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AMK Commercial Series

## PSA 615-CFM-4 (-P)

Self Amplified 6.5" Coaxial Loudspeaker Assembly



The **AMK PSA615-CFM-4** powered speakers feature a 30 watt class D digital design amplifier, with > 75% efficiency for the main speaker. These units are available as single master speakers or sets with an unpowered companion speaker (**PSA615-CFM-4-P**). The speaker combines high performance, power handling, and a very smooth response.

The loudspeaker driver, CX602, is one of the few transducers in the commercial sound industry that produces and meets the standards of recording studio. Excellent dispersion, wide bandwidth, and a smooth frequency response make this the top choice for today's overhead commercial applications.

There are wide ranges of the application for this unit, especially in educational markets and corporate boardrooms where direct input of the signal from the processor is desired (i.e., projectors, laptops, or any line level device)

### Features:

- \* All metal construction, including baffle
- \* High performance 6½" coaxial loudspeaker with wide dispersion
- \* Self powered with 20 watt Class D amplifier
- \* **UL Listed Speaker Enclosure (UL 1480, UL 2043)**

### Innovative Features

Each system includes a renowned AMK Coaxial loudspeaker like those already installed in hundreds of locations

#### Easy to install

- All-metal swivel mounting system allows standard installation of speakers without having to align the enclosure to the tile bridge
- This installation procedure is quick and unique to the industry
- Architecturally pleasing white perforated metal grille that uses a unique metal spring system for a "no visible hardware finished look and the ease of a "snap on" installation

#### Custom Manufacturing Options

- Custom depth back enclosures are available
- Power supply available internal or external

#### Safety

- The use of all-metal attachment parts makes for an overall safer installation
- All-metal swivel prevents breakage of swivel during installation
- All-metal swivel mounting system is not easily compromised by fire

#### Sound

- The plenum compatible back enclosure is designed to maximize the performance of this studio quality speaker

### Specifications

Frequency Response	65 Hz - 20 kHz
Voice-coil diameter	1"
Average Beamwidth @ 2 kHz	144 deg.
Magnet Weight	13 oz
Magnet Material	Barium Ferrite
Tweeter	13mm Polyamide Soft Dome
Woofer Cone	Polypropylene
Surround Material	Inverted Rubber
Crossover Frequency	5.0 kHz
Depth of the Enclosure	10 in.
Diameter of the Grille	12.75 in.
Enclosure Mounting	Metal Swivel Clamp

### Amplifier Specifications

Amplification	30 watt class D design amplifier
Amplifier Efficiency	> 75%
Total Harmonic Distortion	< 0.2%
Signal to Noise Ratio	>95dB
Protection	Protected as to short circuit to supply and ground, as well as minimum current
Controls	Input potentiometer level adjustment

### FREQUENCY RESPONSE



### IMPEDANCE CURVE



## MODEL CONFIGURATION

Power Supply	External 12Volt w/ Screw Terminal		 <p style="text-align: center; font-size: small;">(The <b>PSA615-CFM-4-P</b> version comes with the companions speaker as a set of 2 speakers)</p>
Power Connection	3.81mm two position Phoenix type connector		
Input Connection	(4) 3.81mm three position Phoenix type connectors		
Signal Input	One balanced input		
Companion speaker input/output connections (Model No: <b>PSA615-CFM-4-P</b> )	Screw terminal block connectors		
Input Level Adjustment	Internal		
Additional Suffixes	The part numbers listed include the <b>TB8R</b> for use with suspended ceilings and speaker Grills For hard lid applications please add either of the following at no additional charge: <b>-SACSD</b> for the metal C ring for retro fit applications. <b>-MD8</b> For the pre-construction mud ring.		

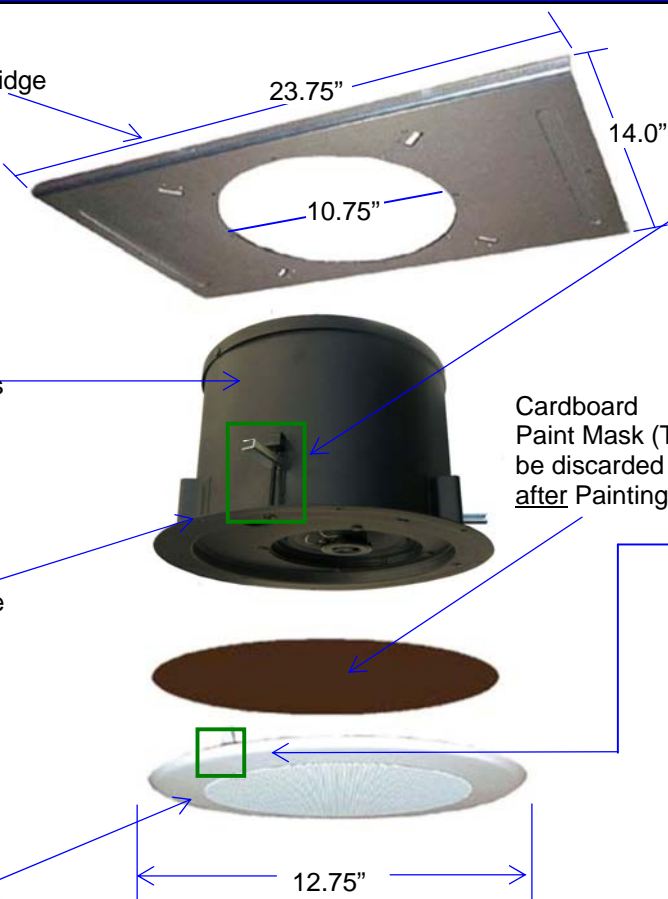
## PSA 615-CFM-4 ILLUSTRATION

Standard Ceiling Tile Bridge

Plenum Compatible Back Enclosure  
**NFPA-70** National Electric Code, **UL 1480** and **UL 2043**, Speakers for Fire Protective Signaling Systems


Guide for alignment of enclosure to tile bridge for grille installation

White Perforated Metal Grille

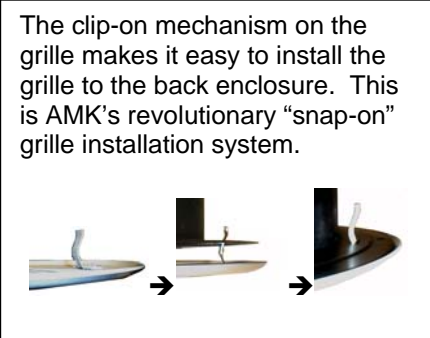


Cardboard Paint Mask (To be discarded after Painting)

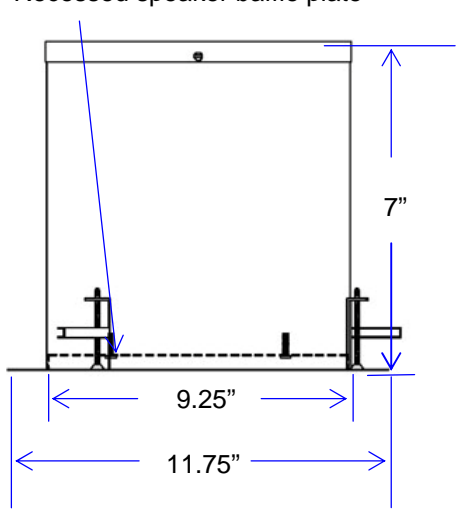
The all-metal swivel clamp makes it easy to install the speaker assembly to the ceiling



The clip-on mechanism on the grille makes it easy to install the grille to the back enclosure. This is AMK's revolutionary "snap-on" grille installation system.



Recessed speaker baffle plate



## Architect's & Engineer's Specifications

## Polar Responses

The powered loudspeaker system shall be **AMK PSA 615-CFM-4 (-P)**. The speaker shall feature a 30watt class D design amplifier, with >75% efficiency for the speaker. The powered speaker systems shall be one amplified speaker with option of one other companion speaker.

The loudspeaker system shall have a white metal round grille with a mounting spring tab snaps into the rim of the enclosure.

The powered unit of the system shall have four 3.81mm three position phoenix type connectors for balanced audio input. The input level shall be control by the internal potentiometer. The power connection shall be a 3.81mm two position phoenix type connector. The system shall have 12 volt 1.5 Amps screw mount power supply.

The loudspeaker unit in the system shall be of the coaxial type with an 6.5" woofer of polypropylene, an inverted rubber surround, and a 1" polyamide soft dome tweeter mounted on a post. The transducer in the loudspeaker system shall be AMK CX 602 coaxial loudspeaker. The woofer shall have a 13 oz. (369g) Barium Ferrite magnet. The two reproducer sections shall be coupled through a built-in capacitor bypass crossover.

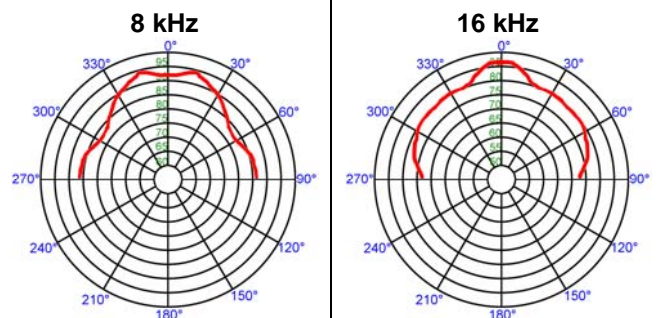
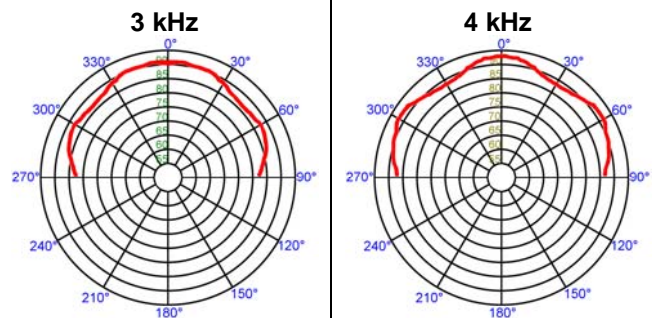
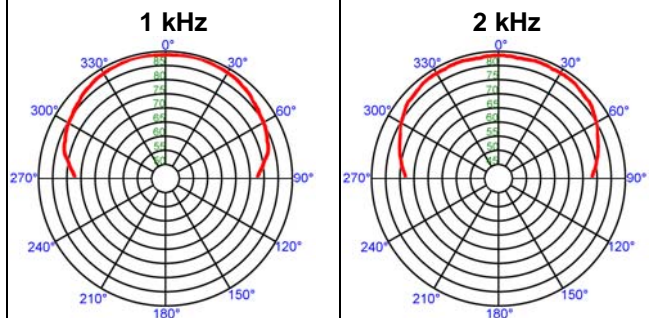
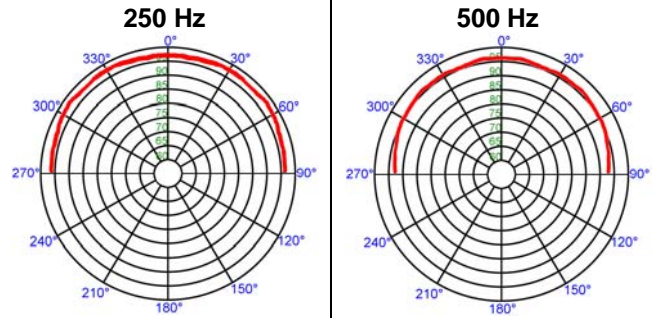
The crossover frequency shall be at 5.0 kHz. The low frequency reproducer shall have 1" (25.4mm) voice coil and the high frequency reproducer shall have 0.51" (13mm) voice coil. The system shall have a frequency response of 65 Hz- 20 kHz (+/- 5dB). The sensitivity shall be 91dB at 1watt / 1meter.

The depth of the enclosures shall be 7 inches. The rim diameter shall be 11.75". The enclosure diameter shall be 9.25". The depth of the enclosures shall not exceed 11.75". The system shall include a tile bridges. The system shall have a metal strap for attachment to the structure for seismic protection.

The total weight of the each unit system shall not exceed 10.0 lbs.

The loudspeaker system shall be AMK Innovations model **PSA 615-CFM-4**.

**Conforms to EIA Standards: RS-276-A, RS-278-B, RS-426-A**



Freq	Deg	Q	DldB
250 Hz	100°	3.8	5.8
500 Hz	96°	4.8	6.8
1 kHz	79°	6.8	8.3
2 kHz	72°	6.7	8.2
3 kHz	66°	9.2	9.6
4 kHz	86°	8.4	9.2
8 kHz	40°	7.1	8.5
16 kHz	16°	15.3	11.8