



emacoustics

## TECHNICAL DATA SHEET

# EMS-126:EMS-129

## PASSIVE FULLRANGE LOUDSPEAKER

The EMS-126 and EMS-129 are updated versions of the ever-popular EMS-122 and EMS-122w. They retain both the sonic character of the originals, along with complete physical compatibility, yet are significantly lighter. As before, the two loudspeakers are narrow and wide dispersion variants. Utilising our latest passive crossover topologies, and the utmost in drive unit technology, these loudspeakers are completely passive yet outperform many bi-amplified or processed designs. The EMS-126/129 is ideal for front-of-house duty for small to medium venues, or as a powerful fill loudspeaker for larger systems. The multi-angle enclosure also allows use as a stage monitor if required.

### FEATURES AND BENEFITS

- Asymmetrical multi-angled cabinet for FOH or stage monitor use
- Genuine plywood cabinet for sonic benefit over plastic
- 12" neodymium LF, 1.4" exit neodymium HF drive units
- True passive design - no corrective DSP required
- Wide and narrow dispersion variants in identical enclosure footprints
- Rotatable waveguide: 90° x 60° (EMS-129), 60° x 40° (EMS-126)
- 35mm pole mount
- Flexible rigging and mounting options
- Compatible with OmniMount™ and Powerdrive brackets
- Impact and weather resistant black or white finish as standard
- RAL colour and weather protection options

### APPLICATIONS

- Theatre FOH or on-stage duty
- Live music venues
- Houses of worship
- Conference, corporate and audio-visual
- Theme parks

The EMS-126 & EMS-129 are two-way passive loudspeakers, using a 3" voice coil 12" (305mm) neodymium low frequency transducer. This low frequency drive unit is coupled via the internal passive crossover network to a 3" (76mm) diaphragm, 1.4" (36mm) exit neodymium high frequency transducer. This drive unit loads onto a constant coverage horn, which yields not only consistent response throughout its operating band across the whole coverage pattern (60° x 40° for the EMS-126, 90° x 60° for the EMS-129, both rotatable) but also strong attenuation outside of this pattern. The result is a loudspeaker with extremely consistent and predictable coverage, as well as stunning sonic detail – and all with the ease of use that passive crossover technology brings.

The drive units are housed within a compact, vented enclosure. The robust enclosure is constructed from premium 15mm (5/8") multi-laminate Birch plywood, and is heavily braced to minimise panel reflection. Incorporated into the top and bottom of the enclosure are a pair of M10 hreaded points for attachment of a variety of rigging and flying hardware, and an M8 safety/pullback point is provided on the rear. Four M8 threaded fixings on the rear of the enclosure are compatible with OmniMount™ Series 60 and Powerdrive™ Series 10 bracket products. A 35mm pole



mount socket is provided discretely on the underside for stand mounting. The enclosure also includes a flush bar handle on the rear, and a pair of Neutrik® speakON™ NL4 connectors for input and enclosure link. Lastly, a tough hex-punched stainless steel grille backed with acoustically transparent fabric protects the drive units from damage. The grille can be quickly removed for service purposes or to rotate the HF waveguide – the orientation of which can be determined without removing the grille. The enclosure is finished in impact and water-resistant black or white polyurethane as standard, however RAL colour matching and enhanced weather protected outdoor options are also available.

The EMS-126/EMS-129 requires a single amplifier channel, and the use of external DSP for system protection (high pass filters and limiters) is recommended - as such an efficient solution is one of EM Acoustics' range of Advanced System Amplifiers. Alternative DSP-enabled amplifiers can also be used, or conventional amplifiers with external processing - suitable DSP settings are provided on the EM Acoustics website for this purpose. The EMS-126/EMS-129 requires a single amplifier channel that is capable of delivering 750-1000W RMS into an 8-ohm load.



## TECHNICAL SPECIFICATIONS

### ENCLOSURE TYPE:

DIMENSIONS (HxWxD)

NET/SHIPPING WEIGHT:

FREQUENCY RESPONSE<sup>1</sup>:

SENSITIVITY<sup>2</sup>:

DISPERSION<sup>3</sup>:

DRIVE UNITS:

LOUDSPEAKERS PER AMPLIFIER (maximum for full loudspeaker SPL)

LOUDSPEAKERS PER AMPLIFIER (recommended absolute maximum)<sup>4</sup>

POWER HANDLING:

MAXIMUM SPL<sup>4</sup>:

NOMINAL IMPEDANCE:

CROSSOVER:

CONNECTORS:

ENCLOSURE:

RIGGING & HARDWARE:

GRILLE:

OPTIONS:

ACCESSORIES:

SPARE PARTS:

Two-way passive, reflex loaded

622 (24.5) x 380 (15) x 364 (14.3) mm/(ins)

25/27kg (55/60.5lbs) - EMS-126: 24/26.6kg (52.8/58.5lbs) - EMS-129

70Hz – 20kHz  $\pm$ 3dB

96dB

60° x 40° (EMS-126) or 90° x 60° (EMS-129), rotatable

12" (305mm) neodymium LF cone drive unit

1.4" (36mm) exit neodymium HF compression drive unit

DQ6: 1 per channel, DQ10: 2 per channel, DQ20: 4 per channel

Di06: not recommended, Di10: 1 per channel, Di20: 2 per channel

DQ6: 2 per channel, DQ10: 3 per channel, DQ20: 4 per channel

Di06: 1 per channel, Di10: 2 per channel, Di20: 3 per channel

500W RMS, 1000W program

128dB continuous, 134dB peak

8 ohms

Asymmetric internal passive

2 x Neutrik® speakON™ NL4

15mm (5/8") multi-laminate Birch plywood – rebated, screwed and glued.

Finished in impact and weather resistant textured polyurethane

4 x M10 threaded mounting points, 1 x M8 safety point

4 x M8 threaded points for OmniMount™ Series 60/Powerdrive™ Series 100 brackets

1 x flush handle on rear, 1 x 35mm pole mount socket

Hex punched stainless steel backed with acoustically transparent fabric

Custom Colour, enhanced weather protection (OD model)

FC-129v vertical flying cradle

FC-129h horizontal flying cradle

VFA-129 variable-angle single point bracket

WHH100 installation wall bracket

DFB-129 dual enclosure cluster plate set

DU-1208 12" drive unit

CDU-1404 1.4" exit HF compression drive unit

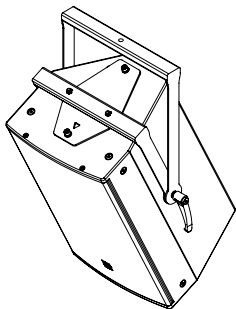
PX-126 (EMS-126) and PX-129 (EMS-129) passive crossover assemblies

RFG-129 replacement grille/fabric

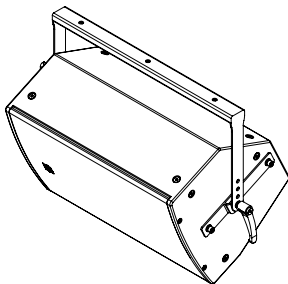
### NOTES ON MEASUREMENT CONDITIONS:

<sup>1</sup>Measured on-axis at 2m in an anechoic environment and referenced to 1m. <sup>2</sup>Measured in half space at 2m with 4W sine wave input and referenced to 1m. <sup>3</sup>Nominal dispersion, measured in an anechoic environment and averaged over stated bandwidth. <sup>4</sup>These loudspeaker quantities are the recommended maximum, and will not drive the loudspeaker to full output. <sup>5</sup>Calculated and verified by subjective listening test of familiar program material.

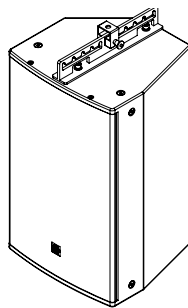
## RIGGING ACCESSORIES



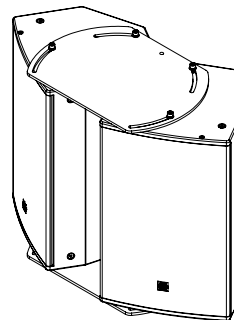
FC-129v



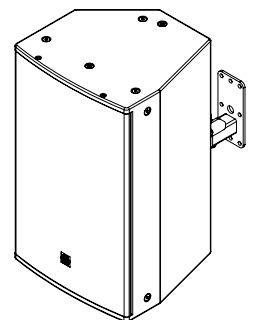
FC-129h



VFA-129



DFB-129

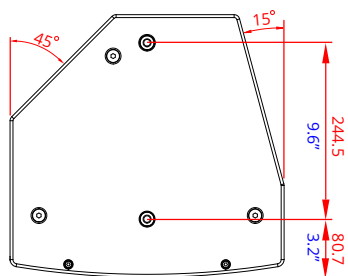


WHH100

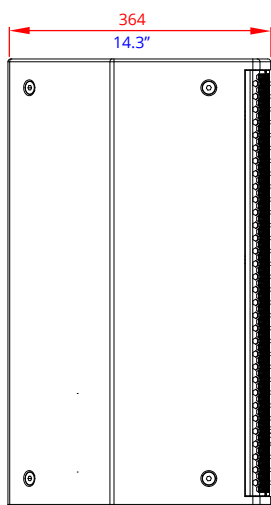
## ENCLOSURE OPTIONS

EMS-126/129 enclosures are available as standard in black or white textured polyurethane finish. Custom RAL colours can be supplied on request; extended lead times and set up costs apply. EMS-126/129 enclosures can also be supplied as an outdoor version (OD), with enhanced weather protection features, many bespoke to the customer's request. Please contact your local EM Acoustics representative for details.

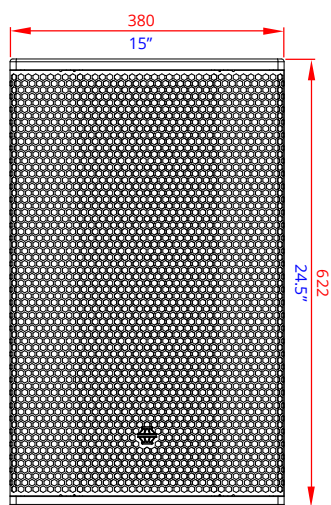
ENGINEERING DRAWING



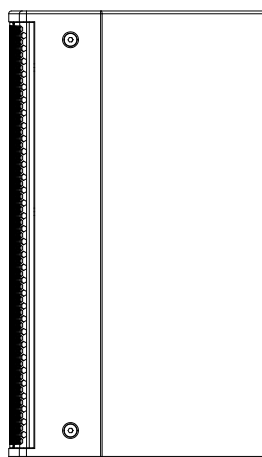
TOP



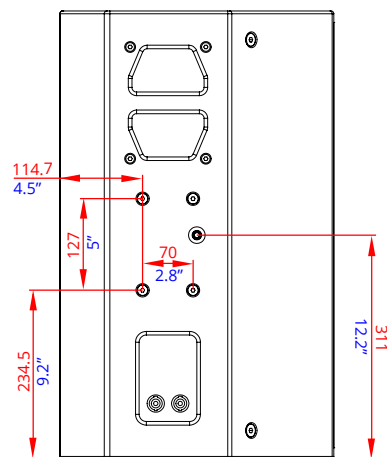
LEFT



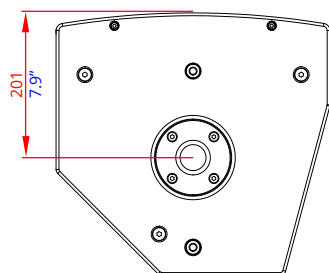
FRONT



RIGHT



REAR



BOTTOM