Compression Drivers for Electronic Siren Loudspeakers

SD-70, AS100N

SD-70

Features

- Choice of 58 Watt or 100 Watt Power Handling for High Intelligibility and Sound Penetration
- Heavy-Duty Weatherproof Construction
- Specifically-Designed for Electronic Siren and Signaling applications
- Accommodates Most Horns and Reflex Horns with Standard 1⅜" – 18 Thread Pattern

Applications

Depend on the Atlas Sound SD-70 and AS100N compression drivers for electronic siren and signaling needs on emergency and law enforcement vehicles, as well as for use in stationary and mobile public address systems. SD-70 and AS-100N provide maximum power conversion with low-amplifier output to fulfill high-intelligibility and sound-penetration requirements. The Atlas Sound SD-70, rated at 58 watts RMS, is recommended for medium-power systems such as commercial and industrial warning systems. The Atlas Sound AS-100N, rated at 100 watts RMS, is recommended for high-power systems in public safety, civil authority, military, or emergency medical applications. Either unit can be used with most horns or reflex horns equipped with the industry standard 1⅜" – 18 thread pattern.

General Description

The 58 watt SD-70 and the 100 watt AS100N compression drivers are standard components of Atlas Sound's electronic siren loudspeaker assemblies. Weatherproof units are ideal for use in police, fire, ambulance, and utility vehicles. SD-70 is recommended for medium-powered systems; AS100N for high-powered systems. Drivers are equipped with a non-fatiguing, self-aligning sound chamber assembly containing a 2¾" phenolic diaphragm with a nominal impedance of 11 Ω. Replacement head assembly, the Atlas Sound K-70GB is available for field replacement of SD-70 and the Atlas Sound K-100N for AS-100N. Product series is suitable for use with matched amplifier and control equipment in systems requiring AMECA (Automotive Manufacturer Equipment Compliance Agency, Inc.) certification to General Services Administration specifications (KKK-A-1822C). The AS100N is constructed using an NEODYMIUM-IRON-BORON magnet.

Specifications

SD-70

Power Rating	58 watts*
Impedance	11 Ω
Plane Wave Frequency Response	100 Hz - 2 kHz (±5 dB)
Low Frequency Limit @ Full Power	500 Hz
Sound Level ***	115.8 dB
Diameter	4⅜" (111 mm)
Height	3⁹⁄₁₆" (90 mm)

AS100N

Power Rating	100 watts**
Impedance	11 Ω
Plane Wave Frequency Response	100 Hz - 2.5 kHz (±5 dB)
Low Frequency Limit @ Full Power	500 Hz
Sound Level ***	117 dB
Diameter	4⅝" (117 mm)
Height	3" (76 mm)

** 25V into 11 Ω = 58 watts*
***33V into 11 Ω = 100 watts*
****Measured on a plane wave tube @ 1mW*

AS100N

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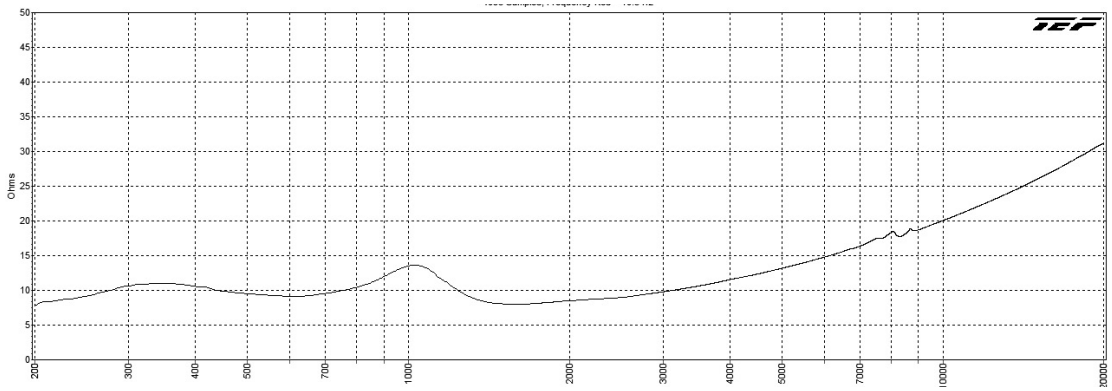
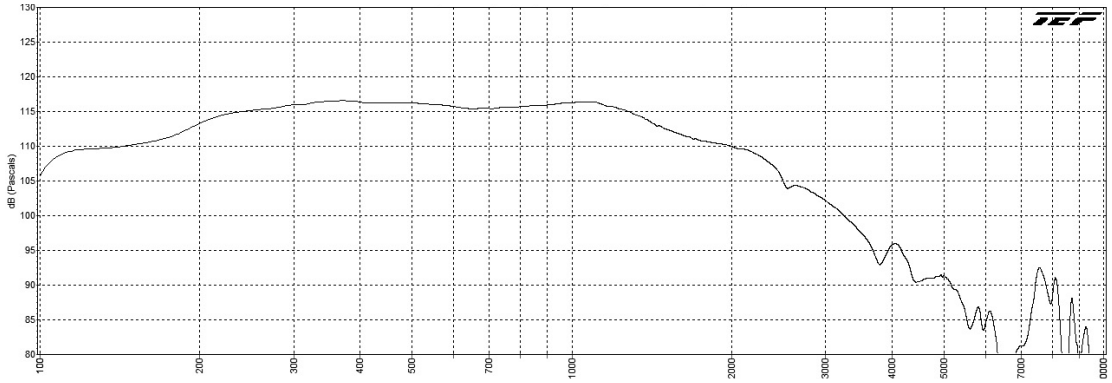
Architect & Engineer Specifications

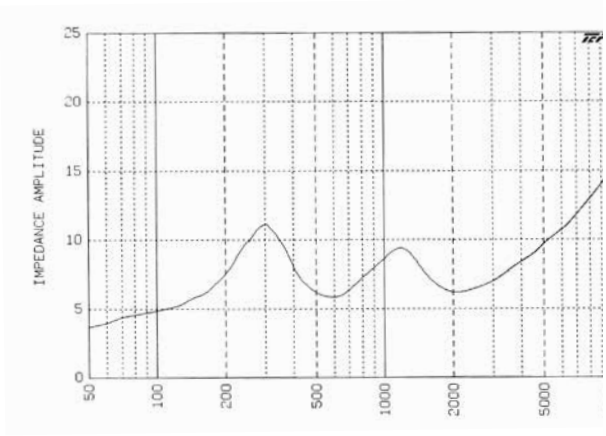
Siren loudspeaker shall be Atlas Sound Model (SD-70, AS100N) or approved equal. Assembly shall have a full-range power capacity of _____ watts RMS. Rated frequency response range shall be _____ Hz ±5 dB when measured on a plane wave tube at 1 mW. Unit shall have a sound pressure output of _____dB at rated power when measured on a plane wave tube at 1 mW. Driver shall be capable of standard indoor/outdoor use and be weather resistant. Units shall terminate in the industry standard 1⅜" – 18 thread pattern. Diaphragm material shall be high-temperature molded phenolic.



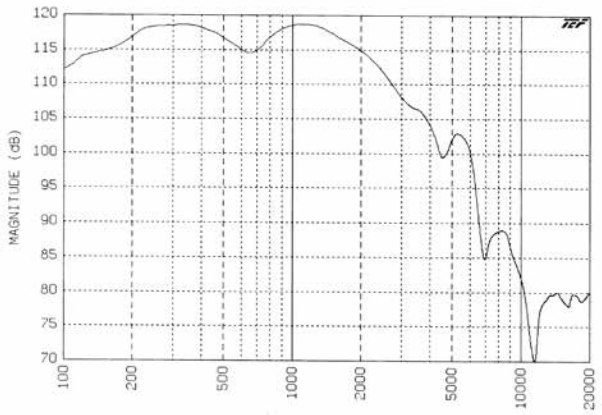
AS100N Plane Wave Tube Impedance



AS100N Plane Wave Tube Frequency Response



SD-70 Plane Wave Tube Impedance



SD-70 Plane Wave Tube Response

NOTE: Plane wave tube measurements provide resistive loads to test drivers. Actual frequency response of a driver / horn combination will vary depending on the horn used with the driver. Consult individual horn specification sheet for typical horn frequency response.

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