

KAS12SW700

LOW & MID FREQUENCY TRANSDUCER

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

- Weatherproof cone treatment on both sides of the cone
- 3" DUO double layer in/out copper voice coil
- Aluminium demodulating ring
- Extended controlled displacement: X_{max} ± 7 mm
- 45 mm peak-to-peak excursion before damage
- Optimized for low frequency and mid-bass applications





TECHNICAL SPECIFICATIONS

| Nominal diameter | 300 mm | 12 in |
|------------------------------------|--------------|------------------------|
| Rated impedance | | 8 Ω |
| Minimum impedance | | 7,1 Ω |
| Power capacity 1 | 7 | 00 W _{AES} |
| Program power ² | | 1.400 W |
| Sensitivity | 98 dB 1W / 1 | Im @ Z _N |
| Frequency range | 55 - | 4.000 Hz |
| Recom. enclosure | | $V_{b} = 40 \text{ I}$ |
| (Bass-reflex design) | F, | = 67 Hz |
| Voice coil diameter | 76,2 mm | 3 in |
| BI factor | | 20,4 N/A |
| Moving mass | | 0,069 kg |
| Voice coil length | | 18 mm |
| Air gap height | | 9,5 mm |
| X _{damage} (peak to peak) | | 45 mm |
| | | |

THIELE-SMALL PARAMETERS 3

| Resonant frequency, fs | 51 Hz |
|--|---------------------|
| D.C. Voice coil resistance, R _e | 5,4 Ω |
| Mechanical Quality Factor, Q _{ms} | 3,9 |
| Electrical Quality Factor, Qes | 0,29 |
| Total Quality Factor, Qts | 0,27 |
| Equivalent Air Volume to C _{ms} , V _{as} | 59,5 I |
| Mechanical Compliance, C _{ms} | 139 μm / N |
| Mechanical Resistance, R _{ms} | 5,6 kg/s |
| Efficiency, η_0 | 2,7 % |
| Effective Surface Area, S _d | $0,055 \text{ m}^2$ |
| Maximum Displacement, X _{max} ⁴ | 7 mm |
| Displacement Volume, V _d | 385 cm ³ |
| Voice Coil Inductance, Le | 0,9 mH |

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

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

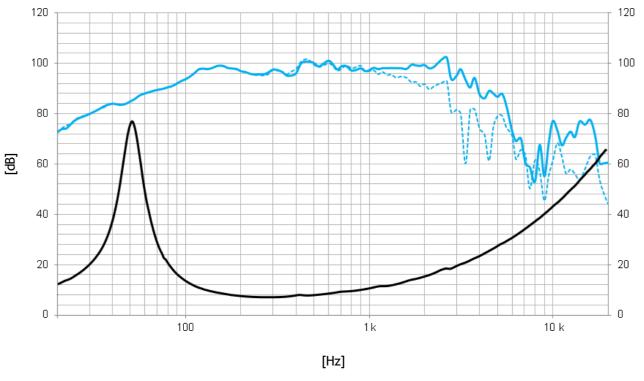
³ T-S parameters are measured after an exercise period using a preconditioning power test. The measurements are carried out with a velocity-current laser transducer and will reflect the long term parameters (once the loudspeaker has been

 $^{^4}$ 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

Frequency response on axis
Frequency response 45° off axis

MOUNTING INFORMATION

| Overall diameter | 312 mm | 12,3 in |
|-------------------------|----------|---------|
| Bolt circle diameter | 294,5 mm | 11,6 in |
| Baffle cutout diameter: | | |
| - Front mount | 278 mm | 10,9 in |
| Depth | 145 mm | 5,7 in |
| Net weight | 7,8 kg | 17,2 lb |
| Shipping weight | 9,5 kg | 20,9 lb |

DIMENSION DRAWING

