beyma

PROFESSIONAL LOUDSPEAKERS
www.beyma.com

# 8MC300Nd

## LOW & MID FREQUENCY TRANSDUCER

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**MC Series**

## KEY FEATURES

maltcross TECHNOLOGY

- High power handling: 600 W program power
- Exclusive Malt Cross® Technology Cooling System
- Low power compression losses
- High sensitivity: 96 dB (1W / 1m)
- FEA optimized neodymium magnetic circuit
- Optimized linear behaviour
- Weatherproof cone with treatment for both sides
- 2” copper voice coil
- Aluminium demodulating ring
- Extended controlled displacement: $X_{max}$ ± 6 mm
- 35 mm peak-to-peak excursion before damage
- Optimized for 2 or 3 way PA systems and line array for ultimate professional applications





## TECHNICAL SPECIFICATIONS

| | | |
|---|---|---|
| **Nominal diameter** | 200 mm | 8 in |
| **Rated impedance** | | 8 Ω |
| **Minimum impedance** | | 7,5 Ω |
| **Power capacity*** | | 300 $W_{AES}$ |
| **Program power** | | 600 W |
| **Sensitivity** | 96 dB | 1W / 1m @ $Z_N$ |
| **Frequency range** | | 80 - 4.000 Hz |
| **Voice coil diameter** | 50,8 mm | 2 in |
| **Bl factor** | | 16 N/A |
| **Moving mass** | | 0,025 kg |
| **Voice coil length** | | 15 mm |
| **Air gap height** | | 7 mm |
| **$X_{damage}$ (peak to peak)** | | 35 mm |

## THIELE-SMALL PARAMETERS**

| | |
|---|---|
| **Resonant frequency, $f_s$** | 62 Hz |
| **D.C. Voice coil resistance, $R_e$** | 6,1 Ω |
| **Mechanical Quality Factor, $Q_{ms}$** | 3,8 |
| **Electrical Quality Factor, $Q_{es}$** | 0,24 |
| **Total Quality Factor, $Q_{ts}$** | 0,22 |
| **Equivalent Air Volume to $C_{ms}$, $V_{as}$** | 18 l |
| **Mechanical Compliance, $C_{ms}$** | 262 μm / N |
| **Mechanical Resistance, $R_{ms}$** | 2,5 kg / s |
| **Efficiency, $\eta_0$** | 1,74 % |
| **Effective Surface Area, $S_d$** | 0,022 $m^2$ |
| **Maximum Displacement, $X_{max}$ *** ** | 6 mm |
| **Displacement Volume, $V_d$** | 132 $cm^3$ |
| **Voice Coil Inductance, $L_e$ @ 1 kHz** | 0,6 mH |

**Notes**:

* The power capaticty is determined according to AES2-1984 (r2003) standard. Program power is defined as the transducer’s ability to handle normal music program material.

** T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

*** The $X_{max}$ is calculated as $(L_{vc} - H_{ag})/2 + (H_{ag}/3{,}5)$, where $L_{vc}$ is the voice coil length and $H_{ag}$ is the air gap height.

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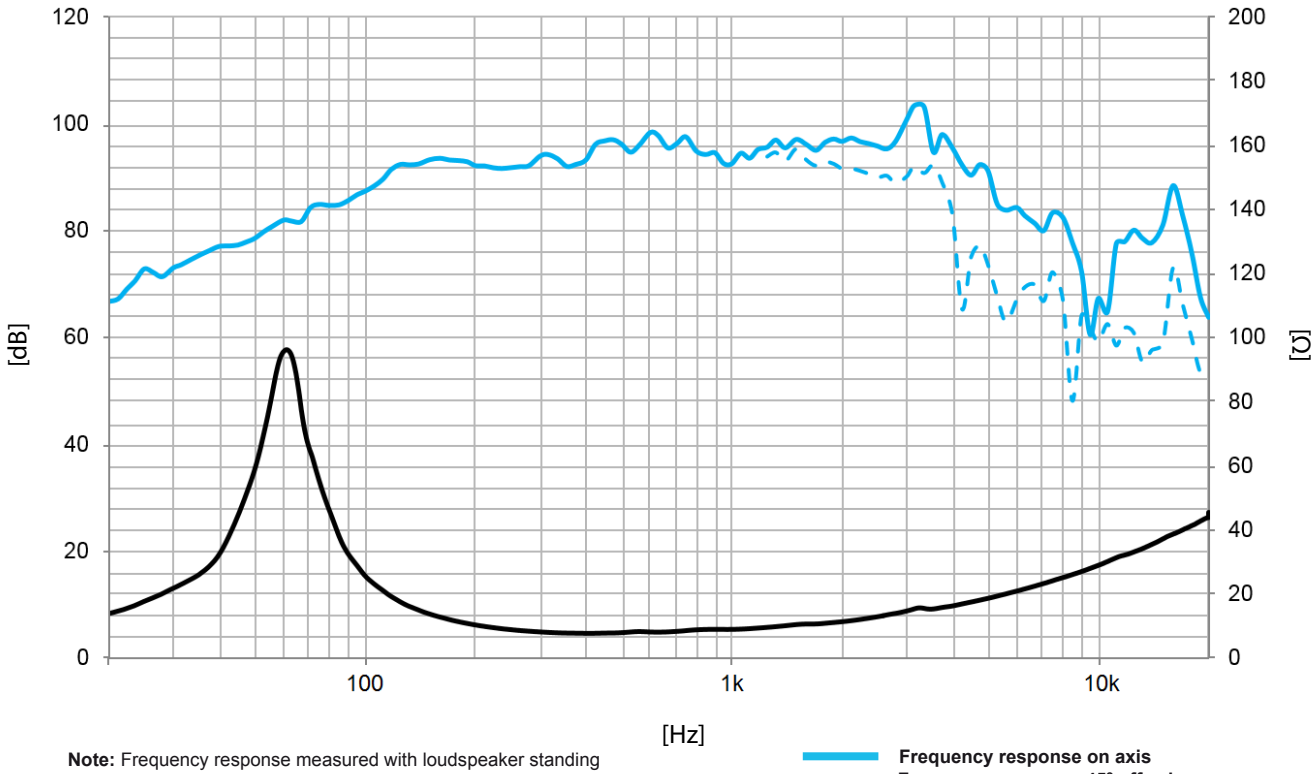
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**Note:** Frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

**Frequency response on axis**
**Frequency response 45º off axis**

## MOUNTING INFORMATION

| | | |
|---|---|---|
| **Overall diameter** | 212 mm | 8,34 in |
| **Bolt circle diameter** | 195 mm | 7,68 in |
| **Baffle cutout diameter:** | | |
| **- Front mount** | 182 mm | 7,16 in |
| **Depth** | 97 mm | 3,8 in |
| **Net weight** | 1,9 kg | 4,2 lb |
| **Shipping weight** | 2,2 kg | 4,9 lb |

## DIMENSION DRAWING

