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18G550
LOW FREQUENCY TRANSDUCER
G50 Series

KEY FEATURES

- High power handling: 900 W_{AES}
- 4,5" edgewound copper voice coil with polymide fiber glass former
- Large X_{max} allowing longer voice coil displacements
- CONEX spider for higher resistance and consistency
- Additional heat dissipation due to the use of a metal intercooler
- Designed for high demanding subowoofer and woofer applications


TECHNICAL SPECIFICATIONS

Nominal diameter	460 mm	18 in
Rated impedance		8 Ω
Minimum impedance		6,8 Ω
Power capacity*		900 W_{AES}
Program power		1.800 W
Sensitivity	97 dB	1W / 1m @ Z_N
Frequency range		35 - 1.500 Hz
Recom. enclosure vol.	80 / 200 l	2,8 / 7 ft³
Voice coil diameter	114,3 mm	4,5 in
Bl factor		23,4 N/A
Moving mass		0,204 kg
Voice coil length		25 mm
Air gap height		12 mm
X_{damage} (peak to peak)		40 mm

DIMENSION DRAWINGS

THIELE-SMALL PARAMETERS**

Resonant frequency, f_s	33 Hz
D.C. Voice coil resistance, R_e	5,6 Ω
Mechanical Quality Factor, Q_{ms}	7
Electrical Quality Factor, Q_{es}	0,42
Total Quality Factor, Q_{ts}	0,40
Equivalent Air Volume to C_{ms}, V_{as}	290 l
Mechanical Compliance, C_{ms}	117 μm / N
Mechanical Resistance, R_{ms}	6 kg / s
Efficiency, η_0	2,25 %
Effective Surface Area, S_d	0,1320 m²
Maximum Displacement, X_{max} ***	10 mm
Displacement Volume, V_d	1320 cm³
Voice Coil Inductance, L_e @ 1 kHz	1,8 mH
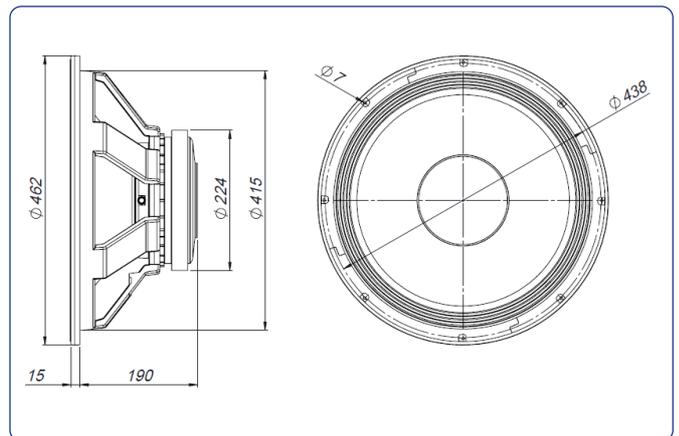
MOUNTING INFORMATION

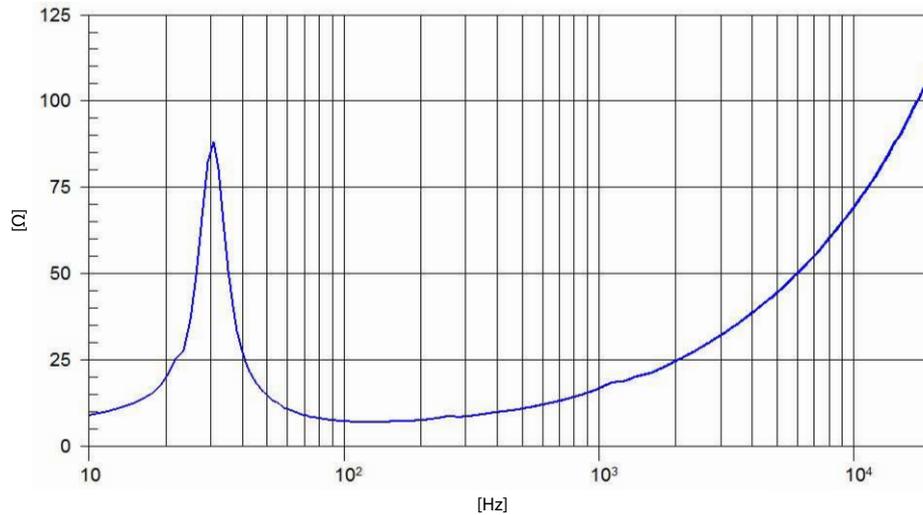|		
Overall diameter	462 mm	18,19 in
Bolt circle diameter	438 mm	17,24 in
Baffle cutout diameter:		
- Front mount	415 mm	16,34 in
Depth	205 mm	8,07 in
Net weight	12,6 kg	27,78 lb
Shipping weight	14,5 kg	31,97 lb

Notes:

* The power capacity 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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PROFESSIONAL LOUDSPEAKERS
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FREE AIR IMPEDANCE CURVE

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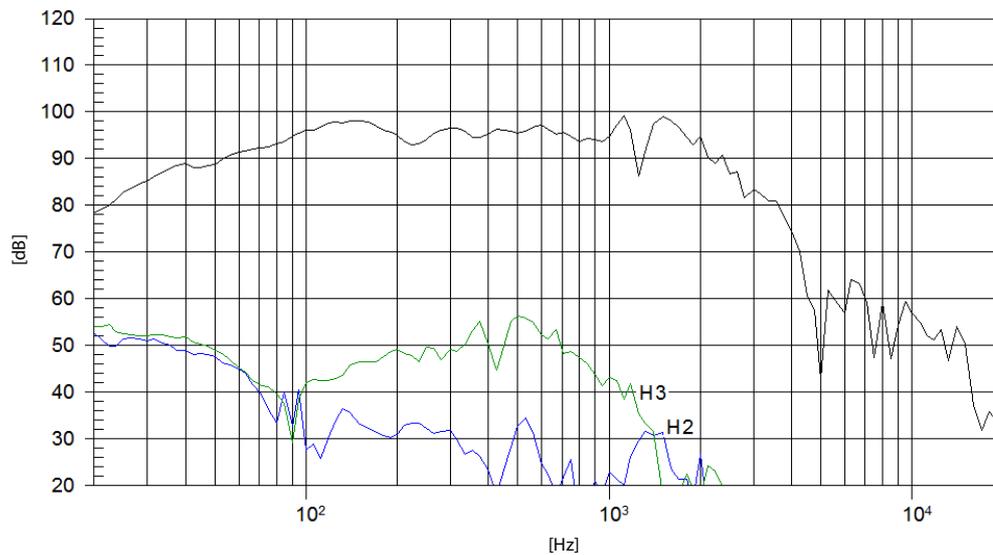
Note: On axis frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m