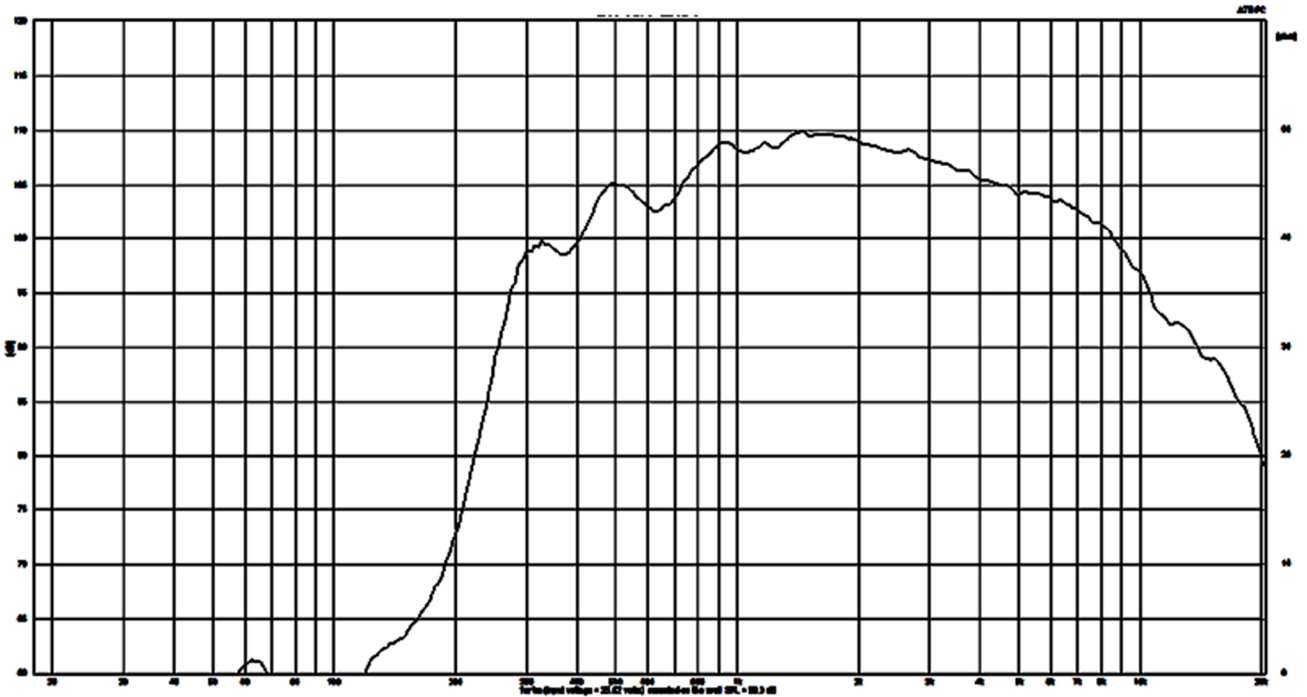
**EN 54-24 Annex A, Measurement Environments:**

Flush-mounted loudspeakers e.g. ceiling loudspeakers, shall be measured under half-space free field conditions.

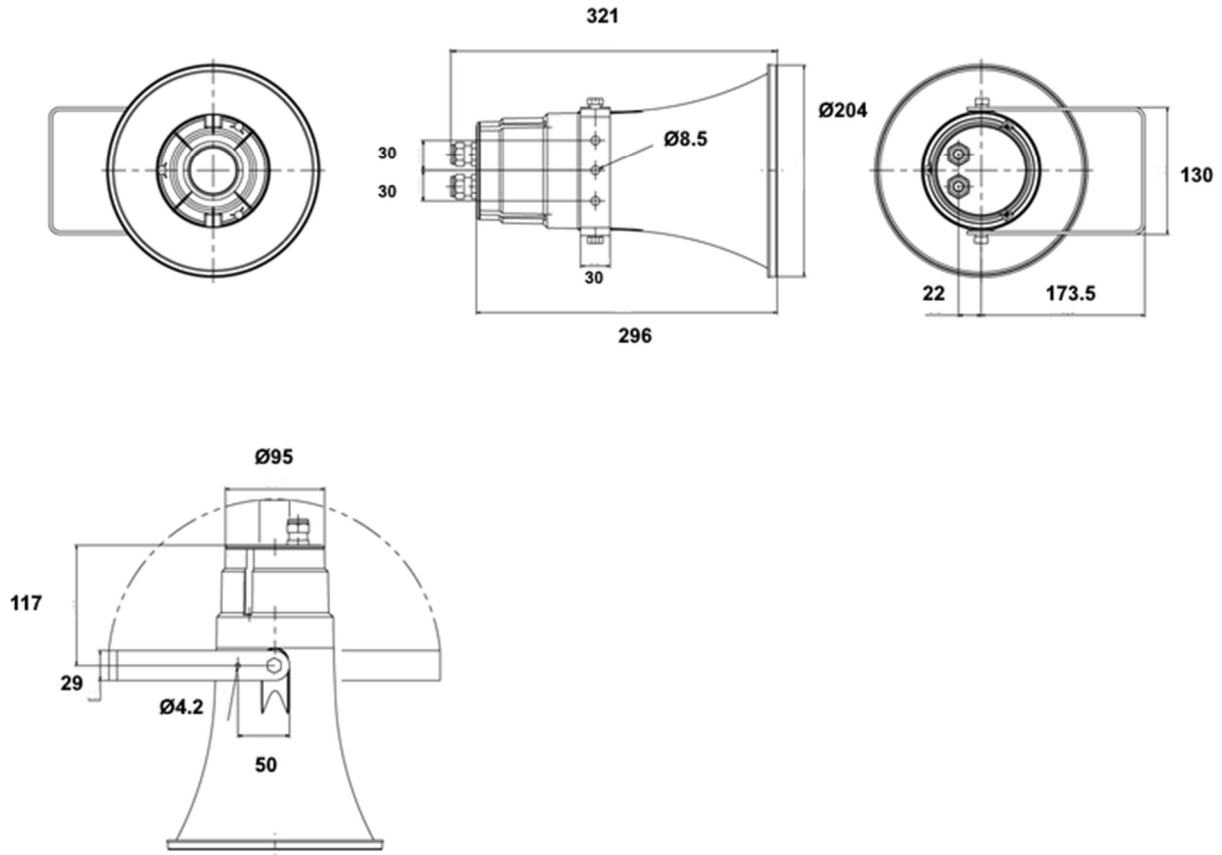
All other speakers shall be measured under free-field conditions or in a ground plane arrangement that simulates a free-field condition.

**POLAR DIAGRAM**


Parameters: Cyclic Move: 0° ; Symmetry: average sym ; Freq.Smooth: 1/3 Oct ; Ang.Resol: 5° ; Rel. to: 0° Axis 0°

**FREQUENCY RESPONSE DIAGRAM**


**DIMENSIONAL DIAGRAM**



This equipment is designed and manufactured to conform to the following EU Directives:  
 Low Voltage: 2014/35/EU  
 Restriction of Hazardous Substances (RoHS): 2011/65/EU & 2015/863/EU

Made for:

Application Solutions (Safety and Security) Limited  
 Unit 17 - Cliffe Industrial Estate - Lewes - East Sussex - BN8 6JL - U.K.  
 Tel: +44(0)1273 405411

[www.asl-control.co.uk](http://www.asl-control.co.uk)



**Assessed to ISO 9001**  
**LPCB Cert No: C1043**