

# CM-10 LOW & MID FREQUENCY TRANSDUCER

### **KEY FEATURES**

- 250W program power.
- Sensitivity 95 dB, 1W @ 1m.
- Extended controlled displacement: X<sub>max</sub> ± 6,5 mm.
- Treated cloth surround.
- Smooth and flat response and low distortion.
- Suited for bass and midbass applications in small vented cabinets.
- Steel basket.
- Ferrite magnet.



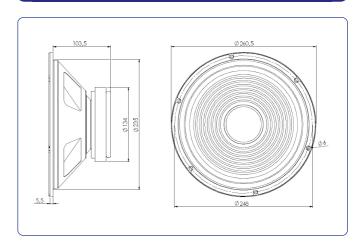
## TECHNICAL SPECIFICATIONS

| Nominal diameter                   | 250 mm            | 10 in                |
|------------------------------------|-------------------|----------------------|
| Rated impedance                    |                   | 8 Ω                  |
| Minimum impedance                  |                   | 7,4 Ω                |
| Power capacity*                    | 12                | 5 W <sub>RMS</sub>   |
| Program power                      |                   | 250 W                |
| Sensitivity                        | 95 dB 1W @ 1      | m @ 2π               |
| Frequency range                    | 50 - 5            | .000 Hz              |
| Recom. enclosure vol.              | 40 / 100 I 1,41 / | 3,53 ft <sup>3</sup> |
| Voice coil diameter                | 38,5 mm           | 1,5 in               |
| Magnetic assembly weight           | 2,75 kg           | 6,06 lb              |
| BL factor                          | 1                 | 2,2 N/A              |
| Moving mass                        | (                 | ),035 kg             |
| Voice coil length                  |                   | 16 mm                |
| Air gap height                     |                   | 7 mm                 |
| X <sub>damage</sub> (peak to peak) | 2                 | 24,5 mm              |

## THIELE-SMALL PARAMETERS\*\*

| Resonant frequency, f <sub>s</sub>                         | 61 Hz                |
|--|----------------------|
| D.C. Voice coil resistance, R <sub>e</sub>                 | 6,15 Ω               |
| Mechanical Quality Factor, Q <sub>ms</sub>                 | 6,38                 |
| Electrical Quality Factor, Q <sub>es</sub>                 | 0,55                 |
| Total Quality Factor, Q <sub>ts</sub>                      | 0,51                 |
| Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub> | 40,7 I               |
| Mechanical Compliance, C <sub>ms</sub>                     | 192 μm / N           |
| Mechanical Resistance, R <sub>ms</sub>                     | 2,13 kg / s          |
| Efficiency, η <sub>0</sub>                                 | 1,60 %               |
| Effective Surface Area, S <sub>d</sub>                     | 0,039 m <sup>2</sup> |
| Maximum Displacement, X <sub>max</sub> ***                 | 6,5 mm               |
| Displacement Volume, V <sub>d</sub>                        | 195 cm <sup>3</sup>  |
| Voice Coil Inductance, L <sub>e</sub> @ 1 kHz              | 1,2 mH               |

## **DIMENSION DRAWINGS**



### **MOUNTING INFORMATION**

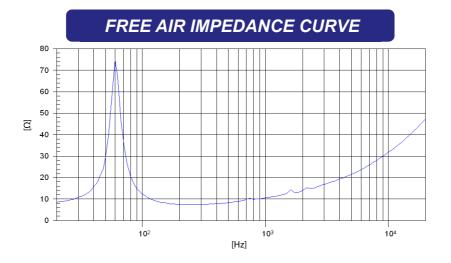
| Overall diameter Bolt circle diameter | 260,5 mm<br>248 mm | 10,26 in<br>9,76 in  |
|---------------------------------------|--------------------|----------------------|
| Baffle cutout diameter: - Front mount | 235 mm             | 9,25 in              |
| - Rear mount                          | 240 mm             | 9,45 in              |
| Depth                                 | 103,5 mm           | 4,07 in              |
| Volume displaced by driver            | 2,5 I              | 0,09 ft <sup>3</sup> |
| Net weight                            | 2,93 kg            | 6,46 lb              |
| Shipping weight                       | 3,30 kg            | 7,28 lb              |

#### Notes

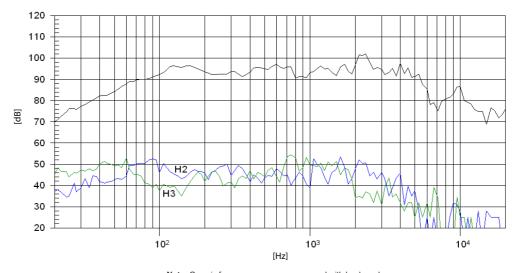
- \* The power capaticty is determined according to AES2-1984 (r2003) standard. Program power is defined as the transducer's ability to handle normal music program material.
- \*\* T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out 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.

## **CM-10**

## **LOW & MID FREQUENCY TRANSDUCER**



## FREQUENCY RESPONSE AND DISTORTION



Note: On axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

## beyma //