



# OMNI-PURPOSE® 30 WATT WIDE ANGLE HORN LOUDSPEAKER

APC-30T



APC-30T

## TECHNICAL SPECIFICATIONS

<b>Model:</b>	APC-30T (25V, 70V, 100V xfmr)
<b>Power Rating:</b>	30 watts
<b>Frequency Response:</b>	300 - 12,000 Hz (Nominal) 400 - 3,000 Hz ( $\pm 5$ dB)
<b>Sensitivity (SPL):</b>	122dB at 30 watts (peak) 119dB at 30 watts / 1 meter (avg) 400-3,000 Hz 109dB at 1 watt / 1 meter (avg) 400-3,000 Hz
<b>Dispersion Angle:</b>	70° x 95° (-6dB, 2 kHz octave band)
<b>Dimensions:</b>	14 $\frac{3}{8}$ "W x 8 $\frac{1}{4}$ "H x 12 $\frac{7}{8}$ "D (365 x 210 x 327mm)
<b>Weight:</b>	8.0 lbs. (3.7kgs)
<b>Finish:</b>	Grey baked epoxy

## ARCHITECT AND ENGINEER SPECIFICATIONS

Loudspeaker shall be Atlas Sound Model \_\_\_\_\_ transformer-equipped APC-30T or approved equal. Weatherproof unit shall be a double re-entrant type design with audio power capability of 30 watts (continuous). Frequency response shall be 300-12,000 Hz (nominal), 400-3,000 Hz ( $\pm 5$ dB). Sound pressure level shall be 119dB (30W/1M), 109dB (1W/1M). Dispersion shall be 70° x 95° (-6dB, 2 kHz octave band). Voice coil impedance shall be 8-ohms. Model APC-30T shall be equipped with transformer having impedance selection via seven-position switch with 2500, 1300, 666, 333, 167, 89 and 45 ohms. Power taps shall be available at 0.9, 1.8, 3.7, 7.5, 15 watts on 25V line, 2, 3.8, 7.5, 15, 30 watts on 70V line and 4, 7.7, 15, 30 watts on 100V line. Unit shall be furnished with self-aligning, field-replaceable diaphragm and Omni-Purpose® mounting bracket. Bracket allows adjustment in the vertical and horizontal planes and includes provisions for surface mounting, banding, or strapping. Unit shall be constructed of environment-resistant polycarbonate plastic, treated heavy-gauge aluminum and structural aluminum die-casting. Finish shall be grey baked epoxy. APC-30T weighs 8 lbs. and measures 14 $\frac{3}{8}$ "W x 8 $\frac{1}{4}$ "H x 12 $\frac{7}{8}$ "D (365 x 210 x 327mm).



**BX-1A.**

## ACCESSORIES

Vandal Resistant Cover Plate for Armored Cable and Conduit Connection. Constructed of Cast Aluminum.

## FEATURES

- High-Powered Compression Driver Projects Superior Voice and Tone Signalling
- Wide-Angle Sound Dispersion for Maximum Horizontal Pattern Coverage
- One-Step Method of Adjusting Bell from Horizontal to Vertical Positioning Increases Sound Angling Versatility
- Includes a 25, 70.7, 100V Transformer with a 45-Ohm Tap

## APPLICATIONS

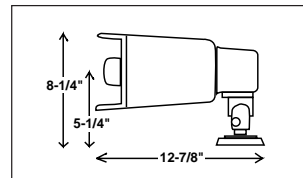
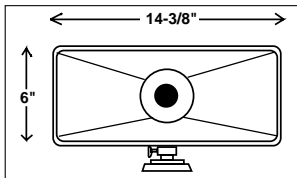
APC-30T 30-watt loudspeaker features an exponential-shape bell with 75° x 95° wide-angle sound dispersion for voice and signal messages. The bell may easily be rotated with one turn of the loudspeaker tip to loosen or tighten. This exclusive feature provides precise horizontal or vertical pattern control for most coverage areas. Install the highly efficient units in manufacturing facilities, commercial buildings, service/distribution centers, recreation areas and civic sites where public address messages and emergency evacuation warnings are communicated. Use these sturdy units for indoor or outdoor applications where clear communication and weather-resistant performance are required.

## GENERAL DESCRIPTION

Atlas Sound transformer-equipped Model APC-30T offers 30 watts of handling capability. It features an integral high-efficiency compression driver consisting of a 1 $\frac{1}{2}$ " voice coil, a phenolic diaphragm and a ferrite magnet for extended reliability and performance. The wide-angle bell is engineered to increase frequency dispersion while retaining low frequency response. The exponential flare of the projector bell also allows for sound directivity. Unique design also provides for maximum sound angle projection in the horizontal or vertical plane by loosening the horn loudspeaker tip, changing horn orientation.

Model APC-30T includes a built-in transformer featuring the exclusive Vari-Tap® Control Connect Center. Simply use a screwdriver to adjust the 7-position watts/impedance switch or use the 45-ohm tap for intercom and talk-back use.

Engineered for durability, this loudspeaker requires little or no maintenance. It features the cast aluminum Omni-Purpose® mounting bracket for precise positioning in vertical and horizontal planes with a single adjustment. The bracket includes provisions for secure installation of the loudspeaker to conventional surfaces as well as for strap-mounting to I-beams and pillars. Assemblies are manufactured of polycarbonate plastic and structural aluminum with a grey baked epoxy finish.



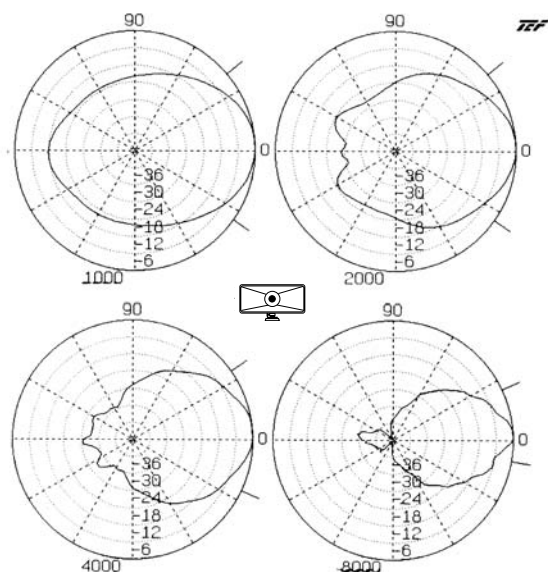
Specifications subject to change without notice



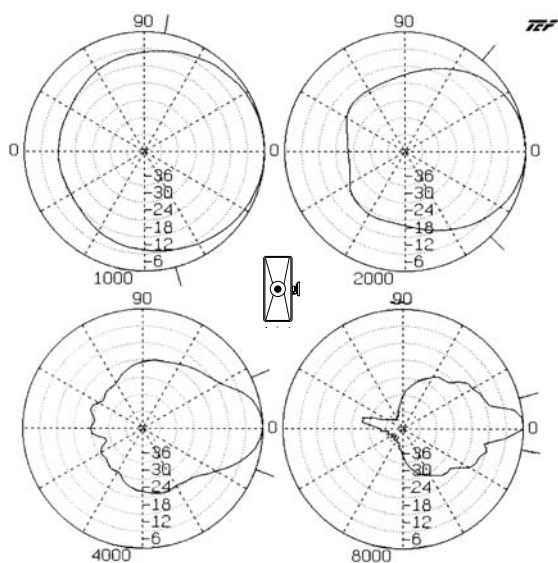
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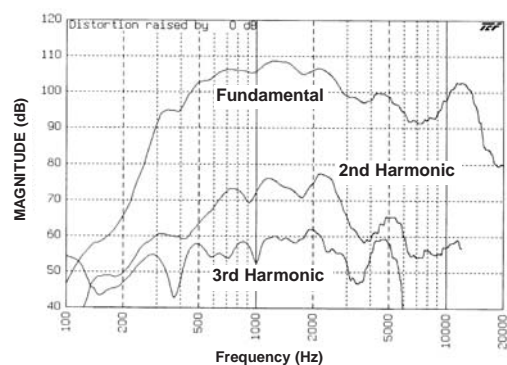


Horizontal Polars Are Normalized To Zero On Axis

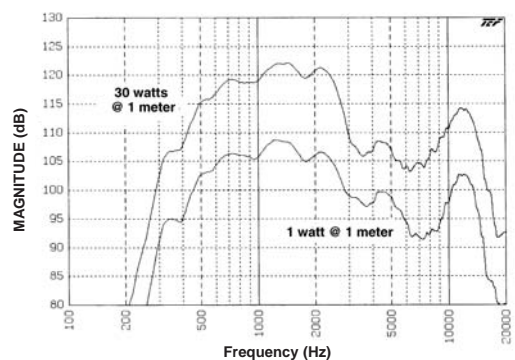


Vertical Polars Are Normalized To Zero On Axis

MODEL APC-30 T				
Frequency	Q	Di	Beamwidth	
			Wide	Narrow
500	3	5	115	245
1000	5	7	75	155
2000	10	10	75	95
4000	12	11	60	45
8000	42	16	35	25



APC-30T (Harmonic Distortion - 1 watt @ 1 meter)



APC-30T Frequency Response

#### APC-30T Vari-Tap® Control Connect Center Xfmr. Power Taps

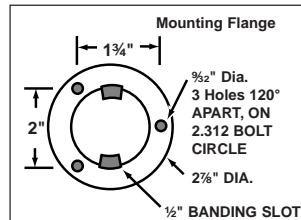
Switch Position	Impedance (Ohms)	Watts @ 25V	Watts @ 70.7V	Watts @ 100V
1	2,500	—	2	4
2	1,300	—	3.8	7.7
3	666	.09	7.5	15
4	333	1.8	15	30
5	167	3.7	30	X*
6	89	7.5	X*	X*
7	45	15	X*	X*

(\* Do Not Use)

**DRIVER PROTECTION:** The horn loudspeaker should not be operated at frequencies outside the horn cut-off. It is suggested that any program material be high-passed at 300 Hz with a 6dB per octave filter. This can be done by a low level filter at the amplifier input or by a series capacitor at each loudspeaker. Electrolytic capacitors can be used but they must be non-polarized (See *Typical Capacitor Values Chart*).

#### TYPICAL CAPACITOR VALUES CHART

8 Ohm Driver 70 mfd  
 25 Volt Line 30 mfd  
 70 Volt Line 4 mfd  
 100 Volt Line 2 mfd



Atlas Sound products are designed and tested in our well-equipped research laboratory which contains a fully anechoic chamber, complete analog Bruel & Kjaer measurement equipment and the TEF 20® audio analyzer. Atlas Sound is proud to be a beta site for TEF® software.

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