

XP11/24-48

AMPLIFIED WEATHER-PROOF LOUDSPEAKER

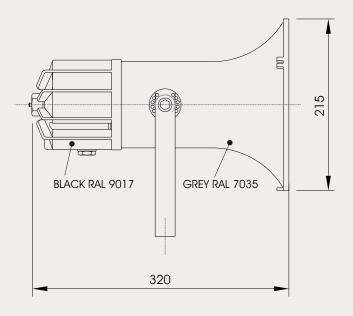
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- Power rating of internal amplifier 25W
- Processed in die cast light alloy
- Built-in adjustable power from 0.76W to 25W
- Degree of Protection IP66
- Power supply 24 ÷ 48Vdc

The weatherproof horn loudspeaker XP11-24/48 made of die cast aluminium has an IP rating of 66 in accordance with the standard IEC529 and includes an internal power amplifier. Dip switches are used for adjusting the volume levels and are accessible by means of a suitable weatherproof inset protected by a loss proof plug. The amplifier is placed in a weatherproof casing (IP66) which is suitable for outdoor use. The magnetodynamic unit permits excellent frequency response (in the range (350÷15kHz) and an operating power of 25W (30W maximum). The horn is fitted with fixing brackets and a hindrance device that blocks changes in the selected inclination in cases of impacts or vibrations. The power amplifier is incorporated in the back of the speaker unit and utilises special components capable of supporting high temperatures. Its circuit is covered by a patent. The amplifier is equipped with protection against transients in both the power supply and audio inputs. The audio inputs are a high impedance balanced differential type and use a transformer to ensure galvanic separation between the line and the actual amplifier. Furthermore all the electrical parts (inputs, outputs and power supply) are insulated from the external metallic parts. A particular active filter with a variable bandwidth in function of the volume levels blocks high values that would otherwise damage the mobile equipment in the presence of high energy at low frequencies. Rather, at low values the bandwidth is broadened thus ensuring excellent sound quality reproduction, especially in a medium dimension ambient. The amplifier is made of a circuit that helps avoid transients on the speaker when switched on or off. Furthermore there is total thermal protection with an automatically timed reactivation circuit and for protection of the internal circuits blade type rapid fuses are used.







ELECTRICAL SPECIFICATIONS OF AMPLIFIER

Amplifier		s	Switching in Class "D"			
Range of the rated Power supplyfrom 24 to 48Vo						
Operating limits	from 24	V-15% to 48V	+20% (20.8÷57.6Vdc)			
Consumption	at quiescence, V at nominal powe	/ps=48V r, Vps=24V	≤45mA ≤25mA ≤1.4A ≤0.7A			
Nominal sensibility0dB (0.775Vrms)±0.2dB						
Nominal input impe	edance		≥10kohm			
Signal to Noise ratio>90dB						
Bandwidth			400Hz ÷ >10kHz 300Hz ÷ >10kHz			
Nominal output power, rms, dc (f=400÷10kHz)25W						
Maximum distortion	n at nominal powe	with Vps=24V	≤1.95% ≤1.4%			
Climatic operating conditions in range of nominal voltages						
(sinusoidal input, F	max)		25°C ÷ +65°C 40°C ÷ +65°C			
Protection against differential mode impulses in the power supply and signal inputs2kV - 1.2/50µs						

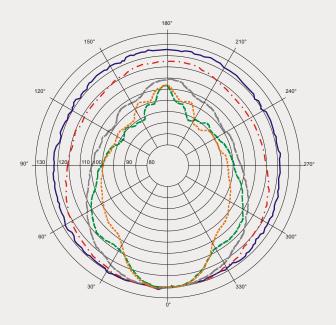
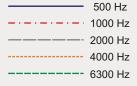


figure 3
POLAR DIAGRAM OF RADIATION



SPEAKER SPECIFICATIONS

Operating Power	25W
Maximum Power	30W
Impedance at 1kHz	8ohm
Amplitude frequency response	(see figure 2)
Polar radiation diagram	(see figure 3)
Acoustic pressure at 1 m (measurements done with white noise)	≥124dBA ± 3dB
Dielectric rigidity between mobile coil and external metallic parts	1kVac
Mechanical Protection rating	IP66



SW1	SW2	SW3	SW4	SW5	OUT POWER
OFF	OFF	OFF	OFF		25W
ON	OFF	OFF	OFF		18W
OFF	ON	OFF	OFF		12,5W
ON	ON	OFF	OFF		10W
OFF	OFF	ON	OFF		6W
ON	OFF	ON	OFF		4,7W
OFF	ON	ON	OFF	Ω	4,2W
ON	ON	ON	OFF	JSE	3,4W
OFF	OFF	OFF	ON	NOT USED	1,63W
ON	OFF	OFF	ON	ž	1,5W
OFF	ON	OFF	ON		1,31W
ON	ON	OFF	ON		1,2W
OFF	OFF	ON	ON		1W
ON	OFF	ON	ON		0,9W
OFF	ON	ON	ON		0,83W
ON	ON	ON	ON		0,76W

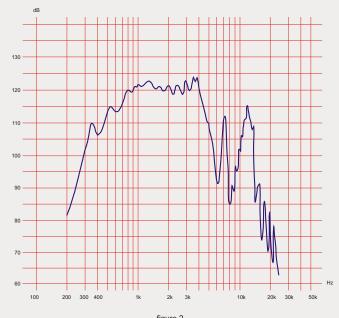


figure 2
AMPLITUDE-FREQUENCY RESPONSE DIAGRAM
Measurement of the nominal power taken on the
speaker axis 1 meter from the speaker cone

Description	Type	Code
Weatherproof amplified loudspeakerOptional kit for plug connection with 2 input socket		