

# Artcoustic<sup>FII</sup>

## Performance Series

Owners Manual

High Performance, High Sound Pressure Level Sound System



[www.artcoustic.com](http://www.artcoustic.com)

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## Performance Series

High Performance, High Sound Pressure Level  
Sound System

### Features:

- Long throw bass units
- High long term power handling
- Very low distortion
- Very high SPL
- Remarkable dynamic range and transient response
- Fast, easy and simple installation
- Suitable for a wide range of applications:  
Dedicated Cinemas, Screening Rooms and  
most commercial applications

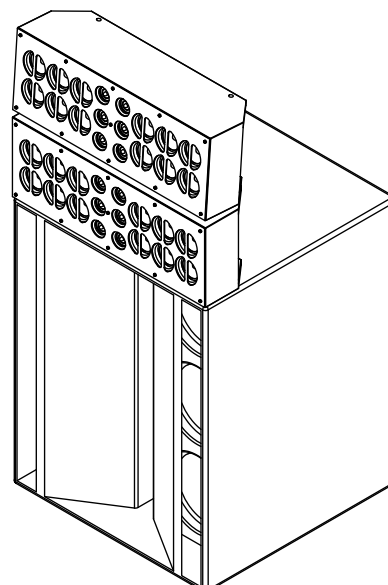
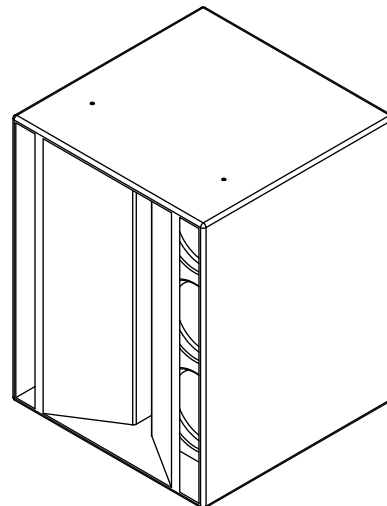
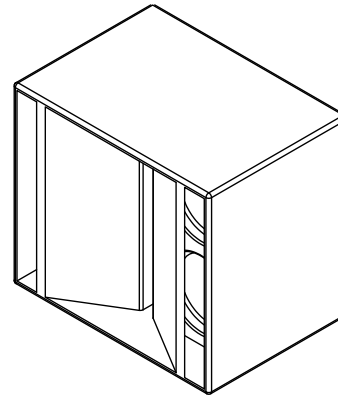
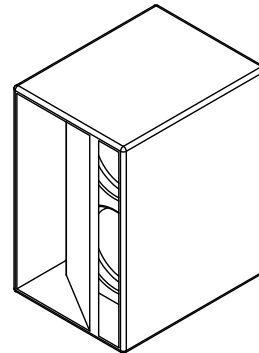
### Performance Series Overview:

The Performance Series is a unique cocktail, combining the award winning Artcoustic array technology, multi coupled sub units and high pressure levels, all carefully aligned within well-ordered Danish design principals.

The Performance Series full stack is capable of 130+dB sound pressure level. It has been designed and engineered for a diverse range of applications, such as medium to large size cinema rooms, fixed installation public address systems and extending even further towards the demanding club stack market.

With our unique multiple cone array technology, we achieve a very flat audio response from 15Hz – 20kHz, with extremely low distortion, guided directivity and all combined with very high sound pressure levels.

**The Performance P12-6 array speaker and PS Subwoofers are available with an optional PA-750 single amplifier. Other high quality professional grade amplifier with a minimum of 750watt into 8 ohms can be used**



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## Specifications P12-6 Narrow Dispersion Array Speaker

### Transducer:

LF/MF 12 x 3 inch cone, Symmetric Phase Aligned  
HF 6 x 1 inch Dual Ring Radiator, Symmetric Phase Aligned

### Crossover:

Low Pass Filter 6 dB/octave 1000 Hz  
High Pass 12 dB/octave 4000Hz

### Connection:

Single Amped Speakon Terminals

### Performance:

Operating Range 55 Hz (-6dB) to 20 kHz  
Nominal Beamwidth Horizontal 60° Vertical 45°-6dB  
Axial Sensitivity (half space SPL) LF/MF-HF 106 dB  
Calculated Axial Output Limit (half space SPL)  
Average Peak LF/MF-HF 126dB @ 40watt  
Input Impedance Nominal Minimum 12 ohms  
Recommended High Pass Filter =>100 Hz, 24 dB/octave  
Maximum Power Handling 100 Watt  
Weight 14 kg  
Dimensions H: 250 W: 700 D: 202 mm

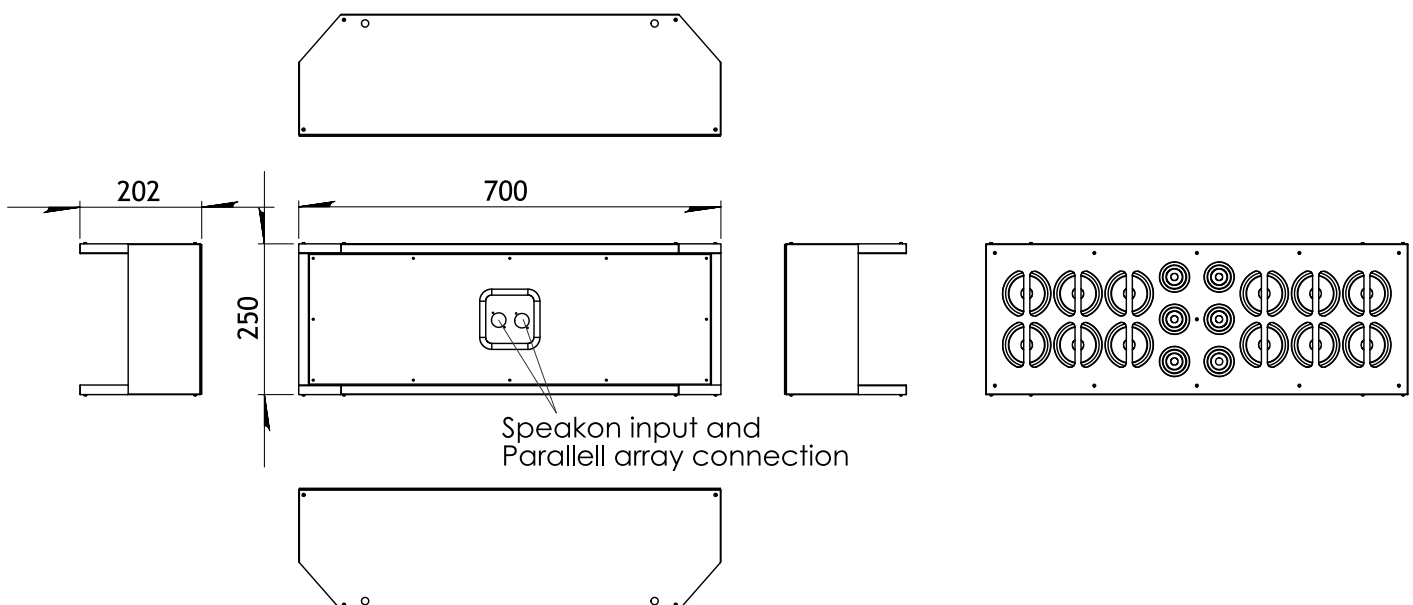
Cabinet: Black, RAL, NCS, Tikkurila, Gloss

This model can be used as a single sound reinforcement speaker, or mounted as multiples with adjustable angles.

It is also ideal either wall mounted or ceiling mounted as surround and overhead speaker in larger sound pressure level demanding cinema applications

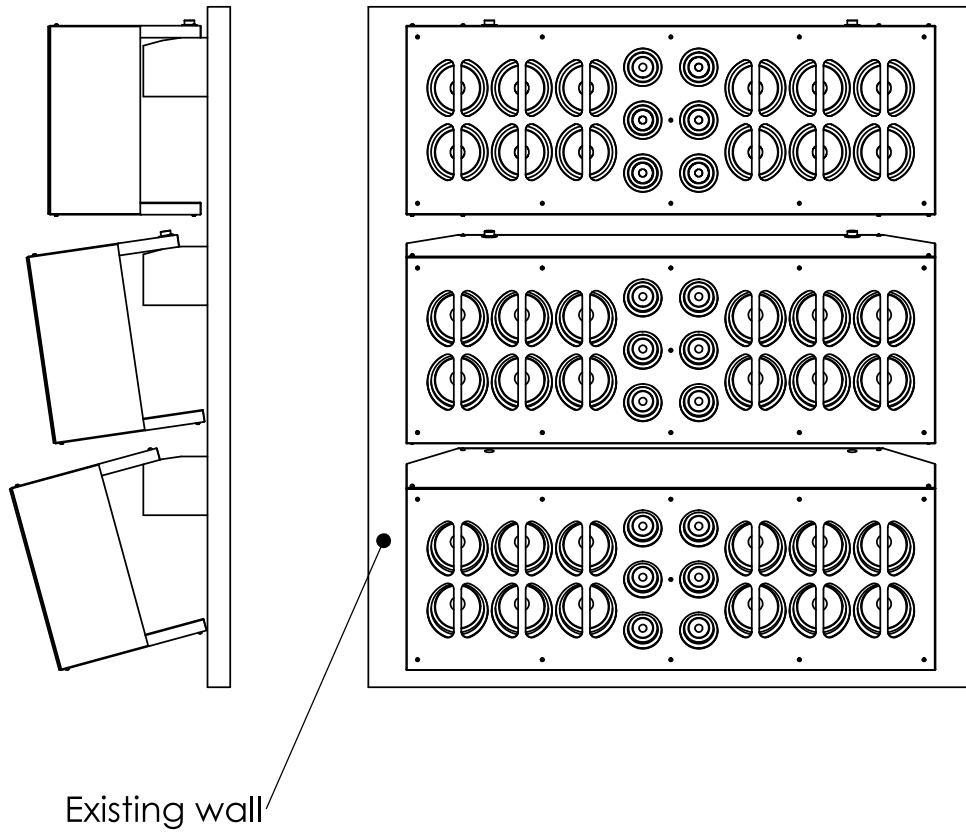
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## Performance P12-6 Array Speaker

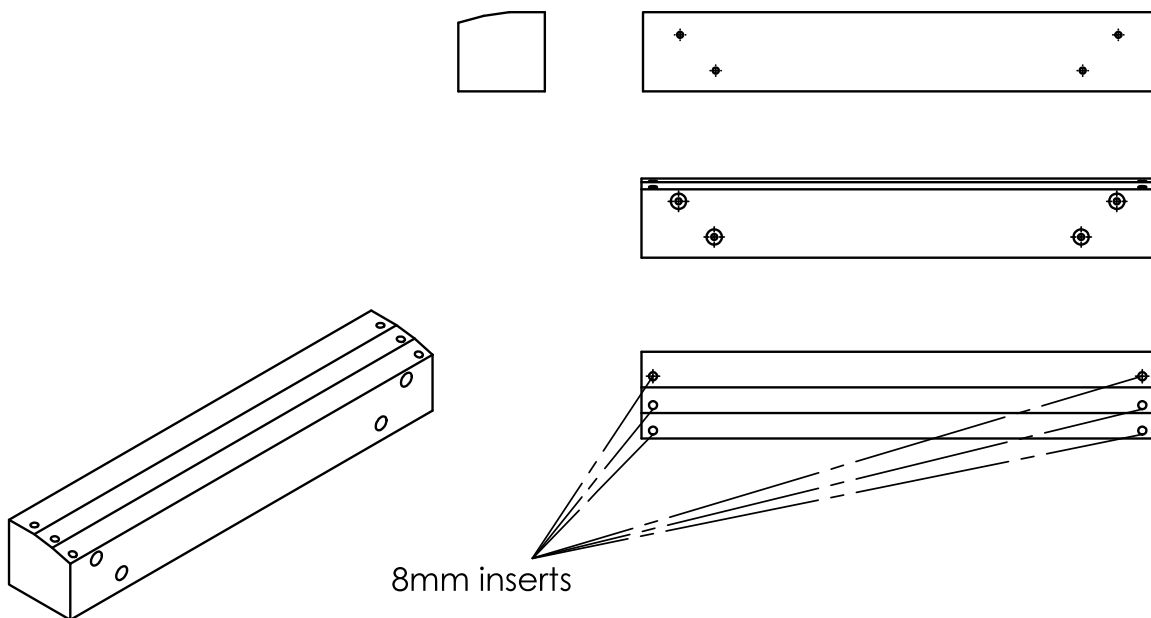


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Adjustable wall mounted array, for optimal vertical dispersion



3 step wall mount bracket



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## Specification Performance PS2 Subwoofer

Single Sub unit specifications - Single amp

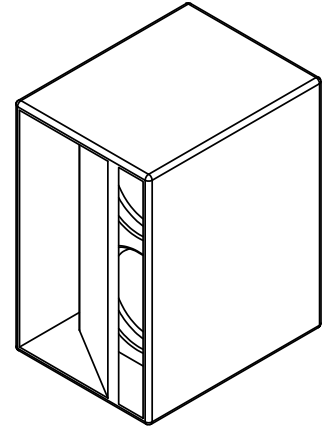
Transducer:  
LF 2 x 10 inch cones

Connection:  
Single Amped Speakon and push terminals

Performance:  
Operating Range 25 Hz (-6dB) to 400Hz  
Axial Sensitivity (Half space SPL) LF 97 dB  
Calculated Axial Output Limit (half space SPL)  
Average Peak LF 124dB @ 450watt  
Input Impedance Nominal Minimum 8 ohms  
Recommended Low Pass Filter =>100 Hz, 24 dB/octave  
Maximum Power Handling 500 Watt  
Weight 30kg  
Dimensions H: 620 W: 386 D: 500 mm

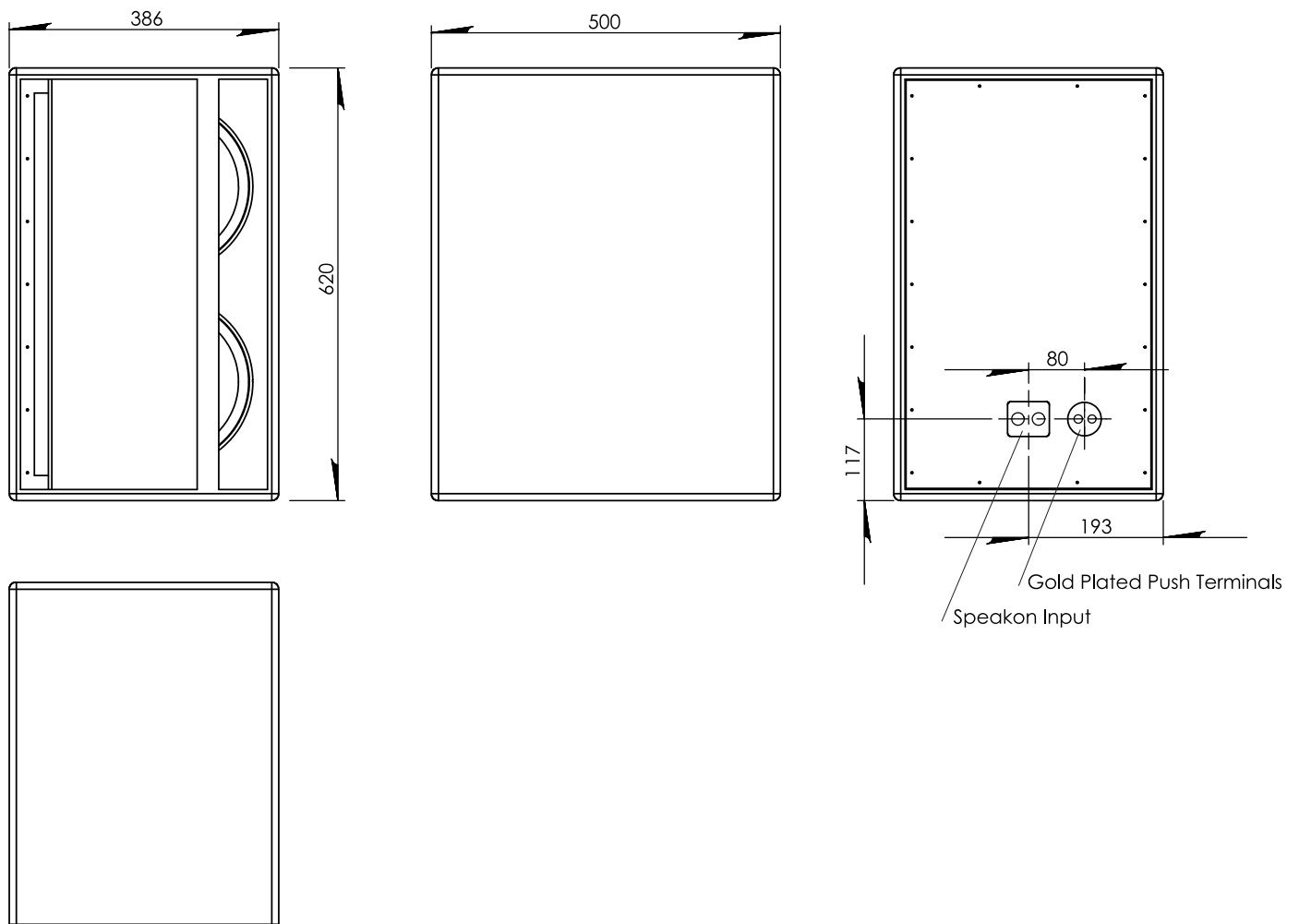
Cabinet: Black, RAL, NCS, Tikkurila, Gloss

The Performance PS2 sub, is a dual cone coupled design, with a directional horn load and it has an even further extension in the dynamic range combined with very high sound pressure level at frequencies below 25Hz. The Performance PS2 sub has 2 x long throw 10" bass units for impressive power, depth and dynamics. Use multiples for medium to large rooms.



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## Performance PS2 Subwoofer



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## Specification Performance PS4 Subwoofer

Single Sub unit specifications - Single amp

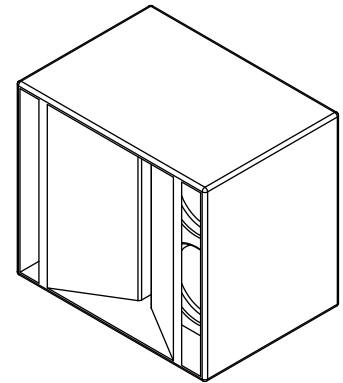
Transducer:  
LF 4 x 10 inch cones

Connection:  
Single Amped Speakon Terminals

Performance:  
Operating Range 20 Hz (-6dB) to 400Hz  
Axial Sensitivity (Half space SPL) LF 103 dB  
Calculated Axial Output Limit (half space SPL)  
Average Peak LF 130dB @ 450watt  
Input Impedance Nominal Minimum 8 ohms  
Recommended Low Pass Filter =>100 Hz, 24 dB/octave  
Maximum Power Handling 500 Watt  
Weight 50kg  
Dimensions H: 620 W: 700 D: 500 mm

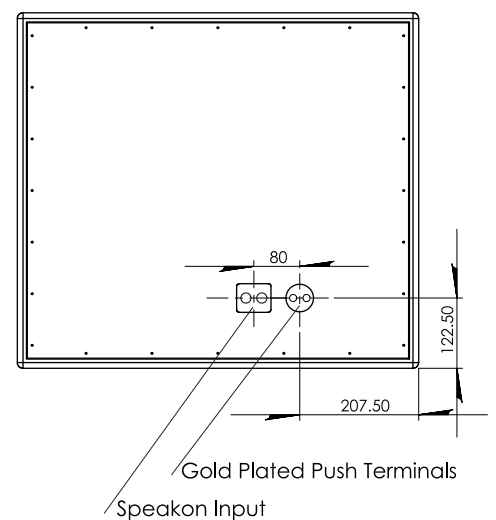
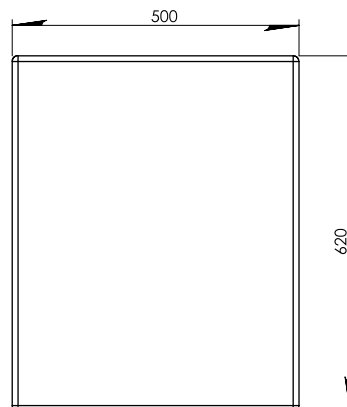
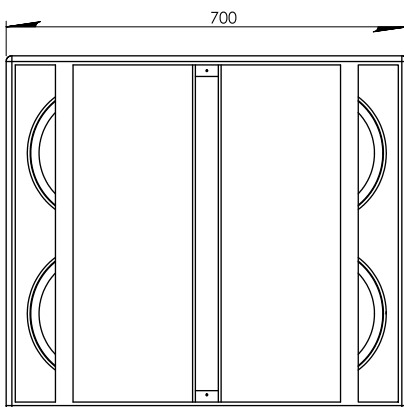
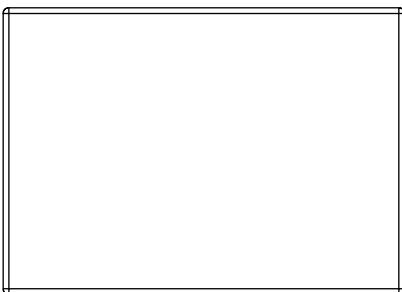
Cabinet: Black, RAL, NCS, Tikkurila, Gloss

The PS4 is a multi-drive unit coupled, high sound pressure level and very low f6 point (25Hz) subwoofer, making it suitable for the most demanding applications. The PS4 can be used as a single subwoofer for typical sub-sat applications, or as a more powerful stackable solution, catering for larger cinema installations and the demanding high output club and public address scene.



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## Performance PS4 Subwoofer



## Sub satellite option PS-4

### Top array specifications - Single amp

**Transducer:**

LF-MF 24 x 3 inch cone, Symmetric Phase Aligned  
 HF 12 x 1 inch Dual Ring Radiator, Symmetric Phase Aligned

**Crossover:**

Low Pass Filter 6 dB/octave 1000 Hz  
 High Pass 12 dB/octave 4000 Hz

**Connection:**

Single Amped Speakon Terminals

**Performance:**

Operating Range 55 Hz (-6 dB) to 20 kHz  
 Nominal Beamwidth Horizontal 80° Vertical 45°(top angled 55°)  
 Axial Sensitivity (half space SPL) LF/MF-HF 112 dB  
 Calculated Axial Output Limit (half space SPL)  
 Average Peak LF/MF-HF 132dB @ 30watt  
 Input Impedance Nominal Minimum 6 ohms  
 Recommended High Pass Filter =>100 Hz, 24 dB/octave  
 Maximum Power Handling 100 Watt

### Sub unit specifications - Singled amp

**Transducer:**

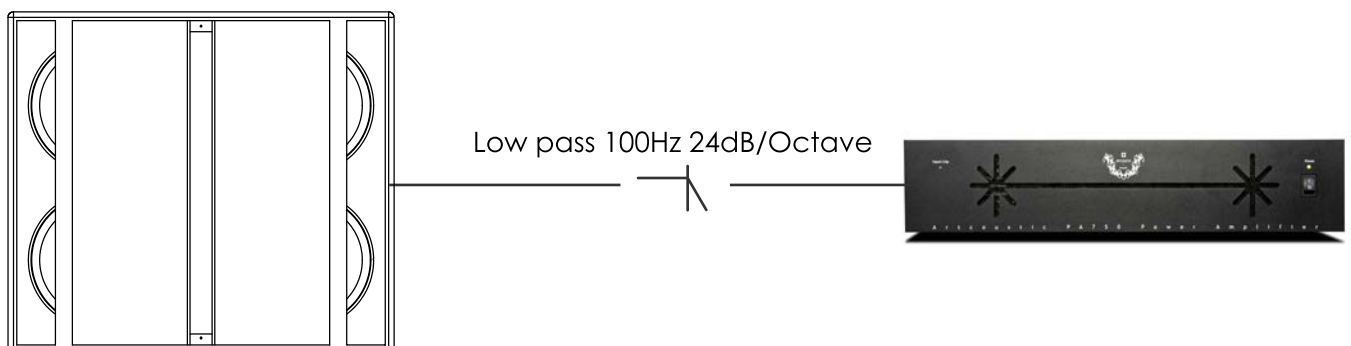
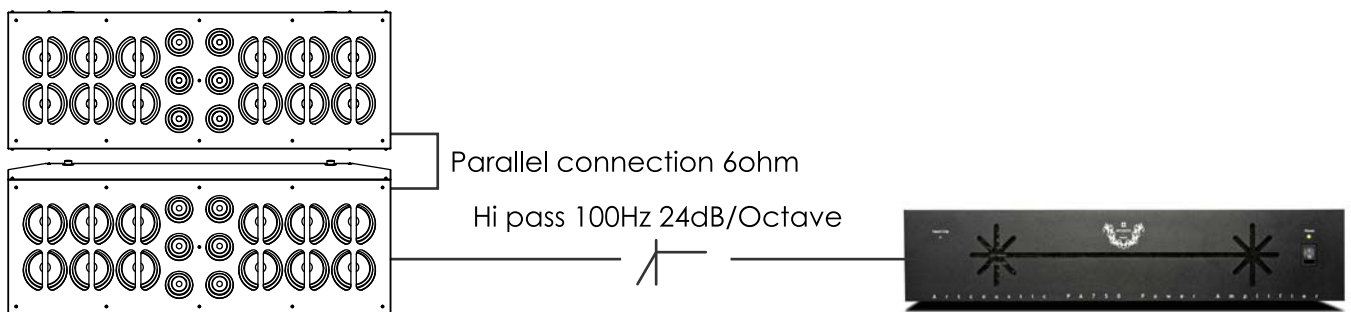
LF 4 x 10 inch cones

**Connection:**

Single Amped Speakon Terminals

**Performance:**

Operating Range 20 Hz (-6dB) to 400Hz  
 Axial Sensitivity (Half space SPL) LF 103 dB  
 Calculated Axial Output Limit (half space SPL)  
 Average Peak LF 130dB @ 450watt  
 Input Impedance Nominal Minimum 8 ohms  
 Recommended Low Pass Filter =>100 Hz, 24 dB/octave  
 Maximum Power Handling 500 Watt  
 Weight 50kg  
 Dimensions H: 620 W: 700 D: 500 mm



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## Specification Performance PS6 Subwoofer

Single Sub unit specifications - Single amp

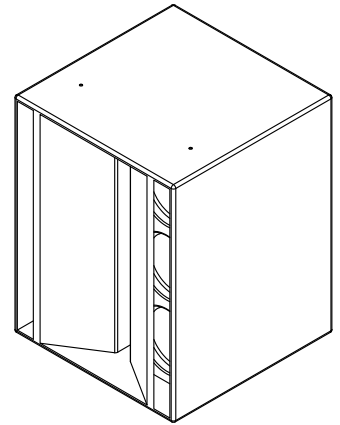
Transducer:  
LF 6 x 10 inch cones

Connection:  
Single Amped Speakon Terminals

Performance:  
Operating Range 20 Hz (-6dB) to 400Hz  
Axial Sensitivity (Half space SPL) LF 108 dB  
Calculated Axial Output Limit (half space SPL)  
Average Peak LF 136dB @ 370watt  
Input Impedance Nominal Minimum 4 ohms  
Recommended Low Pass Filter =>100 Hz, 24 dB/octave  
Maximum Power Handling 500 Watt  
Weight 90kg  
Dimensions H: 900 W: 700 D: 700 mm

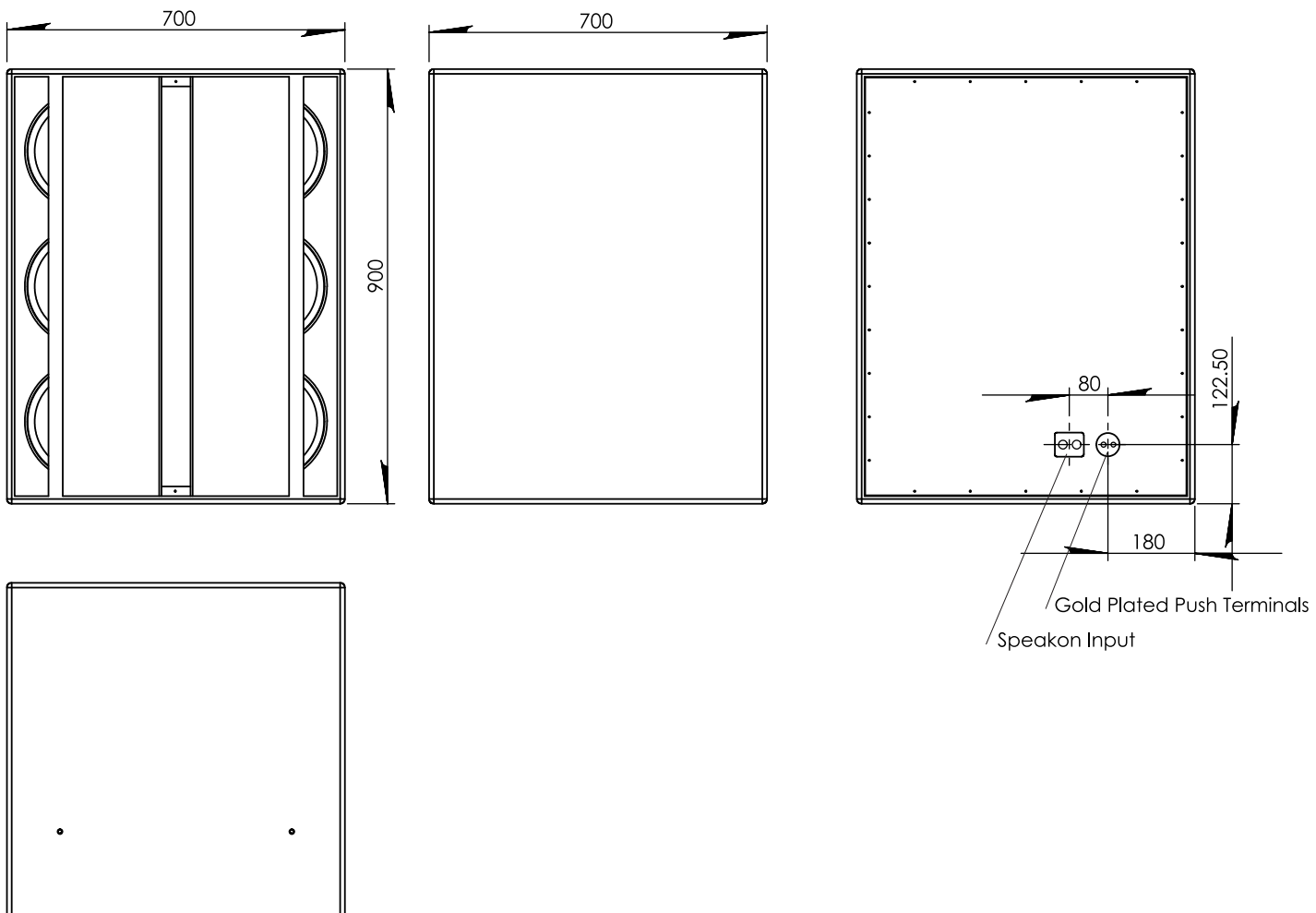
Cabinet: Black, RAL, NCS, Tikkurila, Gloss

The PS6 is a multi-drive unit coupled, high sound pressure level and very low f6 point (20Hz) subwoofer, making it suitable for the most demanding applications. The PS6 can be used as a single subwoofer for typical sub-sat applications, or as a more powerful stackable solution, catering for larger cinema installations and the demanding high output club and public address scene.



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## Performance PS6 Subwoofer



## Sub satellite option PS6

### Top array specifications - Single amp

Transducer:  
 LF-MF 24 x 3 inch cone, Symmetric Phase Aligned  
 HF 12 x 1 inch Dual Ring Radiator, Symmetric Phase Aligned

Crossover:  
 Low Pass Filter 6 dB/octave 1000 Hz  
 High Pass 12 dB/octave 4000Hz

Connection:  
 Single Amped Speakon Terminals

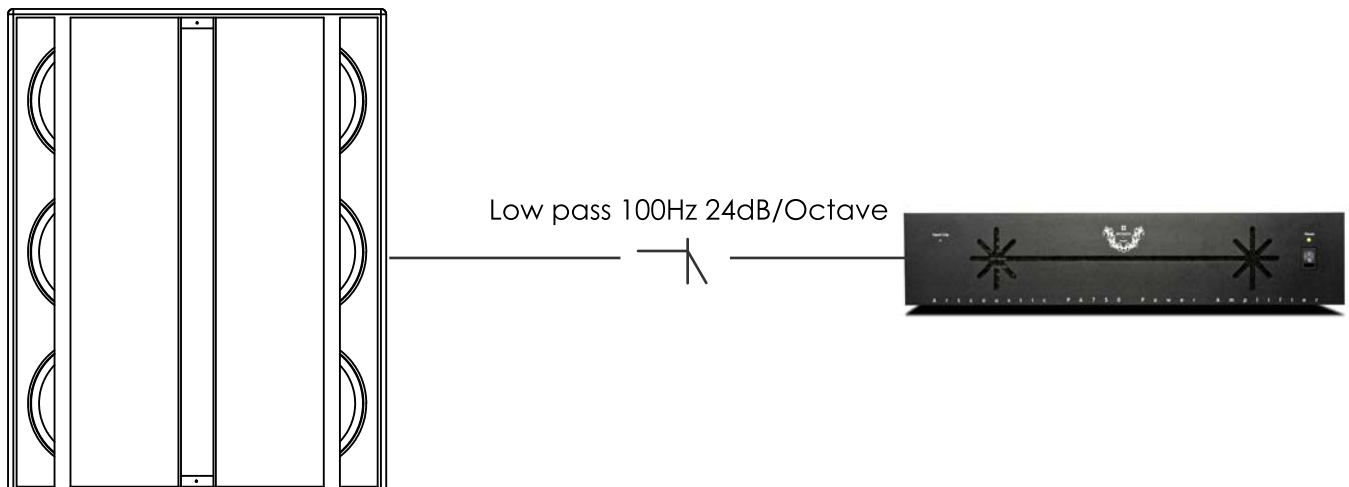
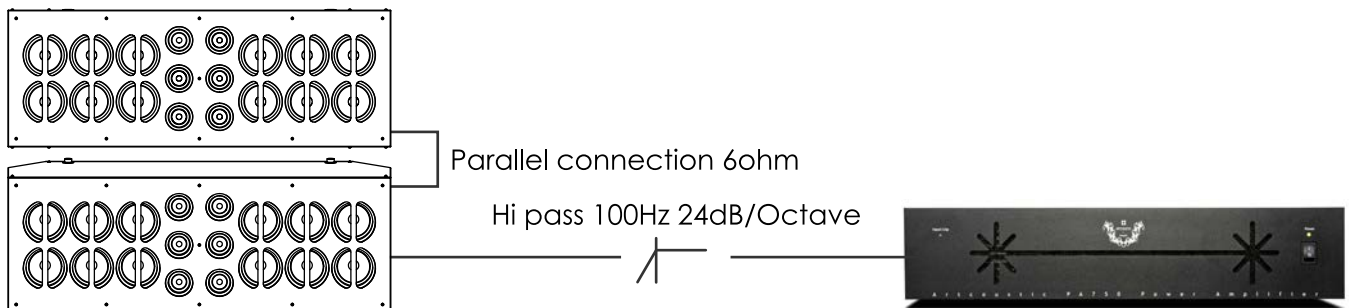
Performance:  
 Operating Range 55 Hz (-6 dB) to 20 kHz  
 Nominal Beamwidth Horizontal 80° Vertical 45°(top angled 55°)  
 Axial Sensitivity (half space SPL) LF/MF-HF 112 dB  
 Calculated Axial Output Limit (half space SPL)  
 Average Peak LF/MF-HF 132dB @ 30watt  
 Input Impedance Nominal Minimum 6 ohms  
 Recommended High Pass Filter =>100 Hz, 24 dB/octave  
 Maximum Power Handling 100 Watt

### Sub unit specifications - Singled amp

Transducer:  
 LF 6 x 10 inch cones

Connection:  
 Single Amped Speakon Terminals

Performance:  
 Operating Range 20 Hz (-6dB) to 400Hz  
 Axial Sensitivity (Half space SPL) LF 108 dB  
 Calculated Axial Output Limit (half space SPL)  
 Average Peak LF 136dB @ 370watt  
 Input Impedance Nominal Minimum 4 ohms  
 Recommended Low Pass Filter =>120 Hz, 24 dB/octave  
 Maximum Power Handling 500 Watt  
 Weight 90kg  
 Dimensions H: 900 W: 700 D: 700 mm



## Stack option PS6 1

### Top array specifications - Single amped

**Transducer:**

LF-MF 24 x 3 inch cone, Symmetric Phase Aligned  
 HF 12 x 1 inch Dual Ring Radiator, Symmetric Phase Aligned

**Crossover:**

Low Pass Filter 6 dB/octave 1000 Hz  
 High Pass 12 dB/octave 4000Hz

**Connection:**

Single Amped Speakon Terminals

**Performance:**

Operating Range 55 Hz (-6dB) to 20 kHz  
 Nominal Beamwidth Horizontal 80° Vertical 45°(top angled 55°)  
 Axial Sensitivity (half space SPL) LF/MF-HF 112 dB  
 Calculated Axial Output Limit (half space SPL)  
 Average Peak LF/MF-HF 132dB @ 30watt  
 Input Impedance Nominal Minimum 6 ohms  
 Recommended High Pass Filter =>100 Hz, 24 dB/octave  
 Maximum Power Handling 100 Watt  
 Weight 28 kg  
 Dimensions H: 500 W: 700 D: 202 mm

### Sub unit specifications - Singled amped

**Transducer:**

LF 6 x 10 inch cones

**Connection:**

Single Amped Speakon Terminals

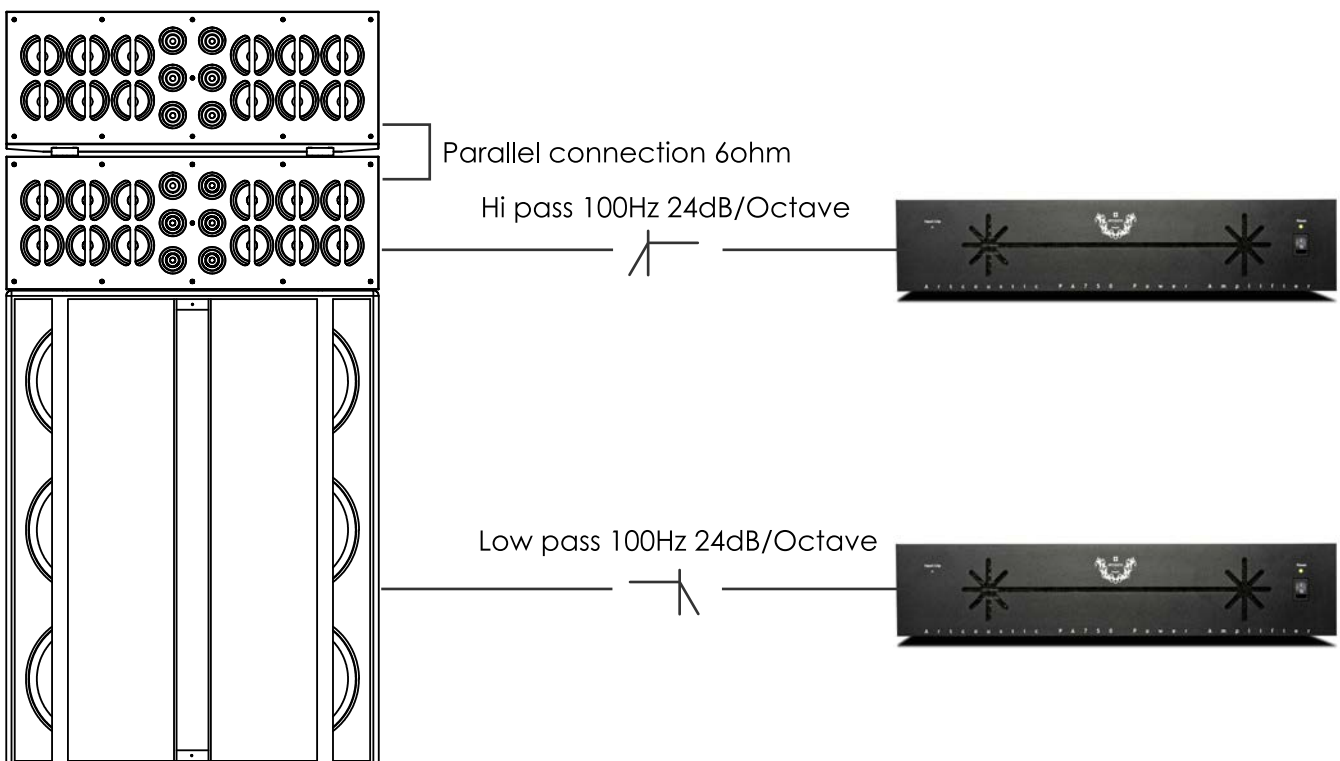
**Performance:**

Operating Range 20 Hz (-6dB) to 400Hz  
 Axial Sensitivity (Half space SPL) LF 108 dB  
 Calculated Axial Output Limit (half space SPL)  
 Average Peak LF 136dB @ 370watt  
 Input Impedance Nominal Minimum 4 ohms  
 Recommended Low Pass Filter =>120 Hz, 24 dB/octave  
 Maximum Power Handling 500 Watt  
 Weight 90kg  
 Dimensions H: 900 W: 700 D: 700 mm

**Stack option PS6 1 combined weight 118kg**

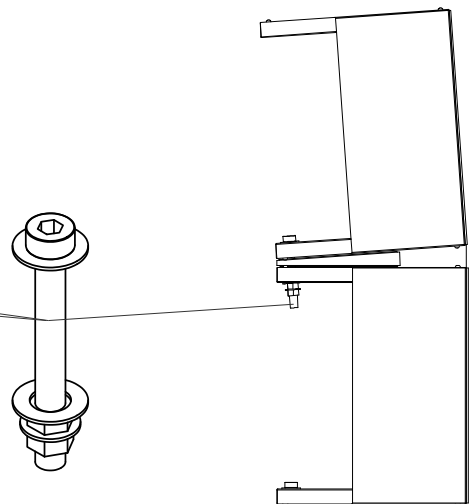
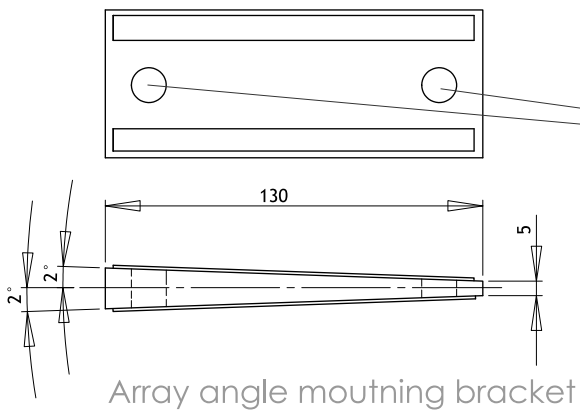
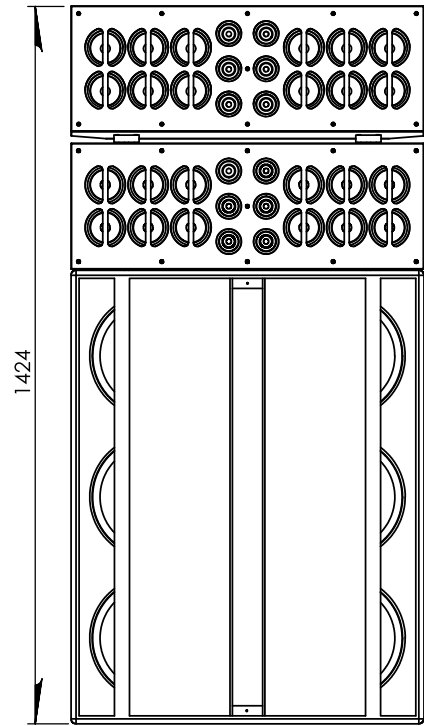
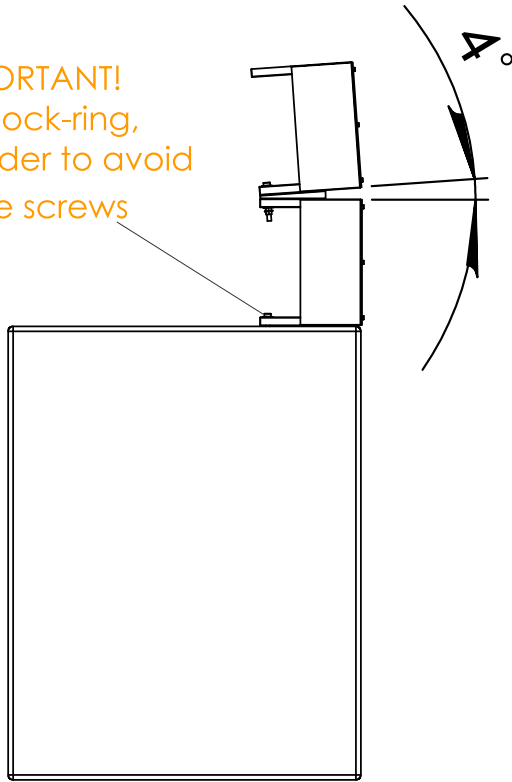
**Stack option PS6 1 combined Dimensions H: 1424 W: 700 D: 700 mm**

The Performance Series PS6 stack option 1 is capable of 136dB sound pressure level. It has been designed and engineered for a diverse range of applications, such as medium to large size cinema rooms, fixed installation public address systems and extending even further towards the demanding club stack market.



PS6 Stack options, optional array angle, 0 degrees, 4 degrees, 8 degrees, 12 degrees, both inward and outward array

IMPORTANT!  
Use lock-ring,  
in order to avoid  
loose screws



IMPORTANT!  
Use two bolts and the lock-ring,  
in order to avoid loose  
screws

## PA-250 & PA-750 Professional Single Channel Amplifier

Artcooustic has designed and engineered the PA-250 & PA-750 Professional Single Channel Amplifier. The PA-250 & PA-750 performs smoothly and accurately even in the most demanding conditions. The PA-250 & PA-750 is matched to all the Artcooustic subwoofer's impedance and tonality, making a perfect match with amazing detail, control and dynamics.

The PA-250 & PA-750 offers incredible single channel performance in a rack mountable chassis just 2U high. This together with its high performance and silent running dual fan speed cooling system means it is suitable for almost any application, from recording studios to commercial bars & restaurants, high quality hi-fi and home cinema systems. It features one single mono block with a total of 250 watt 8ohm and 750 watt 8 ohm.

### Artcooustic PA-250 & PA-750 single channel amplifier features

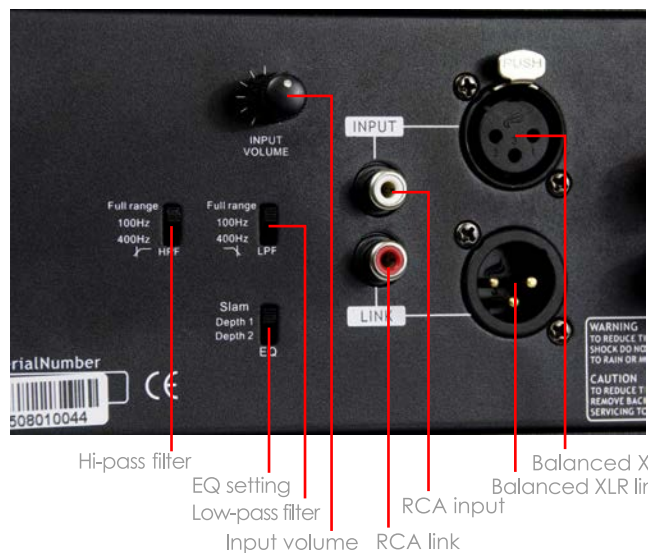
- Only 2 rack units high, means It has a very high output while occupying minimal rack space.
- Input sensitivity control.
- Signal presence and protection indicator.
- Unbalanced input via RCA connectors, balanced
- Input via XLR
- Stable performance down to 4 ohms.
- Auto turn on, turn off - signal sensing
- Crossover, **PA-250** low-pass, full range, 100 Hz. and 120 Hz. 24 dB. per octave
- Crossover, **PA-750** low-pass, full range, 100 Hz. and 400 Hz. 24 dB. per octave
- Crossover, **PA-750** hi-pass, full range, 100 Hz. and 400 Hz. 24 dB. per octave
- EQ. **PA-750** Slam, depth 1 and depth 2
- High current bi-polar technology.
- Single monoblock amplifier PCB design
- Extended protection circuit.
- Step less Fan system(Temperature controlled)
- Totally protected against overheating and shorting and includes DC prevention at the output stage.
- 1 year warranty.

## PA-250 features



Low-pass filter  
Input volume  
INPUT  
RCA input  
RCA link  
Balanced XLR input  
Balanced XLR link

## PA-750 features



Hi-pass filter  
EQ setting  
Low-pass filter  
Input volume  
INPUT  
RCA input  
RCA link  
Balanced XLR input  
Balanced XLR link

### PA-250 Technical Specification

4 ohm 400 WRMS  
8 ohm 250 WRMS  
Power consumption: 300 watt / 1024BTU/H

- Full range: 20 Hz-20 KHz  $\pm$  0.5 dB
- Low-pass: 20 Hz-100 Hz 24 dB / oct. 20 Hz-120 Hz 24 dB / oct
- S/N Ratio: >95 dB
- THD (at 1 W into 8 ohms, 1 KHz): <0.05%
- Damping factor: >300
- Input impedance: 20 Kohms balanced, 10 Kohms - unbalanced
- Maximum input level: 3 V
- Load impedance: 4-8 ohm
- Input sensitivity: 1.0 (0 dB)
- Power supply: 115 V/230 V-50/60 Hz
- Cooling: Step less Fan system (Temperature controlled)
- Input terminal: RCA, XLR
- Output terminal: Binding post
- Protection: Heat, over current, Short and DC
- Dimensions (H x W x D) : 90 x 430 x 253mm
- Weight : 12.7Kg

### PA-750 Technical Specification

8 ohm 750 WRMS  
Power Consumption: 800 watt / 2730BTU/H

- Full range: 20 Hz-20 KHz  $\pm$  0.5 dB
- Low-pass: 20 Hz-100 Hz 24 dB / oct. 20 Hz-400 Hz 24 dB / oct
- Hi pass: 100 Hz-20 KHz 24 dB / oct. 400 Hz-20 kHz 24 dB / oct
- S/N Ratio: >105 dB
- THD (at 1 W into 8 ohms, 1 KHz): <0.05%
- Damping factor: >500
- Input impedance: 20 Kohms balanced, 10 Kohms - unbalanced
- Maximum input level: 3 V
- Load impedance: 4-8 ohm
- Input sensitivity: 1.0 (0 dB)
- Power supply: 115 V/230 V-50/60 Hz
- Cooling: Step less Fan system (Temperature controlled)
- Input terminal: RCA, XLR
- Output terminal: Binding post
- Protection: Heat, over current, Short and DC
- Dimensions (H x W x D) : 90 x 430 x 253mm
- Weight : 15.5Kg

PA-750 Front Panel



PA-750 Front Panel with optional rack mount



PA-250 Rear Panel



PA-750 Rear Panel

