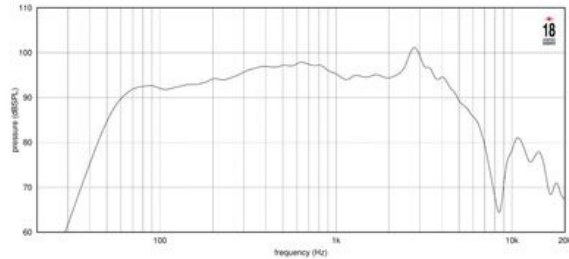
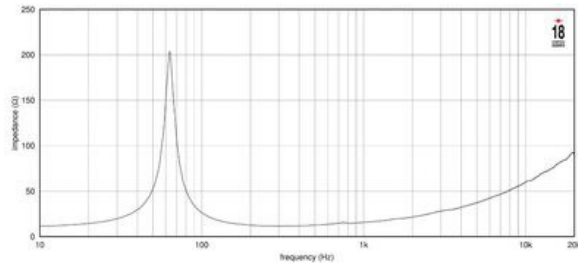




- 96 dB SPL 1W @ 1m average sensitivity
- 500W program power handling
- 65mm (2.4 in) Edgewound Aluminum Voice Coil
- Single Demodulating Ring (SDR) for lower distortion and
- Maximum sound clarity
- Weather protected cone and coated plates
- Ideal for compact two-way and multiway systems

18 Sound's 10W650 ceramic low frequency transducer is a 10-inch woofer that combines excellent linearity with high power handling capabilities (700 W) and reduced power compression. The 65mm (2.5 in) state-of-the-art voice coil assembly incorporates a fine edge-wound aluminum wire together with a strong fiberglass former to get the necessary force factor, mass lightness and high power handling. The voice coil is cooled using airways between the chassis back plate and the magnet face plate, which allow heated air from the voice coil and gap to be channeled away and dissipated by the chassis basket. This technology is another product of 3D CAD resource application by our engineers. The magnetic structure has also been optimized using our in-house FEA CAD resource which has maximized the flux density in the voice coil gap.

A distortion reduction system has been implemented using a demodulating ring for flux modulation cancellation related to voice coil excursion. The cone is treated against extremely aggressive environment conditions and is carried by a double half-roll suspension composed of a material which is more resistant to aging and fatigue than traditional materials, providing the correct damping and excursion control.



SPECIFICATIONS

Nominal Diameter	260 mm (in)
Nominal Impedance	16 Ω
Minimum Impedance	5.8 Ω
Nominal Power Handling ¹	250 W
Continuous Power Handling ²	500 W
Sensitivity ³	96.0 dB
Frequency Range	55 - 5700 Hz
Voice Coil Diameter	65 mm (2.5 in)

DESIGN

Surround Shape	M-roll
Cone Shape	Curvilinear
Magnet Material	Ferrite
Woofers Cone Treatment	Weather protected
Recommended Enclosure	25.0 dm ³ (0.88 ft ³)
Recommended Tuning	70 Hz

PARAMETERS⁴

Resonance Frequency	64 Hz
Re	10.2 Ω
Qes	0.43
Qms	8.4
Qts	0.41
Vas	27.0 dm ³ (0.95 ft ³)
Sd	350.0 cm ² (54.25 in ²)
η _o	1.5 %
X _{max}	5.7 mm
M _{ms}	39.0 g
Bl	19.2 Txm
Le	1.0 mH
EBP	148 Hz

MOUNTING AND SHIPPING INFO

Overall Diameter	260 mm (10.24 in)
Bolt Circle Diameter	244 mm (9.61 in)
Baffle Cutout Diameter	230.0 mm (9.06 in)
Depth	121 mm (4.76 in)
Flange and Gasket Thickness	9 mm (0.35 in)
Net Weight	4.3 kg (9.48 lb)
Shipping Weight	5.5 kg (12.13 lb)
Shipping Box	275 x 275 x 170 mm (10.83x10.83x6.69 in)

1. 2 hours test made with continuous pink noise signal within the range F_s -10 F_s . Power calculated on rated minimum impedance. Loudspeaker in free air.
2. Power on Continuous Program is defined as 3 dB greater than the Nominal rating.
3. Applied RMS Voltage is set to 2.83 V for 8 ohms Nominal Impedance.
4. Thiele-Small parameters are measured after a high level 20 Hz sine wave preconditioning test.