

# **12CMV2**

LOW & MID FREQUENCY TRANSDUCER

## **KEY FEATURES**

- High power handling: 640 W program power
- 2.5" CCAW wire voice coil
- High sensitivity: 96 dB (1W / 1m)
- Very linear extended response and low distortion
- Treated triple roll cloth surround

- Optimized pressed steel frame
- Ferrite magnet
- Designed for bass and midbass applications in small vented cabinets





#### **TECHNICAL SPECIFICATIONS**

Nominal diameter Rated impedance	300 mm	12 in 8 Ω
Minimum impedance		7,2 Ω
Power capacity*	32	20 W <sub>AES</sub>
Program power		640 W
Sensitivity	96 dB 1W / 1	m @ Z <sub>N</sub>
Frequency range	50 - 6	.000 Hz
Recom. enclosure	N N	V <sub>b</sub> = 50 I
(Bass-reflex design)	F <sub>b</sub> = 54 Hz	
Voice coil diameter	63,5 mm	2,5 in
BI factor		13,7 N/A
Moving mass	(	),054 kg
Voice coil length		17 mm
Air gap height		7 mm
X <sub>damage</sub> (peak to peak)		29 mm

### THIELE-SMALL PARAMETERS\*\*

$\begin{array}{llllllllllllllllllllllllllllllllllll$	Resonant frequency, fs	49 Hz
$\begin{array}{llllllllllllllllllllllllllllllllllll$	D.C. Voice coil resistance, R <sub>e</sub>	6 Ω
Total Quality Factor, Qts0,47Equivalent Air Volume to Cms, Vas761Mechanical Compliance, Cms193 μm / NMechanical Resistance, Rms4,2 kg / sEfficiency, η₀1,7 %Effective Surface Area, Sd0,053 m²Maximum Displacement, Xmax7 mmDisplacement Volume, Vd371 cm³	Mechanical Quality Factor, Q <sub>ms</sub>	3,9
$\begin{array}{c c} \mbox{Equivalent Air Volume to $C_{ms}$, $V_{as}$} & 761\\ \mbox{Mechanical Compliance, $C_{ms}$} & 193  \mu m  /  N\\ \mbox{Mechanical Resistance, $R_{ms}$} & 4,2  kg  /  s\\ \mbox{Efficiency, $\eta_0$} & 1,7  \%\\ \mbox{Effective Surface Area, $S_d$} & 0,053  m^2\\ \mbox{Maximum Displacement, $X_{max}$} & *** & 7  mm\\ \mbox{Displacement Volume, $V_d$} & 371  cm^3 \end{array}$	Electrical Quality Factor, Q <sub>es</sub>	0,54
Mechanical Compliance, Cms193 μm / NMechanical Resistance, Rms4,2 kg / sEfficiency, η₀1,7 %Effective Surface Area, Sd0,053 m²Maximum Displacement, Xmax7 mmDisplacement Volume, Vd371 cm³	Total Quality Factor, Q <sub>ts</sub>	0,47
Mechanical Resistance, Rms4,2 kg / sEfficiency, η₀1,7 %Effective Surface Area, Sd0,053 m²Maximum Displacement, Xmax ***7 mmDisplacement Volume, Vd371 cm³	Equivalent Air Volume to C <sub>ms</sub> , V <sub>as</sub>	76 I
Efficiency, η₀1,7 %Effective Surface Area, Sd0,053 m²Maximum Displacement, Xmax ***7 mmDisplacement Volume, Vd371 cm³	Mechanical Compliance, C <sub>ms</sub>	193 μm / N
Effective Surface Area, Sd0,053 m²Maximum Displacement, Xmax ***7 mmDisplacement Volume, Vd371 cm³	Mechanical Resistance, R <sub>ms</sub>	4,2 kg / s
Maximum Displacement, Xmax7 mmDisplacement Volume, Vd371 cm3	Efficiency, η <sub>0</sub>	1,7 %
Displacement Volume, V <sub>d</sub> 371 cm <sup>3</sup>	Effective Surface Area, S <sub>d</sub>	0,053 m <sup>2</sup>
• • •	Maximum Displacement, X <sub>max</sub> ***	7 mm
Voice Coil Inductance, L <sub>e</sub> @ 1 kHz 1 mH	Displacement Volume, V <sub>d</sub>	371 cm <sup>3</sup>
	Voice Coil Inductance, L <sub>e</sub> @ 1 kHz	1 mH

Notes

\* The power capaticty is determined according to AES2-1984 (r2003) standard. Program power is defined as the transducer's ability to handle normal music program material.

\*\* 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).

\*\*\* 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.



# **12CMV2 LOW & MID FREQUENCY TRANSDUCER**



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

Frequency response 45° off axis

#### **MOUNTING INFORMATION**

Overall diameter	310 mm	12,2 in
Bolt circle diameter	292 mm	11,5 in
Baffle cutout diameter:		
- Front mount	280 mm	11,0 in
Depth	130 mm	5,1 in
Net weight	4,6 kg	10,1 lb
Shipping weight	5,3 kg	11,7 lb

#### **DIMENSION DRAWING**



