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PROFESSIONAL LOUDSPEAKERS
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21PW1400/Fe

LOW FREQUENCY TRANSDUCER
Preliminary Data Sheet

KEY FEATURES

- High power handling: 1400 W_{AES}
- Malt Cross® Cooling System
- Lower power compression looses
- High sensitivity: 98,5 dB
- FEA optimized ferrite magnetic circuit
- Designed with MMSS technology for high control, linearity and low harmonic distortion
- Optimized nonlinear parameters
- Waterproof cone with treatment for both sides of the cone
- 4” DUO double layer inner/outer voice coil
- Aluminium demodulating ring
- Extended controlled displacement: X_{max} ± 10 mm.
- Massive mechanical displacement capability: X_{damage} ± 55 mm.

TECHNICAL SPECIFICATIONS

Nominal diameter	540 mm	21 in
Rated impedance		8 Ω
Minimum impedance		6,81 Ω
Power capacity*		1.400 W_{AES}
Program power		2.800 W
Sensitivity	98,5 dB	@ 1W @ Z_N
Frequency range		25 - 1.200 Hz
Recom. enclosure vol.	100 / 250 l	3,5 / 8,75 ft^3
Voice coil diameter	100 mm	4 in
Bl factor		27,6 N/A
Moving mass		0,316 kg
Voice coil length		25 mm
Air gap height		12 mm
X_{damage} (peak to peak)		55 mm

THIELE-SMALL PARAMETERS**

Resonant frequency, f_s	33 Hz
D.C. Voice coil resistance, R_e	4,9 Ω
Mechanical Quality Factor, Q_{ms}	6,66
Electrical Quality Factor, Q_{es}	0,42
Total Quality Factor, Q_{ts}	0,39
Equivalent Air Volume to C_{ms}, V_{as}	310,2 l
Mechanical Compliance, C_{ms}	73 µm / N
Mechanical Resistance, R_{ms}	9,89 kg / s
Efficiency, η_0	2,55 %
Effective Surface Area, S_d	0,1734 m^2
Maximum Displacement, X_{max} * **	10 mm
Displacement Volume, V_d	1729 cm^3
Voice Coil Inductance, L_e	1,2 mH

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.

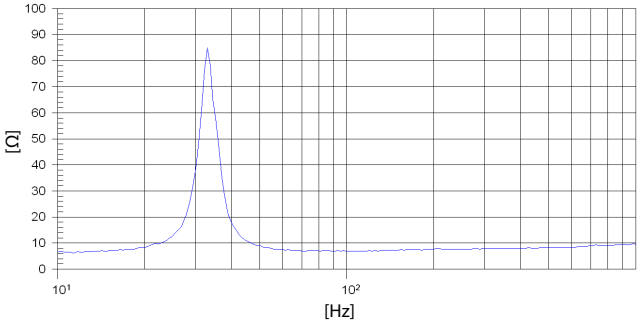
** T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

*** 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.

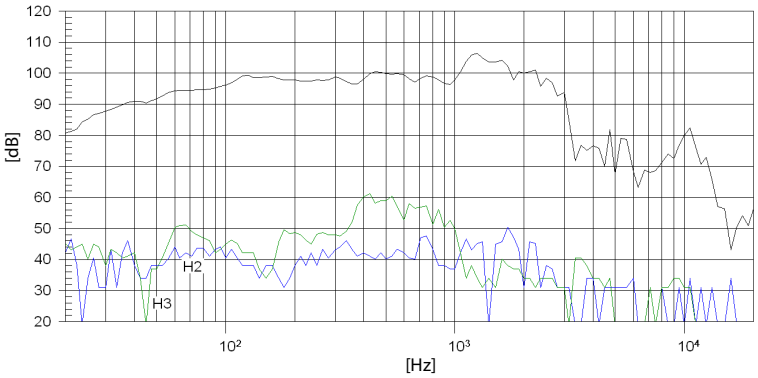
MOUNTING INFORMATION

Overall diameter	550 mm	21,65 in
Bolt circle diameter	526 mm	20,71 in
Baffle cutout diameter:		
- Front mount	494 mm	19,45 in
- Rear mount	511 mm	20,12 in
Depth	254 mm	10,0 in
Net weight	19,9 kg	43,87 lb

FREE AIR IMPEDANCE CURVE



FREQUENCY RESPONSE AND DISTORTION



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