FEATURES

- Exceptional audio clarity with discreet styling
- Easy to install with two mounting options
- Low frequency boost for distributed applications
- ETL listed to comply with UL 1480A, CSA 62368-1, CE marked, and RoHS compliant

APPLICATIONS

DISTRIBUTED
Bars and Restaurants · Hotels · Casinos
Shopping Malls · Health and Fitness Clubs
Houses of Worship · Presentation Spaces
Sports Facilities · Outdoor Entertainment
Exhibit Halls · Amusement and Theme Parks

DESCRIPTION

The Desono™ EX surface mount loudspeakers provide excellent acoustic performance in elegant, attractive aesthetics for a diverse range of indoor and outdoor distributed applications. EX Series includes three two-way, full-range models and one matching-enclosure subwoofer. All full-range models include 70 V/100 V transformers and low impedance inputs. They deliver high voice intelligibility, wide bandwidth and exceptional uniform coverage.

The Desono EX-S10SUB, 10” subwoofer provides additional deep bass to the EX-S6 or EX-S8 systems for full-range, foreground music playback. With it’s discreet matching enclosure, EX-S10SUB easily blends in the background of an application, making it easy to hear, but difficult to spot.

Designed for easy and fast installation, our innovative, patented ClickMount™ brackets provide installers with two distinct mounting options. The ClickMount pan-tilt bracket provides indexed aiming control and allows for mounting EX Series quickly in either vertical or horizontal orientation without moving the bracket position. The ClickMount U-Bracket is also available for low-profile mounting or exterior use and includes the ClickPlug with an integrated gland nut for weather-resistant applications. Both brackets are theft and tamper resistant.

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Operating Mode</td>
<td>Passive, low impedance</td>
<td>Passive, low impedance</td>
</tr>
<tr>
<td>Operating Environment</td>
<td>Indoor/Outdoor</td>
<td>Indoor/Outdoor</td>
</tr>
<tr>
<td>Operating Range (-10dB)</td>
<td>38 Hz to 140 Hz</td>
<td>38 Hz to 140 Hz</td>
</tr>
<tr>
<td>Nominal Beamwidth (H x V)</td>
<td>Omnidirectional</td>
<td>Omnidirectional</td>
</tr>
<tr>
<td>Transducer</td>
<td>LF 1 x 10” (250 mm) treated paper cone</td>
<td>LF 1 x 10” (250 mm) treated paper cone</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>89 dB (2.83 V)</td>
<td>89 dB (1 W, 8Ω nominal impedance)</td>
</tr>
<tr>
<td>Nominal Continuous Power</td>
<td>49 V (300 W, 8Ω)</td>
<td>49 V (300 W, 8Ω)</td>
</tr>
<tr>
<td>Handling</td>
<td>49 V  (300 W, 8Ω)</td>
<td>49 V  (300 W, 8Ω)</td>
</tr>
<tr>
<td>Nominal Continuous SPL (Processed)</td>
<td>UXO 80 Hz</td>
<td>UXO 80 Hz</td>
</tr>
<tr>
<td></td>
<td>UXO 125 Hz</td>
<td>UXO 125 Hz</td>
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<tr>
<td>Crossover Presets</td>
<td>Continuous</td>
<td>Continuous</td>
</tr>
<tr>
<td></td>
<td>112 dB</td>
<td>112 dB</td>
</tr>
<tr>
<td></td>
<td>113 dB</td>
<td>113 dB</td>
</tr>
<tr>
<td>Rated Continuous Voltage</td>
<td>39.8 V (32 dBV)</td>
<td>39.8 V (32 dBV)</td>
</tr>
<tr>
<td>Rated Maximum SPL (Processed)</td>
<td>UXO 80 Hz</td>
<td>UXO 80 Hz</td>
</tr>
<tr>
<td></td>
<td>UXO 125 Hz</td>
<td>UXO 125 Hz</td>
</tr>
<tr>
<td>Required Processing</td>
<td>35 Hz, 18 dB high-pass filter; DSP preset</td>
<td>35 Hz, 18 dB high-pass filter; DSP preset</td>
</tr>
<tr>
<td>Recommended Amplifiers</td>
<td>300 W - 600 W, 8Ω (49 V - 69 V)</td>
<td>300 W - 600 W, 8Ω (49 V - 69 V)</td>
</tr>
<tr>
<td>Input Connection</td>
<td>Lever-actuated wire clamping 4-position terminal block with pass-through</td>
<td>Lever-actuated wire clamping 4-position terminal block with pass-through</td>
</tr>
<tr>
<td>Controls</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Mounting Provisions</td>
<td>ClickMount pan-tilt bracket or ClickMount U-Bracket</td>
<td>ClickMount pan-tilt bracket or ClickMount U-Bracket</td>
</tr>
<tr>
<td>Compliance</td>
<td>ETL listed to comply with UL 1480A, CSA STD C22.2# 62368-1</td>
<td>ETL listed to comply with UL 1480A, CSA STD C22.2# 62368-1</td>
</tr>
<tr>
<td>Environmental Rating</td>
<td>IP54 per IEC 60529, IEC 60068-2-5 (Solar Radiation), IEC 60068-2-11 (Salt Mist), IEC 60068-2-42 (SO2), IEC 60068-2-60 (Chlorine)</td>
<td>IP54 per IEC 60529, IEC 60068-2-5 (Solar Radiation), IEC 60068-2-11 (Salt Mist), IEC 60068-2-42 (SO2), IEC 60068-2-60 (Chlorine)</td>
</tr>
<tr>
<td>Dimensions H x W x D</td>
<td>529 mm x 310 mm x 312 mm (20.8” x 12.2” x 12.3”)</td>
<td>529 mm x 310 mm x 312 mm (20.8” x 12.2” x 12.3”)</td>
</tr>
<tr>
<td>Weight (loudspeaker only)</td>
<td>12.8 kg [28.26 lbs]</td>
<td>12.8 kg [28.26 lbs]</td>
</tr>
<tr>
<td>Finish</td>
<td>Refer to the Technical Drawings (pages 2-3)</td>
<td>Refer to the Technical Drawings (pages 2-3)</td>
</tr>
<tr>
<td>Models (Order by mounting option)</td>
<td>EX-S10SUB-CM [B,W] - loudspeaker with large ClickMount pan-tilt bracket</td>
<td>EX-S10SUB-UB [B,W] - loudspeaker with ClickMount U-Bracket and ClickPlug</td>
</tr>
<tr>
<td>OPTIONS</td>
<td>CMX-LG [B,W] - Large ClickMount Pan-tilt Bracket Kit</td>
<td>CMX-LG [B,W] - Large ClickMount Pan-tilt Bracket Kit</td>
</tr>
<tr>
<td></td>
<td>EXUB-S10 [B,W] - EX-S10 ClickMount U-Bracket kit</td>
<td>EXUB-S10 [B,W] - EX-S10 ClickMount U-Bracket kit</td>
</tr>
</tbody>
</table>
EX-S10SUB
HIGH OUTPUT 10-INCH SURFACE MOUNT SUBWOOFER

TECHNICAL DRAWING / DIMENSIONS / FINISH [EX-S10SUB-CM]

**H x W x D**
529 mm x 310 mm x 312 mm
[20.8" x 12.2" x 12.3"]

**Unit Weight**
12.8 kg [28.26 lbs] loudspeaker only
13.4 kg [29.49 lbs] loudspeaker + bracket

**Shipping Weight**
TBD

**Grille**
Powder-coated perforated Marine Grade aluminum backed with hydrophobic cloth
Black or White

**Enclosure / Bracket / Finish**
High-impact UL94 5VB rated polycarbonate/ABS blend, painted UV resistant matte finish
Bracket: Heavily reinforced glass-filled nylon with UV-resistant painted matte finish cover
Color: Black (RAL 9017) or White (RAL 9016)

**Grille**
Powder-coated perforated Marine Grade aluminum backed with hydrophobic cloth
Black or White

**Enclosure / Bracket / Finish**
High-impact UL94 5VB rated polycarbonate/ABS blend, painted UV resistant matte finish
Bracket: Heavily reinforced glass-filled nylon with UV-resistant painted matte finish cover
Color: Black (RAL 9017) or White (RAL 9016)
TECHNICAL DRAWING / DIMENSIONS / FINISH [EX-S10SUB-UB]

**H x W x D**
529 mm x 309 mm x 312 mm
[20.8" x 12.2" x 12.3"]

**Unit Weight**
12.8 kg [28.26 lbs] loudspeaker only
14.3 kg [31.60 lbs] loudspeaker + bracket

**Shipping Weight**
TBD

**Grille and U-Bracket**
Powder-coated Marine Grade aluminum. Grille is perforated and backed with hydrophobic cloth
Black (RAL 9017) or White (RAL 9016)

**Enclosure / Finish**
High-impact UL94 5VB rated polycarbonate/ABS blend, painted UV resistant matte finish
Black (RAL 9017) or White (RAL 9016)

**Unit Weight**
12.8 kg [28.26 lbs] loudspeaker only
14.3 kg [31.60 lbs] loudspeaker + bracket

**Shipping Weight**
TBD

**Enclosure / Finish**
High-impact UL94 5VB rated polycarbonate/ABS blend, painted UV resistant matte finish
Black (RAL 9017) or White (RAL 9016)
EX-S10-CM, EX-S10SUB-CM
EX-S10 Loudspeaker with ClickMount pan-tilt bracket

EX-S10-UB, EX-S10SUB-UB
EX-S10 Loudspeaker with ClickMount U-Bracket and ClickPlug

Biamp strives to improve its products on a continual basis. Specifications are therefore subject to change without notice. Data presented on this data sheet represents the basic performance specifications for the model. For a detailed analysis of this loudspeaker’s performance, please download the GLL file and/or the CLF file from our website: biamp.com
CAUTION: Installation of loudspeakers should only be performed by trained and qualified personnel. It is strongly recommended that a licensed and certified professional structural engineer approve the mounting design.

DATA SHEET

DESONO™

EX-S10SUB HIGH OUTPUT 10-INCH SURFACE MOUNT SUBWOOFER

CONNECTION DIAGRAMS

4. NOMINAL CONTINUOUS POWER HANDLING
The maximum continuous input voltage at the stated nominal impedance that the system can withstand, without damage, for a period of 2 hours using an IEC 60268-5 defined spectrum with recommended signal processing and protection filters.

5. NOMINAL MAXIMUM SPL
The SPL produced when an IEC 60268-5 signal is applied to the equalized/processed loudspeaker system, at a level which drives at least one subsection to its nominal continuous voltage limit. Referenced to a distance of 1 meter. The peak SPL represents the 2:1 (6 dB) crest factor of the IEC 60268-5 test signal.

6. RATED CONTINUOUS VOLTAGE
The maximum continuous input voltage for the system that results in no more than a 3 dB change in the system’s response during operation.

7. RATED MAXIMUM SPL
The SPL produced when a typical program material signal is applied to the equalized/processed loudspeaker system, at a level which drives at least one subsection to its rated continuous voltage limit. Referenced to a distance of 1 meter. The peak SPL represents the 4:1 (12 dB) crest factor of the program signal.

8. AXIAL (PROCESSED) SENSITIVITY
The variation in acoustic output level with frequency for a swept-sine measurement signal. The Processed measurement uses the recommended signal processing for the loudspeaker system. The other sensitivity measurements use no additional external processing. All data are referenced to 1 meter. The on-axis magnitude and phase responses, as well as the average magnitude response, calculated over one-half of the nominal coverage angles, are shown. The responses have 1/6 octave smoothing applied.

NOTES

1. PERFORMANCE SPECIFICATIONS All measurements are performed using a time-windowed impulse response to eliminate reflections, approximating an anechoic environment, at a distance of at least 6.0 m. All acoustic specifications are rounded to the nearest whole number. An external DSP using settings provided by Biamp is required to achieve the specified performance; further performance gains can be realized using the FIR loudspeaker optimization presets available in Biamp’s Community Amplified Loudspeaker Controllers (ALC SERIES).

2. OPERATING RANGE
The frequency range over which the on-axis equalized/processed response remains within 10 dB of the rated sensitivity, in accordance with IEC 60268-5.

3. SENSITIVITY
The broadband SPL of the loudspeaker when pink noise is applied (band limited to the loudspeaker’s Operating Range) at an input voltage of 2.83 V, in accordance with IEC 60268-5. Also listed for a voltage that would produce 1 watt into the nominal impedance. Measured in whole space with no external processing applied, except where indicated.

Data presented on this data sheet represents a selection of the basic performance specifications for the model. These specifications are intended to allow the user to perform a fair, straightforward evaluation and comparison with other loudspeaker spec sheets. For a detailed analysis of this loudspeaker’s performance, please download the GLL file and/or the CLF file from our website: www.biamp.com