

PROFESSIONAL LOUDSPEAKERS www.beyma.com

# **12P80Nd**

MID/LOW FREQUENCY TRANSDUCER P80Nd series

#### **KEY FEATURES**

- 700 W AES power handling capacity
- High sensitivity: 101dB 2.83v @ 1m @ 2ð
- Excellent efficiency
- Wide usable frequency range and low harmonic distortion
- Low Resonant frequency: 45 Hz
- Extended controlled displacement: Xmax ± 7.5 mm
- Extended mechanical displacement capability: Xpp 52 mm
- Forced air convection circuit for low power compression losses
- CONEX spider
- Designed with MMSS technology

### TECHNICAL SPECIFICATIONS

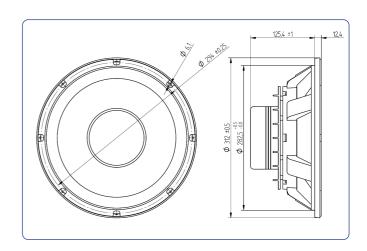
| 300 mm. 12 in.                       |
|--------------------------------------|
| 8 ohms                               |
| 6.4 ohms                             |
| 700 w AES                            |
| 1400 w                               |
| 101 dB 2.83v @ 1m @ 2ð               |
| 25 - 4000 Hz                         |
| 20/ 60 I 0.7 / 2.24 ft. <sup>3</sup> |
| 100 mm. 4 in.                        |
| 4.62 kg. 10.16 lb.                   |
| 23.1 N / A                           |
| 0.056 kg.                            |
| 20 mm                                |
| 12 mm                                |
| 52 mm                                |
|                                      |

#### THIELE-SMALL PARAMETERS\*\*

| Resonant frequency, fs                | 45 Hz                |
|---------------------------------------|----------------------|
| D.C. Voice coil resistance, Re        | 5.2 ohms             |
| Mechanical Quality Factor, Qms        | 6.6                  |
| <b>Electrical Quality Factor, Qes</b> | 0.15                 |
| <b>Total Quality Factor, Qts</b>      | 0.15                 |
| Equivalent Air Volume to Cms, Vas     | 95.7 l               |
| Mechanical Compliance, Cms            | 227 μm / N           |
| Mechanical Resistance, Rms            | 2.39 kg/s            |
| Efficiency, ηο (%)                    | 5.4                  |
| Effective Surface Area, Sd (m²)       | 0.055 m <sup>2</sup> |
| Maximum Displacement, Xmax***         | 7.5 mm               |
| Displacement Volume, Vd               | 413 cm <sup>3</sup>  |
| Voice Coil Inductance, Le @ 1 kHz     | 1.2 mH               |



### **DIMENSION DRAWINGS**



#### **MOUNTING INFORMATION**

| Overall diameter           | 312 mm. 12.28 in.          |
|----------------------------|----------------------------|
| Bolt circle diameter       | 294 mm. 11.57 in.          |
| Baffle cutout diameter:    |                            |
| - Front mount              | 282.5 mm. 11.12 in.        |
| - Rear mount               | 280 mm. 11.02 in.          |
| Depth                      | 130 mm. 5.12 in.           |
| Volume displaced by driver | 4 l. 0.14 ft. <sup>3</sup> |
| Net weight                 | 5.6 kg. 12.32 lb.          |
| Shipping weight            | 6.3 kg. 13.86 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).

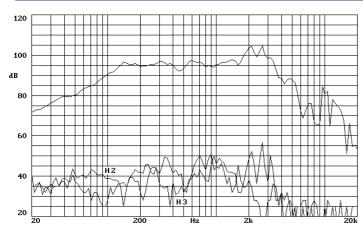
\*\*\*The Xmax is calculated as (Lvc - Hag)/2 + Hag/3.5, where Lvc is the voice coil length and Hag is the air gap height.



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### FREQUENCY RESPONSE AND DISTORTION



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

#### FREE AIR IMPEDANCE CURVE

