W3
Arrayable three-way compact trapezoid system

features
- Arrayable compact trapezoid enclosure
- Bi-amplified three-way system
- Very high SPL output capability
- 65° coverage angle from compound mid/high horn
- Multi-laminate birch plywood construction
- Certified MAN quick-connect flying option

applications
- Theatre sound systems
- Club sound reinforcement
- Underslung/infill for concert sound reinforcement
- Music playback in nightclubs
- On-stage instrument monitor

Extremely versatile, the Wavefront W3 is a unique, innovative full-range system, utilising advanced Martin Audio engineering to achieve true three-way full frequency performance from an enclosure only 28" high. It delivers the clarity required for speech and music applications as well as the power, warmth and depth to generate an exciting live sound or playback experience in nightclubs.

The low frequency driver is a powerful 15" (380mm) transducer cooled by a heat exchange system developed to reduce power compression. Mid-range and high frequencies are generated by a unique mid/HF horn featuring the same technology used in Wavefront 8 touring systems. The mid-range and high frequency horns are designed to have matched coverage patterns to ensure that they combine perfectly both on and off-axis.
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W3 Vertical
- 200Hz ± 1/3oct smoothing
- 400Hz ± 1/3oct smoothing
- 800Hz ± 1/3oct smoothing
- 1kHz ± 1/3oct smoothing
- 2kHz ± 1/3oct smoothing
- 4kHz ± 1/3oct smoothing
- 8kHz ± 1/3oct smoothing

W3 Horizontal
- 200Hz ± 1/3oct smoothing
- 400Hz ± 1/3oct smoothing
- 800Hz ± 1/3oct smoothing
- 1kHz ± 1/3oct smoothing
- 2kHz ± 1/3oct smoothing
- 4kHz ± 1/3oct smoothing
- 8kHz ± 1/3oct smoothing

polar plots
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frequency responses

W3 Horizontal Magnitude in dB SPL/2.83V at 1 meter

W3 Horizontal Beamwidth

W3 Vertical Beamwidth
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overall dimensions

435mm [17.13"]
425mm [16.73”]
708mm [27.77”]
12.5mm [0.5"]
216mm [8.50”]
215mm [8.46”]
348mm [13.70”]
528mm [20.79”]
622mm [24.49”]
218mm [8.58”]

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technical specifications

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Compact bi-amplified three-way trapezoid</th>
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</thead>
<tbody>
<tr>
<td>FREQUENCY RESPONSE</td>
<td>55Hz-18kHz ± 3dB -10dB @ 45Hz</td>
</tr>
<tr>
<td>DRIVERS</td>
<td>15&quot; (380mm) / 3&quot; (75mm) voice coil</td>
</tr>
<tr>
<td></td>
<td>6.5&quot; (165mm) horn loaded mid-range</td>
</tr>
<tr>
<td></td>
<td>1&quot; (25mm) exit HF compression driver</td>
</tr>
<tr>
<td>RATED POWER</td>
<td>LF: 400W AES, 1600W peak</td>
</tr>
<tr>
<td></td>
<td>MF + HF: 150W AES, 600W peak</td>
</tr>
<tr>
<td>RECOMMENDED AMPLIFIER</td>
<td>MA3.0</td>
</tr>
<tr>
<td>SENSITIVITY</td>
<td>LF: 100dB</td>
</tr>
<tr>
<td></td>
<td>MF + HF: 104dB</td>
</tr>
<tr>
<td>MAXIMUM SPL (calculated @ 1m)</td>
<td>126dB continuous, 132dB peak</td>
</tr>
<tr>
<td>NOMINAL IMPEDANCE</td>
<td>LF: 8 ohms</td>
</tr>
<tr>
<td></td>
<td>MF + HF: 16 ohms</td>
</tr>
<tr>
<td>DISPERSION (-6dB)</td>
<td>65° horizontal, 40° vertical</td>
</tr>
<tr>
<td>CROSSOVER</td>
<td>650Hz active via DX1.5 or DX2 controller</td>
</tr>
<tr>
<td>FINISH</td>
<td>Textured grey paint</td>
</tr>
<tr>
<td>PROTECTIVE GRILLE</td>
<td>Grey perforated steel</td>
</tr>
<tr>
<td>CONNECTORS</td>
<td>2 x Neutrik NL4</td>
</tr>
<tr>
<td>FITTINGS</td>
<td>8 x MB, 4 x M6 threaded inserts</td>
</tr>
<tr>
<td></td>
<td>1 x mounting pole socket</td>
</tr>
<tr>
<td></td>
<td>2 x MAN blanking plates</td>
</tr>
<tr>
<td></td>
<td>2 x rear kelp fittings</td>
</tr>
<tr>
<td>DIMENSIONS</td>
<td>(W) 435mm x (H) 708mm x (D) 425mm</td>
</tr>
<tr>
<td></td>
<td>(W) 17.1ins x (H) 27.9ins x (D) 16.7ins</td>
</tr>
<tr>
<td>WEIGHT</td>
<td>31.5kg (69lbs)</td>
</tr>
</tbody>
</table>

accessories

<table>
<thead>
<tr>
<th>HTKWT3Y</th>
<th>Flying yoke</th>
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<tbody>
<tr>
<td>HTKCT05</td>
<td>8mm Shouldered eye bolt</td>
</tr>
<tr>
<td>GPT060</td>
<td>Fitted enclosure flying points</td>
</tr>
<tr>
<td>HTKLIS</td>
<td>Lightweight install stud</td>
</tr>
</tbody>
</table>

Notes

(1) Measured on-axis in half space at 2 metres, then referred to 1 metre.
(3) Measured in half space at 2 metres with 1 watt input, using band limited pink noise, then referred to 1 metre.
(4) Measured in half space at 2 metres using band limited pink noise, then referred to 1 metre.
(5) Measured on-axis in open (4π) space at 2 metres, then referred to 1 metre.
(6) Measured in open (4π) space at 2 metres with 1 watt input, using band limited pink noise, then referred to 1 metre.
(7) Measured in open (4π) space at 2 metres using band limited pink noise, then referred to 1 metre.
(8) Measured in open (4π) space at 2 metres with 2.83V input, using band limited pink noise, then referred to 1 metre.
(9) Calculated at 1 metre.

architectural and engineering specifications

The loudspeaker system shall be of the three-way bi-amp type consisting of one 15" (380mm) direct radiating reflex loaded low frequency transducer, one 6.5" (165mm) cone driver mounted on a constant directivity horn flare with integral toroidal waveguide and one 1" (25mm) exit HF compression driver mounted on a constant directivity horn in a trapezoidal plywood enclosure. The enclosure shall be fitted with an integral pole mounting socket and threaded inserts for wall and ceiling mounting. The loudspeaker shall be operated with a separate electronic controller providing a 650Hz crossover between low and mid/high frequency sections. Mid and high frequency sections shall be integrated by an internal 3.3kHz passive crossover network.

Performance of the loudspeaker system with its electronic controller shall meet or exceed the following criteria:

- Frequency response measured 1 metre on axis shall be 55Hz-18kHz ±3dB.
- High frequency dispersion at -6dB points shall be 65°H x 40°V.
- Power handling shall be 400W AES, 1600W peak LF, 150W AES, 600W peak MF+HF.
- Rated impedance shall be 8 ohms LF, 16 ohms MF+HF.
- Maximum SPL measured at 1 metre on axis shall be 126dB continuous, 132dB peak.
- Dimensions (W) 435mm x (H) 708mm x (D) 425mm (17.1ins x 27.9ins x 16.7ins).
- Weight 31.5kg (69lbs).

The loudspeaker system shall be the Martin Audio W3.