

## 18P80/Nd

### LOW FREQUENCY TRANSDUCER

### KEY FEATURES

- Real 800 w AES power handling
- Superb sensitivity: 100 dB
- 4" duo technology voice coil
- Carbon fiber reinforced paper cone
- Neodymium magnet

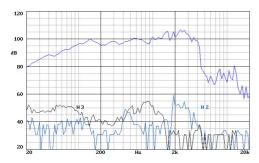
### TECHNICAL SPECIFICATIONS

**Nominal diameter** 460 mm. 18 in. Rated impedance 8 ohms Minimum impedance 5.8 ohms Power capacity\* 800 w AES Program power 1600 w Sensitivity 100 dB 2.83v @ 1m @ 2π Frequency range 25 - 4000 Hz  $80/2001 2.8/7 \, ft.^3$ Recom. enclosure vol. Voice coil diameter 100 mm. 4 in. Magnetic assembly weight 4.62 kg 10.16 lb. **BL** factor 21.9 N/A Moving mass 0.146 kg. Voice coil length 20 mm Air gap height 12 mm X damage (peak to peak) 52 mm

### THIELE-SMALL PARAMETERS\*

| Resonant frequency, fs            | 30 Hz                 |
|-----------------------------------|-----------------------|
| D.C. Voice coil resistance, Re    | 5.1 ohms.             |
| Mechanical Quality Factor, Qms    | 11.55                 |
| Electrical Quality Factor, Qes    | 0.29                  |
| Total Quality Factor, Qts         | 0.29                  |
| Equivalent Air Volume to Cms, Vas | 411 l                 |
| Mechanical Compliance, Cms        | 193 µm / N            |
| Mechanical Resistance, Rms        | 2.34 kg / s           |
| Efficiency, ηο (%)                | 3.7                   |
| Effective Surface Area, Sd (m²)   | 0.1225 m <sup>2</sup> |
| Maximum Displacement, Xmax***     | 7.5 mm                |
| Displacement Volume, Vd           | 918 cm <sup>3</sup>   |
| Voice Coil Inductance, Le @ 1 kHz | 1.9 mH                |

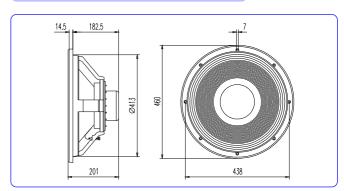
#### FREQUENCY RESPONSE AND DISTORTION



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

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### **DIMENSION DRAWINGS**

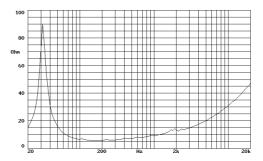


### MOUNTING INFORMATION

| Overall diameter           | 460 mm. 18.11 in.          |
|----------------------------|----------------------------|
| Bolt circle diameter       | 438 mm. 17.24 in.          |
| Baffle cutout diameter:    |                            |
| - Front mount              | 413 mm. 16.26 in.          |
| - Rear mount               | 400 mm. 15.75 in.          |
| Depth                      | 201 mm. 7.91 in.           |
| Volume displaced by driver | 13 I 0.46 ft. <sup>3</sup> |
| Net weight                 | 7 kg. 15.4 lb.             |
| Shipping weight            | 8.5 kg. 18.7 lb.           |
|                            |                            |

Notes

### FREE AIR IMPEDANCE CURVE



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<sup>\*</sup>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.

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<sup>\*\*</sup>T-S parameters are measured after an exercise period using a preconditioning power test.
\*\*\*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.