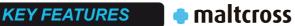


15LEX1600Nd

LOW FREQUENCY TRANSDUCER Preliminary Data Sheet



- High power handling and low distortion 15" subwoofer
- Exclusive Malt Cross® Technology Cooling System
- Low power compression losses
- High sensitivity: 96 dB (1W / 1m)
- FEA optimized neodymium magnetic circuit
- Ultra low air noise
- Optimized non-linear behaviour
- Exclusive NCR membrane (Neck Coupling Reinforcement)

- Waterproof cone with treatment for both sides
- Double silicone spider
- 4" DUO double layer in/out copper voice coil
- · Aluminium demodulating ring
- Extended controlled displacement: X_{max} ± 14,5 mm
- 65 mm peak-to-peak excursion before damage
- Optimized for direct radiation and band-pass subwoofer applications





TECHNICAL SPECIFICATIONS

Nominal diameter	380 mm	15 in	
Rated impedance		8 Ω	
Minimum impedance		7,1 Ω	
Power capacity 1	1.600 \	1.600 W _{AES}	
Program power ²	3.2	00 W	
Sensitivity	96 dB 1W / 1m	@ Z _N	
Frequency range	40 - 1.50)0 Hz	
Recom. enclosure	$V_{_{ m b}}$:	= 90 I	
(Bass-reflex design)	$F_b = 4$	13 Hz	
Voice coil diameter	101,6 mm	4 in	
BI factor	25,	7 N/A	
Moving mass	0,1	75 kg	
Voice coil length	3	5 mm	
Air gap height	14	4 mm	
X _{damage} (peak to peak)	6	5 mm	

THIELE-SMALL PARAMETERS³

Resonant frequency, f _s	41 Hz
D.C. Voice coil resistance, R _e	5,5 Ω
Mechanical Quality Factor, Q _{ms}	6,6
Electrical Quality Factor, Qes	0,38
Total Quality Factor, Q _{ts}	0,36
Equivalent Air Volume to C _{ms} , V _{as}	91 I
Mechanical Compliance, C _{ms}	84 μm / N
Mechanical Resistance, R _{ms}	6,8 kg / s
Efficiency, η ₀	1,7 %
Effective Surface Area, S _d	0,088 m ²
Maximum Displacement, X _{max} ⁴	14,5 mm
Displacement Volume, V _d	1276 cm ³
Voice Coil Inductance, L _e @ 1 kHz	1,6 mH

Notes

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

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

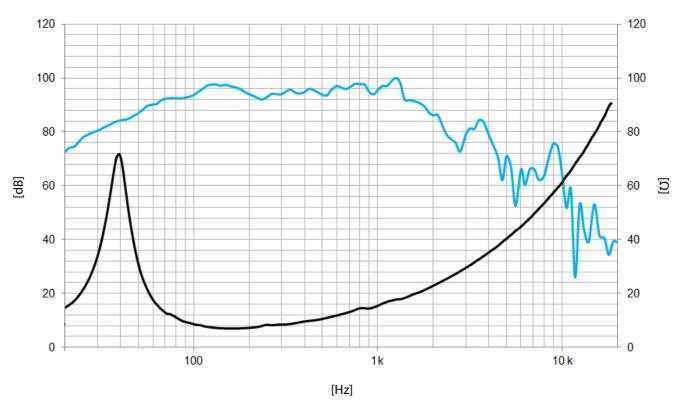
³ T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

 $^{^4}$ The X_{max} is calculated as (L_{vc} - H_{aq})/2 + (H_{aq}/3,5), where L_{vc} is the voice coil length and H_{aq} is the air gap height.



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Preliminary Data Sheet



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

MOUNTING INFORMATION

Overall diameter	393 mm	15,5 in
Bolt circle diameter	373 mm	14,7 in
Baffle cutout diameter:		
- Front mount	352 mm	13,9 in
Depth	192 mm	7,6 in
Net weight	8,8 kg	19,4 lb
Shipping weight	9,8 kg	21,6 lb

DIMENSION DRAWING

