

INDOOR/OUTDOOR 5" CONE SOUND FLASHER PROJECTORS

CAD TCL



The ATEİS Audio models CAD20/TCL and CAD10/TCL with a Strobe Flasher is a twin-cone, all-weather, full-range music projectors designed for long-term reliability and even coverage in constant-voltage, distributed audio systems. It is the latest technology in Voice Evacuation where high quality sound complemented with LED Strobe Flasher to meet both Audio and Visual requirements for the Voice Evacuation Applications.

APPLICATION

The CAD TCL Series combined with high intensity flashing strobe complying to the new DDA (Disability Discrimination Act 1995) legislation helping those with hearing difficulties. The CAD TCL Series may be used for surface applications indoors or outdoors and for value-engineered projects without sacrificing audio quality. The durability of the molded ABS housing is well suited for moist outdoor environments, but its European styling makes it a great choice for an indoor track lighting decoration. Mainly considered for music installations, the CAD TCL Series is equally effective for voice reproduction in commercial, industrial, and institutional settings.

Applications include mounting in atriums, malls, banks, upscale stores and outdoor restaurants. Additionally, they can be used for traditional paging situations where the customer demands quality background music.

PHYSICAL CONSTRUCTION

The handsome, molded ABS housing is protected from the elements with a UV inhibitor and sealed from the rear with a silicone rubber-like gasket, a gland nut and stainless steel hardware.

The CAD TCL Series uses a 130mm. Polypropylene Cone that not only has moisture resistant qualities, but enhanced low frequencies as well. Visually identical, they are finished in non-reflecting white with matching aluminum U brackets.

Low current LED Strobe Flasher is installed to provide high light intensity of 15 Candelas with no compromise on audio quality. The LED Technology shall utilize low current consumption as well as long lifetime for continuous operation, hence many of the Speaker Strobe Flasher can be installed on one line.

Colors may be customized with epoxy paint. The "TC" version can be supplied as per BS5839 part 8 voice alarm compliant, this means a ceramic thermal fuse shall be fitted to comply to the mentioned standards.

ACOUSTIC MODELING

The CAD20/TCL and CAD10/TCL speakers support EASE, CATT and ULYSSES models for acoustical studies. That means the acoustic models can be created to simulate the sound quality and distribution even before 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 gone through tough testing procedures to ensure that all products can operate at their rated power in compliance to IEC60268 Part 5. As well all the Fire Rated Products had gone under actual fire tests to ensure compliance to BS5839 part 8. The CAD20/TCL and CAD10/TCL complies to BS5839 Part 8 and IP65 rated according to IEC60529. The high quality ABS complies with UL94V0 class requirements. The Strobe is tested to provide more than 6,000 hours of continuous operation and complies to DDA 1995 legislation.

ARCHITECT & ENGINEERING SPECIFICATION

The unit shall be the ATEİS model CAD 10/TCL or equal and approved. Assembly shall comprise of a 130mm, polypropylene twin-cone loudspeaker and a factory mounted 10 watt / 100 volt line transformer.

The enclosure shall be constructed of a high impact ABS with UV inhibitors. The unit will be weather resistant and fitted with aluminum, epoxy coated fine mesh grille that covers the drive unit. The mounting will be via a hipped, aluminum "U" bracket. Cable entry shall be via a single gland mounted on a removable plate at the rear panel of the loudspeaker.

Loudspeaker shall have a wide-angle dispersion of 180°@ 1kHz. Cone shall be damped, high-compliance type with a smooth extended response over a range of 120Hz ~18kHz. Sensitivity shall be a minimum of 91dB@1 meter, 1watt using test signal bandwidth 100Hz – 10kHz. The speaker shall be fitted with high intensity strobe flasher comprise with high power red LED to provide an over all of 15 candela output.

The Strobe Flasher must comply to DDA act 1195 legislation and shall consume low energy of 0.144 Watt rated at 24VDC only. The total RMS current shall be as low as 6mA.

Transformer shall be 100v line with 3dB power taps of 10, 5, 2.5, and 1.25watts to be clearly marked on the assembly.

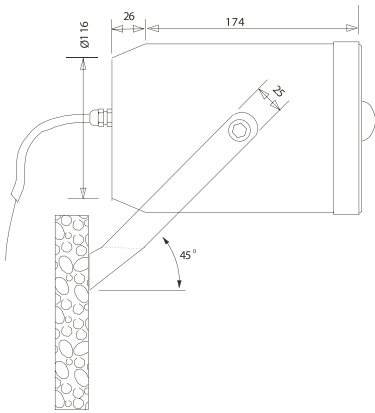
The "TC" version of the CAD 10/TCL shall be compliant to BS5839 part 8 (Voice Alarm Standard) to include all the above features with the addition of thermal fuse and ceramic terminals to take 2 x 2.5mm² cables. Fire Rated cable tail must be fitted for full compliance to BS5839 Part 8.

All units to be tested to IEC60268 Part 5.

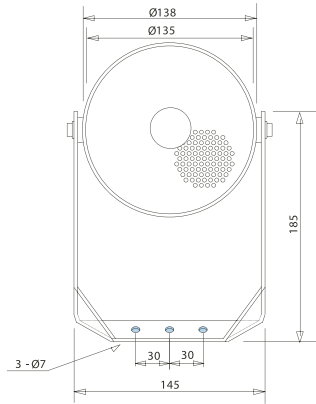


CAD 10/ TCL & CAD 20/ TCL

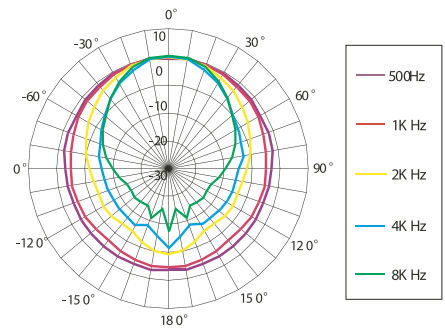
SIDE VIEW



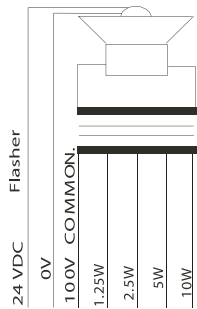
FRONT VIEW



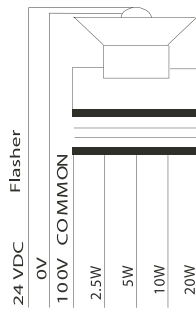
POLAR DIAGRAM CAD 10/TCL



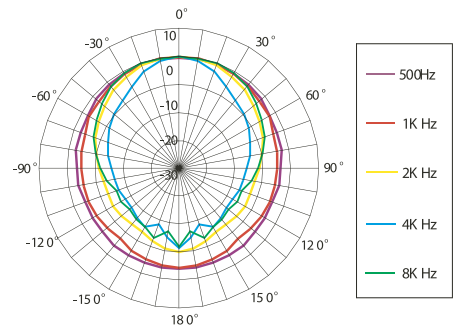
CIRCUIT DIAGRAM CAD 10/TCL



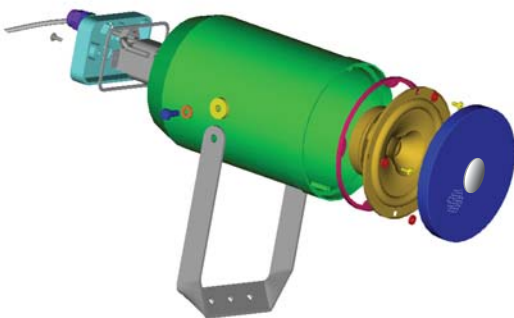
CIRCUIT DIAGRAM CAD 20/TCL



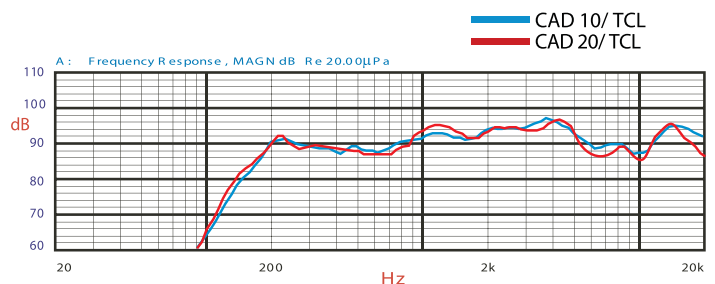
POLAR DIAGRAM CAD 20/TCL



3D EXPLODED VIEW



FREQUENCY RESPONSE



Technical Specification

	CAD 10/ TCL	CAD 20/ TCL
Rated power, Watts	10	20
Tappings 100 volt line, Watts	10/5/2.5/1.25	20/10/5/2.5
Transformer Impedance, Ohms, 100V	1k/2k/4k/8k	500/1k/2k/4k
Tappings 70.7 volt line, Watts	5/2.5/1.25/0.375	10/5/2.5/1.25
Driver impedance, Ohms	8	8
Effective frequency range, Hz (BS6840)	120 -18,000	110 - 18,000
S.P.L. @ 1m, 1 watt, dB, Test Signal Bandwidth 100Hz-10 kHz	91	92
S.P.L. @ Full power Octave Bandwidth, dB	100	104
Acoustic Power (dB-PWL@1 watt) 1 k/2kHz, dB	87 / 89	89 / 90
Dispersion at 1k/2kHz, Degrees	180 / 120	180 / 120
Directivity Axial Q factor, 1k/2kHz	2.50 / 5.80	2.60 / 5.60
Dimensions, diameter, mm	Ø138 x 204	Ø138 x 204
Net weight, Kgs	1.55	1.90
Colour/Finish	White	White
Material	ABS Plastic with UV inhibitor and Stainless steel hardware	ABS Plastic with UV inhibitor and Stainless steel hardware
Mounting	Aluminium U bracket	Aluminium U bracket

Flasher Technical Specification

Flasher	LED Technology
LED	1 High power/energy LED
Power	24VDC polarized
Lens	Special ABS, high quality / directive Lens
Light Intensity	15 Candela
Power Consumption	0.144Watt @ 24VDC
Current Consumption	6mA @ 24VDC Polarized