

METAL COLUMN LOUDSPEAKER

MCS



ATEİS high-performance MCS Series Column Speaker Systems are of robust, weather-resistant construction, yet are surprisingly stylish. Each model uses 3.5" full-range speakers (2, 4 and 8-Ohm respectively), crossing over to a horn tweeter. At the other end, a low-profile screwdriver tap selector allows 100V constant-voltage use. The MCS series comes in 20W, 40W and 80W versions, corresponding to MCS20/TC, MCS40/TC and MCS80/TC respectively. The stylish design comes in 4" width and depth making it a perfect choice for wall-mounted applications where aesthetic is of prime importance. The aluminum structure, sealed with silicon rubber gasket, makes the MCS series weather-resistant even for harsh environments. Finished in white or black to match different architectural requirements, they may be mounted using the matching angle bracket provided.

APPLICATION

The 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. They can be used in conjunction with other speaker systems, voice evacuation announcement and background music, in transportation and educational facilities. They can also be used in atriums, factories, churches, show arenas and sports venues.

The length of the flat black MCS series and slim design make it an excellent choice for use with flat LCD projector screens in conference and meeting rooms.

PHYSICAL CONSTRUCTION

The enclosure and grille shall be constructed in metal, and epoxy powder-coated to match. A 100V line pre-mounted transformer with different wattage according to the part number of the MCS series, shall provide 3dB power taps via a recessed selector switch situated at the base of the unit.

The removable end caps must be sealed with a silicon rubber gasket to protect against damp atmospheres. The assembly shall be weather-resistant. The unit must be supplied with 'L'-shaped mounting brackets.

ACOUSTIC MODELING

The MCS20/TC, MCS40/TC and MCS80/TC speakers support EASE, CATT and ULYSSES models for acoustical studies. This means the acoustic models can be created to simulate the sound quality and distribution prior to installation.

As per BS5839 part 8, EN60849 and NFPA72 a minimum of 0.5 RaSTI is required to achieve the required intelligibility.

APPROVALS & STANDARDS

All ATEİS loudspeakers have undergone tough testing procedures to ensure that all products can operate at their rated power in compliance with IEC60268 Part 5. In addition, the fire-rated products have undergone actual fire tests to ensure compliance with BS5839 part 8. The 'TC' version complies with BS5839 Part 8 and IP55 rated according to IEC60529.

ARCHITECT & ENGINEERING SPECIFICATION

The unit shall be ATEİS Model (MCS20/TC, MCS40/TC, MCS80/TC) column loudspeaker system or approved equal. The weather-resistant assembly shall comprise of 3.5" driver, coated paper-cone loudspeakers, a horn tweeter and integral 100V transformer. It shall have an aluminum cabinet and mesh grille and zinc end caps that have been sealed with silicon-rubber gaskets. The finish shall be white or black as requested, baked-on epoxy and include 'L'-type mounting hardware.

At 2 ohms the MCS20/TC shall be rated at 91dB @ 1 watt, 1 meter and have two 3.5" speakers. Frequency response shall be 170-17,000 Hz with a 5.8 Q Factor. Its 20-watt transformer shall have 20, 10, 5 and 2.5-watt taps.

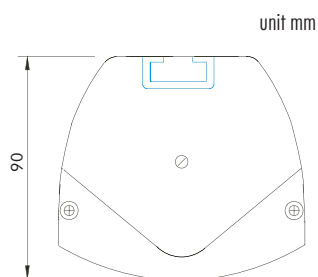
At 4 ohms the MCS40/TC shall be rated at 93dB @ 1 watt, 1 meter and have four 3.5" speakers. Frequency response shall be 170-18,000 Hz with a 7.4 Q Factor. Its 40-watt transformer shall have 40, 20, 10 and 5-watt taps.

At 8 ohms the MCS80/TC shall be rated at 97dB @ 1 watt, 1 meter and have eight 3.5" speakers. Frequency response shall be 180-18,000 Hz with a 6.0 Q Factor. Its 80-watt transformer shall have 80, 40, 20 and 10-watt taps.

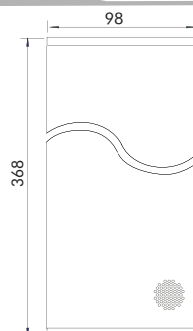
The 'TC' version of the MCS series shall be compliant with BS5839 part 8 (Voice Alarm Standard) to include all the above features with the addition of thermal fuse and ceramic terminals to take 2 x 2.5mm² cables. The fire-rated cable tail must be fitted for full compliance with BS5839 Part 8. All units to be tested to BS6840 Part 5.



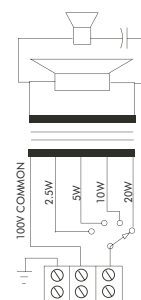
TOP & BOTTOM VIEW



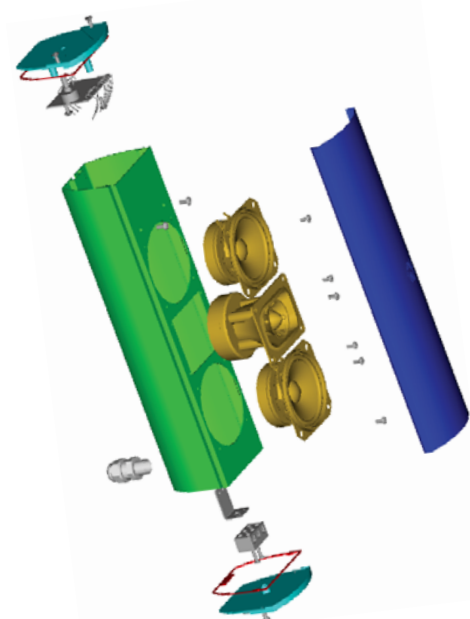
FRONT VIEW



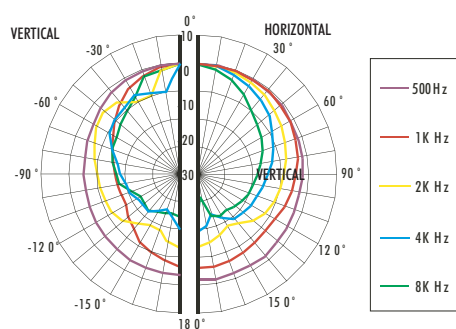
CIRCUIT DIAGRAM



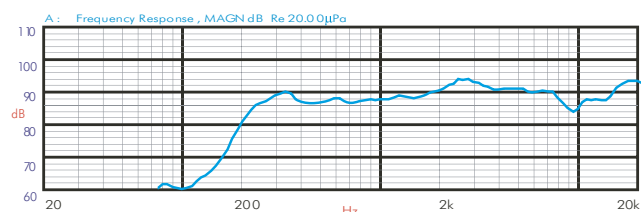
3D EXPLODED VIEW



POLAR PATTERN



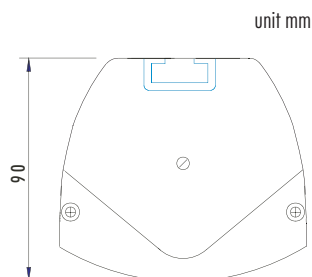
FREQUENCY RESPONSE



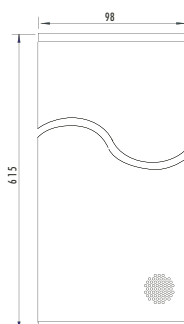
Technical Specifications

Rated power, Watts	20
Tapping 100 volt line, Watts	20 / 10 / 5 / 2.5
Transformer Impedance, Ohms, 100V	500 / 1k / 2k / 4k
Tapping 70.7 volt line, Watts	10 / 5 / 2.5 / 1.25
Driver impedance, Ohms	4
Effective frequency range, Hz(BS6840)	170 - 17,000
S.P.L. @ 1m, 1 watt, dB, Test Signal Bandwidth 100Hz – 10 KHz	91
S.P.L. @ Full power, Octave Bandwidth, dB	104
Acoustic Power (dB-PWL@1 Watt) 1k/2k Hz, dB	85 / 89
Dispersion at 1k/2k Hz, Degrees	180 / 140 (horizontal) 70 / 120 (vertical)
Directivity Q factor, 1k/2k Hz	4.20 / 5.80
Drive Units	2 x 75 cone driver, 1 x HF unit
Dimensions, front & depth, mm	368 x 98 x 90
Net weight, Kgs	2.70
Colour/Finish	White RAL9016
Material	Aluminium
Mounting	Steel L Bracket

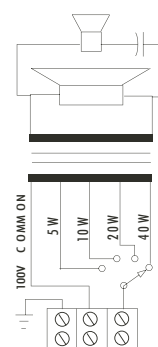
TOP & BOTTOM VIEW



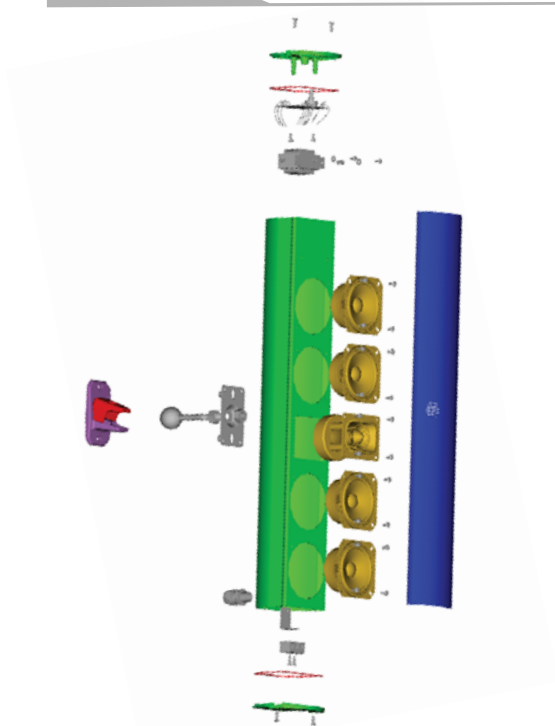
FRONT VIEW



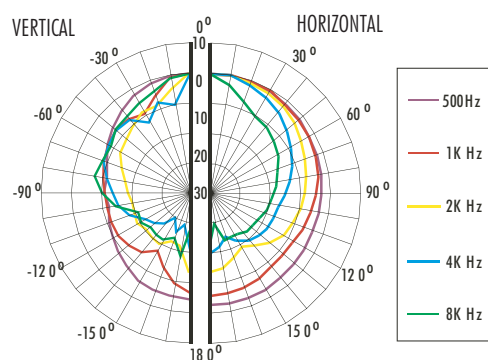
CIRCUIT DIAGRAM



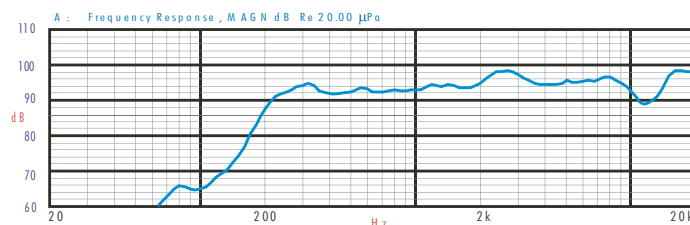
3D EXPLODED VIEW



POLAR PATTERN



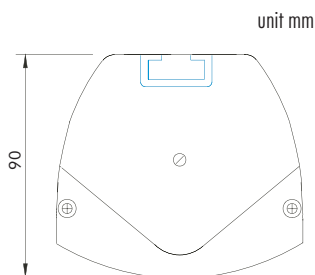
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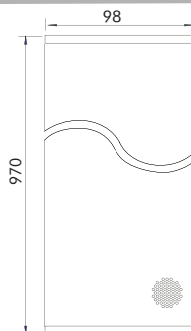
Technical Specifications

Rated power, Watts	40
Tapping 100 volt line, Watts	40 / 20 / 10 / 5
Transformer Impedance, Ohms, 100V	250 / 500 / 1k / 2k
Tapping 70.7 volt line, Watts	20 / 10 / 5 / 2.5
Driver impedance, Ohms	8
Effective frequency range, Hz(BS6840)	170 - 18,000
S.P.L. @ 1m, 1 watt, dB, Test Signal Bandwidth 100Hz – 10 KHz	92
S.P.L. @ Full power, Octave Bandwidth, dB	108
Acoustic Power (dB-PWL@1 Watt) 1k/2k Hz, dB	97 / 89
Dispersion at 1k/2k Hz, Degrees	170 / 140 (horizontal) 60 / 55(vertical)
Directivity Axial Q factor, 1k/2k Hz	4.10 / 7.40
Drive Units	4 x 75 mm cone driver, 1 x HF unit
Dimensions, front & depth, mm	615 x 98 x 90
Net weight, Kgs	3.80
Colour/Finish	White RAL9016
Material	Aluminium
Mounting	Steel L Bracket

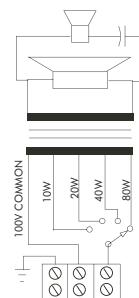
TOP & BOTTOM VIEW



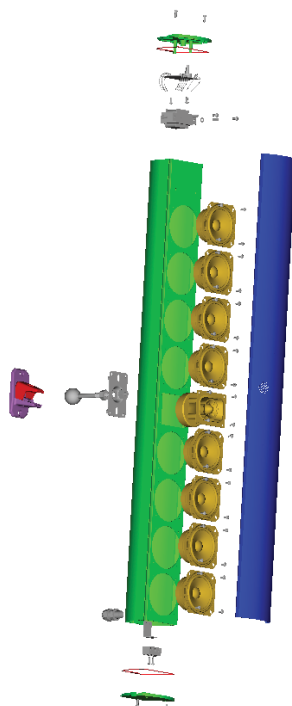
FRONT VIEW



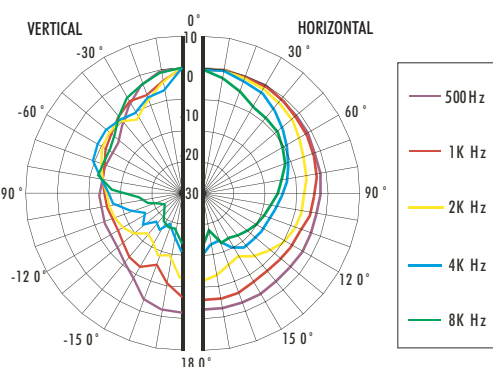
CIRCUIT DIAGRAM



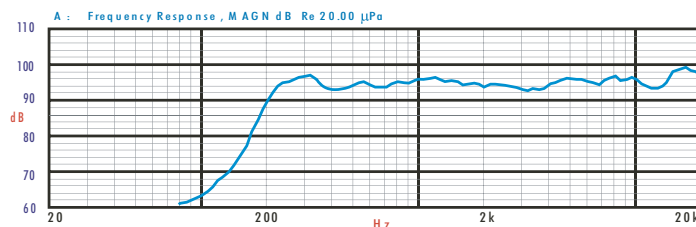
3D EXPLODED VIEW



POLAR PATTERN



FREQUENCY RESPONSE



Technical Specifications

Rated power, Watts	80
Tapping 100 volt line, Watts	80 / 40 / 20 / 10
Transformer Impedance, Ohms, 100V	125 / 250 / 500 / 1k
Tapping 70.7 volt line, Watts	40 / 20 / 10 / 5
Driver impedance, Ohms	4
Effective frequency range, Hz(BS6840)	180 - 18,000
S.P.L. @ 1m, 1 watt, dB, Test Signal Bandwidth 100Hz – 10 KHz	97
S.P.L. @ Full power, Octave Bandwidth, dB	115
Acoustic Power (dB-PWL@1 Watt) 1k/2k Hz, dB	92 / 94
Dispersion at 1k/2k Hz, Degrees	180 / 140 (horizontal) 70 / 45 (vertical)
Directivity Q factor, 1k/2k Hz	4.20 / 6.80
Drive Units	8 x 75mm cone driver, 1 x HF unit
Dimensions, front & depth, mm	970 x 98 x 90
Net weight, Kgs	6
Colour/Finish	White RAL9016
Material	Aluminium
Mounting	Steel L Bracket