



emacoustics

TECHNICAL DATA SHEET

S-48

COMPACT ISOBARIC VLF SUBWOOFER

The S-48 is the smallest subwoofer manufactured by EM Acoustics, and represents a unique approach to low frequency reproduction in a small footprint enclosure. The S-48 features high-excursion neodymium drive units for reduced weight whilst retaining surprising sonic performance from an enclosure of this size.

FEATURES AND BENEFITS

- Exceptional low frequency extension for enclosure size
- Compact enclosure for easy concealment
- 4 x 8" neodymium LF drive units
- Cinematic response from a very small enclosure
- Low enclosure height allows installation under seating or in ceiling voids
- Multiple M10 flying points
- Impact and weather resistant black or white finish as standard
- RAL colour and enhanced weather protection options

APPLICATIONS

- Sonic effects in theatres and museums
- Bars, bistros and cafes
- Houses of worship
- Conference, corporate and audio-visual
- Theme parks
- Retail shops and malls



The S-48 was designed to provide a compact low frequency solution for a variety of applications. The unique design provides unprecedented sonic depth from an enclosure of this size. At home either as low frequency extension in cafés and bars or as an extra sonic effect in theatres and museums, the added low frequency that the S-48 can produce makes it suitable for many situations.

The enclosure contains four high power 8" (203mm) neodymium LF drive units, loaded as two compound isobaric pairs. This design gives a usable response down to 35Hz, without any artificial equalisation. The S-48 can therefore add 'depth and warmth' to any system, even where larger subwoofers would normally have been used.

The rugged enclosure is constructed from premium 15mm (5/8") multi-laminate Birch plywood, rebated, screwed and glued together for maximum strength. Sixteen M10 threaded fixings are provided (four each side) to allow suspension of the enclosure if required. Connections are via two Neutrik® speakON™ NL4 connectors on a recessed rear panel

ENCLOSURE OPTIONS

S-48 enclosures are available as standard in black or white impact resistant polyurethane finish. Custom RAL colours can be supplied on request; extended lead times and set up costs apply. S-48 enclosures can also be supplied as an outdoor version (OD), finished in the same weather-resistant polyurethane coating, with weather-resistant connector options and other cabinet details bespoke to the customer's request. Custom RAL colours are also available for outdoor options by specific quote. Please contact your local EM Acoustics representative for details.

for input and enclosure link. The enclosure is finished in an impact and weather resistant black or white textured polyurethane finish as standard, however RAL colour matching and weather-protected outdoor installation options are also available.

Two hex-punched stainless steel grilles backed with acoustically transparent mesh protect the drive units from damage, which can be easily removed if required. For service purposes, the rear pair of drive units can be accessed via a removable door on the rear panel of the enclosure.

The S-48 requires a single amplifier channel, and external DSP for active high/low pass filters and limiters. As such, it is recommended to be used with EM Acoustics' range of Advanced System Amplifiers. It is however possible to use other DSP-enabled amplifiers, or conventional amplifiers with external DSP. Suitable DSP settings are provided on the EM Acoustics website. The amplifier channel should be capable of delivering 600-1200W RMS into a 4-ohm load.



TECHNICAL SPECIFICATIONS

ENCLOSURE TYPE:

DIMENSIONS (HxWxD)

NET/SHIPPING WEIGHT:

FREQUENCY RESPONSE¹:

SENSITIVITY²:

DISPERSION³:

DRIVE UNITS:

LOUDSPEAKERS PER AMPLIFIER (maximum for full loudspeaker SPL):

LOUDSPEAKERS PER AMPLIFIER (recommended absolute maximum)⁴:

POWER HANDLING:

MAXIMUM SPL⁵:

NOMINAL IMPEDANCE:

CROSSOVER:

CONNECTORS:

ENCLOSURE:

RIGGING & HARDWARE:

GRILLE:

OPTIONS:

SPARE PARTS:

Compound isobaric subwoofer

308 (12.1) x 530 (20.9) x 450 (17.7) mm/(ins)

22/24kg (48.4/52.8lbs)

35Hz – 150Hz ±3dB

93dB

Omnidirectional

4 x 8" (203mm) neodymium LF cone drive units

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

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

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

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

600W RMS, 1200W program

122dB continuous, 128dB peak

4 ohms

External active

2 x Neutrik® speakON™ NL4

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

Finished in impact and weather resistant black or white polyurethane

16 x M10 threaded fixings

Hex-punched stainless steel, backed with acoustically transparent mesh

Colours / weather protection

DU-806 8" (203mm) neodymium drive unit

RFG-S48 replacement grille set

NOTES ON MEASUREMENT CONDITIONS:

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

ENGINEERING DRAWING

