

## 15WR400

LOW FREQUENCY TRANSDUCER WR Series

## **KEY FEATURES**

- High power handling: 800 W program power
- 3" copper wire voice coil
- High sensitivity: 99 dB (1W / 1m)
- FEA optimized ceramic magnetic circuit
- Designed with MMSS technology for high control, linearity and low harmonic distortion
- Waterproof cone treatment on both sides of the cone
- Extended controlled displacement: X<sub>max</sub> ± 6,3 mm
- X<sub>damage</sub> ± 30 mm
- Low harmonic distortion and linear response
- Wide range of applications of low and mid-low frequencies



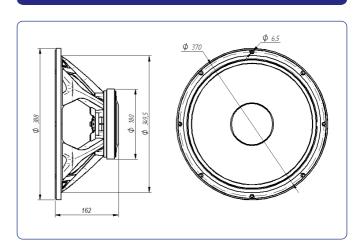
## TECHNICAL SPECIFICATIONS

| Nominal diameter                   |            | 380 mm   | 15 in                |
|------------------------------------|------------|----------|----------------------|
| Rated impedance                    |            |          | 8 Ω                  |
| Minimum impedance                  |            |          | 6,4 Ω                |
| Power capacity*                    |            | 400      | WAES                 |
| Program power                      |            |          | 800 W                |
| Sensitivity                        | 99 dB      | 1W / 1m  | @ Z <sub>N</sub>     |
| Frequency range                    |            | 35 - 4.0 | 000 Hz               |
| Recom. enclosure vol.              | 70 / 150 I | 2,45 / 5 | 5,25 ft <sup>3</sup> |
| Voice coil diameter                |            | 77 mm    | 3 in                 |
| BI factor                          |            | 19       | ,2 N/A               |
| Moving mass                        |            | 0,       | 091 kg               |
| Voice coil length                  |            |          | 16 mm                |
| Air gap height                     |            |          | 8 mm                 |
| X <sub>damage</sub> (peak to peak) |            | ;        | 30 mm                |

## THIELE-SMALL PARAMETERS\*\*

| Resonant frequency, f <sub>s</sub>                         | 36 Hz                |
|--|----------------------|
| D.C. Voice coil resistance, R <sub>e</sub>                 | 5,5 Ω                |
| Mechanical Quality Factor, Q <sub>ms</sub>                 | 8,2                  |
| Electrical Quality Factor, Q <sub>es</sub>                 | 0,32                 |
| Total Quality Factor, Qts                                  | 0,30                 |
| Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub> | 224 I                |
| Mechanical Compliance, C <sub>ms</sub>                     | 205 μm / N           |
| Mechanical Resistance, R <sub>ms</sub>                     | 2,5 kg / s           |
| Efficiency, η <sub>0</sub>                                 | 3,4 %                |
| Effective Surface Area, S <sub>d</sub>                     | 0,088 m <sup>2</sup> |
| Maximum Displacement, X <sub>max</sub> ***                 | 6,3 mm               |
| Displacement Volume, V <sub>d</sub>                        | 555 cm <sup>3</sup>  |
| Voice Coil Inductance, L <sub>e</sub> @ 1 kHz              | 1 mH                 |

### **DIMENSION DRAWINGS**



## **MOUNTING INFORMATION**

| Overall diameter        | 388 mm   | 15,28 in |
|-------------------------|----------|----------|
| Bolt circle diameter    | 370 mm   | 14,57 in |
| Baffle cutout diameter: |          |          |
| - Front mount           | 349,5 mm | 13,76 in |
| Depth                   | 162 mm   | 6,38 in  |
| Net weight              | 6,1 kg   | 13,4 lb  |
| Shipping weight         | 7,1 kg   | 15,6 lb  |

#### Notes

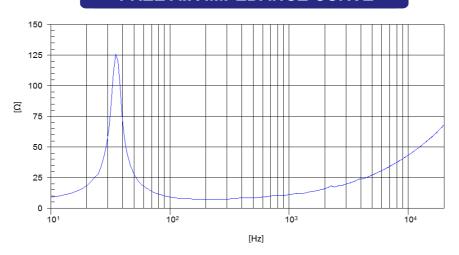
- \* The power capacity is determined according to AES2-1984 (r2003) standard. Program power is defined as the transducer's ability to handle normal music program material.
- \*\* T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out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



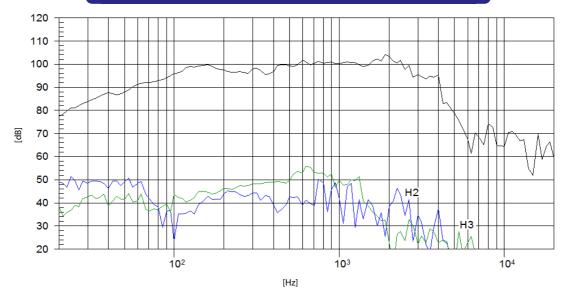
# 15WR400

LOW FREQUENCY TRANSDUCER WR Series

## FREE AIR IMPEDANCE CURVE



## FREQUENCY RESPONSE AND DISTORTION



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

## beyma //

Polígono Industrial Moncada II • C/. Pont Sec, 1c • 46113 MONCADA - Valencia (Spain)

• Tel.: (34) 96 130 13 75 • Fax: (34) 96 130 15 07 • http://www.beyma.com • E-mail: beyma@beyma.com •