

MCS20T MCS40T MCS80T

Metal Columnar Speaker Systems



■ FEATURES

- Architecturally Pleasing Style Sturdy Weather-Resistant Construction
- Choose 1, 2 or 3' Length w/ Slim 4" by 4" Depth/Width
- Horizontal or Vertical Mount 70.7-volt Xfrmr Output with 4 or 8-ohm Secondary

■ DESCRIPTION

Penton Audio's high-performance MCS Series Columnar Speaker Systems have robust, weather-resistant construction, yet are surprisingly stylish.

Each model uses 3.5" full-range speakers (2, 4 and 8 respectively), crossing over to a horn tweeter. Connection is via a 7" cable. The opposite end offers a low-profile screwdriver tap selector that allows 70.7-volt constant-voltage use.

The MCS20T and MCS80T also have 4-ohm secondary outputs, while the MCS40T has an 8-ohm. Weather resistance is provided by coated paper cones, aluminum housings, mesh screens and a cable gland nut.

Finished in white (MCS40T-B in black), they may be mounted using the matching angle bracket provided.

■ APPLICATION

Columns blend well with angular architecture. Similar to all well-designed columns, the MCS Series controls dispersion over the long axis, reducing feedback and dramatically increasing output levels in the same axis when compared to a single speaker. Vertical dispersion remains unaffected.

The durability, weather-resistance and performance of the stylish MCS units make them an intelligent choice for countless applications. Used in concert with other speaker systems, voice announce and background music, in transportation and educational facilities. They are also used on atriums, factories, churches, show arenas and sports venues. The length of the flat black MCS40T-B and slim design makes it an excellent choice for use with flat LCD projector screens.



■ SPECIFICATIONS

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| <ul style="list-style-type: none"> • SPEAKER SIZE
Cone: 3.5" (89 mm)
Horn Tweeter: 3.5" (89 mm) dia. • FREQUENCY RESPONSE (SEE FIG 1)
MCS20T: 230-20,000 Hz \pm 6 dB
MCS40T(-B): 200-20,000 Hz \pm 6 dB
MCS80T: 180-20,000 Hz \pm 6 dB • POWER HANDLING (WATTS)
MCS20T: 28
MCS40T(-B): 56
MCS80T: 125 • SPL @ 1w 1m
MCS20T: 91 dB
MCS40T(-B): 93 dB
MCS80T: 96 dB • DISPERSION @ 2 kHz (6 dB Down) (HORIZ. BY VERT.)
MCS20T: 155° x 70°
MCS40T(-B): 160° x 60°
MCS80T: 170° x 55° • DIRECTIVITY Q FACTOR @ 2 kHz
MCS20T: 5.6
MCS40T(-B): 6.5
MCS80T: 6.0 • CONE MATERIAL:
Coated Paper with Cloth Surround • TRANSFORMER MAX INSERTION LOSS:
0.8 dB • TRANSFORMER TAP CHANGE:
Rotary Switch • PRIMARY 70.7-VOLT XFMR TAPS
MCS20T: 20, 10, 5, 2.5
MCS40T(-B): 40, 20, 10, 5
MCS80T: 80, 40, 20, 10 | <ul style="list-style-type: none"> • PRIMARY TRANSFORMER IMPEDANCE:
MCS20T: 250, 500, 1K, 2K
MCS40T(-B): 125, 250, 500, 1K
MCS80T: 62.5, 125, 250, 500 • SECONDARY TRANSFORMER IMPED:
MCS20T: 4 ohms
MCS40T(-B): 8 ohms
MCS80T: 4 ohms • CONNECTION:
Via 7-1/2" (16 mm) 3-conductor Wire (gland nut entry protected); Black wire (common); Red Wire (70.7 volts); Blue Wire (4 or 8 ohms) • SUPPLIED MOUNTING ACCESSORIES:
2 ea 3.25" by 3.25" Angle Brackets;
1 ea 4" Straight Brckt; 6 ea Stainless-Steel Washers; 1 ea 1" Stainless Steel Bolt; 2 ea 1/2" SS Bolts • HOUSING MATERIAL:
Aluminum Extrusion; Aluminum Mesh Grille, Silicone Gaskets (top and bottom) & Zinc Die-Cast (top and bottom) • APPROVALS: CE • FINISH:
Baked-on White Enamel Paint (MCS40T-B: Flat Black) • DIMENSIONS H X 3.86 (98) X 3.54 (90) INCH (MM):
MCS20T: 14.5 (368)
MCS40T(-B): 24.2 (615)
MCS80T: 38.2 (970) • NET WEIGHT LBS (KGS):
MCS20T: 5.82 (2.70)
MCS40T(-B): 8.20 (3.80)
MCS80T: 12.92 (6.00) |
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MCS20T MCS40T MCS80T

ARCHITECTS' AND ENGINEERS' SPECIFICATIONS:

Unit shall be Penton Audio USA Model (MCS20T, MCS40T, MCS80T) column loudspeaker system or approved equal. Weather-resistant assembly shall be comprised of 3-1/2" coated paper-cone loudspeakers, a horn tweeter and integral 70.7-volt transformer. It shall have an aluminum cabinet and mesh grille and zinc end caps that have been sealed with silicone-rubber gaskets. Finish shall be white (MCS40TB - flat black), baked-on epoxy and include "L" -type mounting hardware.

At 4 ohms the MCS20T shall be rated at 91 dB @ 1 watt, 1 meter and have two 3-1/2" speakers. Frequency response shall be 230-15,000 Hz with a 5.6 Q Factor. Its 20-watt transformer shall have 20, 10, 5 and 2.5-watt taps.

At 8 ohms the MCS40T shall be rated at 93 dB @ 1 watt, 1 meter and have four 3-1/2" speakers. Frequency response shall be 200-20,000 Hz with a 6.5 Q Factor. Its 40-watt transformer shall have 40, 20, 10 and 5-watt taps.

At 4 ohms the MCS80T shall be rated at 96 dB @ 1 watt, 1 meter and have eight 3-1/2" speakers. Frequency response shall be 180-20,000 Hz with a 6.0 Q Factor. Its 80-watt transformer shall have 80, 40, 20 and 10-watt taps.

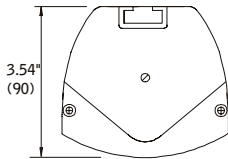


Fig 3: Top and Bottom View

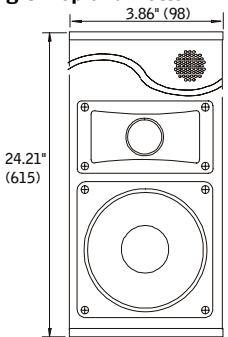


Fig 4: Front View

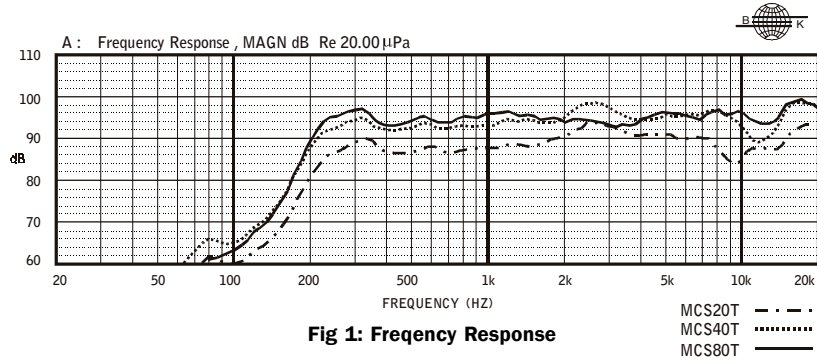


Fig 1: Frequency Response

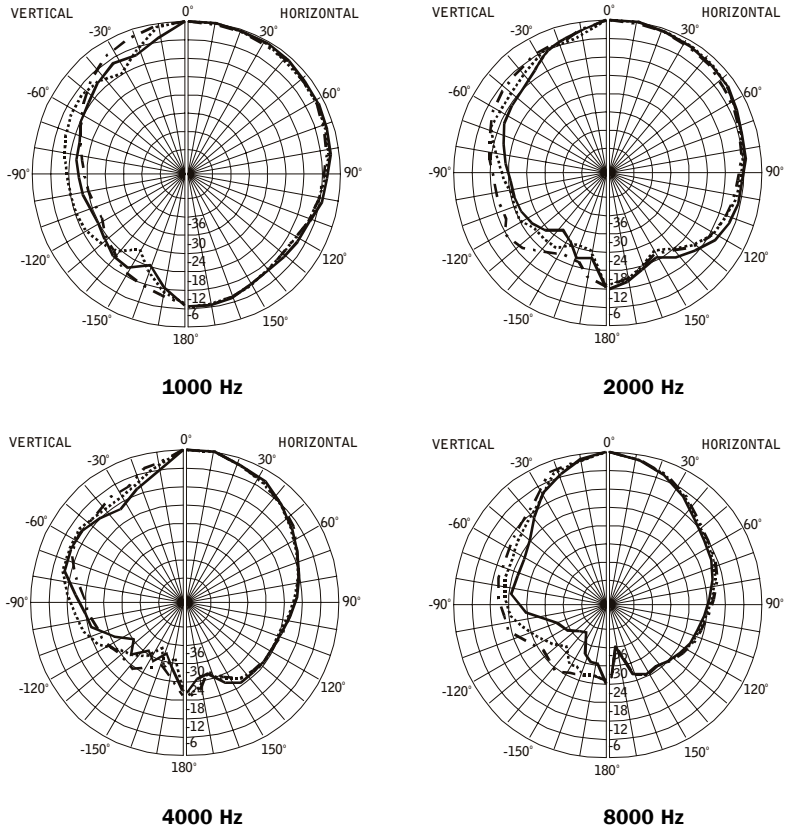
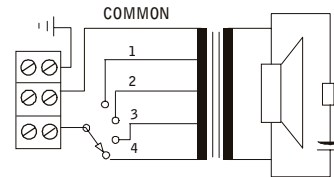


Fig 2: Polar Patterns

	500	1K	2K	4K	8K
MCS20T					
V	118	80	70	40	50
H	180	180	115	85	60
MCS40T					
V	80	40	60	30	45
H	180	180	160	85	60
MCS80T					
V	47	30	55	20	42
H	180	180	170	85	60

Fig 5: Dispersion Characteristics, Horizontal (H) and Vertical (V) Orientation in Degrees



MCS80T	MCS40T	MCS20T
80W	40W	20W
40W	20W	10W
20W	10W	5W
10W	5W	2.5W

Fig 6: Circuit Diagram

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Specifications subject to change without notice

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