

VTB Series

FEATURES

- Patented Voice/Tone Loudspeaker for Custom Application in High Efficiency Industrial
- Communications, Intercom, Electronic Alarm, and Monitoring Systems
- Water/Moisture, Corrosion, Dust, Vibration, and Vermin-Resistant
- Metal Die-Cast Construction with Integral Exponential Horn
- High Efficiency Compression Driver for Optimum Audio Intelligibility
- Selection of five Models; 2 or 15 Watts, 4 or 8 Ohms, 25V or 70.7V Transformers
- UL-Recognized Speaker Component
- Operates Within a Temperature Range of -30° F to 150° F

APPLICATIONS

VTB Series compression drivers combine exceptional performance, environment-resistance, and high-power sound distribution for reproducing voice and/or electronic tone signals with clarity and accuracy.

The driver-only design is intended for installation in custom housings used in high-efficiency industrial communication, intercom, electronic alarm and monitoring system applications including industrial, institutional, educational and health care centers, mass transit and mobile radio communications, government buildings and military installations, mines, jails, and detention centers, industrial processing, construction sites, drive-in menu boards, and intrusion alarms.

Atlas Sound's VTB Series loudspeakers are UL-recognized for use as a component within a complete system. (Note: To obtain a UL Listing on a system employing UL recognized components, the system must be evaluated by Underwriters Laboratories)

GENERAL DESCRIPTION

Atlas Sound VTB Series Models are environment-resistant loudspeakers designed for intercom communication. VTB Models feature an integral exponential horn to provide reliable sound distribution and optimum intelligibility for the reproduction of voice and/or electric tone signals. Units have a frequency response of 600 Hz to 5500 Hz ±5dB, and are offered in six models to meet application requirements.

Series Models VTB-1 and VTB-2 are 8 and 4 ohm units, respectively. Models VTB-3 through VTB-6 are equipped with a built-in transformer. Termination is via 6" color coded leads. Units are of die-cast zinc construction with a water-sealed driver that will withstand moisture, corrosion, vibration, vermin, and vandalism. Models are available with a selection of multi-tap transformers and are designed to mount a variety of standard or custom housings and face plates to meet installation and application requirements. VTB Series units provide years of trouble-free service in stationary or mobile applications both indoors or outdoors.

| MODEL | TRANSFORMER | POWER TAPS (WATTS) | FREQ. RESP.              | DISPERSION                                   | SENSITIVITY              | SERIES DIMENSIONS / WEIGHT  |
|-------|-------------|--------------------|--------------------------|--|--------------------------|---|
| VTB-1 | N.A.        | 15 (8 Ohms)        | 600 Hz - 5500 Hz (± 5dB) | > 190° (- 6dB pt., 1 and 2 kHz octave bands) | 96.9dB (1W / 1M)         | 3 1/16" SQ x 3 3/16" D (106mm x 81mm)   |
| VTB-2 | N.A.        | 15 (4 Ohms)        |                          |  | UL: 90dB * (1W, 10 feet) | mounts custom enclosure or E.O. Box with min. area of 4 1/8" L x 4 1/8" H x 3 1/2" D<br>2.23 Lbs. (1.12 kg) |
| VTB-3 | 70.7V       | 15, 8, 4, 2        |                          |  |                          |   |
| VTB-4 | 25 V        | 15, 8, 4, 2        |                          |  |                          |   |
| VTB-6 | 25 V        | 2,1                |                          |  |                          |   |

\* 3dB increment rating.

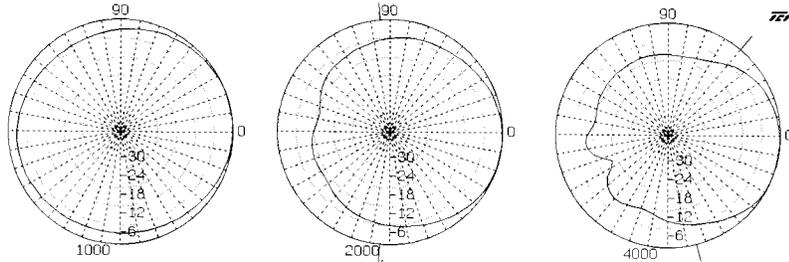
Specifications subject to change without notice



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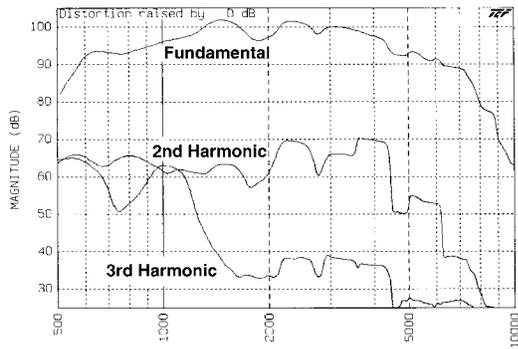
**SOUND LEVEL REFERENCE INDEX FOR VTB SERIES LOUDSPEAKERS  
(BASED ON UL RATING OF 90dB AT 1 WATT, 10 FEET)**

| DISTANCE     | 15-W INPUT | 8-W INPUT | 4-W INPUT | 2-W INPUT | 1-W INPUT | 1/2-W INPUT | 1/4-W INPUT |
|--------------|------------|-----------|-----------|-----------|-----------|-------------|-------------|
| 10' (3.0 m)  | 102.0dB    | 99.0dB    | 96.0dB    | 93.0dB    | 90.0dB    | 87.0dB      | 84.0dB      |
| 20' (6.1 m)  | 96.0dB     | 93.0dB    | 90.0dB    | 87.0dB    | 84.0dB    | 81.0dB      | 78.0dB      |
| 30' (9.1 m)  | 92.5dB     | 89.5dB    | 86.5dB    | 83.5dB    | 80.5dB    | 77.5dB      | 74.5dB      |
| 40' (12.2 m) | 90.0dB     | 87.0dB    | 84.0dB    | 81.0dB    | 78.0dB    | 75.0dB      | 72.0dB      |
| 50' (15.2 m) | 87.7dB     | 84.7dB    | 81.7dB    | 78.7dB    | 75.7dB    | 72.7dB      | 69.7dB      |

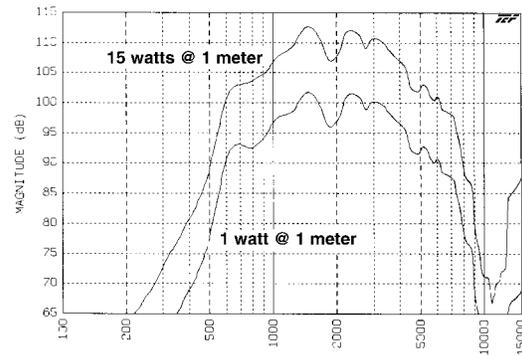


| Freq. (Hz) | Q    | Di   | Dispersion Angle (Degrees) |
|------------|------|------|----------------------------|
| 1000       | 1.83 | 2.61 | 360                        |
| 2000       | 3.09 | 4.91 | 190                        |
| 4000       | 4.54 | 6.57 | 125                        |

**VTB SERIES  
Polars Are Normalized to Zero on Axis**



**VTB SERIES Harmonic Distortion  
( 1 watt @ 1 meter )**



**VTB SERIES FREQUENCY RESPONSE**

**ARCHITECT & ENGINEER SPECIFICATIONS**

UL-recognized environment-resistant loudspeaker shall be Atlas Sound Model \_\_\_\_\_ (VTB-1, VTB-2, VTB-3, VTB-4, VTB-6) or approved equal. Unit shall be comprised of a compression driver with integral exponential horn. Frequency response shall be 600 Hz to 5500 Hz  $\pm$ 5dB with a sensitivity of 96.9dB (1W / 1M) and UL rating of 90dB (3dB increment rating of 1W ,10 Feet). Model shall have a dispersion angle of 190° and shall be able to withstand temperatures

ranging from 150° F (66° C) to -30° F (-35°C) Unit shall have a power rating of \_\_\_\_ (15 or 2 watts) and shall \_\_\_\_ (include built-in 25 or 70.7 volt transformer) with primary watt taps of \_\_\_\_ (15, 8, 4, and 2 or 2 and 1 watts) or (be 4 or 8 Ohms). VTB Series Model shall be constructed of die-cast zinc and shall include a water-sealed driver that shall withstand moisture, corrosion, vibration, vermin, and vandalism.

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