

## 12LW30/N

LOW FREQUENCY TRANSDUCER LW30 Series

#### **KEY FEATURES**

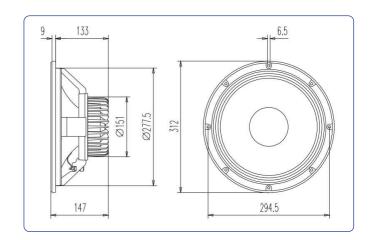
- Low weight: 3,9 kg
- 3" copper voice coil
- High power handling: 450 W<sub>AES</sub>
- High sensitivity: 96 dB
- High performance neodymium magnet system
- Extended controlled displacemente: X<sub>MAX</sub> ± 7 mm
- Extra vented magnetic structure
- Designed for compact woofer applications



### **TECHNICAL SPECIFICATIONS**

Nominal diameter Rated impedance	300 mm 12 in 8 Ω
Minimum impedance	7 Ω
Power capacity*	450 W <sub>AES</sub>
Program power	900 W
Sensitivity	96 dB 1W / 1m @ Z <sub>N</sub>
Frequency range	40 - 4.000 Hz
Recom. enclosure vol.	20 / 70 I 0,7 / 2,5 ft <sup>3</sup>
Voice coil diameter	77 mm 3 in
BI factor	20,2 N/A
Moving mass	0,071 kg
Voice coil length	17,5 mm
Air gap height	8 mm
X <sub>damage</sub> (peak to peak)	30 mm

#### **DIMENSION DRAWINGS**



### THIELE-SMALL PARAMETERS\*\*

Resonant frequency, f <sub>s</sub>	42 Hz
D.C. Voice coil resistance, R <sub>e</sub>	6,3 Ω
Mechanical Quality Factor, Q <sub>ms</sub>	3,8
Electrical Quality Factor, Qes	0,29
Total Quality Factor, Qts	0,27
Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub>	84 I
Mechanical Compliance, C <sub>ms</sub>	204 μm / N
Mechanical Resistance, R <sub>ms</sub>	4,9 kg / s
Efficiency, η <sub>0</sub>	2 %
Effective Surface Area, S <sub>d</sub>	0,054 m <sup>2</sup>
Maximum Displacement, X <sub>max</sub> ***	7 mm
Displacement Volume, V <sub>d</sub>	770 cm <sup>3</sup>
Voice Coil Inductance, Le @ Z <sub>min</sub>	1 mH

### **MOUNTING INFORMATION**

Overall diameter	312 mm	12,28 in
Bolt circle diameter	294,5 mm	11,59 in
Baffle cutout diameter:		
- Front mount	277,5 mm	10,93 in
Depth	147 mm	5,79 in
Net weight	3,9 kg	8,60 lb
Shipping weight	4,5 kg	9,92 lb

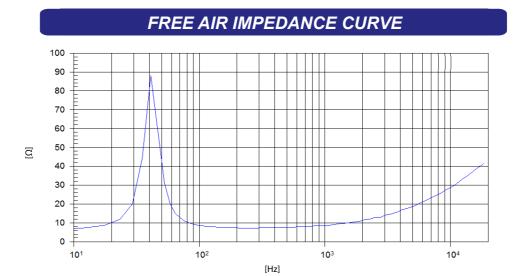
#### Notes

- \* The power capaticty 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.

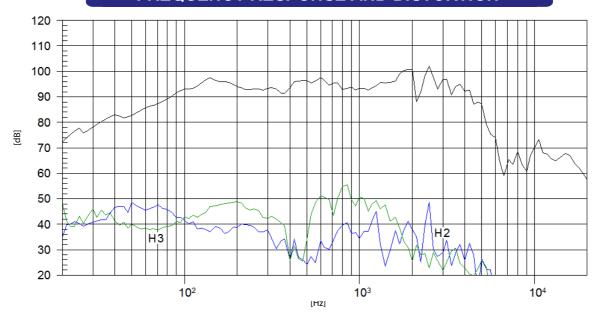


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#### FREQUENCY RESPONSE AND DISTORTION



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

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