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312CIM™

HIGH OUTPUT, 3-ELEMENT, SHADED
ARRAY LOUDSPEAKER SYSTEM

ONE SYSTEMS®

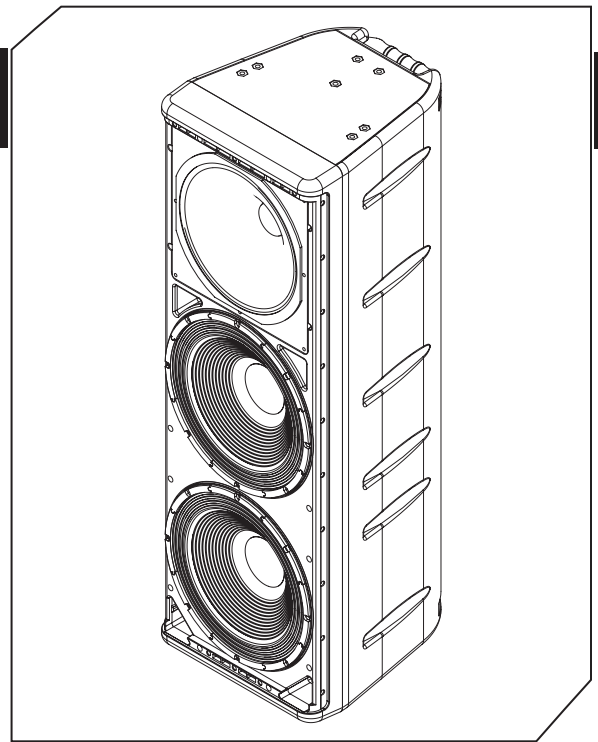
The One Systems® 312CIM™ is a very high-output, all-weather capable, 3-element, shaded array loudspeaker system. The 312CIM was designed to produce very high sound pressure level material with extraordinary intelligibility as well as excellent musical clarity. The system utilizes 3 x 12-inch direct radiator transducers configured in a shaded array. The top 12-inch driver features a coaxially mounted 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 an excellent choice for use in reverberant indoor spaces such as gymnasiums, basketball arenas and large general-purpose spaces. The 312CIM's extended vertical control is also ideal for use in outdoor spaces where vertical control must be maintained throughout the entire vocal range. Unlike many 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 noticeable "honky" horn colorations. The 312CIM's three-element system sidesteps the traditional colorations found in horn systems with its combination of coaxially mounted HF and its vertical array.

The 312CIM's high 1,200 watt continuous, 4,800 peak power handling and 99 dB (1 watt / 1 meter) sensitivity ensures prodigious output capability. The 312CIM is also available with optional 600 watt autoformer with either 100-Volt or 70.7-Volt ratings (312CIM-100 or 312CIM-70). In these models, the internal autoformer is a 600-watt, 3-tap featuring 600 watt, 300 watt, and 150 watt taps.

The 312CIM's enclosure is made of injection-molded copolymer that is optimized for high UV exposure and long life in harsh weather environments. All internal and external rigging and suspension hardware, as well as the metal grill are made of stainless steel or high strength aluminum. The grill is a 3-layer "rain shield" design that minimizes direct rain contact with the systems transducers. The enclosure and grill design are rated to IEC 529 / IP 45 (solid object penetration to 1 mm (0.04 inches) and water jets from any direction). The enclosure and components are also tested to Mil Spec 810.

The 312CIM may be used in direct weather outdoor installations as well



FEATURES & BENEFITS

- » 3-Element shaded vertical array delivers very high output from a small footprint
- » 2 x 12-inch Inside/Only woofers with large 4-inch voice coils
- » 12CX 12-inch coax with modified large-format compression driver
- » 60° conical coverage permits vertical or horizontal placement
- » 1,200 watts continuous, 4,800 watts peak power handling
- » Available in low-impedance or transformer-coupled versions
- » 19 x M10 suspension points for maximum mounting and use flexibility

SPECIFICATIONS

Frequency Response:	75 – 16kHz
Coverage Pattern:	60° conical
Passive Crossover Frequencies:	400 Hz & 1,100 Hz (shaded vertical array)
Inputs:	5-position barrier strip and 2 x 4 pin Neutrik Speakon
System Sensitivity (1 watt / 1 meter):	99 dB
Power Handling:	1,200 watts continuous, 2,400 watts program, 4,800 watts pk*



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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 218Sub-W subwoofer systems to provide full-bandwidth reproduction at very high sound pressure levels from systems with a very small footprint.

The 312CIM system offers a complete selection of array and flying/suspension options. The 312CIM is optimized for outdoor applications such as football stadiums, baseball stadiums, racetracks 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 multi-purpose rooms, indoor sports venues and general performance or vocal-intensive applications.

The 312CIM's input section include a stainless steel hardware barrier strip and two Neutrik® Speakon® connectors. An input weather cover is provided with an integral gland nut connector for use in outdoor applications. For outdoor use, connections are normally made via the 4-position barrier strip. The gland nut is weatherproof and is rated NEMA 6P (IP 68). The connector will accommodate cables with outside diameters from 7 mm to 12 mm (0.236 inch to 0.472 inch). The gland nut's maximum diameter will accommodate most 2-conductor, AWG 12 cable assemblies.

The 312CIM's high frequency radiation pattern is optimized for medium to long throw applications. Its 60-degree conical included angle coverage ensures that the system can be oriented vertically or horizontally without change in performance. The low frequency drivers are patent-pending One Systems' 12-inch 12I/O woofer with Inside/Only design. In this design, the voice coil is wound on the inside of the

voice coil's support structure that ensures high magnetic system displacement as well as increased thermal transfer. This results in reduced power compression and higher system reliability.

The 312CIM is designed for permanent installation applications and a variety of rigging and suspension options are available. The 312CIM has 19 x M10 mounting points and the optional One Systems Eye Bolt Kit with 4 forged-shoulder bolts is available for use on any of these. There are also two planar array systems available - A "simple" planar array bracket that will allow multiple 312CIM's to be suspended in 1-deep planar arrays is the One Systems FLY-112IM, which provides for 5-degree horizontal aiming steps. The "T" array bracket is the FLY-112IM-T, which enables 2-deep planar arrays, where the second row consists of 112IM enclosures in a down-fill orientation. The FLY-112IM-T bracket also provides for 5-degree horizontal aiming increments. In the down-fill configuration, the DF-IM bracket is used to suspend a 112IM below the 312IM enclosure.

The 312CIM is also optionally available in a white enclosure equipped with 316-grade, marine-quality stainless steel grille and hardware (312CIM-W-Marine) for use at sea or in other corrosive environments.

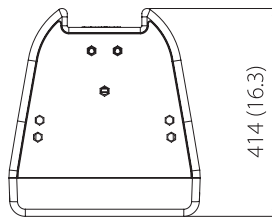
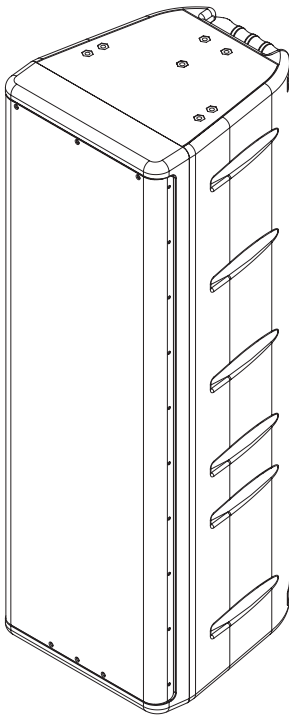
With its unique combination of all-weather capability, pristine vocal reproduction, excellent musical clarity, flexible use options, and high output capability, the One Systems 312IM is a high-performance option for large-format sound systems.

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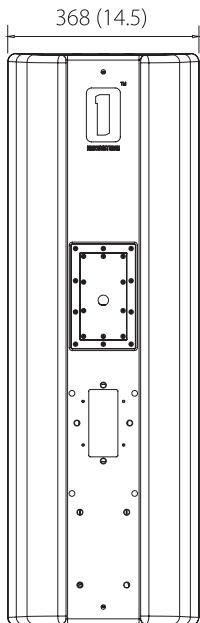
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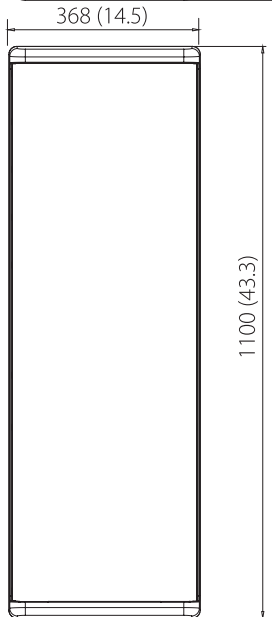
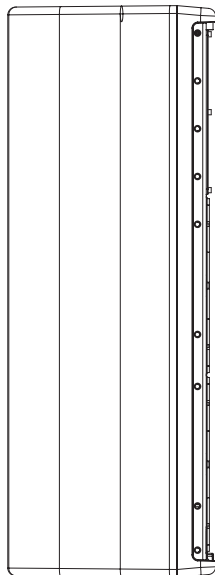
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414 (16.3)



368 (14.5)



368 (14.5)

1100 (43.3)

SPECIFICATIONS (cont.)

Nominal Impedance:	4 ohms; 3.2 Ohms minimum
Low Frequency drivers:	One Systems 12 I/O (2 ea.); One Systems 12C (1)
High Frequency:	Modified large-format compression driver
Processor settings:	www.onesystems.com
EASE 4.0 data:	www.onesystems.com
Suspension / Mounting points:	19 x M10
Weather Performance:	IEC 529 / IP 45 / Mil Spec 810
Dimensions (H x W x D) mm:	1,100 mm x 368 mm x 414 mm
Dimensions (H x W x D) in:	43.3 in x 14.5 in x 16.3 in
Net Weight:	42.2 kg / 93.5 lb.
70.7 / 100-volt versions:	45.5 kg / 100.8 lb
Shipping Weight:	57 kg / 125.4 lb.
70.7 / 100-volt versions:	62.3 kg / 137.06 lb
Optional Accessories:	M10 Forged Shoulder Eye Bolt Kit; 212IM-U; Pole Mount System EX-2; Pole Mount System-3; PT-76
Additional Supporting Systems:	218 Sub-W; 118Sub-W

* All power handling ratings are amplifier headroom dependent

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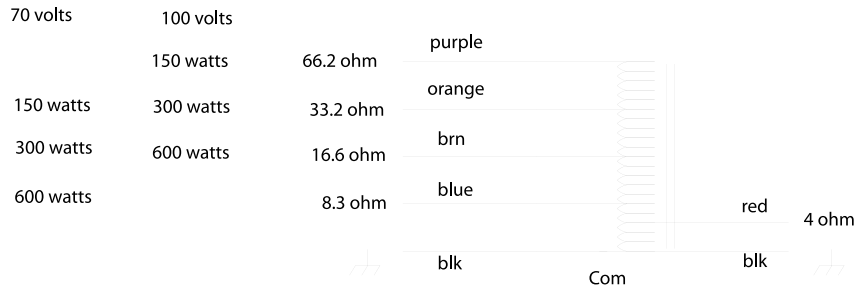
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All ONE SYSTEMS enclosures that feature autoformers may be wired as shown below. The 312IM-70/100 allows for both 70.7V and 100V wiring. The taps are 600 watts, 300 watts, and 150 watts. All wiring is via the five-position barrier strip. Please note that the autoformer primary and secondary grounds are not isolated.

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 isolate the high voltages present on the terminal strip from contact.

Figure 1 is a schematic diagram of the transformer wiring for both the 100 volt and 70.7 volt models.

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



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