

18QLEX1600Fe 4Ω

LOW FREQUENCY TRANSDUCER

QLEX Series

KEY FEATURES — maltcross

- High power handling and low distortion 18" subwoofer
- · High force factor design for top performance applications
- Exclusive Malt Cross[®] Technology Cooling System
- Low power compression losses
- High sensitivity: 96 dB (1W / 1m)
- FEA optimized ceramic magnetic circuit
- Aluminium demodulating ring
- Ultra low air noise

Notes

Optimized linear behaviour



TECHNICAL SPECIFICATIONS

Nominal diameter	460 mm	18 in
Rated impedance		4 Ω
Minimum impedance		6,1 Ω
Power capacity ¹	1	.600 W _{AES}
Program power ²		3.200 W
Sensitivity	96 dB 1W	/ 1m @ Z _N
Frequency range	30	- 1.200 Hz
Recom. enclosure		V _b = 125 I
(Bass-reflex design)		F _b = 39 Hz
Voice coil diameter	101,6 mm	4 in
BI factor		30,7 N/A
Moving mass		0,336 kg
Voice coil length		32 mm
Air gap height		15 mm
X _{damage} (peak to peak)		58 mm

- Exclusive NCR membrane (Neck Coupling Reinforcement)
- Weatherproof cone with treatment for both sides •
- Double silicone spider
- 4" QUATTRO in/out copper voice coil
- Extended controlled displacement: Xmax ± 13 mm
- 58 mm peak-to-peak excursion before damage
- · Optimized for direct radiation and band-pass subwoofer applications



THIELE-SMALL PARAMETERS³

Resonant frequency, f _s	31 Hz
D.C. Voice coil resistance, R _e	3,6 Ω
Mechanical Quality Factor, Q _{ms}	11,6
Electrical Quality Factor, Q _{es}	0,25
Total Quality Factor, Q _{ts}	0,25
Equivalent Air Volume to C _{ms} , V _{as}	177,2 l
Mechanical Compliance, C _{ms}	80 μm / N
Mechanical Resistance, R _{ms}	5,6 kg / s
Efficiency, η ₀	2 %
Effective Surface Area, S _d	0,1255 m ²
Maximum Displacement, X _{max} ⁴	13 mm
Displacement Volume, V _d	1.631 cm ³
Voice Coil Inductance, L _e	2,8 mH

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.

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

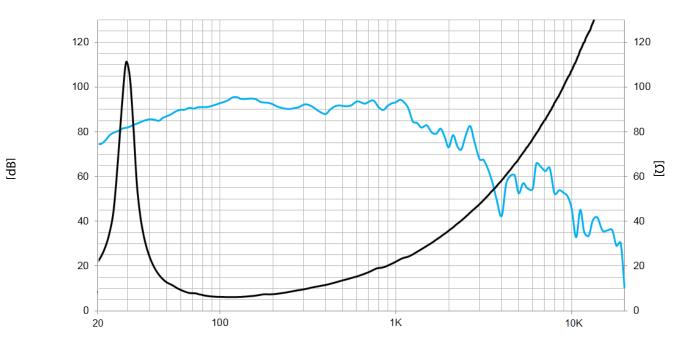
² Program power is defined as power capacity + 3 dB.



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[Hz]

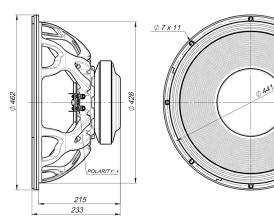
Frequency response on axis

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

MOUNTING	INFORMATION
WOONTING	

Overall diameter	462 mm	18,2 in
Bolt circle diameter	441 mm	17,4 in
Baffle cutout diameter:		
- Front mount	426 mm	16,8 in
Depth	233 mm	9,2 in
Volume displaced by driver	81	2,8 ft ³
Net weight	14,6 kg	32,2 lb
Shipping weight	15,9 kg	35,1 lb

DIMENSION DRAWING



03/22