

# 18ND930

## Low Frequency Neodymium Driver

022188N220 8 ohm



### Key features

- 99 dB SPL 1W / 1m average sensitivity
- 75mm ( 3" ) interleaved sandwich voicecoil (ISV)
- 500 W continuous pink noise
- Neodymium magnet assembly
- Twin spider (T/S) for improved linearity
- Demodulating Ring for lower distortion
- Humidity resistant cone
- Ideal for very compact high loading enclosures.

### GENERAL SPECIFICATIONS

|                             |                     |                      |
|-----------------------------|---------------------|----------------------|
| NOMINAL DIAMETER            | 460mm               | ( 18 in )            |
| RATED IMPEDANCE             | 8 ohms              |                      |
| CONTINUOUS PINK NOISE       | 500 W               | (1)                  |
| CONT. POWER                 | 400 W               | (2)                  |
| PROGRAM POWER               | 800 W               | (3)                  |
| PEAK POWER                  | 1600 W              | (4)                  |
| SENSITIVITY                 | 99 dB               | (5)                  |
| FREQUENCY RANGE             | 35 - 3800 Hz        | (6)                  |
| POWER COMPRESSION           |                     | (7)                  |
| @-10 dB (40 W)              | 0,6 dB              |                      |
| @-3 dB (200 W)              | 1,9 dB              |                      |
| @FULL POWER (400 W)         | 2,8 dB              |                      |
| MAX RECOMM. FREQUENCY       | 500 Hz              |                      |
| RECOMM. ENCLOSURE VOLUME    | 90 - 200 lt.        | ( 3,18 - 7,06 cuft ) |
| MINIMUM IMPEDANCE           | 6,7 ohms at 25 deg. |                      |
| MAX EXCURSION PEAK TO PEAK  | 34 mm               | ( 1,34 in )          |
| VOICE COIL DIAMETER         | 75 mm               | ( 2,95 in )          |
| VOICE COIL WINDING MATERIAL | copper              |                      |

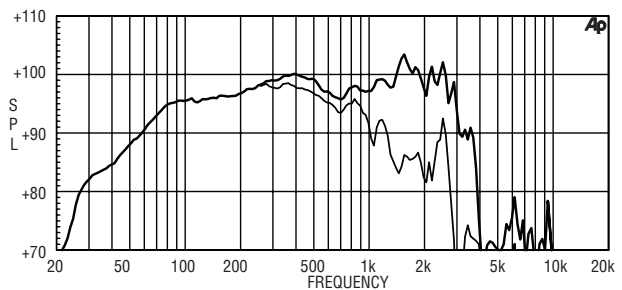
### THIELE-SMALL PARAMETERS

|                            |               |                  |
|----------------------------|---------------|------------------|
| Fs                         | 33 Hz         |                  |
| Re                         | 5,5 ohms      |                  |
| Sd                         | 0,1133 sq.mt. | ( 175,7 sq.in. ) |
| Qms                        | 7,65          |                  |
| Qes                        | 0,29          |                  |
| Qts                        | 0,28          |                  |
| Vas                        | 316 lt.       | ( 11,16 cuft )   |
| Mms                        | 133 gr.       | ( 0,29 lb )      |
| BL                         | 22 Tm         |                  |
| Linear Mathematical Xmax   | ±7,5 mm       | ( ±0,3 in ) (9)  |
| Le (1kHz)                  | 1,7 mH        |                  |
| Ref. Efficiency            |               |                  |
| dB / 1W / 1m ( half space) | 97,8 dB       |                  |

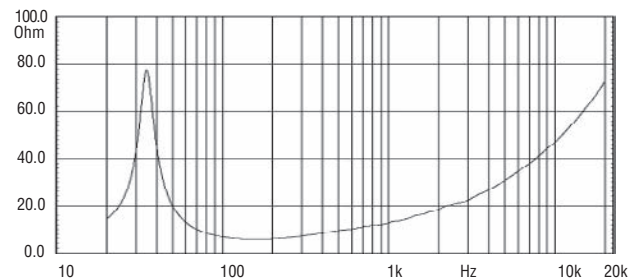
### MOUNTING INFORMATION

|                                    |                    |                              |
|------------------------------------|--------------------|------------------------------|
| Overall diameter                   | 462 mm             | ( 18,19 in )                 |
| N. of mounting holes               | 8                  |                              |
| Mounting holes diameter            | 8,5 mm             | ( 0,33 in )                  |
| Bolt circle diameter               | 438-440 mm         | ( 17,24-17,32 in )           |
| Front mount baffle cutout diameter | 416 mm             | ( 16,38 in )                 |
| Rear mount baffle cutout diameter  | 412 mm             | ( 16,22 in )                 |
| Total depth                        | 19 mm              | ( 0,75 in )                  |
| Flange and gasket thickness        | 206 mm             | ( 8,11 in )                  |
| Net weight                         | 5,9 kg             | ( 13,02 lb )                 |
| Shipping weight                    | 7,3 kg             | ( 16,1 lb )                  |
| CardBoard packing dimensions       | 482 x 482 x 257 mm | ( 18,98 x 18,98 x 10,12 in ) |

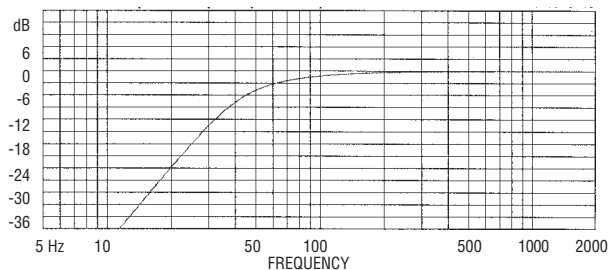
FREQUENCY RESPONSE CURVE OF 18ND930 MADE ON 180 Lit. ENCLOSURE 35 Hz IN FREE FIELD (4pi) ENVIRONMENT. ENCLOSURE CLOSE THE REAR OF THE DRIVER . THE THIN LINE REPRESENTS 45 DEG. OFF AXIS FREQUENCY RESPONSE



### FREE AIR IMPEDANCE MAGNITUDE CURVE



### NORMALIZED AMPLITUDE RESPONSE (dB/Hz)



### Box Parameters

#### Custom Vented Box

|           |          |             |            |
|-----------|----------|-------------|------------|
| <b>Vb</b> | = 110Lt. | <b>Fill</b> | = normal   |
| <b>Fb</b> | = 38 Hz  | <b>Dv</b>   | = 18,00 cm |
| <b>QL</b> | = 7.0    | <b>Lv</b>   | = 30,20 cm |

(1) AES standard

(2) Continuous power rating is measured in 180 lit enclosure tuned 35Hz using a 40-400Hz band limited pink noise test signal applied continuously for 2 hours.

(3) "Program power rating is measured as for "2" above but 50% duty cycle."

(4) The peak power rating is based on a 6dB crest factor above the continuous power rating and represents the maximum permitted instantaneous peak power level over a maximum period of 10ms which will be withstood by the loudspeaker without damage.

(5) Sensitivity represents the averaged value of acoustic output as measured on the forward central axis of cone, at distance 1m from the baffle panel, when connected to 2,83 V sine wave test signal swept

between 100Hz and 500Hz with the test specimen mounted in the same enclosure as given for 2 above.

(6) Frequency range is given as the band of frequencies delineated by the lower and upper limits where the output level drops by 10 dB below the rated sensitivity in half space environment.

(7) Power compression represents the loss of sensitivity for the specified power, measured from 50-500 Hz, after a 5 min pink noise preconditioning test at the specified power.

(8) Thiele - small parameters are measured after the test specimen has been conditioned by 500W AES power and represent the expected long term parameters after a short period of use.

(9) Linear Mat. Xmax is calculated as;  $(Hvc \cdot Hg) / 2 + Hg / 4$  where Hvc is the coil depth and Hg is gap depth.