## 12ND930 <br> $8 \Omega$

LF drivers - 12.0 Inches


- 98 dB SPL 1W / 1m average sensitivity
- 75 mm (3 in) Interleaved Sandwich Voice coil (ISV)
- 500 W AES power handling
- External neodymium magnet assembly
- Double Demodulating Rings (DDR) for lower distortion
- Humidity resistant cone
- Ideal for 2 way systems and compact high loading subwoofer applications

The 12ND930 is a high power, high output, low frequency woofer meeting the most stringent requirements in high quality professional transducers. The high level of performance and sound quality have been achieved by exploiting the most advanced technologies available today. Thanks to its versatility, the 12ND930 can be used in two-way compact reflex enclosures with a 1.4" compression driver, in multi-way systems and in high loading sub woofers as small as 50 It (compact reflex, band-pass and hornloaded configurations). The neodymium magnet assembly assures high flux concentration, low power compression and excellent heat exchange, since the external magnet configuration is considerably more efficient than traditional under-pole magnet topology. This results in high levels of force factor and power handling with an optimum power to weight ratio. The direct contact between the large heat sink and the basket, together with the magnetic structure, represents a fundamental improvement in thermal connection and heat dissipation. The result is increased power handling capabilities and lower power compression. The curvilinear cone profile, created with a special high strength wood pulp, has been designed to achieve the best possible linearity within its frequency range. The cone surround in linen material is highly resistant to aging and fatigue. The in-house developed cone treatment is a humidity repellent and significant dampens bell mode resonance. The 12ND930 employs our Interleaved Sandwich Voice coil (ISV) in which a high strength fiberfiberglas former carries windings on both the outer and inner surfaces to achieve a mass balanced coil. The final result is an extremely linear motor assembly with a reduced tendency for eccentric behavior when driven hard. The already low distortion and sound quality are further improved by Double Demodulating Rings (DDR), that flatten impedance and phase figures with a constant power transfer. A special coating applied to both the top and back plates makes the 12ND930 far more resistant to the corrosive effects of salts and oxidization.


## SPECIFICATIONS

| Nominal Diameter | 300 mm ( in) |
| :--- | ---: |
| Nominal Impedance | $8 \Omega$ |
| Minimum Impedance | $6.4 \Omega$ |
| Nominal Power Handling ${ }^{1}$ | 500 W |
| Continuous Power Handling $^{2}$ | 800 W |
| Sensitivity $^{3}$ | 98.0 dB |
| Frequency Range | $46-4500 \mathrm{~Hz}$ |
| Voice Coil Diameter | $75 \mathrm{~mm} \mathrm{(3.0} \mathrm{in)}$ |
| Winding Material | copper |

## PARAMETERS ${ }^{4}$

| Resonance Frequency | 50 Hz |
| :--- | ---: |
| Re | $5.5 \Omega$ |
| Qes | 0.22 |
| Qms | 5.64 |
| Qts | 0.21 |
| Vas | $70.0 \mathrm{dm}^{3}\left(2.47 \mathrm{ft}^{3}\right)$ |
| Sd | $531.0 \mathrm{~cm}^{2}\left(82.31 \mathrm{in}^{2}\right)$ |
| Xmax | 6.5 mm |
| Mms | 57.0 g |
| BI | 21.2 Txm |
| Le | 1.65 mH |
| EBP | 227 Hz |



## DESIGN

| Surround Shape | M-roll |
| :--- | ---: |
| Cone Shape | Curvilinear |
| Magnet Material | Neo |
| Recommended Enclosure | $70.0 \mathrm{dm}^{3}\left(2.47 \mathrm{ft}^{3}\right)$ |
| Recommended Tuning | 52 Hz |

## MOUNTING AND SHIPPING INFO

| Overall Diameter | $315 \mathrm{~mm}(12.4 \mathrm{in})$ |
| :--- | ---: |
| Bolt Circle Diameter | $296 \mathrm{~mm}(11.65 \mathrm{in})$ |
| Baffle Cutout Diameter | $282.0 \mathrm{~mm}(11.1 \mathrm{in})$ |
| Depth | $140 \mathrm{~mm}(5.51 \mathrm{in})$ |
| Flange and Gasket Thickness | $11 \mathrm{~mm}(0.43 \mathrm{in})$ |
| Net Weight | $4.0 \mathrm{~kg}(8.82 \mathrm{lb})$ |
| Shipping Weight | $5.1 \mathrm{~kg} \mathrm{( } \mathrm{lb)}$ |
| Shipping Box |  |
| $\quad 332 \times 332 \times 184 \mathrm{~mm}(13.07 \times 13.07 \times 7.24 \mathrm{in})$ |  |

1. 2 hours test made with continuous pink noise signal within the range Fs-10Fs. Power calculated on rated minimum impedance. Loudspeaker in free air.
2. Power on Continuous Program is defined as 3 dB greater than the Nominal rating.
3. Applied RMS Voltage is set to 2.83 V for 8 ohms Nominal Impedance.
4. Thiele-Small parameters are measured after a high level 20 Hz sine wave preconditioning test.
