beyma

PROFESSIONAL LOUDSPEAKERS

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18WRS600

LOW FREQUENCY TRANSDUCER

KEY FEATURES

maltcross TECHNOLOGY

- Low distortion 18” subwoofer
- Power handling 1.200 W program power
- Exclusive Malt Cross® Technology Cooling System
- High sensitivity: 97 dB (1W / 1m)
- FEA optimized ferrite magnetic circuit
- Ultra low air noise
- Optimized linear behaviour
- Weather resistant cone with treatment on both sides
- 3” copper voice coil
- Optimized pressed steel frame
- Extended controlled displacement: X_{max} ± 8,5 mm
- 53 mm peak-to-peak excursion before damage
- Optimized for direct radiation subwoofer applications

TECHNICAL SPECIFICATIONS

Nominal diameter	460 mm	18 in
Rated impedance		8 Ω
Minimum impedance		6,5 Ω
Power capacity [1]		600 W_{AES}
Program power [2]		1.200 W
Sensitivity	97 dB	1W / 1m @ Z_N
Frequency range		35 - 1.000 Hz
Voice coil diameter	76,2 mm	3 in
Bl factor		19 N/A
Moving mass		0,178 kg
Voice coil length		21,5 mm
Air gap height		9,5 mm
X_{damage} (peak to peak)		53 mm

THIELE-SMALL PARAMETERS [3]

Resonant frequency, f_s	30 Hz
D.C. Voice coil resistance, R_e	5,2 Ω
Mechanical Quality Factor, Q_{ms}	13,8
Electrical Quality Factor, Q_{es}	0,48
Total Quality Factor, Q_{ts}	0,47
Equivalent Air Volume to C_{ms}, V_{as}	354 l
Mechanical Compliance, C_{ms}	159 μm / N
Mechanical Resistance, R_{ms}	2,4 kg / s
Efficiency, η_0	1,9 %
Effective Surface Area, S_d	0,1255 m^2
Maximum Displacement, X_{max} [4]	8,5 mm
Displacement Volume, V_d	1130 cm^3
Voice Coil Inductance, L_e @ 1 kHz	1,3 mH

Notes:

[1] The power capaticty is determined according to AES2-1984 (r2003) standard.

[2] Program power is defined as power capacity + 3 dB.

[3] 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).

[4] 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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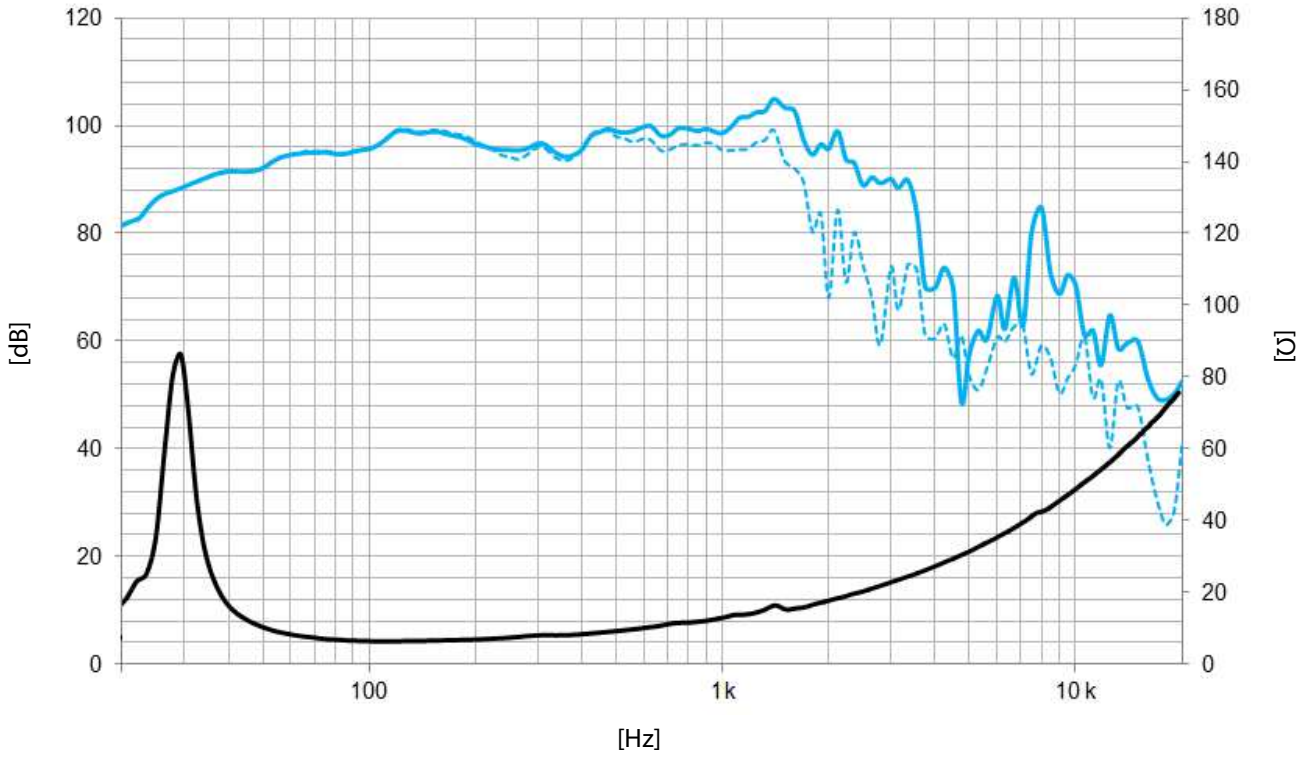

Note: Frequency response measured with loudspeaker standing on infinite baffle in anechoic chamber, 1W @ 1m

Frequency response on axis
Frequency response 45º off axis

MOUNTING INFORMATION

Overall diameter	457 mm	17,99 in
Bolt circle diameter	437,5 mm	17,22 in
Baffle cutout diameter:		
- Front mount	425 mm	16,73 in
Depth	218 mm	8,58 in
Net weight	8,7 kg	19,2 lb
Shipping weight	10 kg	22 lb

DIMENSION DRAWING