

18PW1400Fe/S

LOW FREQUENCY TRANSDUCER

- **KEY FEATURES** maltcross
- High power handling: 1.400 WAES
- Exclusive Malt Cross® Technology Cooling System
- Low power compression losses
- High sensitivity: 98 dB (1W / 1m)
- · FEA optimized ferrite magnetic circuit
- · Optimized non-linear parameters

- Weatherproof cone with treatment for both sides of the cone
- 4" DUO double layer in/out copper voice coil
- · Aluminium demodulating ring
- Extended controlled displacement: X_{max} ± 10 mm
- 55 mm peak-to-peak excursion before damage





TECHNICAL SPECIFICATIONS

Nominal diameter	460 mm	18 in
Rated impedance		8 Ω
Minimum impedance		5,3 Ω
Power capacity 1	1.400 W _{AES}	
Program power ²		2.800 W
Sensitivity	98 dB 1W / 1	m @ Z _N
Frequency range	25 - 1	1.800 Hz
Recom. enclosure	V	' _b = 180 I
(Bass-reflex design)	F_{b}	= 42 Hz
Voice coil diameter	101,6 mm	4 in
BI factor		29 N/A
Moving mass	(0,230 kg
Voice coil length		25 mm
Air gap height		12 mm
X _{damage} (peak to peak)		55 mm

THIELE-SMALL PARAMETERS 3

Resonant frequency, f _s	32 Hz
D.C. Voice coil resistance, R _e	5,1 Ω
Mechanical Quality Factor, Q _{ms}	10,2
Electrical Quality Factor, Qes	0,28
Total Quality Factor, Qts	0,27
Equivalent Air Volume to C _{ms} , V _{as}	228,9 I
Mechanical Compliance, C _{ms}	103 μm / N
Mechanical Resistance, R _{ms}	4,6 kg / s
Efficiency, η ₀	2,7 %
Effective Surface Area, S _d	$0,1255 \text{ m}^2$
Maximum Displacement, X _{max} ⁴	10 mm
Displacement Volume, V _d	1251 cm ³
Voice Coil Inductance, Le	1,2 mH

Notes

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

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

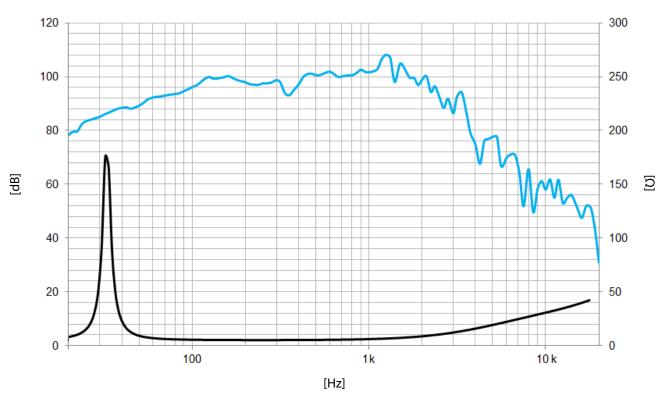
³ T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been working for a short period of time).

 $^{^4}$ 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

MOUNTING INFORMATION

Overall diameter	461 mm	18,1 in
Bolt circle diameter	438 mm	17,2 in
Baffle cutout diameter:		
- Front mount	415 mm	16,4 in
Depth	206,5 mm	8,1 in
Net weight	16,9 kg	37,3 lb
Shipping weight	18,2 kg	40,1 lb

DIMENSION DRAWING

