

# 15MC700Nd

**LOW & MID FREQUENCY TRANSDUCER** 

**MC Series** 

### KEY FEATURES — Maltcross

- High power handling: 1.400 W program power
- Exclusive Malt Cross<sup>®</sup> Technology Cooling System
- Low power compression losses
- High sensitivity: 100 dB (1W / 1m)
- FEA optimized neodymium magnetic circuit
- · Optimized non-linear behaviour
- 3" DUO double layer in/out copper voice coil

- Aluminium demodulating ring
- · Weatherproof cone with treatment for both sides
- Extended controlled displacement: Xmax ± 7 mm
- 48 mm peak-to-peak excursion before damage
- Weight 4,2 kg •
- Optimized for bass or mid-bass high performance audio systems



## **TECHNICAL SPECIFICATIONS**

| Nominal diameter                   | 380 mm      | 15 in                  |
|------------------------------------|-------------|------------------------|
| Rated impedance                    |             | 8 Ω                    |
| Minimum impedance                  |             | 7 Ω                    |
| Power capacity <sup>1</sup>        |             | 700 W <sub>AES</sub>   |
| Program power <sup>2</sup>         |             | 1.400 W                |
| Sensitivity                        | 100 dB 1W / | 1m @ Z <sub>N</sub>    |
| Frequency range                    | 50 -        | 4.000 Hz               |
| Recom. enclosure                   |             | V <sub>b</sub> = 60 I  |
| (Bass-reflex design)               | F           | = <sub>b</sub> = 60 Hz |
| Voice coil diameter                | 76,2 mm     | 3 in                   |
| BI factor                          |             | 22,6 N/A               |
| Moving mass                        |             | 0,107 kg               |
| Voice coil length                  |             | 18 mm                  |
| Air gap height                     |             | 10 mm                  |
| X <sub>damage</sub> (peak to peak) |             | 48 mm                  |



### THIELE-SMALL PARAMETERS<sup>3</sup>

| Resonant frequency, f <sub>s</sub>                         | 49 Hz                |
|--|----------------------|
| D.C. Voice coil resistance, R <sub>e</sub>                 | 5,2 Ω                |
| Mechanical Quality Factor, Q <sub>ms</sub>                 | 3,6                  |
| Electrical Quality Factor, Q <sub>es</sub>                 | 0,34                 |
| Total Quality Factor, Q <sub>ts</sub>                      | 0,31                 |
| Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub> | 105 I                |
| Mechanical Compliance, C <sub>ms</sub>                     | 96 μm / N            |
| Mechanical Resistance, R <sub>ms</sub>                     | 9,2 kg / s           |
| Efficiency, η <sub>0</sub>                                 | 3,7 %                |
| Effective Surface Area, S <sub>d</sub>                     | 0,088 m <sup>2</sup> |
| Maximum Displacement, X <sub>max</sub> <sup>4</sup>        | 7 mm                 |
| Displacement Volume, V <sub>d</sub>                        | 616 cm <sup>3</sup>  |
| Voice Coil Inductance, L <sub>e</sub> @ 1 kHz              | 0,8 mH               |

Notes

<sup>1</sup> The power capaticty is determined according to AES2-1984 (r2003) standard.

<sup>2</sup> Program power is defined as power capacity + 3 dB.

<sup>3</sup> 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).

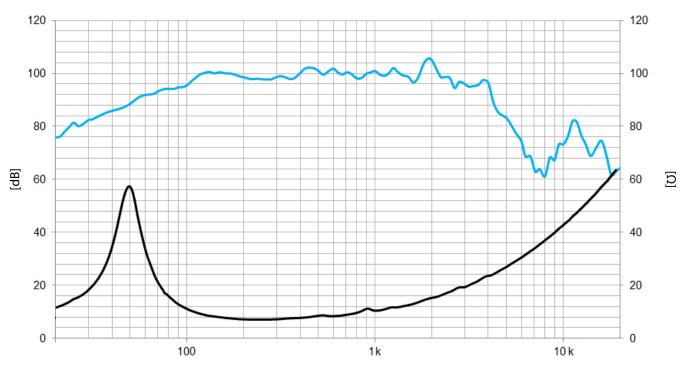
<sup>4</sup> The X<sub>max</sub> is calculated as (L<sub>vc</sub> - H<sub>aq</sub>)/2 + (H<sub>aq</sub>/3,5), where L<sub>vc</sub> is the voice coil length and H<sub>aq</sub> is the air gap height.



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[Hz]

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

| Overall diameter        | 388 mm   | 15,3 in |  |
|-------------------------|----------|---------|--|
| Bolt circle diameter    | 370 mm   | 14,6 in |  |
| Baffle cutout diameter: |          |         |  |
| - Front mount           | 349,5 mm | 13,8 in |  |
| Depth                   | 175 mm   | 6,9 in  |  |
| Net weight              | 4,2 kg   | 9,2 lb  |  |
| Shipping weight         | 5,2 kg   | 11,5 lb |  |
|                         |          |         |  |

MOUNTING INFORMATION

#### **DIMENSION DRAWING**

