BETA 165-X

165 mm COAXIAL SYSTEM



The **BETA 165-X** is the 165 mm coaxial system of the BETA series: a midwoofer with a paper cone and rubber surround, with a 20 mm silk dome in its centre. The built-in crossover makes it a complete system that runs directly from the amplifier output. With 58 mm mounting depth and a 146 mm cut-out it fits many factory locations in the door. Its total Q of 0.74 is intended for operation without an enclosure, in the door or on a baffle.

MEASURED DATA AND SPECIFICATIONS

Electrical

DC resistance	R_{dc}	2.66	Ω
Nominal impedance	Z_N	3	Ω
Resonance frequency	f_s	68.5	Hz
Impedance at resonance	Z_{max}	14.8	Ω
Power handling RMS		60	W
Power handling max.		120	W

Q factors

Mechanical Q factor	Q_{ms}	4.09	
Electrical Q factor	Q_{es}	0.90	
Total Q factor	Q_{ts}	0.74	

Mechanical

Moving mass	M_{ms}	11.47	g
Effective piston area	S_d	138.9	cm^2
Compliance	C_{ms}	0.47	mm/N
Mechanical resistance	R_{ms}	1.21	kg/s
Force factor	BL	3.83	Tm
Equivalent air volume	V_{as}	12.7	l

Efficiency

Sensitivity 2.83 V / 1 m	SPL	93	dB

Construction

Cone		Paper
Surround		Rubber
Basket		Metal
Magnet		Ferrite, Ø 85 mm
Voice coil diameter		25 mm
Tweeter		Silk, 20 mm

Mounting dimensions

Outer diameter	A	166.0	mm
Bolt circle	B	151.0	mm
Mounting holes		8 × Ø 4.5, 45°	mm
Cut-out	C	146.0	mm
Motor, outer diameter		85.0	mm
Mounting depth	T	58	mm
Overall height	G	63.5	mm

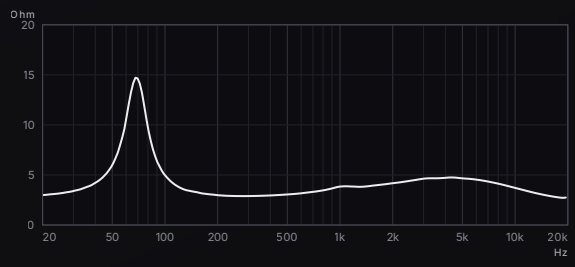
FREQUENCY RESPONSE

2.83 V / 1 m, smoothed



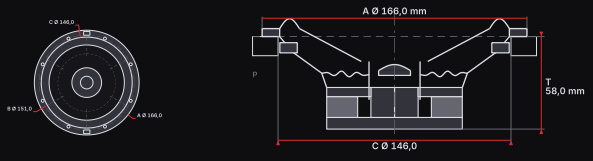
IMPEDANCE

free air



DIMENSIONS

dimensions in mm



- Thiele-Small parameters measured in free air, small signal, after break-in. Sensitivity at 2.83 V / 1 m on the tweeter axis.
- The coaxial system is connected directly to the amplifier's speaker output without an external crossover.