



Speaker/Horns

5A30, 5A531, 5A606, 5A607, 5A451



5A30

Overview

5A30 Re-entrant Horn

The Dukane Model 5A30 Re-entrant Horn is ideal offers medium level voice paging (indoors, outdoors) for use in industrial warehouse areas, schools, and commercial buildings.

5A531 8-inch Loudspeaker and Assembly

The Dukane Model 5A531 Loudspeaker is well suited for classrooms, offices, meeting rooms, paging and music systems, and most applications requiring a number of high-quality, eight-inch (20.3 cm) loudspeakers. This model has a mounted transformer matching 25-volt lines and is tapped at ½ watts of power prior to shipment.

5A606, 5A607 Speaker Assembly

The Dukane Model 5A606 or 5A607 Speaker Assembly are ideal for use in small area music distribution, paging, and intercom systems. With extended high frequency response, which is made possible by an additional cone, the 5A607 loudspeaker qualifies for use in installations that require the best quality from an 8-inch (20.3 cm) unit.

5A451 Dual Voice-Coil 8" Loudspeaker

The Dukane Model 5A451 Loudspeaker is a dual voice-coil type designed to work with the 12A957 Emergency Audio Communication System. The second voice coil is provided specifically for that system's electronic supervision feature. The 12A957's trouble detection alarm will be triggered if either physical or electrical damage is done to the speakers.

Standard Features

5A30 Horn

- Ideal for paging in high noise level areas
- Good intelligibility
- Shockproof and weatherproof
- Built-in 25-volt and 70-volt transformer with selector switch

5A531 8-inch Loudspeaker and Assembly

- Efficient magnet structure
- Preassembled with transformer
- Standard EIA mounting dimensions

5A606 Speaker Assembly

- Efficient magnetic structure
- Built for long and continuous use

5A607 Speaker Assembly

- Low mounting profile
- Efficient magnet structure
- Additional cone for extended high frequency response
- Preassembled with transformer
- Standard EIA mounting dimensions

5A451 Dual Voice-Coil 8" Loudspeaker

- Low Mounting Profile
- Dual Voice Coils
- Efficient Magnetic Structure
- Standard EIA Mounting Dimensions

Engineers' Specification

5A30 Horn

The Dukane Model 5A30 Re-entrant Horn, or approved equal, shall be furnished and installed as indicated on the plans. The unit shall have a continuous power rating of 15 watts. The frequency range shall be 400Hz to 14,000Hz. The trumpet shall have a screwdriver adjustable switch that can be set externally to select 15, 7.5, 3.8, 2, 1 watts on a 70-volt line, or 15, 7.5, 1.8, .94, 0.48 watts on a 25-volt line. Available impedances shall be 5000, 2500, 1300, 666, 333, 89, and 45 ohms. The sound pressure level shall be 116dB at 3.3 feet (1 m) on axis with 15 watts input. Sound dispersion shall be 115° (-6dB, 1000Hz), 70° (-6dB, 2000Hz), and 40° (-6dB, 4000Hz) octave band.

The trumpet shall be 7-7/8 inches (20 cm) wide, 8-3/4 inches (22.25 cm) high, and 9-5/16 inches (23.7 cm) deep. The finish shall be beige baked epoxy. External connections shall be to screw terminals. The terminal housing and transparent cover shall function together as a cable strain relief. The trumpet shall be provided with a three-way adjustable mounting bracket. The assembly weight shall not exceed 4 pounds (1.8 kg).



5A531 8-inch Loudspeaker and Assembly

The loudspeaker shall be the Dukane Model 5A531 and shall be furnished and installed as indicated on the plans. The loudspeaker shall be an 8-inch (20.3 cm) seamless cone type. The ceramic magnet shall weigh at least 4.8 ounces (136 g). The frequency range shall be

from 30 to 15,000Hz. The normal wattage rating shall be 10 watts with a program rating of 16 watts. The voice coil shall be 3/4 inch (1.9 cm) in diameter with an 8-ohm impedance. The overall diameter shall be 8-3/16 inches (20.8 cm), the depth 2-13/16 inches (7 cm), and the weight 1-1/2 pounds (.68 kg). All external parts shall be zinc plated and shall conform to EIA standards.

Specifier:

When specifying the Model 5A531 loudspeaker, add the following: The loudspeaker shall be equipped with an Dukane Model 710-3096 Speaker Matching Transformer or approved equal universal matching transformer suitable for use on a 25-volt output line with taps at 1/2, 1, 2, and 4 watts to an 8-ohm speaker. The frequency response shall be within a 2dB envelope from 50 to 10,000Hz. Induced distortion shall be less than one percent and insertion loss not more than 1.5dB. The transformer shall be 1-5/8 inches (4.13 cm) high, 1-1/2 inches (3.81 cm) wide and 1-15/16 inches (4.9 cm) long, and provide two 0.187 inch (0.47 cm) diameter mounting holes on 2-3/8 inch (6 cm) centers. External connections shall be to 7-inch (0.47 cm) color-coded leads. The transformer shall weigh 9 ounces (252 g) and be cadmium plated.

5A451 Loudspeaker

The loudspeaker shall be Dukane Model 5A451 or an approved equal. The loudspeaker shall be an 8-inch (20.3 cm) diameter, seamless cone type incorporating two 8-ohm voice coils. The ceramic magnet shall weigh at least 4.8 ounces (0.14 kg). The speaker frequency range shall be from 80Hz to 12,000Hz. The speaker wattage rating shall be 10 watts. The voice coil shall be 3/4 inch (1.9 cm) in diameter. The overall diameter shall be 8-3/16 inches (20.8 cm), the depth shall be 2-7/8 inches (7.3 cm), and the weight shall be 1 pound, 5 ounces (0.59 kg). All external parts shall be cadmium plated and conform to EIA standards.

5A606 Speaker Assembly



The Dukane Model 5A606 Speaker Assembly shall be an 8-inch (20.3 cm), 8-ohm, seamless cone type and shall meet the following specifications: the ceramic magnet shall weigh at least 4.8 ounces (134 g); the frequency response shall be 90 to 15,000Hz; the axial sensitivity shall be 91dB at 1 meter (3.3 ft) for 1-watt input; the normal wattage rating shall be 8 watts with a program rating of 12 watts; the

voice coil diameter shall be 3/4 inch (2 cm); the depth shall be 2-3/4 inches (7 cm); all external parts shall be cadmium plated. The loudspeaker shall be equipped with a universal matching transformer suitable for use on a 25-volt output line with taps at 1/2, 1, or 2 watts or a 70-volt output line with taps at 1/2, 1, 2, or 4 watts.

5A607 Speaker Assembly

The speaker assembly shall be Dukane Model 5A607 which consists of a loudspeaker and transformer, and shall be furnished and installed as indicated on the plans. The loudspeaker shall be an 8-inch (20.3 cm) seamless cone type, with an additional cone mounted in the apex of the large cone to extend the high frequency response. The ceramic magnet shall weigh at least 10 ounces (283 g). The frequency range shall be from 30 to 20,000Hz. The normal wattage rating shall be 15 watts with a program rating of 25 watts. The voice coil shall be 1 inch (2.5 cm) in diameter with an 8-ohm impedance. The overall diameter shall be 8-3/16 inches (20.8 cm), with a depth of 3 inches (7.6 cm). All external parts shall be cadmium plated and shall conform to EIA standards. The loudspeaker shall be equipped with a universal matching transformer suitable for use on a 25-volt output line with taps at 1/2, 1, or 2 watts or a 70-volt output line with taps at 1/2, 1, 2, or 4 watts.



Specifications

5A30 Horn

Power Rating	15W continuous, program input limited to above 400Hz
Dimensions	7-7/8" (20 cm) wide, 8-3/4" (22.25 cm) high, 9-5/16" (23.7 cm) deep
Frequency Response	400Hz to 14,000Hz
Finish	Beige baked epoxy
Dispersion	115° at 1000Hz; 70° at 2000Hz; 40° at 4000Hz
Weight	5 lb (2.3 kg), shipping
Impedance	5000, 2500, 1300, 666, 333, 89, 45 Ohms
Mounting	Three-way adjustable bracket
Power Taps	70V line: 1, 2, 3.8, 7.5, 15W; 25V line: 0.48, .94, 1.8, 7.5, 15W
Terminations	Screw terminals with transparent cover and strain relief clamp
Sound Pressure	120dB (peak) at 3.3' (1 m) on axis with 15W input 116dB at 3.3' (1 m) (average) on axis with 15W input 106dB at 3.3' (1 m) (average) on axis with 1W input

5A531 8-inch Loudspeaker and Assembly

Speaker Diameter	8" (20.3 cm)
Magnet Weight	5 oz (140 g), ceramic
Frequency Range	30 to 15,000Hz
Flux Density	9800 lines/cm ²
Normal Wattage	12W
Axial Sensitivity	97dB (1 m [3.3 ft]/1W)
Program Rating	24W
Mounting Holes	8 slots at 45°, 7-5/8" (19.4 cm) diameter
Voice Coil Impedance	8 Ohms
Overall Diameter	8-3/16" (20.8 cm)
Voice Coil Diameter	3/4" (1.9 cm)
Speaker Depth	2-13/16" (7 cm)
Transformer Mtg. Centers	2-3/8" (6 cm)
Net Weight	1-1/2 lb (.68 kg)
Transformer Taps	Capacity 4W; Primary 25V; Secondary 4, 2, 1, and 1/2W; Net Weight 9oz (252 g)
Finish	Zinc plated

5A606 Speaker Assembly

Speaker Diameter	8" (20.3 cm) PM type
Frequency Response	90 to 15,000Hz
Normal Wattage	8W
Program Wattage	12W
Voice Coil Impedance	8 Ohms
Voice Coil Diameter	3/4" (2 cm)
Magnet Weight	4.8 oz (134 g), ceramic
Axial Sensitivity	91dB at 1 m (3.3 ft) for 1W input
Speaker Depth	2-3/4" (7 cm)
Finish	Cadmium plated
Transformer Taps	Primary: 25V and 70V Secondary: 1/2, 1, or 2W on the 25V; 1/2, 1, 2, or 4W on the 70V.

5A607 Speaker Assembly

Speaker Diameter	8" (20.3 cm)
Flux Density	11,500 lines/cm ²
Frequency Range	30 to 20,000Hz
Axial Sensitivity	95dB (1 m [3.3 ft]/1W)
Normal Wattage	15W
Mounting Holes	8 slots at 45°, 7-5/8" (19.4 cm) diameter
Program Rating	25W
Overall Diameter	8-3/16" (20.8 cm)
Voice Coil Impedance	8 Ohms
Speaker Depth	3" (7.6 cm)
Voice Coil Diameter	1" (2.5 cm)
Finish	Cadmium plated
Magnet Weight	10 oz (283 g), ceramic
Net Weight	4 lb, 4 oz (2.1 kg)
Transformer Taps	Primary 25V: 1/2, 1, and 2W Primary 70V: 1/2, 1, 2, and 4W Secondary: 8 Ohms

5A451

Loudspeaker

Speaker Diameter	8" (20.3 cm)
Speaker Frequency Range	80Hz - 12,000Hz
Speaker Wattage	10W
Voice Coil Impedance	8W
Voice Coil Diameter	3/4" (1.9 cm)
Magnet Weight	4.8 oz (0.14 kg), ceramic
Flux Density	8500 lines/cm ²
Axial Sensitivity	92dB (1W @ 4')
Mounting Holes	8 slots at 45°, 7-5/8" (19.4 cm) diameter
Overall Diameter	8-3/16" (20.8 cm)
Speaker Depth	2-7/8" (7.3 cm)
Speaker Net Weight	1 lb 5 oz (0.59 kg)
Finish	Cadmium plated

Ordering Information

Model	Description
5A30	Horn
5A531	8-inch Loudspeaker and Assembly
5A451	Loudspeaker
5A606	Speaker Assembly
5A607	Speaker Assembly



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U.S.
T 800-385-2639

Canada
T 519-748-5352
F 519-748-9221

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