The E6 loudspeaker

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The E6 is a high performance two-way multipurpose loudspeaker employing an integrated coaxial driver with a neodymium magnet assembly. The 1" exit HF compression driver and constant directivity horn are accommodated within the circumference of the 6.5" LF driver. The horn with its 100° x 55° dispersion pattern (h x v) can easily be rotated through 90° without the use of tools to provide a 55° x 100° dispersion pattern.

The E6 can be used for speech and music applications as a stand-alone full range system, or incorporated into larger distributed sound reinforcement situations. It can be mounted on loudspeaker stands or flown from overhead bars, while the multifaceted shape of the enclosure allows use either in a vertical or horizontal orientation as well as deployment as a stage monitor. With the addition of an E12X-SUB or any other E-Series subwoofer, the E6 can also reproduce high level music program.

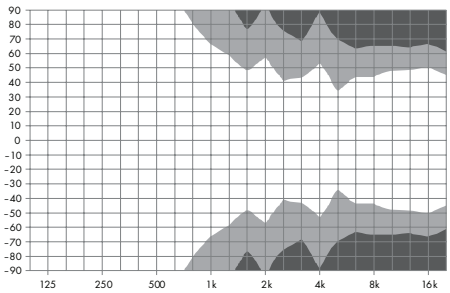
The E6 cabinet has an impact paint finish. The front is protected by a magnetically attached rigid metal grill backed by an acoustically transparent fabric. The grill can easily be removed without tools to modify the horn orientation. The cabinet incorporates a handle and mounted on the rear panel are two EP5 or NL4 connectors wired in parallel.

System data

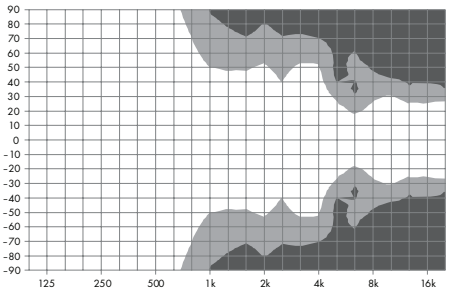
Frequency response (–5 dB).....85 Hz - 20 kHz
Frequency response (–5 dB CUT mode).....120 Hz - 20 kHz
Max. sound pressure (1 m, free field)[1].....
with D6.....120 dB
with D12.....123 dB

Loudspeaker data

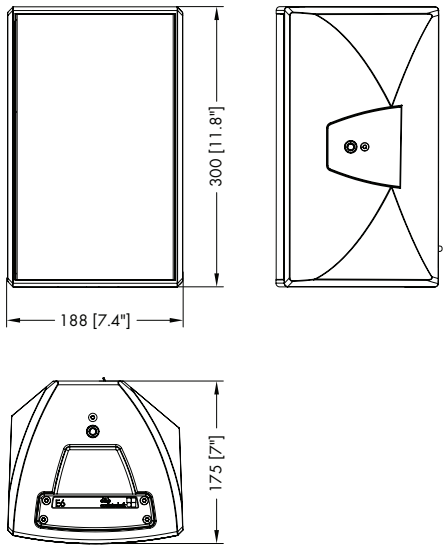
Nominal impedance.....20 ohms
Power handling capacity (RMS/peak 10 ms).....150/800 W
Nominal dispersion angle (h x v).....100° x 55°
.....rotatable through 55° x 100°
Components.....6.5" driver with neodymium magnet
.....1" exit compression driver with 1.75" coil and rotatable CD horn
.....passive crossover network
Connections.....2 x EP5, optional 2 x NL4
Pin assignments.....EP5: 1/2, NL4: 1+/1–
Weight.....5 kg (11 lb)



E6 horizontal dispersion characteristics[2]



E6 vertical dispersion characteristics[2]

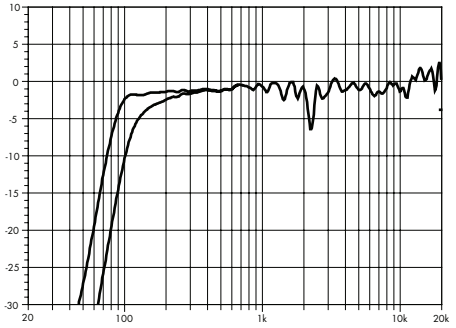


E6 cabinet dimensions in mm [inch]

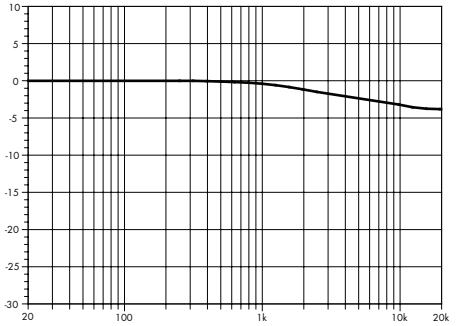
1 Broadband measurement, pink noise, crest factor 4, peak measurement, linear weighting

2 Dispersion angle vs frequency plotted using lines of equal sound pressure (isobars) at –6 dB and –12 dB

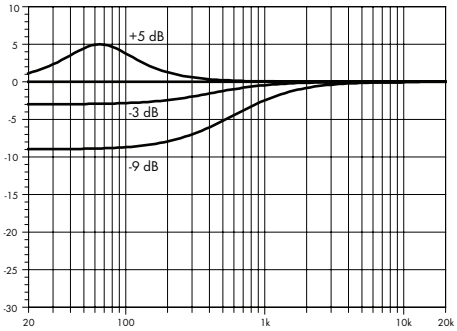
The D6 and D12 configurations



E6 frequency response, standard and CUT modes



Frequency response correction of HFA circuit



Frequency response correction of CPL circuit

E6 with D6 and D12

Selecting E6 configuration in the D6 and D12 dual channel amplifiers enables up to five E6 cabinets to be driven by each channel.

For acoustic adjustment the settings CUT, HFA and CPL can be selected.

Set to CUT, a high pass filter with a 120 Hz cut off frequency is inserted in the controller signal path. The E6 is now configured for use with d&b subwoofers.

In HFA mode (High Frequency Attenuation), the HF response of the E6 is rolled off. The HFA provides a natural, balanced frequency response when a unit is placed close to listeners in near field or delay use. HFA begins gradually at 1 kHz, dropping by approximately 3 dB at 10 kHz. This roll off mimics the decline in frequency response experienced when listening to a system from a distance in a typically reverberant room or auditorium.

The CPL (Coupling) circuit compensates for coupling effects between the cabinets when building closely coupled arrays. CPL begins gradually at 1 kHz, with maximum attenuation below 250 Hz, providing a balanced frequency response when E6 cabinets are used in arrays of two or more. The function of the CPL circuit in these amplifiers is shown in the diagram opposite and can be set in dB attenuation values between –9 and 0 or a positive CPL value which creates an adjustable low frequency boost around 65 Hz (0 to +5 dB).