Profile Overview

Bose Professional ArenaMatch loudspeakers bring proven DeltaQ sound quality and flexibility to outdoor installations — sports stadiums, arenas, outdoor entertainment centers, and more. Rated for direct-exposure outdoor installations, ArenaMatch DeltaQ modules make it easy to create outdoor loudspeaker arrays that bring consistent, intelligible sound to every listener. Nine coverage patterns are available. Choose from modules with 10°, 20°, or 40° vertical coverage and easily swap between 60°, 80°, or 100° horizontal waveguides to build arrays that are lighter, require less installation time, and can lower overall system costs by delivering full coverage with fewer modules.

Key Features

**Improve sound quality, consistency, and vocal clarity** with DeltaQ array technology, which allows directivity, or “Q,” to vary in each module to more precisely match coverage to the audience area

**Easily customize horizontal coverage** with replaceable waveguides that allow you to further customize coverage and even form asymmetrical patterns for improved acoustic performance in left/right arrays

**Deliver high-SPL, long-throw music reproduction and vocal intelligibility** with a 14-inch neodymium woofer and six Bose EMB2S titanium-diaphragm neodymium compression drivers

**Rated for direct-exposure outdoor installations**, with three-layer stainless steel grille, water-resistant woofer cone coating, industrial polyurethane exterior coating, and molded input cover

**Provide full coverage with fewer modules** — 10°, 20°, and 40° modules allow you to create arrays that improve sight lines, reduce weight, and lower system costs by requiring fewer modules compared to conventional arrays

**Reduce commissioning time** by using 40° modules for point-source applications and 10°, 20° and 40° modules for line arrays — all with the same transducers for consistent tonal balance

**Adapt to a variety of configurations** — all models ship standard with bi-amp capability, passive crossover, and 70/100V transformer inputs

**Streamline the design process** by combining with complementary Bose Professional products, such as ArenaMatch Utility zone-fill loudspeakers, PowerMatch amplifiers, and ControlSpace DSPs

**Save time during installation** using Bose accessory mounting hardware or use the standard M12 threaded inserts to interface with custom array frames

ArenaMatch AM20
DeltaQ array loudspeaker

Technical Specifications

Single Module Performance

<table>
<thead>
<tr>
<th>Parameter</th>
<th>AM20/60</th>
<th>AM20/80</th>
<th>AM20/100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Response (-3 dB)</td>
<td>65 Hz to 16 kHz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency Range (-10 dB)</td>
<td>55 Hz to 18 kHz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nominal Coverage Pattern (H × V)</td>
<td>60° × 20° (AM20/60) or 80° × 20° (AM20/80) or 100° × 20° (AM20/100)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recommended High-pass Filter</td>
<td>60 Hz with minimum 12 dB / octave</td>
<td></td>
<td></td>
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<tr>
<td>Crossover</td>
<td>950 Hz internal passive or external bi-amp (Bose ControlSpace presets)</td>
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<td></td>
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</tbody>
</table>

70V/100V transformer tap settings

- 70V: 100W, 200W, 400W
- 100V: 200W, 400W

Bose Extended Lifecycle Test ²

<table>
<thead>
<tr>
<th>Test Type</th>
<th>LF (bi-amp)</th>
<th>HF (bi-amp)</th>
<th>Low-Z Passive</th>
<th>LF (bi-amp)</th>
<th>HF (bi-amp)</th>
<th>Low-Z Passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Handling, long-term continuous</td>
<td>600 W</td>
<td>150 W</td>
<td>750 W</td>
<td>1000 W</td>
<td>250 W</td>
<td>1250 W</td>
</tr>
<tr>
<td>Power Handling, peak</td>
<td>2400 W</td>
<td>600 W</td>
<td>3000 W</td>
<td>4000 W</td>
<td>1000 W</td>
<td>5000 W</td>
</tr>
</tbody>
</table>

Certifications


Physical

Enclosure Material: Exterior-grade birch plywood
Finish: Two-part polyurea coating, black
Grille: Powder-coated perforated stainless steel, acoustic foam, stainless steel mesh
Environmental: Rated for direct-exposure outdoor installations (IP55 per EN60529; IP33C per EN54-24)
Connectors: Barrier strips: passive in/through, bi-amp, and 70V/100V, with cover
Suspension/Mounting: 8 × M12 non-stainless steel threaded inserts (4 per side); 2 × M10 stainless steel threaded inserts (1 per side); 2 × M6 stainless steel threaded inserts (1 per side); 1 × M10 stainless steel threaded insert, rear safety connection
Dimensions (H × W × D): 437 × 783 × 416 mm (17.2 × 30.8 × 16.4 in)
Net Weight: 36.2 kg (80 lb)
Shipping Weight: 43.3 kg (95 lb)
Accessories: U-bracket, array suspension kits, waveguide kits

Product Codes

- 794042-6660: ARENAMATCH AM20/80 OUTDOOR LDSPKR 80x20
- 794042-3360: ARENAMATCH AM20/60 OUTDOOR LDSPKR 60x20
- 794042-8860: ARENAMATCH AM20/100 OUTDOOR LDSPKR 100x20

Footnotes

1. Frequency response and range measured on-axis in anechoic environment with recommended bandpass and EQ. Frequency response graphs display SPL axis with 0 dB line referenced to sensitivity SPL value.
2. Bose extended-lifecycle test using pink noise filtered to meet IEC268-5, 6-dB crest factor, 500-hour duration.
3. AES standard 2-hour duration with IEC system noise.
4. Sensitivity measured in anechoic environment with recommended bandpass and EQ.
5. Maximum SPL calculated using sensitivity and power ratings, exclusive of power compression.
6. Tested to IP55 per EN60529 when used in General Purpose Audio installation.
**ArenaMatch AM20**
DeltaQ array loudspeaker

**Frequency response (60° waveguide)**

![Frequency response graph (60° waveguide)](image)

**Beamwidth (60° waveguide)**

![Beamwidth graph (60° waveguide)](image)

**Frequency response (80° waveguide)**

![Frequency response graph (80° waveguide)](image)

**Beamwidth (80° waveguide)**

![Beamwidth graph (80° waveguide)](image)
ArenaMatch AM20
DeltaQ array loudspeaker

Frequency response (100° waveguide)

Beamwidth (100° waveguide)