

21PW1400/Fe

LOW FREQUENCY TRANSDUCER
PW Series

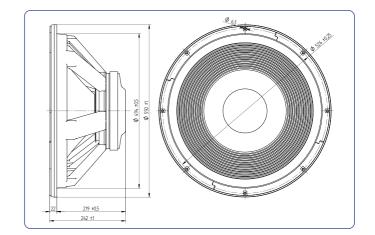
KEY FEATURES



- High power handling: 1400 W_{AES}
- Malt Cross[®] Cooling System
- Low 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



DIMENSION DRAWINGS



TECHNICAL SPECIFICATIONS

Nominal diameter	540 m	m 21 in
Rated impedance		8 Ω
Minimum impedance		5,4 Ω
Power capacity*	1	.400 W _{AES}
Program power		2.800 W
Sensitivity	98,5 dB @	1W @ Z _N
Frequency range	25	- 1.800 Hz
Recom. enclosure vol.	100 / 250 I 3	,5 / 8,75 ft ³
Voice coil diameter	100 mm	n 4 in
Magnetic assembly weight	14,4 kg	31,8 lb
BI factor		28,2 N/A
Moving mass		0,298 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	30 Hz
D.C. Voice coil resistance, R _e	5,2 Ω
Mechanical Quality Factor, Q _{ms}	7,44
Electrical Quality Factor, Q _{es}	0,36
Total Quality Factor, Q _{ts}	0,34
Equivalent Air Volume to C _{ms} , V _{as}	401,5 I
Mechanical Compliance, C _{ms}	94 μm / N
Mechanical Resistance, R _{ms}	7,51 kg / s
Efficiency, η ₀	2,83 %
Effective Surface Area, S _d	0,1734 m ²
Maximum Displacement, X _{max} ***	10 mm
Displacement Volume, V _d	1.729 cm^3
Voice Coil Inductance, L _e	1,3 mH

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	242 mm	9,53 in
Volume displaced by driver	20 I	0,71 ft ³
Net weight	19,9 kg	43,87 lb
Shipping weight	22,6 kg	50,0 lb

Notes

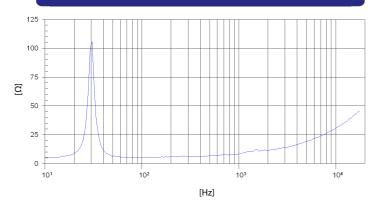
- * The power capaticty is determined according to AES2-1984 (r2003) standard. Program power is defined as the transducer's ability to handle normal music program material.
- ** T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with 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.



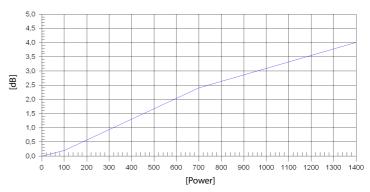
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FREE AIR IMPEDANCE CURVE

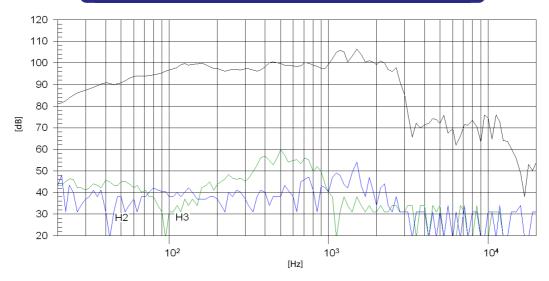


POWER COMPRESSION LOSSES



Note: Power compression losses were calculated after 5 minutes period applying a pink noise signal filtered between 25 and 200 Hz.

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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