



312 CIM™

HIGH OUTPUT, 3 ELEMENT, SHADED ARRAY LOUDSPEAKER SYSTEM

ONE SYSTEMS®

The ONE SYSTEMS® 312CIM™ is a very high output 3 element shaded array loudspeaker system. The 312CIM was designed to produce very high sound pressure level vocal range content with very high intelligibility. The system consists of 3 12 inch direct radiator transducers in a shaded array. The top 12 inch element is also a coaxial system that features a large format compression driver. The 312CIM produces full bandwidth response and excellent vertical control. This array produces vertical beamwidth control to below 200 Hz and maintains a 60 degree vertical included radiation angle to below 300 Hz. This makes the 312CIM excellent for reverberant indoor spaces such as gymnasiums, basketball arenas and large general purpose spaces. The extended vertical control is also ideal for outdoor spaces where vertical control must be maintained throughout the entire vocal range. Unlike most high level vocal range systems, the ONE SYSTEMS 312CIM is not a series of horns "nested" inside larger horns. These prior art designs suffer from poor vocal intelligibility and are characterized by that traditional "honky" horn sound. The 312CIM is a three element 12 inch system that uses a single coaxially mounted high frequency horn and large format compression driver in the top 12 inch element to enhance higher frequency vocal information. The vocal fundamentals are reproduced by a 3 element direct radiator design that does not suffer from the traditional colorations found in horn systems.

The 312CIM may be used in direct weather outdoor installations as well as indoor applications where high vocal intelligibility and accuracy are required. Like all ONE SYSTEMS products, the 312CIM was designed to not only offer excellent full range fidelity but superior vocal reproduction and intelligibility as well. For full range applications, the 312CIM may be coupled with the 118Sub-W or 218 Sub-W to provide full bandwidth operation at very high sound pressure levels in a very small footprint.

The 312CIM system offers a complete selection of array and ying/suspension hardware. The 312CIM is optimized for outdoor applications such as football stadiums, baseball stadiums, race tracks and other sports venues where permanent installation is required as well as a direct weather exposure. The system is particularly suited for very high level announcements and general vocal range reproduction. The system is equally suited for general purpose indoor applications in multipurpose rooms, indoor sports venues and general performance or vocal intensive applications.

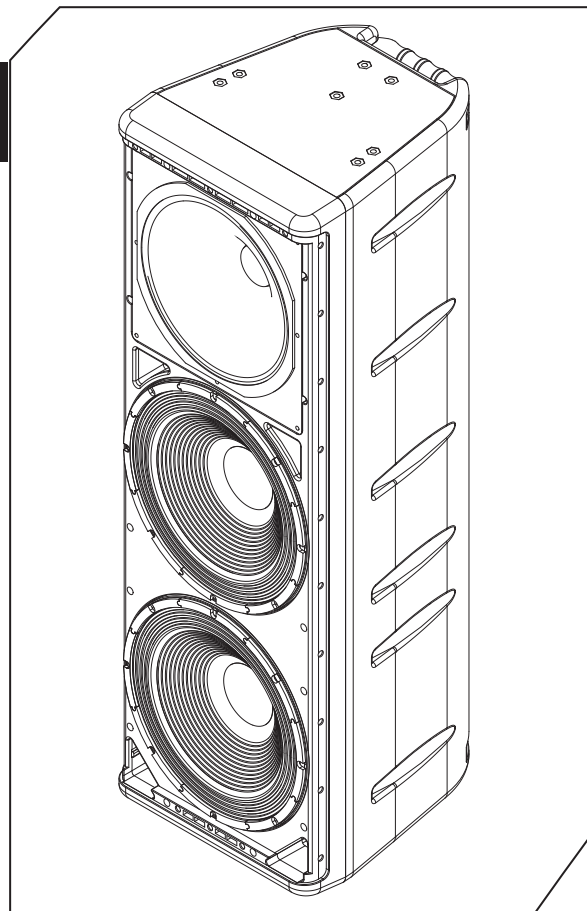
The 312CIM enclosure is a copolymer optimized for high UV exposure and long life in harsh environments. All internal and external rigging and suspension hardware, as well as the metal grill are stainless steel or high strength aluminum.

The grill is a 3 layer "rain shield" design that will minimize direct rain contact with the systems transducers. The enclosure and grill design are rated to IEC 529 IP45 (solid object penetration to 1 mm (0.04 inches) and water jets from any direction). The enclosures and components are also rated to Mil Spec 810

The input section consists of both 4 pin Neutrik Speakon as well as a stainless steel hardware barrier strip. A weather cover is provided with an integral gland nut connector for outdoor applications. In the outdoor configuration connections are made thru the 4 position barrier strip.

The gland nut is weather proof and is rated NEMA 6P (IP68). The connector will accommodate cable outside diameters from 7mm to 12mm (0.236" to 0.472"). The maximum diameter will accommodate most 2 conductor AWG 12 cable assemblies.

The high frequency radiation pattern is fixed and not rotatable but optimized for medium to long throw applications and is rated at a 60 degree conical included angle.



FEATURES AND BENEFITS

- 3 Element 12" Shaded Vertical Array
- Very High SPL Vocal System
- Direct weather rated
- Optimized for high intelligibility and vocal articulation.
- Patent Pending large format voice coil low frequency transducer.
- Multiple M10 lashing points.
- Available Array brackets.
- Gland nut and Speakon inputs (Weather cover for Gland nut installations).
- Optional versions (312 CIM-70 and 312 CIM-100) with 600 Watt 3 tap 100V or 70V line transformer.

SPECIFICATIONS

| | |
|---|---|
| Frequency Response: | 75Hz – 16kHz |
| Coverage Pattern: | 60 degrees conical |
| Passive Crossover Frequency: | 400 Hz & 1100 Hz (shaded vertical array) |
| Inputs: | 4 position barrier or 2 each 4 pin Speakon |
| System Sensitivity: (1 watt-1 meter) | 99dB |
| Power Handling: | 1200 watts Continuous 2400 watts Program 4800 watts Peak* |
| * All power handling ratings are amplifier headroom dependent | |
| Nominal Impedance: | 4 ohms 3.2 Ohms minimum |

Speakon® is a registered trademark of Neutrik®



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The low frequency design is a patent pending ONE SYSTEMS 12 inch 12I/O woofer (Inside Only) utilizing a unique voice coil wind on the inside of the voice coil support structure. This design allows for both high magnetic system displacement as well as increased thermal transfer. This results in reduced power compression and higher reliability.

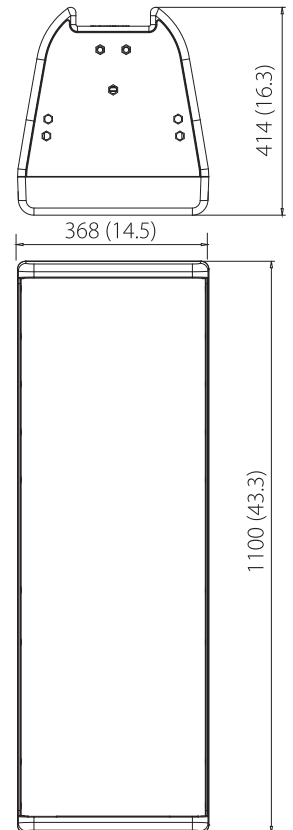
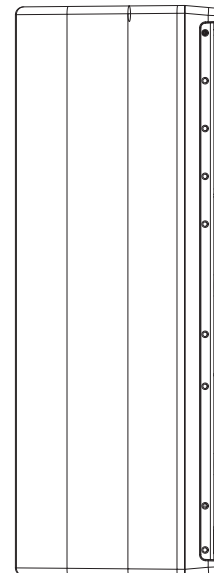
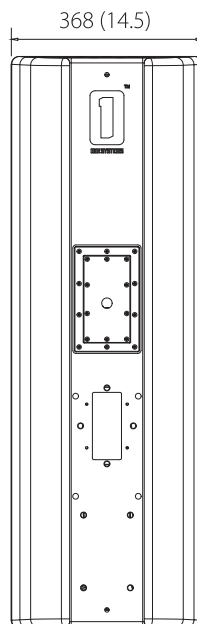
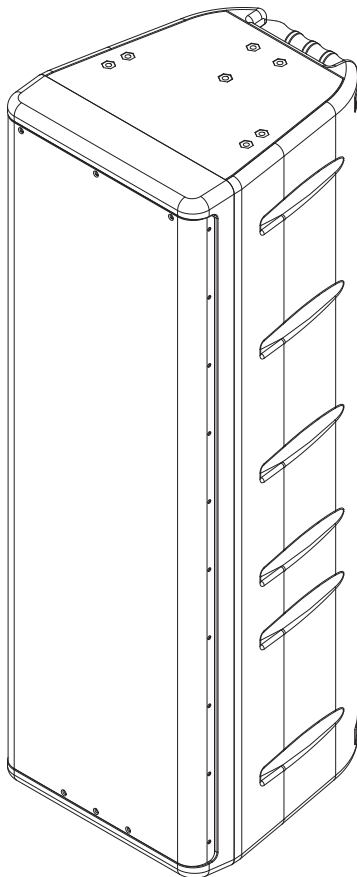
Because the ONE SYSTEMS 312CIM is designed for permanent installation applications a variety of rigging and suspension options are available. The 312CIM has 20 M10 mounting points. An M10 forged shoulder eye bolt kit is available for all M10 suspension points

There are also two planar array systems available. A "simple" planar array that will allow multiple 312CIM's to be suspended. The simple array bracket will allow for 1 deep planar arrays. This array provide for 5 degree horizontal aiming steps. The simple array is the FLY-112IM. The "T" array is the FLY-112IM-T

The 312CIM is also available in a line matching transformer version in both 100V and 70.7V ratings. The internal transformer is a 600 watt 3 tap (600 watts, 300 watts, and 150 watts). This the 312CIM-100 or 312CIM-70 version.

SYSTEM SPECIFICS

| | |
|--------------------------------|---|
| Low Frequency: | ONE SYSTEMS 12 I/O (2 ea) ONE SYSTEMS 12C |
| High Frequency: | Modified large format Compression driver |
| System Tunings (Bi-amp mode): | www.ONESYSTEMS.com |
| EASE 4.0 data | www.ONESYSTEMS.com |
| Suspension/Mounting points: | 20 each M10 |
| Weather Performance: | IEC 529 IP 45 Mil Spec 810 |
| Dimensions (H x W x D): | 1100mm x 368mm x 414mm (43.3 in x 14.5 in x 16.3in) |
| Net Weight: | 42.2 kg (93.5 lb) |
| Optional Accessories: | FLY-112IM FLY-112IM-T M10 Forged Shoulder Eye Bolt 212IM-U Pole Mount System EX |
| Additional Supporting Systems: | 218 Sub-W 118 Sub-W |



ONE SYSTEMS, Inc • 6204 Gardendale Dr. • Nashville, TN 37215
ONE SYSTEMS Group- European Division • Mittelsmoorer Strasse 12 • 28879 Grasberg Germany
ONE SYSTEMS Global Co. Ltd. • 87/114 Modern Town 15th Floor • Sukhumvit 63 Ekkamai Soi 3
Klongtoey, Bangkok 10110 Thailand

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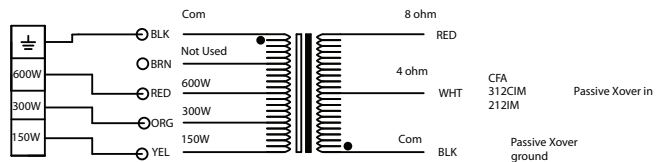
All One Systems enclosures featuring constant voltage transformers may be wired as shown below. There are two basic versions, a 100 volt version and a 70.7 volt version. Each model features three taps; 600 watts, 300 watts, and 150 watts. All wiring is to the 4 position barrier strip.

NOTE: The Neutrik Speakon connectors are not connected in the transformer based systems. Although it is common to parallel the Speakon connectors and the barrier strip due to the high voltages present when using the 100 volt and 70.7 volt transformers it is necessary to use the barrier strip only.

CAUTION: the weather cover must be installed (even if the enclosure is not installed in an outdoor venue) after the connections to the barrier strip are made. Installation of the weather cover is mandatory and will insulate the high voltages present on the terminal strip from contact.

| INPUT | POWER LEVEL |
|-------|-------------|
| 1+ | Ground |
| 1- | 600 Watts |
| 2+ | 300 Watts |
| 2- | 150 Watts |

100V Wiring



70.7V Wiring

